Appendix K
Closure Documents for Surrounding LUST Cases

September 27, 2000

Mr. Rick Horn
JSC/CCA
2600 De La Cruz Boulevard
Santa Clara, CA 95050

Dear Mr. Horn:

Subject: Fuel Leak Site Case Closure—Container Corporation, 2600 De La Cruz Boulevard, Santa Clara, CA; Case No. 12-083

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Santa Clara Valley Water District is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual soil and groundwater contamination remains in place.
- Disposition of piping and soil is unknown.

If you have any questions, please call Mr. George Cook at (408) 265-2607, extension 2665. Thank you.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

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

cc: Mr. Chuck Headlee (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Carla Lawson
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

G. Cook (w/orig enc), Database (w/enc)

GC:lcg:FL9482iib

September 27, 2000

Mr. Rick Horn
JSC/CCA
2600 De La Cruz Boulevard
Santa Clara, CA 95050

Dear Mr. Horn:

Subject: Fuel Leak Site Case Closure—Container Corporation, 2600 De La Cruz Boulevard, Santa Clara, CA; Case No. 12-083

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: August 21, 2000

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: George E. Cook Jr.	Title: Water Quality Specialist

II. CASE INFORMATION

Site Facility Name: Container Corporation		
Site Facility Address: 2600 De La Cruz Boulevard, Santa Clara, CA 95050		
RB LUSTIS Case No.:	Local Case No.: 06S1W35F01f	LOP Case No.: 12-083
URF Filing Date:	SWEEPS No.:	APN: 230-03-100

Responsible Parties	Addresses	Phone Number
JSC/CCA Attention: Mr. Rick Horn	2600 De La Cruz Boulevard Santa Clara, CA 95050	(408) 496-5118

Tank I.D. No.(1)	Size in Gallons	Contents	Closed In Place/Removed?	Date
	2,000	Unleaded Gasoline	Closed in place[1]	1982
	2,000	Diesel	Removed	2/6/85
	Not Reported (8 Tanks)	Methyl ethyl Ketone, isopropyl acetate, toluene, ethyl alcohol, caustic solution, isopropanol, hexane, waste solvent, and gravure wash	Removed	July/August 1983
	25,000	Fuel Oil	Removed	December 1990
	25,000	Fuel Oil	Removed	December 1990
Piping			Not Reported	

(1) See Attachment 3

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Leaking UST discovered by fuel inventory and tank tightness test.		
Site characterization complete? Yes	Date Approved By Oversight Agency: 09/26/00	
Monitoring wells installed? Yes	Number: 14	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 15.06'	Lowest Depth: 7.14'	Flow Direction: North
Most Sensitive Current Use: Potential Drinking Water Source		

Summary of Production Wells in Vicinity:

There is 1 active municipal/industrial supply well located on the Container Corporation parcel. This well (Well No. 06S01W35F001) is located approximately 625 feet northwest of the former gasoline underground storage tank (UST) location. No further information is available for this well.

Based on the groundwater flow direction (North) for the site, the apparent stability of the petroleum hydrocarbon plume in groundwater, and the lack of detections in the wells (MW-6, MW-7, and MW-11) nearest the production well, the site is not likely to pose a threat to deeper aquifers via this well.

Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Groundwater Basin
Is surface water affected? No	Nearest SW Name: Guadalupe River (approximately 3,900 feet NE)
Off-Site Beneficial Use Impacts (Addresses/Locations):	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL (See Attachment 3)

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank[1]	1 UST	Not Reported	2/1/85
Tank[2]	8 Tanks	Not Reported	1983
Tank[3]	2 USTs	Schnitzer Street, Oakland, CA	12/18/90
Piping	Not Reported	Not Reported	
Free Product	Not Reported	Not Reported	
Soil	Not Reported	Not Reported	
Groundwater	Not Reported	Not Reported	
Barrels[4]	75 Gallon Fuel Oil	Not Reported	12/17/90

[1] 2,000 gallon diesel UST
[2] Solvent tanks of unreported size formerly located near loading docks
[3] Two 25,000 gallon fuel oil USTs
[4] 75 gallons of fuel oil was pumped from 25,000 gallon fuel oil USTs and piping

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS--BEFORE AND AFTER CLEANUP
OPTIONAL: (Please see Attachment 4 and 5 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	400[8]	400[8]	640,000[7]	24,000[2]	Xylene	44[8]	44[8]	3,500[5]	1,800[2]
TPH (Diesel)	3,600[1]	3,600[1]		3,200[2]	Ethylbenzene	9.6[8]	9.6[8]	1,800[5]	2,900[2]
Benzene	1.3[8]	1.3[8]	3,700[5]	430[2]	Oil & Grease	86[10]	86[10]	NA	NA[5]
Toluene	2.2[9]	2.2[9]	2,300[5]	51[2]	Heavy Metals	NA	NA	NA	NA
Other (8240/8270)	Notes[11]	Notes[11]	Notes[6]	Notes[3]	MTBE (if not analyzed, explain below)	NA	NA	NA	140[4]

[1] Soil sample collected beneath north end of diesel UST during removal (Blaine Tech, 1985)
[2] Sample collected from well MW-1 in April 2000
[3] Other analytes in groundwater samples collected in October 1996:
- 1,1-Dichloroethane - 3.8 parts per billion (ppb) (Well MW-9) in groundwater samples collected in October 1996.
- 1,1,1-Trichloroethane - 1.6 ppb (Well MW-9) in groundwater samples collected in October 1996.
- 1,2-Dichloroethane - 0.62 ppb (Well MW-5) in groundwater samples collected in October 1996.
- Trichloroethene - 450 ppb (Well MW-10) in groundwater samples collected in October 1996.

- 1,1-Dichloroethene - 0.72 ppb (Well MW-12) in groundwater samples collected in October 1996.
- cis-1,2-Dichloroethene - 46 ppb (Well MW-11) in groundwater samples collected in October 1996.
- trans-1,2-Dichloroethene - Not Detected in groundwater samples collected in October 1996.
- Chlorobenzene - Not Detected in groundwater samples collected in October 1996.
- Chloroform - Not Detected in groundwater samples collected in October 1996.
- Methylene Chloride - Not Detected in groundwater samples collected in October 1996.
- Alkalinity as CaCO3 (SM 403) - 840,000 ppb (Well MW-3) in May 27, 1997 groundwater sample.

[4] Methyl tert-Butyl Ether (MTBE) reported by Environmental Protection Agency (EPA) Method 8260 in sample collected from well MW-12, located at downgradient site boundary. This detection may be result of an off-site source as MTBE has not been reported in source area and the gasoline UST was taken out of service in 1982.

[5] Groundwater sample collected from well CCA-1 on May 27, 1987.

[6] Other analytes in groundwater samples:
- Naphthalene - 130 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- 2-methylnaphthalene - 23 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- 2-methylbutane (Tentatively Identified Compound (TIC)- estimated concentration 540 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- 1,1-dimethylcyclopropane (TIC)- estimated concentration 890 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- methylcyclopentane (TIC)- estimated concentration 890 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- 1-ethyl-2-methylbenzene (TIC)- estimated concentration 220 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- 1,2,3-trimethylbenzene (TIC)- estimated concentration 400 ppb (Well CCA-1) in groundwater sample collected on May 27, 1987.
- propylbenzene (TIC)- estimated concentration 270 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 1,2,4-trimethylbenzene (TIC)- estimated concentration 320 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 1-ethyl-4-methylbenzene (TIC)- estimated concentration 330 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 1,3,5-trimethylbenzene (TIC)- estimated concentration 1,600 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 1,2,3-trimethylbenzene (TIC)- estimated concentration 640 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 2-propenylbenzene (TIC)- estimated concentration 640 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 4-ethyl-1,2-dimethylbenzene (TIC)- estimated concentration 2,100 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 1,2,3,5-tetramethylbenzene (TIC)- estimated concentration 130 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- 2,3-dihydro-4-methyl-1h-indene (TIC)- estimated concentration 250 ppb (Well CCA-2) in groundwater sample collected on May 27, 1987.
- Fuel oil #6 - 3,000 ppb (Well MW-5) in March 1988 groundwater sample.
- Magnesium (EPA Method 200.7) - 116,000 ppb (Well MW-1) in February 1991 groundwater sample.
- Potassium (EPA Method 258.1) - 9,500 ppb (Well MW-1) in February 1991 groundwater sample.
- Sodium (EPA Method 200.7) - 78,700 ppb (Well EW-1) in February 1991 groundwater sample.
- Alkalinity as CaCO3 (EPA Method 310.1) - 1,000,000 ppb (Well MW-1) in February 1991 groundwater sample.
- Nitrate as Nitrogen (EPA Method 300.0) - < 50 ppb in February 1991 groundwater sample.
- Phosphate as Phosphorous (EPA Method 365.2) - 2,800 ppb (Well MW-1) in February 1991 groundwater sample.
- Biochemical Oxygen Demand (EPA Method 405.1) -56,000 ppb (Well MW-1) in March 1997 groundwater sample.
- Chemical Oxygen Demand (EPA Method 410.4) - 260,000 ppb (Well MW-1) in March 1997 groundwater sample.
- Calcium (EPA Method 6010) - 190,000 ppb (Well MW-5) in March 1997 groundwater sample.
- Iron (EPA Method 6010) - 150,000 ppb (Well MW-4) in March 1997 groundwater sample.
- Manganese (EPA Method 6010) - 17,000 ppb (Well MW-5) in March 1997 groundwater sample.
- Nitrate as Nitrate (EPA Method 300.0) - 19,000 ppb (Well MW-4) in March 1997 groundwater sample.
- Orthophosphate (EPA Method 300.0) - < 1.0 ppb in March 1997 groundwater sample.
- Sulfate (EPA Method 300.0) - 390,000 ppb (Well MW-3) in March 1997 groundwater sample.
- Total Kjeldahl Nitrogen (EPA Method 351.4) - 2,300 ppb (Well MW-12) in March 1997 groundwater sample.
- Nitrogen as Ammonia (EPA Method 350.3) - 390 ppb (Well EW-1) in March 1997 groundwater sample.
- Sulfide (EPA Method 376.1) - < 0.10 ppb in March 1997 groundwater sample.

[7] Highest concentration detected (Well EX-1 - May 1989).

[8] Soil sample collected at depth of 10 feet in boring SB-9 (July 1990).

[9] Soil sample collected at depth of 15 feet in boring SB-9 (July 1990).

[10] Soil sample collected at depth of 15 feet in boring SB-6 (July 1990).

[11] Other soil analytical results:
- Kerosene - < 1.0 parts per million (ppm) in soil samples collected during July 1990 soil investigation.
- Volatile Organic Compounds by EPA Method 8240 - Benzene, Toluene, Ethylbenzene, and Xylenes detected. All other compounds were below respective detection limits.
- Calcium (EPA Method 6010) - 35,300 ppm in soil sample collected from boring SB-13 in February 1991.
- Magnesium (EPA Method 6010) - 11,200 ppm in soil sample collected from boring SB-13 in February 1991.

- Potassium (EPA Method 7610) - 1,080 ppm in soil sample collected from boring SB-13 in February 1991.
- Alkalinity as CaCO3 (EPA Method 310.1) - 72,300 ppm in soil sample collected from boring SB-13 in February 1991.
- pH (EPA Method 9045) - 9.03 in soil sample collected from boring SB-13 in February 1991.
- Total Organic Carbon (EPA Method 9060) - 7,300 ppm in soil sample collected from boring SB-13 in February 1991.

Description of Interim Remediation Activities:

1982	A leak reportedly released approximately 3,000 to 4,000 gallons of gasoline from a 2,000-gallon UST. The UST was filled with a concrete slurry and closed in place.
Spring 1983	Extraction well EW-1 was installed and connected to an oil/water separator and treatment system. Groundwater extraction occurred over a 2 year period. Over this time, approximately 3 million gallons of groundwater and 250 gallons of gasoline were reportedly removed. Free product was no longer reported following groundwater extraction.
August 1983	Eight solvent tanks, reportedly containing Methyl ethyl ketone, Toluene, Acetate, Isopropanol, Ethyl Alcohol, and Hexane were removed. Only soil sample with detection from beneath waste solvent tank with Toluene (0.590 ppm)
Feb. 6, 1985	A 2,000 gallon diesel UST was removed due to discovery of a leak and failure of a pressure test. Soil samples collected beneath the UST reported up to 3,600 ppm Total Petroleum Hydrocarbons of Diesel (TPHD) at depths up to 12.5 feet.
Dec. 17-18, 1990	Two 25,000 gallon USTs, installed in 1954 and removed December 1990. No holes, corrosion or pitting was noted. Approximately 75 gallons fuel oil removed from lines, pumped into 55 gallon drums. Three soil samples collected beneath each UST. TPHD and Benzene, Toluene, Ethylbenzene, Xylene (BTEX) were not detected. The excavation was backfilled with pea gravel and excavated soil.
May 1992	A feasibility study was performed. The recommended remedial action was groundwater extraction.
Sept. 23, 1997	An evaluation of bioremediation using Oxygen Releasing Compound (ORC) was performed. Evaluation, including sampling for biodegradation parameters, indicated that aerobic degradation is occurring but is limited by oxygen depletion. The evaluation recommends addition of ORC.
April 1998 to Nov. 1999	ORC was placed in wells EW-1, MW-1, and MW-2. The ORC was removed in November 1999 and groundwater monitoring was performed to evaluate whether the contaminant concentrations would rebound.

IV. CLOSURE

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

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

Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.

Site Management Requirements:

Residual soil and groundwater contamination remains in the vicinity of the former UST. The responsible party and/or property owner shall notify the Santa Clara Valley Water District Leaking Underground Storage Tank Oversight Program and the City of San Jose Planning Department if site development activities will result in drilling, excavation, or other subsurface construction activities in the vicinity of the former USTs. The responsible party and/or property owner shall prepare an appropriate health and safety plan and/or risk assessment for any subsurface work that may allow for a pathway of exposure to receptors. The City of San Jose Fire Department shall be notified if any additional sumps, tanks, or piping are removed during construction.

Should corrective action be reviewed if land use changes? Yes

Monitoring Wells Decommissioned: Yes	Number Decommissioned: 0	Number Retained: 12

List Enforcement Actions Taken: None

List Enforcement Actions Rescinded: None

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

1982—A leak reportedly released approximately 3,000 to 4,000 gallons of gasoline from a 2,000-gallon UST. The UST was filled with a concrete slurry and closed in place.

Nov. 1982—Monitoring wells MW-1 through MW-5 were installed. Initial results of groundwater sample analyses (January 1984) indicate the presence of TPHG (up to 1,100,000 ppb), benzene (up to 9,500 ppb), toluene (up to 11,000 ppb), ethylbenzene (up to 2,800 ppb), xylenes (up to 18,000 ppb), 1,1,1-trichlorethane (1,1,1-TCA; up to 1 ppb), trichloroethene (TCE; up to 2 ppb), dichloroethane (DCA; up to 9 ppb), Fuel Oil No. 6 (up to 3,000 ppb).

Spring 1983—Extraction well EW-1 was installed and connected to an oil/water separator and treatment system. Groundwater extraction occurred over a 2 year period. Over this time, approximately 3 million gallons of groundwater and 250 gallons of gasoline were reportedly removed. Free product was no longer reported following groundwater extraction.

August 1983— Eight solvent tanks, reportedly containing methyl ethyl ketone, toluene, acetate, isopropanol, ethyl alcohol, and hexane, were removed. Only soil sample with detection from beneath waste solvent tank with toluene (0.590 ppm).

February 6, 1985—A 2,000-gallon diesel UST was removed discovery of a leak and failure of a pressure test. Soil samples collected beneath the UST reported up to 3,600 ppm TPHD at depths up to 12.5 feet.

March 1985—Groundwater monitoring event.

May 1985—A soil and groundwater investigation was performed. One soil boring was installed in the location of the former diesel UST.

July 1987—Groundwater monitoring event.

August 1989—Groundwater monitoring event.

July 1990—A preliminary site assessment was performed. Work included installing monitoring wells MW-6 and MW-7.

November 1990—A remedial investigation, including installation of monitoring wells MW-8 and MW-9, was performed.
December 17-18, 1990—Two 25,000-gallon USTs, installed in 1954, removed December 1990. No holes, corrosion or pitting was noted. Approximately 75 gallons fuel oil removed from lines, pumped into 55-gallon drums. Three soil samples collected beneath each UST. TPHD and BTEX were not detected.
The excavation was backfilled with pea gravel and excavated soil

November—Groundwater monitoring event.

March 1992—Groundwater monitoring event.

May 1992—Feasibility Study recommends groundwater extraction. Additional subsurface investigation, including installation of monitoring wells MW-10 and MW-11 and aquifer testing, performed.

June 1992 to May 1996—Groundwater monitoring events were performed on approximately a quarterly basis.

November 1996 to July 1999—Groundwater monitoring events were performed on approximately a bi-annual basis.

September 23, 1997—An evaluation of bioremediation using Oxygen Releasing Compound (ORC) was performed. Evaluation, including sampling for biodegradation parameters, indicated that aerobic degradation is occurring, but is limited by oxygen depletion. The evaluation recommends addition of ORC.

April 1998 to November 1999—ORC was placed in wells EW-1, MW-1, and MW-2. The ORC was removed in November 1999 and groundwater monitoring was performed to evaluate whether the contaminant concentrations would rebound.

Considerations and/or Variances

1. Residual soil and groundwater contamination remains in place.
2. Disposition of piping and soil is unknown.

Conclusion:
District staff does not believe a significant threat to groundwater exists at the site due to the stable to decreasing trend of petroleum hydrocarbon concentrations in groundwater samples from on-site wells and the stability of the hydrocarbon plume (Well MW-4, approximately 50 feet north of the UST area is non-detect for petroleum hydrocarbons). Based on this data, the levels of residual soil contamination do not appear to pose a significant threat to water resources, public health and safety, and the environment.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: George E. Cook Jr.	Title: Water Quality Specialist
Signature: George E Cook Jr	Date: 9/19/00
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: James S Crowley	Date: 9/19/00

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 9/19/00
Signature: See Next Page	Date:

Attachments:

1. Site Vicinity Map
2. Site Plan
3. UST Removal Documentation
4. Soil Analytical Data
5. Groundwater Analytical Data

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

Conclusion:

District staff does not believe a significant threat to groundwater exists at the site due to the stable to decreasing trend of petroleum hydrocarbon concentrations in groundwater samples from on-site wells and the stability of the hydrocarbon plume (Well MW-4, approximately 50 feet north of the UST area is non-detect for petroleum hydrocarbons). Based on this data, the levels of residual soil contamination do not appear to pose a significant threat to water resources, public health and safety, and the environment.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: George E. Cook Jr.	Title: Water Quality Specialist
Signature: George E Cook Jr	Date: 9/19/00
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: James S Crowley	Date: 9/19/00

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 9/19/00
Signature: Chuck Headlee	Date: 9/26/00

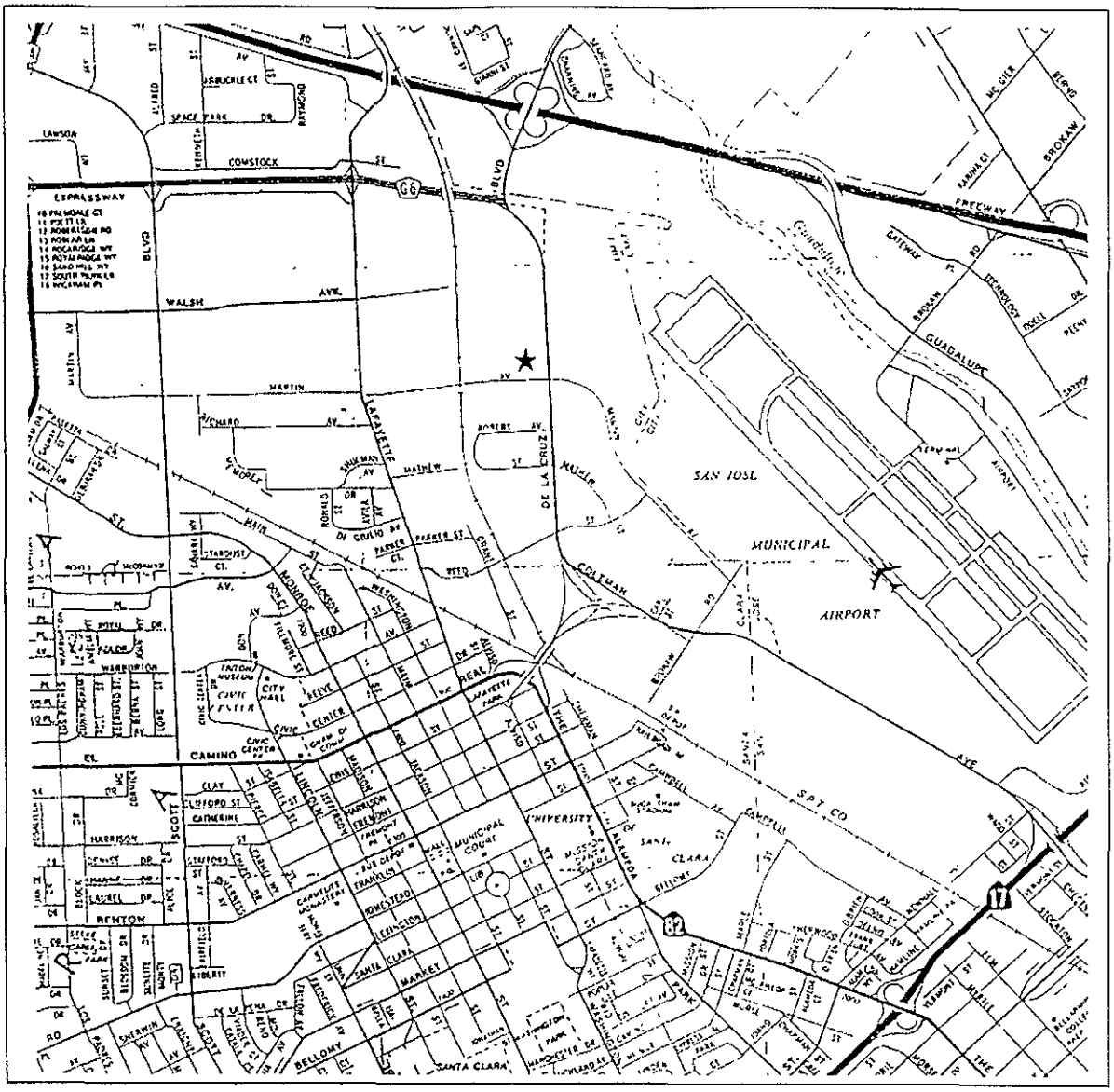
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Post-it® Fax Note 7671	Date	# of pages ▶
To George Cook	From Chuck Headlee	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 408 267-5057	Fax #	

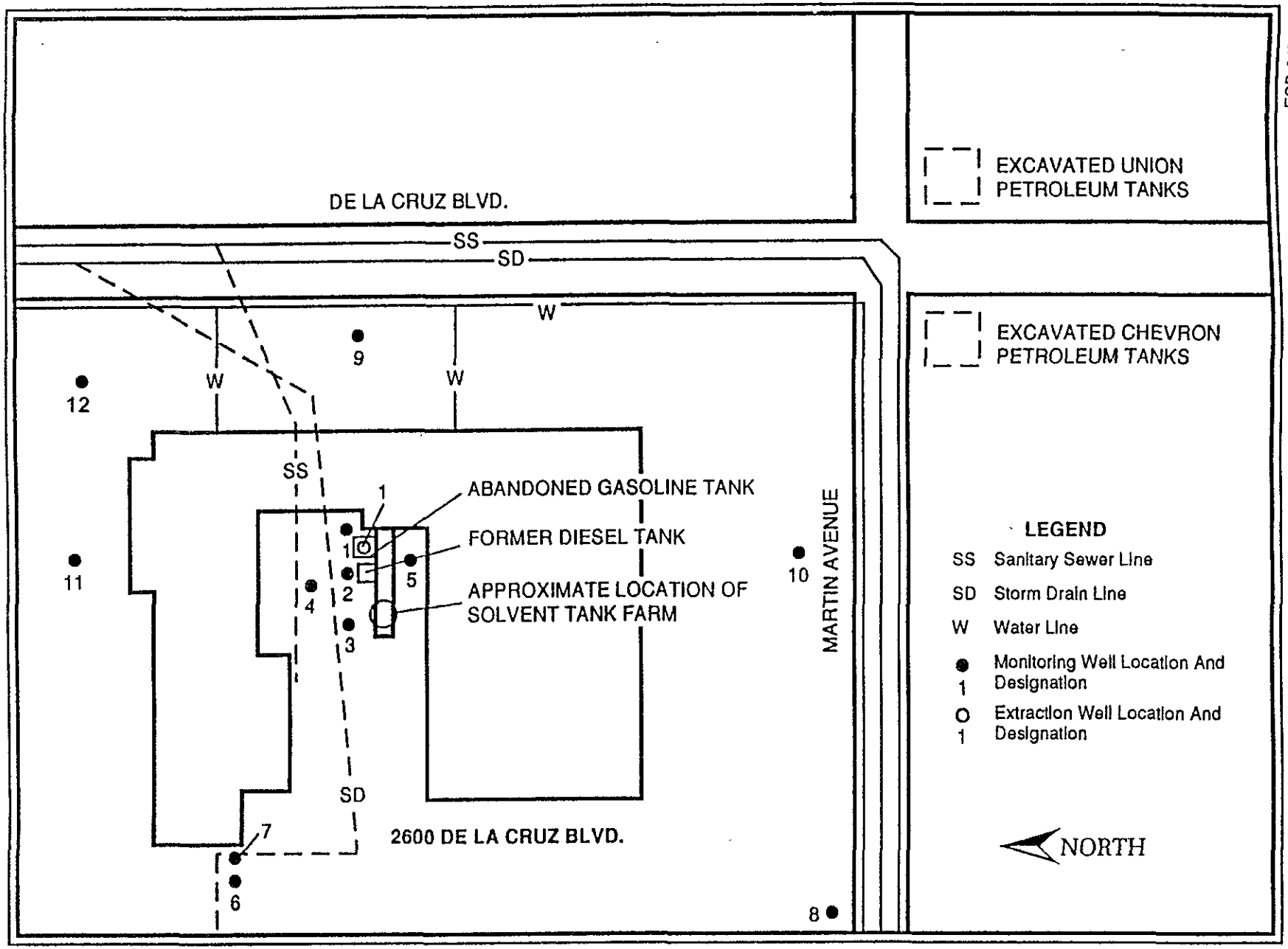
ATTACHMENT 1



★ Jefferson Smurfit Corporation

2600 De La Cruz Boulevard
Santa Clara, California

Figure 1. Site location map



ATTACHMENT 2A

EXHIBIT B

ATTACHMENT 2B

BENCH MARK

City of Santa Clara Bench Mark B-1
Elev. 45.35 (1947)

Lafayette & Richard, letter "C" in word "Cal".
Set in the southerline of Richard extended
(Record Dec. 751

WELL NO	COORDINATES		ELEVATIONS RIM	CASE
MW-1	N 9187.0100	E 10757.8900	35.63	34.96
MW-2	N 9187.1425	E 10721.1043	35.58	35.11
MW-3	N 9184.4700	E 10672.1600	35.56	35.11
MW-4	N 9237.0531	E 10712.3590	35.33	34.90
MW-5	N 9129.4048	E 10732.8983	35.94	35.48
MW-6	N 8352.3243	E 10223.2465	36.23	35.97
MW-7	N 9350.7046	E 10253.8529	36.22	35.83
MW-8	N 8686.1009	E 10049.4629	40.86	40.63
MW-9	N 9210.5136	E 11072.4936	36.75	36.52
MW-10	N 8683.6819	E 10762.1587	36.71	36.39
MW-11	N 9316.8133	E 10720.3616	37.08	36.74
CM-1	N 9177.2411	E 10580.3818	36.61	36.60
EW-1	N 9170.2500	E 10748.7287	–	36.10

Figure 2. Monitoring well location map.

MISSION ENG

2285 Martin Ave, Suite A-1 Santa Clara

	CHKD	SCALE	1" = 100'
		YEAR	
		DATE	3-21-91
		DWN	JLH
		CHKD	JD
		JOB NO	89560

1" = 21

SHEET 1

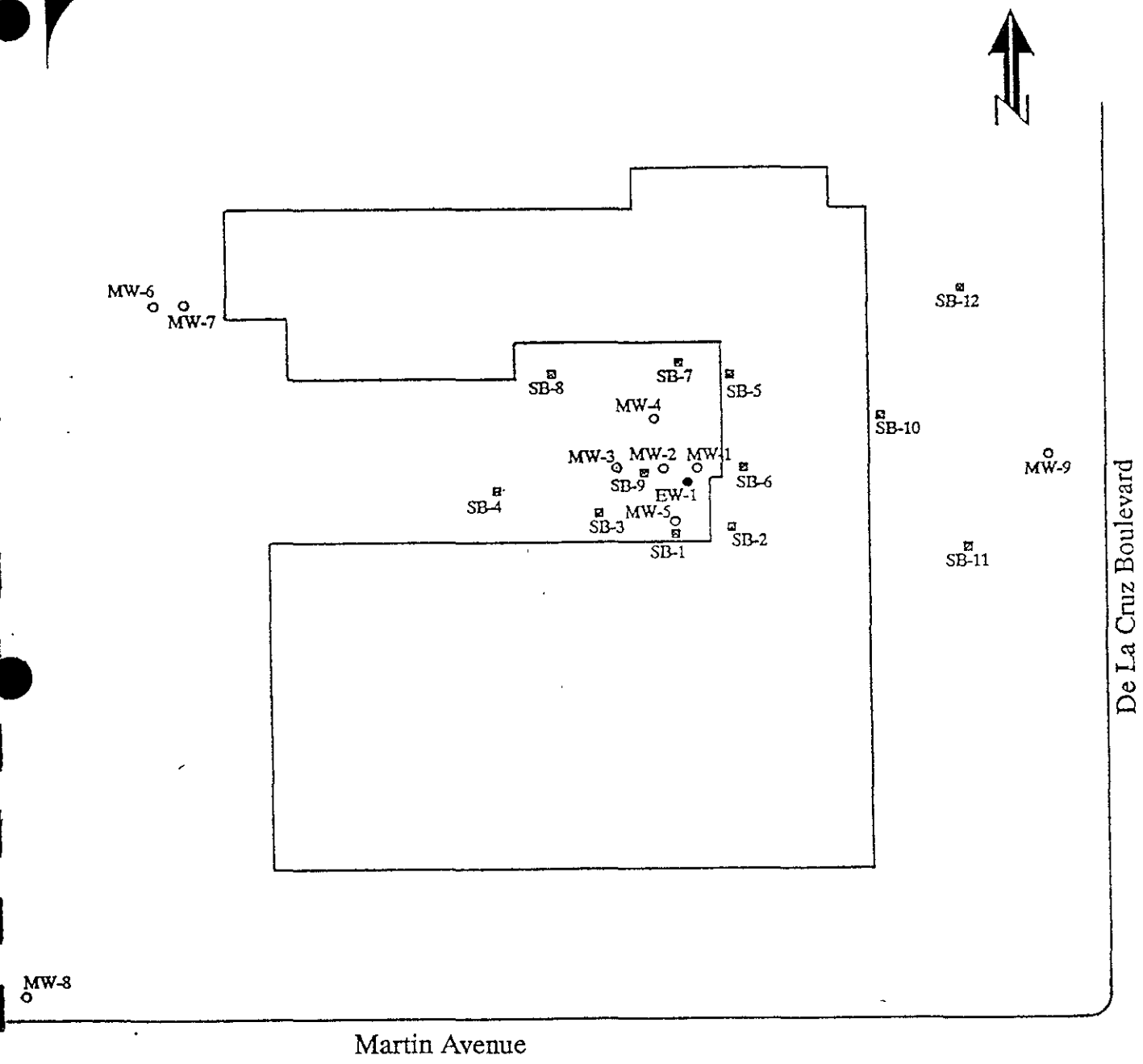
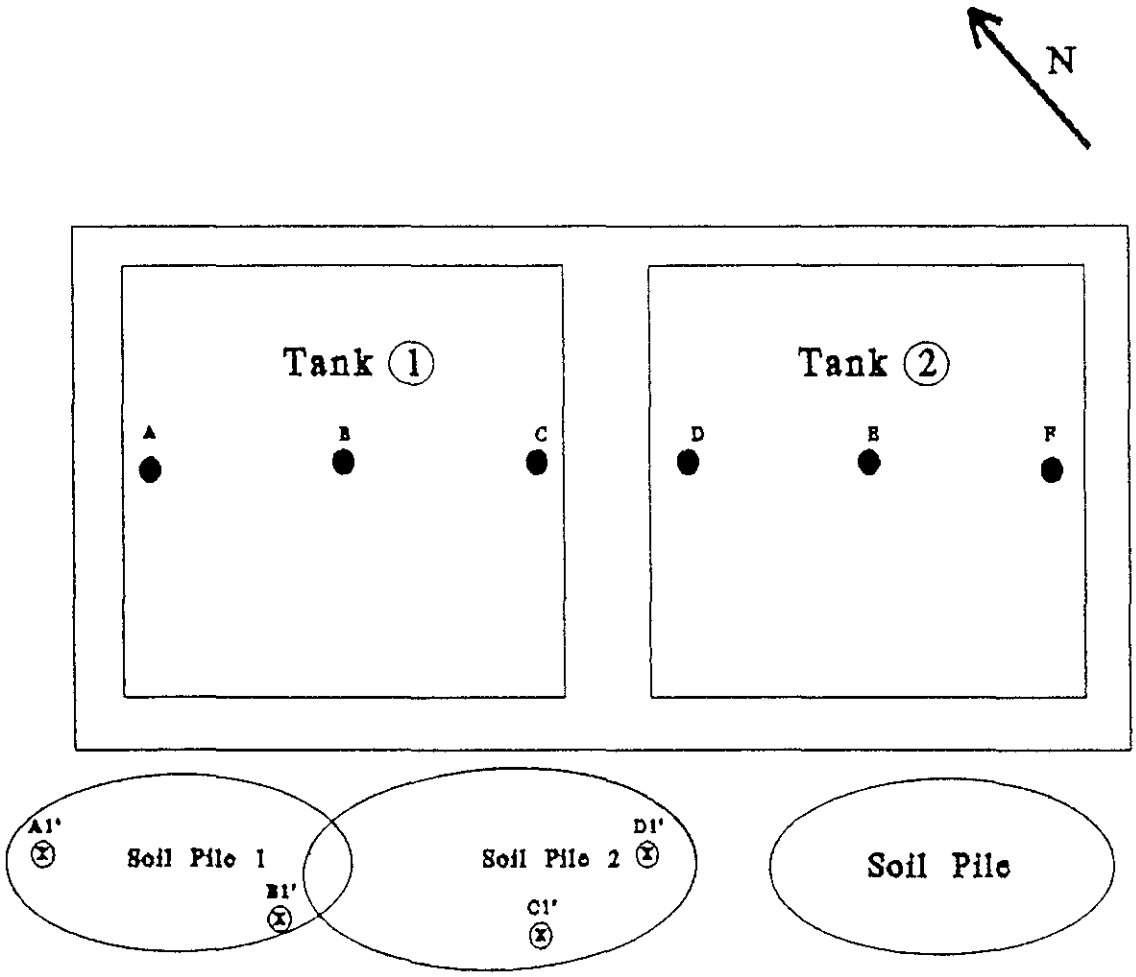


Figure 5. Site Map with Well Locations and Borings

SITE MAP - 2600 De La Cruz Boulevard
Santa Clara, California

ATTACHMENT 2D



SAMPLE IDENTIFICATION

A= T1A108-16'	A1'= AR108-SPA1'
B= T1B108-16'	B1'= AR108-SPB1'
C= T1C108-16'	C1'= AR108-SPC1'
D= T2D108-16'	D1'= AR108-SPD1'
E= T2E108-16'	
F= T2F108-16'	

No Scale

LEGEND

- Tank Soil Sampling Location
- (X) Soil Pile Sampling Location
- (1) First 25,000 Gallon Underground Fuel Oil Tank
- (2) Second 25,000 Gallon Underground Fuel Oil Tank

Figure 2-1: Soil Sample Location / Site Plan
Container Corporation of America 2600 De La Cruz Blv., Santa Clara, CA

ATTACHMENT 3

UST REMOVAL DOCUMENTATION

BLAINE
TECH SERVICES

P O BOX 5745
SAN JOSE, CA 95150
(408) 723-3974

February 7, 1985

RECEIVED
FEB 8 1985
S. C. F. D.

MELLO PETROLEUM MAINTENANCE
& CONSTRUCTION CO.
925 Commercial Steet
San Jose, CA 95112

ATTN: Mr. Ron Yates

RE: Soil sampling under the 2,000 gallon diesel storage tank excavated February 6, 1985 at CCA -- Container Corporation of America 2700 de la Cruz, Santa Clara CA.

SUMMARY

Analysis: Total Hydrocarbons due to diesel oil contamination. To be performed by IT Stoner Laboratories:

sample #1, east end (pump): lab # 25331 hold ppm

sample #2, north end (fill): lab # 25332 3600 ppm

sample #3, east end (pump): lab # 25333 2100 ppm

Tank:

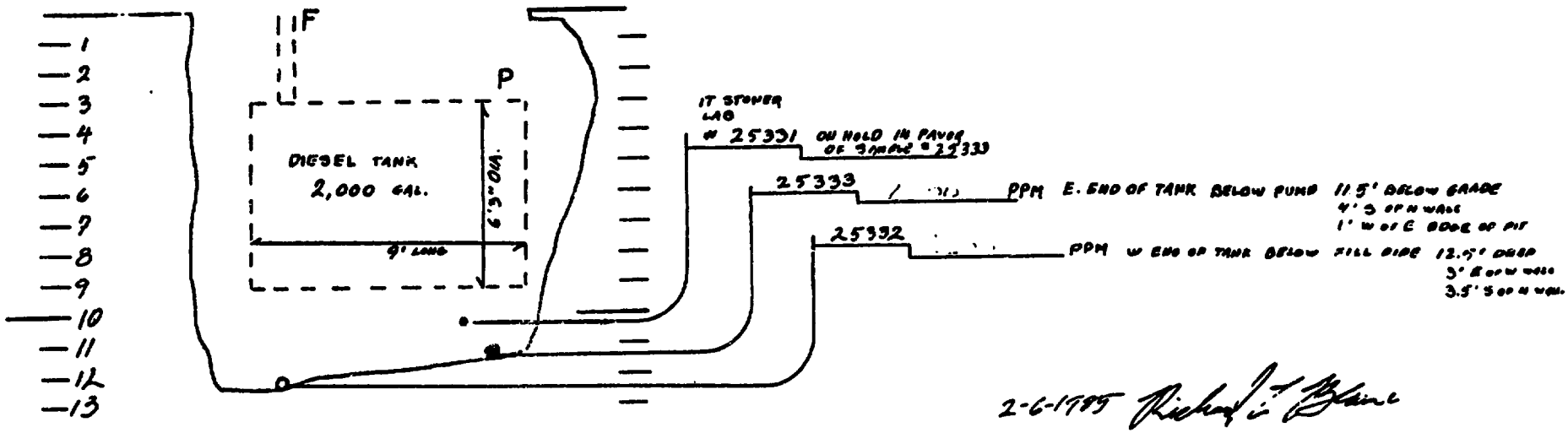
size	--	medium 2,000 gallons
age	--	old mid tank fill pipe
usage	--	gasoline

Contamination: Soil brought up from the pitbottom at either end of the tank bore a strong odor of diesel fuel. Further trenching was undertaken in the hope of determining the extent of contamination but little or no improvement was obtained by extending a trench down to the furthest reach of the backhoe.

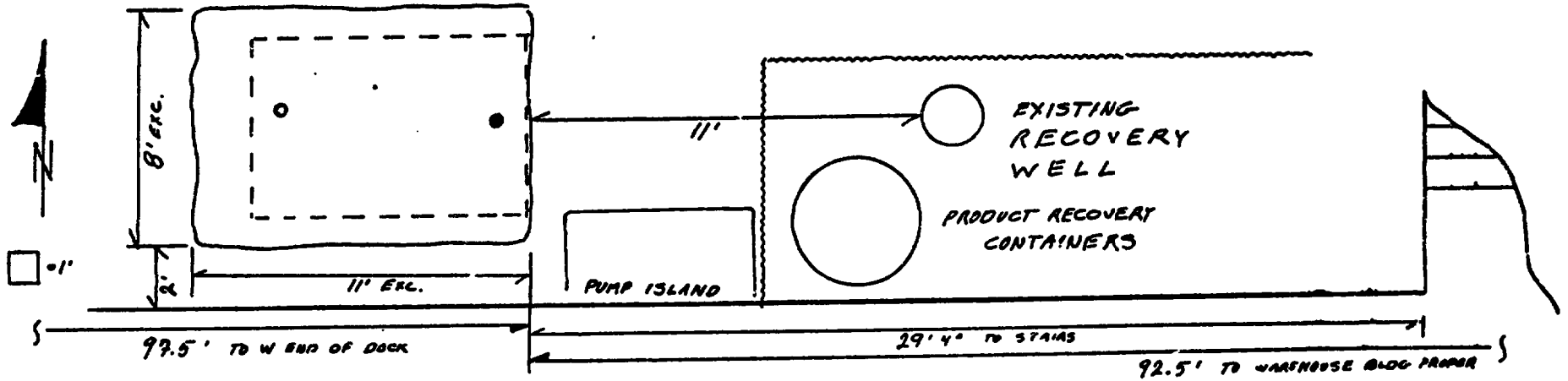
Dr. Robert Campbell of the Santa Clara Fire Department obtained vapor readings with a G-1314 and registered vapors at 80% of the lower explosion limit.

Note that there is a monitoring well already installed only 11 feet from the east (pump) end of the excavated tank.

2-6-85 503701 MELLO EXC. @ CCA 2600 DE LA CRUZ SANTA CLARA



2-6-1985 Richard T. Blaine



RAIL DOCK #7

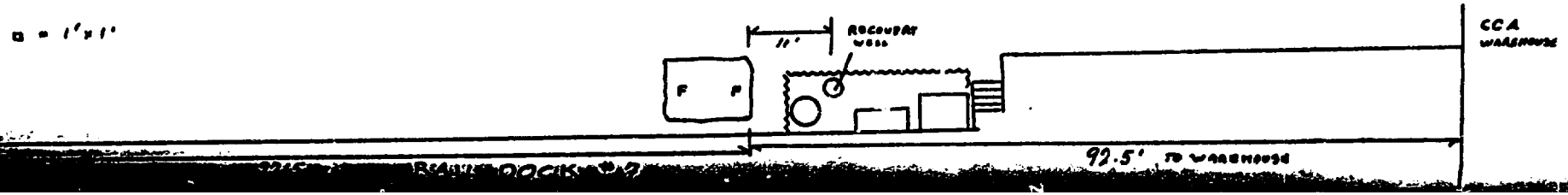


TABLE 1 - SOIL SAMPLING REPORT-UNDERGROUND STORAGE TANKS

NAME OF BUSINESS: CONTAINER CORPORATION OF AMERICA

SITE ADDRESS: 2600 De La Cruz Boulevard, Santa Clara, CA

TYPE OF WORK PERFORMED: Soil Samples taken for laboratory testing during removal of Underground Storage Tanks

DATES SAMPLE D: December 17 and 18, 1990

NUMBER OF TANKS REMOVED: 2

YEAR INSTALLED: 1954

DIMENSION OF TANKS: 20.0 Feet in Diameter, 30 Feet Long.

TANK	CAPACITY	CONTENTS	DEPTH	TYPE	CONDITION
1	25,000 GAL.	Fuel Oil	15	Steel	No holes, no corrosion and pitting present
2	25,000 GAL.	Fuel Oil	15	Steel	No holes, no corrosion and pitting present

DEPTH TO WATER (A ZONE AQUIFER):

Current depth to water from existing monitoring well: 17.0 feet

Seasonal Range: 15-25 Feet

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Service
Toxic Substances Control Divisic
Sacramento, Californi

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A D 9 8 2 0 3 3 5 5 7 — Manifest Document No. 0 0 0 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CONTAINER CORPORATION OF AMERICA
2600 Dela Cruz, Santa Clara, Ca. 95050

4. Generator's Phone (408) 496-5080

A. State Manifest Document Number 90538987

B. State Generator's ID

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8

C. State Transporter's ID 103565

D. Transporter's Phone (415) 543-4835

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107

10. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8

G. State Facility's ID: C A D 0 0 4 7 7 1 1 6 8

H. Facility's Phone (415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RESIDUE FUEL OIL TANK NON RCRA HAZARDOUS WASTE SOLID	0 0 1	T P	2 5 0 0 0	P	State 512 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
PUMPED OUT 25,000 gallon tank last containing fuel oil. Tank inerted with dry ice for transport.

K. Handling Codes for Wastes Listed Above
a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
JOB #6696

APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16.

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: Gene Kohout — Signature — Month Day Year: 1 2 1 8 9 0

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: NORMAN L. BERG — Signature — Month Day Year: 1 2 1 8 9 0

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name — Signature — Month Day Year: 12/18/90

Do Not Write Below This Line

DHS 8022 A
EPA 8700—22
(Rev 6-89) Previous editions are obsolete.

WHITE SENDS THIS COPY TO DOHS WITHIN 30 DAYS
To: P.O. Box 3000 Sacramento CA 95812

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90538987

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

DECEMBER 24, 1990

H & H Ship Service Company hereby certifies to *APPLIED REMEDIATION*

1. The storage tank(s), size(s) *TWO (2) 25,000 GALS.*

   removed from the *CONTAINER CORPORATION OF AMERICA*
   2600 DELA CRUZ
   SANTA CLARA, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number *6696*

   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: *SCHNITZER STEEL, OAKLAND, CALIFORNIA.*

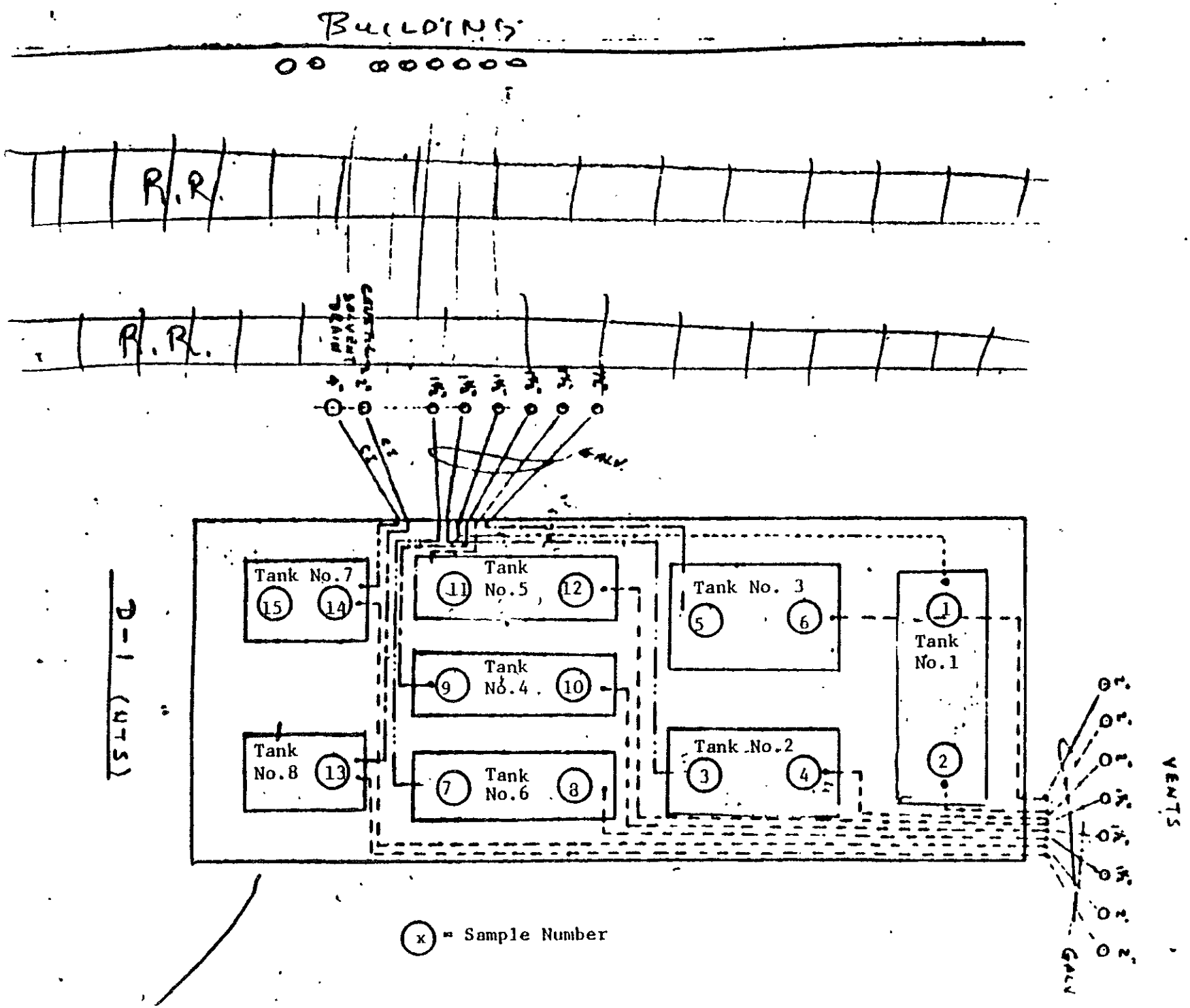
4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

SAMPLE LOCATION MAP



ATTACHMENT 4

SOIL ANALYTICAL DATA

BLAINE
TECH SERVICES

P O BOX
SAN JOSE, CA
(408) 723-

February 7, 1985

RECEIVED
FEB 8 1985
S. C. F. D.

MELLO PETROLEUM MAINTENANCE
& CONSTRUCTION CO.
925 Commercial Steet
San Jose, CA 95112

ATTN: Mr. Ron Yates

RE: Soil sampling under the 2,000 gallon diesel storage tank excavated February 6, 1985 at CCA -- Container Corporation of America 2700 de la Cruz, Santa Clara CA.

SUMMARY

Analysis: Total Hydrocarbons due to diesel oil contamination. To be performed by IT Stoner Laboratories:

sample #1, east end (pump): lab # 25331 hold ppm

sample #2, north end (fill): lab # 25332 3600 ppm

sample #3, east end (pump): lab # 25333 2100 ppm

Tank:

size	--	medium 2,000 gallons
age	--	old mid tank fill pipe
usage	--	gasoline

Contamination: Soil brought up from the pitbottom at either end of the tank bore a strong odor of diesel fuel. Further trenching was undertaken in the hope of determining the extent of contamination but little or no improvement was obtained by extending a trench down to the furthest reach of the backhoe.

Dr. Robert Campbell of the Santa Clara Fire Department obtained vapor readings with a G-1314 and registered vapors at 80% of the lower explosion limit.

Note that there is a monitoring well already installed only 11 feet from the east (pump) end of the excavated tank.

Table 1. Soil Boring Contaminant Concentrations, part 1 of 2 (units = mg/L)

Location	Date Collected	Depth	B	T	E	X	G	D	K	MO	TCA	TCE	DCA	DCE
Method Detection Limit			<0.0005	<0.0005	<0.0005	<0.0005	<1.0	<1.0	<1.0	<10.0	<0.0005	<0.0005	<0.0005	<0.0005
SB-1	7/7/90	10'	BDL	0.041	BDL	0.007	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.055	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
SB-2	7/7/90	10'	BDL	0.120	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.035	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
SB-3	7/7/90	10'	< 0.250	0.280	2.6	9.7	< 50	5.5	BDL	BDL	---	---	---	---
		15'	< 0.630	< 0.630	1.2	6.8	---	BDL	BDL	BDL	< 0.630	< 0.630	< 0.630	< 0.630
SB-4	7/7/90	10'	BDL	0.130	BDL	BDL	---	BDL	BDL	BDL	BDL	BDL	BDL	BDL
		15'	< 0.630	0.730	3.5	11	---	1.0	BDL	BDL	< 0.630	< 0.630	< 0.630	< 0.630
SB-5	7/7/90	10'	< 0.025	0.043	0.510	0.068	< 5	BDL	BDL	BDL	---	---	---	---
		15'	< 0.008	< 0.008	0.210	< 0.008	< 1.7	BDL	BDL	BDL	---	---	---	---
SB-6	7/7/90	10'	BDL	0.150	BDL	BDL	BDL	BDL	BDL	17	---	---	---	---
		15'	BDL	0.130	0.017	0.038	BDL	BDL	BDL	86	---	---	---	---
SB-7	7/8/90	5'	BDL	0.015	0.022	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		10'	BDL	0.023	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	< 0.010	0.050	< 0.010	< 0.010	< 2.0	BDL	BDL	BDL	---	---	---	---
SB-8	7/8/90	10'	BDL	0.099	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.021	BDL	BDL	BDL	BDL	BDL	14	---	---	---	---
SB-9	7/8/90	5'	0.160	0.072	0.400	0.970	7.7	BDL	BDL	BDL	---	---	---	---
		10'	1.3	1.1	9.6	44	400	20	BDL	BDL	---	---	---	---
		15'	0.74	2.2	1.9	10	---	BDL	BDL	BDL	< 0.630	< 0.630	< 0.630	< 0.630

Table 1. Soil Boring Contaminant Concentrations, part 2 of 2 (units = mg/L)

Location	Date Collected	Depth	B	T	E	X	G	D	K	MO	TCA	TCE	DCA	DCE
Method Detection Limit			<0.0005	<0.0005	<0.0005	<0.0005	<1.0	<1.0	<1.0	<10.0	<0.0005	<0.0005	<0.0005	<0.0005
SB-10	7/8/90	10'	BDL	0.057	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.36	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
SB-11	7/8/90	10'	BDL	0.28	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.024	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
SB-12	7/8/90	10'	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.081	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
MW-8	7/10/90	5'	BDL	0.041	BDL	BDL	BDL	BDL	BDL	39	---	---	---	---
		10'	BDL	0.016	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	---	---	---	---	---	---	BDL	BDL	BDL	BDL	BDL	BDL
MW-9	7/9/90	5'	BDL	0.061	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		10'	BDL	0.110	BDL	BDL	BDL	BDL	BDL	BDL	---	---	---	---
		15'	BDL	0.018	BDL	BDL	---	---	---	---	BDL	BDL	BDL	BDL

KEY

B = benzene
T = toluene
E = ethyl benzene
X = xylenes
G = gasoline
D = diesel
K = kerosene
MO = motor oil

BDL = Below Detection Limit
--- = Not Analyzed

Table 2. Results of geological parameter analysis

Parameter	SB[a]-13, B-1	SB-13, E-1	SB-13, H-2	MW[b]-10, E-3
Location	Courtyard	Courtyard	Courtyard	South Border
Depth (ft)	4 to 4.5	8 to 8.5	13 to 13.5	16 to 16.5
Hydraulic conductivity (cm/s)	5×10^{-8}	1×10^{-6}	1×10^{-6}	1×10^{-6}
Specific gravity	2.54	2.54	2.54	2.61
Percent moisture	32	23	27	16
Porosity	0.47	0.38	0.42	0.30

[a]SB = Soil bore.
[b]MW = Monitoring well.

Table 3. Results of soil chemical analyses

Parameter	SB[a]-13, B-2	SB-13, E-2	SB-13, H-3
Location	Courtyard	Courtyard	Courtyard
Depth (ft)	4.5 to 5	8.5 to 9	13.5 to 14
Alkalinity (mg/kg $CaCO_3$)	72,300	2,330	2,800
pH	9.03	8.51	8.25
Calcium (mg/kg)	35,300	3,700	13,800
Magnesium (mg/kg)	11,200	8,160	7,640
Potassium (mg/kg)	1,080	820	810
Total organic carbon (mg/kg)	7,300	2,000	3,500

[a]SB = Soil bore.

ATTACHMENT 5

GROUNDWATER ANALYTICAL DATA

MAY 27, 1987

ORGANICS ANALYSIS DATA SHEET - VOLATILE COMPOUNDS

Sample I.D. :CCA-1
Matrix :WATER
Date sampled :5/27/87
Date analyzed :6/02/87
Dilution :1:25

Anametrix I.D. :8705079-01
Analyst : CM
Supervisor : BWS
Date released :6/05/87

CAS #	Compound Name	Det. Limit (ug/l)	(ug/l)	Q
74-87-3	* Chloromethane	175		U
74-83-9	* Bromomethane	175		U
75-01-4	* Vinyl Chloride	175		U
75-00-3	* Chloroethane	175		U
75-09-2	* Methylene Chloride	50		U
67-64-1	**Acetone	250		U
79-69-4	* Trichlorofluoromethane	50		U
75-15-0	**Carbondisulfide	50		U
75-35-4	* 1,1-Dichloroethene	50		U
75-34-3	* 1,1-Dichloroethane	50		U
156-60-5	* Trans-1,2-Dichloroethene	50		U
156-59-2	* Cis-1,2-Dichloroethene	50		U
67-66-3	* Chloroform	50		U
76-13-1	# Trichlorotrifluoroethane	50		U
107-06-2	* 1,2-Dichloroethane	50		U
78-93-3	**2-Butanone	250		U
71-55-6	* 1,1,1-Trichloroethane	50		U
56-23-5	* Carbon Tetrachloride	50		U
108-05-4	**Vinyl Acetate	250		U
75-27-4	* Bromodichloromethane	50		U
78-87-5	* 1,2-Dichloropropane	50		U
10061-02-6	* Trans-1,3-Dichloropropene	50		U
79-01-6	* Trichloroethene	50		U
124-48-1	* Dibromochloromethane	50		U
79-00-5	* 1,1,2-Trichloroethane	50		U
71-43-2	* Benzene	50	3700	+
10061-01-5	* cis-1,3-Dichloropropene	50		U
110-75-8	* 2-Chloroethylvinylether	50		U
75-25-2	* Bromoform	50		U
591-78-6	**2-Hexanone	250		U
108-10-1	**4-Methyl-2-Pentanone	250		U
127-18-4	* Tetrachloroethene	50		U
79-34-5	* 1,1,2,2-Tetrachloroethane	50		U
108-88-3	* Toluene	50	2300	+
108-90-7	* Chlorobenzene	50		U
100-41-4	* Ethylbenzene	50	1800	+
100-42-5	**Styrene	50		U
	**Total Xylenes	50	3500	+
541-73-1	* 1,3-Dichlorobenzene	50		U
95-50-1	* 1,2-Dichlorobenzene	50		U
106-46-7	* 1,4-Dichlorobenzene	50		U

* A 624/8240 approved compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)
\# A compound added by Anametrix, Inc.

For reporting purposes, the following qualifiers (Q) are used:
+ : A value greater than or equal to the method detection limit.
U : The compound was analyzed for but was not detected.

ORGANIC ANALYSIS DATA SHEET -- SEMIVOLATILE COMPOUNDS

Sample I.D. :CCA-1
Matrix :WATER
Date sampled :5/27/87
Date extracted :5/29/87
Date analyzed :6/04/87
Volume extracted :1 L

Anametrix I.D. :8705079-01
Analyst : CP
Supervisor : BWS
Date released :6/05/87

CAS #	Compound Name	Det. Limit (ug/l)	(ug/l)	Q
62-75-9	* N-Nitrosodimethylamine	2		U
108-95-2	* Phenol	2		U
62-53-3	**Aniline	2		U
111-44-4	* bis(-2-Chloroethyl)Ether	2		U
95-57-8	* 2-Chlorophenol	2		U
541-73-1	* 1,3-Dichlorobenzene	2		U
106-46-7	* 1,4-Dichlorobenzene	2		U
100-51-6	**Benzyl Alcohol	2		U
95-50-1	* 1,2-Dichlorobenzene	2		U
95-48-7	**2-Methylphenol	2		U
39638-32-9	**bis(2-chloroisopropyl)Ether	2		U
106-44-5	**4-Methylphenol	2		U
621-64-7	* N-Nitroso-Di-n-Propylamine	2		U
67-72-1	* Hexachloroethane	2		U
98-95-3	* Nitrobenzene	2		U
78-59-1	* Isophorone	2		U
88-75-5	* 2-Nitrophenol	2		U
105-67-9	* 2,4-Dimethylphenol	2		U
65-85-0	**Benzoic Acid	10		U
111-91-1	* bis(-2-Chloroethoxy)Methane	2		U
120-83-2	* 2,4-Dichlorophenol	2		U
120-82-1	* 1,2,4-Trichlorobenzene	2		U
91-20-3	* Naphthalene	2	130	+
106-47-8	**4-Chloroaniline	2		U
87-68-3	* Hexachlorobutadiene	2		U
59-50-7	* 4-Chloro-3-Methylphenol	2		U
91-57-6	**2-Methylnaphthalene	2	23	+
77-47-4	* Hexachlorocyclopentadiene	2		U
88-06-2	* 2,4,6-Trichlorophenol	2		U
95-95-4	**2,4,5-Trichlorophenol	10		U
91-58-7	* 2-Chloronaphthalene	2		U
88-74-4	**2-Nitroaniline	10		U
131-11-3	* Dimethyl Phthalate	2		U
208-96-8	* Acenaphthylene	2		U
99-09-2	**3-Nitroaniline	10		U

* A 625 approved compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)

For reporting purposes, the following qualifiers (Q) are used :
+ : A value greater than or equal to the method detection limit.
U : The compound was analyzed for but was not detecfed.

ORGANICS ANALYSIS DATA SHEET - 624
Tentatively Identified Extra Compounds

CLIENT ID: CCA-1 1:25 ANAMETRIX NO: 8705079-01

SCAN #	NAME	Estimated Concentration UG/L
158	2-methylbutane	540
174	1,1-dimethylcyclopropane	890
273	methylcyclopentane	890
1145	1-ethyl-2-methylbenzene	220
1230	1,2,3-trimethylbenzene	400

ORGANICS ANALYSIS DATA SHEET - 625
Tentatively Identified Extra Compounds

CLIENT ID: CCA-1 ANAMETRIX NO: 8705079-01

SCAN #	NAME	Estimated Concentration UG/L
607	propylbenzene	270
616	1-ethyl-2-methylbenzene	540
625	1,2,4-trimethylbenzene	320
639	1-ethyl-4-methylbenzene	330
655	1,3,5-trimethylbenzene	1600
690	1,2,3-trimethylbenzene	640
705	2-propenylbenzene	640
758	4-ethyl-1,2-dimethylbenzene	210
795	1,2,3,5-tetramethylbenzene	130
828	2,3-dihydro-4-methyl-1h-indene	250

Form 3-1.

Table 3. BTEX Results (Continued)

Container Corp. Sample ID

Low Boiling Petroleum Hydrocarbons	M-W-7	RECOVERY WELL	Method Blank	Spike	Dup Spike
	ug/L	ug/L	ug/L	% Recov	% Recov
Benzene	<0.5	1200	<0.5	NS	NS
Toluene	<0.5	3000	<0.5	NS	NS
Ethylbenzene	<0.5	1800	<0.5	NS	NS
Total Xylenes	<0.5	36000	<0.5	NS	NS
	mg/L	mg/L	mg/L	% Recov	% Recov
Gasoline	<0.1	640	<0.1	98	92
Date Analyzed:	7/31/89	7/31/89	7/31/89	7/31/89	7/31/89

NS - Not spiked

Table 6. Groundwater chemical parameter results

Parameter	EW-1 (mg/L)	MW-1 (mg/L)
Magnesium	60.2	116
Potassium	2.3	9.5
Sodium	67.3	78.7
Alkalinity as $CaCO_3$	700	1,000
Nitrate, as N	<0.05	<0.05
Phosphate, as P	0.5	2.8

A.3 Aquifer Test Results

Two pump tests were conducted in February and March 1991, to quantify the aquifer characteristics relevant to a pump-and-treat remediation. Aquifer Sciences directed the pump test and Acurex personnel obtained water level measurements at the extraction well and observation wells throughout the tests. The Aquifer Sciences report is included in Appendix D.

The tests consisted of step drawdown tests and a constant discharge test. The step drawdown tests were performed on February 28, 1991. The purpose was to evaluate the response of the pumping well (EW-1) and the aquifer at various pumping rates and to select an appropriate pumping rate for a constant discharge test. The approximate pumping rates were 2.6, 5, 7.6, and 9.4 gpm. Each pumping rate was tested for 20 to 70 minutes. The flowrate of 2.6 gpm created a drawdown of only 1.16 ft in 30 minutes and no drawdown was observed in the observation wells. The 9.4 gpm flowrate dewatered EW-1 in 40 minutes. Pumping at 4.98 gpm created a drawdown of 5.61 ft after 72 minutes. Therefore, it was estimated that a pumping rate of 3 to 3.5 gpm would be sustainable and appropriate for a constant discharge test. Further details are in Appendix D.

The constant discharge test was performed on March 5, 1991 with a flowrate of about 3.5 gpm. Due to problems with the flow meter and pump, the test lasted only 12.5 hours. The

Table 1. Levels of detected compounds for JSC site, Santa Clara, CA

Compounds	Sample Date	EW1	MW1	MW2	MW3	MW4	MW5	MW12
TEPH as diesel (µg/l)	03/97	2,200	8,800	720				ND
TPPH as gasoline (µg/l)	03/97	10,000	38,000	2,100				ND
Benzene (µg/l)	03/97	630	710	65				ND
Toluene (µg/l)	03/97	29	230	ND				ND
Ethylbenzene (µg/l)	03/97	1500	2,600	230				ND
o,m,p-xylenes (µg/l)	03/97	180	6,100	83				ND
Depth to GW (ft)	03/97	10.45	9.47	9.55	9.66	9.69	9.53	11.00
Groundwater Elevations (ft)	03/97	25.65	25.49	25.56	25.45	25.21	25.95	UD
Oil layer (ft)	03/97	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH (units)	03/97	7.2	7.0	7.0	6.9	6.8	6.9	6.7
Conductivity (umhos)	03/97	530	627	1250	1500	1530	1200	1140
Temperature (°C)	03/97	18°	19°	20°	20°	21°	19°	20°
BOD (mg/l)	03/97	23.	56.	9.2	2.0	2.5	< 2.0	< 2.0
COD (mg/l)	03/97	48.	260.	< 20.	< 20.	36.	75.	180.
Calcium (mg/l)	03/97	95.	140.	170.	150.	150.	190.	190.
Iron (mg/l)	03/97	17.	110.	13.	14.	15.	49.	75.
Manganese (mg/l)	03/97	1.7	3.5	1.5	1.3	1.4	17.	5.5
Alkalinity (mg/l)	03/97	520.	720.	800.	840.	700.	540.	720.
Ortho-phosphate (mg/l)	03/97	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nitrate (mg/l)	03/97	< 0.10	< 0.10	< 0.10	7.3	19	10	11
Kjeldahl-N (mg/l)	03/97	0.93	1.8	1.0	0.69	0.65	0.75	2.3
Ammonia-N (mg/l)	03/97	0.39	0.2	0.34	0.2	0.21	0.18	< 0.10
Sulfate (mg/l)	03/97	< 0.10	11.	210.	390.	470.	370.	320.
Sulfide (mg/l)	03/97	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

MAY 27, 1997

Sequoia Analytical

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555 Clyde Avenue, Bldg. 6
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Attention: Laura Young

Client Proj. ID: 6829.020, Treatability Study

Lab Proj. ID: 9703919

Sampled: 03/17/97
Received: 03/18/97
Analyzed: see below

Reported: 04/04/97

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9703919-43				
Sample Desc : LIQUID,6704, MW-3				
Sulfide	mg/L	03/24/97	0.10	N.D.
Lab No: 9703919-44				
Sample Desc : LIQUID,6705, MW-3				
Alkalinity: Total	mg CaCO3/L	03/20/97	10.0	840
Lab No: 9703919-45				
Sample Desc : LIQUID,6706, MW-4				
Biochem Oxygen Demand	mg/L	03/19/97	2.0	2.5
Lab No: 9703919-47				
Sample Desc : LIQUID,6708, MW-4				
Chemical Oxygen Demand	mg/L	03/24/97	20	36
Lab No: 9703919-50				
Sample Desc : LIQUID,6711, MW-4				
Calcium	mg/L	03/25/97	0.50	150
Iron	mg/L	03/25/97	0.010	15
Manganese	mg/L	03/25/97	0.010	1.4
Lab No: 9703919-51				
Sample Desc : LIQUID,6712, MW-4				
Nitrate as Nitrate	mg/L	03/19/97	0.10	19
Ortho Phosphate	mg/L	03/19/97	1.0	N.D.
Sulfate	mg/L	03/19/97	1.0	470

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Table 2. Levels of detected organic compounds — historical summary (continued)

Compound	Sample Date	EW1 (µg/L)	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW9 (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)	MCL[a] (µg/l)
TPPH as gasoline (continued)	9/92	36,600	61,300	12,900	ND	ND	ND	NA	NA	ND	ND	ND	ND		
	6/92	29,400	142,000	19,900	ND	ND	ND	NA	NA	ND	ND	ND	ND		
	1/92	31,500	66,700	10,200	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	25,300	67,400	26,600	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Methyl t-butyl ether	4/00	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	150/140[d]	NS
	4/99	ND	NP	NP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NP	
	11/98	NP	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NP	
	4/98	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.6/8.3[d]	
	10/97	NP	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NP	
	3/97	NP	NP	NP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NP	
Benzene	4/00	64	430	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.0
	4/99	19	500	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	11/98	81	620	27	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	
	4/98	540	580	42	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/97	250	940	16	ND	ND	1 8	NA	NA	NA	NA	NA	NA	ND	
	3/97	630	710	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/96	120	1,400	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	5/96	260	1,000	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/95	190	1,100	9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	3/95	450	1,300	670	0 61	ND	ND	ND	ND	ND	ND	ND	ND		
	9/94	460	1,700	21	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/94	580	1,700	120	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/93	48	2,200	4.3	ND	ND	ND	ND	ND	ND	ND	ND	NDND/N		
	7/93	670	2,300	44	ND	ND	1.1	ND	ND	ND	ND	ND	D[b]		
	4/93	1,100	2,700	410	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	1/93	NA	2,400	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	9/92	2,810	4,180	198	ND	ND	ND	NA	NA	ND	ND	ND	ND		
	6/92	1,780	4,190	390	0.8	ND	ND	NA	NA	ND	ND	ND	ND		
	1/92	2,820	4,700	220	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	3,550	6,680	948	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Toluene	4/00	17	51	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NS
	4/99	ND	ND	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	11/98	7 2	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	
	4/98	ND	200	5.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/97	ND	370	ND	ND	ND	0.81	NA	NA	NA	NA	NA	NA	ND	
	3/97	29	230	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/96	ND	320	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

Table 2. Levels of detected organic compounds — historical summary (continued)

Compound	Sample Date	EW1 (µg/L)	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW9 (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)	MCL[a] (µg/l)
1,1,1-TCA	10/96	NA	NA	NA	ND	ND	ND	0.79	ND	0.92	1.6	ND	ND	3.8	200.0
	5/96	NA	NA	NA	ND	0.67	ND	1.1	0.54	ND	1.7	ND	ND	4.2	
	10/95	NA	NA	NA	0 52	0.70	ND	1.4	0.60	ND	2 2	ND	ND	5.0	
	3/95	NA	NA	NA	ND	ND	ND	0.80	0.58	ND	2.1	8.6	ND		
	9/94	NA	NA	NA	1.6	0.8	ND	0.97	0 58	ND	3.5	ND	0.54		
	4/94	NA	NA	NA	1.0	1.3	ND	0.7	ND	ND	3.1	3.4	ND		
	10/93	NA	NA	NA	2 2	2 6	ND	2 2	1 2	ND	7.3	5.1	ND		
	7/93	NA	NA	NA	0.53	1.7	ND	1.8	1.0	ND	7.3	1.1	ND		
	4/93	NA	NA	NA	2 1	ND	ND	3 1	1.5	ND	10	ND	ND		
	1/93	NA	ND	NA	1.1	NA	ND	0 83	ND	ND	ND	5.2	ND		
	9/92	NA	NA	NA	2.3	1.7	ND	ND	ND	ND	9.0	ND	ND		
	6/92	NA	NA	NA	2 06	2.04	ND	1.04	0.62	ND	6.52	ND	1.8		
	1/92	ND	ND	ND	1.7	0.9	ND	ND	ND	ND	6.2	ND	0.7		
	10/91	ND	ND	ND	1.8	2.4	ND	2.0	1 0	ND	7.2	ND	ND		
1,2-DCA	10/96	NA	NA	NA	ND	ND	0.62	ND	ND	ND	0.54	ND	ND	ND	0.50
	5/96	NA	NA	NA	ND	ND	0.90	ND	ND	ND	0 60	ND	ND	0.53	
	10/95	NA	NA	NA	ND	ND	1.3	ND	ND	ND	0 64	ND	ND	ND	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	0 54	ND	ND		
	9/94	NA	NA	NA	ND	ND	1.3	ND	ND	ND	0.75	ND	ND		
	4/94	NA	NA	NA	ND	ND	1.3	ND	ND	ND	0 61	ND	ND		
	10/93	NA	NA	NA	ND	ND	1 6	ND	ND	ND	1.2	ND	ND		
	7/93	NA	NA	NA	ND	ND	0 68	ND	ND	ND	1.1	ND	ND		
	4/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.3	ND	ND		
	1/93	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	9/92	NA	NA	NA	ND	ND	ND	ND	1.2	ND	ND	ND	ND		
	6/92	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	1/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND		
TCE	10/96	NA	NA	NA	6 5	2.3	ND	2.1	6 8	ND	3.5	450	8 8	4.3	5.0
	5/96	NA	NA	NA	9 8	26	ND	2 2	6.9	ND	3 2	530	14	3.8	
	10/95	NA	NA	NA	15	22	ND	2 4	7.3	ND	3.1	580	8 1	2.8	
	3/95	NA	NA	NA	6 5	19	ND	1 1	4 9	ND	2 3	450	7 5		
	9/94	NA	NA	NA	29	18	ND	1 4	5 0	ND	3 3	16	5.3		
	4/94	NA	NA	NA	20	35	ND	0.73	2.0	ND	2 6	130	5.7		
	10/93	NA	NA	NA	26	39	ND	2.0	6.2	ND	3.6	180	8.1		
	7/93	NA	NA	NA	11	35	ND	1.2	4.3	ND	3 5	77	12		
	4/93	NA	NA	NA	23	64	ND	2.2	6.3	ND	4.1	150	11		
	1/93	NA	ND	NA	16	NA	ND	ND	2.5	ND	24	1.8	5.6		

Table 2. Levels of detected organic compounds — historical summary (continued)

Compound	Sample Date	EW1 (µg/L)	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW9 (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)	MCL[a] (µg/l)
TCE (continued)	9/92	NA	NA	NA	28.7	29 4	ND	ND	ND	ND	2.3	ND	14.4		
	6/92	NA	NA	NA	12.3	21 0	ND	ND	1 55	ND	1.8	0 84	10.9		
	1/92	ND	ND	ND	7.3	17.5	ND	ND	ND	ND	1.1	2.0	5.6		
	10/91	ND	ND	ND	4.4	8.5	ND	ND	1.3	ND	1.2	ND	1.3		
1,1-DCE	10/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.72	6.0
	5/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	0.60	ND	ND	0.97	
	10/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	0.72	ND	ND	1.1	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	0.67	ND	ND		
	9/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	0.91	ND	ND		
	4/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	0.87	ND	ND		
	10/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.1	ND	ND		
	7/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.3	ND	ND		
	4/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.1	ND	ND		
	1/93	NA	ND	NA	2.9	NA	ND	ND	ND	ND	ND	0.86	0.3		
	9/92	NA	NA	NA	0.8	ND	ND	ND	ND	ND	ND	ND	ND		
	6/92	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.41	ND	ND		
	1/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND		
cis-1,2-DCE	10/96	NA	NA	NA	0.96	1 3	ND	2.5	11	ND	8.1	ND	46	5.5	6.0
	5/96	NA	NA	NA	1 6	1.6	ND	3.0	10	ND	8.0	ND	62	6.5	
	10/95	NA	NA	NA	1.3	1 5	ND	4 0	13	ND	8 2	ND	45	5.3	
	3/95	NA	NA	NA	0.75	0 86	ND	2.0	9 4	ND	6 0	7.0	42		
	9/94	NA	NA	NA	2.9	1 2	ND	2.7	11	ND	8.6	ND	33		
	4/94	NA	NA	NA	1.9	2 0	ND	2.0	4 2	ND	7.5	3.8	33		
	10/93	NA	NA	NA	2 4	2.7	ND	3.5	11	ND	9.3	4.7	42		
	7/93	NA	NA	NA	0.98	1 6	ND	2.4	8 9	ND	9.6	ND	50		
	4/93	NA	NA	NA	2.0	ND	ND	3 0	9 5	ND	8.3	ND	61		
	1/93	NA	ND	NA	1.2	NA	ND	1.9	7.1	ND	ND	5.5	33		
trans-1,2-DCE	10/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.0
	5/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	9/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.8		
	7/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	1/93	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		

Table 2. Levels of detected organic compounds — historical summary (continued)

Compound	Sample Date	EW1 (µg/L)	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW9 (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)	MCL[a] (µg/l)
Chlorobenzene	10/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
	5/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	9/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	7/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	1/93	NA	ND	NA	0.7	NA	ND	ND	ND	ND	ND	ND	ND		
Chloroform	10/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100.0[e]
	5/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	9/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	7/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/93	NA	NA	NA	1.2	ND	ND	ND	ND	ND	ND	ND	ND		
	1/93	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	9/92	NA	NA	NA	ND	0 9	ND	ND	ND	ND	ND	ND	48.7		
	6/92	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	1/92	ND	ND	ND	ND	1.0	ND	ND	ND	ND	1.9	ND	10.5		
	10/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Methylene chloride	10/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
	5/96	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	3/95	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	9/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/94	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	7/93	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	4/93	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND		
	1/93	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	9/92	NR	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	6/92	NR	NR	NR	2 19	6 42	1.19	3.80	1.49	2.48	2.55	1.67	1.17		
	1/92	NR	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	NR	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	ND		

Table 2. Levels of detected organic compounds — historical summary

Compound	Sample Date	EW1 (µg/L)	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW9 (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)	MCL[a] (µg/l)
TEPH as diesel and non-diesel mix	4/00	1,100	3,200	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NS
	4/99	570	7,800	880	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	11/98	1,000	5,600	370	87	180	ND	NA	NA	NA	NA	NA	NA	56	
	4/98	2,200	5,800	590	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/97	2,300	11,000	100	130	ND	ND	NA	NA	NA	NA	NA	NA	ND	
	3/97	2,200	8,800	720	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/96	1,900	9,100	180	ND	ND	ND	ND	82	NA	54	NA	70	79	
	5/96	2,400	10,000	590	250	200	150	170	ND	NA	ND	NA	ND	ND	
	10/95	2,000	9,300	460	62	61	ND	ND	ND	NA	ND	NA	ND	ND	
	3/95	2,700	13,000	5,800	54	100	ND	ND	ND	NA	ND	NA	ND		
	9/94	3,800	8,700	320	81	73	ND	ND	140	NA	ND	NA	ND		
	4/94	3,200	15,000	500	ND	ND	ND	ND	ND	NA	ND	NA	ND		
	10/93	4,700	15,000	320	ND	ND	ND	ND	77	NA	ND	NA	ND		
	7/93	5,000	12,000	1,500	ND	ND	120	ND	ND	NA	ND	NA	130/ND[c]		
	4/93	4,500	11,000	1,700	ND	ND	ND	ND	ND	NA	ND	NA	ND		
	1/93	ND[(4)]	NA	ND[b]	NA	ND	NA	NA	NA	NA	NA	NA	NA		
	9/92	1,090	271	3,030	NA	ND	ND	NA	NA	NA	ND	NA	NA		
	6/92	1,260	ND	895	NA	274	197	NA	NA	NA	90.3	NA	ND		
	1/92	2,250	ND	2,390	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	10/91	7,040	ND	625	ND	ND	ND	ND	ND	ND	ND	ND	ND		
TPPH as gasoline	4/00	1,600	24,000	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NS
	4/99	590	37,000	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	11/98	1,200	33,000	1,200	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	
	4/98	8,300	44,000	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/97	5,000	45,000	600	ND	ND	87	NA	NA	NA	NA	NA	NA	ND	
	3/97	10,000	38,000	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
	10/96	3,400	57,000	1,300	ND	ND	63	ND	ND	NA	ND	NA	ND	ND	
	5/96	9,300	67,000	2,100	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	
	10/95	5,300	60,000	230	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	
	3/95	11,000	62,000	21,000	58	ND	140	ND	ND	NA	ND	NA	ND		
	9/94	8,000	66,000	1,000	ND	ND	ND	ND	97	NA	ND	NA	ND		
	4/94	13,000	56,000	2,800	ND	ND	ND	ND	ND	NA	ND	NA	ND		
	10/93	7,500	46,000	670	ND	ND	ND	ND	ND	NA	ND	NA	ND		
	7/93	8,200	48,000	2,400	ND	ND	ND	ND	ND	NA	ND	NA	ND/ND[c]		
	4/93	19,000	54,000	4,300	ND	ND	ND	ND	ND	NA	ND	NA	ND		
	1/93	19,000	NA	ND[b]	NA	ND	NA	NA	NA	NA	NA	NA	NA		

Table A.6. Container Corporation of America monitoring well analytical data

MONITORING WELL	DATE	SAMPLER	BENZENE (ug/l)	TOLUENE (ug/l)	ETHYL-BENZENE (ug/l)	TOTAL XYLENES (ug/l)	TCA (ug/l)	TCE (ug/l)	DCA (ug/l)	DCE (ug/l)	DIESEL #2 (ug/l)	FUEL OIL #6 (ug/l)	GAS (ug/l)	UNKNOWN Fuel (ug/l)	Naphth-alene (ug/l)
1	1-30-84	CCA									ND	ND	44000		
	5-31-89	ACUREX	3000	3100	2800	15000	<250	<250	<250	<250			85000		
	6-29-89	ACUREX	4000	2000	1800	8500	<500	<500	<500	<500			53000		
	7-27-89	ACUREX	5500	3300	2300	13000	<1000	<1000	<1000	<1000			80000		
	8-30-89	ACUREX	4400	750	1400	2800	<50	<50	<50	<50			70000		
	9-27-89	ACUREX	900	670	960	520	<250	<250	<250	<250			75000		
2	1-30-84	CCA													
	5-31-89	ACUREX	9500	11000	2800	18000	<250	<250	<250	<250	ND	ND	25000		
	6-29-89	ACUREX	340	650	160	2600	<0.5	<5.0	<0.5	<0.5			110000		
	7-27-89	ACUREX	290	540	110	2600	<500	<500	<500	<500			17000		
	8-30-89	ACUREX	170	200	72	400	<1.0	<1.0	9	<1.0			18000		
	9-27-89	ACUREX	<1.0	<1.0	<1.0	<1.0	<250	<250	<250	<250			2300		
3	1-30-84	CCA											220		
	3-01-88	PEG	0.8	5		10					ND	ND	ND		
	5-31-89	ACUREX	<0.5	<0.5	<0.5	1.1	<1.0	<1.0	<1.0	<1.0	ND	2300	80	300	
	6-29-89	ACUREX	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5			<500		
	7-27-89	ACUREX	<0.5	<0.5	<0.5	<0.5	1	2	6	<0.5			<100		
	8-30-89	ACUREX	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.3	<0.5			<100		
	9-27-89	ACUREX	<1.0	<1.0	<1.0	1.4	<1300	<1300	<1300	<1300			<100		
4	1-30-84	CCA											300		
	3-01-88	PEG	1.1	6		17					ND	ND	ND		
	6-16-89	ACUREX	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND	700	50	130	
	6-29-89	ACUREX	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<100		
	7-27-89	ACUREX	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<100		
	8-30-89	ACUREX	3.3	7	4.3	63	<1.0	<1.0	<1.0	<1.0			<100		
	9-27-89	ACUREX	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5			300		
5	3-01-88	PEG	30	ND		570							<.05		
	6-16-89	ACUREX	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	ND	3000	35000	13000	
	6-29-89	ACUREX	<0.5	<1.0	<2.9	<4.6	<5.0	<5.0	<5.0	<0.5			<960		
													1100		

PEG = Pacific Environmental Group

June 27, 2000

De La Cruz Property
% Ms. Lee Darby
543 Comstock Drive
Tiburon, CA 94920

Dear Ms. Darby:

Subject: Fuel Leak Site Case Closure—California Compacts Rent-A-Car, 2470 De La Cruz Boulevard, Santa Clara, CA; Case No. 14-201

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Santa Clara Valley Water District is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual soil contamination exists; groundwater does not appear to be impacted. Residual levels of contamination do not require further investigation or cleanup.

If you have any questions, please call Mr. Lane Davis at (408) 265-2607, extension 2698. Thank you.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

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

cc: Mr. Chuck Headlee (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Carla Lawson
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

L. Davis (w/orig enc), Database (w/enc)

LD:fd:FL9482ggm

June 27, 2000

De La Cruz Property
% Ms. Lee Darby
543 Comstock Drive
Tiburon, CA 94920

Dear Ms. Darby:

Subject: Fuel Leak Site Case Closure—California Compacts Rent-A-Car, 2470 De La Cruz Boulevard, Santa Clara, CA; Case No. 14-201

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

FL9482ggm

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: June 19, 2000

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Lane R. Davis	Title: Assistant Engineer

II. CASE INFORMATION

Site Facility Name: California Compacts Rent-A-Car		
Site Facility Address: 2470 De La Cruz Boulevard, Santa Clara, CA		
RB LUSTIS Case No.: —	Local Case No.: 06S1W35L02f	LOP Case No.: 14-201
URF Filing Date: 07/07/87	SWEEPS No.: —	APN: 230-03-084

Responsible Parties	Addresses	Phone Number
De La Cruz Property, % Ms. Lee Darby	543 Comstock Drive, Tiburon, CA 94920	(415) 789-5641

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1, 2	1,000	Gasoline	Removed	06/04/86
Piping			Removed	06/04/86

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Tank failure (hole)		
Site characterization complete? Yes	Date Approved By Oversight Agency: —	
Monitoring wells installed? Yes	Number: 2	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 12	Lowest Depth: 12	Flow Direction: North*
Most Sensitive Current Use: Potential drinking water		

*Based upon nearby fuel leak sites

Summary of Production Wells in Vicinity: One production well is reported to be within 1/4 mile of this site.	
Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Groundwater Basin
Is surface water affected? No	Nearest SW Name: None within 1/4 mile of site
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	Two steel	Disposal; destination not reported	06/86
Piping	Not reported	Disposal; destination not reported	06/86
Free Product	—	—	—
Soil	100 cubic yards	Aerated; destination unknown*	Unknown
Groundwater	—	—	—
Barrels	—	—	—

*Soil aerated to nondetectable levels; final disposition of soil unknown.

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP
(Please see Attachment 2 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	7,400	710	460	ND	Xylene	NA	NA	1,700	ND
TPH (Diesel)	—	—	—	—	Ethylbenzene	NA	NA	NA	ND
Benzene	NA	NA	1,100	ND	Oil & Grease	—	—	—	—
Toluene	NA	NA	290	ND	Heavy Metals	—	—	—	—
Other (8240/8270)	—	—	—	—	MTBE (if not analyzed, explain below)	NA	NA	NA	<20*

Description of Interim Remediation Activities: One hundred cubic yards of soil was overexcavated from tank pit.

NA—No analysis for this compound
ND—Below detection limit
*Via Environmental Protection Agency Method 8260

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? No		
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 2
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

1986 Two underground storage tanks (1,000-gallon gasoline) were removed in June. A maximum 7,400 parts per million (ppm) Total Petroleum Hydrocarbons as Gasoline (TPHG) was detected in soil

In August, 100 cubic yards of soil was overexcavated from the tank pit, a maximum 710 ppm TPHG was detected.

In November, two monitoring wells were constructed; no soil samples were retrieved for laboratory analysis.

Conclusion:

Based upon the results of confirmation sampling, residual petroleum hydrocarbon contamination in soil (710 ppm TPHG) currently exist at the site. Based upon the results of groundwater monitoring data collected from the subject site, dissolved petroleum hydrocarbon levels have decreased below the detection limit.

Based upon data presented to the Santa Clara Valley Water District, staff has concluded that a continuing threat to groundwater, human health, and the environment from residual petroleum hydrocarbons does not exist at this site and that Regional Water Quality Control Board objectives have not been compromised. The investigation was performed in accordance with state and local guidelines. Santa Clara Valley Water District staff recommends closure for this case.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Lane R. Davis	Title: Assistant Engineer
Signature:	Date: 6·22·00
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: James S. Crowley, P.E.	Date: 06/23/00

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB
Signature:	Date:

Attachments:
1. Site Maps
2. Analytical Results

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

V. ADDITIONAL COMMENTS, DATA, ETC.

2470 De La Cruz Blvd

Considerations and/or Variances:

1986 Two underground storage tanks (1,000-gallon gasoline) were removed in June. A maximum 7,400 parts per million (ppm) Total Petroleum Hydrocarbons as Gasoline (TPHG) was detected in soil.

In August, 100 cubic yards of soil was overexcavated from the tank pit. A maximum 7.0 ppm TPHG was detected.

In November, two monitoring wells were constructed, no soil samples were retrieved for laboratory analysis.

Conclusion

Based upon the results of confirmation sampling, residual petroleum hydrocarbon contamination in soil (710 ppm TPHG) currently exist at the site. Based upon the results of groundwater monitoring data collected from the subject site, dissolved petroleum hydrocarbon levels have decreased below the detection limit.

Based upon data presented to the Santa Clara Valley Water District staff has concluded that a continuing threat to groundwater, human health, and the environment from residual petroleum hydrocarbons does not exist at this site and that Regional Water Quality Control Board objectives have not been compromised. The investigation was performed in accordance with state and local guidelines. Santa Clara Valley Water District staff recommends closure for this case.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Lane R. Davis	Title: Assistant Engineer
Signature:	Date: 6-22-00
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature:	Date: 06/28/00

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

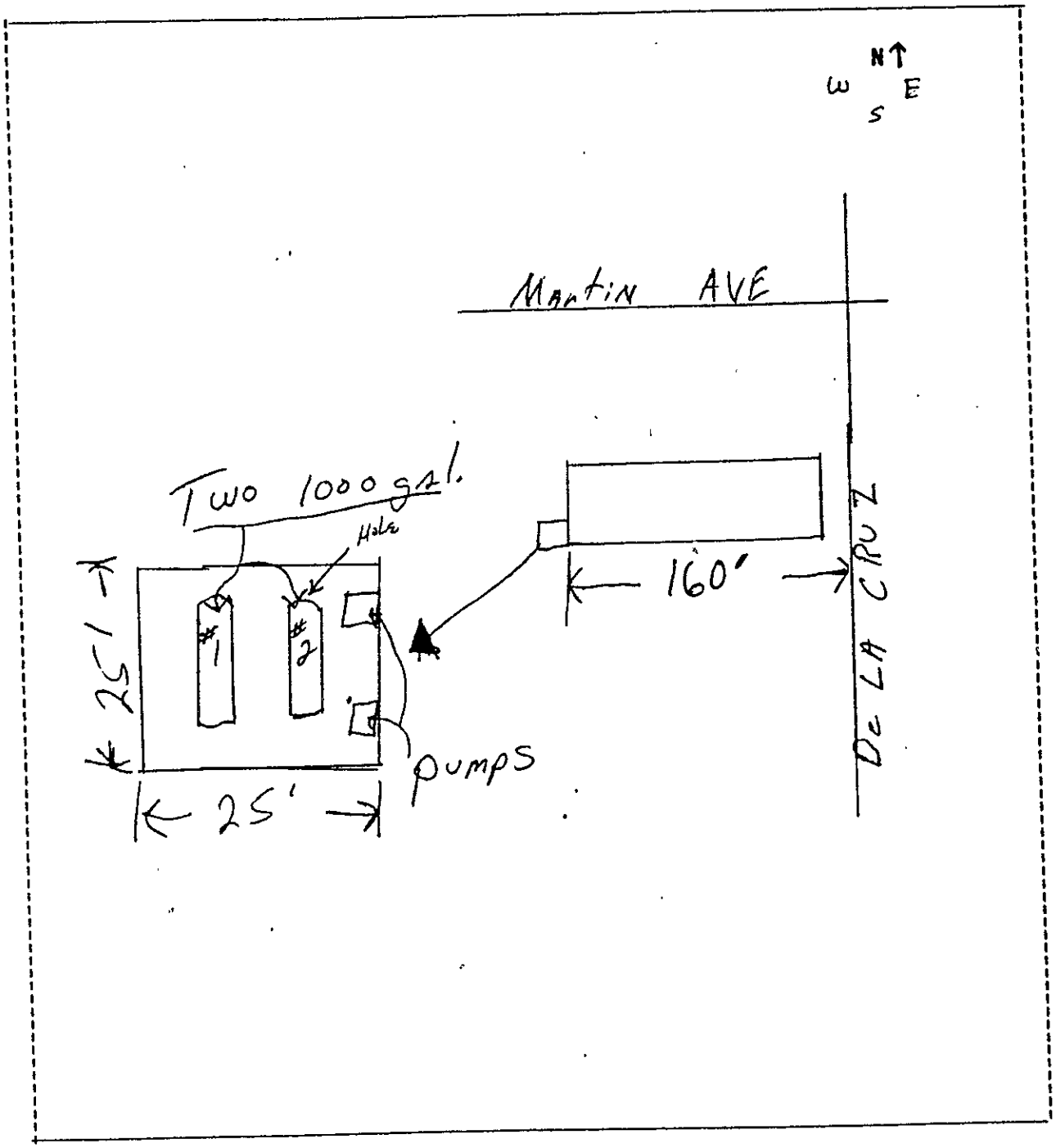
Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 6/23/00
Signature:	Date: 6/23/00

Attachments:
1. Site Maps
2. Analytical Results

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

Post-it® Fax Note 7671	Date	# of pages ▶ 1
To Lane Davis	From Chuck Headlee	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

8. Provide a plot plan of the tanks to be closed. Indicate the nearest cross streets to the facility, the buildings immediately adjacent to the tanks, and the location of the tanks to be closed.



I declare under penalty of perjury that the aforementioned information is correct to the best of my knowledge. If there is any change which would materially affect the above information, I will notify the S.C.F.D., Fire Prevention Bureau.

5-13-86
Date

Applicant's Signature

Tank Pull

ATTACHMENT 2a

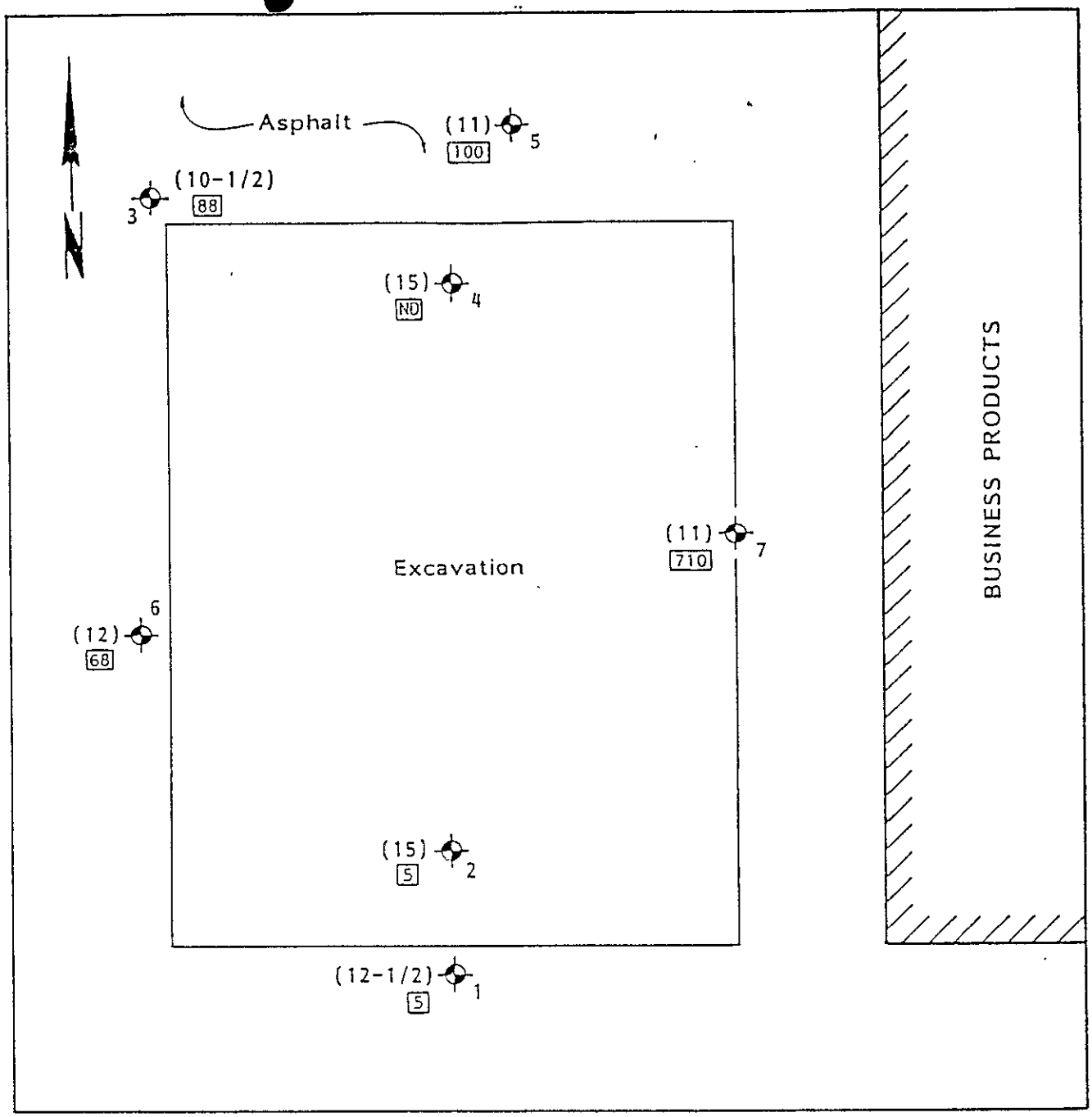


Figure 1 : SITE PLAN AND SOIL SAMPLING LOCATIONS

Project No.1333

LEVINE·FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

SEP86TG

2b

Confirmation Sampling

1333TB1.WKS

TABLE 1
Analytical Results for Ground-Water Samples
(concentrations express in ppm)

Well No.	Date	Analysis Requested	Benzene	Toluene	Xylene	TPH
LF-1	13-Nov-1986	602/8015	0.0015	<0.001	0.25	0.46
	25-Jan-1987	602/8015	<0.05	<0.05	<0.05	<1.0
	23-Nov-1987	602/8015	<0.0005	<0.0005	<0.0005	<1.0
LF-2	13-Nov-1986	602/8015	1.1	0.29	1.7	3.1
	25-Jan-1987	602/8015	0.82	<0.05	0.19	2.2
	23-Nov-1987	602/8015	<0.0005	<0.0005	<0.0005	<1.0

ATTACHMENT 3

2346

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Ken Price

Date: 3/24/00
Date Received: 3/17/00
Project Name: Mathew St.
Project Number: 00Q1-ERC1
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 19636 **Lab Sample ID:** 19636-001 **Client Sample ID:** LF-1

Sample Time: **Sample Date:** 3/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	100	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	109	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Ken Price

Date: 3/30/00
Date Received: 3/17/00
Project Name: Mathew St.
Project Number: 00Q1-ERC1
P O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 19636 **Lab Sample ID:** 19636-001 **Client Sample ID:** LF-1

Sample Time: **Sample Date:** 3/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Diisopropyl Ether	ND		1	5	5	µg/L	3/29/00	WMS000328	EPA 8260B
Ethyl-t-butyl Ether	ND		1	5	5	µg/L	3/29.00	WMS000328	EPA 8260B
Methyl-t-butyl Ether	ND		1	5	5	µg/L	3/29 00	WMS000328	EPA 8260B
tert-Amyl Methyl Ether	ND		1	5	5	µg/L	3·29 00	WMS000328	EPA 8260B
tert-Butanol	ND		1	20	20	µg/L	3 29 00	WMS000328	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135
Dibromofluoromethane	103	65 - 135
Toluene-d8	94	65 - 135

Comment: Sample analyzed outside of recommended holding time due to receiving sample 8 days into holding time

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Ken Price

Date: 3/24/00
Date Received: 3/17/00
Project Name: Mathew St.
Project Number: 00Q1-ERC1
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 19636 **Lab Sample ID:** 19636-002 **Client Sample ID:** LF-2

Sample Time: **Sample Date:** 3/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	103	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	109	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Ken Price

Date: 3/30/00
Date Received: 3/17/00
Project Name: Mathew St.
Project Number: 00Q1-ERC1
P O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 19636 **Lab Sample ID:** 19636-002 **Client Sample ID:** LF-2

Sample Time: **Sample Date:** 3/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Diisopropyl Ether	ND		1	5	5	µg/L	3/28/00	WMS000328	EPA 8260B
Ethyl-t-butyl Ether	ND		1	5	5	µg/L	3/28/00	WMS000328	EPA 8260B
Methyl-t-butyl Ether	ND		1	5	5	µg/L	3/28/00	WMS000328	EPA 8260B
tert-Amyl Methyl Ether	ND		1	5	5	µg/L	3/28/00	WMS000328	EPA 8260B
tert-Butanol	ND		1	20	20	µg/L	3/28/00	WMS000328	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135
Dibromofluoromethane	115	65 - 135
Toluene-d8	88	65 - 135

Comment: Sample analyzed outside of recommended holding time due to receiving sample 8 days into holding time

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle D. Anderson, Laboratory Director

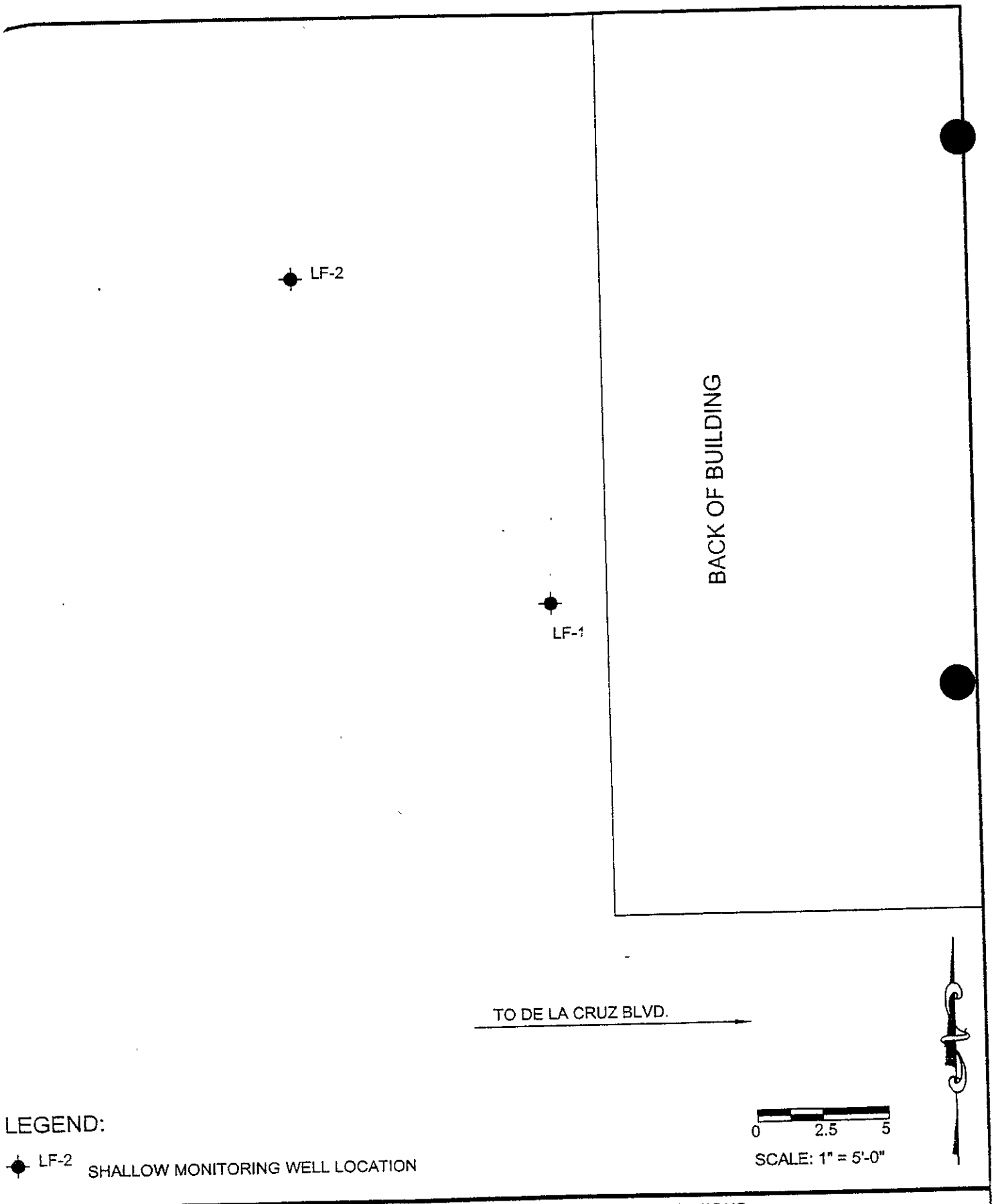
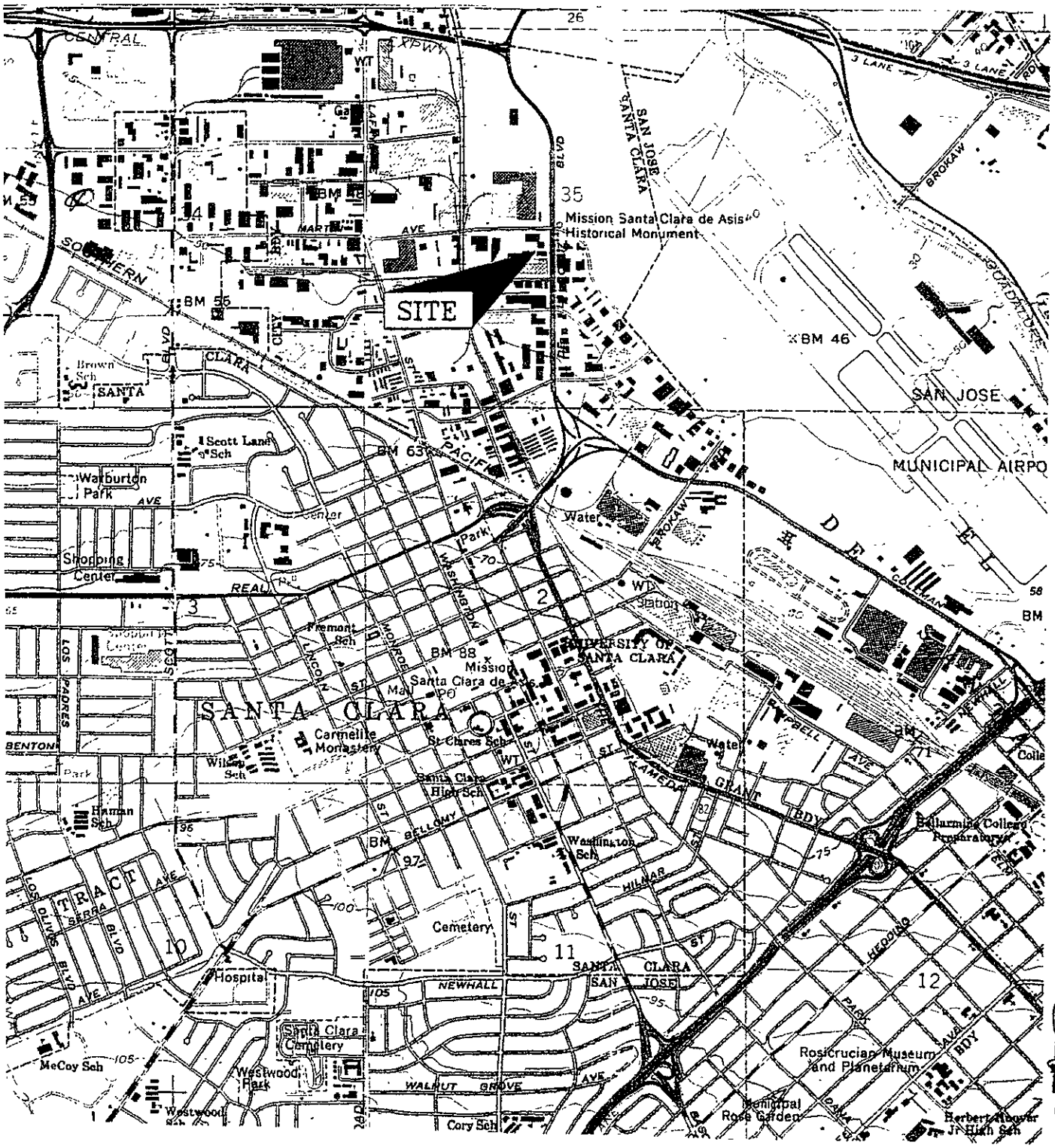


FIGURE 2 - SITE PLAN & SHALLOW MONITORING WELL LOCATIONS

ENVIRONMENTAL / ENGINEERING CONSULTANTS
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA 95050-3112
TEL: 408.327.5700 FAX: 408.327.5707

DE LA CRUZ PROPERTIES
2464-2470 DE LA CRUZ BLVD.
SANTA CLARA, CALIFORNIA

FILENAME: 1406SC01	JOB NUMBER:
DATE: APRIL 2000	1406SG01
REVISION:	
DRAWN: JL	


SITE
Mission Santa Clara de Asis
Historical Monument
SAN JOSE
MUNICIPAL AIRPO
SANTA CLARA
Mission
Santa Clara de Asis
Carmelite Monastery
St. Clares Sch
Fremont Sch
Scott Lane Sch
Warburton Park
Shopping Center
Brown Sch
Hanan Sch
Wilcox Sch
Santa Clara High Sch
Washington Sch
Cemetery
Hospital
Santa Clara Cemetery
McCoy Sch
Westwood Park
Cory Sch
Rosicrucian Museum and Planetarium
Municipal Rose Garden
Herbert Hoover Jr High Sch
University of Santa Clara
Water
Water Station
BM 46
BM 56
BM 63
BM 88
BM 97
BM 105
BM 71
BM 75
BM 82
BM 95
BM 58
SAN JOSE
SANTA CLARA
SAN JOSE
TRACT
DE LA CRUZ BLVD
LAFAYETTE ST
MARTIN AVE
REAL
LOS PADRES BLVD
BENTON
MONROE ST
LINCOLN ST
WASHINGTON
PACIFIC
HAMILTON
GRANT
BELLOMY
HILNAR
NEWHALL
WALNUT GROVE
HEDDING
PARK AVE
BROKAW
SAN JOSE SANTA CLARA
CENTRAL EXPWY
3 LANE
SOUTHERN PACIFIC
CITY
Colle
Bellarmine College Preparatory
Washington Sch
Water
Water
Water

IT/Santa Clara to Trumpp Brothers
ATTN: Gary Trumpp

June 9, 1986

Lab Number	Sample Identification	Results: Parts per Million- dry soil basis; Volatile Fuel Hydrocarbons (calculated as gasoline)
40792	Base of tank, North end, 6/4/86, 9:30 a.m.	4,100.
40793	1 foot below base of tank, North end, 9:45 a.m.	7,400.

Database

July 13, 2000

Mr. Arles Hansen
Quality Fork Lift
2375 De La Cruz Boulevard
Santa Clara, CA 95050

Ms. Debra K. Danelen
1030 North 11th Street
San Jose, CA 95112

Mr. James Hensley
3900 Lassen Street
Napa, CA 94588

Mr. George Hermann
Mr. James Sullivan
225 North Santa Cruz Avenue
Los Gatos, CA 95030

Dear Messrs. Hansen, Hensley, Hermann, Sullivan, and Ms. Danelen:

Subject: Fuel Leak Site Case Closure—Quality Fork Lift, 2375 De La Cruz Boulevard, Santa Clara, CA; Case No. 14-291

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Santa Clara Valley Water District is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at this site:

- Residual soil and groundwater contamination with petroleum hydrocarbons remains at the site, however, it is localized under the former tank pit and will attenuate to nondetectable levels over time.

If you have any questions, please call Mr. Janusz Trzyna at (408) 265-2607, extension 2769. Thank you.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

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

cc: Mr. Chuck Headlee (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Ms. Carla Lawson
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

J. Trzyna (w/orig enc), Database (w/enc)

JT:jcw:9482hha

July 13, 2000

Mr. Arles Hansen
Quality Fork Lift
2375 De La Cruz Boulevard
Santa Clara, CA 95050

Ms. Debra K. Danelen
1030 North 11th Street
San Jose, CA 95112

Mr. James Hensley
3900 Lassen Street
Napa, CA 94588

Mr. George Hermann
Mr. James Sullivan
225 North Santa Cruz Avenue
Los Gatos, CA 95030

Dear Messrs. Hansen, Hensley, Hermann, Sullivan, and Ms. Danelen:

Subject: Fuel Leak Site Case Closure—Quality Fork Lift, 2375 De La Cruz Boulevard, Santa Clara, CA; Case No. 14-291

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

FL9482hha

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: July 7, 2000

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Janusz Trzyna	Title: Water Quality Specialist

II. CASE INFORMATION

Site Facility Name: Quality Fork Lift		
Site Facility Address:2375 De La Cruz Boulevard, Santa Clara, CA 95050		
RB LUSTIS Case No.: —	Local Case No.: 06S1W35K04f	LOP Case No.: 14-291
URF Filing Date: 12/30/91	SWEEPS No.: —	APN: 230-47-095

Responsible Parties	Addresses	Phone Number
Mr. Arles Hansen Quality Fork Lift	2375 De La Cruz Boulevard, Santa Clara, CA 95050	
Ms. Debra K. Danelen	1030 North 11th Street, San Jose, CA 95112	
Mr. James Hensley	3900 Lassen Street, Napa, CA 94588	
Mr. George Hermann Mr. James Sullivan	225 North Santa Cruz Avenue, Los Gatos, CA 95030	(408) 395-3837

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	3,000	Gasoline	Removed	08/06/90
2	1,000	Gasoline	Removed	08/06/90
clarifier	Unknown	Unknown	Removed	08/06/90
Piping			Removed	Not Reported

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown		
Site characterization complete? Yes	Date Approved By Oversight Agency: 06/27/00	
Monitoring wells installed? No	Number: —	Proper screened interval? N/A
Highest GW Depth Below Ground Surface: 12'*	Lowest Depth: 7'*	Flow Direction: North-northeast*
Most Sensitive Current Use: Potential drinking water supply		

* Based on data from adjacent sites

Summary of Production Wells in Vicinity:

Industrial Well (paper processing) 06S01W35L002—located 850 feet west-southwest of the site.

Industrial Well (paper processing) 06S01W35F001—located 1,900 feet North-northwest of the site.

Abandoned Well 06S01W35L001—located 380 feet Southwest of former tank pit.

Contamination at the site does not appear to have a potential to impact these wells.

Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Groundwater Basin
Is surface water affected? No	Nearest SW Name: Guadalupe River ¾ miles Northeast
Off-Site Beneficial Use Impacts (Addresses/Locations): —	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL (see Attachment 3)

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	2	Disposed at Richmond, CA	08/06/90
Clarifier	1	Disposed at Zanker Landfill	08/02/90-11/03/90
Piping	—	Not reported	—
Free Product	—	—	—
Soil	17 cubic yards	Reported to be "temporarily stockpiled"	08/02/90-09/07/90
Groundwater			
Barrels			

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After[3]	Before	After[5]		Before	After	Before	After[5]
TPH (Gas)	630[1]	1,700	NS	34,000	Xylene	130[1]	210	NS	5,300
TPH (Diesel)	9[2]	NA	NS	NA	Ethylbenzene	20[1]	43	NS	1,100
Benzene	4.9[1]	3.7	NS	120	Oil & Grease	ND[2]	NA	NS	NA
Toluene	79[1]	30	NS	550	Heavy Metals	NA	NA	NS	NA
Other (8010)	HVOC:ND[2]	NA	NS	NA	MTBE	NA	<12.5[4]	NS	<100[6]

Description of Interim Remediation Activities:

Approximately 2 cubic yards of soil near soil sampling location SS5 were excavated. Sampling of soil left in place (SS-5A) showed nondetectable levels of hydrocarbons.

Notes:

[1] Sample SS5 from underneath the product line, 08/06/90.

[2] Sample SS4 from underneath the clarifier, 08/06/90.

[3] Sample taken at 15 feet below ground surface (bgs) from boring SB-1, 06/12/00.

[4] Analyzed by Environmental Protection Agency (EPA) Method 8020.

[5] Grab groundwater sample from boring SB-1.

[6] Analyzed by EPA Method 8260B. Results for samples from SB-2 and SB-3 were <50 (8260B) and 27 (8020), respectively.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? No		
Monitoring Wells Decommissioned: N/A	Number Decommissioned: —	Number Retained: —
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Site geology:

Silty clay from surface (concrete-paved) to about 14 feet bgs, followed by sand and gravel to total explored depth of 16 feet bgs.

Based on results of soil sampling from SB-1 and groundwater monitoring data from adjacent sites, it appears that residual contaminated soil is below the current groundwater level. Groundwater flow direction at adjacent sites was measured as north-northwest to north-northeast (382 and 390 Martin Avenue between 1994 and 1997), east (2364 De La Cruz Blvd, 1993-1994), and east-northeast (2290 De La Cruz Blvd, 1996 – 1999). Based on this data, boring SB-2 and an off-site well (MW-2 at 382 Martin Avenue) are located downgradient of the contaminant source. MW-2 is located upgradient of the contaminant source at 382 Martin Avenue and approximately 60 feet north (downgradient) of the tank pit at the former Quality Fork Lift site. Available analytical results from MW-2 show that hydrocarbon concentrations decreased from 2,400 parts per billion total petroleum hydrocarbon as gasoline in November 1993 to nondetectable levels in March 1997 (see Attachment 4).

Conclusions:

As indicated by low groundwater hydrocarbon concentrations observed in SB-2 and MW-2, the residual soil contamination under the former tank pit does not appear to be a significant threat to groundwater resources. The localized residual groundwater contamination will attenuate to nondetectable levels over time.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Janusz Trzyna	Title: Water Quality Specialist
Signature: Janusz Trzyna	Date: 7/10/2000
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: James S. Crowley	Date: 7/10/2000

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: See attached sheet	Date:

Attachments:

1. Site Vicinity Map
2. Site Plan
3. Soil and Groundwater Analytical Data
4. Groundwater Monitoring and Analytical Data for 382 Martin Avenue

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

VII. REGIONAL BOARD NOTIFICATION

2375 De La Cruz

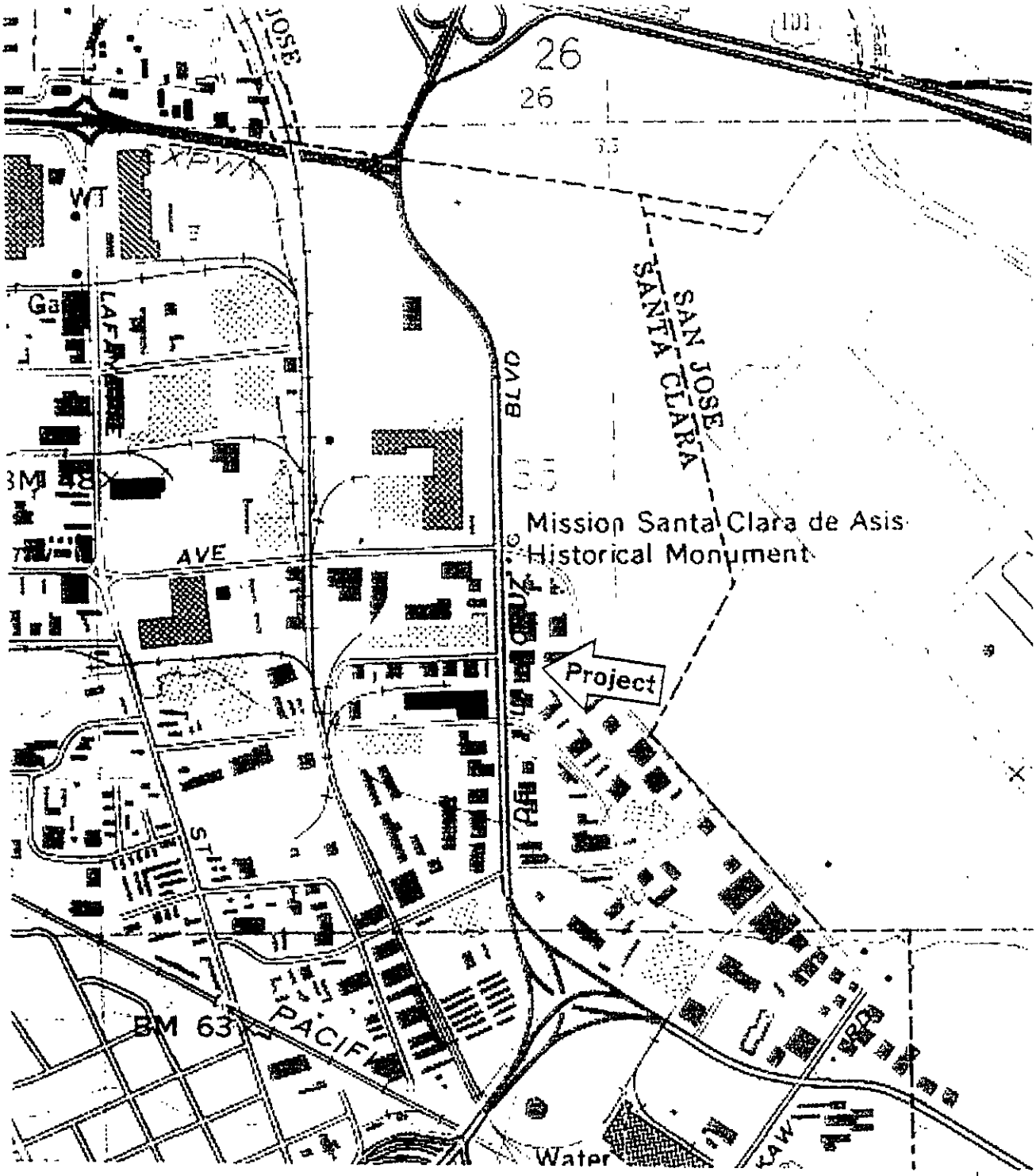
Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 7/10/00
Signature: Chuck Headlee	Date: 7/10/06

Attachments:

1. Site Vicinity Map
2. Site Plan
3. Soil and Groundwater Analytical Data
4. Groundwater Monitoring and Analytical Data for 382 Marion Avenue

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

Post-it® Fax Note 7671	Date	# of pages ▶ 1
To Janusz Trzyna	From Chuck Headlee	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	



From: San Jose West, CA, USGS 7.5' Topographic Map, 1961, Photorevised 1980

N

0 1000

Scale in Feet

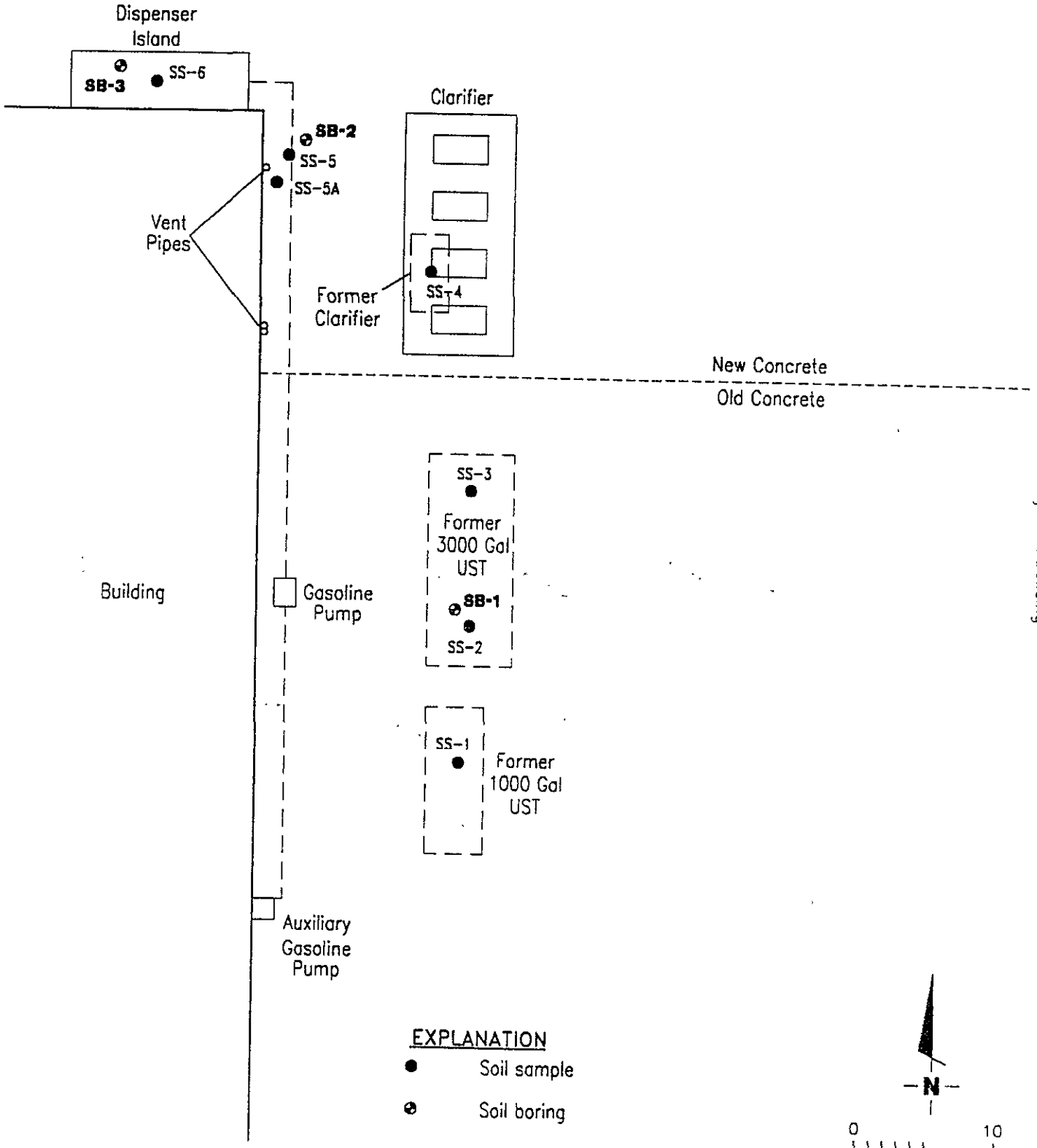
SITE LOCATION MAP **FIGURE 1**

Project No. 00053
2375 De La Cruz Boulevard
Santa Clara, California

June, 2000

ERAS Environmental

Attachment 1



BORING LOCATION MAP **FIGURE 2**

Project No. 00053A
2375 De La Cruz Boulevard
Santa Clara, California

June, 2000

ERAS Environmental

Attachment 2

TABLE 1 - Soil Sample Analytical Results (milligrams per kilogram)
2375 De La Cruz Boulevard
Santa Clara, California

Sample Number	Date Sampled	TPH-g	Benzene	Toluene	Ethyl-benzene	Total xylenes	MTBE
SS-1	8/6/90	2.0	<0.05	<0.05	<0.06	<0.1	N/A
SS-2	8/6/90	88	<0.05	0.084	0.24	0.53	N/A
SS-3	8/6/90	14	0.21	0.26	0.029	1.4	N/A
SS-4*	8/6/90	2.4	0.55	<0.05	<0.06	0.14	N/A
SS-5	8/6/90	630	4.9	79	20	130	N/A
SS-6	8/6/90	17	3.4	0.99	1.4	3.5	N/A
SB-1 -10	6/12/00	<1	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1 -15	6/12/00	1700	3.7	30	43	210	<12.5
SB-2 -5	6/12/00	<1	<0.005	<0.005	<0.005	<0.005	<0.05
SB-2 -10	6/12/00	<1	<0.005	<0.005	<0.005	<0.005	<0.05
SB-2 -15	6/12/00	1.7	0.011	<0.005	<0.005	<0.005	<0.05
SB-3-5	6/12/00	<1	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3-10	6/12/00	<1	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3-15	6/12/00	1.1	0.010	<0.005	<0.005	<0.005	<0.05

Notes:

<1 Not detected at or above the laboratory detection limit indicated
TPH-g Total petroleum hydrocarbons as gasoline
MTBE Methyl tertiary butyl ether
***** Sample contained 9.0 milligrams per kilogram total petroleum hydrocarbons as diesel. Sample did not contain detectable concentrations of Halogenated Volatile Organic Compounds by EPA Method 8010 or detectable concentrations of oil and grease

Attachment 3

TABLE 2 - Groundwater Sample Analytical Results (micrograms per liter)
2375 De La Cruz Boulevard
Santa Clara, California

Boring Number	Date Sampled	TPH-g	Benzene	Toluene	Ethyl Benzene	Total xylenes	MTBE
SB-1 *	6/12/00	34000	120	550	1100	5300	<100
SB-2 *	6/12/00	7000	48	120	360	1100	<50
SB-3	6/12/00	870	6.2	3.5	1.1	1.6	27

Notes:

<0.5	Not detected at or above the laboratory detection limit indicated
TPH-g	Total petroleum hydrocarbons as gasoline
MTBE	Methyl tertiary butyl ether
*	Confirmation analysis conducted on sample using EPA Method 8260B

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Chioini Property
382 Martin Avenue
Santa Clara, California
(Page 1 of 2)

Well Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Field Comments
MW-1 - 382 Martin Avenue				
04/24/92		11.98	34.06	Not Noted
04/20/93		11.43	34.61	Strong Odor
10/14/93		10.00	36.04	Strong Odor
11/04/93	46.04	9.91	36.13	Strong Odor
12/04/93		9.83	36.21	Strong Odor
01/08/94		9.74	36.30	Strong Odor
02/09/94		9.67	36.37	Strong Odor
03/14/94		9.60	36.44	Strong Odor
04/17/94		9.54	36.50	Strong Odor
05/15/94		9.62	36.42	Strong Odor
06/28/94		9.70	36.34	Strong Odor
07/21/94		9.81	36.23	Strong Odor
08/18/94		9.84	36.20	Strong Odor
09/30/94		10.05	35.99	Strong Odor
10/21/94		10.03	36.01	Strong Odor
11/20/94		10.04	36.00	Strong Odor
12/20/94		10.06	35.98	Strong Odor
03/21/95		8.18	37.86	Strong Odor
03/21/97		8.50	37.54	Slight Odor
MW-2 - 382 Martin Avenue				
11/04/93	46.07	9.57	36.50	Slight Odor
12/04/93		9.46	36.61	Slight Odor
01/08/94		9.34	36.73	Slight Odor
02/09/94		9.23	36.84	Slight Odor
03/14/94		9.18	36.89	Slight Odor
04/17/94		9.11	36.96	Slight Odor
05/15/94		9.14	36.93	Slight Odor
06/28/94		9.27	36.80	Slight Odor
07/21/94		9.31	36.76	Slight Odor
08/18/94		9.42	36.65	Slight Odor
09/30/94		9.66	36.41	Slight Odor
10/21/94		9.70	36.37	Slight Odor
11/20/94		9.71	36.36	Slight Odor
12/20/94		9.69	36.38	Slight Odor
03/21/95		7.72	38.35	Slight Odor
03/21/97		8.13	37.94	Slight Odor

See notes on page 2 of 2.

Attachment 4

TABLE 2
RESULTS OF LABORATORY ANALYSES OF
GROUNDWATER SAMPLES FROM MONITORING WELLS
Chioini Properties
382 Martin Avenue
Santa Clara, California
(Page 1 of 2)

Well Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
MW-1 - 382 Martin Avenue						
04/28/92	19,000	57	24	68	140	390
04/20/93	2,100	13	2.3	62	9.2	750
10/14/93	2,200	23	3.6	150	<1	NA
02/09/94	3,000	22	3.6	190	10	NA
06/28/94	1,300	12	3.1	90	3.9	NA
09/30/94	280	2.0	<0.5	15	<0.5	NA
12/08/94	460	2.6	<0.5	14	6.8	NA
03/21/95	1,100	11	1.5	100	6.9	NA
03/21/97	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-2 - 382 Martin Avenue						
11/04/93	2,400	7.2	6.5	79	0.92	NA
02/09/94	850	2.3	1.1	10	0.68	NA
06/28/94	450	<0.5	1.7	4.5	<0.5	NA
09/30/94	360	1.5	<0.5	15	<0.5	NA
12/13/94	1,700	20	4.5	170	12	NA
03/21/95	360	1.5	0.55	13	0.87	NA
03/21/97	<50	<0.5	<0.5	<0.5	<0.5	NA
MCLs	—	1.0	—	680	1,750	—
DWALs	—	—	100	—	—	—

Results in micrograms/liter (µg/L) = parts per billion (ppb).
TPHg: Total petroleum hydrocarbons as gasoline (by GCFID Method 8015/5030).
Benzene, toluene, ethylbenzene, and total xylenes (by EPA Method 8020).
TPHd: Total petroleum hydrocarbons as diesel (by GCFID Method 8015/3550).

<: Less than the detection limit for the method of analysis. NA: Not Analyzed.

MCLs: Maximum Contaminant Levels in Drinking Water, DHS (October 1990)
DWALs: Drinking Water Action Levels, DHS (October 1990)

June 29, 1995

Mr. John Peterson
Reliance Steel and Aluminum Company
2550 East 25th Street
Los Angeles, CA 90058

Dear Mr. Peterson:

Subject: Underground Storage Tank Case Closure—Reliance Steel and Aluminum Company, 2460 De La Cruz Boulevard, Santa Clara, CA; Case No. 10-085

This letter confirms the completion of site investigation and remedial action for the underground storage tank(s) formerly located at the above-described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e). If a change in land use is proposed, the owner must promptly notify this agency.

Please contact Ms. Linda Dorn at the Santa Clara Valley Water District's Camden Office, (408) 927-0710, extension 2643, if you have any questions in this matter.

Sincerely,

ORIGINAL SIGNED BY

David J. Chesterman
Principal Engineer
Groundwater Quality Branch

Enclosure

cc: Ms. Lori Casias (w/enc)
State Water Resources Control Board
Division of Clean Water Programs
P.O. Box 944212
Sacramento, CA 94244-2120

Mr. John West (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

J. Crowley, L. Dorn (w/original enc), Database (w/enc), Read

LD:cdh:FL9482er

June 15, 1995

Mr. John West
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Dear Mr. West:

Subject: Request for Case Closure Concurrence—Underground Storage Tank Program Case No. 10-085, Reliance Steel and Aluminum Company, 2460 De La Cruz Boulevard, Santa Clara, CA

This requests your concurrence on case closure for the subject fuel leak case. Enclosed for your review is a case closure summary. Please provide comment to the Santa Clara Valley Water District (District) casehandler within 30 days from the receipt of this letter. If we have not received comment from you within that time frame, the District will issue a case closure letter for the subject case.

As you know, the District has entered into agreement with the State Water Resources Control Board to provide regulatory oversight for leaking underground fuel storage tanks. The terms of the agreement require the District to issue case closure letters after appropriate remediation for cases where soil and/or groundwater has been impacted. District evaluation of case closure is consistent with the San Francisco Bay Region, Regional Water Quality Control Board Water Quality Control Plan (Basin Plan) requirements and guidance.

Please contact Ms. Linda Dorn at the Camden Office, (408) 927-0710, extension 2643, with any questions or comments that arise as you proceed with review of this proposed case closure.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Associate Civil Engineer
Leaking Underground Storage Tank Oversight Program

Enclosure

cc: Mr. John Kaiser
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

J. Crowley, Database, L. Dorn (w/enc), Read

LD:cdh:FL9484be

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: June 1, 1995

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Kenneth K. Yee	Title: Assistant Engineer
Responsible Staff Person: Miguel A. Silva	Title: Assistant Engineer

II. CASE INFORMATION

Site Facility Name: Reliance Steel & Aluminum Company		
Site Facility Address: 2460 De La Cruz Boulevard, Santa Clara, CA 95050		
RB LUSTIS Case No.: —	Local Case No.: 06S1W35L01F	LOP Case No.: 10-085
URF Filing Date: 01/30/95	SWEEPS No.: —	

Responsible Parties	Addresses	Phone Numbers
Mr. John Peterson Reliance Steel & Aluminum Company	2550 East 25th Street Los Angeles, CA 90058	(213) 582-2272

Tank I.D. No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
1	1,000	Gasoline	Removed	03/05/86
1	1,000	Diesel	Removed	03/05/86
1	4,000	Diesel	Removed	08/10/94
Piping			Removed	03/05/86 and 08/10/94

Description of Tank/Piping conditions When Removed: A report on the conditions of the two 1,000-gallon Underground Storage Tanks (UST) is not available. The 4,000-gallon UST and piping showed no evidence of corrosion or leakage and no holes were observed according to the inspection conducted by the Santa Clara Fire Department and SCS Engineers' personnel.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown	
Site characterization complete? Yes	Date Approved By Oversight Agency: 01/11/95
Investigation Performed According to Guidelines? Yes	
Description of Variance(s) from Guidelines: None	

Monitoring wells installed? Yes	Number: 9	Proper screened interval? Yes
Soil Types at Site: Please see boring log in Attachment 2.		
Highest GW Depth Below Ground Surface: 14.67 feet below ground surface (bgs)	Lowest Depth: 5.84 feet bgs	Flow Direction: Northeast
Most Sensitive Current Use: Potential drinking water		

Wells Within a 0.50-mile Radius	Active	Inactive	Unknown	Destroyed
Domestic and Agricultural	1	—	4	8
Municipal and Industrial	1	—	—	4
Monitoring and Cathodic Protection	88	—	4	22
Air Sparging	—	—	—	—

Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Groundwater Basin
Is surface water affected? No	Nearest/Affected SW Name: The nearest surface water is Coyote Creek approximately 3 miles east of the subject site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	Two 1,000-gallon	Removed and disposal method was not reported	03/05/86
Tank	One 4,000-gallon	Removed and disposed to H&H Ship Services Company, San Francisco, CA	08/10/94
Piping	Not Reported	Removed and sent to a disposal facility	08/10/94
Free Product	N/A	N/A	N/A
Soil	1,830 cubic yards	Disposed of at BFI Vasco Road Landfill	10/93 and 10/94
Groundwater	350,000 gallons	Reused for irrigation at the San Jose Municipal Golf Course	—
Barrels	N/A	N/A	N/A

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP
(Please see Attachments 4 to 11 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	303	ND	107,000	60	Xylene	0.10	0.35	6,200	0.5
TPH (Diesel)	8,420	1,580	34,000	ND	Ethylbenzene	2.5	0.5	1,980	0.6
Benzene	1.43	0.896	9,240	ND	Oil & Grease	2.5	1.9	7,800	3.0

Description of Interim Remediation Activities: Two 1,000-gallon USTs (one gasoline and one diesel) were removed on March 5, 1986. One 4,000-gallon diesel UST was removed on August 10, 1994. No information is available regarding the disposal of the two 1,000-gallon USTs. The 4,000-gallon and the fuel pump was disposed of as scrap metal to H & H Ship Services Company, San Francisco, California.

Two areas with highly contaminated soil were overexcavated in September 1993 (see Attachment 4). The overexcavation generally extended from the former tank pit into the warehouse area and consisted of two pits/bioponds approximately 30 feet by 70 feet. Both excavations extended to a depth of about 12-13 feet bgs. The analytical results of confirmatory soil samples collected from sidewalls of the pits showed elevated concentrations of petroleum hydrocarbon contaminants (up to 1,580 ppm of Total Petroleum Hydrocarbons as Diesel [TPHD]) remained in soil underneath and around the excavations (see Attachments 7 and 8). Additional overexcavation was considered but appeared to be impractical because it would threaten the building structural integrity, encroach on the public right of way, and endanger utilities located there.

The overexcavation activities created two "bioponds" of exposed groundwater with high levels of petroleum hydrocarbon concentrations. The groundwater was then treated between October 1993 and August 1994 via aeration and enhanced bioremediation. Enhanced bioremediation consisted of treating the bioponds with at least 40 pounds of Advanced Bio Cultures (ABC) Formulation L-104 provided by Interbio/Solmar Inc., in addition to bionutrient mixtures such as Enrich Tech Grade 25 (disodium phosphate) at 0.5 tablespoons per 1-5 gallons of groundwater. In addition, leaching trenches were constructed to enhance the removal of contaminants from soil and groundwater in the areas north of the interior excavation (Biopond 2). Approximately 350,000 gallons of treated groundwater were extracted from the bioponds and reused for irrigation at the San Jose Municipal Golf Course in accordance with waiver conditions for waste discharge set forth by the Regional Water Quality Control Board (Regional Board).

Subsequent to confirmatory sampling, the bioponds were backfilled and compacted with clean material over the period from September 8, 1994 to October 6, 1994. The excavated contaminated soil, a total of approximately 1,830 cubic yards, was manifested, transported, and disposed of at the BFI Vasco Road Landfill on October 1993 and October 1994.

Verification Monitoring: Three rounds of groundwater samples were collected and analyzed from the downgradient monitoring well MW-8 since December 1992. The analytical results showed nondetectables (ND) for Total Petroleum Hydrocarbons as Gasoline (TPHG), TPHD, Benzene and Ethylbenzene, and below Maximum Contaminant Levels (MCL) for Toluene and Xylene. This indicates that there was no sign of significant downgradient migration of groundwater contamination (see Attachments 4 and 6).

Also, as indicated in the previous section, the analytical results of groundwater samples collected from the bioponds showed the bioremediation was effective at reducing groundwater contamination in the former UST areas.

Verification of the biopond remediation effectiveness consisted of collecting several rounds of groundwater samples from each Biopond. Each Biopond was dewatered and inoculated with ABC Formulation twice. Approximately, 120 pounds of ABC Formulation were used during the entire treatment of the Bioponds. Several grab groundwater samples were collected before and after dewatering/biotreatment, please refer to Attachment 11 for more details. The biotreatment appears to have been effective in reducing the concentrations of groundwater contamination in the bioponds from initial maximum concentrations of 5,400 parts per billion (ppb) TPHD and 1,180 ppb Benzene to 60 ppb TPHG and either NDs or below MCLs for TPHD, Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) constituents (please see Attachment 11). On August 29, 1994, two additional baseline grab groundwater samples were collected from Biopond 1 following additional dewatering and recharging. Analytical results (Sample IDs BP1-3-40 and BP1-3-41) again, failed to report any significant remaining groundwater contamination in Biopond 1 with only 60 ppb TPHG, and either NDs or below MCLs for TPHD, BTEX constituents.

A Toxicity Characteristics Leaching Procedure (TCLP) assessment on four pit sidewall samples from a depth of approximately 10 feet bgs was performed on June 7, 1994 to evaluate the impact of any remaining petroleum hydrocarbons in the soil to groundwater. Soil sample results identified up to 1,020 parts per million (ppm) of TPHD (Sample ID N2SW-25-10), the TCLP extract analysis reported 170 to 890 ppb of TPHD, with nondetectable concentrations for TPHG and BTEX, see Attachment 9 and 10. However, a facsimile from SCS Engineers dated July 6, 1994 stated that "SCS believes that the physical properties of this soil sample (N1SW-23-10) are not consistent with those from the undisturbed formation." On July 22, 1994, an additional soil sample (Soil ID N1SW-27-8.5) was collected in order to obtain more representative results from undisturbed soil conditions. Soil results on sample N1SW-27-8.5 show only 37 ppm of TPHD and either NDs or below MCLs for TPHG and BTEX constituents. The TCLP analysis on the extract of this soil sample did not detect any contamination of TPHD, TPHG, or BTEX constituents.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.		
Site Management Requirements: Please refer to Attachment 12 and Attachment 13.		
Should corrective action be reviewed if land use changes? No, except as discussed in Attachment 12.		
Monitoring Wells Decommissioned: Yes	Number Decommissioned: 4	Number Retained: 5
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

It appears that the majority of soil contaminants concentrated in the vicinity of the former UST area was removed via extensive overexcavation; approximately 1,830 cubic yards were removed and properly disposed. A maximum concentration of 1,580 ppm TPHD was left in place. Additional overexcavation to remove this contamination was considered. However, it was determined that additional overexcavation was not practical due to various physical constraints existing at the site. A TCLP assessment was performed to assist in determining the threat that the remaining concentrations posed to groundwater. The results indicated that remaining soils contaminated with elevated levels of petroleum hydrocarbons will not significantly impact groundwater via leaching.

The treatment of contaminated groundwater via bioremediation and aeration appears to have been effective as evidenced by the analytical results of confirmatory groundwater sampling where only 60 ppm of TPHD was detected and all other constituents analyzed per Environmental Protection Agency (EPA) Method 8015M and EPA Method 602, were either NDs or below MCLs.

Additionally, contaminated groundwater does not appear to have migrated beyond the vicinity of the former UST excavation area as shown by the analytical results of three rounds of groundwater sampling conducted in downgradient monitoring well MW-8.

Up to 1,580 ppm of TPHD, have been left in the vicinity of the utility corridor under the sidewalk (Soil ID S2SW-19-11), please see Attachment 8. The quantity of contaminated soil remaining in the public right of way was not reported. If this utility corridor is accessed, please be aware that residual diesel contamination in soil exists. Attachment 14 shows the utility corridor.

There may still be outstanding issues between the subject property owners and adjacent/nearby property owners.

The adjacent property owner was notified of the residual soil contamination (Attachment 12). The adjacent property owner's comments are provided in Attachment 13.

This case is being recommended for closure based on water quality objectives and protection of public health, safety, and the environment in accordance with the Water Code. The groundwater beneath the site does not appear to be significantly impacted by residual soil contamination. Therefore, we recommend this case for closure.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Kenneth K. Yee	Title: Assistant Engineer
Completed by: Miguel A. Silva	Title: Assistant Engineer
Reviewed by: Linda Dorn	Title: Water Quality Specialist
Signature:	Date: 6/14/95
Approved by: James S. Crowley, P.E.	Title: Associate Civil Engineer
Signature:	Date: 6/14/95
Name: David J. Chesterman	Title: Principal Engineer
Signature:	Date: 6/15/95

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VI. REGIONAL BOARD NOTIFICATION

Date Submitted to RB: 6-20-95	RB Response: Concur
Regional Board Staff Name: John West Title: E.S. II	Date: 6-20-95

Attachments:

1. Site Vicinity Map
2. Boring Log
3. Water Supply Wells Map
4. Site Plan
5. Soil Sampling Analytical Data
6. Groundwater Sampling Analytical Data
7. Confirmatory Soil Sample Locations
8. Confirmatory Soil Sampling Analytical Data
9. TCLP Sample Locations
10. TCLP Analytical Data
11. Biotreatment Groundwater Sampling Analytical Data
12. Public Notification-Letter dated April 26, 1995
13. Adjacent Property Owner Comments—Letter Dated May 24, 1995
14. Utility Map

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

Attachment 1. Site Vicinity Map

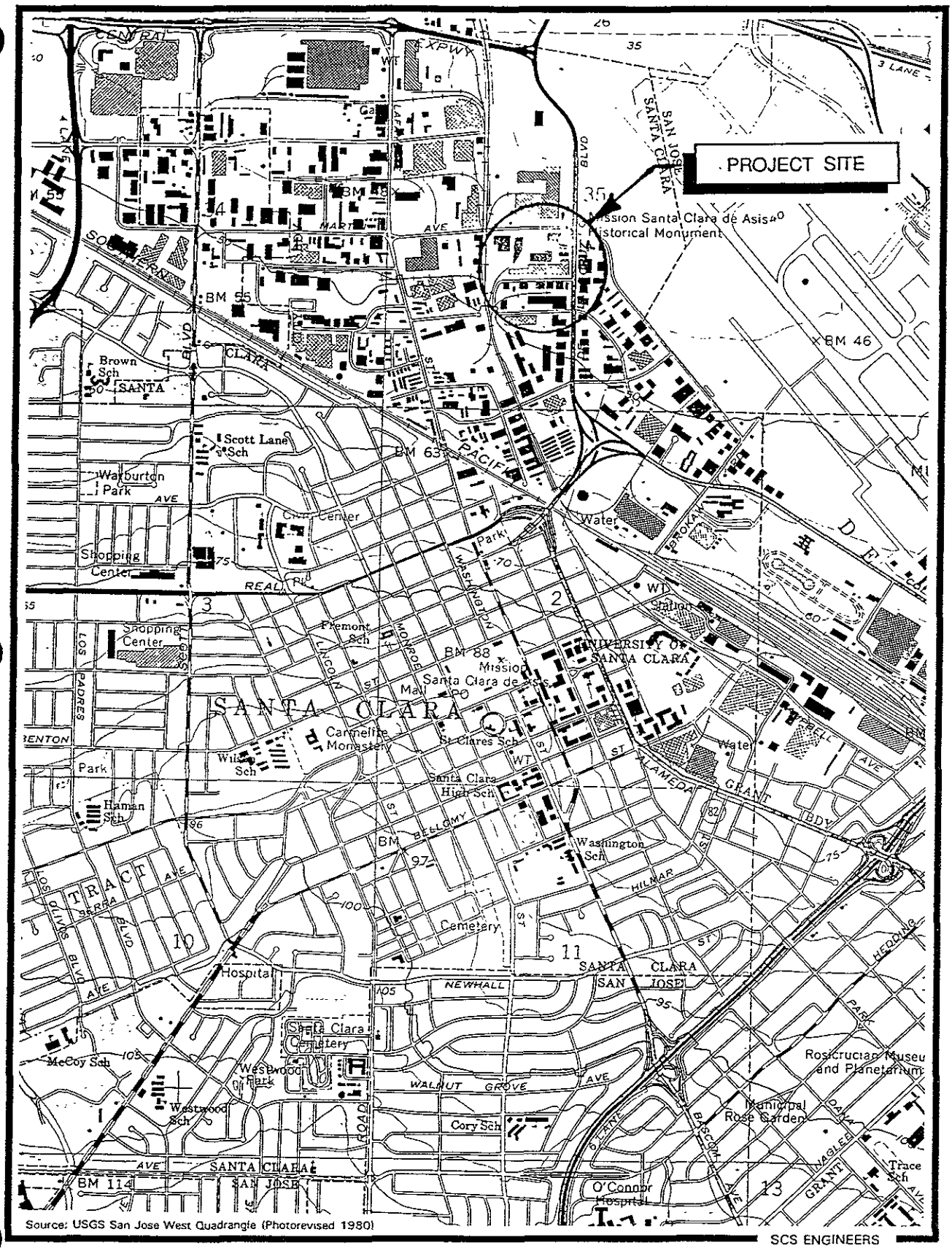


Figure 1. Site Vicinity Map

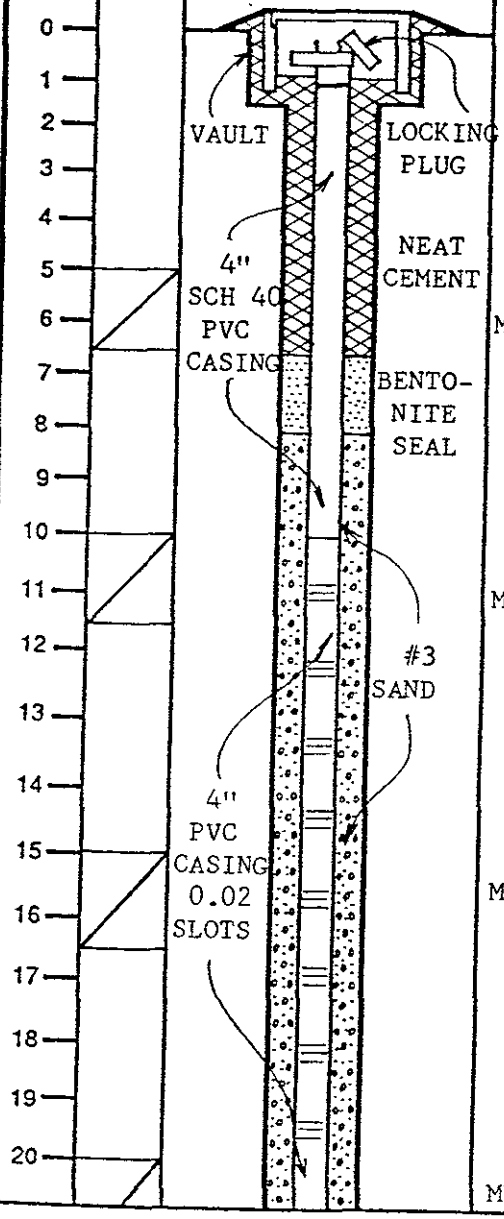
Attachment 2. Boring Log

BORING LOG

SCS ENGINEERS
Environmental Engineers
6761-D Sierra Court
Dublin, CA
94568-2611
(415) 829-0661
FAX (415) 829-5493

PROJECT: RELIANCE STEEL
LOCATION: SANTA CLARA
JOB NUMBER: 0390033.01
GEOLOGIST / ENGINEER: ADI CONSTANTINESCU
DRILLER: BAY AREA EXPLORATION
DRILL RIG: B 40 L
DRILLING METHOD: Auger

HOLE / WELL #: MW-1
DIAMETER: 4 inch
TOTAL DEPTH: 25 feet
DATE STARTED: 01/17/91
DATE COMPLETED: 01/21/91
SAMPLING DEVICE: Cal Mod Split Spoon
PAGE: 1 OF



DEPTH (FEET)	SAMPLE	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
0					0-5" concrete
1					5"-5 ft-gray sandy clay moist,plastic
2					
3					
4					
5		MW1-S1	1 2 3		5-6.5 ft grayish sandy clay,moist, plastic, firm,strong hydrocarbon odor
6					
7					
8					
9					
10					10-11.5 ft-gray sandy clay wet,firm,locally a clayey sand,strong hydrocarbon odor
11		MW1-S2	3 3 3		
12					
13				CL	
14					
15					
16		MW1-S3	0 2 2		15-16.6 ft-greenish sandy clay,wet,fine,soft,strong hydrocarbon odor
17					
18					
19					
20		MW1-S4			

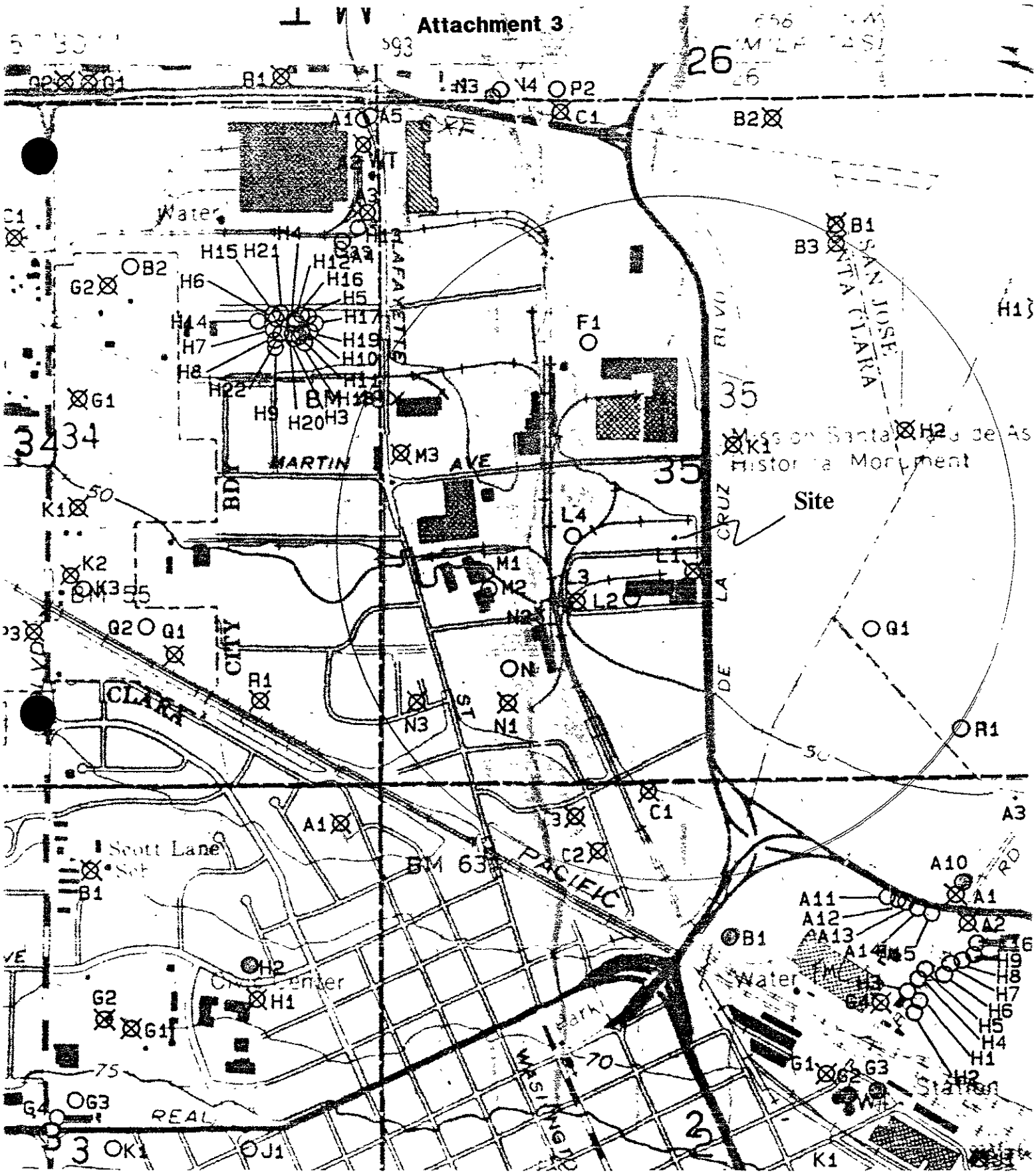
BORING LOG

Attachment 2

PROJECT: RELIANCE STEEL
JOB NUMBER: 0390033.01

HOLE / WELL #: MW-1
PAGE: 2 OF

DEPTH (FEET)	SAMPLE	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
21		4" PVC CASING 0.02 SLOTS; #3 SAND; END CAP	MW1-S4	0 2 3	CL	20-21.5 ft-greenish to brown sandy clay,wet,firm,strong hydrocarbon
23						
25			MW1-S5	0 2 4		25-26.5 ft-gray sandy clay fine,wet,firm,strong hydrocarbon odor

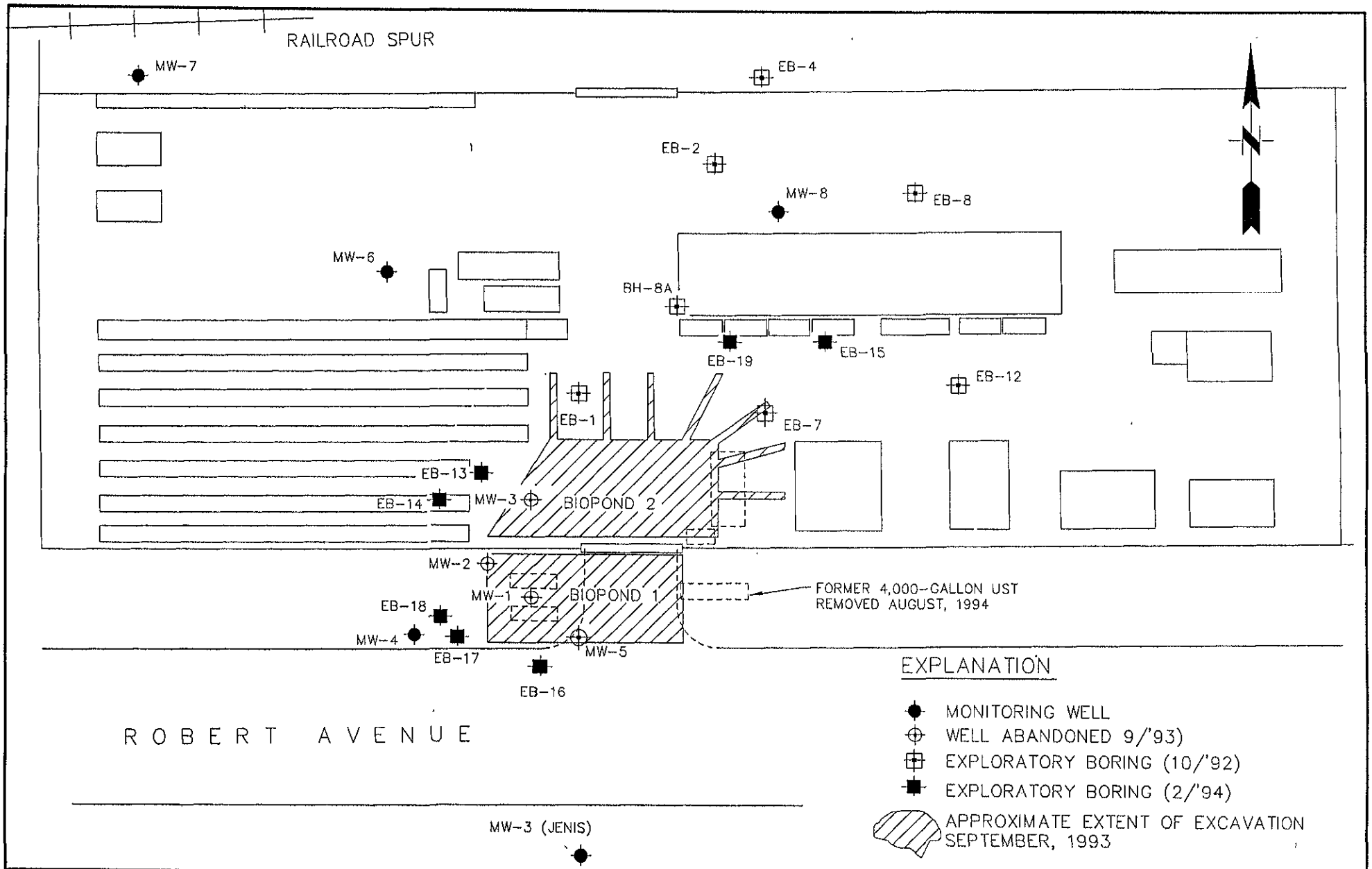


ATTACHMENT 3
WATER SUPPLY WELLS MAP WITH 0.50-MILE-RADIUS WELL SURVEY

Reliance Steel & Aluminum Co.
2460 De La Cruz Boulevard
Santa Clara, CA

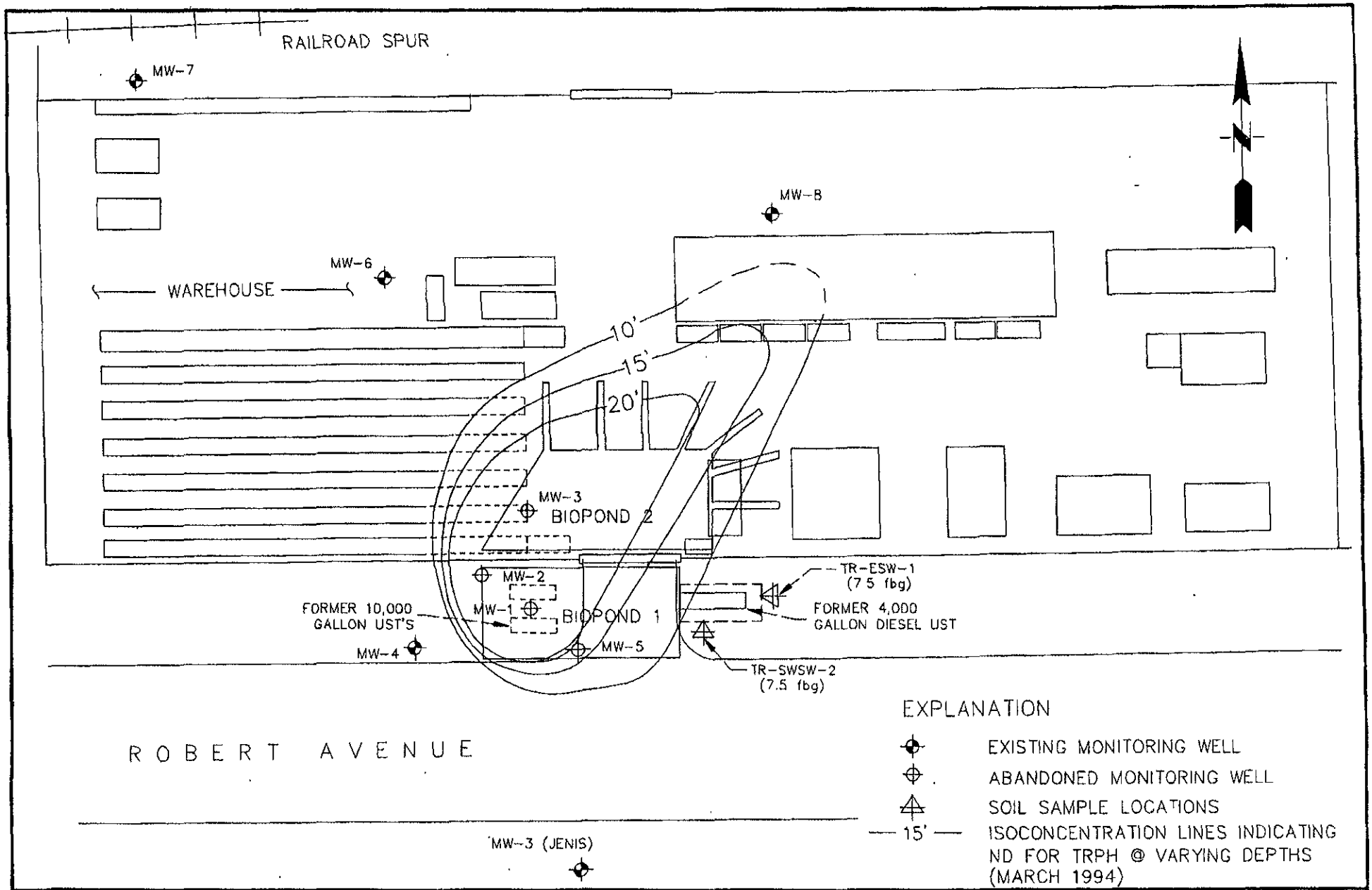
Map source: U.S. Geological Survey (wells updated 1/94) - Scale 1:2400

Attachment 4. Site Plan



1-4

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 6761 SIER[redacted]SUITE D DUBLIN, CA 94568 (510) 829-0661	PROJECT NO 0390033.04	DRN BY KARL N BARBER	SITE PLAN	DATE JANUARY, 1995
	SCALE 1" = 40'	CHK BY NEL[redacted]JOHNSON	RELIANCE METAL CENTER 2460 DE LA CRUZ BLVD SANTA CLARA, CA	FIGURE [redacted]-2
	DES BY ERIC WOLSKE	APP BY NEL[redacted]JOHNSON		



SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 6761 SIERRA, SUITE D DUBLIN, CA 94568 (510) 829-0661	PROJECT NO 0390033.05	DRN BY KNB/NRJ	SITE PLAN	DATE AUGUST 31, 1994
	SCALE 1" = 40'	CHK BY NRJ	RELIANCE METAL CENTER 2460 DELA CRUZ BLVD SANTA CLARA, CA	FIGURE 2
	DES BY KNB/NRJ	APP BY NRJ		

Attachment 4a: Site Plan Including August 1994 Tank Removal Sampling Locations

Attachment 5. Soil Sampling Analytical Data

TABLE 1–1. ANALYTICAL RESULTS (RECENT AND HISTORICAL)
SOIL SAMPLES, RELIANCE METAL CENTER

Borehole/ Well No.	Sampling Date	Depth (feet)	EPA 8015M (mg/kg)	EPA 8020 B (ug/kg)	EB (ug/kg)	T (ug/kg)	X (ug/kg)
BH1/MW1	01/17/91	10	8,420.0 (D)	476.0	2,476.0	45.0	357.0
		15	303.0(G)	1,430.0	832.0	68.0	1,050.0
BH2/MW2	01/17/91	10	ND	ND	ND	ND	ND
		15	86.0(G)	253.0	411.0	20.0	949.0
BH3/MW3	01/18/91	15	ND	ND	ND	ND	ND
		25	ND	111.0	68.0	57.0	65.0
BH4/MW4	02/06/91	15	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	ND
BH5/MW5	07/01/91	10	ND	ND	ND	ND	ND
		15	47.0(G)	650.0	1,200.0	102.0	2,500.0
BH6/MW6	07/02/91	5	ND	ND	ND	6.0	14.0
		10	ND	ND	ND	ND	ND
BH7/MW7	07/02/91	5	ND	ND	ND	7.0	13.0
		10	ND	ND	ND	ND	9.0
		15	ND	16.0	ND	ND	25.0
BH8A	09/24/92	5	ND	ND	ND	ND	ND
		10	5.8(*)	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND
BH8B/MW8	11/23/92	5	ND	ND	ND	ND	ND
		10	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND
		20	ND	ND	ND	ND	ND
Jenis MW3	09/24/92	5	ND	ND	ND	ND	ND
		10	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	8.0
		20	ND	ND	ND	ND	19.1
	DETECTION LIMITS		1.0	5.0	5.0	5.0	5.0

EPA 8015M – Total Petroleum Hydrocarbons
EPA 8020 – Volatile Organic Compounds
B – Benzene
EB – Ethylbenzene
T – Toluene
X – Xylenes
(*) – "weathered gasoline"
(G) – gasoline

TABLE 4-3. TRPH-D ANALYTICAL RESULTS FOR SOIL SAMPLES ADDITIONAL EXPLORATORY BORINGS, FEBRUARY 19, 1994 RELIANCE METAL CENTER, SANTA CLARA, CALIF. (All results in parts per million)

D.B.G. (ft.)	EB13	EB14	EB15	EB16	EB17	EB18	EB19
10	ND	22(1)	ND	610(1)	15	ND	580(1)
15	ND	ND	ND(1)	ND(1)	ND(1)	ND	22
20	150(1)	ND	ND	ND(1)	ND(1)	ND	ND(1)
25	ND(1)	ND	ND	ND	ND	ND	ND
30	ND	ND	ND	ND(1)	ND	ND	ND
35	-	-	-	-	ND	ND	-

Legend

D.B.G. Approximate depth below grade
ND Not detected at or above reporting limits of 10ppm
- Analysis not requested
(1) These samples were also analyzed for TPH-G and BTEX (See Table 2)

TABLE 4-4. TPH-G & BTEX ANALYTICAL RESULTS OF SELECT SOIL SAMPLES
ADDITIONAL EXPLORATORY BORINGS, FEBRUARY 19, 1994
RELIANCE METAL CENTER, SANTA CLARA, CALIF.
(All results in parts per million)

Field ID No.	TPH-G	Benzene	Toluene.	E-Benzene	Xylenes
EB13-20.5	99	0.49	0.20	1.20	1.10
EB13-25.5	ND	ND	ND	ND	ND
EB14-10.5	ND	ND	ND	ND	ND
EB15-15.5	ND	ND	ND	ND	ND
EB16-10A	45(1)	ND	ND	ND	ND
EB16-15A	1.1	0.027	0.009	0.035	0.019
EB16-20	ND	ND	ND	ND	ND
EB16-30	ND	ND	0.009	ND	ND
EB17-15	1.2	0.007	ND	ND	ND
EB17-20	ND	ND	ND	ND	ND
EB19-10	17(1)	ND	ND	ND	0.012
EB20-20.5	ND	ND	ND	ND	ND
Report limits	1.0	0.005	0.005	0.005	0.005

Legend

ND Not Detected Above Reporting Limits
(1) Chromatogram Pattern Suggest Diesel Fuel

TABLE 1. SUMMARY OF ANALYTICAL RESULTS

Sample I.D.	TPH-D (ppm)	TPH-G (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
Soil Samples						
TR-ESW-1	3.0	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
TR-SWSW-2	408	ND<1.0	ND<5.0	ND<5.0	ND<5.0	7.0
Groundwater Grab Samples						
BP-1-2-36	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP-1-2-37	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP-1-2-38	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP-1-2-39	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5

LEGEND

ND	Not Detected at or above the required reporting limit.
TR-ESW-1	Soil sample collected from the east sidewall during tank removal activities at a depth of approximately 7½ fbg.
TR-SWSW-2	Soil sample collected from the south sidewall during tank removal activities at a depth of approximately 7½ fbg.
BP-1-2-XX	Grab water samples collected on August 5, 1994, prior to removal of subject UST.

SUMMARY AND CONCLUSIONS

The subject UST was removed on August 10, 1994 in accordance with the closure plan approved by the SCFD. Oversight for the tank removal was provided by SCS and the SCFD.

Inspection of the tank's outer containment shell upon removal revealed no evidence of leakage or excessive corrosion. Inspection of backfill material surrounding the fill port and underneath the dispenser containment also showed no obvious evidence of contamination resulting from surface spills.

Two soil samples were collected from the east and south sidewalls of the resulting excavation and analyzed for TPH-D, TPH-G, and BTEX constituents. Gasoline-range

Attachment 6. Groundwater Sampling Analytical Data

TABLE 1–2. HISTORICAL ANALYTICAL RESULTS
GROUND WATER SAMPLES, RELIANCE METAL CENTER

Well No	Sampling Date	Casing Elevation	Depth to Ground Water (feet)	Ground Water Elevation	EPA 8015	EPA 602 B	EB	T	X
					--mg/L--		ug/L		
RW–1(*)	07/12/90	--	14.67	--	71.0(G)	7,300.0	660.0	2,100.0	3,100.0
MW–1	01/21/91	39.29	13.91	25.38	107.0(G)	8,300.0	1,250.0	6,200.0	6,050.0
MW–1	07/09/91	39.29	11.72	27.57	65.0(G)	6,050.0	350.0	3,100.0	2,250.0
MW–1	07/17/91	39.29	11.75	27.54	--	--	--	--	--
MW–1	02/24/92	39.29	8.63	30.66	--	9,240.0	1,960.0	2,200.0	5,000.0
MW–1	05/21/92	39.29	8.50	30.79	--	--	--	--	--
MW–1	06/26/92	39.29	8.80	30.49	--	--	--	--	--
MW–1	07/01/92	39.29	8.84	30.45	--	8,550.0	1,150.0	1,750.0	3,230.0
MW–1	12/03/92	39.29	8.87	30.42	--	3,110.0	1,040.0	1,270.0	2,040.0
MW–1	07/01/93	39.29	6.34	32.95	19.0(G) 34.0(D)	6,600.0	391.0	605.0	1,900.0
MW–2	01/21/91	39.36	13.96	25.40	92.0(G)	8,000.0	1,600.0	4,200.0	7,800.0
MW–2	07/09/91	39.36	11.77	27.59	50.0(G)	3,500.0	530.0	400.0	580.0
MW–2	07/17/91	39.36	11.79	27.57	--	--	--	--	--
MW–2	02/24/92	39.36	8.69	30.67	--	6,070.0	1,980.0	1,960.0	4,700.0
MW–2	05/21/92	39.36	8.57	30.79	--	--	--	--	--
MW–2	06/26/92	39.36	8.87	30.49	--	--	--	--	--
MW–2	07/01/92	39.36	9.07	30.29	--	4,290.0	959.0	918.0	1,790.0
MW–2	12/03/92	39.36	8.90	30.46	--	--	--	--	--
MW–2	07/01/93	39.36	6.40	32.96	--	--	--	--	--
MW–3	01/21/91	39.89	14.42	25.47	52.0(G)	4,900.0	740.0	2,600.0	2,800.0
MW–3	07/09/91	39.89	12.43	27.46	40.0(G)	3,100.0	310.0	450.0	490.0
MW–3	07/17/91	39.89	12.42	27.47	--	--	--	--	--
MW–3	02/24/92	39.89	9.29	30.60	--	9,400.0	1,900.0	3,200.0	4,300.0
MW–3	05/21/92	39.89	9.16	30.73	--	--	--	--	--
MW–3	06/26/92	39.89	9.46	30.43	--	--	--	--	--
MW–3	07/01/92	39.89	9.42	30.47	--	7,940.0	997.0	1,680.0	1,850.0
MW–3	12/03/92	39.89	9.52	30.37	--	3,170.0	1,050.0	1,020.0	870.0
MW–3	07/01/93	39.89	7.04	32.85	--	--	--	--	--
MW–4	02/05/91	38.93	13.43	25.50	ND	ND	ND	ND	ND
MW–4	07/09/91	38.93	11.30	27.63	ND	ND	ND	ND	ND
MW–4	07/17/91	38.93	11.28	27.65	--	--	--	--	--
MW–4	02/24/92	38.93	8.17	30.76	--	ND	ND	ND	ND
MW–4	05/21/92	38.93	8.06	30.87	--	--	--	--	--
MW–4	06/26/92	38.93	8.35	30.58	--	--	--	--	--
MW–4	07/01/92	38.93	8.26	30.67	--	ND	ND	ND	ND
MW–4	12/03/92	38.93	8.43	30.50	--	--	--	--	--
MW–4	07/01/93	38.93	5.87	33.06	--	--	--	--	--
MW–5	07/09/91	38.88	11.28	27.60	75.0(G)	880.0	460.0	380.0	1,100.0
MW–5	07/17/91	38.88	11.28	27.60	--	--	--	--	--
MW–5	02/24/92	38.88	8.19	30.69	--	2,400.0	1,250.0	600.0	2,200.0
MW–5	05/21/92	38.88	8.07	30.81	--	--	--	--	--
MW–5	06/26/92	38.88	8.34	30.54	--	--	--	--	--
MW–5	07/01/92	38.88	8.30	30.58	--	1,030.0	470.0	179.0	639.0
MW–5	12/03/92	38.88	8.37	30.51	--	--	--	--	--
MW–5	07/01/93	38.88	5.85	33.03	--	--	--	--	--
MW–6	07/09/91	39.91	12.57	27.34	ND	ND	ND	ND	ND
MW–6	07/17/91	39.91	12.53	27.38	--	--	--	--	--
MW–6	02/24/92	39.91	8.32	31.59	--	ND	ND	ND	ND
MW–6	05/21/92	39.91	9.35	30.56	--	--	--	--	--
MW–6	06/26/92	39.91	9.65	30.26	--	--	--	--	--
MW–6	07/01/92	39.91	9.56	30.35	--	ND	ND	ND	ND
MW–6	12/03/92	39.91	9.76	30.15	--	1.1	ND	ND	ND
MW–6	07/01/93	39.91	7.31	32.60	--	2.3	ND	1.7	2.3
MW–7	07/09/91	40.19	12.91	27.28	ND	ND	ND	ND	ND
MW–7	07/17/91	40.19	12.92	27.27	--	--	--	--	--
MW–7	02/24/92	40.19	9.50	30.69	--	ND	ND	ND	ND
MW–7	05/21/92	40.19	9.72	30.47	--	--	--	--	--
MW–7	06/26/92	40.19	10.04	30.15	--	--	--	--	--
MW–7	07/01/92	40.19	9.97	30.22	--	ND	ND	ND	ND
MW–7	12/03/92	40.19	10.10	30.09	--	--	--	--	--
MW–7	07/01/93	40.19	7.62	32.57	--	--	--	--	--
MW–8	12/03/92	39.88	9.99	29.89	ND	ND	ND	ND	ND
MW–8	07/01/93	39.88	7.63	32.25	--	ND	ND	2.4	1.1
Jenis MW–3	10/02/92	40.45	10.07	30.38	ND	ND	ND	ND	ND
Jenis MW–3	12/03/92	40.45	9.93	30.52	--	--	--	--	--
Jenis MW–3	07/01/93	40.45	7.30	33.15	--	ND	ND	1.0	4.6
EB–1	10/31/92	--	--	--	4.5(G)	0.7	392.0	7.9	23.0
EB–2	10/31/92	--	--	--	ND	ND	ND	ND	ND
EB–4	10/31/92	--	--	--	ND	ND	ND	ND	ND
EB–7	10/31/92	--	--	--	29.4(D)	ND	ND	ND	ND
EB–8	10/31/92	--	--	--	ND	ND	ND	ND	ND
EB–12	10/31/92	--	--	--	ND	ND	ND	ND	ND
				DETECTION LIMITS	0.5	0.7	1.0	1.0	1.0

~ – 07/93 Sampling Event
* – Abandoned Well
-- – Not Analyzed
ND – Not Detected
EPA 602 – Volatile Organics (BTEX)
EPA 8015M – Total Petroleum Hydrocarbons
B – Benzene
EB – Ethylbenzene
T – Toluene
X – Xylenes

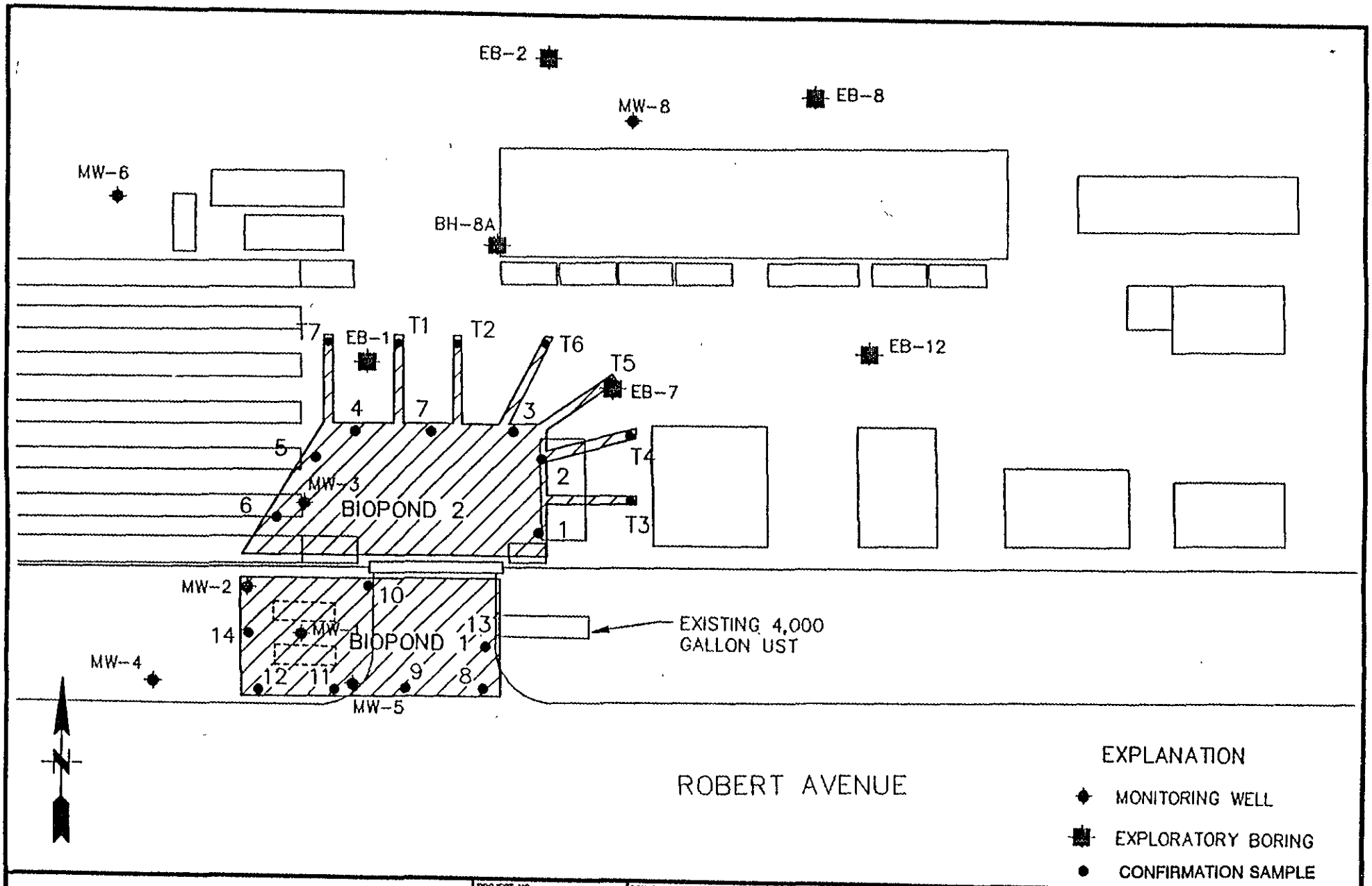
TABLE 4-5. GROUND WATER ANALYTICAL RESULTS, FEBRUARY 19, 1994
RELIANCE METAL CENTER, SANTA CLARA, CALIF.
(All results in parts per billion)

Field ID No.	TPH-G/D	Benzene	Toluene.	E-Benzene	Xylenes
MW6-5/6	ND	ND	ND	ND	ND
MW8-2/3	ND	ND	ND	ND	ND
Report limits	50.0	0.5	0.5	0.5	0.5

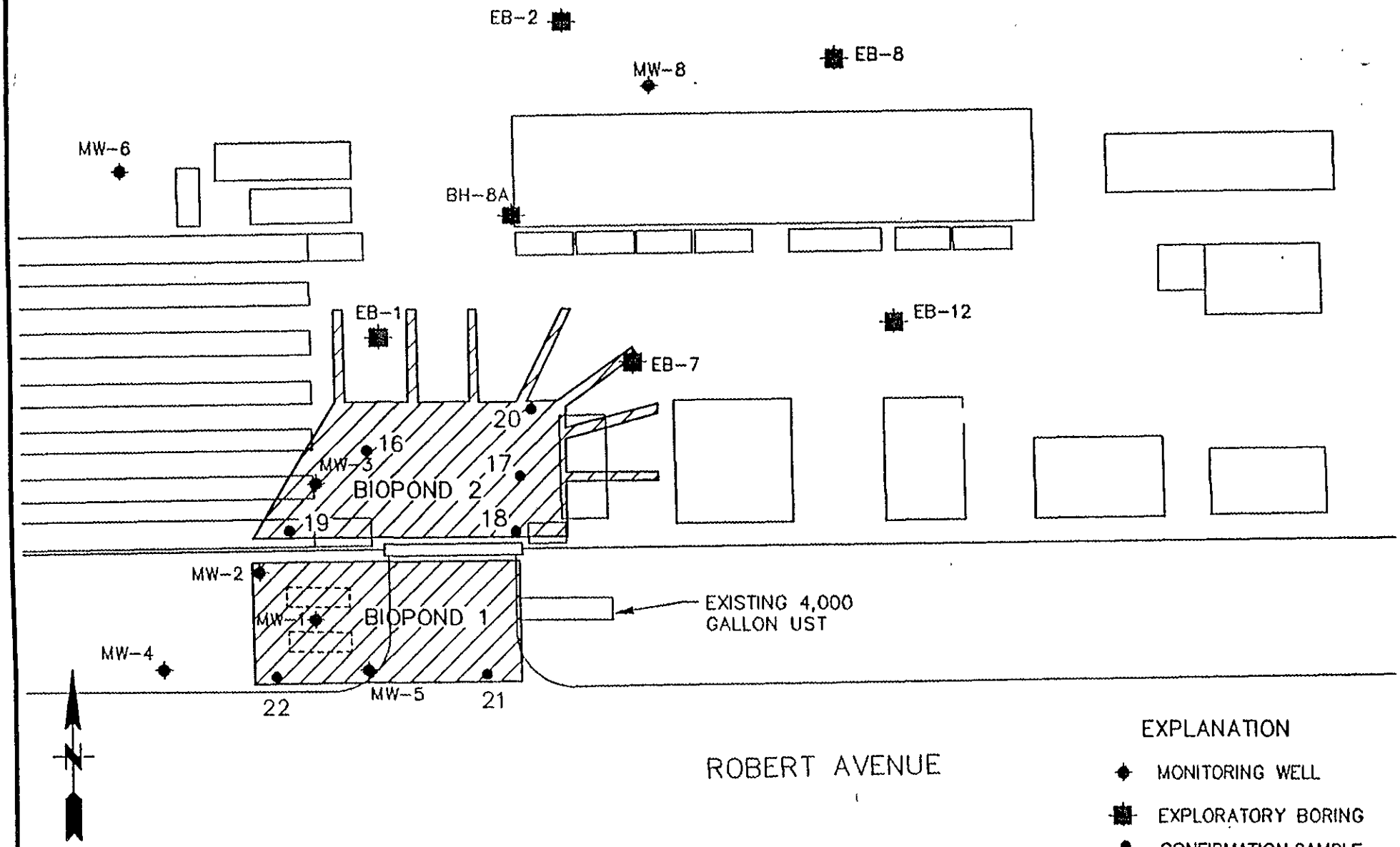
Legend

ND	Not Detected at or Above Reporting Limits
TPH-G/D	Total petroleum hydrocarbons as gasoline or diesel

Attachment 7. Confirmatory Soil Sample Locations



SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 6761 SIERRA, SUITE D DUBLIN, CA 94568 (510) 829-0661	PROJECT NO. 0390033.04	DRN BY LARRY LINDSAY	CONFIRMATION SAMPLE LOCATIONS	DATE MARCH 22, 1994
	SCALE 1" = 30'	CHK BY .	RELIANCE METAL CENTER 2460 DELA CRUZ BLVD SANTA CLARA, CA	FIGURE 4-1
	DES BY KARL BARBER	APP BY .		



SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
6761 SIERRA, SUITE D DUBLIN, CA 94568 (510) 829-0661

PROJECT NO. 0390033.04	DRN BY LARRY LINDSAY	VERIFICATION/MONITORING SOIL SAMPLE LOCATIONS	DATE MARCH 22, 1994
SCALE 1" = 30'	CHK BY	RELIANCE METAL CENTER 2460 DELA CRUZ BLVD SANTA CLARA, CA	FIGURE 4-2
DES BY KARL BARBER	APP BY		

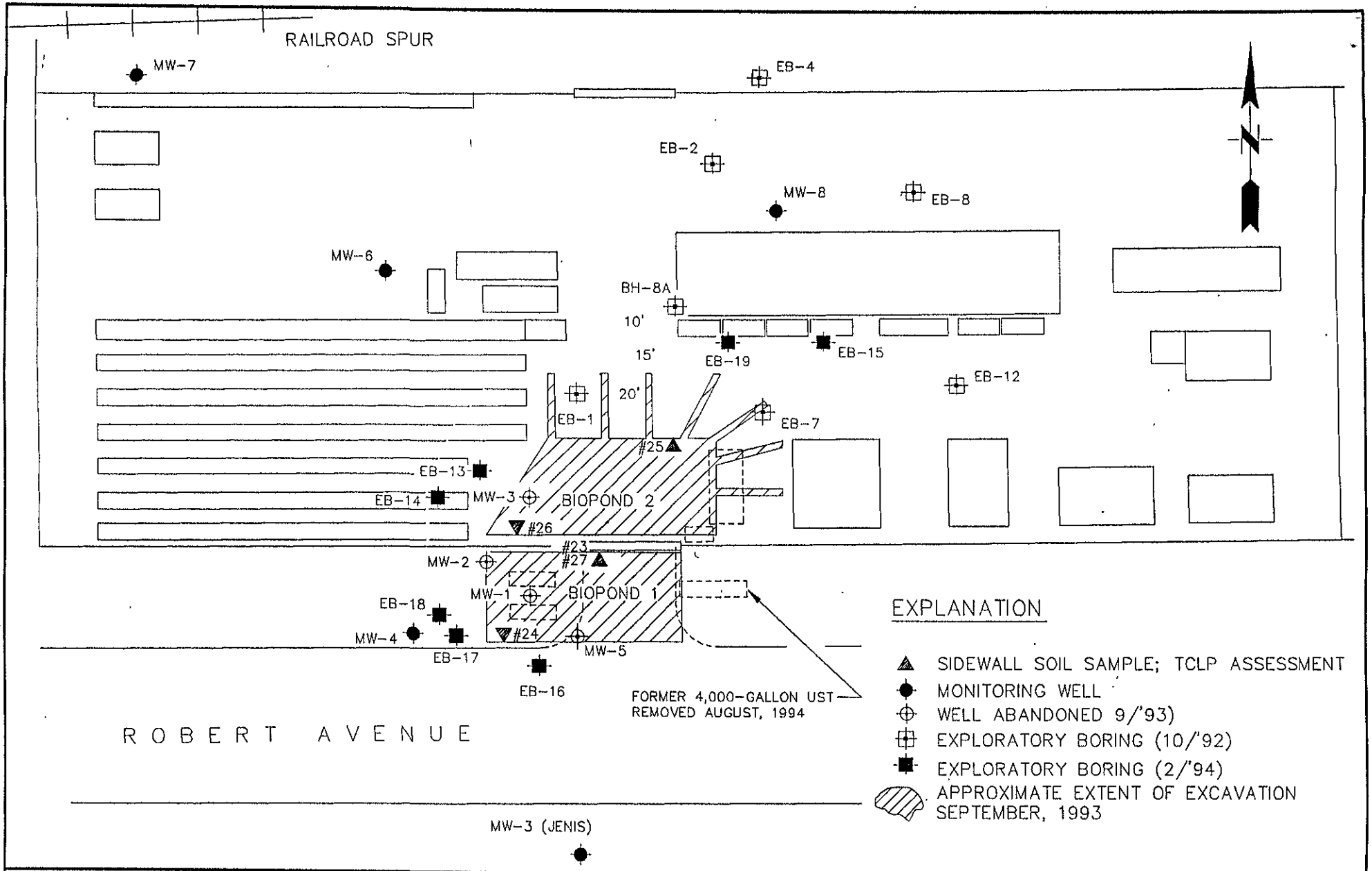
Attachment 8. Confirmatory Soil Sampling Analytical Data

Table 4–1. Summary of Confirmation and Verification/Monitoring Soil Sampling Results, Reliance Metal Center, Santa Clara, California.

Sample ID	Sampling/ Date	TPH–G EPA 8015M ppm	TPH–D EPA 8015M ppm	EPA 602 Benzene ppb	EPA 602 Toluene ppb	EPA 602 Ethylbenzene ppb	EPA 602 Xylene ppb
TRENCH SAMPLES							
T1	09–23–93	ND<1.0	124	ND<0.5	7.6	ND<0.5	33.3
T2	09–23–93	ND<1.0	311	ND<0.5	ND<0.5	ND<0.5	ND<0.5
T3	09–23–93	ND<1.0	ND<1.0	ND<0.5	ND<0.5	ND<0.5	5.0
T4	09–23–93	ND<1.0	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
T5	09–24–93	ND<1.0	919	ND<0.5	ND<0.5	ND<0.5	23.8
T6	09–24–93	ND<1.0	495	ND<0.5	ND<0.5	ND<0.5	ND<0.5
T7	09–24–93	ND<1.0	54	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SIDE–WALL CONFIRMATION SAMPLES							
ESW–1–10	09–25–93	ND<1.0	61	ND<0.5	ND<0.5	ND<0.5	14
ESW–2–10	09–25–93	ND<1.0	367	ND<0.5	ND<0.5	ND<0.5	ND<0.5
NSW–3–10	09–25–93	ND<1.0	670	ND<0.5	ND<0.5	ND<0.5	ND<0.5
NSW–4–10	09–25–93	ND<1.0	218	ND<0.5	ND<0.5	ND<0.5	ND<0.5
WSW–5–10	09–25–93	ND<1.0	320	ND<0.5	ND<0.5	ND<0.5	9.5
WSW–6–10	09–25–93	ND<1.0	294	ND<0.5	ND<0.5	ND<0.5	8.6
NSW–7–10	09–25–93	ND<1.0	602	25	ND<0.5	ND<0.5	8.9
SSW–8–10	10–01–93	ND<1.0	122	ND<10.0	ND<10.0	ND<10.0	ND<10.0
SSW–9–10	10–01–93	ND<1.0	72	ND<10.0	ND<10.0	ND<10.0	ND<10.0
NSW–10–10	10–01–93	ND<1.0	608	87.7	ND<10.0	31.7	20.7
SSW–11–10	10–01–93	ND<1.0	719	17.5	16.8	22.7	72.7
SSW–12–10	10–01–93	ND<1.0	245	ND<10.0	ND<10.0	ND<10.0	ND<10.0
WSW–13–10	10–01–93	ND<1.0	357	ND<10.0	ND<10.0	ND<10.0	20.6
WSW–14–10	10–01–93	ND<1.0	271	21	ND<10.0	ND<10.0	ND<10.0
SIDE–WALL VERIFICATION/MONITORING SAMPLES							
N1SW–15–11	12–23–93	ND<1.0	919	15.7	ND<5.0	16.4	ND<5.0
PB2–16	12–23–93	35	266	360	351	505	1,901
PB2–17	12–23–93	4.1	168	114	14.8	36.5	78.5
S2SW–18–12	12–23–93	ND<1.0	719	16.3	ND<5.0	ND<5.0	ND<5.0
S2SW–19–11	12–23–93	ND<1.0	1,580	89.6	ND<5.0	99.5	78.5
N2SW–20–11	12–23–93	ND<1.0	462	ND<5.0	ND<5.0	ND<5.0	ND<5.0
S1SW–21–9	12–23–93	ND<1.0	110	ND<5.0	ND<5.0	ND<5.0	ND<5.0
S1SW–22–10	12–23–93	ND<1.0	849	ND<5.0	ND<5.0	ND<5.0	ND<5.0
GENTECH FIELD SCREEN SAMPLES							
T2	09–23–93	N.D.	10–25	N.A.	N.A.	N.A.	N.A.
T5	09–24–93	N.D.	40	N.A.	N.A.	N.A.	N.A.
T6	09–24–93	N.D.	50–100	N.A.	N.A.	N.A.	N.A.
ESW–2–10	09–25–93	N.D.	10	N.A.	N.A.	N.A.	N.A.
NSW–3–10	09–25–93	N.D.	75	N.A.	N.A.	N.A.	N.A.
NSW–4–10	09–25–93	N.D.	20	N.A.	N.A.	N.A.	N.A.
WSW–5–10	09–25–93	N.D.	75	N.A.	N.A.	N.A.	N.A.
WSW–6–10	09–25–93	N.D.	75	N.A.	N.A.	N.A.	N.A.
NSW–7–10	09–25–93	N.D.	25	N.A.	N.A.	N.A.	N.A.
WSW–13–10	10–01–93	N.D.	50	N.A.	N.A.	N.A.	N.A.

Legend:
NA :Sample not analyzed.
ND :Not detected at or above reported detection limits.

Attachment 9. TCLP Sample Locations



3-2

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 6761 SIERRA, SUITE D DUBLIN, CA 94568 (510) 829-0661	PROJECT NO. 0390033.04	DRN BY KARL N BARBER	TCLP SAMPLE LOCATIONS	DATE JANUARY, 1995
	SCALE 1" = 40'	CHK BY NELS JOHNSON	RELIANCE METAL CENTER 2460 DE LA CRUZ BLVD SANTA CLARA, CA	FIGURE 3-1
	DES BY ERIC WOLSKE	APP BY NELS JOHNSON		

TABLE 3-1

SUMMARY OF TCLP ASSESSMENT
SOIL AND GROUNDWATER REMEDIATION
RELIANCE METAL CENTER
SANTA CLARA, CALIFORNIA

Sample ID	Date Collected	TPH-D (ppm)	TPH-G (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)
SOIL							
N1SW-23-10	6/7/94	534	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
S1SW-24-10	6/7/94	91.3	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
N2SW-25-10	6/7/94	1,020	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
S2SW-26-10	6/7/94	58.4	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
N1SW-27-8.5	7/22/94	37.3	ND<0.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0
TCLP EXTRACT							
N1SW-23-10	6/7/94	0.89	ND<0.5	ND<0.7	ND<1.0	ND<1.0	ND<1.0
S1SW-24-10	6/7/94	0.33	ND<0.5	ND<0.7	ND<1.0	ND<1.0	ND<1.0
N2SW-25-10	6/7/94	0.38	ND<0.5	ND<0.7	ND<1.0	ND<1.0	ND<1.0
S2SW-26-10	6/7/94	0.17	ND<0.5	ND<0.7	ND<1.0	ND<1.0	ND<1.0
N1SW-27-8.5	7/22/94	ND<0.1	ND<0.5	ND<0.7	ND<1.0	ND<1.0	ND<1.0

ND Not detected above the laboratory reporting limit.

Attachment 11. Biotreatment Groundwater Sampling Analytical Data

Table 2–1. Summary of Biopond Gound Water Grab Sampling Results Reliance Metal Center, Santa Clara, California.

Sample ID	Sampling Date	TPH–G EPA 8015M ppm	TPH–D EPA 8015M ppm	EPA 602 Benzene ppb	EPA 602 Toluene ppb	EPA 602 Ethylbenzene ppb	EPA 602 Xylenes ppb
BIOPOND 1 GRAB SAMPLES							
Cycle 1:							
BP1–1–3	10–05–93	ND<0.05	2.7	1,180	49	5.6	213
BP1–1–4	10–05–93	ND<0.05	ND<0.05	561	3.9	ND<1.0	135
BP1–1–5	10–22–93	ND<0.05	0 3	ND<0.7	ND<1.0	ND<1.0	ND<1.0
BP1–1–6	10–22–93	ND<0.05	0.3	ND<0.7	ND<1.0	ND<1.0	ND<1.0
BP1–1–9	11–18–19	ND<0.05	0.02	ND<0.5	ND<0 5	ND<0.5	ND<0.5
BP1–1–10	11–18–19	0.09	0.02	ND<0.5	0.9	0.9	6.7
BP1–1–13	12–2–93	ND<0.05	0.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP1–1–14	12–2–93	ND<0.05	0.2	ND<0.5	0.5	ND<0.5	1.5
BP1–1–17	12–14–93	ND<0.05	0.52	ND<0 5	ND<0.5	ND<0.5	ND<0.5
BP1–1–18	12–14–93	ND<0.05	0.11	ND<0.5	ND<0 5	ND<0.5	ND<0.5
BP1–1–21A	12–17–93	ND<0.05	ND<0.05	ND<0 5	ND<0.5	ND<0.5	ND<0.5
BP1–1–21B	12–17–93	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cycle 2:							
BP1–2–23	12–29–93	ND<0.05	ND<0.05	33	ND<0.5	ND<0.5	1.9
BP1–2–24	12–29–93	ND<0.05	ND<0.05	44	ND<0.5	ND<0.5	1.9
BP1–2–27	02–10–94	ND<0.05	0.2	ND<0.5	ND<0.5	ND<0.5	1.0
BP1–2–28	02–10–94	ND<0.05	0.2	ND<0.5	ND<0.5	ND<0.5	1.6
BP1–2–31	04–12–94	ND<0.05	0.2	ND<0.5	ND<0.5	0.5	2.2
BP1–2–32	04–12–94	ND<0.05	0.5	ND<0.5	ND<0.5	ND<0.5	0.8
BP1–2 & BP2–2 *	06–07–94	ND<0.05	0.1	ND<0.7	ND<1.0	ND<1.0	ND<1.0
BP1–2–36	08–05–94	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP1–2–37	08–05–94	ND<0.05	ND<0.05	ND<0 5	ND<0.5	ND<0.5	ND<0.5
Cycle 3:							
BP1–3–40	08–29–94	ND<0.05	ND<0.05	ND<0 5	ND<0.5	ND<0 5	2.5
BP1–3–41	08–29–94	0.06	ND<0.05	ND<0.5	0.5	0.6	3.0
BIOPOND 2 GRAB SAMPLES							
Cycle 1:							
BP2–1–1	10–05–93	ND<0.05	ND<0.05	54	ND<1.0	ND<1.0	5.7
BP2–1–2	10–05–93	ND<0.05	5.4	105	1.8	1.1	5.7
BP2–1–7	10–22–93	ND<0 05	0.4	ND<0.7	ND<1.0	ND<1.0	ND<1 0
BP2–1–8	10–22–93	ND<0 05	0.4	ND<0 7	ND<1.0	ND<1.0	ND<1.0
BP2–1–11	11–18–19	ND<0 05	0.03	ND<0.5	ND<0 5	ND<0.5	0.8
BP2–1–12	11–18–19	ND<0.05	0 03	ND<0.5	ND<0 5	ND<0.5	0.5
BP2–1–15	12–2–93	0 13	0.2	47.0	5.1	1.6	8.5
BP2–1–16	12–2–93	0 20	0.2	52 0	5 7	2.4	10.3
BP2–1–19	12–14–93	ND<0.05	0.11	1 8	ND<0.5	ND<0.5	ND<0.5
BP2–1–20	12–14–93	ND<0 05	0.10	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP2–1–22A	12–17–93	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP2–1–22B	12–17–93	ND<0.05	ND<0.05	ND<0 5	ND<0.5	ND<0 5	ND<0.5
Cycle 2:							
BP2–2–25	12–29–93	ND<0.05	ND<0 05	76	14	1.1	14.5
BP2–2–26	12–29–93	ND<0.05	ND<0.05	54	4.5	ND<0.5	12.9
BP2–2–29	02–10–94	ND<0.05	0.3	ND<0 5	ND<0.5	ND<0.5	ND<0.5
BP2–2–30	02–10–94	ND<0.05	0.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP2–2–33	04–12–94	ND<0.05	0.2	ND<0.5	0.7	0.9	3.4
BP2–2–34	04–12–94	ND<0.05	0.2	ND<0.5	ND<0.5	0.7	2.7
BP1–2 & BP2–2 *	06–07–94	ND<0.05	0 1	ND<0.7	ND<1.0	ND<1.0	ND<1.0
BP2–2–38	08–05–94	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5
BP2–2–39	08–05–94	ND<0.05	ND<0.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Legend:
ND :Not detected at or above reported detection limits.
ppm :Parts per million.
ppb :Parts per billion.
* :Laboratory composite of samples collected from both Bioponds.

M. Silva

ATTACHMENT 12
Public Notification Letter

April 26, 1995

Mr. Bruce Augason
Engineering Department
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Dear Mr. Augason:

Subject: Notification of Fuel Leak Investigation at Reliance Steel & Aluminum Company, 2460 De La Cruz Boulevard, Santa Clara, CA

As Mr. Miguel A. Silva of my staff has notified you and has been discussing with you since March 28, 1995, the Santa Clara Valley Water District is considering recommending this case to the Regional Water Quality Control Board (Regional Board) for closure certification. This letter formally notifies you that some soil contamination would be left in place at the site.

A portion of the soil contamination would remain in the vicinity of the City of Santa Clara's (City) public right of way along Robert Avenue. Please see the attached site map. Additional overexcavation to remove the contaminated soil was considered but appeared to be impractical because it would threaten the building's structural integrity and endanger utilities located in the public right of way.

Based on conversations with Regional Board staff, the remaining soil contamination does not appear to pose an immediate health threat. However, if the utility corridor, near the remaining soil contamination, is accessed, common health and safety precautions should be taken.

At this time, we are requesting your comments concerning the soil contamination being left in place at the subject site, particularly the contamination being left in the vicinity of the City's public right of way. Please note that any concerns your agency may have regarding technical, legal, and financial liability should be discussed with the Responsible Party directly.

Please provide us with your written response within 30 days of this letter.

Please contact the Responsible Party listed below for additional details and information regarding the site:

Mr. John Peterson
Reliance Steel & Aluminum Company
2550 East 25th Street
Los Angeles, CA 90058
Phone: (408) 582-2272

Also, please note that appointments to review the file can be made by contacting our Office Specialist, Ms. Jeannette Sharrard, at the Camden Office, (408) 927-0710, extension 2649. If you have any questions, please call Mr. Silva, extension 2645, or Ms. Hollis A. Ude, extension 2628.

Sincerely,

ORIGINAL SIGNED BY

Belinda A. Allen
Supervising Engineer
Groundwater Protection Division

Attachment

cc/att: Mr. John Peterson
Reliance Steel & Aluminum Company
2550 East 25th Street
Los Angeles, CA 90058

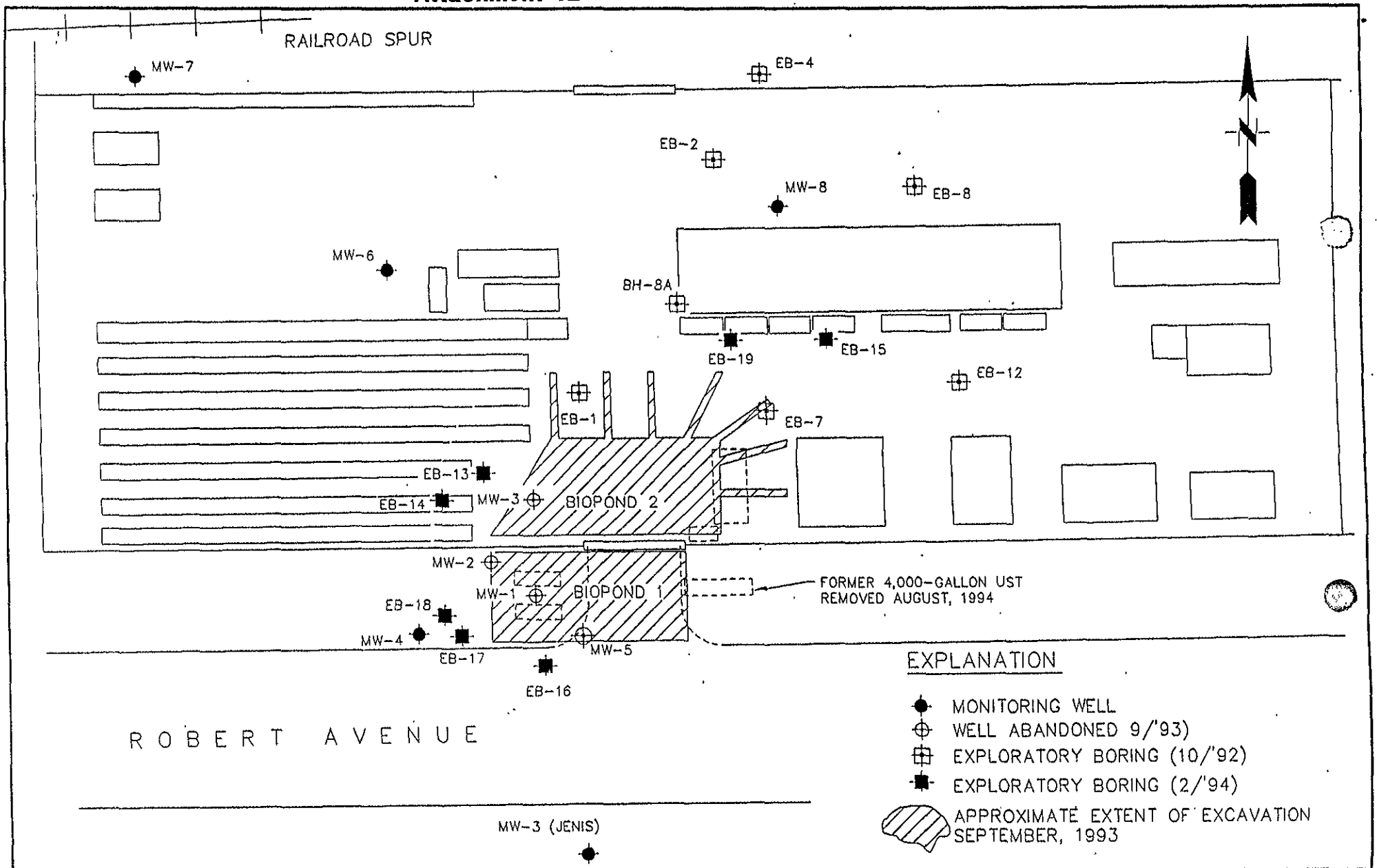
Mr. John West
San Francisco Bay Region
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monnette, Ph.D
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

B. Allen, H. Ude, M. Silva (2), Read

MS:lcg:FL0425k

Attachment 12



1-4

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 6761 SIERRA, SUITE D DUBLIN, CA 94568 (510) 829-0661	PROJECT NO 0390033.04	DRN BY KARL N BARBER	SITE PLAN	DATE JANUARY, 1995
	SCALE 1" = 40'	CHK BY NELS JOHNSON	RELIANCE METAL CENTER 2460 DE LA CRUZ BLVD SANTA CLARA, CA	FIGURE 1-2
	DES BY ERIC WOLSKE	APP BY NELS JOHNSON		

ATTACHMENT 13
Adjacent Property Owner Comments

THE CITY OF SANTA CLARA
CALIFORNIA

ENGINEERING DEPARTMENT
CITY HALL
1500 WARBURTON AVENUE
SANTA CLARA, CALIFORNIA 95050
(408) 984-3045
FAX (408) 241-3823

May 24, 1995

Mr. John G. Peterson
Reliance Steel and Aluminum Co.
P.O. Box 60482
Los Angeles, CA 90060

Re: **Contamination in the Robert Avenue Right-of-Way**
Reliance Metal Center, 2460 De La Cruz Boulevard

Dear Mr. Peterson:

Pursuant to your letter of April 19, 1995, the City Attorney's office, the City Manager's office, Fire Department Hazmat, and I have met to consider your request to not oppose the Santa Clara Valley Water District's (SCVWD) plans to recommend closure to the Regional Water Quality Control Board regarding the contamination of your property at 2460 De La Cruz Boulevard due to leakage from underground fuel storage tanks. Your reports indicate that the tanks and much of the contaminated soil have been removed. However, the resulting plume has extended into the Robert Avenue right-of-way adjacent to the former tank location.

It is my understanding that the SCVWD is considering this site for closure at your request because they have determined that the levels of contamination have been significantly reduced, and the remaining soil contamination does not pose an immediate health threat.

The City of Santa Clara is concerned about the contamination in the public right-of-way and the liability exposure the City would experience if closure is accomplished. The City's concerns include:

1. City's responsibility if contaminated material is discovered in this area while excavating for utility work; i.e., who pays for testing, hauling away of contaminated soil, contractor's downtime, and subsequent cleanup costs.

2. Contaminated ground water infiltrating the sanitary sewer and resulting in contamination downstream. (This may seem like a long shot, but the City is currently involved in litigation based on a similar scenario at another site.)

3. Future cleanup responsibility should the contamination limits change.

It is the City's position that responsibility should remain with you as owner of the property and should run with the land. In your letter of April 19, 1995, you indicate that you would add a clause to the deed to hold the City harmless. Our attorney is not sure of the legal status of such a clause and cannot comment until they see the proposed wording.

Re: **Contamination in the Robert Avenue Right-of-Way**
Reliance Metal Center, 2460 De La Cruz Boulevard

We do not know the extent of the plume into Robert Avenue. Your letter says that it is estimated to be 10 to 15 feet below grade and to cover an area of five feet by ten feet. However, page 5-1 of SCS Engineers' report says, "The exact southern extent of the affected soils (into the Robert Avenue right-of-way) remains unknown." It says further that the "assessment and remediation of the affected soils in the Robert Avenue right-of-way was limited due to the presence of subsurface utilities." The best solution may be to remove the contaminated material from Robert Avenue, even if removal or relocation of utilities is necessary. An estimate of the investigation and cleanup costs in Robert Avenue would be helpful. The investigation should be extended to determine the extent of contamination in Robert Avenue.

The City, through the City Attorney's office, is considering the following actions: Contacting other cities to see how they have dealt with similar requests (if you, your consultant, or the SCVWD knows of other governmental agencies that have dealt with this issue, we would appreciate knowing who they are so that we could contact them); and to consult with an attorney who has experience and expertise in environmental law to provide advice to the City.

Unfortunately, the above work will take several months, but without going through the above steps, the City's response must be in opposition to closure. After performing the above due diligence, the City will re-evaluate its position.

Thank you for your patience. Please call if you have any questions.

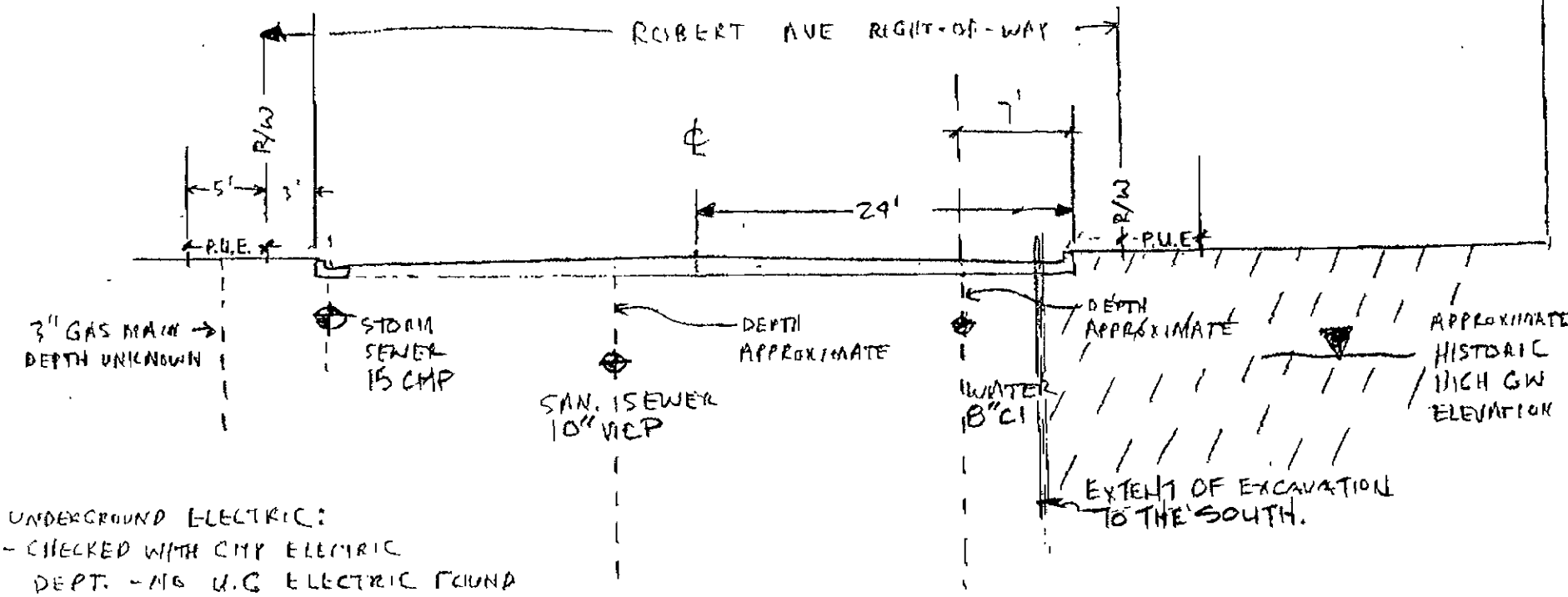
Very truly yours,

Bruce C. Augason
City Engineer

BCA:sw
CONTAMRS.LET/BCA-OF#5

cc: Belinda Allen, Santa Clara Valley Water District
Ron Garratt, Assistant City Manager
Jolie Houston, Deputy City Attorney
Larry Monette, Hazardous Materials Specialist, Fire
Jim Parissenti, Principal Engineer, Field Services, Engineering

22-144 200 SHEETS



UNDERGROUND ELECTRIC:
- CHECKED WITH CMP ELECTRIC DEPT. - NO U.G ELECTRIC FOUND

- PHONE:
  INFORMATION REGARDING U.G. PHONE LINES UNAVAILABLE

- U.G. NITROGEN:
  AIRPRODUCTS COMPANY SERVES SANTA CLARA, COMPANY DOES NOT HAVE NITROGEN LINES ON ROBERT AVENUE

North

SCALE 1" = APPROX. 10'

JUN 12 '95 10:35AM S.C.VALLEY WATER DISTRICT 1310-829-5493 P.2
6-12 14:09 HUM:SCS ENGINEERS TO:408 266 0271 PAGE:02
037-0033.04
2960 DE LA CRUZ
6/5/95

ATTACHMENT 14

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

June 19,1995 PEL # 9506070

WRIGHT ENVIRONMENTAL SERVICES, INC.

Attn: Pamela Raynak

Re: One water sample for Gasoline/BTEX and Diesel analyses.

Project name: McDonald's

Date sampled:June 15, 1995 Date submitted:June 19, 1995
Date extracted:June 19-21, 1995 Date analyzed:June 19-21, 1995

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
HT-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	101.9%	90.2%	90.2%	94.7%	94.2%	82.8%
Detection Limit	50	50	0.5	0.5	0.5	0.5
Method of Analysis	5030/ 8015	3510 / 8015	602	602	602	602

David Duong
Laboratory Director

HOLDING TANK WATER

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

License # RG 6253
Well Sampling
Hydrogeology Services

DUGAN ASSOCIATES
1792 Rogers Avenue, San Jose, CA. 95112
Telephone 408/573-7740 Fax 408/573-7704

Bill Dugan, R.G.

GROUNDWATER MONITORING and SAMPLING DOCUMENTATION REPORT [DA-958-97-1]

Report Date: August 15, 1997

To: Mr. Giulio Chioini
Pacific Maintenance
Santa Clara, California 95050

Site: 2433 De La Cruz Blvd.
Santa Clara, CA 95050
SCVWD#: 06S1W35K01f

Report Scope: This report summarizes groundwater sampling performed by Dugan Associates at the project site on March 21, 1997. Field methods and sampling measurements are presented in Attachment A. Supporting documentation provided by an independent State-certified laboratory are included in Attachment B.

Site Figures: See Figure 1 for a Hydrogeology Data Map showing groundwater sampling points, laboratory results, and depth to water data for the 03/21/97 sampling episode.

Field Methods: The following well sampling tasks were performed on well MW-1:

1) measured depth to water level;
2) performed subjective analyses for floating product [using a disposal bailer];
3) purged at least three well volumes of water from the well;
4) allowed the well to recover to approximate static water level conditions;
5) collected groundwater samples; and
6) transported the groundwater samples to a State-certified laboratory for the analyses requested;

Analytical Results: See Figure 1 and Attachment B.

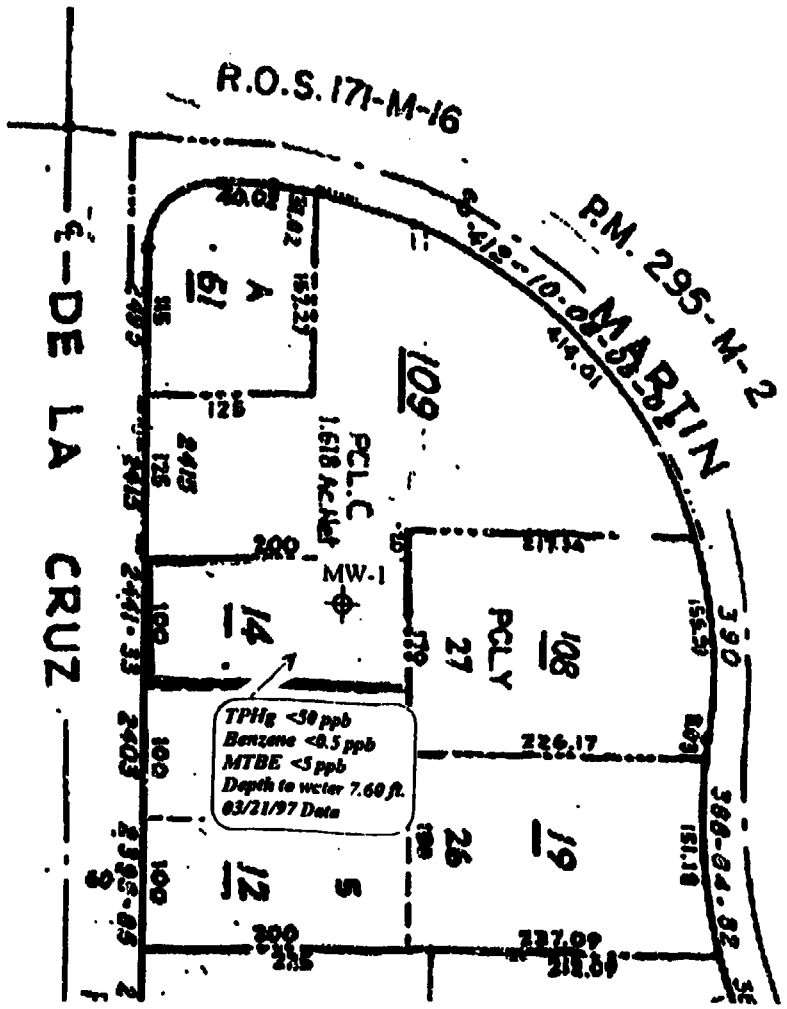
Data Summary Statement, and Recommendations: Gasoline hydrocarbons from the former gasoline UST impacted the ground water beneath the site in the past. This conclusion is based on the concentration of 120 parts per billion (ppb) of TPHg detected in groundwater sample MW-1 collected from monitoring well MW-1 by Dugan Associates in October 1993. However, results of laboratory analyses of groundwater samples collected by Dugan Associates in November 1992, four sampling quarters of 1994, the first and fourth quarters of 1995, and the current sampling episode indicate that gasoline-impacted groundwater is no longer present beneath the site in the area of well MW-1 during the above-mentioned times of sampling. Cumulative groundwater levels are presented in Table 1. Cumulative groundwater laboratory analysis data is presented in Table 2. Dugan Associates recommends regulatory closure with respect to the former underground gasoline storage tank.

Certification: I certify that hydrogeology monitoring and sampling work presented in this report was performed under my supervision. To the best of my knowledge, the hydrogeologic data contained herein are true and accurate, and the work was performed in accordance with professional standards.

8/15/97
William R. Dugan — Date
Registered Geologist No. 6253

REGISTERED GEOLOGIST
WILLIAM R. DUGAN
No. 6253
Exp. 11/97
STATE OF CALIFORNIA

D:\DUGAN\DA-958-97-1.FIN



DUGAN ASSOCIATES ENVIRONMENTAL SERVICES
Hydrogeology Monitoring Services

HYDROGEOLOGY DATA MAP
2433 DE LA CRUZ BLVD.
SANTA CLARA CALIFORNIA

FIGURE
1

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California

Well Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Field Comments
MW-1				
04/24/92		10.56	38.47	Not Noted
11/13/92		11.44	33.39	No Odor
10/14/93		9.41	35.42	No Odor
11/04/93	44.83	9.33	35.50	No Odor
12/04/93		9.21	35.62	No Odor
01/08/94		9.08	35.75	No Odor
02/09/94		8.97	35.86	No Odor
03/14/94		8.91	35.92	No Odor
04/17/94		8.89	35.94	No Odor
05/15/94		9.06	35.77	No Odor
06/28/94		8.95	35.88	No Odor
07/21/94		9.22	35.61	No Odor
08/18/94		9.30	35.53	No Odor
09/30/94		9.35	35.48	No Odor
10/21/94		9.35	35.48	No Odor
11/20/94		9.34	35.49	No Odor
12/10/94		9.29	35.54	No Odor
03/13/95		7.51	37.32	No Odor
12/28/95		7.60	37.23	No Odor

Wellhead elevations surveyed by Ron Archer Civil Engineer on October 26, 1993.
Elevations in feet above mean sea level (MSL). Depths in feet.

Benchmark: Top of curb at catch basin approximately 120 feet east of De La Cruz Boulevard on Martin Avenue. Elevation taken as 42.26 feet "assumed".

TABLE 2
RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES FOR HYDROCARBONS
Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California

Sample ID	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
C Inc.							
MW-1	04/28/92	<50	<0.5	<0.5	<0.5	<0.5	NA
Dugan Associates							
CCP-MW-1	11/13/92	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	10/14/93	120	<0.5	<0.5	1.1	<0.5	NA
W-MW-1	02/09/94	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	06/28/94	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	09/30/94	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	12/10/94	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	03/13/95	<50	<0.5	<0.5	<0.5	<0.5	NA
W-MW-1	12/28/95	<50	<0.5	<0.5	<0.5	<0.5	NA
MCLs	Oct. 1990	-----	1.0	-----	680	1,750	-----
DWALs	Oct. 1990	-----	-----	100	-----	-----	-----

Results in micrograms per liter (ug/L) or parts per billion (ppb).

TPHg: Total petroleum hydrocarbons as gasoline (by GCFID Method 8015/5030).
Benzene, toluene, ethylbenzene, and total xylenes (by EPA Method 8020).
TPHd: Total petroleum hydrocarbons as diesel (by GCFID Method 8015/3550).

<: Less than the detection limit for the analysis method.

NA: Not Analyzed.

ATTACHMENT A

FIELD METHODS

AND

SAMPLING DATA SHEET

License # RG 6253
Well Sampling
Hydrogeology Services

DUGAN ASSOCIATES
1792 Rogers Avenue, San Jose, CA. 95112
Telephone 408/573-7740 Fax 408/573-7704

Bill Dugan, R.G.

FIELD PROTOCOL

The following presents Dugan Technical Well Services protocol for a typical site investigation involving gasoline and diesel hydrocarbon-impacted soil and/or groundwater.

Groundwater Sampling

The static water level in each well is measured to the nearest 0.01-foot using an electric water-level sounder or oil/water interface probe (if the wells contain floating product) cleaned with Alconox® and water before use in each well. The liquid in the onsite wells is examined for visual evidence of hydrocarbons by gently lowering approximately half the length of a clean Teflon® bailer past the air/water interface. The sample is then retrieved and inspected for floating product, sheen, emulsion, color, and clarity. The thickness of floating product detected is recorded to the nearest 1/8-inch.

Wells which do not contain floating product are purged using a submersible pump or bailer. The pump, cables, and hoses are steam-cleaned or cleaned with TSP® and water prior to use in each well. The wells are purged until withdrawal is of sufficient duration to result in stabilized pH, temperature, and electrical conductivity of the water, as measured using portable meters calibrated to a standard buffer and conductivity standard. If the well becomes dewatered, the water level is allowed to recover to at least 80 percent of the initial water level. Prior to the collection of each groundwater sample, the disposable Teflon® bailer is cleaned with Alconox® and rinsed with tap water and deionized water, and the latex gloves worn by the sampler changed. Hydrochloric acid is added to the sample vials as a preservative (when applicable). A sample method blank is collected by pouring distilled water into the sampling bailer and then into the sample vials. A sample of the formation water is then collected from each of the wells using the Teflon® bailer. The water samples are then gently poured into laboratory-cleaned, 40-milliliter (ml) glass vials, 500 ml plastic bottles, or 1-liter glass bottles (as required per specific laboratory analysis), sealed with Teflon®-lined caps, and inspected for air bubbles to check for headspace, which would allow volatilization to occur. The samples are then labeled and promptly placed in iced storage. A field log of well evacuation procedures and parameter monitoring is maintained. Water generated by the purging of wells is stored in 17E DOT 55-gallon drums onsite and remains the responsibility of the client.

Sample Labeling and Handling

Sample containers are labeled in the field with the project number, sample location and depth, and date, and promptly placed in iced storage for transport to the laboratory. A Chain of Custody Record is initiated by the field geologist and updated throughout handling of the samples, and accompanies the samples to a laboratory certified by the State of California for the analyses requested. Samples are transported to the laboratory promptly to help ensure that recommended sample holding times are not exceeded. Samples are properly disposed of after their useful life has expired.

License # RC 6253
Well Sampling
Hydrogeology Services

DUGAN ASSOCIATES
1792 Rogers Avenue, San Jose, CA. 95112
Telephone 408/573-7740 Fax 408/573-7704

Bill Dugan, R.G.

WELL SAMPLING DATA SHEET
2433 De La Cruz Blvd.
Santa Clara, CA

DATE:	03/21/97	**PROJECT NO.**	957-QM
WELL NO.	MW-1	**WELL DEPTH:**	23.6'
WELL DIAMETER:	2"	**DEPTH TO WATER:**	7.60'
PURGE METHOD:	Bailer		
SAMPLE METHOD:	Stainless Steel		
SAMPLED BY:	Bill Dugan		

TIME	CUMULATIVE GAL. PURGED	TURBIDITY*	pH	E.C.#	TEMP^
07:30	Initial	-	-.-	---	--.-
07:35	1 gallon	cloudy	6.7	1,000	68.2
07:40	3 gallons	>200	6.8	1,010	68.3
07:50	8 gallons	>200	6.8	1,000	67.8

* = ml/liter # = umhos/cm ^ = fahrenheit

SAMPLE NO.	PARAMETER	CONTAINER	PRESERVATIVE
W-MW-1	TPHg & BTEX	2 VOAs (40 ml)	HCl

FIELD OBSERVATIONS: No noticeable product odor, no visible sheen..

RECOVERY PERCENTAGE 59 **% at** **Hrs**

D:\DUGAN\DA-922-97-2.FIN

ATTACHMENT B

CHAIN OF CUSTODY RECORD

AND

LABORATORY DATA SHEETS

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

04/04/97

Dear Bill:

Enclosed are:

1). the results of 1 samples from your # 958; Chioini-De La Cruz project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Dugan Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: # 958; Chioini-De La Cruz	Date Sampled: 03/21/97
		Date Received: 03/25/97
	Client Contact: Bill Dugan	Date Extracted: 03/26/97
	Client P.O:	Date Analyzed: 03/26/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; Californin RWQCB (SF Bay Region) method GC/FID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
74683	W-MW-1	W	ND	ND	ND	ND	ND	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/26/97 Matrix: Water

Analyte	Concentration (mg/L) Sample (#74673)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	105.3	97.0	100.0	105.3	97.0	8.2
Benzene	0.0	8.8	9.3	10.0	88.0	93.0	5.5
Toluene	0.0	9.1	9.7	10.0	91.0	97.0	6.4
Ethyl Benzene	0.0	9.9	10.1	10.0	99.0	101.0	2.0
Xylenes	0.0	29.9	30.6	30.0	99.7	102.0	2.3
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	0	26500	26400	23700	112	111	0.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

Dugan Associates
1023B Martin Avenue, Santa Clara, CA 95050
Phone: (408) 287-2175 FAX: (408) 287-2176

Third Party Geoservices

Chain of Custody

8321ADA5 DAES C.O.C Form #:

Sample Delivery:	Project Name: Chioini Property
Work Scope: Sample 1 well	Site Address: DeLa Cruz Blvd., Santa Clara, CA
	Project/ PO #: 958
Project Manager: Bill Dugan	Laboratory: McCampbell
Phone: 408-287-2175 Fax: 408-287-2176	Turn Around: Standard

SAMPLE ID	LOCATION DESCRIPTION	SAMPLED Time	SAMPLED Date	Received Time	# of Ctrs.	MATRIX Soil	MATRIX Water	MATRIX Air	LUFT Method TPH-Diesel	LUFT Method TPH-Gasoline	BTEX/MTBE	Purgeable Aromatics (602/8020) & TPH-Gasoline	Total Lead	Title 22 Metals (CAM 17)	5 Metals (Cd,Cr,Pb,Ni,Zn)	EPA Method 8270	EPA Method 8240	EPA Method 8010	TPH as Motor Oil	pH	Acidifies
+ W MW-1			3/21/97		2		✓			X	X										

74683

VOAS O&G METALS OTHER

INTACT ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ___
PRESERVATIVE ✓
APPROPRIATE ✓
CONTAINERS ✓

Sampler's name :	William R.Dugan	Comments:	
Sampler's signature :	[signature] 3/25/97		
Relinquished by :	[signature] 10:45 AM	Received by : [signature]	Date: 3-25-97
Relinquished by :	[signature]	Received by : [signature]	Date 3-25-97

DUGAN ASSOCIATES

ENVIRONMENTAL SERVICES 1023B Martin Ave, Santa Clara, CA 95050 408/988-5946 FAX: 988-5947

Re-Excavation, Sampling, and Backfilling of Former Underground Gasoline Storage Tank Pit and Environmental Records Review

at

Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California

for

Environmental Remediation Technologies
15466 Los Gatos Boulevard Suite 215
Los Gatos, California

by

Dugan Associates

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Hand Delivered - 6/30 - Orig TAH (w/a) B.D.

DUGAN ASSOCIATES

ENVIRONMENTAL SERVICES 1023B Martin Ave, Santa Clara, CA 95050 408/988-5946 FAX: 988-5947

Ms. Linda Kincaid
Environmental Remediation Technologies
15466 Los Gatos Blvd., Suite 215
Los Gatos, California, 95032

May 24, 1993
Project 958-1

Subject: Summary Report on re-excavation, soil sampling, and backfilling of former gasoline storage tank pit at Chioini Property at 2433 De La Cruz Boulevard in Santa Clara, California.

Ms. Kincaid:

The attached report describes the results of the re-excavation and backfilling operations of the former gasoline storage tank pit, and soil sampling at the above-referenced site.

If you have any questions or comments, please call me at (408) 988-5946.

Sincerely,
DUGAN ASSOCIATES

William R. Dugan
Project Manager

Attached: Report on Re-Excavation and Backfilling of Former Underground Gasoline Storage Tank Pit and Soil Sampling

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DUGAN ASSOCIATES

ENVIRONMENTAL SERVICES 1023B Martin Ave, Santa Clara, CA 95050 408/988-5946 FAX: 988-5947

RE-EXCAVATION AND BACKFILLING OF FORMER TANK PIT AND SOIL SAMPLING REPORT

Report Date: May 24, 1993

Name of Business: Chioini Property

Site Address: 2433 De La Cruz Boulevard, Santa Clara, California

Site Location: See Figure 1, Site Location Map

Site Description Assessor's Parcel Number 230-47-014

The site is situated on approximately ½-acre on the east side of De La Cruz Boulevard in Santa Clara, California. The facility consists of a combined warehouse and office building, and a parking lot area (see Figure 2, Generalized Site Plan). The existing building is presently occupied by a printing press company. The site is located in an area zoned and occupied by light industrial (ML) buildings.

Site Background:

Winters Petroleum, 1989. On January 3, 1989, a 500-gallon gasoline underground storage tank (UST) was removed from the site by the H.C. Winters Company, formerly of San Jose, California. A single soil sample was collected from beneath the UST at the time of removal by personnel of the H.C. Winters Company. Laboratory analyses of the soil sample, collected at an unreported depth, revealed concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) of 220 parts per million (ppm), and concentrations of the gasoline constituents benzene, toluene, ethylbenzene, and xylenes (BTEX) of less than 0.3 ppm, 4.5 ppm, 7.4 ppm, and 59 ppm, respectively (Trace Analysis Laboratory, January 1989). After removal of the UST and collection of the soil sample, the excavation was backfilled with coarse subrounded gravel or "river rock" by the H.C. Winters Company.

Site Background Continued:

Santa Clara Valley Water District Letter, July 1990. In July 1990, the Santa Clara Valley Water District (SCVWD) issued a letter requiring the submission of a technical report describing the extent of impact to soil and groundwater in the area of the former gasoline UST at the site (SCVWD, July 9, 1990). In addition, the SCVWD issued a second letter based on the SCVWD's Ordinance 90-1 requiring that the permeable backfill materials in the former UST pit be excavated and that clean, compacted, impervious material be used as backfill (SCVWD, October 3, 1990).

E_2C Inc., 1992. In April 1992, E_2C Inc. of Sunnyvale, California, drilled, installed, and sampled groundwater monitoring well MW-1 near the northeast corner of the former UST pit (see Figure 2). Groundwater was encountered in the borehole at a depth of approximately 16 feet. Results of laboratory analyses of three soil samples collected during drilling revealed nondetectable concentrations (less than 1.0 to 5.0 ppm) of TPHg and nondetectable concentrations (less than 0.0050 ppm) of the gasoline BTEX constituents at depths of approximately 5½, 10½, and 15½ feet. Results of laboratory analyses of a groundwater sample collected from well MW-1 revealed nondetectable concentrations (less than 50 parts per billion [ppb]) of TPHg and nondetectable concentrations (less than 0.5 ppb) of gasoline BTEX constituents (E_2C Inc., May 1992).

Santa Clara Valley Water District Letter, July 1992. In July 1992, the SCVWD issued an additional letter (SCVWD, July 17, 1992) requiring additional site assessment work to determine the extent of soil contamination, a quarterly groundwater monitoring program, and submission of additional information regarding tank and soil removal work conducted in 1989. At the time of the letter, the site was classified as a Self-Directed site by the Fuel Leak Program at the SCVWD's Groundwater Protection Division.

Cumulative results of laboratory soil analyses are summarized in Table 1 of this report. Cumulative results of the laboratory analyses of groundwater samples are summarized in Table 2.

Present Report Scope:

Task #1. Performed an environmental records review focusing on environmental concerns of nearby properties (one-mile radius from the site).

Task #2. Collected one groundwater sample from existing groundwater monitoring well MW-1, and laboratory analyzed the sample for TPHg and BTEX.

Task #3. Excavated an exploratory test pit adjacent to the former UST pit, collected soil samples, and submitted the samples for geotechnical and hydrocarbon laboratory analyses.

Task #4. Removed sand and gravel backfill materials from the former UST pit. The excavated pit was then backfilled with Controlled Density Fill (CDF) material to comply with the SCVWD's Ordinance 90-1 Excavation Backfilling Guidance document (SCVWD. February 1991).

Task #5. Collected composite soil samples from the stockpiled soil for laboratory analyses.

Task #6. Preparation of this report, which summarizes the laboratory results, and field procedures, conclusions, and recommendations for additional work at the site.

TASK #1: **Environmental Records Review**

BBL Inc. Report. Dugan Associates contacted BBL of Solana Beach, California to perform an environmental records review focusing on environmental concerns of nearby properties (within a one-mile radius from the site). The records review identified 85 properties listed in Federal, State and Regional sources set up to track potential or active problem sites. Of the 85 sites located within a one-mile radius of the site, 35 are also located within a ½-mile radius of the subject site.

Of the 85 sites; 51 sites are identified as having leaking tanks in various stages of assessment or remediation; 20 of the sites are listed as currently needing no further action, or no action taken; 10 sites are identified as non-tank or unauthorized releases; three sites are identified as abandoned hazardous waste sites; and one site is identified as a municipal drinking water well (BBL, September 1992). A location map from the complete report is included in Appendix A.

Santa Clara Valley Water District Fuel Leak Activity Report. Six nearby sites are listed in the Fourth Quarter 1992 SCVWD Fuel Leak Activity Report (SCVWD, January 15, 1993):

SCVWD I.D. Number	Facility Name & Site Address
06S1W35L02F	California Compacts Rent A Car 2468 De La Cruz Ave., Santa Clara, CA
06S1W35L01F	Reliance Steel & Aluminum Co. 2460 De La Cruz Ave., Santa Clara, CA
06S1W35K04F	Quality Fork Lift 2375 De La Cruz Ave., Santa Clara, CA
06S1W35L06F	Thrifty Car Rental 2362 De La Cruz Ave., Santa Clara, CA
06S1W35K02f	Chioini Property 382 Martin Avenue, Santa Clara, CA
06S1W35K03f	R. H. Wehner Concrete Construction 390 Martin Avenue, Santa Clara, CA

TASK #2: **Groundwater Sampling of Monitoring Well MW-1**

Site Safety Plan: Dugan Associates prepared a site-specific Safety Plan describing the precautions and protective equipment required for workers at the site.

Work Performed: Dugan Associates was onsite to monitor and sample groundwater monitoring well MW-1 less than 10 feet from the former UST. The depth to groundwater in well MW-1 was measured to be 11.43 feet below the top of the well casing. A groundwater sample was collected in four 40 ml (milliliter) glass vials, then placed in iced storage for transportation to the Laboratory in accordance with Dugan Associates' Field Protocol, as described in Appendix B. The well purge data is included in Appendix C.

Date Sampled: November 13, 1992

Sample Type: 1 groundwater sample: (CCP-MW-1)

Analytical Laboratory: Laboratory analyses were performed at McCampbell Analytical Inc., of Pacheco, California (DHS Certification Number 1644). A Chain of Custody Record and a laboratory Data Sheet are presented in Appendix C.

Analytical Methods: The groundwater sample was analyzed for the following: TPHg by GCFID (LUFT Method) following sample purge and trap by EPA Method 5030; and analyses for the volatile hydrocarbon constituents BTEX were performed by EPA Test Method 8020.

Analytical Results: The groundwater sample collected from well MW-1 contained concentrations of TPHg and BTEX at levels below laboratory reporting limits. The results of the laboratory analyses of the groundwater sample are presented in Table 2 of this report.

TASK #3: **Limited Excavation of Former Gasoline UST Pit**

Work Performed: Dugan Associates was onsite to observe the excavation of an exploratory test pit adjacent to the eastern side of the former gasoline tank pit, and to collect a soil sample for laboratory testing. The limited soil excavation was performed by CEECON of Pacifica, California.

Date Sampled: December 16, 1992

On-Site Personnel: Ken Mateik
Dugan Associates; Project Geologist

Peter Shurman
CEECON; Foreman

Miguel
Balch Petroleum; Backhoe Operator

Sample Type(s): 1 soil sample (S-7½-TPE)
1 bulk soil sample (S-958)

Sample Locations: The test pit soil samples were collected from the test pit at an approximate depth of 7½ feet below ground level.

Soil Sample Containers: The soil sample was collected in a single brass tube container. The ends of the brass tube were covered by aluminum foil with plastic end-caps, and sealed by duct-tape. The soil sample was placed in iced storage for transportation to the laboratory. The bulk native soil sample for geotechnical laboratory analyses was collected in a five-gallon bucket.

Local Geology: Helley, et al (1979) have mapped the site and vicinity as being underlain by predominantly fine-grained alluvial deposits of Holocene age (map unit Qhaf). These materials are described as typically consisting of unconsolidated, moderately- to poorly-sorted, plastic, carbonaceous silt and clay.

Soil Description: Beneath the asphalt and gravelly sand (SW) subbase material, predominantly Silty Clay (CH), black to dark gray, moist, and highly plastic, was encountered from a depth of ½-foot to the total depth of the test pit at approximately 7½ feet.

Geotechnical Laboratory: Geotechnical laboratory analyses were performed at Soil Foundation Systems Inc., in Fremont, California. The results of the laboratory analyses are included in Appendix B.

Analytical Methods: The soil sample provided to Soil Foundation Systems Inc. was evaluated for permeability of the native soil.

Analytical Results: The soil sample analyzed by Soil Foundation Systems Inc. indicated that since the native soil materials are predominantly plastic silty clay, permeability tests on samples of the native soil would likely yield relatively impermeable results. Because of the plastic native silty clay, the Soils Engineer at Soil Foundation Systems Inc. determined that it would be highly unlikely to be able to compact the excavated materials to a physical condition which would have the very low permeability characteristics equivalent to that of the moderately to highly plastic native soils. Because of this evaluation, it was resolved that in order to comply with the SCVWD's excavation backfilling Ordinance 90-1, the excavation should be backfilled with CDF material.

Analytical Laboratory: Laboratory chemical analyses of the soil sample were performed at McCampbell Analytical Inc., Pacheco, California (DHS Certification Number 1644). A chain of custody record and laboratory data sheet are included in Appendix B.

Analytical Methods: The soil sample analyzed by McCampbell Analytical, Inc. were analyzed for the following:
TPHg and BTEX by GCFID (LUFT Method) following sample purge and trap by EPA Method 5030; and Organic Lead by the DHS LUFT Method.

Analytical Results: The laboratory analytical results of the soil sample indicated nondetectable levels of TPHg (less than 1.0 ppm), and nondetectable levels of BTEX (less than 0.005 ppm). The laboratory analytical results are summarized in Table 1.

TASK #4: **Re-Excavation and Backfilling of Former Gasoline UST Pit**

Work Performed: Dugan Associates was onsite for the observation of the re-excavation of the former gasoline UST pit, removal of hydrocarbon-contaminated soil immediately below the former UST pit that could act as a secondary source, and the collection of "grab" groundwater samples from the excavation for laboratory testing. The excavation of the former gasoline UST pit was performed by personnel of Balch Petroleum of Milpitas, California.

After excavation, the former gasoline UST pit was filled with Controlled Density Fill (CDF) material after earlier determination by a Soils Engineer that the native silty clay soil likely could not be compacted to a sufficiently lower permeability than existing conditions, as per SCVWD Ordinance 90-1 (SCVWD, February 1991).

Date of Work: April 3, 1993

Soil Description: After excavation of the tank pit fill materials, the surrounding native soil materials were noted to consist predominantly of the following:

Approximate Depths	Description
½-foot to 9 feet	Silty Clay (CH), alternating layers of black to dark gray, moist, moderate to high estimated plasticity; noticeable hydrocarbon odor was detected beginning at a depth of approximately 9 feet.
9 feet to 10½ feet	Sandy Clay (CL), olive-gray, moist to very moist, moderate to low estimated plasticity, and with a noticeable hydrocarbon odor.
10½ feet to 12 feet	Clayey Sand (SC), olive-green, wet, moderately dense, and with a strong hydrocarbon odor.

Beneath the asphalt and gravelly sand (SW) subbase material, the tank pit fill materials were noted to consist predominantly of the following:

Approximate Depths	Description
3 inches to 4½ feet	Gravelly Sand (SW), brownish-gray, damp, and loose.
4½ feet to 7½ feet	Medium-grained Sand (SP), brown, damp, and loose.

Cross-Section: A schematic cross-section of the former gasoline tank pit excavation is presented in Figure 3.

Soil Stockpiles: The stockpiled soil was placed on plastic at the site, and covered with plastic. Soil subjectively evaluated as having hydrocarbon contamination were separated from those subjectively evaluated as having little or no hydrocarbon contamination. Evaluation was based on subjective evidence of soil discoloration and noticeable or obvious hydrocarbon odor.

Sample Type(s): One excavation grab water sample (W-12-TP)

Water Sample Containers: Groundwater samples from the tank pit excavation were collected in 40 milliliter glass vials and one liter amber-colored glass bottles. The groundwater samples were placed in iced storage for transportation to the laboratory, and a Chain of Custody record was initiated in the field by the Project Manager.

Analytical Laboratory: Laboratory analyses performed at McCampbell Analytical Inc., Pacheco, California (DHS Certification Number 1644). Chain of custody record and laboratory data sheets are presented in Appendix B.

Analytical Methods: The water samples analyzed by McCampbell Analytical, Inc. were analyzed for the following:

1) TPHg by GCFID (LUFT Method) following sample purge and trap by EPA Method 5030;
2) the volatile hydrocarbon constituents BTEX by EPA Test Method 8020;
3) in addition, the tank pit water samples were analyzed for Total Petroleum Hydrocarbons as diesel (TPHd) by GCFID (LUFT Method) following extraction by EPA Method 3550 to investigate the possibility of nearby offsite sources of contamination.

Analytical Results: Summarized in Table 1 below. The laboratory data sheets are included in Appendix B.

TABLE 1
RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES FOR HYDROCARBONS
Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California
(Page 1 of 1)

Sample ID	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
E₂C Inc.							
MW-1	04/28/92	<50	<0.5	<0.5	<0.5	<0.5	NA
Dugan Associates							
CCP-MW-1	11/13/92	<50#	<0.5	<0.5	<0.5	<0.5	NA
TP-W-12	04/03/93	25,000#	<5	<5	420	2,500	17,000*
MCLs	Oct. 1990	-------	1.0	-----	680	1,750	--------
DWALs	Oct. 1990	-------	--.--	100	-----	-------	--------

Results in micrograms per kilograms (ug/Kg) or parts per billion (ppb).

TPHg: Total petroleum hydrocarbons as gasoline (by GCFID Method 8015/5030).
Benzene, toluene, ethylbenzene, and total xylenes (by EPA Method 8020).
TPHd: Total petroleum hydrocarbons as diesel (by GCFID Method 8015/3550).

<: Less than the detection limit for the analysis method.
#: Heavier gasoline range compounds predominate (aged gasoline?).
*: Gasoline range compounds predominate (aged gasoline?).

TASK #5: **Collection of Composite Soil Samples from Stockpiled Soil**

Work Performed: Dugan Associates was onsite for the collection of composite soil samples for laboratory testing from the two soil stockpiles generated from the excavation operations.

Date of Work: April 19, 1993

On-Site Personnel: Ken Mateik
Dugan Associates; Project Geologist

Sample Type(s): Two composite soil stockpile samples: CS-1½-SP1[A,B,C,D]
CS-2-SP2[A,B,C,D]

Sample Locations: One composite soil sample (CS-1½-SP1 [A,B,C,D]) was collected from a square grid pattern within the approximately ten cubic yard stockpile of "river rock" and sand, and one composite soil sample (CS-2-SP2[A,B,C,D]) was collected from a square grid pattern within the approximately ten cubic yard stockpile of contaminated native soil.

Soil Sample Containers: Soil samples were collected in brass tube containers. The ends of the brass tubes were covered by aluminum foil with plastic end-caps, and sealed by duct-tape. The soil samples were placed in iced storage for transportation to the laboratory, and a Chain of Custody record was initiated in the field by the Project Manager.

Analytical Laboratory: Laboratory analyses performed at McCampbell Analytical Inc., Pacheco, California (DHS Certification Number 1644). Chain of custody record and laboratory data sheets are presented in Appendix B.

Analytical Methods: The composite soil samples analyzed by McCampbell Analytical, Inc. were analyzed for the following:
TPHg by GCFID (LUFT Method) following sample purge and trap by EPA Method 5030;
the volatile hydrocarbon constituents BTEX by EPA Test Method 8020; and
EPA Priority Pollutant Metals.

Analytical Results: Summarized in Tables 2 and 3 below. The laboratory data sheets are included in Appendix B.

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF SOIL SAMPLES FOR HYDROCARBONS AND LEAD
Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California
(Page 1 of 1)

Sample ID	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
H.C. Winters Company							
No. 1	01/03/89	220	<0.300	4.500	7.400	59.000	NA
E₂C Inc.							
MW-1-1	04/15/92	<1.0	<0.005	<0.005	<0.005	0.058	NA
MW-1-2	04/15/92	<1.0	<0.005	<0.005	<0.005	0.058	NA
MW-1-3	04/15/92	<1.0	<0.005	<0.005	<0.005	<0.005	NA
Dugan Associates							
S-7½-TP1	12/16/92	<1.0!	<0.005	<0.005	<0.005	<0.005	NA
CS-1½-SP1	04/19/93	<1.0*	<0.005	0.007	<0.005	0.016	19
CS-2-SP2	04/19/93	130.#	<0.005	0.050	0.40	2.2	19

Results in milligrams per kilograms (mg/Kg) or parts per million (ppm).
TPHg: Total petroleum hydrocarbons as gasoline by GCFID Method 8015/5030.
Benzene, toluene, ethylbenzene, and total xylenes by E. A Method 8020.
Total Lead by EPA Method 6010.
NA: Not analyzed.
<: Less than the detection limit for the analysis method.
!: Lighter gasoline range compounds predominate (the most mobile gasoline compounds).
*: Gasoline range compounds predominate; no recognizable pattern.
#: Heavier gasoline range compounds predominate (aged gasoline?).

TABLE 3
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF SOIL SAMPLES FOR METALS
Chioini Property
2433 De La Cruz Boulevard
Santa Clara, California
(Page 1 of 1)

Metal Analyte	CS-1½-SP1	CS-2-SP2	Background Levels	TTLC	STLC
Silver (Ag)	0.3	<0.2	NC	500	5
Arsenic (As)	<1	<1	0.2 - 5.5	500	5.0
Beryllium (Be)	0.6	0.3	0.3 - 1.4	75	0.75
Cadmium (Cd)	0.7	0.6	NC	100	1.0
Chromium (Cr)	50	21	30.5 - 72.0	2,500	5
Copper (Cu)	28	30	23.8 - 47.5	2,500	25
Mercury (Hg)	<0.2	0.2	NC	20	0.2
Nickel (Ni)	76	30	46.4 - 101	2,000	20
Lead (Pb)	19	19	6.8 - 16.1	1,000	5.0
Antimony (Sb)	<2	<2	NC	500	15
Selenium (Se)	<2	<2	NC	100	1.0
Thallium (Tl)	<3	<3	NC	700	7.0
Zinc (Zn)	50	76	47.7 - 82.8	5,000	250

Results in milligrams per kilograms (mg/Kg) or parts per million (ppm).
Priority Pollutant Metals by EPA Method 6010.

Background Levels from Scott (1991).
TTLC: Total Threshold Limit Concentration (Title 22, Chapter 11, Article 3 of the California Code of Regulations, 1988).
STLC: Soluble Threshold Limit Concentration, Chapter 11, Article 3 of the California Code of Regulations, 1988).
NC: Not calculated.
<: Less than the detection limit for the analysis method.

CONCLUSIONS

1) Gasoline hydrocarbons have impacted the soil onsite beneath the former gasoline UST. This conclusion is based on the concentrations of 220 ppm of TPHg detected in soil sample No. 1 collected from soil beneath the former gasoline UST by the H.C. Winters Company in January 1989.

   Additional excavation was conducted in order to remove the hydrocarbon-contaminated soil immediately beneath the former gasoline UST pit, which could act as a secondary source of contamination. During the April 1993 excavation operations, noticeable hydrocarbon odors were detected in the native soil beneath the former gasoline UST pit backfill. Removal of these hydrocarbon-impacted soils revealed discolored native soil with obvious hydrocarbon odors. The source of this deeper contamination could either be from the former gasoline UST at the site, or from a nearby offsite source.

2) Gasoline hydrocarbons have impacted the groundwater onsite beneath former gasoline UST. This conclusion is based on the elevated concentrations of TPHg in "grab" groundwater sample TP-12-12 collected from the excavation in April 1993. The source of this contamination could either be from the former gasoline UST at the site, or from a nearby offsite source.

3) The extent of gasoline hydrocarbons in the groundwater beneath the site is unknown, but may be limited. This conclusion is based on the nondetectable concentrations (less than 0.5 ppb) of TPHg in groundwater samples collected from monitoring well MW-1 by E_2C Inc. in April 1992 and by Dugan Associates in November 1992.

RECOMMENDATIONS

The Santa Clara Valley Water District is the lead regulatory agency for soil and groundwater cleanup at the subject site. A minimum requirement of the SCVWD for fuel contaminated sites is quarterly monitoring of the groundwater flow direction and water quality in order to accurately assess the impact of changing site conditions. This requirement includes water level measurements, groundwater sampling and analyses, and submittal of a technical report on a quarterly basis. In addition, since contaminant concentrations are relatively high and the extent of groundwater contamination has not been determined, the SCVWD may require further subsurface work including additional characterization, monitoring, and clean-up.

The first priority for the site is to establish the direction of the groundwater gradient of the first encountered water-bearing zone beneath the site in order to evaluate the likely source or sources of the contaminated groundwater. This can be accomplished by the installation, surveying, and gauging of at least two additional groundwater monitoring wells, or by gauging nearby accessible shallow groundwater monitoring wells that may already exist. With the establishment of a preliminary groundwater gradient further recommendations will be presented.

This technical report should be forwarded to the following regulatory agencies:

Santa Clara Valley Water District, Fuel Leak Department
5750 Almaden Expressway, San Jose, CA 95118
Attention: Fuel Leaks Division

Regional Water Quality Control Board
Santa Clara Valley Local Program Coordinator
2101 Webster St., Suite 500, Oakland, CA 94612

Santa Clara Fire Department, Hazardous Materials Division
777 Benton Street, Santa Clara, CA 95050
Attention: Dr. Larry Monette

Limitations:

This report was prepared in accordance with standards of environmental geological practice generally accepted in California at the time this investigation was performed. This investigation was conducted solely for the purpose of evaluating environmental conditions with respect to gasoline hydrocarbons (TPHg and BTEX) in the areas sampled at the subject property. Maps and cross-sections present interpretations derived by standard geological practices, of subsurface conditions based upon the sample locations. Actual subsurface conditions may differ at locations not sampled within the property. Accuracy or completeness of public and proprietary records used to conduct this limited assessment is not implied. Further investigation, including subsurface exploration and laboratory testing of soil and groundwater samples at the site, can aid in evaluating subsurface environmental conditions and reduce the inherent uncertainties associated with this type of limited environmental assessment. No soil engineering or geotechnical references are implied nor should be inferred.

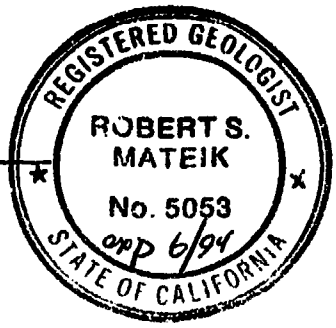
Certification:

We certify that the work presented in this report was performed under our supervision. To the best of our knowledge, the data contained herein are true and accurate, and the work was performed in accordance with professional standards.

Ken Mateik 6/17/93
Ken B. Mateik Date
Project Geologist

6/17/93
William R. Dugan Date
Project Manager

Robert S Mateik 6/17/93
Robert S. Mateik Date
Senior Geologist
Registered Geologist No. 5053



REFERENCES CITED

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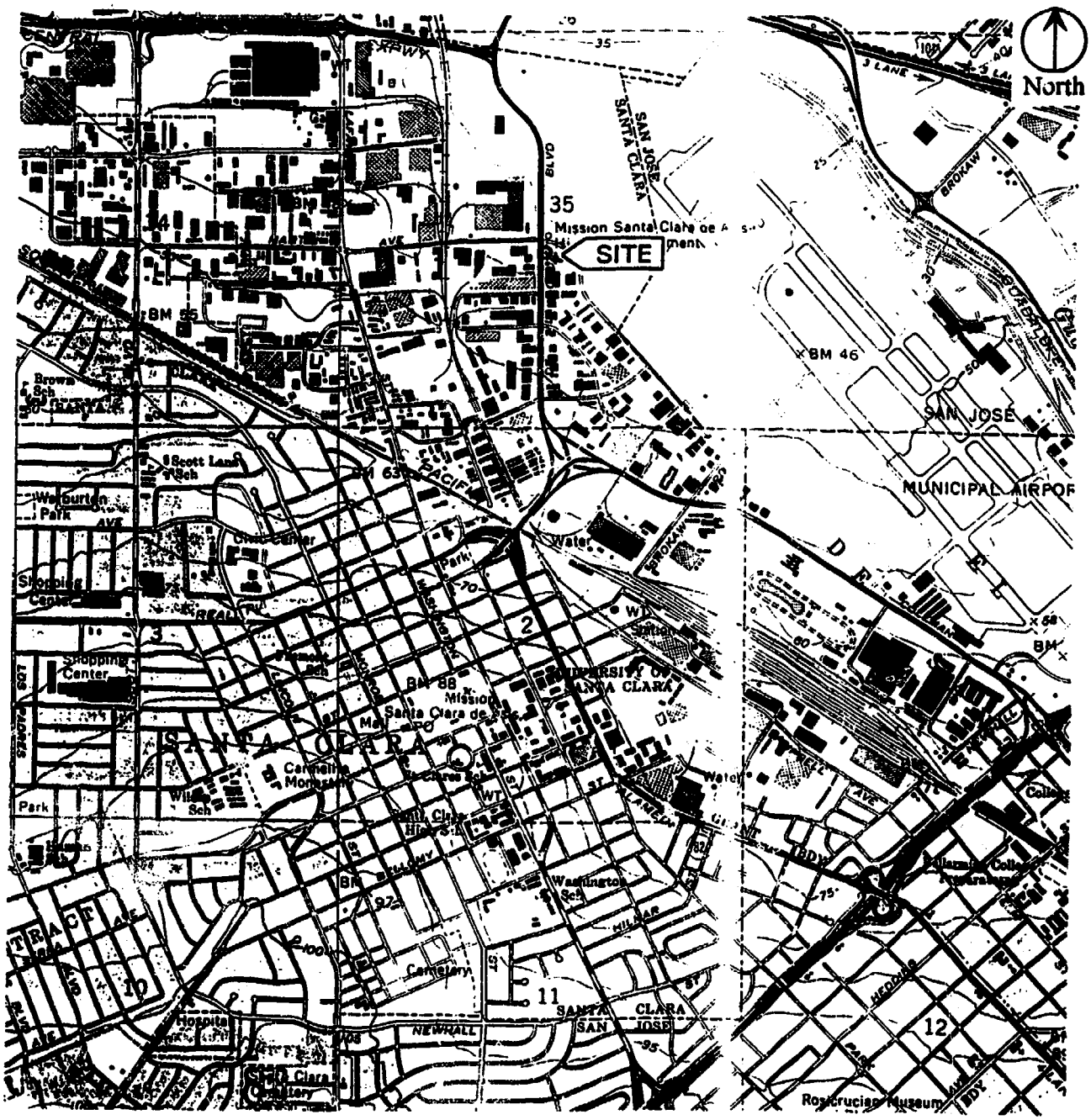
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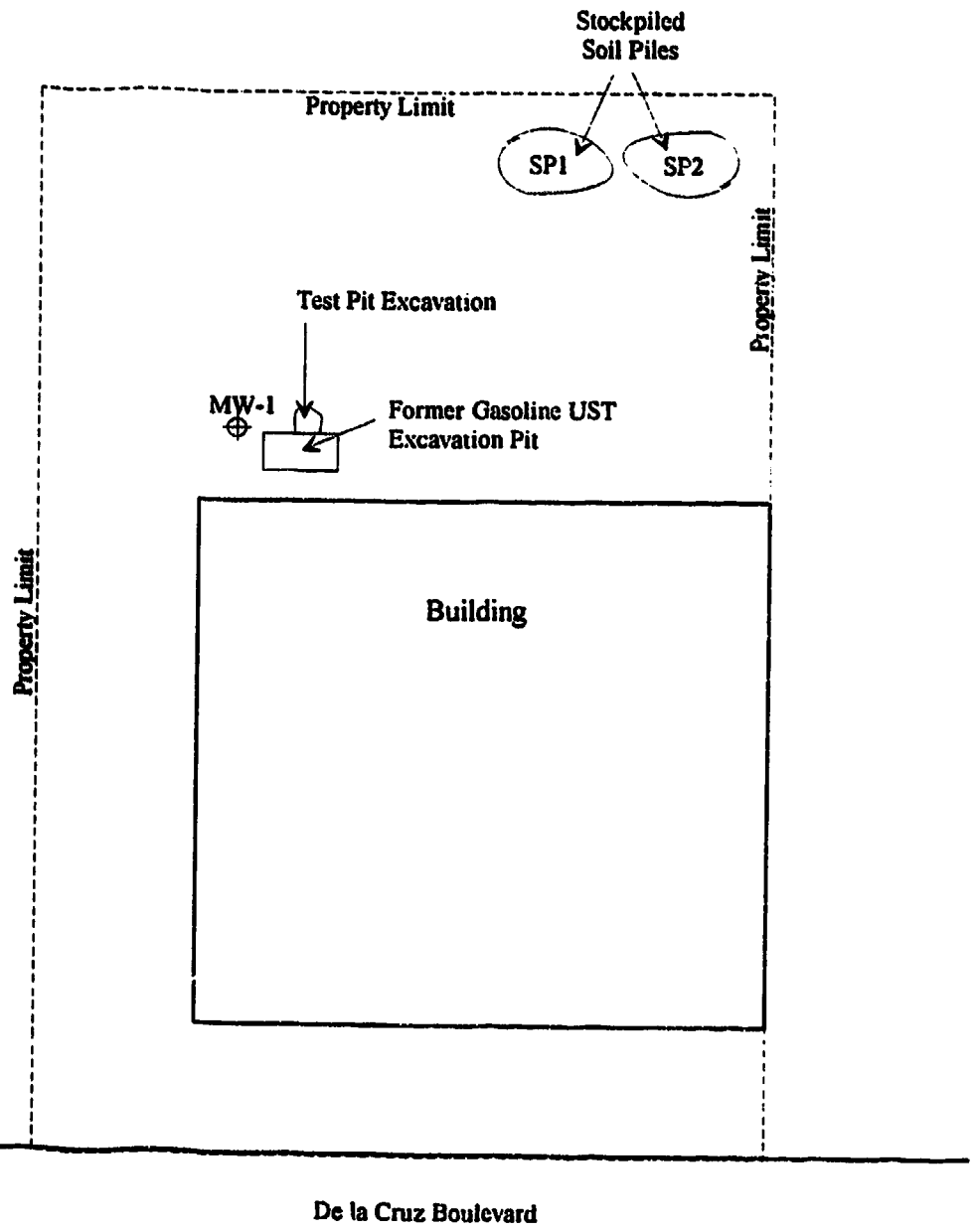
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Source: U.S. Geological Survey
7.5-Minute Quadrangle
San Jose West, California

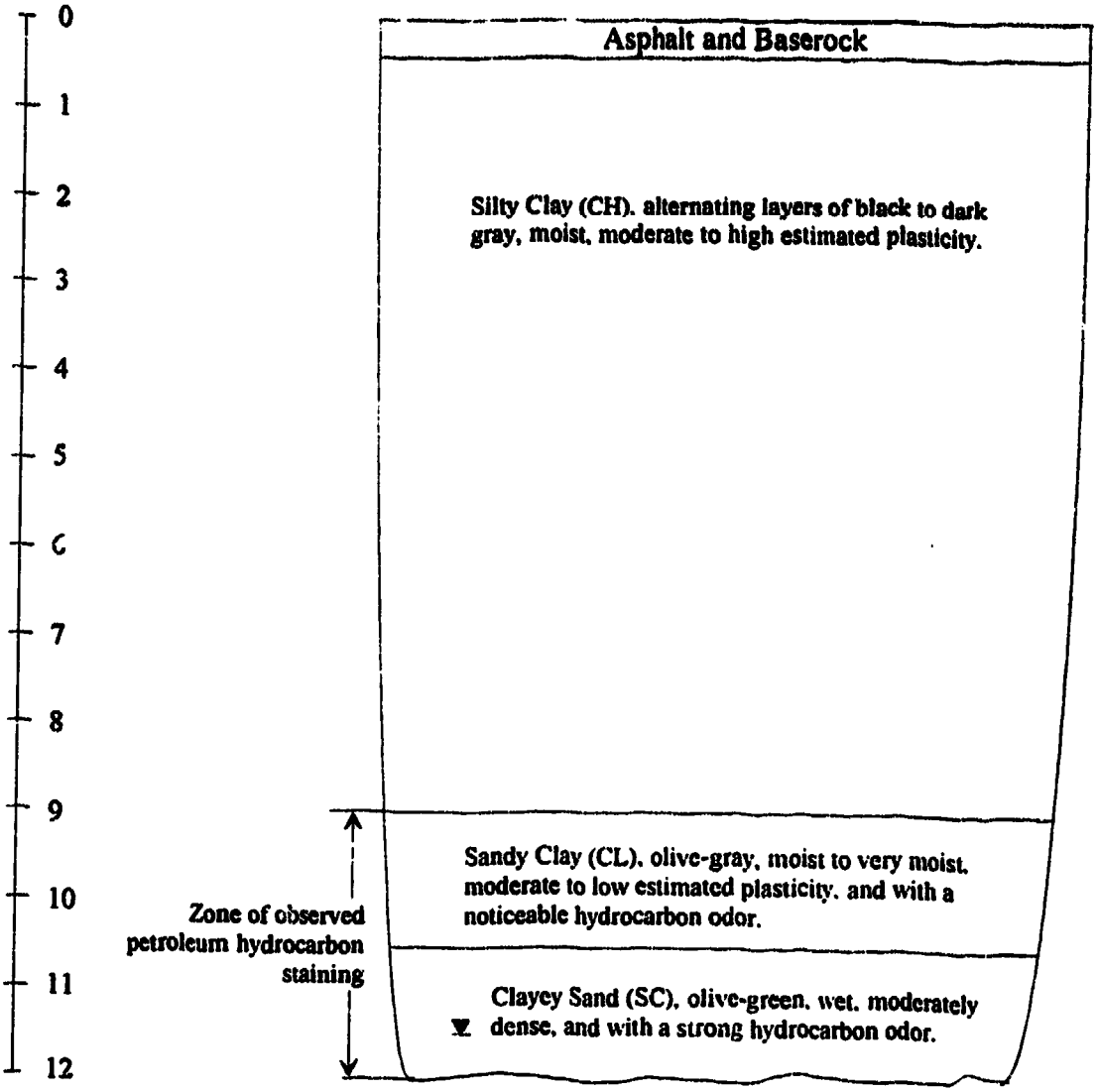
Scale
1:24,000
1" = 2,000 ft.

DUGAN ASSOCIATES **1023B Martin Ave.** **Santa Clara, California**	**SITE LOCATION MAP** **Chioini Property** **2433 De la Cruz Boulevard** **Santa Clara, California**	**FIGURE** **1**
JOB NO. 958-1		



NOT TO SCALE

DUGAN ASSOCIATES 1023B Martin Ave. Santa Clara, California JOB NO. 958-1	GENERALIZED SITE PLAN Chioini Property 2433 De la Cruz Boulevard Santa Clara, California	FIGURE 2



Legend

▼ = Stabilized water level on April 13, 1993

View of West Wall

NOT TO SCALE

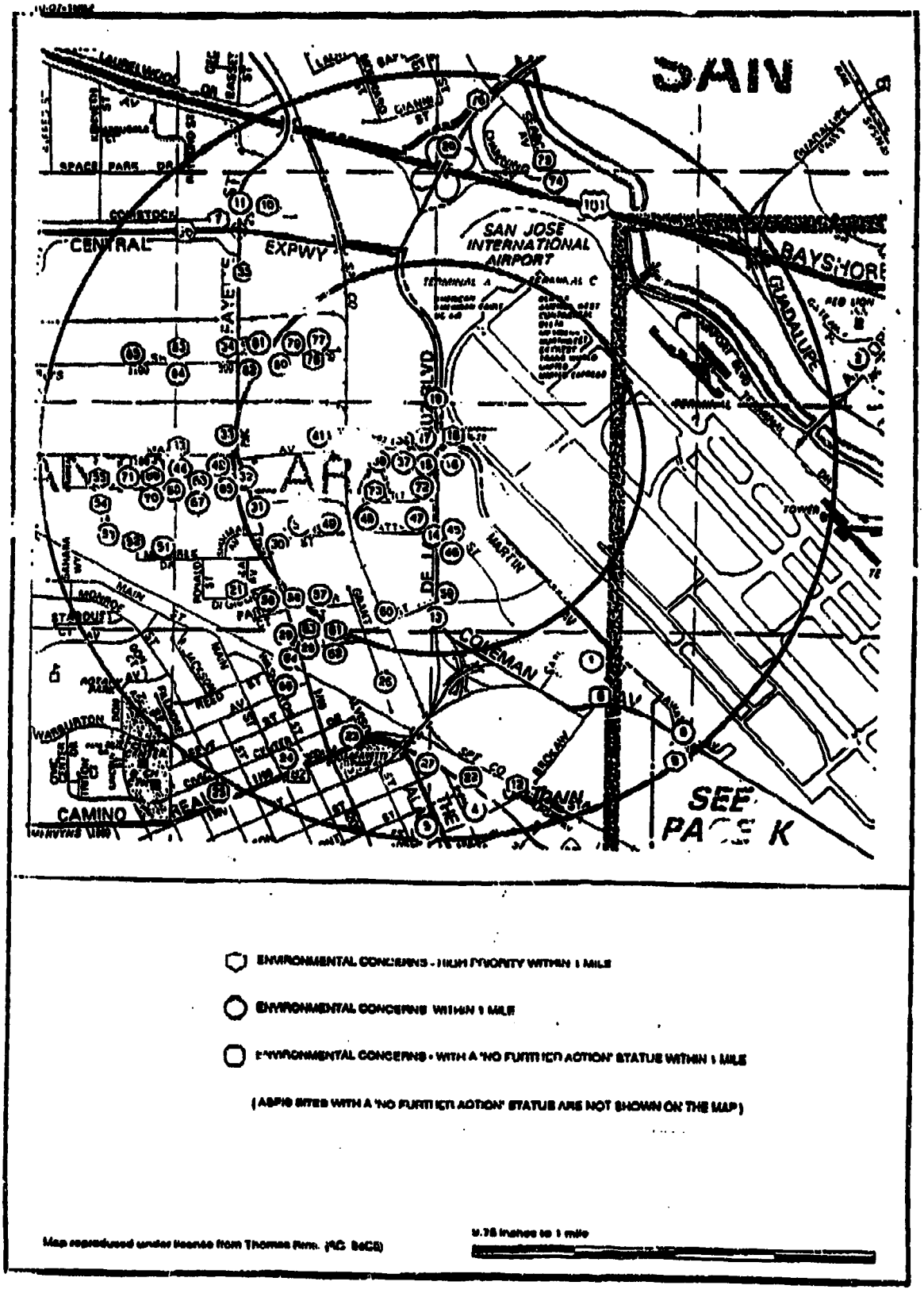
DUGAN ASSOCIATES 1023B Martin Ave. Santa Clara, California JOB NO. 958-1	EXCAVATION PROFILE Chioini Property 2433 De la Cruz Boulevard Santa Clara, California	FIGURE 3

APPENDIX A

BBL ENVIRONMENTAL RECORDS REVIEW

ENVIRONMENTAL RECORDS SEARCH

LISTED BY SOURCE



APPROXIMATE LOCATION OF IDENTIFIED SITES IN THE VICINITY OF
2433 DEL LA CRUZ, SANTA CLARA

INTRODUCTION

The following government sources have been searched for sites within one mile radius, unless otherwise stated, of the subject location.

BBL has used its best effort but makes no claims as to the completeness or accuracy of the referenced government sources or the completeness of the search. Our records are frequently updated but only as current as their publishing date and may not represent the entire field of known or potential hazardous waste or contaminated sites. To ensure complete coverage of the subject property and surrounding area, sites may be included in the list if there was any doubt as to the location because of discrepancies in map location, zip code, address, or other information in our sources.

FEDERAL SOURCES

NPL National Priority List

EPA has prioritized sites with significant risk to human health and the environment. These sites receive remedial funding under the Comprehensive Environmental Response Conservation and Liability Act (CERCLA).

No listings within the specified range.

CERCLIS Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS is a data base used by the EPA to track activities conducted under the Comprehensive Environmental Response, and Liability Act CERCLA (1980) and the amendment the Superfund A and Reauthorization Act, SARA (1986).

Sites to be included are identified primarily by the reporting requirements of hazardous substances Treatment, Storage and Disposal (TSD) facilities and releases larger than specific Reportable Quantaties (RQ), established by EPA.

Using the National Oil and Hazardous Substance Pollution Contingency Plan (National Contingency Plan) EPA set priorities for cleanup.

EPA rates National Contingency Plan sites according to a quantitive Hazard Ranking System (HRS) based on the potential health risk via any one or more potential pathways; ground-water, surface water, air, direct contact, and fire /explosion.

EPA and state agencies seek to identify potentially responsible parties (PRP) and ultimately

Responsible Parties (RP) who can be required to finance cleanup activities, either directly or through reimbursement of federal Superfund expenditures.

Status Codes: *NFA - No Further Action*

Site: OWENS CORNING FIBERGLAS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *NFA*

Site: FMC CORP ORDNANCE PLT
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *NFA*

Site: GIMELLI BROTHERS INC
Address: 715 COMSTOCK ST
City: SANTA CLARA
Map Loc: 10
Status: *NFA*

Site: PG-E GAS PLANT SANTA CLARA
Address: COR BENTON - RAILROAD AVE
City: SANTA CLARA
Map Loc: 12
Status: *NFA*

Site: CONTAINER CORP OF AMERICA
Address: 2500 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 18
Status: *NFA*

Site: UNISYS
Address: 1040 DI GIULIO AVE
City: SANTA CLARA
Map Loc: 21
Status: *NFA*

Site: MONSANTO CHEM CO SANTA CLARA P
Address: 2710 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 34
Status: *NFA*

Site: CERTAINTEED CORP.
Address: 2885 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 35
Status: *NFA*

Site: PACIFIC NURSERY POTS
Address: 1015 MARTIN AVE
City: SANTA CLARA
Map Loc: 43
Status: *NFA*

Site: MEMOREX DRIVE COMPLEX
Address: 1200 MEMOREX DR
City: SANTA CLARA
Map Loc: 52
Status: *NFA*

Site: UNISYS
Address: 1500 MEMOREX DR
City: SANTA CLARA
Map Loc: 54
Status: *NFA*

Site: TANDY MAGNETICS MEDIA
Address: 1600 MEMOREX DR
City: SANTA CLARA
Map Loc: 55
Status: *NFA*

Site: ALL METALS DBA ECS REFINERY
Address: 705 REED ST
City: SANTA CLARA
Map Loc: 61
Status: *NFA*

Site: WESTERN FORGE - FLANGE
Address: 780 REED ST
City: SANTA CLARA
Map Loc: 63
Status: *NFA*

Site: EFAB INC
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: *NFA*

Site: GILMORE SUPPLY
Address: 585 ROBERT AVE
City: SANTA CLARA
Map Loc: 73
Status: *NFA*

Site: PACIFIC AIRMOTIVE
Address: SAN JOSE ARPT
City: SAN JOSE
Status: *NFA*

Site: HEWLETT PACKARD MICROWAVE SEMI
Address: 350 W TRIMBLE RD
City: SAN JOSE
Map Loc: 76
Status: *NFA*

Site: KEYSTONE CONSOLIDATED INDUSTRI
Address: 650 WALSH AVE
City: SANTA CLARA
Map Loc: 78
Status: *NFA*

Site: TECHNICAL COATINGS CO
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: *NFA*

FEDFAC Federal Facilities

As part of the CERCLIS program, federal facilities with known or suspected environmental problems, Federal Facilities Hazardous Waste Compliance Docket, are tracked separately to comply with a Federal Court order.

No listings within the specified range.

LIENS Superfund Liens

A current list of Federal Superfund Liens as compiled by the Office of Enforcement and Compliance Monitoring (OECM), EPA, Washington, D.C. based upon information submitted by EPA's ten Regional Offices. The EPA and the OECM make no representations regarding the accuracy or completeness of the list.

No listings within the specified range.

CALIFORNIA STATE SOURCES

AW Annual Work Plan (previously known as Bond Expenditure Plan)

The California Health and Safety code, as amended by AB 129, requires the California Environmental Protection Agency to develop a site-specific expenditure plan as the basis for an appropriation of California Hazardous Substance Cleanup Bond Act of 1984 funds.

The Agency is also required to update the report annually and report any significant adjustments to the Legislature on an ongoing basis. The plan identifies California hazardous waste sites targeted for cleanup by responsible parties, the California and the Federal Environmental Protection Agencies over the next five years.

Status Codes:	*BKLG*	*Backlog, Potential Annual Work Plan Site*
	AWP	*Active Annual Work Plan site*
	COM	*Certified, but still in Operation & Maintenence mode*
	CERT	*Certified after remediation*
	DLIST	*Delisted from the AWP*
	REFRC	*Former AWP site referred to RCRA*
	REFRW	*Former AWP site referred to the Regional Water Quality Board*

Site: CERTAIN TEED PRODUCTS CORP
Address: 2885 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 35
Status: *CERT - Certified, the site has been remediated*

CALS CALSITES (previously known as The Abandoned Sites Program Information System ASPIS)

The Historical Abandoned Site Survey Program identified certain potential hazardous waste sites. These sites determinations were generally not made via sampling and site characterization. They were made as a result or file searches and windshield surveys. Some of the sites may have had a site inspection with sampling.

The information has been compiled into this database by California Environmental

Protection Agency, Department of Toxic Substance Control (DTSC) in accordance with Section 253596 of the California Health and Safety Code.

Status Codes:

PEARL	*Preliminary Endangerment Assessment Required, Low Priority*
PEARM	*Preliminary Endangerment Assessment Required, Medium Priority*
PEARH	*Preliminary Endangerment Assessment Required, High Priority*
SSR	*Site Screening Required*
HRR	*Hazard Ranking Required*
PRPR	*Potential Responsible Party Search Required*
NFA	*No Further Action for DTSC*
EPA	*EPA is the lead agency*
RCRA	*Mitigated under the RCRA permitting program*
RWQCB	*Mitigated under the lead of the Regional Water Quality Board.*
CNTY	*County Lead*
OAL	*Other Agency Lead*

Site: OWENS-CORNING FIBERGLAS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *EPA - Federal EPA lead*

Site: FMC CORP ORDANCE PLANT
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *PEARM - Preliminary Endangerment Assessment Required, Medium Priority*

Site: INTECH INC.
Address: 1220 COLEMAN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: PIELECTRANICS CORP.
Address: 1400 COLEMAN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: GIMELLI BROTHERS, INC
Address: 715 COMSTOCK ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: DIVERSIFIED BUSINESS SYSTEMS
Address: 2050 DE LA CRUZ BLVD
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: AMERICAN BEARING INC.
Address: 2175 DE LA CRUZ BLVD
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: UNISYS
Address: 1040 DI GIULIO AVE
City: SANTA CLARA
Map Loc: 21
Status: *OAL - Other Agency Lead*

Site: WESTERN FORGE S FLANGE CO.
Address: GRANT - REED STS
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: PRESTO PLATING WORKS
Address: 1798 GRANT ST
City: SAN JOSE
Status: *NFA - No Further Action for DTSC*

Site: RIMPLY MFG. CO.
Address: 1955 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: REPUBLIC GLASS CO. INC.
Address: 1975 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: AACO EQUIPMENT INC.
Address: 2265 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: FIBER FAB
Address: 2365 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: SUTHERLAND PAPER CO
Address: 2435 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: DALICTRONICS
Address: 2440 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: DACO CORP
Address: 2570 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: BEARING SPECIALTY CO.
Address: 2705 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: BEARING SPECIALTY CO.
Address: 2705 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: MONSANTO CO. #2
Address: 2710 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 34
Status: *SSR - Site Screening Required*

Site: DOUGLAS OIL CO
Address: 2920 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: SANTA CLARA REFINISHING
Address: 3058 LAFAYETTE ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: US PLYWOOD - CHAMPION PAPERS I
Address: 300 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: STRIP CHEMICAL CO INC
Address: 332 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: FABCON CO
Address: 358 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: EDRICH TOOL & DIE CO.
Address: 368 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: LINCO CORP.
Address: 430 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: TRI- STATE PLYWOOD CO.
Address: 630 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: SANI-GARD CO INC
Address: 999 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: K.M. YOUNG CO
Address: 1001 MARTIN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: QUALITY CAN CORP
Address: 1015 MARTIN AVE
City: SANTA CLARA
Map Loc: 43
Status: *PEARL - Preliminary Endangerment Assessment Required, Low Priority*

Site: ANDERSON TOOL
Address: 383 MATHEW ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: NEWCOMB DON TOOL CO
Address: 393 MATHEW ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: CAL-TAPE MACHINING CORP.
Address: 407 MATHEW ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: ROYAL FIBRE CORP
Address: 525 MATHEW ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: MILLER FORM TOOL CO.
Address: 835 MATHEW ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: MEMOREX DRIVE COMPLEX
Address: 1200 MEMOREX DR
City: SANTA CLARA
Map Loc: 52
Status: *EPA - Federal EPA lead*

Site: UNISYS RIGID MEDIA COMPONENTS
Address: 1500 MEMOREX DR
City: SANTA CLARA
Map Loc: 54
Status: *OAL - Other Agency Lead*

Site: AU ALARM CORP
Address: 385 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: AU ALARM CORP
Address: 385 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: PRODUCTION PLATING
Address: 425 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: BARR BROS.
Address: 770 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: GIBBONS ELECTRIC CO.
Address: 845 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: GIBBONS ELECTRIC CO.
Address: 845 REED ST
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: BERKELEY GLASSLAB INC.
Address: 965 RICHARD AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: QUALITOOL MFG CO
Address: 1061 RICHARD AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: E-FAB, INC
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: *SSR - Site Screening Required*

Site: E-FAB, INC
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: *SSR - Site Screening Required*

Site: SIERRA TOOL & MFG.
Address: 506 ROBERT AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: FIBERGLASS FABRICATORS
Address: 2122 RONALD
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: PACIFIC AIRMOTIVE
Address: SAN JOSE ARPT
City: SAN JOSE
Status: *NFA - No Further Action for DTSC*

Site: VARICOAT INC
Address: 1081 SHULMAN AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: BERRYMAN ELECTRO PLATING
Address: 650 WALSH AVE
City: SANTA CLARA
Map Loc: 78
Status: *PEARM - Preliminary Endangerment Assessment Required, Medium Priority*

Site: KEYSTONE INDUSTRIES
Address: 651 WALSH AVE
City: SANTA CLARA
Map Loc: 79
Status: *PEARM - Preliminary Endangerment Assessment Required, Medium Priority*

Site: U.S.P. CORP.
Address: 850 WALSH AVE
City: SANTA CLARA
Status: *NFO F -*

Site: U.S.P. CORP.
Address: 850 WALSH AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

Site: NATIONAL CAN CORP
Address: 890 WALSH AVE
City: SANTA CLARA
Map Loc: 82
Status: *PEARL - Preliminary Endangerment Assessment Required, Low Priority*

Site: TECHNICAL COATINGS INC
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: *PEARM - Preliminary Endangerment Assessment Required, Medium Priority*

Site: RHIM-TEC CORP
Address: 1056 WALSH AVE
City: SANTA CLARA
Status: *NFA - No Further Action for DTSC*

CORTESE State of California Office of Planning and Research

This database is a consolidation of information from various sources. It is maintained by the State Office of Planning and Research and lists potential and confirmed hazardous waste or substances sites. This source was last updated by the government in November 1990.

Status Codes:

WRCBT	*Tank leaks. Compiled by Water Resource Control Board.*
DHS1	*Abandoned hazardous waste site. Compiled by Toxic Substance Control Div. of DHS.*
DHS2	*Contaminated public water drinking wells serving less than 200 connections. Compiled by Env. Health Div. of DHS.*
DHS3	*Contaminated public water drinking wells serving more than 200 connections.*
DHS5	*Sites pusuant to section 25356 of the Health and Safety Code (see BEP)*
CWMB	*Solid waste disposal sites with known migration of hazardous waste.*

Site: SAN JOSE AIRPORT/RENTAL REFUEL
Address: AIRPORT BLVD
City: SAN JOSE
Status: *WCRBT - Leaking Tank*

Site: SHELL
Address: 225 AIRPORT PKWY
City: SAN JOSE
Map Loc: 2
Status: *WCRBT - Leaking Tank*

Site: UNKNOWN
Address: 509 BENTON ST
City: SANTA CLARA
Map Loc: 4
Status: *WCRBT - Leaking Tank*

Site: UNKNOWN
Address: 733 BENTON ST
City: SANTA CLARA
Map Loc: 5
Status: *WCRBT - Leaking Tank*

Site: SHELL
Address: 225 W BROKAW RD
City: SAN JOSE
Map Loc: 6
Status: *WCRBT - Leaking Tank*

Site: OWENS-CORNING FIBERGLAS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *DHS1 - Abandoned Hazardous Waste Site*

Site: OWENS-CORNING FIBERGLASS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *WCRBT - Leaking Tank*

Site: CHEVRON
Address: 1108 COLEMAN AVE
City: SAN JOSE
Map Loc: 8
Status: *WCRBT - Leaking Tank*

Site: FMC CORP ORDANCE PLANT
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *DHS1 - Abandoned Hazardous Waste Site*

Site: FMC (PLANT #2)
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *WCRBT - Leaking Tank*

Site: WASTE MANAGEMENT
Address: 715 COMSTOCK ST
City: SANTA CLARA
Map Loc: 10
Status: *WCRBT - Leaking Tank*

Site: CLEMENTINA YARD
Address: 840 COMSTOCK ST
City: SANTA CLARA
Map Loc: 11
Status: *WCRBT - Leaking Tank*

Site: CARBONIC SERVICE
Address: 1920 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 13
Status: *WCRBT - Leaking Tank*

Site: RELIANCE STEEL & ALUMINUM CO
Address: 2460 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 16
Status: *WCRBT - Leaking Tank*

Site: CALIFORNIA COMPACT RENT-A-CAR
Address: 2468 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 17
Status: *WCRBT - Leaking Tank*

Site: CONTAINER CORPORATION
Address: 2600 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 19
Status: *WCRBT - Leaking Tank*

Site: CHANGS AUTO SERVICE
Address: 1021 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 24
Status: *WCRBT - Leaking Tank*

Site: ALLIED MANAGEMENT SERVICES
Address: EL CAMINO REAL & MONROE
City: SANTA CLARA
Map Loc: 25
Status: *WCRBT - Leaking Tank*

Site: MISSION CITY REBAR
Address: 1709 GRANT ST
City: SANTA CLARA
Map Loc: 26
Status: *WCRBT - Leaking Tank*

Site: CALTRANS
Address: 651 HARRISON ST
City: SANTA CLARA
Map Loc: 27
Status: *WCRBT - Leaking Tank*

Site: ZACCOR
Address: 1955 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 28
Status: *WCRBT - Leaking Tank*

Site: COMMERCIAL FUELING SYSTEMS
Address: 2265 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 30
Status: *WCRBT - Leaking Tank*

Site: BAY EQUIPMENT CO.
Address: 2390 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 31
Status: *WCRBT - Leaking Tank*

Site: VICTORY UPHOLSTERY
Address: 2420 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 32
Status: *WCRBT - Leaking Tank*

Site: LEVIN-WESTERN METALS
Address: 2556 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 33
Status: *WCRBT - Leaking Tank*

Site: CHAMPION BUILDING PRODUCTS
Address: 300 MARTIN AVE
City: SANTA CLARA
Map Loc: 36
Status: *WCRBT - Leaking Tank*

Site: JOSEPH GEORGE DISTRIBUTORS
Address: 310 MARTIN AVE
City: SANTA CLARA
Map Loc: 37
Status: *WCRBT - Leaking Tank*

Site: MURRAY
Address: 970 MARTIN AVE
City: SANTA CLARA
Map Loc: 42
Status: *WCRBT - Leaking Tank*

Site: MURRAYS AUTO BODY
Address: 970 MARTIN AVE
City: SANTA CLARA
Map Loc: 42
Status: *WCRBT - Leaking Tank*

Site:	PACIFIC NURSERY POTS
Address:	1051 MARTIN AVE
City:	SANTA CLARA
Map Loc:	44
Status:	*WCRBT - Leaking Tank*

Site:	ROTO-ROOTER
Address:	356 MATHEW ST
City:	SANTA CLARA
Map Loc:	46
Status:	*WCRBT - Leaking Tank*

Site:	SIGMA CIRCUITS
Address:	393 MATHEW ST
City:	SANTA CLARA
Map Loc:	47
Status:	*WCRBT - Leaking Tank*

Site:	MEMOREX
Address:	1200 MEMOREX DR
City:	SANTA CLARA
Map Loc:	52
Status:	*WCRBT - Leaking Tank*

Site:	BYINGTON STEEL
Address:	1225 MEMOREX DR
City:	SANTA CLARA
Map Loc:	53
Status:	*WCRBT - Leaking Tank*

Site:	MCGUIRE & JUVET
Address:	980 PARKER CT
City:	SANTA CLARA
Map Loc:	56
Status:	*WCRBT - Leaking Tank*

Site:	ALCAL ROOFING
Address:	767 PARKER ST
City:	SANTA CLARA
Map Loc:	57
Status:	*WCRBT - Leaking Tank*

Site:	ALBANESE PROPERTY
Address:	840 PARKER ST
City:	SANTA CLARA
Map Loc:	58
Status:	*WCRBT - Leaking Tank*

Site: DRUG SERVICE INC.
Address: 376 REED ST
City: SANTA CLARA
Map Loc: 59
Status: *WCRBT - Leaking Tank*

Site: BEAVER LUMBER COMPANY
Address: 535 REED ST
City: SANTA CLARA
Map Loc: 60
Status: *WCRBT - Leaking Tank*

Site: CITY OF SANTA CLARA
Address: 888 REED ST
City: SANTA CLARA
Map Loc: 64
Status: *WCRBT - Leaking Tank*

Site: SANTA CLARA RV STORAGE
Address: 888 REED ST
City: SANTA CLARA
Map Loc: 64
Status: *WCRBT - Leaking Tank*

Site: RIGGING INTERNATIONAL
Address: 970 RICHARD AVE
City: SANTA CLARA
Map Loc: 65
Status: *WCRBT - Leaking Tank*

Site: SHAW INTERIORS
Address: 975 RICHARD AVE
City: SANTA CLARA
Map Loc: 66
Status: *WCRBT - Leaking Tank*

Site: MELANE POULTRY COMPANY
Address: 985 RICHARD AVE
City: SANTA CLARA
Map Loc: 67
Status: *WCRBT - Leaking Tank*

Site: PACTEL
Address: 1051 RICHARD AVE
City: SANTA CLARA
Map Loc: 68
Status: *WCRBT - Leaking Tank*

Site: E-FAB, INC
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: *DHS1 - Abandoned Hazardous Waste Site*

Site: EFAB, INC.
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: *WCRBT - Leaking Tank*

Site: MONARCH TILE
Address: 1129 RICHARD AVE
City: SANTA CLARA
Map Loc: 70
Status: *WCRBT - Leaking Tank*

Site: DOLLAR RENT A CAR
Address: SAN JOSE ARPT
City: SAN JOSE
Status: *WCRBT - Leaking Tank*

Site: EXSL CHEMICAL CO.
Address: 690 WALSH AVE
City: SANTA CLARA
Map Loc: 77
Status: *WCRBT - Leaking Tank*

Site: MASON CONSTRUCTION
Address: 785 WALSH AVE
City: SANTA CLARA
Map Loc: 81
Status: *WCRBT - Leaking Tank*

Site: TECHNICAL COATINGS
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: *WCRBT - Leaking Tank*

Site: FELTON ALUMINUM COMPANY
Address: 1090 WALSH AVE
City: SANTA CLARA
Map Loc: 84
Status: *WCRBT - Leaking Tank*

Site: T&D TILE
Address: 1180 WALSH AVE
City: SANTA CLARA
Map Loc: 85
Status: *WCRBT - Leaking Tank*

Site: DELLA MAGGIORE PROPERTY
Address: 1180 WALSH AVE
City: SANTA CLARA
Map Loc: 85
Status: *WCRBT - Leaking Tank*

LUST(S) Leaking Underground Storage Tanks - California State

The Leaking Underground Storage Tanks Information System is maintained by the State Water Resource Board pursuant to Section 25295 of the Health and Safety Code.

Status Codes:

0	*No action*
[illegible]	*Leak being confirmed*
[illegible]	*Prel site assessment workplan submitted*
3B	*Prel site assessment underway*
5C	*Pollution characterization*
5R	*Remediation plan*
7	*Remedial action underway*
8	*Post remedial action monitoring*
9	*Case closed*

Site: SHELL
Address: 225 AIRPORT PKWY
City: SAN JOSE
Map Loc: 2
Status: *5C - Pollution characterization.*

Site: UNKNOWN
Address: 509 BENTON ST
City: SANTA CLARA
Map Loc: 4
Status: *0 - No Action Taken.*

Site: UNKNOWN
Address: 733 BENTON ST
City: SANTA CLARA
Map Loc: 5
Status: *0 - No Action Taken.*

Site: OWENS-CORNING FIBERGLASS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *5C - Pollution characterization.*

Site: CHEVRON
Address: 1108 COLEMAN AVE
City: SAN JOSE
Map Loc: 8
Status: *5R - Remediation Plan submitted.*

Site: FMC (PLANT #2)
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *0 - No Action Taken.*

Site: WASTE MANAGEMENT
Address: 715 COMSTOCK ST
City: SANTA CLARA
Map Loc: 10
Status: *3B - Prelim Site Assessment underway.*

Site: CLEMENTINA YARD
Address: 840 COMSTOCK ST
City: SANTA CLARA
Map Loc: 11
Status: *3B - Prelim Site Assessment underway.*

Site: CARBONIC SERVICE
Address: 1920 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 13
Status: *0 - No Action Taken.*

Site: LOMBARDO DIAMOND CORE DRILLING
Address: 2225 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 14
Status: *0 - No Action Taken.*

Site: CHIOINI PROPERTY
Address: 2433 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 15
Status: *0 - No Action Taken.*

Site: RELIANCE STEEL & ALUMINUM CO
Address: 2460 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 16
Status: *5C - Pollution characterization.*

Site: CALIFORNIA COMPACT RENT-A-CAR
Address: 2468 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 17
Status: *0 - No Action Taken.*

Site: CONTAINER CORPORATION
Address: 2600 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 19
Status: *5C - Pollution characterization.*

Site: MBL, INC
Address: 3165 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 20
Status: *0 - No Action Taken.*

Site: UNISYS: 1040 DIGIULIO AVE
Address: 1040 DI GIULIO AVE
City: SANTA CLARA
Map Loc: 21
Status: *5C - Pollution characterization.*

Site: MAYFAIR PACKING
Address: 475 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 22
Status: *9 - Case Closed.*

Site: OIL CHANGERS
Address: 889 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 23
Status: *3B - Prelim Site Assessment underway.*

Site: CHANGS AUTO SERVICE
Address: 1021 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 24
Status: *0 - No Action Taken.*

Site: MISSION CITY REBAR
Address: 1709 GRANT ST
City: SANTA CLARA
Map Loc: 26
Status: *0 - No Action Taken.*

Site: CALTRANS
Address: 651 HARRISON ST
City: SANTA CLARA
Map Loc: 27
Status: *3B - Prelim Site Assessment underway.*

Site: ZACCOR
Address: 1955 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 28
Status: *0 - No Action Taken.*

Site: PAN AMERICAN ENGINEERING
Address: 1995 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 29
Status: *0 - No Action Taken.*

Site: COMMERCIAL FUELING SYSTEMS
Address: 2265 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 30
Status: *3B - Prelim Site Assessment underway.*

Site: BAY EQUIPMENT CO.
Address: 2390 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 31
Status: *0 - No Action Taken.*

Site: VICTORY UPHOLSTERY
Address: 2420 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 32
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: LEVIN-WESTERN METALS
Address: 2556 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 33
Status: *0 - No Action Taken.*

Site: JOSEPH GEORGE DISTRIBUTORS
Address: 310 MARTIN AVE
City: SANTA CLARA
Map Loc: 37
Status: *3B - Prelim Site Assessment underway.*

Site: WESTERN UNION
Address: 318 MARTIN AVE
City: SANTA CLARA
Map Loc: 38
Status: *3B - Prelim Site Assessment underway.*

Site: GUILIO CHIOINI
Address: 382 MARTIN AVE
City: SANTA CLARA
Map Loc: 39
Status: *0 - No Action Taken.*

Site: D & D ASSOCIATES
Address: 570 MARTIN AVE
City: SANTA CLARA
Map Loc: 40
Status: *0 - No Action Taken.*

Site: GANGI BROS INVESTMENTS
Address: 651 MARTIN AVE
City: SANTA CLARA
Map Loc: 41
Status: *3B - Prelim Site Assessment underway.*

Site: MURRAY'S AUTO BODY
Address: 970 MARTIN AVE
City: SANTA CLARA
Map Loc: 42
Status: *5C - Pollution characterization.*

Site: PACIFIC NURSERY POTS
Address: 1051 MARTIN AVE
City: SANTA CLARA
Map Loc: 44
Status: *0 - No Action Taken.*

Site: B T MANCINI CO
Address: 305 MATHEW ST
City: SANTA CLARA
Map Loc: 45
Status: *0 - No Action Taken.*

Site: ROTO-ROOTER
Address: 356 MATHEW ST
City: SANTA CLARA
Map Loc: 46
Status: *3B - Prelim Site Assessment underway.*

Site: SIGMA CIRCUITS
Address: 393 MATHEW ST
City: SANTA CLARA
Map Loc: 47
Status: *0 - No Action Taken.*

Site: CALIFORNIA PAPERBOARD CORP
Address: 525 MATHEW ST
City: SANTA CLARA
Map Loc: 48
Status: *0 - No Action Taken.*

Site: DIANA FRUIT
Address: 651 MATHEW ST
City: SANTA CLARA
Map Loc: 49
Status: *0 - No Action Taken.*

Site: GANGI BROTHERS PACKING CO
Address: 725 MATHEW ST
City: SANTA CLARA
Map Loc: 50
Status: *3B - Prelim Site Assessment underway.*

Site: MEMOREX
Address: 1200 MEMOREX DR
City: SANTA CLARA
Map Loc: 52
Status: *7 - Remedial Action underway.*

Site: BYINGTON STEEL
Address: 1225 MEMOREX DR
City: SANTA CLARA
Map Loc: 53
Status: *0 - No Action Taken.*

Site: UNISYS: 1500 MEMOREX DR
Address: 1500 MEMOREX DR
City: SANTA CLARA
Map Loc: 54
Status: *0 - No Action Taken.*

Site: MCGUIRE & JUVET
Address: 980 PARKER CT
City: SANTA CLARA
Map Loc: 56
Status: *0 - No Action Taken.*

Site: ALCAL ROOFING
Address: 767 PARKER ST
City: SANTA CLARA
Map Loc: 57
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: ALBANESE PROPERTY
Address: 840 PARKER ST
City: SANTA CLARA
Map Loc: 58
Status: *9 - Case Closed.*

Site: DRUG SERVICE INC.
Address: 376 REED ST
City: SANTA CLARA
Map Loc: 59
Status: *0 - No Action Taken.*

Site: BEAVER LUMBER COMPANY
Address: 535 REED ST
City: SANTA CLARA
Map Loc: 60
Status: *0 - No Action Taken.*

Site: MISSION TRAIL GARBAGE
Address: 735 REED ST
City: SANTA CLARA
Map Loc: 62
Status: *0 - No Action Taken.*

Site: SANTA CLARA RV STORAGE
Address: 888 REED ST
City: SANTA CLARA
Map Loc: 64
Status: *0 - No Action Taken.*

Site: RAGING INTERNATIONAL
Address: 970 RICHARD AVE
City: SANTA CLARA
Map Loc: 65
Status: *3B - Prelim Site Assessment underway.*

Site: SHAW INTERIORS
Address: 975 RICHARD AVE
City: SANTA CLARA
Map Loc: 66
Status: *0 - No Action Taken.*

Site: MELANE POULTRY COMPANY
Address: 985 RICHARD AVE
City: SANTA CLARA
Map Loc: 67
Status: *0 - No Action Taken.*

Site: PACTEL
Address: 1051 RICHARD AVE
City: SANTA CLARA
Map Loc: 68
Status: *0 - No Action Taken.*

Site: MONARCH TILE
Address: 1129 RICHARD AVE
City: SANTA CLARA
Map Loc: 70
Status: *0 - No Action Taken.*

Site: LOWERY & LITTLE, INC.
Address: 1180 RICHARD AVE
City: SANTA CLARA
Map Loc: 71
Status: *3B - Prelim Site Assessment underway.*

Site: [illegible]ENIS PARTNERSHIP
Address: 448 ROBERT AVE
City: SANTA CLARA
Map Loc: 72
Status: *3B - Prelim Site Assessment underway.*

Site: ESREY SUPPLY CO
Address: 2578 SEABOARD AVE
City: SAN JOSE
Map Loc: 74
Status: *0 - No Action Taken.*

Site: UNOCAL
Address: 2591 SEABOARD AVE
City: SAN JOSE
Map Loc: 75
Status: *9 - Case Closed.*

Site: HEWLETT PACKARD:#2-350 TRIMBLE
Address: 350 W TRIMBLE RD
City: SAN JOSE
Map Loc: 76
Status: *9 - Case Closed.*

Site: EXSL CHEMICAL CO.
Address: 630 WALSH AVE
City: SANTA CLARA
Map Loc: 77
Status: *0 - No Action Taken.*

Site: ACI GLASS PRODUCTS
Address: 750 WALSH AVE
City: SANTA CLARA
Map Loc: 80
Status: *3B - Prelim Site Assessment underway.*

Site: MASON CONSTRUCTION
Address: 785 WALSH AVE
City: SANTA CLARA
Map Loc: 81
Status: *3B - Prelim Site Assessment underway.*

Site: TECHNICAL COATINGS
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: *7 - Remedial Action underway.*

Site: FELTON ALUMINUM COMPANY
Address: 1090 WALSH AVE
City: SANTA CLARA
Map Loc: 84
Status: *0 - No Action Taken.*

Site: T&D TILE/DELLA MAGGIORE PROP.
Address: 1180 WALSH AVE
City: SANTA CLARA
Map Loc: 85
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: BERKELEY FARMS
Address: 910 WARBURTON AVE
City: SANTA CLARA
Map Loc: 86
Status: *3A - Prelim Site Assessment workplan submitted.*

SWAT(S) Solid Waste Assessment Test - California State

This program, provided for under the Calderon legislation (Section 13273 of the Water Code), requires that disposal sites with more than 50,000 cubic yards of waste provide sufficient information to the regional water quality control board to determine whether or not the site has discharged hazardous substances which will impact the environment.

Site operators are required to file Solid Waste Assessment Test reports on a staggered basis. Operators of the 150 highest ranking (Rank 1) sites were required to submit Solid Waste Assessment Tests by July 1, 1987, Rank 2 in 1988 and so on.

Operators submit water quality tests to the Regional Water Quality Control Board, describing surface and groundwater quality and supply; and the geology within 1 mile of the site. Air quality tests are submitted to the local Air Quality Management District or Air Pollution Control District.

Status Codes: *Facilities or sites are ranked within each region on a scale 1-15 according to priority.*

No listings within the specified range.

SWIS Solid Waste Information System

As legislated under the Solid Waste Management and Resource Recovery Act of 1972, the California Waste Management Board maintains lists of certain facilities, i.e. Active solid waste disposal sites, Inactive or Closed solid waste disposal sites and Transfer facilities.

No listings within the specified range.

REGIONAL SOURCES

LUST(R) Leaking Underground Storage Tanks - Regional

Each of the California Regional Water Quality Control Boards hWQCB maintains lists of leaking underground storage tanks.

Status Codes.

0	*No action*
1	*Leak being confirmed*
3A	*Prel site assessment workplan submitted*

3B	Prel site assessment underway
5C	Pollution characterization
5R	Remediation plan
7	Remedial action underway
8	Post remedial action monitoring
9	Case closed

Site: SHELL
Address: 225 AIRPORT PKWY
City: SAN JOSE
Map Loc: 2
Status: *5C - Pollution characterization.*

Site: UNKNOWN
Address: 509 BENTON ST
City: SANTA CLARA
Map Loc: 4
Status: *0 - No Action Taken.*

Site: UNKNOWN
Address: 733 BENTON ST
City: SANTA CLARA
Map Loc: 5
Status: *0 - No Action Taken.*

Site: OWENS-CORNING FIBERGLASS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: *5C - Pollution characterization.*

Site: CHEVRON
Address: 1108 COLEMAN AVE
City: SAN JOSE
Map Loc: 8
Status: *5R - Remediation Plan submitted.*

Site: FMC (PLANT #2)
Address: 1125 COLEMAN AVE
City: SAN JOSE
Map Loc: 9
Status: *0 - No Action Taken.*

Site: WASTE MANAGEMENT
Address: 715 COMSTOCK ST
City: SANTA CLARA
Map Loc: 10
Status: *3B - Prelim Site Assessment underway.*

Site: CLEMENTINA YARD
Address: 840 COMSTOCK ST
City: SANTA CLARA
Map Loc: 11
Status: *3B - Prelim Site Assessment underway.*

Site: CARBONIC SERVICE
Address: 1920 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 13
Status: *0 - No Act Taken.*

Site: LOMBARDO DIAMOND CORE DRILLING
Address: 2225 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 14
Status: *0 - No Action Taken.*

Site: CHIOINI PROPERTY
Address: 2433 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 15
Status: *0 - o Action Taken.*

Site: RELIANCE STEEL & ALUMINUM CO
Address: 2460 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 16
Status: *5C - Pollution characterization.*

Site: CALIFORNIA COMPACT RENT-A-CAR
Address: 2468 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 17
Status: *0 - No Action Taken.*

Site: CONTAINER CORPORATION
Address: 2600 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 19
Status: *5C - Pollution characterization.*

Site: MBL, INC
Address: 3165 DE LA CRUZ BLVD
City: SANTA CLARA
Map Loc: 20
Status: *0 - No Action Taken.*

Site: UNISYS: 1040 DIGIULIO AVE
Address: 1040 DI GIULIO AVE
City: SANTA CLARA
Map Loc: 21
Status: *5C - Pollution characterization.*

Site: MAYFAIR PACKING
Address: 475 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 22
Status: *9 - Case Closed.*

Site: OIL CHANGERS
Address: 889 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 23
Status: *3B - Prelim Site Assessment underway.*

Site: CHANGS AUTO SERVICE
Address: 1021 EL CAMINO REAL
City: SANTA CLARA
Map Loc: 24
Status: *0 - No Action Taken.*

Site: MISSION CITY REBAR
Address: 1709 GRANT ST
City: SANTA CLARA
Map Loc: 26
Status: *0 - No Action Taken.*

Site: CALTRANS
Address: 651 HARRISON ST
City: SANTA CLARA
Map Loc: 27
Status: *3B - Prelim Site Assessment underway.*

Site: ZACCOR
Address: 1955 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 28
Status: *0 - No Action Taken.*

Site: PAN AMERICAN ENGINEERING
Address: 1995 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 29
Status: *0 - No Action Taken.*

Site: COMMERCIAL FUELING SYSTEMS
Address: 2265 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 30
Status: *3B - Prelim Site Assessment underway.*

Site: BAY EQUIPMENT CO.
Address: 2390 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 31
Status: *0 - No Action Taken.*

Site: VICTORY UPHOLSTERY
Address: 2420 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 32
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: LEVIN-WESTERN METALS
Address: 2556 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 33
Status: *0 - No Action Taken.*

Site: JOSEPH GEORGE DISTRIBUTORS
Address: 310 MARTIN AVE
City: SANTA CLARA
Map Loc: 37
Status: *3B - Prelim Site Assessment underway.*

Site: WESTERN UNION
Address: 318 MARTIN AVE
City: SANTA CLARA
Map Loc: 38
Status: *3B - Prelim Site Assessment underway.*

Site: GUILIO CHIOINI
Address: 382 MARTIN AVE
City: SANTA CLARA
Map Loc: 39
Status: *0 - No Action Taken.*

Site: D & D ASSOCIATES
Address: 570 MARTIN AVE
City: SANTA CLARA
Map Loc: 40
Status: *0 - No Action Taken.*

Site: GANGI BROS INVESTMENTS
Address: 651 MARTIN AVE
City: SANTA CLARA
Map Loc: 41
Status: *3B - Prelim Site Assessment underway.*

Site: MURRAY'S AUTO BODY
Address: 970 MARTIN AVE
City: SANTA CLARA
Map Loc: 42
Status: *5C - Pollution characterization.*

Site: PACIFIC NURSERY POTS
Address: 1051 MARTIN AVE
City: SANTA CLARA
Map Loc: 44
Status: *0 - No Action Taken.*

Site: B T MANCINI CO
Address: 305 MATHEW ST
City: SANTA CLARA
Map Loc: 45
Status: *0 - No Action Taken.*

Site: ROTO-ROOTER
Address: 356 MATHEW ST
City: SANTA CLARA
Map Loc: 46
Status: *3B - Prelim Site Assessment underway.*

Site: SIGMA CIRCUITS
Address: 393 MATHEW ST
City: SANTA CLARA
Map Loc: 47
Status: *0 - No Action Taken.*

Site: CALIFORNIA PAPERBOARD CORP
Address: 525 MATHEW ST
City: SANTA CLARA
Map Loc: 48
Status: *0 - No Action Taken.*

Site: DIANA FRUIT
Address: 651 MATHEW ST
City: SANTA CLARA
Map Loc: 49
Status: *0 - No Action Taken.*

Site: GANGI BRCTHERS PACKING CO
Address: 725 MATHEW ST
City: SANTA CLARA
Map Loc: 50
Status: *3B - Prelim Site Assessment underway.*

Site: MEMOREX
Address: 1200 MEMOREX DR
City: SANTA CLARA
Map Loc: 52
Status: *7 - Remedial Action underway.*

Site: BYINGTON STEEL
Address: 1225 MEMOREX DR
City: SANTA CLARA
Map Loc: 53
Status: *0 - No Action Taken.*

Site: UNISYS: 1600 MEMOREX DR
Address: 1500 MEMOREX DR
City: SANTA CLARA
Map Loc: 54
Status: *0 - No Action Taken.*

Site: MCGUIRE & JUVET
Address: 980 PARKER CT
City: SANTA CLARA
Map Loc: 56
Status: *0 - No Action Taken.*

Site: ALCAL ROOFING
Address: 767 PARKER ST
City: SANTA CLARA
Map Loc: 57
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: ALBANESE PROPERTY
Address: 840 PARKER ST
City: SANTA CLARA
Map Loc: 58
Status: *9 - Case Closed.*

Site: DRUG SERVICE INC.
Address: 376 REED ST
City: SANTA CLARA
Map Loc: 59
Status: *0 - No Action Taken.*

Site: BEAVER LUMBER COMPANY
Address: 535 REED ST
City: SANTA CLARA
Map Loc: 60
Status: *0 - No Action Taken.*

Site: MISSION TRAIL GARBAGE
Address: 735 REED ST
City: SANTA CLARA
Map Loc: 62
Status: *0 - No Action Taken.*

Site: SANTA CLARA RV STORAGE
Address: 866 REED ST
City: SANTA CLARA
Map Loc: 64
Status: *0 - No Action Taken.*

Site: RIGGING INTERNATIONAL
Address: 970 RICHARD AVE
City: SANTA CLARA
Map Loc: 65
Status: *3b - Prelim Site Assessment underway.*

Site: SHAW INTERIORS
Address: 975 RICHARD AVE
City: SANTA CLARA
Map Loc: 66
Status: *0 - No Action Taken.*

Site: MELANE POULTRY COMPANY
Address: 985 RICHARD AVE
City: SANTA CLARA
Map Loc: 67
Status: *0 - No Action Taken.*

Site: PACTEL
Address: 1061 RICHARD AVE
City: SANTA CLARA
Map Loc: 68
Status: *0 - No Action Taken.*

Site: MONARCH TILE
Address: 1129 RICHARD AVE
City: SANTA CLARA
Map Loc: 70
Status: *0 - No Action Taken.*

Site: LOWERY & LITTLE, INC.
Address: 1180 RICHARD AVE
City: SANTA CLARA
Map Loc: 71
Status: *3B - Prelim Site Assessment underway.*

Site: JENIS PARTNERSHIP
Address: 448 ROBERT AVE
City: SANTA CLARA
Map Loc: 72
Status: *3B - Prelim Site Assessment underway.*

Site: ESREY SUPPLY CO
Address: 2578 SEABOARD AVE
City: SAN JOSE
Map Loc: 74
Status: *0 - No Action Taken.*

Site: UNOCAL
Address: 2591 SEABOARD AVE
City: SAN JOSE
Map Loc: 75
Status: *9 - Case Closed.*

Site: HEWLETT PACKARD:#2-350 TRIMBLE
Address: 350 W TRIMBLE RD
City: SAN JOSE
Map Loc: 76
Status: *9 - Case Closed.*

Site: EXSL CHEMICAL CO.
Address: 630 WALSH AVE
City: SANTA CLARA
Map Loc: 77
Status: *0 - No Action Taken.*

Site: ACI GLASS PRODUCTS
Address: 750 WALSH AVE
City: SANTA CLARA
Map Loc: 80
Status: *3B - Prelim Site Assessment underway.*

Site: MASON CONSTRUCTION
Address: 785 WALSH AVE
City: SANTA CLARA
Map Loc: 81
Status: *3B - Prelim Site Assessment underway.*

Site: TECHNICAL COATINGS
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: *7 - Remedial Action underway.*

Site: FELTON ALUMINUM COMPANY
Address: 1090 WALSH AVE
City: SANTA CLARA
Map Loc: 84
Status: *0 - No Action Taken.*

Site: T&D TILE/DELLA MAGGIORE PROP.
Address: 1180 WALSH AVE
City: SANTA CLARA
Map Loc: 85
Status: *3A - Prelim Site Assessment workplan submitted.*

Site: BERKELEY FARMS
Address: 910 WARBURTON AVE
City: SANTA CLARA
Map Loc: 96
Status: *3A - Prelim Site Assessment workplan submitte*

NT Toxic Releases

The California Regional Water Quality Control Boards or local Department of Health Services keeps track of toxic releases to the environment. These lists are known as Unauthorized Releases, Non-Tank Releases, Toxics List or similar, depending on the local agency.

Site: OWENS/CORNING FIBERGLASS CORP
Address: 960 CENTRAL EXPWY
City: SANTA CLARA
Map Loc: 7
Status: --

Site: UNISYS
Address: 1040 DI GIULIO AVE
City: SANTA CLARA
Map Loc: 21
Status: --

Site: CAMSI IV
Address: 2710 LAFAYETTE ST
City: SANTA CLARA
Map Loc: 34
Status: --

Site: PACIFIC NURSERY POTS
Address: 1051 MARTIN AVE
City: SANTA CLARA
Map Loc: 44
Status: --

Site: UNISYS
Address: 1125 MEMOREX DR
City: SANTA CLARA
Map Loc: 51
Status: --

Site: MEMOREX
Address: 1200 MEMOREX DR
City: SANTA CLARA
Map Loc: 52
Status: --

Site: UNISYS
Address: 1500 MEMOREX DR
City: SANTA CLARA
Map Loc: 54
Status: --

Site: WESTERN FORGE & FLANGE
Address: 780 REED ST
City: SANTA CLARA
Map Loc: 68
Status: --

Site: EFAB INC
Address: 1075 RICHARD AVE
City: SANTA CLARA
Map Loc: 69
Status: --

Site: GILMORE SUPPLY/LOMBARDO DIAMND
Address: 585 ROBERT AVE
City: SANTA CLARA
Map Loc: 73
Status: --

Site: HEWLETT-PACKARD
Address: 350 W TRIMBLE RD
City: SAN JOSE
Map Loc: 76
Status: *SITE* -

Site: TECHNICAL COATINGS
Address: 1000 WALSH AVE
City: SANTA CLARA
Map Loc: 83
Status: --

TPC Toxic Pits

The Toxic Pits Clean-Up Act (Katz Bill) places strict limitations on the discharge of liquid hazardous wastes into surface impoundments, toxic ponds, pits and lagoons. Regional Water Quality Control Boards are required to inspect all surface impoundments annully, In addition, every facility was required to file a Hydrogeological Assessment Report. Recent

legislation allows the Department of Health Services to excempt facilities that closed on or before December 31, 1985, if a showing is made that no significant environmental risk remains (AB1046)

Special exemption provisions have been created for surface impoundments that receive mining wastes.

No listings within the specified range.

SWAT(R) Solid Waste Assessment Test - Regional

The Solid Waste Assessment Test Program targets sites where there is a possible risk of hazardous waste escaping from solid waste disposal sites (landfills), threatening both water and air quality. Threatening sites are required to submit water quality Solid Waste Assessment Tests to their Regional Water Quality Control Board. Air quality Solid Waste Assessment Tests are submitted to the local Air Quality Management District or Air Pollution Control District.

No listings within the specified range.

WIP Well Investigation Program

The Well Investigation Program (AB1803) identifies groundwater that is already contaminated and empowers the California Department of Health Services and local health officers to order ongoing monitoring programs. The focus of this program is to monitor and protect drinking water.

Site:	WELL 16-02 dhs4
Address:	SANTA CLARA, CITY
City:	07S/01W-02A10 M
Map Loc:	1
Status:	*2.600 ppb of TOTAL THMS*

APPENDIX B

FIELD PROTOCOL

AND

WELL PURGE DATA

FIELD PROTOCOL

The following presents Dugan Associates protocol for a typical site investigation involving gasoline and diesel hydrocarbon-impacted soil and/or groundwater.

Soil Borings

Prior to the drilling of borings and construction of monitoring wells, permits are acquired from the appropriate regulatory agency, if necessary. Prior to drilling, Underground Services Alert is notified of our intent to drill, and known underground utility lines and structures are approximately marked.

The borings are drilled by a truck-mounted drill rig equipped with 8- or 10-inch-diameter, hollow-stem augers. The augers are steam-cleaned prior to drilling each boring to minimize the possibility of cross-contamination. After drilling the borings, monitoring wells are constructed in the borings, or sand-cement grout with bentonite is used to back-fill the borings to the ground surface.

Borings for groundwater monitoring wells are drilled to a depth of no more than 20 feet below the depth at which a saturated zone is first encountered, or a short distance into a stratum beneath the saturated zone which is of sufficient moisture and consistency to be judged as a perching layer by the field geologist, whichever is shallower. Drilling into a deeper aquifer below the shallowest aquifer can begin only after a conductor casing is properly installed, grouted into place, and allowed to set, thereby sealing off the shallow aquifer.

Soil Sampling in Borings

Soil samples are collected at no greater than 5-foot intervals from the ground surface to the total depth of the borings. The soil samples are collected by advancing the boring to a point immediately above the sampling depth, and then driving a California-modified, split-spoon sampler containing brass sleeves through the hollow center of the auger into the soil. The sampler and brass sleeves are laboratory-cleaned, steam-cleaned, or washed thoroughly with Alconox® and water, prior to each use. The sampler is driven with a standard 140-pound hammer repeatedly dropped 30 inches. The number of blows to drive the sampler each successive six inches are counted and recorded to evaluate the relative consistency of the soil.

The samples selected for laboratory analysis are removed from the sampler and quickly sealed in their brass sleeves with aluminum soil, plastic caps, and aluminized duct tape. The samples are then labeled, promptly placed in iced storage, and delivered to a laboratory certified by the State of California to perform the analyses requested.

One of the samples in brass sleeves not selected for laboratory analysis at each sampling interval is tested in the field using a field screening instrument that is field calibrated at the beginning of each day it is used. This testing is performed by inserting the intake probe of the field screening instrument into the headspace created in a plastic bag containing the soil sample as described in the Drill Cuttings section below. The instrument readings are presented in the Logs of Borings included in the project report.

Logging of Borings

A geologist is present to log the soil cuttings and samples using the Unified Soil Classification System. Samples not selected for chemical analysis, and the soil in the sampler shoe, are extruded in the field for visual inspection. Logs include texture, color, moisture, estimated plasticity, consistency, blow counts, and any other characteristics noted. Logs also include subjective evidence for the presence of hydrocarbons, such as soil staining, noticeable or obvious product odor, and field screening instrument readings.

Excavation Sidewall Sampling

Soil samples are collected from the soil in the bucket of the excavating machine by driving laboratory-cleaned brass sleeves into the soil. The soil samples are sealed in the sleeves using aluminum foil, plastic caps, and aluminized duct tape; labeled; and promptly placed in iced storage. If field subjective analyses suggest the presence of hydrocarbons in the soil, additional excavation and soil sampling is performed, using similar methods. The excavation is back-filled or fenced prior to departure from the site.

Sampling of Stockpiled Soil

One composite soil sample is collected for each 50 yd^3 of stockpiled soil, and for each individual stockpile composed of less than 50 yd^3 (Local requirements may vary). Composite soil samples are obtained by first evaluating relatively high, average, and low areas of hydrocarbon concentration by digging approximately one to two feet into the stockpile and placing the intake probe of a field calibrated instrument against the surface of the soil; then collecting one sample from the "high" reading area, and three samples from the "average" areas. Samples are collected by removing the top one to two feet of soil, then driving cleaned brass sleeves into the soil. The samples are sealed in the sleeves using aluminum foil, plastic caps, and aluminized duct tape; labeled; and promptly placed in iced storage for transport to the laboratory, where compositing will be performed.

Drill Cuttings

Drill cuttings subjectively evaluated as having hydrocarbon contamination at levels greater than 100 parts per million (ppm) are separated from those subjectively evaluated as having hydrocarbon contamination levels less than 100 ppm. Evaluation is based either on subjective evidence of soil discoloration, or on measurements made using a field calibrated instrument. Readings are taken by placing a soil sample into a ziplock type plastic bag and allowing volatilization to occur. The intake probe of the field screening instrument is then inserted into the headspace created in the plastic bag immediately after opening it. The drill cuttings from the borings are placed in labeled 55-gallon drums approved by the Department of Transportation (DOT); or on plastic at the site, and covered with plastic. The cuttings remain the responsibility of the client.

Monitoring Well Construction

Monitoring wells are constructed in selected borings using clean 2- or 4-inch-diameter, thread-jointed, Schedule 40 polyvinyl chloride (PVC) casing. No chemical cements, glues, or solvents are used in well construction. Each casing bottom is sealed with a threaded or screw-fastened end-plug, and each casing top with a locking plug. The screened portions of the wells are constructed of machine-slotted PVC casing with 0.020-inch-wide (typical) slots for initial site wells. Slot size for subsequent wells may be based on sieve analysis and/or well development data. The screened sections in groundwater monitoring wells are placed to allow monitoring during seasonal fluctuations of groundwater levels.

The annular space of each well is back-filled with No. 2 by 12 sand, or similar sorted sand, to approximately two feet above the top of the screened casing for initial site wells. The sand pack grain size for subsequent wells may be based on sieve analysis and/or well development data. A 1- to 2-foot-thick bentonite plug is placed above the sand as a seal against cement entering the filter pack. The remaining annulus is then back-filled with a slurry of water, cement, and bentonite to approximately one foot below the ground surface.

An aluminum utility box with a PVC apron is placed over each wellhead and set in concrete placed slightly above the surrounding ground surface. Each wellhead cover has a seal to protect the monitoring well against surface-water infiltration and requires a special wrench to open. This design discourages vandalism and reduces the possibility of accidental disturbance of the well.

Groundwater Monitoring Well Development

The monitoring wells are developed by bailing or over-pumping and surge-block techniques. Surge-blocking will be performed with a truck mounted well development rig. The wells are either bailed or pumped, allowed to recharge, and bailed or pumped again until the water removed from the wells is determined to be relatively clear. Turbidity measurements (in NTU's) or by direct measurement using Imhoff cones are recorded during well development and are used in evaluating well development operations. The development method used, initial turbidity measurement, volume of water removed, final turbidity measurement, and other pertinent field data and observations are included in reports. The wells are allowed to equilibrate for at least 48 hours after development prior to sampling. Water generated by well development will be stored in 17E Department of Transportation (DOT) 55-gallon drums on site and will remain the responsibility of the client.

Groundwater Sampling

The static water level in each well is measured to the nearest 0.01-foot using an electric water-level sounder or oil/water interface probe (if the wells contain floating product) cleaned with Alconox® and water before use in each well. The liquid in the onsite wells is examined for visual evidence of hydrocarbons by gently lowering approximately half the length of a clean Teflon® bailer past the air/water interface. The sample is then retrieved and inspected for floating product, sheen, emulsion, color, and clarity. The thickness of floating product detected is recorded to the nearest 1/8-inch.

Wells which do not contain floating product are purged using a submersible pump or bailer. The pump, cables, and hoses are steam-cleaned or cleaned with TSP® and water prior to use in each well. The wells are purged until withdrawal is of sufficient duration to result in stabilized pH, temperature, and electrical conductivity of the water, as measured using portable meters calibrated to a standard buffer and conductivity standard. If the well becomes dewatered, the water level is allowed to recover to at least 80 percent of the initial water level. Prior to the collection of each groundwater sample, the disposable Teflon® bailer is cleaned with Alconox® and rinsed with tap water and deionized water, and the latex gloves worn by the sampler changed. Hydrochloric acid is added to the sample vials as a preservative (when applicable). A sample method blank is collected by pouring distilled water into the sampling bailer and then into the sample vials. A sample of the formation water is then collected from each of the wells using the Teflon® bailer. The water samples are then gently poured into laboratory-cleaned, 40-milliliter (ml) glass vials, 500 ml plastic bottles, or 1-liter glass bottles (as required per specific laboratory analysis), sealed with Teflon®-lined caps, and inspected for air bubbles to check for headspace, which would allow volatilization to occur. The samples are then labeled and promptly placed in iced storage. A field log of well evacuation procedures and parameter monitoring is maintained. Water generated by the purging of wells is stored in 17E DOT 55-gallon drums onsite and remains the responsibility of the client.

Sample Labeling and Handling

Sample containers are labeled in the field with the project number, sample location and depth, and date, and promptly placed in iced storage for transport to the laboratory. A Chain of Custody Record is initiated by the field geologist and updated throughout handling of the samples, and accompanies the samples to a laboratory certified by the State of California for the analyses requested. Samples are transported to the laboratory promptly to help ensure that recommended sample holding times are not exceeded. Samples are properly disposed after their useful life has expired.

FIELD LOG BOOK ENTRY

DATE 11/13/92

SITE De La Cruz Ave. 958-1

TOTAL DEPTH 23.75'

WELL I.D. MW-1

WATER DEPTH 11.44' TIME 11:35

SAMPLE I.D. MW-1

WELL DIAMETER 2"

EQUIPMENT NO. _____

PURGE VOLUME _____

SAMPLER B. Dugan

PUMPING RATE _____

LABORATORY McCampbell Analytical

PUMPING TIME 20 minutes

WELL YIELD 6 gallons

BAILER CAPACITY .25 gallons

SAMPLE TIME 12:15 p.m.

NO. OF BAILS 25

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C.	TEMP. F
11:45	2 gallon	<1ml/1000 ml	7.10	2,000	78
11:53	3 gallons	<1ml/1000 ml	7.00	1,850	77.9
12:05	4.5 gallons	<1ml/1000 ml	6.95	1,835	76.5
12:10	6 gallons	<1ml/1000 ml	6.95	1,795	74.3

PURGE PROCEDURE Disposable Bailer PUMP PLACEMENT _____

SAMPLE PROCEDURE Disposable Bailer

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg/BTEX	3 Voa's (40 ml)	HCl
TPHd	2 Amber Liters	none

FIELD OBSERVATIONS No odor or sheen observed in purge water.

RECOVERY RATE _____ RECOVERY PERCENTAGE 100 %AT .25 HRS

CLIMATIC CONDITIONS Cloudy, 62°

APPENDIX C

CHAIN OF CUSTODY RECORDS

AND

LABORATORY DATA SHEETS

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA. 94553
Tele: 510-798-1620 Fax: 510-798-1622

Dugan & Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: CPP	Date Sampled: 11/13/92
		Date Received: 11/23/92
	Client Contact: Bill Dugan/Steve Bittman	Date Extracted:
	Client P.O:	Date Analyzed: 11/24/92

Low Boiling Point (C6-C12) TPH* as Gasoline and BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(G)+	Benzene	Toluene	Ethyl Benzene	Xylenes	% Rec. Surrogate
20827	CCP-MW-1	W	ND,b	ND	ND	ND	ND	100
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

Edward Hamilton, Lab Director

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL
110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

TURN AROUND TIME: ☐ RUSH ☒ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

REPORT TO: Bill Dugan BILL TO: Dugan Associates

PROJECT NUMBER: PROJECT NAME: CPP

PROJECT LOCATION: Santa Clara SAMPLER SIGNATURE:

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO3	OTHER
CPP-MW1	Santa Clara	11/2/92	10:55	3	VOA	X					X		

ANALYSIS REQUEST

BTEX & TPH as Gasoline (602/8020 + 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	ROI
X														

OTHER

COMMENTS

No. 20827

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	11/2/92	10:15	Mike Kang
Mike Kang	11-2	12:2	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATIVE APPROPRIATE ✓
CONTAINERS ✓

CHAIN OF CUSTODY RECORD

AN 0422

McCAMPBELL ANALYTICAL
110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

REPORT TO: Bill Dugan
BILL TO: Dugan Associates
PROJECT NUMBER: 958-1
PROJECT NAME: 2433 DeLaCruz Blvd.
PROJECT LOCATION: Santa Clara
SAMPLER SIGNATURE: Ken Matiel

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	MATRIX: OTHER	METHOD PRESERVED: HCL	METHOD PRESERVED: HNO_3	METHOD PRESERVED: OTHER	ANALYSIS REQUEST: BTEX & TPH as Gasoline (8020/8015 & 8015)	ANALYSIS REQUEST: TPH as Diesel (8015)	ANALYSIS REQUEST: Total Petroleum Oil & Grease (5520 E&F/8015 M)	ANALYSIS REQUEST: Total Petroleum Hydrocarbons (418.1)	ANALYSIS REQUEST: EPA 501/8010	ANALYSIS REQUEST: EPA 502/8020	ANALYSIS REQUEST: EPA 601/8010	ANALYSIS REQUEST: EPA 608/8080 - PCBs Only	ANALYSIS REQUEST: EPA 624/8240/8260	ANALYSIS REQUEST: EPA 625/8270	ANALYSIS REQUEST: CAM - 17 Metals	ANALYSIS REQUEST: EPA - Priority Pollutant Metals	ANALYSIS REQUEST: LEAD (7240/7421/239.2/6010)	ANALYSIS REQUEST: ORGANIC LEAD	ANALYSIS REQUEST: RCI	OTHER	COMMENTS
S-7½-TPE	Test Pit	12/16/92		1			✓							✓																

No. 21073

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Ken Matiel	12/17	1058A	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	12-17	12:14	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATIVE APPROPRIATE CONTAINERS ✓

VOAS | O&G | METALS | OTHER

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Dugan & Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: #958-1; 2433 De La Cruz Blvd.	Date Sampled: 12/17/92
		Date Received: 12/18/92
	Client Contact: Bill Dugan/Steve Bittman	Date Extracted: 12/18/92
	Client P.O:	Date Analyzed: 12/18/92

Low Boiling Point (C6-C12) TPH* as Gasoline and BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method OCFID(5030)

Lab ID	Client ID	Matrix	TPH(G)+	Benzene	Toluene	Ethyl Benzene	Xylenes	% Rec. Surrogate
21073	S-7.5-TPE	S	ND,c	ND	ND	ND	ND	113
								5.0
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Dugan & Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: #958; Chioni Properties, 2433 DeLa Cruz, Santa Clara	Date Sampled: 04/03/93
		Date Received: 04/08/93
	Client Contact: Bill Dugan/Ken Mateik	Date Extracted:
	Client P.O:	Date Analyzed: 04/10/93

Low Boiling Point (C6-C12) TPH* as Gasoline and BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(G)+	Benzene	Toluene	Ethyl Benzene	Xylenes	% Rec. Surrogate
30079	TP-W-12	W	25,000,b	ND < 5	ND < 5	420	2500	104
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.	110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622

Dugan & Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: #958; Chioni Properties, 2433 DeLa Cruz, Santa Clar	Date Sampled: 04/03/93
		Date Received: 04/08/93
	Client Contact: Bill Dugan/Ken Mateik	Date Extracted: 04/09/93
	Client P.O:	Date Analyzed: 04/11/93

Medium Boiling Point (C10-C23) TPH* as Diesel

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(D)+
30078	TP-W-12	W	17,000,d
Detection Limit unless otherwise state ND means Not Detected		W	50 ug/L
		S	10 mg/kg

*water samples are reported in ug/L and soils in mg/kg

cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified diesel; b) diesel range compounds predominate; no recognizable pattern; c) diesel range compounds together with gasoline range compounds; d) gasoline range compounds predominate; e) medium boiling point pattern that does not match diesel(); f) one to a few isolated peaks present; g) oil range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT

Date: 04/11-04/14/93 Matrix: Soil

Analyte	Concentration (mg/kg) Sample	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.063	2.179	2.03	102	107	5.5
Benzene	0.000	0.172	0.182	0.2	86	91	5.6
Toluene	0.000	0.178	0.192	0.2	89	96	7.6
Ethyl Benzene	0.000	0.176	0.190	0.2	88	95	7.7
Xylenes	0.000	0.520	0.572	0.6	87	95	9.5%
TPH (diesel)	0	349	329	300	116	110	5.9
TRPH (oil & grease)	0	21	21	20.8	102	101	1.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

CHAIN OF CUSTODY RECORD

In 0542

McCAMPBELL ANALYTICAL
110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☐ 5 DAY

REPORT TO: BILL DUGAN
BILL TO: DUGAN ASSOC.
PROJECT NUMBER: 958
PROJECT NAME: CHIONI PROPERTIES 2433 DE LA CRUZ
PROJECT LOCATION: SANTA CLARA
SAMPLER SIGNATURE:

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO3	OTHER
TP-W-12		4/3/93		1	Liter	X							
TP-W-12		4/3/93		3	Voa	X							

ANALYSIS REQUEST

BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E/B/F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 625/8270/8250 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI	OTHER	COMMENTS
X	X															30078
X																30079

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
[signature]	4/8/93		Tom Conroy
Tom Conroy Tel	4-4	4:52	[signature]
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATIVE APPROPRIATE ✓
VOAS 10 & 6 MEDIUM/HIGH

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Dugan & Associates 1023B Martin Avenue Santa Clara, CA 95050	Client Project ID: #958-1; Chioini Property, De La Cruz Blvd. site	Date Sampled: 04/19/93
		Date Received: 04/20/93
	Client Contact: Bill Dugan/Ken Mateik	Date Extracted: 04/21/93
	Client P.O:	Date Analyzed: 04/22/93

Low Boiling Point (C6-C12) TPH* as Gasoline and BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(G)+	Benzene	Toluene	Ethyl Benzene	Xylenes	% Rec. Surrogate
30273	CS-1,S-SP1(A-D)	S	ND,e	ND	0.007	ND	0.016	109
30274	CS-2-SP2(A-D)	S	130,b	ND	0.050	0.40	2.2	112
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT

Date: 04/15-04/22/93 Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.000	1.752	1.676	2.03	86	83	4.5
Benzene	0.000	0.190	0.196	0.2	95	98	3.1
Toluene	0.008	0.188	0.200	0.2	90	96	6.2
Ethyl Benzene	0.000	0.196	0.202	0.2	98	101	3.0
Xylenes	0.024	0.580	0.606	0.6	93	97	4.4
TPH (diesel)	0	214	213	200	107	106	0.7
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

4N0453

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
(510) 798-1620 PACHECO, CA 94553 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

REPORT TO: Bill Dugan BILL TO: Bill Dugan

COMPANY: DUGAN ASSOCIATES
1023 B Martin Avenue
Santa Clara, CA 95050

TELE: 408-988-5946 FAX #: 408-988-5947

PROJECT NUMBER: 958-1 PROJECT NAME: Chioini Property

PROJECT LOCATION: De La Cruz Blvd site SAMPLER SIGNATURE: Ken Matiek

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINER	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO3	OTHER (Ice)
CS-1½-SP1(A)		4/19/93		1	Brass		X						X
CS-1½-SP1(B)		"		1	"		X						X
CS-1½-SP1(C)		"		1	"		X						X
CS-1½-SP1(D)		"		1	"		X						X
CS-2-SP2(A)		4/19/93		1	Brass		X						X
CS-2-SP2(B)		"		1	"		X						X
CS-2-SP2(C)		"		1	"		X						X
CS-2-SP2(D)		"		1	"		X						X

ANALYSIS REQUEST

BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/3520 B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI
X	X										X			
X	X										X			
X	X										X			
X	X										X			
X	X										X			
X	X										X			
X	X										X			
X	X										X			

OTHER

COMMENTS: Composite Composite Sample

30273
30274

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Ken Matiek	4/19/93	6 pm	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	4/20/93	5:52 PM	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:
	4/20/93	5:36	

REMARKS:
GOOD CONDITION ✓
HEAD SPACE ABSENT ___
PRESERVATIVE APPROPRIATE ___
CONTAINERS ✓

McCAMPBELL ANALYTICAL

SAMPLE ID: CS-1 1/2-SP (A-D)
CLIENT PROJ. ID: D/CP/DLL
DATE RECEIVED: 04/21/93
REPORT DATE: 04/30/93

QUANTEQ LAB NO: 9304155-01A
QUANTEQ JOB NO: 9304155
DATE ANALYZED: 04/23-27/93

EPA 6010/7000 SERIES
PRIORITY POLLUTANT METALS
(SOIL MATRIX)

CODE	METAL	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)	METHOD REFERENCE	INST.
Ag	Silver	0.3	0.2	6010	ICP
As	Arsenic	ND	1	7060	4000
Be	Beryllium	0.6	0.2	6010	ICP
Cd	Cadmium	0.7	0.2	6010	ICP
Cr	Chromium	50	6	7190	V12
Cu	Copper	28	1	6010	ICP
Hg	Mercury	ND	0.2	7471	Hg
Ni	Nickel	76	3	6010	ICP
Pb	Lead	19	2	6010	ICP
Sb	Antimony	ND	2	6010	ICP
Se	Selenium	ND	2	7740	4000
Tl	Thallium	ND	3	6010	ICP
Zn	Zinc	50	2	6010	ICP

ND = Not Detected

INST. = Instrument Number

McCAMPBELL ANALYTICAL

SAMPLE ID: CS-2-SP 2 (A-D)
CLIENT PROJ. ID: D/CP/DLL
DATE RECEIVED: 04/21/93
REPORT DATE: 04/30/93

QUANTEQ LAB NO: 9304155-02A
QUANTEQ JOB NO: 9304155
DATE ANALYZED: 04/23-27/93

EPA 6010/7000 SERIES
PRIORITY POLLUTANT METALS
(SOIL MATRIX)

CODE	METAL	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)	METHOD REFERENCE	INST.
Ag	Silver	ND	0.2	6010	ICP
As	Arsenic	ND	1	7060	4000
Be	Beryllium	0.3	0.2	6010	ICP
Cd	Cadmium	0.6	0.2	6010	ICP
Cr	Chromium	21	6	7190	V12
Cu	Copper	30	1	6010	ICP
Hg	Mercury	0.2	0.2	7471	Hg
Ni	Nickel	30	3	6010	ICP
Pb	Lead	19	2	6010	ICP
Sb	Antimony	ND	2	6010	ICP
Se	Selenium	ND	2	7740	4000
Tl	Thallium	ND	3	6010	ICP
Zn	Zinc	76	2	6010	ICP

ND = Not Detected

INST. = Instrument Number

QUALITY CONTROL DATA

MATRIX: SOIL

QUANTEQ JOB NO: 9304155

CLIENT PROJ. ID: D/CP/DLL

MATRIX SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (ug/kg) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	9304121-08A	0.62	100	15.6	15.6	75	1	75-125	20
As, Arsenic	4000/7060	9304155-02A	ND	20	20.1	19.5	99	3	36-140	21
Cd, Cadmium	ICP/6010	9304121-08A	3.54	20	18.8	18.9	77	1	58-102	11
Cr, Chromium	V12/7190	9304022-12A	9.8	100	103	105	94	2	80-120	15
Cu, Copper	ICP/6010	9304121-02A	259	100	309	321	56	5	56-119	13
Hg, Mercury	Hg/7471	9304155-01A	ND	1.0	1.000	0.995	100	1	75-125	20
Ni, Nickel	ICP/6010	9304121-02A	[illegible]9	100	127	123	71	3	50-108	10
Pb, Lead	ICP/6010	9304121-02A	[illegible]8	100	304	324	56	6	50-115	10
Se, Selenium	4000/7740	9304155-02A	ND	40	35.5	34.2	87	4	23-134	28
Zn, Zinc	ICP/6010	9304121-02A	743	100	785	817	58	4	39-113	13

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

Routine 9304155

CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL
110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☐ 5 DAY

REPORT TO: Bill
BILL TO: MAI
PROJECT NUMBER:
PROJECT NAME: S/CA/Dec
PROJECT LOCATION:
SAMPLER SIGNATURE:

	SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	MATRIX: OTHER	METHOD PRESERVED: HCL	METHOD PRESERVED: HNO3	METHOD PRESERVED: OTHER (VOA)
01A	(S-1-5-2 (9.5)		4-12-93		4	5"		X						X
02A	(S-2-5 ½ (9.0)		1		4	1		X						X

ANALYSIS REQUEST

	BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/5520 B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 608/8080	EPA 608/8080	EPA 608/8080 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI	OTHER	COMMENTS
01A												X					8021 5
02A												X					8021 5

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
[signature]	4-21-93		
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:
	4/21/93	16:25	Danielle Vance

REMARKS:
2 4-ine composite,

June 2, 1999

Mr. Giuilio Chioini
200 Chippendale Court
Los Gatos, CA 95030

Dear Mr. Chioini:

Subject: Fuel Leak Site Case Closure—Chioini Property, 382 Martin Avenue, Santa Clara, CA; Case No. 11-061

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Santa Clara Valley Water District is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

If you have any questions, please call Ms. Christine Tulloch at (408) 265-2600, extension 2636. Thank you.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

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

cc: Mr. Chuck Headlee (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Nancy Commoncho
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

C. Tulloch (w/orig enc), Database (w/enc)

CT:lcg:FL9482aan

June 2, 1999

Mr. Giuilio Chioini
200 Chippendale Court
Los Gatos, CA 95030

Dear Mr. Chioini:

Subject: Fuel Leak Site Case Closure—Chioini Property, 382 Martin Avenue, Santa Clara, CA; Case No. 11-061

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

FL9482aan

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: May 24, 1999

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Christine A. Tulloch	Title: Water Quality Specialist

II. CASE INFORMATION

Site Facility Name: Chioini Property		
Site Facility Address: 382 Martin Avenue, Santa Clara, CA		
RB LUSTIS Case No.: —	Local Case No.: 06S1W35K02f	LOP Case No.: 11-061
URF Filing Date: 05/29/90	SWEEPS No.: —	APN: 230-47-019

Responsible Parties	Addresses	Phone Number
Mr. Giuilio Chioini	200 Chippendale Court Los Gatos, CA 95030	—

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	500	Gasoline	Removed	01/03/89
Piping			Removed	—

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Underground storage tank release		
Site characterization complete? Yes	Date Approved By Oversight Agency: May 1999	
Monitoring wells installed? Yes	Number: 1	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 7	Lowest Depth: 12	Flow Direction: North
Most Sensitive Current Use: Potential drinking water		

Summary of Production Wells in Vicinity: There are no production wells within the vicinity of the site which are considered threatened by the release.	
Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Basin
Is surface water affected? No	Nearest SW Name: Guadalupe River
Off-Site Beneficial Use Impacts (Addresses/Locations): None reported	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One at 500 gallons	Off site	1989
Piping	—	—	—
Free Product	—	—	—
Soil	Not reported	—	—
Groundwater	—	—	—
Barrels	—	—	—

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP									
Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After[1]	Before[2]	1997-98		Before	After	Before	After
TPH (Gas)	3,900	NA	53,000	ND	Xylene	130	NA	12,000	ND
TPH (Diesel)	N/A	N/A	N/A	N/A	Ethylbenzene	640	NA	3,300	ND
Benzene	3.5	NA	1,200	ND	EDB/DCA	NA	NA	NA	ND
Toluene	57	NA	1,200	ND	Heavy Metals	N/A	N/A	N/A	N/A
Other (8260) OXY	NA	NA	NA	ND <1	MTBE	NA	NA	NA	ND <5

Description of Interim Remediation Activities: Overexcavation was conducted to remove permeable backfill. Some contaminated soil was also removed. However, discolored soil was observed at the bottom of the overexcavation.

[1]Verification soil samples were not collected after overexcavation.
[2]Pit water sample after overexcavation.
ND = Not detected
NA = Not analyzed
N/A = Not applicable

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? No		
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 1
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances: Moderate to high concentrations of soil contamination have been detected. Some removal of contaminated soil was conducted. A grab sample was collected from the overexcavation pit. The highest concentrations of dissolved contamination detected was from the pit water. A monitoring well installed directly adjacent to the former pit was monitored periodically from 1992 and 1998. Total Petroleum Hydrocarbons as Gasoline concentrations were generally 1,000 parts per billion (ppb) to 3,000 ppb from 1993 to 1995. Benzene concentrations were 11 ppb to 23 ppb during the same time period. Samples collected in 1997 and 1998 were nondetectable. An upgradient well has also contained similar concentrations of dissolved petroleum hydrocarbons indicating another source of contamination may have contributed to groundwater contamination.

The downgradient extent of contamination was not defined. However, immediately downgradient (390 Martin Road, RH Wehner Construction), another underground storage tank release occurred and significant contamination has been detected.

Conclusion: Moderate levels of soil and groundwater contamination have been detected at the site. However, the last 2 years of annual sampling indicate that natural attenuation and overexcavation have like reduced concentrations to water quality objectives.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Christine A. Tulloch	Title: Water Quality Specialist
Signature:	Date: May 24, 1999
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature:	Date: 5/24/99

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: See attached facsimile	Date:

Attachments:

1. Site Vicinity Map
2. Site Plan

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances: Moderate to high concentrations of soil contamination have been detected. Some removal of contaminated soil was conducted. A grab sample was collected from the overexcavation pit. The highest concentrations of dissolved contamination detected was from the pit water. A monitoring well installed directly adjacent to the former pit was monitored periodically from 1992 and 1998. Total Petroleum Hydrocarbons as Gasoline concentrations were generally 1,000 parts per billion (ppb) to 3,000 ppb from 1993 to 1995. Benzene concentrations were 11 ppb to 23 ppb during the same time period. Samples collected in 1997 and 1998 were nondetectable. An upgradient well has also contained similar concentrations of dissolved petroleum hydrocarbons indicating another source of contamination may have contributed to groundwater contamination.

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Conclusion: Moderate levels of soil and groundwater contamination have been detected at the site. However, the last 2 years of annual sampling indicate that natural attenuation and overexcavation have like reduced concentrations to water quality objectives.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Christine A. Tulloch	Title: Water Quality Specialist
Signature: [signature]	Date: May 24, 1999
Approved by: James S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: [signature]	Date: 5/24/99

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

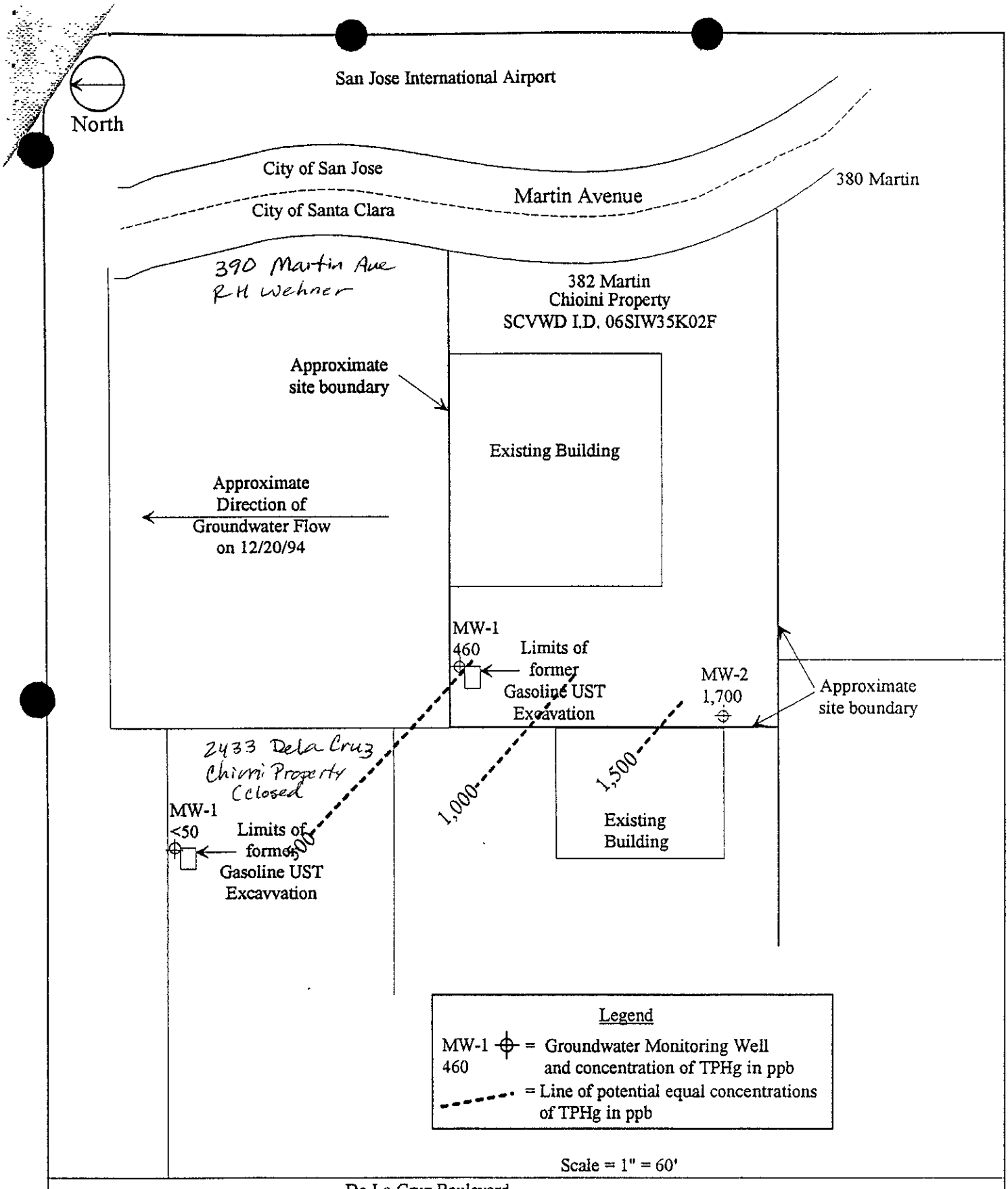
VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 5/24/99
Signature: Chuck Headlee	Date: 5/24/99

Attachments:
1. Site Vicinity Map
2. Site Plan

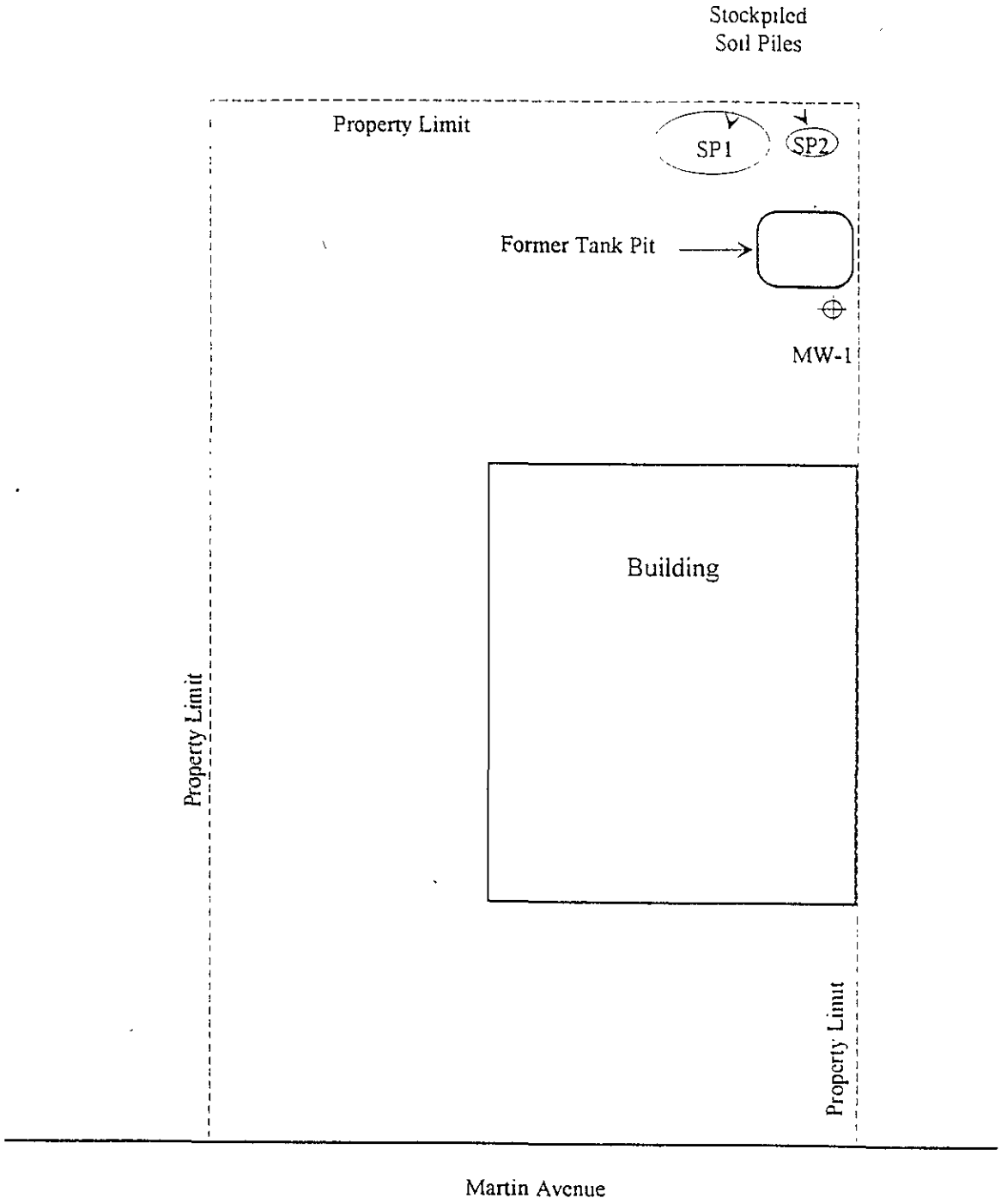
This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

Post-it® Fax Note 7671	Date	# of pages ▶ 1
To Chris Tulloch	From Chuck Headlee	
Co./Dept.	Co.	
Phone #	Phone #	
Fax (408) 997-8769	Fax #	



DUGAN ASSOCIATES 1023B Martin Ave. Santa Clara, California JOB NO. 959-QM4	Concentrations of TPHg in Groundwater Chioini Property 382 Martin Avenue Santa Clara, California	FIGURE 4

4tpg94.959



NOT TO SCALE

DUGAN ASSOCIATES 1023B Martin Ave. Santa Clara, California JOB NO. 959-1	GENERALIZED SITE PLAN Chioini Property 382 Martin Avenue Santa Clara, California	FIGURE 2

October 29, 1996 11/7/96

Mr. John West
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Dear Mr. West:

Subject: Request for Case Closure Concurrence—Underground Storage Tank Program Case No. 061W35L05f, D&D Associates, 570 Martin Avenue, Santa Clara, CA 95050

This requests your concurrence on case closure for the subject fuel leak case. Enclosed for your review is a case closure summary. Please provide comment to the Santa Clara Valley Water District (District) casehandler within 30 days from the receipt of this letter. If we have not received comment from you within that time frame, the District will issue a case closure letter for the subject case.

As you know, the District has entered into agreement with the State Water Resources Control Board to provide regulatory oversight for leaking underground fuel storage tanks. The terms of the agreement require the District to issue case closure letters after appropriate remediation for cases where soil and/or groundwater has been impacted. District evaluation of case closure is consistent with the San Francisco Bay Region, Regional Water Quality Control Board Water Quality Control Plan (Basin Plan) requirements and guidance.

Please contact Ms. Linda Dorn at the Camden Office, (408) 927-0710, extension 2643, with any questions or comments that arise as you proceed with review of this proposed case closure.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Associate Civil Engineer
Leaking Underground Storage Tank Oversight Program

Enclosure

cc: J. Crowley, Database, L. Dorn (w/enc)

LD:fd:FL9484ia

November 7, 1996

Mr. Angelo Leber
Pollack Inc.
1670 Newhall Street, Suite 104
Santa Clara, CA 95050

Dear Mr. Leber:

Subject: Underground Storage Tank Case Closure—D&D Associates, 570 Martin Avenue, Santa Clara, CA

This letter confirms the completion of site investigation and remedial action for the underground storage tank(s) formerly located at the above-described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e).

Please contact Ms. Linda Dorn at the Santa Clara Valley Water District's Camden Office, (408) 927-0710, extension 2643, if you have any questions in this matter.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley, P.E.
Associate Civil Engineer
Leaking Underground Storage Tank Oversight Program

Enclosure

cc: Mr. John West (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

J. Crowley, L. Dorn (w/original enc), Database (enc)

LD:lcg:FL9482zn

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: October 22, 1996

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Linda M. Dorn	Title: Water Quality Specialist

II. CASE INFORMATION

Site Facility Name: D&D Associates		
Site Facility Address: 570 Martin Avenue, Santa Clara, CA 95050		
RB LUSTIS Case No.: —	Local Case No.: 061W35L05f	LOP Case No.: —
URF Filing Date: 10/11/91	SWEEPS No.: —	APN: 230-03-063

Responsible Parties	Addresses	Phone Numbers
Mr. Angelo Leber Pollack Inc.	1670 Newhall Street, Suite 104 Santa Clara, CA 95050	(408) 244-7730

Tank I.D. No	Size in Gallons	Contents	Closed In-Place/Removed?	Date
1	1,000	Gasoline	Removed	03/28/91
Piping			—	—

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Leaking underground storage tank		
Site characterization complete? Yes	Date Approved By Oversight Agency: 10/22/96	
Monitoring wells installed? Yes	Number: 1	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 7.62	Lowest Depth: 13	Flow Direction: Assumed northeast
Most Sensitive Current Use: Potential drinking water		

Summary of Production Wells in Vicinity: One destroyed well (06S1W35M003) exists approximately 750 feet northwest of the site. The actual method of destruction is unknown. This fuel release will most likely not impact this well do to the limited extent of the release.	
Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Basin
Is surface water affected? No	Nearest SW Name: Guadalupe River ~1 mile east
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One at 1,000 gallons	Disposal at H&H Shipping South San Francisco	03/28/91
Piping	—	—	—
Free Product	—	—	—
Soil	Unknown	Disposal on site	—
Groundwater	—	—	—
Barrels	—	—	—

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS--BEFORE AND AFTER CLEANUP

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	350	4.6	NA	370	Xylene	6.7	0.042	NA	0.7
TPH (Diesel)	N/A	N/A	N/A	N/A	Ethylbenzene	1.8	0.220	NA	0.9
Benzene	0.034	ND	NA	ND	Oil & Grease	N/A	N/A	N/A	N/A
Toluene	0.560	0.017	NA	ND	Heavy Metals	N/A	N/A	N/A	N/A
Other Dicholoroethene (Cis 1,2 DCE)	NA	NA	NA	120	Other Trichloroethene (TCE)	NA	NA	NA	87

Description of Interim Remediation Activities: The tank area was overexcavated to 13 feet below ground surface.

N/A = Not Applicable
NA = Not Analyzed
ND = Not Detected

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health.		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? No		
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 1
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances: Please note up to 97 parts per billion (ppb) Trichloroethene and 120 ppb Cis 1,2 Tetrachloroethene were detected in groundwater samples collected from the monitoring well. The consultant has suggested the solvents are an areal pollution problem, not related to the site. This closure applies only to the fuel release, not the solvent pollution found in groundwater.

Conclusion: District staff recommends this fuel leak case for closure because:

- The source area was overexcavated;
- Benzene concentrations were nondetect five out of six sampling events; and
- The fuel release does not currently impact groundwater above water quality objectives.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Linda M. Dorn	Title: Water Quality Specialist
Signature: Linda Dorn	Date: 10/29/96
Approved by: James S. Crowley, P.E.	Title: Associate Civil Engineer
Signature: James S. Crowley	Date: 10/29/96

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

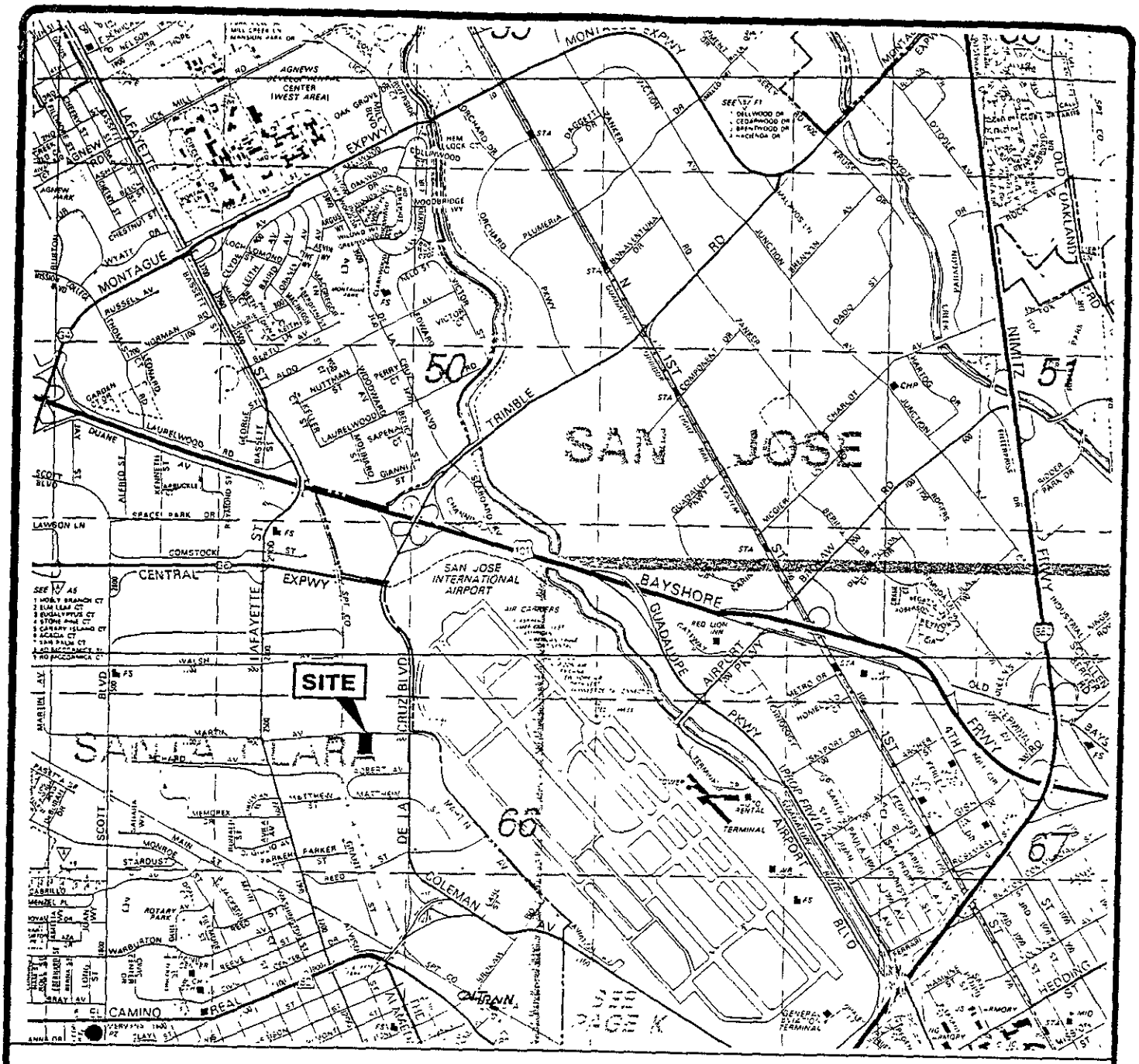
VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: John West	Title: E.S. III
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 11-5-96
Signature: John West	Date: 11-5-96

Attachments:

1. Site Vicinity Map
2. Site Plan

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.



BASE MAP: Thomas Brothers Maps, Santa Clara County
1990 edition, p. 54

TERRATECH

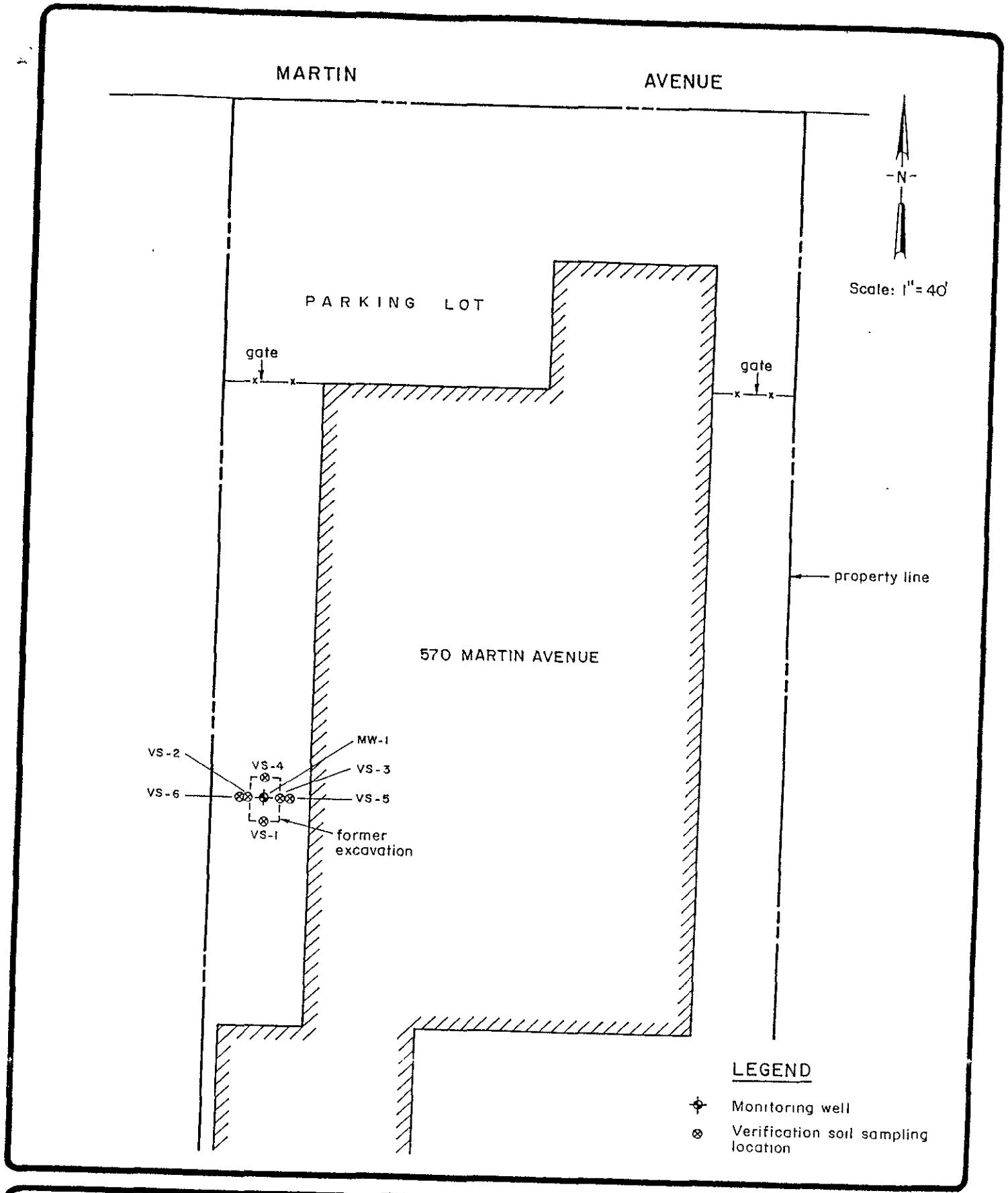
570 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

VICINITY MAP

FIGURE
1

PROJECT
4952/2

SAN JOSE BLUEPRINT CO
PRINTED ON JR 330



June 1991

TERRATECH

570 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

SITE PLAN

FIGURE 2

PROJECT 4952

SAN JOSE BLUEPRINT CO
PRINTED ON JR 330

Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.scvwd.dst.ca.us

AN EQUAL OPPORTUNITY EMPLOYER

January 21, 1999

c/o Mr. William Klein
Richard Wehner Co.
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113

SUBJECT: New Landowner Notification and Participation Requirements for Fuel Leak Investigations Pursuant to Recent Amendments to Chapters 6.7 and 6.75 of the Health and Safety Code

IN RE: Richard Wehner Const. Co.—390 Martin Avenue, Santa Clara

Dear Responsible Party:

I am writing to inform you of legislative changes affecting the oversight of your fuel leak case effective January 1, 1999. These changes require that the active or primary responsible party for the case:

- Ensure that all current property owners of the site are informed of cleanup actions or requests for closure; and

- Forward to your caseworker at the Santa Clara Valley Water District (District) a complete mailing list of all record fee title holders to the site so that we can ensure they are listed as responsible parties and be kept informed about cleanup and closure decisions.

If you are not the primary or active responsible party, you may want to ensure that you and the owners of the site are properly informed of cleanup actions and closure requests so that cleanup actions or closure are not delayed.

AB 681 (MACHADO) CHAPTER 255, STATUTES OF 1988

On August 3, 1998, Governor Wilson signed AB 681 (Machado) Chapter 255, Statutes of 1988 into law. This bill adds Health and Safety Code Section 25297.15, which prohibits a local agency (such as the District) from considering cleanup or closure proposals from the primary or active responsible party, issuing a closure letter, or making a determination that no further action is required with respect to a fuel leak case unless all current record owners of fee title to the site of the proposed action have been notified by the primary or active responsible party. This means we cannot consider approving work plans for cleanup or closure requests for a fuel leak case until we know that all property owners of the site are notified of the proposed action. The District is required to inform you of this new responsibility under the bill.

Additionally, the primary or active responsible party must certify in writing that the notification requirement of Health and Safety Code Section 25297.15 have been met and provide a mailing list of all record fee title owners to the local agency. The certification shall be included with a perjury statement in the cover letter transmitting reports, work plans, and requests for closure.

recycled paper

As the local oversight agency, the District is required to take all r ›nable steps necessary to accommodate responsible landowner participation in the cleanup or sit ›ure process and we will consider all input and recommendations from any responsible landowr ›ing to partic›pate.

CAN THIS NEW LAW DELAY CLEANUP DECISIONS OR CLOSURE OF A SITE?

Yes, the cleanup or closure of a site may be affected by this new law. Delays can occur if the active or primary responsible party does not appropriately notify the District of changes in property ownership or involve site owners in decisions regarding cleanup actions or site closure. The District is required to consider all input and recommendations from the site owner.

We appreciate your help in the implementation of this new law. If you have any questions or comments, please don't hesitate to call me at (408) 265-2607, extension 2638, your case worker, or Ms. Lori Casias at the State Water Resources Control Board (916) 227-4325.

Sincerely,

ORIGINAL SIGNED BY

James S. Crowley
Special Programs Engineer
Leaking Underground Storage Tank Oversight Program

cc: Mr. Chuck Headlee
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. John Mijares
Central Coast Regional Board
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5414

Mr. Alan Patton
Division of Clean Water Programs
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Ms. Lori Casias
Division of Clean Water Programs
State Water Resources Control Board
PO Box 944212
Sacramento, CA 94244-2120

J. Townsend

JT:tdb:0120c

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF CLEAN WATER PROGRAMS
2014 T STREET, SUITE 130
P.O. BOX 944212
SACRAMENTO, CALIFORNIA 94244-2120
(916) 227-4307
(916) 227-4530 (FAX)

Mr. William L. Myers
Richard Wehner Co.
c/o Hopkins & Carley
150 Almaden Blvd, 15th Fl.
San Jose, CA 95113-2089

JUN 0 6 1995

UNDERGROUND STORAGE TANK CLEANUP FUND, CLAIM NO. 001373, FOR SITE ADDRESS: 390 MARTIN AVE , SANTA CLARA 95050

The State Water Resources Control Board (State Board) takes pleasure in issuing the attached Letter of Commitment in an amount not to exceed ***$20,000****. This Letter of Commitment is based upon our review of the corrective action costs incurred to date and your application received on January 17, 1992 and may be modified by the State Board in writing by an amended Letter of Commitment.*

Read the terms and conditions listed in the Letter of Commitment. The State Board will take steps to withdraw this Letter of Commitment after 90 calendar days from the date of this transmittal letter unless you proceed with due diligence with your cleanup effort. *This means that you must take positive, concrete steps to ensure that corrective action is proceeding with all due speed. For example, if you have not started your cleanup effort, you must obtain three bids and sign a contract with one of these bidders within 90 calendar days. If your cleanup effort has already started and was delayed, you must resume the expenditure of funds to ensure that your cleanup is proceeding in an expeditious manner. You are reminded that you must comply with all regulatory agency time schedules and requirements.*

This package includes the following:

- *A "Reimbursement Request Instructions" package.* ***Retain this package for future reimbursement requests.*** *These instructions must be followed when seeking reimbursement for corrective action costs incurred after January 1, 1988. Included in the instruction package are:*
  - *Samples of completed Reimbursement Request forms and Spreadsheets.*
  - *Recommended Minimum Invoice Cost Breakdown*
- *A "Bid Summary-Sheet to list information on bids received.*
- *A "Certification of Non-Recovery From Other Sources" which* ***must be returned before any reimbursements can be made.***
- *"Reimbursement Request" forms which you must use to request reimbursement of costs incurred.*
- *"Spreadsheet" forms which you must use in conjunction with your Reimbursement Request.*
- *"Vendor Data Record" (Std. Form 204) which* ***must be completed and returned with your first Reimbursement Request.***

YOU MUST SUBMIT A REIMBURSEMENT REQUEST PACKAGE BY OCTOBER 6, 1995, OR SEND A WRITTEN UPDATE EXPLAINING:

1. ***Status of cleanup to date.***
2. ***Reason(s) why a reimbursement request has not been submitted.***
3. ***Costs incurred to date for corrective action.***
4. ***Projected date for submitting a reimbursement request.***

We constantly review the status of all active claims. If you do not submit a reimbursement request or a written update by the date above, or fail to proceed with due diligence with the cleanup, we will take steps to withdraw your Letter of Commitment.

If you have any questions regarding the Letter of Commitment or the Reimbursement Request package, please contact Francine Aguirre at (916) 227-4427.

Sincerely,

Doug Wilson

Dave Deaner, Manager
UST Cleanup Fund Program

Enclosures

cc: *Mr. Steve Morse*
California Regional Water Quality
Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mrs. Linda Dorn
Santa Clara Valley Water Dist.
5750 Almaden Expressway
San Jose, CA 95118

LETTER OF COMMITMENT FOR REIMBURSEMENT OF COSTS

CLAIM NO:	001373	AMENDMENT NO:	0
CLAIMANT:	R. Wehner Co.	BALANCE FORWARD:	$0
CO-PAYEE:	None		
JOINT CLAIMAINT:	None		
		THIS AMOUNT:	$20,000
	c/o Hopkins & Carley		
	Mr. Wm. L. Myers	NEW BALANCE:	$20,000
CLAIMANT ADDRESS:	150 Almaden Blvd, 15th Fl.		
	San Jose, CA 95113-2089		
TAX ID/SSA NO:	94-1341746		

Subject to availability of funds, the State Water Resources Control Board (SWRCB) agrees to reimburse R. Wehner Co. (Claimant) for eligible corrective action costs at R. H. Wehner Constr. Co. 390 Martin Ave., Santa Clara 95050 (Site). The commitment reflected by this Letter is subject to all of the following terms and conditions:

1. Reimbursement shall not exceed $20,000 unless this amount is subsequently modified in writing by an amended Letter of Commitment.

2. The obligation to pay any sum under this Letter of Commitment is contingent upon availability of funds. In the event that sufficient funds are not available for reasons beyond the reasonable control of the SWRCB, the SWRCB shall not be obligated to make any disbursements hereunder. If any disbursements otherwise due under this Letter of Commitment are deferred because of unavailability of funds, such disbursements will promptly be made when sufficient funds do become available. Nothing herein shall be construed to provide the Claimant with a right of priority for disbursement over any other claimant who has a similar Letter of Commitment.

3. All costs for which reimbursement is sought must be eligible for reimbursement and the Claimant must be the person entitled to reimbursement thereof.

4. Claimant must at all times be in compliance with all applicable state laws, rules and regulations and with all terms, conditions, and commitments contained in the Claimant's Application and any supporting documents or in any payment requests submitted by the Claimant.

5. No disbursement under this Letter of Commitment will be made except upon receipt of acceptable Standard Form Payment Requests duly executed by or on behalf of the Claimant. All Payment Requests must be executed by the Claimant or a duly authorized representative who has been approved by the Division of Clean Water Programs.

6. Any and all disbursements payable under this Letter of Commitment may be withheld if the Claimant is not in compliance with the provisions of paragraph 5 above.

7. Neither this Letter of Commitment nor any right thereunder is assignable by the Claimant without the written consent of the SWRCB. In the event of any such assignment, the rights of the assignee shall be subject to all terms and conditions set forth in this Letter of Commitment and the SWRCB's consent.

8. This Letter of Commitment may be withdrawn at any time by the SWRCB if completion of corrective action is not performed with reasonable diligence.

IN WITNESS WHEREOF, this Letter of Commitment has been issued by the SWRCB this 15th day of May, 1995.

STATE WATER RESOURCES CONTROL BOARD

BY _____
Manager, Underground Storage Tank Cleanup Fund Program

BY _____
Chief, Division Administrative Services

STATE USE:
CALSTARS CODING:
0550.569.02 - 30530
$ _____

R:3/24/94

April 8, 1993

Ms. Donna Schimeck
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Dear Ms. Schimeck:

Subject: Revised Responsible Party Billing Address (and Contact Representative) for Site No. 11-015, R.H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara, California

The Responsible Party for the subject site has informed the Santa Clara Valley Water District that their address (and the name of their contact representative) should be changed to the following:

Mr. Richard H. Wehner
Richard Wehner Company
c/o William Klein
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

If you have any questions, please call Ms. Cris Tulloch at the Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Belinda A. Allen
Supervising Engineer
Groundwater Protection Division

Attachment

cc: Santa Clara Valley Local Program Coordinator
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Richard H. Wehner
Richard H. Wehner Construction Company
390 Martin Avenue
Santa Clara, CA 95050

Mr. Richard H. Wehner
Richard Wehner Company
c/o Mr. William Klein
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

T. Hemmeter, C. Tulloch, Read

CT:lac:L8724d

2/17 ORIG, EAA w/a
JJC

R. H. WEHNER
CONSTRUCTION CO.
[illegible] MARTIN AVENUE
SANTA CLARA, CA 95050

OFFICE: 727-8607

TO: Belinda Allen

FROM: _____

DATE: 3-15-93

NUMBER OF PAGES INCLUDING THIS COVER SHEET 3

RETURN FAX NUMBER: 408 727 8139

Please Correct your records for Owner/Responsible Party per Attached. Direct Correspondance to that Address in the future. Thank you.

Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
SAN JOSE CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
AN AFFIRMATIVE ACTION EMPLOYER

March 12, 1993

Mr. Richard H. Wehner
R. M. Wehner Concrete Construction
390 Martin Avenue
Santa Clara, CA 95050

Dear Mr. Wehner:

Subject: Oversight and Investigation Cost Recovery for Site No. 11-015, R. H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara, CA

This provides you notification that the subject site will be included in the Underground Storage Tank Local Oversight Program.

In March of 1988, the Santa Clara Valley Water District (District) and the State Water Resources Control Board (SWRCB) entered into an agreement. This agreement provides state and federal money to the District for the oversight costs associated with cleanup of petroleum hydrocarbon releases at sites within Santa Clara County. This cleanup program is critical to the protection of valuable groundwater resources from contamination.

District staff is now working on your case and any significant staff time for review, inspection, or other related activities will be charged accordingly. The District will be invoicing the SWRCB for these funds on a quarterly basis. The SWRCB will then seek recovery of the funds from the responsible party.

Attached is the SWRCB's Notice of Requirement to Reimburse to ensure that proper notification is given to the responsible party. Please check to ensure that the information is correct. The responsible party name, the company name, and the address should coincide with the billing address.

If you have any questions regarding cost recovery, please call Tracy Hemmeter at the Camden Office, (408) 927-0710, extension 2647. Questions regarding site specific investigation, cleanup, and closure should be directed to the site's casehandler, Ms. Cris Tulloch, extension 2636.

Sincerely,

Belinda A. Allen
Supervising Engineer
Groundwater Protection Division

Attachment

CERTIFIED MAIL

MAR 15 1993

cc: Santa Clara Valley Local Program Coordinator (w/att)
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Ms. Donna Schimeck (w/att)
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

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State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program

Notice of Requirement to Reimburse

Site Number: 11-015

Site Name: R. H. Wehner Concrete Construction

Address: 390 Martin Avenue

City/State/Zip: Santa Clara, CA 95050

Date First Reported: 06/07/91

Substance: 12034

Petroleum: (X) Yes ( ) No

The following information has been provided to:

Responsible Party and/or Contact Person: Richard ~~M.~~ H Wehner

Responsible Party and/or Contact Company: ~~R. M. Wehner Concrete Construction.~~ Richard Wehner Co.

Address: ~~390 Martin Avenue~~

City/State/Zip: ~~Santa Clara, CA 95050~~

The Federal Petroleum Leaking Underground Storage Tank Trust Fund (Federal Trust Fund) provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks. The Legislature has authorized funds to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks. The direct and indirect costs of site investigation or remedial action at the above site are funded, in whole or in part, from the Federal Trust Fund. The above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 of the United States Code, Section 6991b(h)(6) and Sections 25297.1 and 25360 of the Health and Safety Code, the above Responsible Party or Parties shall reimburse the State Water Resources Control Board not more than 150 percent of the total amount of site specific oversight costs actually incurred while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Contract Project Director: Belinda A. Allen	Telephone No.: (408) 927-0710
Signature: Belinda Allen	Date: March 12, 1993

Add RP:	X	**Reason:**	Tank Owner/Operator/Property Owner

L8382al

STANDARD FORM UST03(1/91)

March 12, 1993

Mr. Richard M. Wehner
R. M. Wehner Concrete Construction
390 Martin Avenue
Santa Clara, CA 95050

Dear Mr. Wehner:

Subject: Oversight and Investigation Cost Recovery for Site No. 11-015, R. H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara, CA

This provides you notification that the subject site will be included in the Underground Storage Tank Local Oversight Program.

In March of 1988, the Santa Clara Valley Water District (District) and the State Water Resources Control Board (SWRCB) entered into an agreement. This agreement provides state and federal money to the District for the oversight costs associated with cleanup of petroleum hydrocarbon releases at sites within Santa Clara County. This cleanup program is critical to the protection of valuable groundwater resources from contamination.

District staff is now working on your case and any significant staff time for review, inspection, or other related activities will be charged accordingly. The District will be invoicing the SWRCB for these funds on a quarterly basis. The SWRCB will then seek recovery of the funds from the responsible party.

Attached is the SWRCB's Notice of Requirement to Reimburse to ensure that proper notification is given to the responsible party. Please check to ensure that the information is correct. The responsible party name, the company name, and the address should coincide with the billing address.

If you have any questions regarding cost recovery, please call Tracy Hemmeter at the Camden Office, (408) 927-0710, extension 2647. Questions regarding site specific investigation, cleanup, and closure should be directed to the site's casehandler, Ms. Cris Tulloch, extension 2636.

Sincerely,
ORIGINAL SIGNED BY
Belinda A. Allen
Supervising Engineer
Groundwater Protection Division

Attachment

CERTIFIED MAIL
cc: Santa Clara Valley Local Program Coordinator (w/att)
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Ms. Donna Schimeck (w/att)
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

T. Hemmeter (w/att), Cris Tulloch (w/att), Read
CT:tl:L6865mmm

State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program

Notice of Requirement to Reimburse

Site Number: 11-015

Site Name: R. H. Wehner Concrete Construction

Address: 390 Martin Avenue

City/State/Zip: Santa Clara, CA 95050

Date First Reported: 06/07/91

Substance: 12034

Petroleum: (X) Yes ( ) No

The following information has been provided to:

Responsible Party and/or Contact Person: Richard M. Wehner

Responsible Party and/or Contact Company: R. M. Wehner Concrete Construction

Address: 390 Martin Avenue

City/State/Zip: Santa Clara, CA 95050

The Federal Petroleum Leaking Underground Storage Tank Trust Fund (Federal Trust Fund) provides funding to pay the local and agency administrative and oversight costs associated with the cleanup of releases from underground rage tanks. The Legislature has authorized funds to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks. The direct and indirect costs of site investigation or remedial action at the above site are funded, in whole or in part, from the Federal Trust Fund. The above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 of the United States Code, Section 6991b(h)(6) and Sections 25297.1 and 25360 of the Health and Safety Code, the above Responsible Party or Parties shall reimburse the State Water Resources Control Board not more than 150 percent of the total amount of site specific oversight costs actually incurred while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

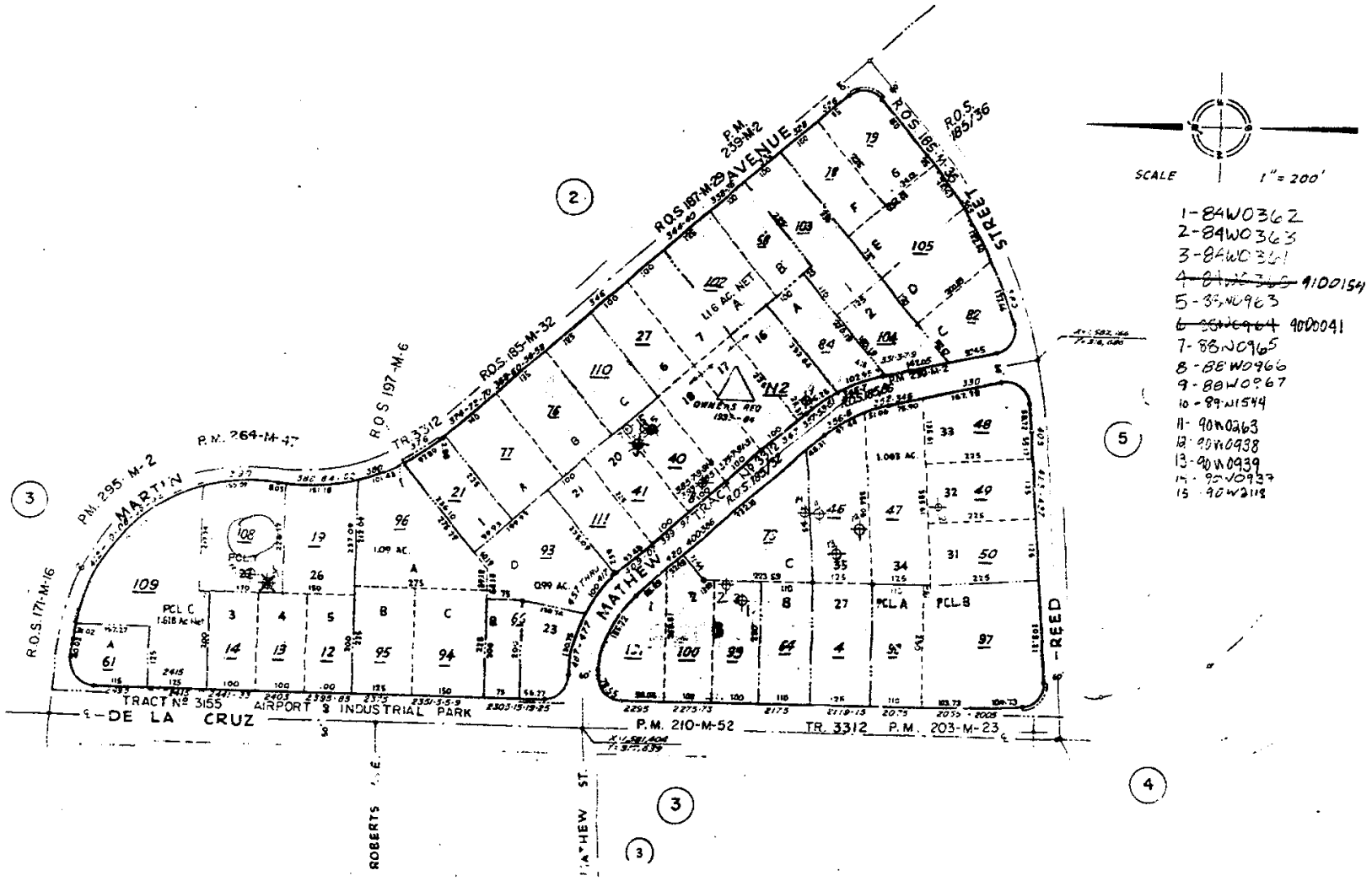
Contract Project Director: Belinda A. Allen Signature: B. A. Allen			Telephone No.: (408) 927-0710 Date: March 12, 1993
Add RP:	X	**Reason:**	Tank Owner/Operator/Property Owner

1.8382al

STANDARD FORM UST03(1/91)

COMPILED IN CONFORMANCE WITH SEC. [illegible] OF THE REVENUE & TAXATION CODE
EFFECTIVE DATE MARCH 1, 19[illegible]
ALFRED E. CARLSON - ASSESSOR

BOOK	PAGE
230	47



E2C INC.

Environmental/Engineering Consultants

April 7, 1999
Job No. 5850100

Mr. Richard Wehner
18876 Masson Terrace Court
Los Gatos, CA 95070

Richard Wehner Const Co

SUBJECT: STATUS OF REQUEST FOR CASE CLOSURE
390 Martin Avenue
Santa Clara, California

Dear Mr. Wehner:

As was discussed in our April 5, 1999 telephone conversation, the Santa Clara Valley Water District (the District) plans on approving the March 24, 1999 Corrective Action Plan (CAP) prepared by E_2C, Inc. With the acceptance of the CAP, the District is indicating that they agree that natural attenuation (or letting the contamination be cleaned up by natural environmental mechanisms) is the best choice for a final corrective action in regards to the release of fuel from the former tanks and piping. This brings your case much closure to final closure and is a definite landmark.

Based on the District's intention to approve the CAP, the attached public review letter was issued to all adjacent property owners. These adjacent land owners are allowed 30 days to review the CAP and make formal comment on its contents. It is unlikely that any substantive comments will be received; therefore, the public review process should not be a hindrance to the eventual issuance of case closure.

As you are aware, E_2C, Inc. requested within the CAP that the case be considered for closure immediately. Unfortunately, however, the District caseworker (Cris Tulloch) indicated that the high level of Benzene detected in well MW-2 during the February monitoring event, disallows closure at this time. Additional groundwater monitoring data will need to be generated for well MW-2 that shows Benzene levels below 2,000 ppb, which is commensurate with historic readings. The last three sampling events, however, have revealed Benzene levels above 3,000 ppb in well MW-2. Under such circumstances, case closure cannot be granted.

Based on these circumstances, E_2C, Inc. has spoken with Ms. Tulloch and indicated our intention to collect a sample from well MW-2 this week and then again in early May. Should Benzene concentrations decrease to levels

Civic Center Tower • 675 North First Street, Fifth Floor • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

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below 2,000 ppb, the District will *consider* the case for closure without requiring additional well monitoring events. However, if the levels remain above 2,000 ppb, it is likely that additional, *limited* monitoring will be required until Benzene levels show a decreasing trend.

I have asked Ms. Tulloch to perform a review of the case file with her supervisor during the public review process so that upon her receipt of the two additional sets of monitoring data from April and May (estimated to get to her in mid May), an expedient decision can be made on case closure. She in general agreed to this approach.

If the District does agree to issue case closure, a letter will be prepared by the District for submittal to the Regional Water Quality Control Board (RWQCB). If the RWQCB agrees with the case closure recommendation, a Final Case Closure Letter should be issued within a two week period of time.

Based on this information, there are two potential, likely scenarios:

1. Case Closure is granted by mid to late June 1999. Or,

2. Additional groundwater monitoring is required until Benzene levels drop below 2,000 ppb in well MW-2, and levels of Benzene remain stable or decrease in all other monitoring wells.

I hope that this letter provides clarification on the status of your case. I will contact you as significant information becomes available. Should you have any questions, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Enclosure
cc: Ms. Cris Tulloch
Santa Calra Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Mr. Bill Steele
Grubb & Ellis
224 Airport Boulevard
San Jose, CA 95110

Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.scvwd.dst.ca.us

AN EQUAL OPPORTUNITY EMPLOYER

April 6, 1999

IDENTICAL LETTER SENT TO ATTACHED LIST OF ADDRESSES

Dear Resident/Property Owner:

Subject: Fuel Leak Corrective Action Plan—R.H. Wehner Construction, 390 Martin Avenue, Santa Clara, CA

The Santa Clara Valley Water District (District) intends to approve a Corrective Action Plan, dated March 24, 1999, for final cleanup of soil and groundwater contamination at the former R.H. Wehner Construction site. The site is located on Martin Avenue in Santa Clara (approximately 300 feet southeast of Martin Avenue and De La Cruz) and is adjacent to your property. The Corrective Action Plan indicates that residual petroleum hydrocarbon pollution does not present a threat to drinking water and the pollution levels will continue to decline. The goal of the Corrective Action Plan is to achieve water quality objectives for drinking water in accordance with the San Francisco Bay Region Basin Plan objectives.

Pursuant to the District's Public Participation Plan, a copy of the Corrective Action Plan is on file at the District and is available for review by making an appointment with Ms. Jeannette Townsend at (408) 927-0710, extension 2649. Written comments may be received by the District until May 6, 1999. We will respond to all comments received and distribute the response to all interested parties, as appropriate.

If you have any questions about the proposed Corrective Action Plan, please contact me at the District's Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Leaking Underground Storage Tank Oversight Program

cc: Larry Monette, Ph.D
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Mr. Richard Wehner
18876 Masson Terrace Court
Saratoga, CA 95070

Ms. Brenda McNabb
E₂C Inc.
675 North First Street, Fifth Floor
San Jose, CA 95112-5111

recycled paper

LIST OF ADDRESSES

Pacific Venetian Building
2294 Walsh Avenue
Santa Clara, CA 95050

Clover Trust 1997-1
P.O. Box 52085
Phoenix, AZ 85072

Mr Gregory H. Blaine et al.
2285 Tioga Drive
Menlo Park, CA 94025

SCUWD6APR13'99AM 6:48

April 6, 1999

IDENTICAL LETTER SENT TO ATTACHED LIST OF ADDRESSES

Dear Resident/Property Owner:

Subject: Fuel Leak Corrective Action Plan—**R.H. Wehner Construction,** 390 Martin Avenue, Santa Clara, CA

The Santa Clara Valley Water District (District) intends to approve a Corrective Action Plan, dated March 24, 1999, for final cleanup of soil and groundwater contamination at the former R.H. Wehner Construction site. The site is located on Martin Avenue in Santa Clara (approximately 300 feet southeast of Martin Avenue and De La Cruz) and is adjacent to your property. The Corrective Action Plan indicates that residual petroleum hydrocarbon pollution does not present a threat to drinking water and the pollution levels will continue to decline. The goal of the Corrective Action Plan is to achieve water quality objectives for drinking water in accordance with the San Francisco Bay Region Basin Plan objectives.

Pursuant to the District's Public Participation Plan, a copy of the Corrective Action Plan is on file at the District and is available for review by making an appointment with Ms. Jeannette Townsend at (408) 927-0710, extension 2649. Written comments may be received by the District until May 6, 1999. We will respond to all comments received and distribute the response to all interested parties, as appropriate.

If you have any questions about the proposed Corrective Action Plan, please contact me at the District's Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Leaking Underground Storage Tank Oversight Program

cc: Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Mr. Richard Wehner
18875 Masson Terrace Court
Saratoga, CA 95070

Ms. Brenda McNabb
E_2C Inc.
675 North First Street, Fifth Floor
San Jose, CA 95112-5111

C. Tulloch

CT:lcg:FL0405d

LIST OF ADDRESSES

Pacific Venetian Building
2294 Walsh Avenue
Santa Clara, CA 95050

Clover Trust 1997-1
P.O. Box 52085
Phoenix, AZ 85072

Mr. Gregory H. Blaine et al.
2285 Tioga Drive
Menlo Park, CA 94025

C. Stellback

October 20, 1997

Mr. R.H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA, Cleanup Fund Claim No. 1373

Thank you for providing the August 29, 1997, Quarterly Groundwater Monitoring Report and Request for Closure. We have reviewed the report, other reports related to this site, and associated groundwater monitoring results. We are unable to issue case closure for this site at this time. Presented below is our basis for not proceeding with case closure and options to move your case to closure.

COMMENTS ON REQUEST FOR CLOSURE

The August 29, 1997, report indicates that the Benzene concentrations are showing a decreasing trend. The report states that Benzene concentrations have not exceeded 880 parts per billion (ppb) during the last three quarters and that natural attenuation will eventually result in the reduction of Benzene to Maximum Contaminant Levels (MCL) for drinking water (1 ppb). Therefore, the report recommended that this case should be considered for closure. We have reviewed the groundwater monitoring data and July 24, 1997, Soil and Groundwater Investigation Report and have concluded that a significant residual source for continued groundwater pollution is not present and Benzene concentrations are indeed declining. In addition, based on preliminary data from the newly installed downgradient monitoring wells MW-5 and MW-6, the extent of contamination in groundwater appears to have been adequately defined and the plume appears stable. Based on this information, and that continued groundwater monitoring at downgradient wells MW-5 and MW-6 show little to no pollution, we would conclude that this site would meet the low-risk groundwater case criteria established by the San Francisco Bay Regional Water Quality Control Board (Regional Board). The case management strategy proposed by the Regional Board for low-risk cases is the use of natural attenuation processes as the preferred remedial alternative and continued plume monitoring to establish the stability of the plume. We concur that this is the preferred management strategy for this case.

However, we are unable to close this case at this time for the following reasons:

1. The residual levels of Benzene during the last four quarters of monitoring have been as high as 2,700 ppb and the highest level detected in the last monitoring event was 650 ppb. These levels are well above the MCL for Benzene of 1 ppb. Please note that most groundwater within Santa Clara Valley has a beneficial use designation (Regional Board San Francisco Bay Basin Plan) of municipal, industrial, and domestic supply. The water quality objectives for these beneficial uses

are MCLs. In accordance with California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2726, a Corrective Action Plan (CAP) must address at least two technically and economically feasible methods to restore and protect beneficial uses of water and to meet the cleanup objectives.

2. Only one to three sampling events have been conducted for the newly installed downgradient wells MW-5 and MW-6. Generally, four quarters of monitoring (one hydrologic cycle) are required to demonstrate a trend in water quality data.

3. An abandoned water supply well is located at the downgradient edge of your plume (near MW-6). This well could act as a conduit for vertical migration of pollution. The District is working with the well owner on this issue. However, due to the short duration of downgradient monitoring of your plume and the potential for your plume to encounter this conduit, we feel the risk is too high to close this case at this time.

4. Metnyl tert-Butyl Ether (MTBE) was detected in MW-2 (on your property) at 530 ppb in November 1996 and downgradient at MW-4 at 170 ppb in August 1997. It appears that the MTBE could have originated from the release at your site and may be migrating. Due to the chemical properties of MTBE, it is more likely to migrate longer distances than the other components of gasoline. Currently, there is no regulatory threshold for MTBE as it relates to underground storage tank cleanup and investigation. It is, therefore, appropriate that MTBE continues to be monitored.

OPTIONS TO MOVE TOWARDS CASE CLOSURE

If you choose to follow the low-risk case management strategy presented above with the intent of moving towards closure, we recommend evaluating the economic feasibility of natural attenuation to achieve water quality objectives over time. As previously stated, a CAP must address two technically and economically feasible methods to restore and protect beneficial uses of water and to meet the cleanup objectives. Once a CAP has been approved and the continued groundwater monitoring results support the conclusion in the CAP that water quality objectives will be met, we can then consider reviewing your case for closure. However, if after approval and implementation of the CAP, the case is to be closed with significant levels of residual dissolved pollution in groundwater, a risk assessment (in addition to the impact assessment portion of the CAP) should be prepared to document that a current or future risk is not present. The evaluation of future risk should include potential development and associated construction activities with respect to the affected properties. We recommend that the risk assessment be prepared in accordance with the American Society for Testing and Materials' Standard E-1739-95 for Risk-Based Corrective Action Applied at Petroleum Release Sites, or other equitable standard.

If you do not wish to prepare a CAP at this time, you may also choose to continue monitoring your plume before defining how you want to move your case towards closure. In making this decision, you may want to evaluate a reduced monitoring frequency for select wells.

Please present your intended strategy in your next Quarterly Monitoring Report.

TECHNICAL REPORT REQUEST

Please provide your next Quarterly Report by December 30, 1997. This report and subsequent Quarterly Monitoring Reports are requested pursuant to the Regional Board's authority under Section 13267 of the

California Water Code. Please send copies of these reports to the Santa Clara Valley Water District (Attention: Ms. Cris Tulloch) and the Santa Clara Fire Department (Attention: Mr. Larry Monette)

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at the Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Leaking Underground Storage Tank Oversight Program

cc: C. Tulloch

CT:lcg:CT1014g

Cal/EPA

State Water Resources Control Board

Division of Clean Water Programs

Mailing Address:
P.O. Box 944212
Sacramento, CA
94244-2120

2014 T Street,
Suite 130
Sacramento, CA
95814
(916) 227-0746
FAX (916) 227-4530

World Wide Web
http://www.swrcb.ca.gov/~cwphome/fundhome.htm

Pete Wilson
Governor

June 17, 1997

Mr. Richard Wehner
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Blvd 15th Fl
San Jose, CA 95113-2089

PRE-APPROVAL OF CORRECTIVE ACTION COSTS, CLAIM NO. 1373, RICHARD WEHNER COMPANY, 390 MARTIN AVE, SANTA CLARA, CA 95050

RH

I have reviewed your request, received on May 7, 1997, for pre-approval of corrective action costs; I will place these documents in your file for future reference. Future pre-approval of costs request must come from the claimant and/or authorized representative. I have included a copy of the "Cost Pre-Approval Request" form; please use this form in the future for requesting pre-approval of corrective actions costs.

With the following provisions, the total cost pre-approved as eligible for reimbursement for completing the E2C, Inc., site investigative work verbally approved by the Santa Clara Valley Water District (District), is **$10,390**; see the table below for a breakdown of costs. (The total amount approved for reimbursement through Request No. 4 for work at your site that has been directed and approved by the District is **$58,606**.)

*Be aware that this pre-approval does not constitute a decision on reimbursement: **all reasonable and necessary** corrective action costs for work **directed and approved by the District** will be eligible for reimbursement per the terms of your Letter of Commitment at costs consistent with those pre-approved in this letter.*

All future costs for corrective action must be approved in writing by Fund staff. Future costs for corrective action must meet the requirements of Article 11, Chapter 16, Underground Storage Tank Regulations.

- The actual costs and scope of work performed must be consistent with the pre-approval for it to remain valid.
- The work products must be acceptable to the District and Regional Board.
- It is my opinion that it is unnecessary to obtain three bids for this scope of work; the Fund's three bid requirement is waived for this scope of work.
- If a different scope of work becomes necessary, then you must request pre-approval of costs for the new scope of work.
- Although I have referred to the E2C, Inc. proposal in my pre-approval above, please be aware that you will be entering into a private contract: the State of California cannot compel you to sign any specific contract. This letter **pre-approves the costs** as presented in the proposal dated April 29, 1997 by E2C, Inc. for conducting the site investigative work verbally approved by the District.

COST PRE-APPROVAL BREAKDOWN

Task	Amount Pre-Approved	Comments
Project Coordination & Planning	$1,553	One-third of the costs have been pre-approved. One of the grab groundwater samplings is not pre-approved as it is directly relating to investigating the Unocal site. Also, all invoices must show the dates, times and description of activities conducted.
Grab Sampling, Well Installation, Development & Sampling	$2,833	One-fourth of the costs not pre-approved. More time is expected to be expended for well installation.
Soil Sampling	$1,695	Six soil sample points from former tank excavation.
Sample Analysis	$1,035	TPHg/TPHd/BTEX/MTBE pre-approved at $115/sample.
Report Preparation	$2,500	Costs discussed with B. McNabb of E2C, Inc.
Principal Oversight, Meetings and Report Certification	$726	Dates, times and description of activities required.
Mileage	$48	
TOTAL PRE-APPROVED	**$10,390**	

I also want to remind you that the Fund's regulations require that you obtain at least three bids, or a bid waiver from Fund staff, from qualified firms for all necessary corrective action work. The legislation governing the Fund requires that the Fund assist you in procuring contractor and consultant services for corrective action. If you need assistance in contracting for corrective action services, don't hesitate to call me.

Please remember that it is still necessary to submit the actual costs of the work as explained in the Reimbursement Request Instructions to confirm that the costs are consistent with this pre-approval before you will be reimbursed. ***To make this easier, insure that your consultant prepares his invoices to match the format of the original estimate and provides reasonable explanations for any changes made in the scope of work or increases in the costs.*** *When the invoices are submitted you must include copies of all:*

- *subcontractor invoices,*
- *technical reports, when available, and*
- *applicable correspondence from the District.*

Please call if you have any questions; I can be reached at (916) 227-0746.

Sincerely,

ORIGINAL SIGNED BY

Steve Marquez, Water Resources Control Engineer
Underground Storage Tank Cleanup Fund Program

Enclosure

cc: Ms. Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Brenda McNabb
E2C, Inc.
675 N. First Street, #500
San Jose, CA 95112

May 14, 1997

Mr. George Friedenbach
Street and Storm Maintenance Supervisor
City of Santa Clara
1700 Walsh Avenue
Santa Clara, CA 95050

Dear Mr. Friedenbach: File RH Wheaver 370 Martin Ave

Subject: Possibly Contaminated Artesian Well, Memorial Cross Park, Martin Avenue and De La Cruz Boulevard, Santa Clara, CA

This informs you that the Santa Clara Valley Water District (District) has been informed that the subject well is immediately downgradient of a contamination site with known Benzene and Methyl Tertiary Butyl Ether contamination. Due to the close proximity of this contamination, there exists a possibility that water flowing from the well is contaminated.

As you know, the subject well is located on City of Santa Clara (City) property and is, therefore, owned by the City. As you also know, the well has been included in the District's Abandoned Water Well Destruction Assistance Program and will be destroyed by the District at District expense. Unfortunately, the program has expended all funding and will not be able to perform destruction activities until sometime next fiscal year.

While the District has included the well in the program, we haven't assumed the responsibility of maintaining the well and accept no responsibility for any damages the well causes to persons, property, or the environment.

Because the well may currently have contaminated water flowing from it, the District recommends that the City do the following:

- Have a licensed drilling contractor either destroy the well or stop the flow;
- Test the water to determine whether it is contaminated.

If the well is contaminated, the City will be responsible for containment and disposal of any water displaced from the well during the District's future well destruction activities.

If you would like technical advice on how to destroy the well or stop the flow, please call me at the Camden Office, (408) 927-0710, extension 2743. I have attached a list of licensed well drillers who

are active in Santa Clara County for your reference. Please call me if you have any questions or if I can be of any other service.

Since ely,

ORIGINAL SIGNED BY

Michael J. Duffy R.G.
Senior Water Quality Specialist
Well Services Unit

Attachment

cc: Ms. Brenda McNabb
E_2C
Civic Center Tower
675 North First Street, No. 500
San Jose, CA 95112

C. Tulloch, J. Calhoun, D. Zozaya, M. Duffy (2)

MD:fd:CT0514d

August 23, 1996

Mr. R. H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA--Cleanup Fund Claim No. 1373

Thank you for providing the August 5, 1996, Remedial Action Plan (RAP). This comments on the RAP and requests you implement the proposed work.

COMMENTS

The RAP defined the scope of work as remediation for source removal and migration control. While source removal appears to be a necessary action to lower the priority of this site and reduce risks, we feel that this remedial action will also be beneficial in moving this case towards closure.

Remedial activities can place an undue burden on site occupants. The scope of work is being approved prior to completion of your soil and water investigation due to the pending vacancy at the subject site. Your consultant (Z_2C) has stated the remedial actions can be completed during the pending site vacancy. Therefore, we request you proceed with the proposed overexcavation activities.

TECHNICAL REPORT REQUEST

Please provide these reports by the following dates:

- October 30, 1996--Quarterly Report
- November 30, 1996--Remedial Action Report

These reports are being requested pursuant to the Regional Water Quality Control Board's authority under Section 13267 of the California Water Code. Please send copies of these reports to the Santa Clara Valley Water District (Attention: Ms. Cris Tulloch) and the Santa Clara Fire Department (Attention: Larry Monette, Ph.D.)

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at the Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Leaking Underground Storage Tank Oversight Program

cc: C. Tulloch

CT:lcg:FL0822d

E2C INC.

Environmental/Engineering Consultants

June 1, 1996
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

R H Wehner

ATTN: Ms. Christine Tulloch
SUBJECT: **ACCESS TO ADJACENT SITES FOR GROUNDWATER WELL INSTALLATIONS AND DOCUMENT SUBMITTAL SCHEDULE**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

The purpose of this letter is to provide you with a brief status report regarding the above-referenced site. The adjacent property owners have been contacted regarding obtaining access to their properties for the purpose of groundwater monitoring well installations to further define the groundwater plume associated with the aforementioned site. Attached to this letter are copies of correspondence to these individuals.

We plan to submit our Remedial Investigation Report, which will document the first phase of investigation, by June 10, 1996. This report will present recommendations for source removal actions and will be followed by a Remedial Action Plan (RAP), which will outline the specifics of proposed remedial actions. It is our intention to submit the RAP by June 21, 1996, for your approval. For your information, the current site tenant will be vacating the site on August 31, 1996. Therefore, assuming we receive the necessary approvals, it is our plan to begin remedial activities on September 1, 1996.

Should you have any questions or comments, or require any further information, please do not hesitate to contact us

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Enclosures
cc: Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089
ATTN: Mr. William S. Klein

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

SANTA CLARA VALLEY
WATER DIST.

96 MAY 6 A10 : 48

E2C INC.

Environmental/Engineering Consultants

May 31, 1996
Job No. 5850100

Pacific Venetian Building
2294 Walsh Avenue
Santa Clara, CA 95050

Dear Mr. Chioini:

E_2C, Inc. is working with Mr. Richard Wehner, the owner of the property at 390 Martin Avenue (property immediately east of 2433 De la Cruz Boulevard). The Santa Clara Valley Water District (SCVWD) has required that Mr. Wehner contact you to obtain access to the property at 2433 De la Cruz Boulevard for the installation of a groundwater monitoring well. Installation of the well has been mandated by the SCVWD in relation to the further study of impacted groundwater.

Pursuant to the SCVWD mandate, we would propose to install a 25-foot deep monitoring well consisting of a 2-inch diameter PVC tube that would extend from the ground surface to the total depth of the well. The only surface evidence of the well would be a 12-inch diameter, steel, water-tight, locking man-hole that would sit flush with the ground surface and be secured to discourage tampering. Installation of the well would take approximately ½-day and would involve a drilling rig. Installation of the well would be coordinated to diminish any potential inconveniences to you.

E_2C, Inc. requests that you contact us to indicate your receipt of this formal request and to discuss site access. The overseeing case-worker at the SCVWD is Ms. Christine Tulloch who can be reached at (408) 927-0710.

Sincerely,

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SANTA CLARA VALLEY
WATER DISTRICT

96 MAY 6 A10:48

E2C INC.

Environmental/Engineering Consultants

May 31, 1996
Job No. 5850100

Mr. Greg Blaine
c/o Constance Blaine
2285 Tioga Drive
Milpitas, CA 94025

Dear Mr. Blaine:

E_2C, Inc. is working with Mr. Richard Wehner, the owner of the property at 390 Martin Avenue (property immediately south of 406-416 Martin Avenue). The Santa Clara Valley Water District (SCVWD) has required that Mr. Wehner contact you to obtain access to the property at 406-416 Martin Avenue for the installation of a groundwater monitoring well. Installation of the well has been mandated by the SCVWD in relation to the further study of impacted groundwater.

Pursuant to the SCVWD mandate, we would propose to install a 25-foot deep monitoring well consisting of a 2-inch diameter PVC tube that would extend from the ground surface to the total depth of the well. The only surface evidence of the well would be a 12-inch diameter, steel, water-tight, locking man-hole that would sit flush with the ground surface and be secured to discourage tampering. Installation of the well would take approximately ½-day and would involve a drilling rig. Installation of the well would be coordinated to diminish any potential inconveniences to you.

E_2C, Inc. requests that you contact us to indicate your receipt of this formal request and to discuss site access. The overseeing case-worker at the SCVWD is Ms. Christine Tulloch who can be reached at (408) 927-0710.

Sincerely,

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Civic Center Tower • 575 North First Street Suite 500 • San Jose CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SANTA CLARA VALLEY
WATER DIST

06 MAY 6 A10 : 48

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

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF CLEAN WATER PROGRAMS
2014 T STREET SUITE 130
P.O. BOX 944212
SACRAMENTO CALIFORNIA 94244-2120
(916)227-4419
(916)227-4530 (FAX)

Post-it® Fax Note 7671	Date 4/25	# of pages ▶ 2
To Christine Sullivan	From Cindy Hopkins Stevens	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

April 25, 1996

Mr. William S. Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Klein:

R H Wehner
Richard Wehner

PRE-APPROVAL OF CORRECTIVE ACTION COST ESTIMATE, Claim No. 1373, 390 Martin Avenue, Santa Clara

I have reviewed your request, received on April 22, 1996, for pre-approval of corrective action costs; I will place these documents in your file for future reference. I have included a copy of the "Cost Pre-Approval Request" form; please use this form in the future for requesting pre-approval of corrective action cost estimates.

With the following provisions, the actual costs of conducting the work proposed in the E2C, Inc., April 12, 1996 proposal, and approved by the Santa Clara Valley Water District (District), will be eligible for reimbursement. The total cost pre-approved as eligible for the soil and ground water investigation is **$10,408**; see the table below for a breakdown of the costs. (The total amount eligible for reimbursement through Request No. 1 for work at your site that has been directed and approved by the District has been **$17,764**.)

*Be aware that this pre-approval does not constitute a decision on reimbursement: all reasonable and necessary corrective action costs which are **directed and approved by the County** will be eligible for reimbursement at costs consistent with those pre-approved in this letter.*

TASK	AMOUNT PRE-APPROVED	COMMENTS
Proj Man., File Review, Permitting	$660	
Health & Safety Plan	$247	
Underground Utility Survey	$300	
Soil/HydroPunch Equipment (2 days)	$2,840	
Field Services	$1,567	
Sample Analysis	$2,990	
Prin. Oversight/Report Cert.	$484	
Prepare Report	$1,320	

TOTAL PRE-APPROVED	$10,408	

- The actual costs and scope of work performed must be consistent with those in the original cost estimate and the provisions of this letter.
- The work products must be acceptable to the District and the Regional Water Quality Control Board.

In addition, it is my opinion that it is unnecessary to obtain three bids for this contract; the Fund's three bid requirement is waived for this contract.

If a different scope of work or a new contract becomes necessary, then you must request pre-approval of costs on the new scope of work. I would recommend also that you request pre-approval and waiver of the bid requirement for any future change orders if they become necessary to continue this investigation.

However, let me point out that it is the Fund's policy that you must obtain at least three bids from qualified firms if soil or ground water cleanup is determined necessary. Recent changes in the legislation governing the Fund require that the Fund provide you with assistance in procuring contractor and consultant services for corrective action. If you need any assistance in contracting for corrective action services, don't hesitate to call on me.

Please remember that it is still necessary to submit the actual cost of the work as explained in the Reimbursement Request Instructions to confirm that the costs are consistent with this estimate before you will be reimbursed. To make this easier, insure that your consultant prepares his invoices to match the format of the original estimate, and provides reasonable explanations for any changes made in the scope of work or increases in the costs. When the invoices are submitted you must include copies of all:

- subcontractor invoices,
- technical reports when available, and
- applicable correspondence from the County.

Lastly, the State Water Resources Control Board's (SWRCB) Executive Director has recommended that the Lawrence Livermore National Laboratory (LLNL) report Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks be implemented aggressively; included is a copy of his December 8, 1995 letter. You and your consultant should be aware of this guidance as you determine what work is necessary at your site in the future. I have included also a copy of Mr. Giannopoulos' letter advising you that you have the right to appeal to the SWRCB any action or inaction on the part of an LOP agency.

Please call if you have any questions; I can be reached at the above number.

Sincerely,

Christopher Stevens, WRC Engineer
Underground Storage Tank Cleanup Fund Program

Attachments (3)
cc: Ms. Christine Tulloch w/o attachments
by fax: (408) 268-7687

E2C INC.

Environmental/Engineering Consultants

March 11, 1996
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **ADDENDUM TO REMEDIAL INVESTIGATION WORK PLAN**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

Richard Wehner

In response to your January 22, 1996 letter to Mr. R. H. Wehner concerning the December 6, 1995 Remedial Investigation Work Plan prepared by E_2C, Inc. for the abovementioned site, it is our intention to perform the actions outlined in the Plan as the First Phase of Remedial Investigation. In response to your directive, a Second Phase of Remedial Investigation will also be conducted that likely consists of the collection of groundwater samples for the purpose of identifying the lateral extent of groundwater impact.

The second phase of investigation (groundwater plume definition sampling) is likely to require the collection of groundwater samples from off-site locations. To this end, communications will be initiated during our initial phase of work to gain access to off-site locations for groundwater sample collection.

The anticipated **Remedial Investigation Schedule** is as follows:

March 15, 1996	Submit Package to State Cleanup Fund for Pre-Approval.
April 15, 1996	Pre-Approval is anticipated by this date.
April 22, 1996	Initiate First Phase of Remedial Investigation (source definition sampling).
May 6, 1996	Subject to obtaining access and the results of the First Phase, Initiate Second Phase of Remedial Investigation (groundwater plume definition sampling).
June 7, 1996	Submittal of Remedial Investigation Report.

Civic Center Tower • 675 North First Street, Suite 500 • San Jose CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089
ATTN: Mr. William Klein

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

RECEIVED
MAR 13 1996
SANTA BARBARA COUNTY

C. Tulloch

January 22, 1996

Mr. R. H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA

Thank you for providing the December 6, 1995, work plan. This comments on the work plan and requests you continue with quarterly monitoring and complete the remedial investigation associated with this site as requested in our letters dated March 2, 1995, and July 14, 1993.

COMMENTS

Our March 2, 1995, letter specifically requested that you define the extent of groundwater contamination by installing additional wells and document your investigation to define the extent of groundwater contamination in a Remedial Investigation Report. The work plan did not include a proposal to install wells or define the extent of groundwater contamination. Based on our review of the work plan and discussion with E$_2$C Inc., it our understanding that the objective of work proposed in the work plan was to gain a better understanding of the soil and groundwater contamination in the area of the former underground storage tank (UST) area and that this information would be used to prepare a Remedial Action Plan. While more contaminant data in this area would be necessary to determine cleanup requirements and methods, the nature and full extent of contamination must also be known to evaluate cleanup requirements. Please provide the results of your investigation in the Soil and Water Investigation Report requested below.

It is clear from reviewing site data that completing a soil and water investigation (remedial investigation) per California Code of Regulations, Title 23, Chapter 16 (UST regulations), would require installing additional groundwater monitoring wells off site. Therefore, we request that you proceed immediately to gain off-site access to install the necessary wells and complete the soil and water investigation.

Additionally, the work plan made reference to preparing a Remedial Action Plan following completion of the proposed work. We request that any proposals for cleanup (if required) be made in the form of a Corrective Action Plan per the UST regulations after completion of the soil and water investigation.

TECHNICAL REPORT REQUEST

Please provide these reports, as described in Attachment 1 of our July 14, 1993, letter by the following dates.

- **March 30, 1996**--Quarterly Report
- **May 30, 1996**--Remedial Investigation Report (Soil and Water Investigation Report)

These reports are being requested pursuant to the Regional Water Quality Control Board's authority under Section 13267 of the California Water Code. Please send copies of these reports to the Santa Clara Valley Water District (Attention: Ms. Cris Tulloch) and the Santa Clara Fire Department (Attention: Larry Monnette, Ph.D).

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at the Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Water Resource Management

cc: Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

J. Crowley, C. Tulloch

CT:cdh:FL0119k

E2C INC.

Environmental/Engineering Consultants

June 28, 1995
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Chris Tulloch
SUBJECT: **REMEDIAL INVESTIGATION**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

This letter is being written to document our telephone conversation on June 7, 1995 regarding the upcoming Remedial Investigation (RI) at the above-mentioned site. In our letter to you, dated May 29, 1995, we indicated that a Work Plan for the proposed RI would be submitted to you for review. In our June 7, 1995 telephone conversation, however, you indicated that submittal of Work Plan would not be necessary. You also indicated that by performing the required RI, we would remain in compliance with your March 2, 1995 correspondence requiring the performance of an RI.

Based on your directives, performance of the required RI will occur without the submittal and acceptance of a formal Work Plan.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

cc: Mr. Richard Wehner
Mr. Bill Meyers, Hopkins & Carley A Law Corporation
Mr. Andy Bardakos, R. H. Wehner Concrete Construction Company, Inc. II.

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SANTA CLARA
VALLEY WATER DISTRICT

95 JUL 3 P1:30

E2C INC.

Environmental/Engineering Consultants

May 29, 1995
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **FUEL LEAK INVESTIGATION**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

This letter informs you that E_2C, Inc. has been selected to perform the required Remedial Investigation (RI) at the above-mentioned site. Preparation and submittal of a Work Plan for your review and approval will occur prior to implementation of the proposed RI plan.

Due to the time necessary to receive and review proposals in accordance with the State Underground Storage Tank Cleanup Fund, we will be unable to meet the May 30, 1995 submittal date for the RI report. We, therefore, request that an extension be granted for RI report submittal to July 17, 1995.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Mr. Richard Wehner
Mr. Bill Meyers, Hopkins & Carley A Law Corporation
Mr. Andy Bardakos, R. H. Wehner Concrete Construction Company, Inc. II.

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SANTA CLARA
VALLEY WATER DISTRICT

95 JUN 5 AM : 15

E2C INC.

Environmental/Engineering Consultants

Job No. 5850100
March 20, 1995

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **FUEL LEAK INVESTIGATION**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

In accordance with your letter to Mr. Richard Wehner of Wehner Construction Company dated March 2, 1995, E_2C, Inc. has submitted the First Quarter 1995 Groundwater Sampling Report for 390 Martin Avenue, Santa Clara, California (see E_2C, Inc. report dated March 14, 1995). Submittal of this report meets with the April 15, 1995 deadline indicated in your letter.

With regard to the submittal of a Remedial Investigation (RI) Report by May 30, 1995, we want to inform you that a Request For Proposal (RFP) for additional site investigation has been issued and that proposals have been received and are currently under review. We anticipate that a consultant will be chosen within the next short while. Based on this anticipation, we expect to meet the RI Report submittal deadline of May 30, 1995.

In relation to the likelihood of soil and groundwater cleanup requirements at the subject site, possible Interim Remedial Actions (IRAs) are currently under discussion. However, at this time we believe that additional characterization of the lateral and vertical extent of contamination in the area of the former UST's would expedite the removal process. Accordingly, we believe implementation of IRA's should await completion of the work under the RI Report to be submitted no later than May 30, 1995.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Mr. Richard Wehner
Mr. Bill Meyers, Hopkins & Carley A Law Corporation
Mr. Andy Bardakos, R. H. Wehner Concrete Construction Company, Inc. II.

1220 Crossman Avenue, Suite 200 • Sunnyvale, California 94089 • (408) 747-1414 • FAX (408) 745-1089

22 A9:38

C. Tulloch

March 2, 1995

Mr. R. H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA

Thank you for providing the December 23, 1994, groundwater monitoring report. This requests you continue with quarterly monitoring and complete the remedial investigation associated with this site.

BASIS FOR REQUEST

Two additional groundwater monitoring wells were installed at the site in February 1994. Four quarters of groundwater monitoring has since been performed. The results indicate contaminant concentrations in the wells are significant (highest concentration exceeds 100,000 parts per billion Total Petroleum Hydrocarbons as Gasoline and 5,000 parts per billion Benzene), and the extent of groundwater contamination remains undefined. Your consultant recommended continued quarterly groundwater gauging and sampling. We concur with this recommendation. However, we also request that you define the extent of groundwater contamination by installing additional wells. Please document your investigation to define the extent of groundwater contamination in the Remedial Investigation Report requested below.

Santa Clara Valley Water District (District) staff will define the regulatory cleanup/closure requirements after completion of the remedial investigation. Due to the severity of groundwater contamination at this site, you may choose to perform interim remedial actions to lessen the severity of contamination. Please beware that soil and/or groundwater cleanup will likely be required prior to case closure certification, depending on the extent of contamination.

TECHNICAL REPORT REQUEST

Please provide these reports (as described in Attachment 1 of our July 14, 1993) letter by the following dates:

- **April 15, 1995**—Quarterly Report
- **May 30, 1995**—Remedial Investigation Report

These reports are being requested pursuant to the Regional Water Quality Control Board's authority under Section 13267 of the California Water Code. Please send copies of these reports to the District (Attention: Ms. Christine Tulloch), the Santa Clara Fire Department (Attention: Dr. Larry Monette), and the Regional Water Quality Control Board (Attention: Mr. John West).

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Groundwater Protection Division

cc: Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

T. Hemmeter, C. Tulloch

CAT:clf:FL0301f

E2C INC.

02114 0216 CAT
TAM

Environmental/Engineering Consultants

February 9, 1994
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **COMMENCEMENT OF SOIL & GROUNDWATER INVESTIGATION**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

E_2C, Inc. has scheduled the drilling of two soil borings (to be converted into monitoring wells) at the aforementioned site for the morning of February 15, 1994. I will be meeting with Mr. Andy Bardakos on the morning of February 10, 1994 to discuss site access requirements for drilling operations.

Applications for the two well permits were sent to the Santa Clara Valley Water District on January 28, 1994. The applications were approved today and permit numbers 94W-0210 (MW-2) and 94W-0211 (MW-3) were issued. Using these permit numbers, E_2C, Inc. scheduled the required grouting inspection through the Well Division for February 15, 1994.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

cc: Mr. Richard Wehner, Richard Wehner Company
Mr. Andy Bardakos, R. H. Wehner Concrete Construction Company, Inc. II
Mr. William S. Klein, Hopkins & Carley A Law Corporation

1220 Crossman Avenue, Suite 200 • Sunnyvale, California 94089 • (408) 747-1414 • FAX (408) 745-1069

3785

150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2088

HOPKINS & CARLEY
A LAW CORPORATION

TELEPHONE: (408) 286-9800
FACSIMILE: (408) 998-4790
CABLE: HOPKINS

December 23, 1993

12/27 orig. CAT
TAH

Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3686

Re: Wehner, 390 Martin Avenue

Dear Ms. Tulloch:

This is to acknowledge receipt of your letter dated December 16, 1993.

As you can well imagine, we were extremely surprised by the contents of your letter. As you will recall, you and I have had numerous conversations concerning the above-reference property. Prior to November 30, 1993, you and I had a telephone conversation in which it was agreed that we would provide you with a proposal for further work on the subject site. You agreed that there would not be an issue concerning providing remedial investigation reports since we were coordinating our efforts with you. Accordingly, we did not consider anything done by Wehner to be late.

Very truly yours,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

WSK:tat
6432K/49

93 DEC - P 4:34

December 16, 1993

Mr. Richard H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA

Thank you for providing the November 30, 1993, proposal for further work at the subject site. Please note, in our November 1, 1993, letter we granted an extension to November 30, 1993, for submittal of the Remedial Investigation Report requested in our letter dated July 14, 1993. The report has not been received and is, therefore, considered late. We cannot grant another extension for this report. However, since you have provided a proposal for further work and you are attempting to apply to the State's Underground Storage Tank Cleanup Fund (SB2004) for reimbursement for the cost of cleanup, we will temporarily defer enforcement action.

If the Remedial Investigation Report is not submitted by **March 1, 1994**, we will consider referring your case to the Regional Water Quality Control Board (RWQCB) or other appropriate agency, including the County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to $10,000 for each tank for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.75. This report is being requested pursuant to RWQCB's authority under Section 13267 of the California Water Code.

Please note that further delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the State's Underground Storage Tank Cleanup Fund (SB2004) to reimburse you for the cost of cleanup.

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at the Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Groundwater Protection Division

cc: Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

T. Hemmeter/C. Tulloch, Read

CAT:cat:FL1210l

E2C INC.

Environmental/Engineering Consultants

November 30, 1993
Job No. 5850100

12/1 OK to CAT w/ A TAH

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

ATTN: Ms. Chris Tulloch
SUBJECT: GROUNDWATER INVESTIGATION
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

Pursuant to our recent conversation, E_2C, Inc. is presenting herein a brief description of the initial field investigation to be performed at the subject site. The following presents the salient points to be included in this initial investigative phase.

- Install two groundwater monitoring wells at the locations shown on the enclosed site plan.

- Soil samples will be collected at 5-foot intervals during the initial drilling of the wells. These samples will be analyzed for Total Petroleum Hydrocarbons as gasoline and diesel (*TPHg&d*); benzene, toluene, ethyl benzene, and xylene (*BTEX*); Total Oil and Grease (*TOG*); and Volatile Organic Compounds (*VOCs*) using EPA test method 8010.

- The two proposed wells and the existing well will be sampled according to SCVWD protocol and the water samples analyzed for the same constituents as noted above.

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- Survey all well casings and calculate the groundwater gradient and direction.

- Present the results of our study in a formal report with appropriate conclusions and recommendations for the next phase of studies.

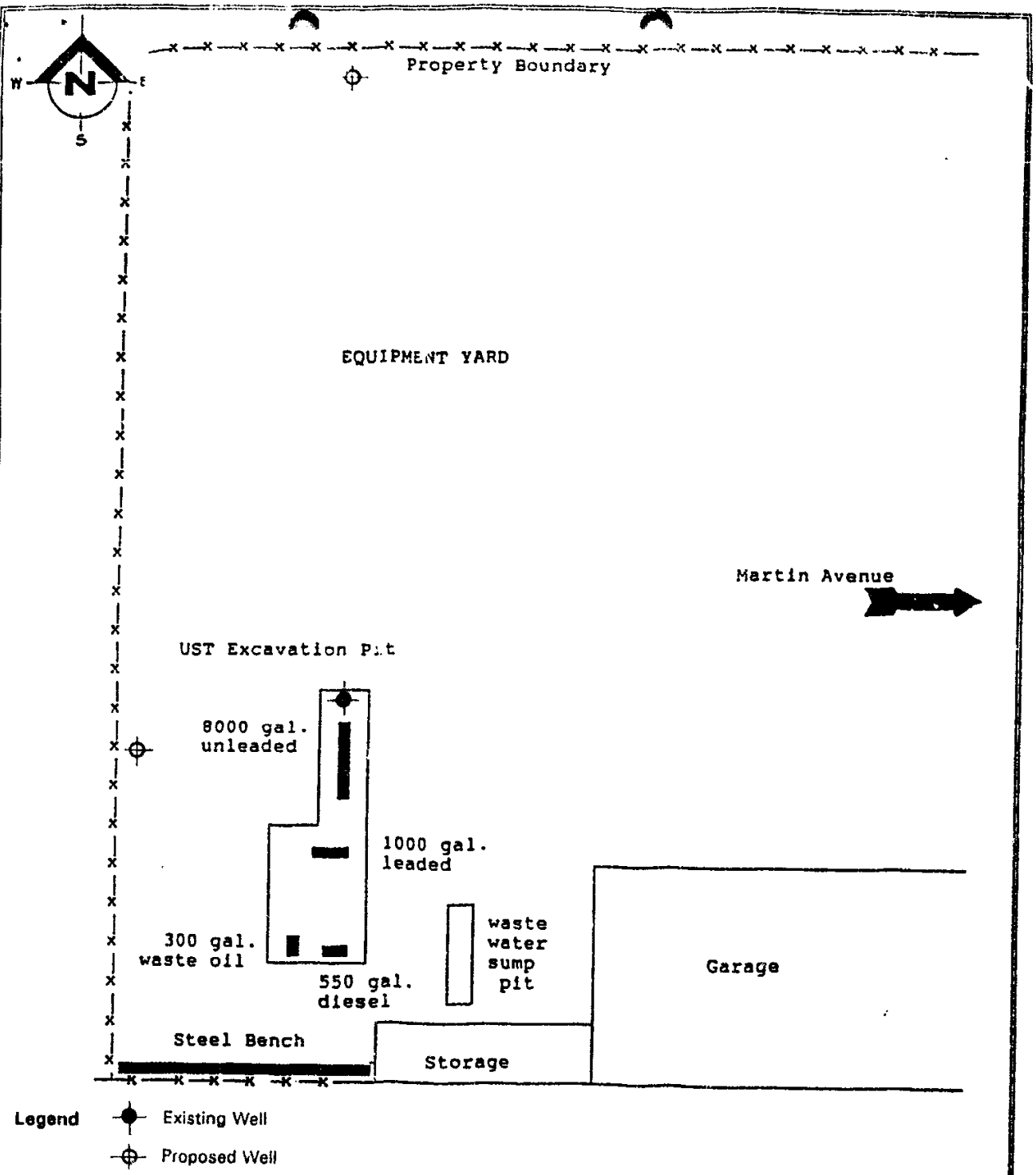
Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

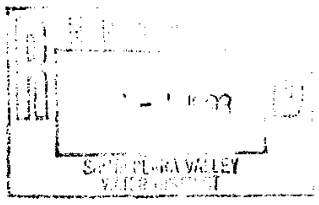
Kendall W. Price, CEG/REA
President

Enclosure

cc: Mr. William Klein
Hopkins & Carley



E_2C, Inc. environmental/engineering consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, Ca 94089	SITE SAMPLING LOCATIONS 390 Martin Avenue Santa Clara, California	JOB NO. E 3 P 613 DRAWN BY J. Vasilescu APP'D K. Price	FIGURE 1 November 1993



150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2089

HOPKINS & CARLEY
A LAW CORPORATION

TELEPHONE (408) 286-9800
FACSIMILE (408) 998-4790
CABLE: HOPKINS

November 23, 1993

11/24 ONE UP CAT TAH

Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3686

Re: Wehner, 390 Martin Avenue

Dear Ms. Tulloch:

Pursuant to our phone conversation today, we will provide you with a proposal for taking ground water samples on the 390 Martin Avenue property. We hope to have that proposal to you by November 30, 1993.

Thank you for your continued cooperation.

Very truly yours,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

WSK:tat
6432K/82

November 1, 1993

Mr. Richard H. Wehner
Wehner Construction Company
c/o Mr. William Klein
Hopkins & Carley
150 Almaden Boulevard, Fifteenth Floor
San Jose, CA 95113-2089

Dear Mr. Wehner:

Subject: Active Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara, CA

This grants an extension of the due date for submittal of your technical reports for the subject site. The original due date, as requested in our letter to you dated July 14, 1993, is hereby extended to November 30, 1993.

If you have any questions, please call me at the Santa Clara Valley Water District's Camden Office, (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist
Groundwater Protection Division

cc: Mr. John West
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

T. Hemmeter
A. Shepherd, C. Tulloch, Read

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

CAT:tdb:FL7379b

150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2289

HOPKINS
CARLEY
A LAW CORPORATION

TELEPHONE (408) 286-9800
FACSIMILE (408) 998-4790
CABLE: HOPKINS

10/5 - orig CAT
TAH

October 4, 1993

Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3686

Dear Ms. Tulloch:

With respect to the request by Wehner for an extension (my letter of September 21, 1993), we assume the requested extension was granted. If that is not the case, please let me know.

Very truly yours,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

WSK:tat
6432K/82

150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2089

HOPKINS & CARLEY
A LAW CORPORATION

TELEPHONE (408) 286-9800
FACSIMILE (408) 998-4790
CABLE: HOPKINS

9/22 ok J. CAT TAH

September 21, 1993

Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3686

Dear Ms. Tulloch:

Pursuant to our phone conversation today, this is to respectfully request that Wehner Construction Company be granted an extension of sixty (60) within which to respond to the Santa Clara Valley Water District Letter Order of July 14, 1993. As we discussed, this extension is being requested in light of Wehner Construction's existing UST application and Wehner Construction Company's existing discussions with consultant/investigators to conduct and prepare phased reports as a consequence of the UST application.

Thank you in advance for your attention to this matter. We would appreciate your written response.

Very truly yours,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

WSK:tat
6432K/72

July 14, 1993

Mr. Richard H. Wehner
Wehner Construction Company
c/o William Klein
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113

Dear Mr. Wehner:

Subject: Active Fuel Leak Investigation at Richard Wehner Company, 390 Martin Avenue, Santa Clara

This comments on the status of the subject case, and requests you continue with quarterly monitoring and proceed with remedial investigation.

BASIS FOR REQUEST

We have performed a review of investigation activities performed to date at this site. Our basis for requesting a remedial investigation is as follows:

Concentrations up to 38,000 ppb Total Petroleum Hydrocarbons as Diesel (TPHD) and 14,000 ppb Total Petroleum Hydrocarbons as Gasoline (TPHG) have been detected in the grab water samples collected from the pit. A sheen has been observed in a groundwater sample collected from the former tank excavation. Presence of a sheen, and the detection of high levels of dissolved product, indicate a significant impact to groundwater quality. It is necessary to define the extent of groundwater contamination in order to determine if migration of contaminated groundwater has occurred. Please install appropriately located groundwater monitoring wells to verify the severity of groundwater pollution, determine the groundwater gradient, and define the extent of groundwater contamination. One of the wells must be installed within 10 feet of the former tank/release location in the verified downgradient direction.

Up to 1500 ppm TPHG was detected in the soil beneath the former tanks. Exploratory excavation was conducted to a depth of 15.5 feet below ground surface. It does not appear that additional soil samples were collected from this depth, and there is no evidence in our file that indicates that contaminated soil was removed. Please perform an investigation to define the extent of soil contamination. You may choose to perform this investigation concurrently with your groundwater investigation. Please also send a proposal for remediating contaminated soil.

Please note that all soil and groundwater samples must be analyzed for those constituents previously detected at your site.

TECHNICAL REPORT REQUEST

Please send us the reports described in Attachment 1 by the following dates:

- September 30, 1993—Quarterly Report
- September 30, 1993—Remedial Investigation Report

A summary of general report requirements are provided in Attachment 2. These reports are being requested pursuant to the Regional Water Quality Control Board's (RWQCB) authority under Section 13267 of the California Water Code.

Please send copies of these reports to the Santa Clara Valley Water District (Attention: Cris Tulloch), the Santa Clara Fire Department (Attention: Larry Monette), and the Regional Water Quality Control Board (Attention: John West).

Your timely cooperation with these requests will be appreciated. If you have any questions, please call me at (408) 927-0710, extension 2636.

Sincerely,

ORIGINAL SIGNED BY

Christine A. Tulloch
Water Quality Specialist II
Groundwater Protection Division

Attachments

cc: Mr. John West (w/att)
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monette, Ph.D. (w/att)
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

J. Crowley, C. Tulloch (w/att), Read

CAT:nn:FL0713ff

ATTACHMENT 1

QUARTERLY REPORTS

Please provide quarterly reports every 3 months which contain the following items:

1. A description of activities conducted during the previous quarter.

2. A schedule of activities for the following quarter.

3. A summary table which contains the following information, as applicable, for the previous quarter only:

   - Number of monitoring wells installed
   - Number and type of extraction wells installed (i.e., soil venting or groundwater)
   - Pounds of soil removed
   - Pounds of pollutants removed
   - Gallons of groundwater extracted
   - Gallons of free product recovered
   - Gallons of groundwater reused and its use

4. The results of monitoring well gauging and sample analysis. A minimum of monthly gauging and quarterly sampling of groundwater from all site wells is required. Groundwater gradient, dissolved product plume, and, if applicable, free-floating product plume maps are required in each report.

5. The analytical results of hydrocarbon concentrations in soil and groundwater samples collected during the quarter in addition to those specified in Item 4.

6. If applicable, the volume of air removed, and estimates of the rate of removal of Volatile Organic Compounds and of soil cleanup.

7. Copies of field data sheets, laboratory analytical reports, and chain of custody forms.

8. A description of quarterly sampling procedures and sample preservation procedures.

REMEDIAL INVESTIGATION REPORT

We are concerned that dissolved contamination may have migrated off-site and request that additional monitoring wells and borings be installed to further define the extent of soil and groundwater contamination.

For general guidance in the preparation of the final Remedial Investigation implementation report, please consult the District Guidelines. Please also address our following specific comments:

1. The lateral and vertical extent of soil and groundwater contamination must be determined by installing additional soil borings and monitoring wells.

2. Please include a fence diagram and several cross sections which depict the stratigraphy and contamination beneath the site. Please note that fence diagrams and cross sections should be reviewed and approved by an appropriately registered or certified professional. Approval notation should appear in the signature block of the fence diagram or cross section.

3. Based on the fence diagrams, cross sections, and boring logs, please evaluate permeable strata with respect to contaminant migration.

4. Soil samples shall be collected during drilling at 5-foot intervals and at significant changes in lithology. Continuous core sampling of at least one boring is recommended. For definition of the extent of soil contamination purposes, it is recommended that each 5-foot sample be submitted for laboratory analysis. Please consult the District Guidelines for further information.

   Field screening may be used to select additional samples or to select samples from outlying borings to be submitted for laboratory analysis, but several field-screened samples which yield negative results shall also be laboratory analyzed to evaluate the accuracy of the field screening device. Please include a description of the field screening device(s) used. Soil samples from contaminated areas should also be subjected to Toxicity Characteristic Leaching Procedure (TCLP) analyses to estimate the leaching potential of the impacted soil.

5. Please include a discussion of the rationale used for selecting each boring and well location along with a site map depicting the boring and well locations. Boring logs and well construction details are also required.

ATTACHMENT 2

GENERAL REPORT REQUIREMENTS

Please refer to the District Guidelines for information regarding report preparation and soil/groundwater sampling, and to the "Standards for the Construction and Destruction of Wells and Other Deep Excavations in Santa Clara County" for information regarding well construction procedures.

All proposals and reports which contain engineering or geological information, interpretations, or other opinions as specified by the Business and Professions Code (Sections 6735, 7835, and 7835.1), must be signed and stamped by an appropriately registered professional who prepared or reviewed the proposals and reports.

Please note that all data and information generated during and relating to the investigation of the reported release(s) of petroleum hydrocarbons must be provided to the District, Regional Water Quality Control Board, and the local agency (i.e., local fire department or County Health Department) referenced in our letters.

All technical reports shall be accompanied by a letter signed by an officer or legally authorized representative of the responsible party which contains a statement attesting to the legitimacy of the report, as described in the District Guidelines (Appendix A, page 2).

AGENCY OVERSIGHT

Please be advised that your case continues to be subject to cost recovery charges for any staff time for review, inspection, or related oversight activities.

If it appears as though significant delay is occurring, or if reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to $10,000 for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.75.

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the State's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

April 27, 1992

4/30 orig Boa w/a DTC

Ms. Belinda A. Allen
Associate Civil Engineer
Groundwater Protection Division
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Re: Richard Wehner Co.
390 Martin Avenue, Santa Clara, California

Dear Ms. Allen:

As you know, Richard Wehner Co. was placed on the self-directed program. Pursuant thereto, and in accordance with the request for a technical report regarding the site, enclosed herein is the " Report of Findings" prepared by the Environmental Construction Company. We will, of course keep you apprised of further investigation activities at the site and of the next phase of work to be conducted on the site.

Sincerely,

RICHARD WEHNER COMPANY

Richard Wehner by ASB

Richard Wehner

22650

c.c. Ms. Penny Silzer
Regional Water Quality
Control Board
2101 Webster Street
Suite 500
Oakland, CA 94612

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

REPORT OF FINDINGS

UNDERGROUND STORAGE TANK REMOVAL

R.H WEHNER CONSTRUCTION COMPANY

390 MARTIN AVENUE

SANTA CLARA, CALIFORNIA

EPA #CAC000593080

This report has already been [illegible] and is on file [illegible]

PREPARED FOR:

Mr. R.F. Wehner

390 Martin Avenue

Santa Clara, CA 95050

PREPARED BY:

THE ENVIRONMENTAL CONSTRUCTION COMPANY

775 Montague Expressway

Milpitas, California 95035

JUNE 1991

1ST DRAFT

KINNEY DRIVE
SAN JOSE, CA.

Chromalab

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ron LeGue
Phone #: (408) 997-1505
Address (Site):
Fax #: (408) 262-1430
Project Number: 290
Project Name: R.A. Wehner
Project Location (City): Santa Clara
Sampler Signature: Brian Reddick

Sample ID	Lab # (Lab use only)	# Containers	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: ICE	HCl	HNO3	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Motor Oil (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	CHROMIUM LEAD	CAM Cr, Pb, Zn, Ni	5 day T.A.T.	PHENOLICS (420.1)	EXTRACTABLE ORGANICS (8 days)	VOLATILE ORGANICS	SPECIAL DETECTION LIMITS (PLEASE SPECIFY)	SPECIAL REPORTING REQUIREMENTS
SS-1		1	6"	X					X						X	X			X	*	X												X	X					
SS-2		1	6"	X					X						X	X			X		X												X	X					
																																	X	X					

Relinquished by:	Date	Time	Received by:
M Heinrichs	6/10	2:35	T. J...
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

1. Have all samples received for analysis been stored in ice? y
2. Will samples remain refrigerated until analyzed? y
3. Did any samples received for analysis have head space? —
   If so, give estimate of amount.
4. Were samples in appropriate containers and properly labeled? y

T. J...
Signature

6-10-91

CIGNA Property and Casualty Companies

Southern California Regional Claim Office
21860 Burbank Boulevard, Suite 300 South
Woodland Hills, CA 91367
(818) 712-6200

4/17 JA
EMM
DJC

CIGNA

April 13, 1992

Santa Clara Valley Water District
5750 Alamaden Expressway
San Jose, CA 95118

Attn: Joan Armstrong

Re: **R.H. Wehner Concrete Construction Co.**
390 Martin Ave., Santa Clara, CA

Dear Joan Armstrong:

Please be advised that the undersigned is investigating the above-captioned matter.

I would appreciate it if you could contact me at your earliest convenience so that I can schedule an appointment to review your office file on this site.

I thank you in advance for your prompt attention and cooperation in handling this matter. You can reach me between 8:00 a.m. to 4:30 p.m., Monday through Friday at (818) 712-6339.

Very truly yours,

Lauren Degnon

Lauren Degnon
Major Claims Regional Specialist

cc: Deborah Somers, 18TLP/ECM

LD/sba

5497 '92 ABR 17 P2:15

April 8, 1992

Mr. Richard Wehner
R. H. Wehner Concrete Construction
390 Martin Avenue
Santa Clara, CA 95050

Dear Mr. Wehner:

Subject: Self-Directed Fuel Leak Investigation at R. H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara

This grants an extension of the due date for submittal of your technical report and schedule for future phases of work at the subject site. The original due date, as requested in our letter to you dated October 16, 1991, is hereby extended to April 30, 1992.

Please note that this is the second extension granted for the submittal of the requested technical report. No further extensions will be granted.

If you need any further information, please call (408) 927-0710, extension 649, and ask for the Self-Directed Case Advisor.

Sincerely,

ORIGINAL SIGNED BY

David D. Drury
Associate Civil Engineer
Groundwater Protection Division

cc: Santa Clara Valley Local Program Coordinator
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Richard Wehner Company
c/o Mr. Bill Klein
Hopkins & Carley
150 Almaden Expressway
San Jose, CA 95113

T. Hemmeter, C. Tulloch, File, Read

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Mr. Andrew J. Bardakos
Richard Wehner Company
390 Martin Avenue
Santa Clara, CA 95050

CT:cs:L7379dd

HOPKINS & CARLEY
A LAW CORPORATION

150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2089
TELEPHONE (408) 286-9800
FACSIMILE (408) 998-4790

LEON A. CARLEY (1936-1984)

WRITER'S DIRECT DIAL NUMBER

JOHN C. HOPKINS
THOMAS N. JORDAN, JR.
SHERWOOD M. SULLIVAN
DONALD M. ALLAN
GARTH C. PICKETT
DUNHAM B. SHERER
STEPHEN J. KOTTMEIER
JON MICHAELSON
WAYLAND M. BRILL
NELSON D. CRANDALL
KATHERINE T. TALLMAN
ARTHUR V. PANK
RICHARD O. MCDONALD
PAUL E. LEON III
ROSS G. ADLER
WILLIAM E. MYERS
ROBERT V. HAWN
WILLIAM S. KLEIN
JEFFREY E. ESSNER
LIZA K. TOTH

SPECIAL COUNSEL
ROBERT D. WENZEL
WILLIAM D. SAUERS

JANET STONE HERMAN
TRUDY M. FERMAN
BRIAN C. FINERTY
DANIEL J. MASH
KURT H. TAYLOR
A. CATHERINE NGO
TIMOTHY H. HOPKINS
SUZANNE S. GRAESER
PATRICK T. ADAIR
LINDA LARSON ESQUIVEL
ROBERT G. WHYTE
CHARLES M. CRAIG
JOHN T. KENNEDY III
TERESA D. HAMILTON
JENNIFER M. TAGGART
SCOTT W. MEGGS
LISA M. BODENSTEINER
ANDREW R. BENDON
MATTHEW M. OSBURN
ROBERT W. RICKETSON
JAY M. ROSS
GERALD G. CHACON JR.
KIMBERLY S. PELLEGRIER
SALLY A. REED
ELLEN C. WESTLAKE

March 30, 1992

4/1 0119 KET BV14 DJC

Ms. Christina Traffas
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Re: R. H. Wehner Concrete Construction Company
390 Martin Avenue, Santa Clara, California 95050

Dear Ms. Traffas:

Pursuant to our telephone conversation today, as you know, we have requested on behalf of our client, R. H. Wehner Concrete Construction Company ("Wehner"), that the current due date of March 31, 1992 to submit its technical report be extended to April 30, 1992. This will confirm that you do not ancipate any problems with the requested extension. You further indicated that Wehner need not respond further until it re eives a response to its request from the Water District. As you will note, we have also sent a copy of this letter to Tracy Hemmeter as we understand that she was not in the office at the time we spoke with you.

Thank you in advance for your cooperation.

Sincerely,

HOPKINS & CARLEY
A Law Corporation

William S. Klein
William S. Klein

WSK:ys:20190
cc: Ms. Tracy Hemmeter

HOPKINS
CARLEY
A LAW CORPORATION

150 ALMADEN BOULEVARD
FIFTEENTH FLOOR
SAN JOSE, CALIFORNIA 95113-2089
TELEPHONE (408) 286-9800
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LEON A. CARLEY (1906-1984)

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STEPHEN E. KOTTMEIER
JON MCHATTESON
WAYLAND M. BRILL
NELSON D. CRANDALL
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ARTHUR V. PLANK
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PAUL C. TON III
ROSS G. SHEER
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PATRICK E. ADAIR
LINDA LARSON DIAZ
ROBERT O. WHYTE
CHARLES M. CRAIG
JOHN E. KENNEDY III
TERESA D. HAMILTON
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MATTHEW M. OGBURN
ROBERT W. PICKETSON
JAY M. ROSS
GERALD G. CHACON JR.
KIMBERLY S. PELLEGRIER
SALLY A. REED
ELLEN C. WESTLAKE

March 2, 1992

3/3 Ltr TAH
BAA
DJC

Ms. Tracy Hemmeter
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Re: R. H. Wehner Concrete Construction Company
390 Martin Avenue, Santa Clara, California 95050

Dear Ms. Hemmeter:

As you know, pursuant to our telephone conversation, we requested on behalf of our client, R. H. Wehner Concrete Construction Company ("Wehner"), that the current due date of March 6, 1992 to submit its technical report be extended to March 31, 1992. This will confirm that you do not ancipate any problems with the requested extension and that the Water District will respond in writing to the request. You further indicated that Wehner need not respond further until it receives a response from the Water District.

Thank you in advance for your cooperation.

Sincerely,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

WSK:ys:20190

02 MAR 3 P1:51

January 13, 1992

Mr. Richard H. Wehner
Richard Wehner Company
390 Martin Avenue
Santa Clara, CA 95050

Dear Mr. Wehner:

Subject: Fuel Leak Investigation at R.H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara, CA

This grants an extension of the due date for submittal of your technical report and schedule for future phases of work at the subject site. The original due date, as requested in our letter to you dated October 16, 1991, is hereby extended from January 24, 1992 to March 6, 1992 as requested in the January 9, 1992 letter from Mr. Andrew J. Bardakos of Richard Wehner Company.

If you need any further information, please call (408) 927-0710, extension 649, and ask for the Self-Directed Case Advisor.

Sincerely,

ORIGINAL SIGNED BY

Belinda A. Allen
Associate Civil Engineer
Groundwater Protection Division

cc: Santa Clara Valley Local Program Coordinator
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Richard Wehner Company
c/o Mr. Bill Klein
Hopkins & Carley
150 Almaden Expressway
San Jose, CA 95113

T. Hemmeter, K. Traffas, File, Read

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Mr. Andrew J. Bardakos
Richard Wehner Company
390 Martin Avenue
Santa Clara, CA 95050

KT:mt:L7379kkk

HOPKINS
CARLEY
A LAW CORPORATION

150 ALMADEN BOULEVARD
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SAN JOSE, CALIFORNIA 95113-2089
TELEPHONE (408) 286-9800
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LEON A. CARLEY (1906-1984)

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TRUDY ALTERMAN
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DANIEL J. MASH
KURT H. TAYLOR
A. CATHERINE NGO
TIMOTHY H. HOPKINS
[illegible]
PATRICK F. ADAIR
LINDA LARSON [illegible]
ROBERT O. WHY[illegible]
CHARLES M. CROAK
JOHN T. KENNEDY III
TERESA D. HAMILTON
JENNIFER [illegible] TAGGART
SCOTT W. MEGGS
LISA M. BOTENSTEINER
ANDREW R. BENDON
MATTHEW L. COBURN
ROBERT W. RICHARDSON
JAY M. ROSS
GERALD G. CHACON JR.
KIMBERLYN PELTISSIER
SALLY A. REED
[illegible] WESTLAKE

January 22, 1992

1/24 o[illegible] MAIL
EAA
SJC

Ms. Tracy Hemmeter
Santa Clara Water District
5750 Almaden Expressway
San Jose, CA 95118

Re: Richard Wehner Company
390 Martin Avenue, Santa Clara, CA 95050

Dear Tracy:

This letter is to confirm our telephone conversation of yesterday morning concerning the above-referenced property. During that conversation, you confirmed receipt of Richard Wehner Company's request for an extension and indicated that the Water District would be responding to that request. You indicated that the Wehner Company need not respond further until it receives a response from the Water District to its request for an extension.

If this letter does not accurately reflect our telephone conversation, kindly give me a call at your earliest convenience. This letter is intended merely to memorialize the subject of our telephone conversation and does not require any response from the Water District.

Sincerely,

HOPKINS & CARLEY
A Law Corporation

William S. Klein

cc: Mr. Richard H. Wehner
2213a/38
WSK:PCA:cm

SANTA CLARA VALLEY
92 JAN 24 P3 52

Richard Wehner Company
C/O Bill Klein
Hopkins & Carley
150 Almaden Blvd., 15th floor
San Jose, CA 95113

January 9, 1992

Ms. Tracy Hemmeter
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Re: Richard Wehner Company - 390 Martin Ave., Santa Clara, CA 95050

Dear Ms. Hemmeter:

Pursuant to your conversation with our attorneys (Hopkins & Carley), this letter shall serve as a request that Richard Wehner Company be granted a six week extension of time to submit initial technical report originally requested to be submitted by January 24, 1992. R. H. Wehner is in the process of consulting with environmental experts to assist with preparing the necessary report. It is anticipated at this time that the additional time is necessary in order to permit R. H. Wehner to properly respond to the Water District's request.

We would appreciate receiving written confirmation that our request for an extension of time to respond is granted.

Sincerely,

RICHARD WEHNER COMPANY

Andrew J. Bardakos

SANTA CLARA VALLEY
WATER DISTRICT

92 JAN 13 P2:46

Richard Wehner Company
C/O Bill Klein
Hopkins & Carley
150 Almaden Blvd., 15th floor
San Jose, CA 95113

January 8, 1992

Ms. Tracy Hemmeter
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Re: Richard Wehner Company - 390 Martin Ave., Santa Clara, CA 95050

Dear Ms. Hemmeter:

Pursuant to your conversation with our attorneys (Hopkins & Carley), this letter shall serve as a request that Richard Wehner Company be granted a six extension of time to submit initial technical report originally requested to be submitted by January 24, 1992. R. H. Wehner is in the process of consulting with environmental experts to assist with the preparing the necessary report. It is anticipated at this time that the additional time is necessary in order to permit R. H. Wehner to properly respond to the Water District's request.

We would appreciate receiving written confirmation that our request for an extension of time to respond is granted.

Sincerely,

RICHARD WEHNER COMPANY

Andrew J. Bardakos

2634 '92 JAN 10 A10:28

RICHARD WEHNER COMPANY
390 Martin Avenue
Santa Clara, CA 95050

November 26, 1991

Ms. Penny Silzer
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Re: 390 Martin Avenue, Santa Clara, California

Dear Ms. Silzer:

Richard Wehner Company is the owner of the above-referenced real property. This letter is to inform you that we have undertaken a preliminnary environmental assessment for this property. We enclose the laboratory reports and figures for soil samples collected. We have also included a map indicating the site location and a site map which identifies the location where each sample was taken. Please note that all of the underground storage tanks identified on the site map were removed in May and June of this year.

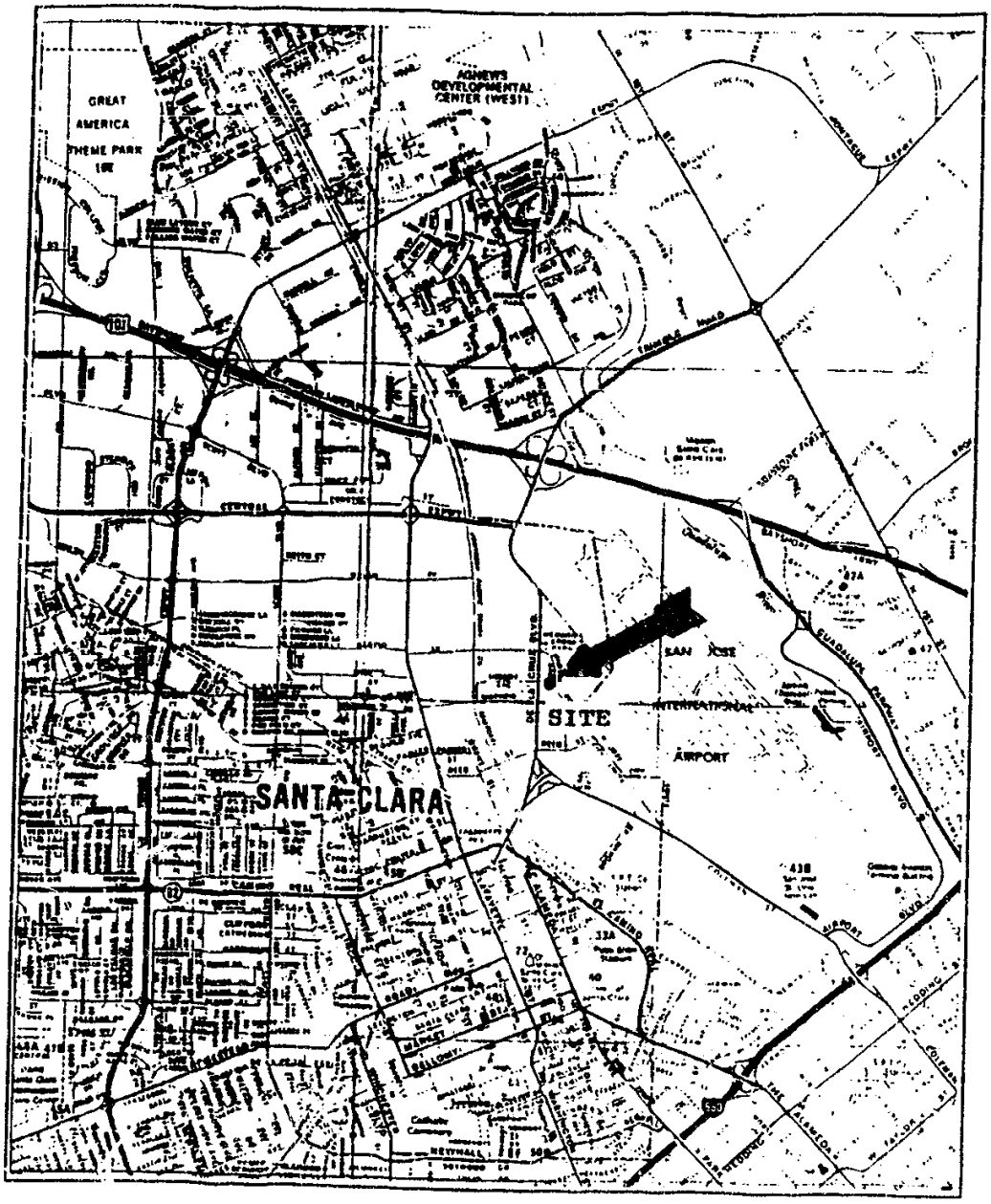
Based upon these initial results, further investigation is ongoing. We will be contacting you on or before January 24, 1992 in our attempt to comply with the requirements of the Santa Clara Valley Water District's self-directed program.

If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,
RICHARD WEHNER COMPANY

Richard H. Wehner

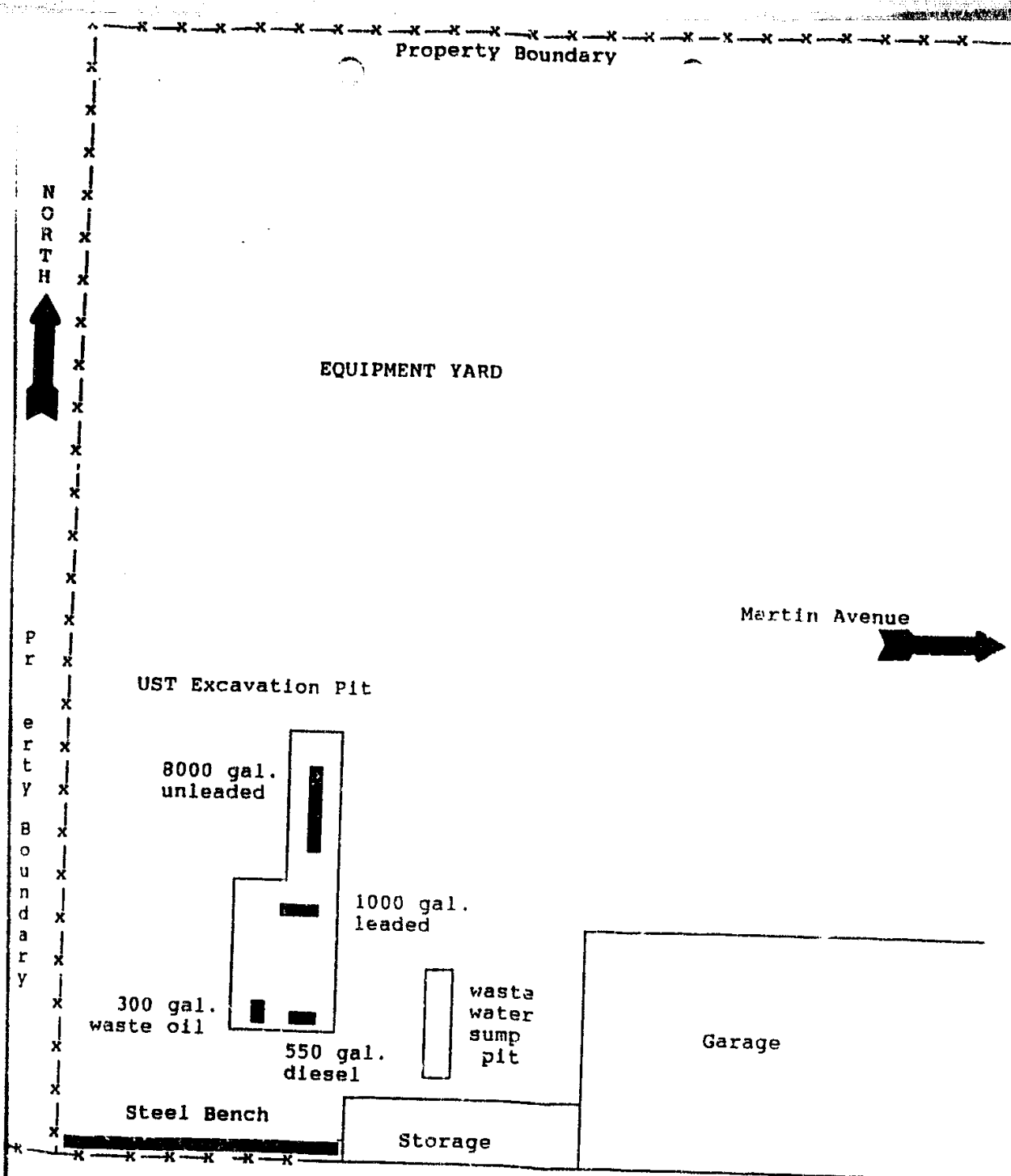
Enclosures
cc: Ms. Belinda A. Allen
Santa Clara Valley Water District



Scale: 1" = 0.67 miles

Site Location Map

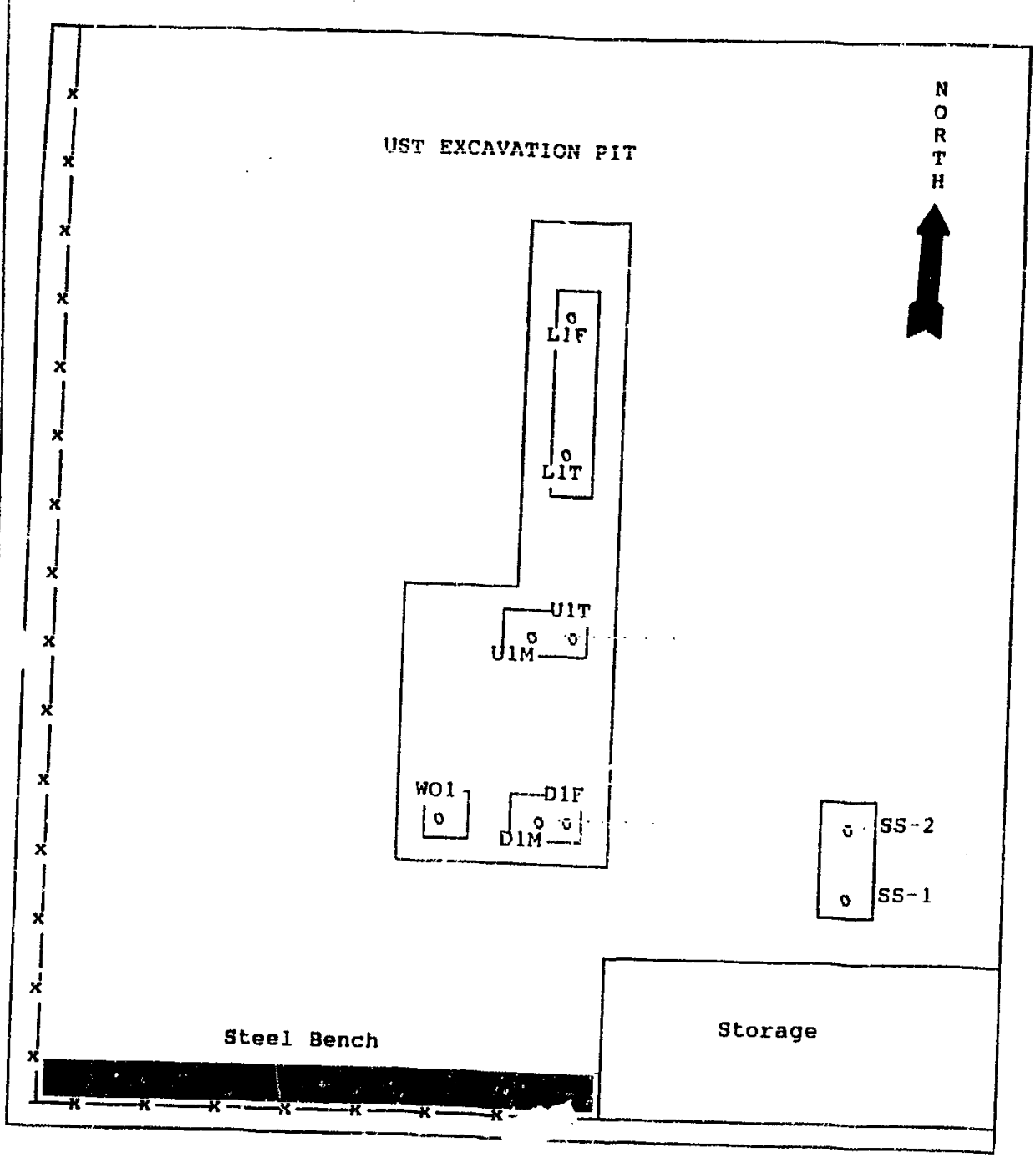
FIGURE 1



Scale: 1in = 20ft

SITE CHARACTERIZATION MAP

FIGURE 2



Scale: 1 in = 10 ft

SAMPLING LOCATION MAP

FIGURE 3

Table 1 Analytical Results (Soil Organics)

Sample Number	TPHg (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
D1M	NA	1600	150	300	590
D1F	NA	1600	73	490	430
L1F	880	5500	21000	8200	29000
L1T	560	1500	11000	4200	23000
J1M	1500	1400	19000	16000	64000
U1T	410	2400	23000	8000	23000
WO1	29	290	18	760	1100
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

NA = Not Analyzed

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
D1M	480	NA
D1F	33	NA
L1F	NA	NA
L1T	NA	NA
U1M	NA	NA
U1T	NA	NA
WO1	ND	ND
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

NA = Not Analyzed

N.D. = Not Detected

Table 2 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
U1M	NA	NA	11.5	NA	NA
U1T	NA	NA	7.39	NA	NA
WO1	0.409	7.67	0.66	7.52	14.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

NA = Not Analyzed

Table 3 Analytical Results (Soil Metals)

Sample Number	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
WS-WO	14000	2000	110	22	440
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

Table 4 Analytical Results (Water Organics)

Sample Number	TPHd (ppb)	Oil and Grease (ppm)	Lead (ppm)
WS-WO	38000	18	N.D.
DETECTION LIMIT	50	0.5	0.05
METHOD OF ANALYSIS	3550/ 8015	5520 E&F	7420

N.D. = Not Detected

Table 5 Analytical Results (Water Misc.)

Sample Number	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)
SS-1	N.D.	N.D.	N.D.	N.D.	N.D.
SS-2	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

N.D. = Not Detected

Table 6 Analytical Results (Soil Organics)

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
SS-1	N.D.	N.D.
SS-2	N.D.	N.D.
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

N.D. = Not Detected

Table 7 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
SS-1	0.221	8.06	8.32	10.3	17.3
SS-2	0.204	7.14	5.75	8.96	17.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

Table 8 Analytical Results (Soil Metals)

RECEIVED
DEC - 2 1991

October 16, 1991

Mr. R. H. Wehner
R. H. Wehner Concrete Construction
390 Martin Avenue
Santa Clara, CA 95050

Dear Mr. Wehner:

Subject: R. H. Wehner Concrete Construction, 390 Martin Avenue, Santa Clara, CA 95050

This notifies you that Santa Clara Valley Water District (District) records indicate that a spill or leak of gasoline, fuel or waste oil has contaminated soil and/or groundwater underlying the subject site, and that you have been identified as a responsible party. Pursuant to the California Water Code, polluted soil and groundwater must be cleaned up to the satisfaction of the Regional Water Quality Control Board (Regional Board). The Regional Board is the state agency responsible for enforcing the California Water Code to protect beneficial uses of both surface and groundwater.

Due to the large numbers of subsurface fuel leak cases being reported, the Regional Board has been unable to provide detailed regulatory oversight on these cases. A program has been developed between the Regional Board and the District where the District provides oversight on fuel leak cases and the Regional Board provides enforcement and case closure. Therefore, in order to protect groundwater quality, we request that you proceed with investigation and cleanup at the subject site without delay.

The investigation and cleanup of polluted soils and groundwater will generally follow the steps listed in the enclosed summary which is excerpted from the District's guidelines entitled, "Investigation and Remediation at Fuel Leak Sites Guidelines for Investigation and Technical Report Preparation," dated March 1989. These guidelines describe the steps for investigation and cleanup (remediation) that are necessary to resolve this matter and are available to you by calling the District's Self-Directed Case Advisor. Once the preliminary site assessment (PSA) phase has been completed you may qualify for the District's Conditional Case Closure Program; a guidance document is enclosed for your information. These documents have been sent to consultants known to work in Santa Clara County.

By January 24, 1992, please submit a technical report describing investigation and cleanup activities at the subject site and a proposed schedule for the next phases of work you plan to complete according to the enclosed summary. This technical report is being requested pursuant to the Regional Board's authority under the California Water Code, Section 13267.

Copies of all future reports, letters, etc., should be submitted to the District, Attention Self-Directed Program, the Regional Board, and the local fire department or agency which has jurisdiction over chemical storage on your site. The contacts and addresses are provided below:

Ms. Penny Silzer
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Until you receive further notice, your case is considered to be self-directed. Although we will not be providing you with detailed review and comments on your investigation and cleanup, you may contact the Self-Directed Case Advisor for general guidance and clarification. Please be advised that the District will routinely review selected self-directed cases to determine whether or not investigation or cleanup is being pursued in a timely manner. At that time, we may consider providing direct oversight or recommending that enforcement action be taken by the Regional Board if work is not being done in an appropriate time frame. We consider an appropriate time frame to be ten weeks to do the field work and write and submit an implementation report which contains the results of the fieldwork.

Please check with your consultants to determine whether or not they have the District's guidelines. If you or your consultants have questions, please call (408) 267-0710, extension 649, and ask to speak with the Self-Directed Case Advisor or write to the Self-Directed Fuel Leak Program at the District's address.

Sincerely,

ORIGINAL SIGNED BY

Belinda A. Allen
Associate Civil Engineer
Groundwater Protection Division

Enclosure

cc: Ms. Penny Silzer
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

C. Renninger, T. Hemmeter, File, Read

BA A:mg:L8622gg

WATER

TELEPHONE CONVERSATION

DATE 5/23/91 visit TIME 10 am PHONE NO. ( )

PERSON ~~CALLING~~ ~~CALLED~~ Fred G Sarantes

AGENCY REPRESENTED Tank removal 390 Martin ave, Santa Clara

CONVERSATION Removed tanks and over-excavating contaminated soil to water table at 15 ft. water is visually contaminated.

Two monitoring wells will be removed by excavating. They will be excavated to full depth of 30 ft. Question: what is appropriate backfill for the pit from 15 to 30 ft where the bottom of the well is to be removed?

Because remediation of the contaminated groundwater will be required in the near future, I allowed replacement of the native soil excavated at each well back into the hole. This is better than placing blocks of lower permeability material in the area where cleanup is needed.

The upper part of the excavation (15 ft to surface) will be backfilled with compacted low permeability soil. Concrete will be placed over the top.

Santa Clara Valley Water District
FC 917 (11-12-85)

Helen Hoose
(Initials)

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

REPORT DATE: 09/09/91 CASE #: 115

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.
SIGNED: Larry A. Monette DATE: 9/10/91

REPORTED BY
NAME OF INDIVIDUAL FILING REPORT: Larry Monette
PHONE: 408)984-3084
SIGNATURE: Larry A. Monette
REPRESENTING ☐ OWNER/OPERATOR ☐ REGIONAL BOARD ☒ LOCAL AGENCY ☐ OTHER
COMPANY OR AGENCY NAME: Santa Clara Fire Department
ADDRESS: 777 Benton Street (STREET) Santa Clara (CITY) CA (STATE) 9505[illegible] (ZIP)

RESPONSIBLE PARTY
NAME: R.H. Wehner Concrete Constr. ☒ UNKNOWN
CONTACT PERSON: R.H. Wehner
PHONE: (408)727-6607
ADDRESS: 390 Martin Ave., (STREET) Santa Clara, (CITY) CA (STATE) 95050 (ZIP)

SITE LOCATION
FACILITY NAME (IF APPLICABLE): R.H. Wehner Concrete Constr. Co.
OPERATOR: Robert Hazelton
PHONE: (408)727-6607
ADDRESS: 390 Martin Ave. (STREET) Santa Clara, (CITY) Santa Clara, (COUNTY) 95050 (ZIP)
CROSS STREET: De La Cruz

IMPLEMENTING AGENCIES
LOCAL AGENCY / AGENCY NAME: Santa Clara Fire Department
CONTACT PERSON: Larry Monette
PHONE: (408)984-3084
REGIONAL BOARD: San Francisco Bay
CONTACT PERSON: Tom Callahan
PHONE: (415)464-0787

SUBSTANCES INVOLVED
(1) NAME: Gasoline — QUANTITY LOST (GALLONS): ☒ UNKNOWN
(2) Diesel. ☒ UNKNOWN

DISCOVERY/ABATEMENT
DATE DISCOVERED: 05/21/91
HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☒ TANK REMOVAL ☐ OTHER
DATE DISCHARGE BEGAN: ☒ UNKNOWN
HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE: 05/21/91
METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY): ☒ REMOVE CONTENTS ☒ CLOSE TANK & REMOVE ☐ REPAIR PIPING ☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE ☐ REPLACE TANK ☐ OTHER

SOURCE/CAUSE
SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER
CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER

CASE TYPE
CHECK ONE ONLY: ☐ UNDETERMINED ☐ SOIL ONLY ☒ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS
CHECK ONE ONLY: ☐ NO ACTION TAKEN ☐ LEAK BEING CONFIRMED ☐ REMEDIATION PLAN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ POLLUTION CHARACTERIZATION ☐ POST CLEANUP MONITORING IN PROGRESS ☐ CLEANUP UNDERWAY

REMEDIAL ACTION
CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)
☐ CAP SITE (CD) ☐ CONTAINMENT BARRIER (CB) ☐ VACUUM EXTRACT (VE) ☐ EXCAVATE & DISPOSE (ED) ☐ EXCAVATE & TREAT (ET) ☐ NO ACTION REQUIRED (NA) ☐ OTHER (OT) ☐ REMOVE FREE PRODUCT (FP) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ TREATMENT AT HOOKUP (HU) ☐ ENHANCED BIO DEGRADATION (IT) ☐ REPLACE SUPPLY (RS) ☐ VENT SOIL (VS)

COMMENTS
Soil and water samples show high levels of gasoline and water contamination. No floating product noted. Soil and water tests issued attached

HSC 05 (8/90)

REPORT OF FINDINGS

UNDERGROUND STORAGE TANK REMOVAL

R.H WEHNER CONSTRUCTION COMPANY

390 MARTIN AVENUE

SANTA CLARA, CALIFORNIA

EPA #CAC000593080

RECEIVED
AUG 28 1991
S.C.F.D.

PREPARED FOR:

Mr. R.H. Wehner

390 Martin Avenue

Santa Clara, CA 95050

PREPARED BY:

THE ENVIRONMENTAL CONSTRUCTION COMPANY

775 Montague Expressway

Milpitas, California 95035

JUNE 1991

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Underground Storage Tank Removal
R.H. Wehner Construction Company
390 Martin Avenue
Santa Clara, California
EPA #CAC000593080

Mr. R H. Wehner
R.H. Wehner Construction Company
390 Martin Avenue
Santa Clara, CA 95050

June 20, 1991

Dear Mr. Wehner

On May 21, 1991, **THE ENVIRONMENTAL CONSTRUCTION COMPANY (TECC)** removed four underground storage tanks from the subject property located at 390 Martin Avenue, Santa Clara, California. In addition, a waste water sump was removed from the property on June 7, 1991. The scope of our work included: completing and submitting the tank closure permits as required by the City of Santa Clara and the State of California; removing the tanks and sump and associated product lines; collecting appropriate soil samples from the tank and sump excavation pits; and properly disposing of the tanks and sump. Other work conducted that does not pertain to this Report of Findings is not included in this text.

This Report of Findings summarizes the history of the tanks, the results of the inspection of the tanks and product lines, subsurface sampling methods, analytical results from the soil samples, and our findings and recommendations.

Please feel free to contact us at (408) 957-7700. **THE ENVIRONMENTAL CONSTRUCTION COMPANY** is very pleased to be of service to you on this project.

Respectfully,
Brian Reddig
Brian Reddig
Associate Geologist

EXECUTIVE SUMMARY

On May 21, 1991, **THE ENVIRONMENTAL CONSTRUCTION COMPANY** removed four underground storage tanks from the subject property located at 390 Martin Avenue, Santa Clara, California. On June 7, 1991, TECC personnel removed a waste water sump. The tank excavation pit was approximately 45 feet long by 15 feet wide and between 7 feet and 11 feet in depth. The pit was apparently back-filled with sand during tank installation. The native soils encountered in the subsurface were predominantly dark grayish brown silty clays and clays with local lenses and layers of sands.

Visual inspection indicated signs of rusting and pitting in all of the removed tanks. Through-going punctures were noted in two of the underground storage tanks. The removed product line was observed to be highly corroded, with dime-sized holes noted in numerous locations along the pipe. A strong to moderate product odor was noted in the excavated soils and from the pit.

Seven soil samples were collected from the tank excavation pit. Four of these samples contained TPHg (410 ppm to 1500 ppm) in excess of the 100 ppm guideline used by the Santa Clara Valley Water District to prioritize site clean-up. One sample contained TPHd at a concentration of 480 ppm. All seven samples contained elevated concentrations of Benzene, Toluene, Ethylbenzene, and Total Xylenes, with concentrations ranging between 290 ppb to 5500 ppb, 16 ppb to 23000 ppb, 300 ppb to 16000 ppb, and 430 ppb to 64000 ppb, respectively.

Two soil samples were collected from the waste water sump excavation pit. These samples did not contain TPHg, TPHd, BTEX, or Oil and Grease above detection limits. The chlorinated halocarbon Tetrachloroethene was detected at a concentration of 35 ppb.

Groundwater was encountered during exploratory excavation at a depth of 15-1/2 feet and a groundwater sample was collected. Analytical results indicated concentrations of TPHg and TPHd of 14000 ppb and 38000 ppb, respectively. Oil and Grease was also detected at a concentration of 18 ppm. Benzene and Toluene were detected at concentrations of 2000 ppb and 110 ppb, respectively, which exceed the Department of Health Services Action Levels of 0.7 ppb for Benzene and 100 ppb for Toluene. Ethylbenzene and Total Xylenes were detected at concentrations of 22 ppb and 440 ppb, respectively.

It is recommended that interim remediation to control the migration of contaminated groundwater be initiated as soon as possible. A Remedial Investigation to assess the vertical and horizontal extent and severity of soil and groundwater contamination should also be conducted in order to determine the best possible remedial actions that apply to the site.

RISKS

This site presents a moderate to high risk to the environment based on the following characteristics:

- Soils in the vicinity of the removed underground storage tanks have been adversely impacted by petroleum hydrocarbon contamination
  - TPHg is present at concentrations as high as 1500 ppm
  - TPHd is present at concentrations as high as 480 ppm
  - Benzene is present at concentrations as high as 5500 ppb
  - Toluene is present at concentrations as high as 23000 ppb
  - Ethylbenzene is present at concentrations as high as 16000 ppb
  - Total Xylenes are present at concentrations as high as 64000 ppb
- Groundwater, which occurs at approximately 15-1/2 feet below surface grade, was found to be impacted by petroleum hydrocarbon contamination
  - TPHg is present at a concentration of 14000 ppb
  - TPHd is present at a concentration of 38000 ppb
  - Benzene is present at a concentration of 2000 ppb
  - Toluene is present at a concentration of 110 ppb
  - Ethylbenzene is present at a concentration of 22 ppb
  - Total Xylenes are present at a concentration of 440 ppb
  - Oil and Grease is present at a concentration of 18 ppm
- Soils in the vicinity of the removed waste water sump contained Tetrachloroethene at a concentration of 35 ppb.

TANK HISTORY AND SITE BACKGROUND

The site is presently an active construction yard located at 390 Martin Avenue in the eastern portion of the City of Santa Clara, California. The location of the site is shown on Figure 1, Site Location Map. Activities at the site include storage and repair of the construction equipment. The site is bound to the east by Martin Avenue and to the north, south, and west by other commercial facilities. The general layout of the site is indicated in Figure 2, Site Characterization Map.

A total of four underground storage tanks and one waste water sump were removed from the property. The following list summarizes the capacities and contents of the removed storage tanks.

- One 8000-gallon unleaded gasoline tank
- One 1000-gallon leaded gasoline tank
- One 550-gallon diesel tank
- One 300-gallon waste oil tank
- One 200-gallon (approx.) waste water sump

The 8000-gallon unleaded gasoline tank was installed in 1975. The remaining tanks were estimated to be over 20 years old. The waste water sump is estimated to be approximately 15 years old. It is unknown to the operator of the property when the tanks were last used.

EXCAVATION OF SOILS

Prior to the excavation of soils from above the underground storage tanks, TECC personnel removed an asphalt and concrete slab from above the tank locations. Soils were excavated from above the underground storage tanks and along their sides to expose the top and walls of the tanks in preparation for removal.

The material encountered in the excavated pit during tank removal was a clean, well sorted sand, which apparently was used as back-fill material during tank installation. Soil excavated from along the walls of the tank pit were typically dark grayish-brown silty clays and clays.

The top of the tanks were encountered at approximately four feet below surface grade. The excavated pit was enlarged to approximately 45 feet long by 15 feet wide . Upon removal of the tanks, the excavation had a depth of 8 feet in the vicinity of the waste oil, diesel, and leaded gasoline tanks and a depth of 10 feet in the vicinity of the unleaded gasoline tank. A total of approximately 55 cubic yards of soil was excavated from the pit during the tank removal procedure.

Groundwater was not encountered in the original tank removal pit; however, water was encountered at a depth of approximately 15-1/2 feet during exploratory excavation. Moderate to strong product odor was noted in the excavated soils. Product odor and sheen were also noted on a groundwater sample.

TANK AND PRODUCT LINE REMOVAL

Underground Storage Tank Removal

On May 21, 1991 TECC personnel exposed the tops and sides of the underground storage tanks in preparation for removal. Inspector Joe Valenti of the City of Santa Clara was on site to witness the devolatilization of the tanks, removal of the tanks, and soil sampling.

Approximately 100 pounds of dry ice per 1000 gallons of capacity for each of the underground storage tanks was inserted into the tanks to devolatilize the tanks for removal and transport. A GasTech Model 1314 Explosimeter was placed inside the tank to measure the lower explosive limit (LEL) and oxygen levels inside the tanks. According to safety guidelines, the LEL and oxygen levels must be below 10%. Readings below these levels were measured and the tanks were prepared for removal from the pit. This removal was accomplished by attaching heavy duty chains to each end of the tanks and lifting the tanks from the pit with a crane. The tanks and associated product lines were then moved to a staging area where they were inspected.

Upon visual inspection of the tanks, all were noted to be heavily rusted and pitted. The waste oil and diesel tanks both contained small pin-holes near their bottoms. There were no apparent through-going holes in either the unleaded or leaded gasoline tanks. The majority of the product line was rusted and corroded, with some dime-sized holes found locally. Moderate to strong product odor and some free product was noted in the sandy material along the walls and at the base of the excavated pit.

After inspection, the tanks and product lines were loaded onto an H&H Ship Service transport truck (USEPA #CAD004771168) and taken to their recycling facility at 220 China Basin Street, San Francisco, California. Copies of the Hazardous Waste Manifests and Certificates of Disposal are included in Appendix B.

Sump Removal

On June 7, 1991, TECC personnel removed a 200-gallon (est.), cement contained waste water sump. The sump was removed by breaking the surrounding concrete containment and lifting the sump from the ground using a crane. The sump was then staged on-site and was examined by Inspector Joe Valenti on June 10, 1991.

The native soils in the vicinity of the waste water sump were predominantly dark brown silty clays and clays. Slight to moderate product odor was noted in some of the excavated soils.

After inspection of the sump was completed, it was destroyed using a jack-hammer and staged to be disposed of with the soils as hazardous waste.

SAMPLING PROTOCOL

Underground Storage Tanks

On May 21, 1991, under the supervision of Inspector Joe Valenti, TECC personnel recovered 7 soil samples. Soil sample WO1 was collected in native soils at a depth of 2 feet below the base of the waste oil tank (9 feet total depth). Samples D1M and D1F were collected at a depth of 2 feet below (9 feet total depth) the middle and fill port ends of the diesel tank, respectively. Soil samples J1M and J1T were collected from a depth of 2 feet below (9 feet total depth) middle and tail end of the leaded gasoline tank, respectively. Samples L1T and L1F were collected from a depth of 2 feet below the fill port and tail end of the unleaded gasoline tank (12 feet total depth), respectively. The locations from where the soil samples were collected are indicated on Figure 3, Sampling Location Map.

All samples collected were noted as having a moderate to strong product odor. Product odor was also noted in the stockpiled soils.

The "grab sample" method was used to collect each soil sample. With this technique, a clean 2-inch outside diameter, 6-inch long brass sampling tube was hand driven into the excavated soils in the bucket of the backhoe. Samples obtain from the bucket of the backhoe were collected at locations away from the walls of the bucket in order to minimize the possibility of contamination from the bucket. Upon recovery of the sample, the ends of the brass tube were sealed with aluminum foil, capped with plastic end caps, secured with aluminized tape, and properly labelled. Label information included the date and time of sampling, identification number, project number, and analyses requested. Under proper Chain of Custody procedure, the samples were placed on dry ice inside a thermal insulated cooler for subsequent transport to a State-certified analytical laboratory. A copy of the Chains of Custody is included in Appendix C.

Groundwater Sample

In addition, on May 21, 1991, the excavated pit was extended to a depth of approximately 15-1/2 feet in the vicinity of the removed waste oil and diesel tanks, and a "grab" groundwater sample was collected. Groundwater sample WS-WO was collected by lowering a teflon bailer into the groundwater using disposable nylon string and filling the bailer with groundwater from the pit. The groundwater was then slowly poured into the appropriate containers in order to minimize volatilization, labelled, and placed on dry ice for subsequent transport to an analytical laboratory.

Waste Water Sump

On June 10, 1991, under the supervision of Inspector Joe Valenti, TECC personnel recovered two soil samples from the waste water sump excavation. Soil sample SS-1 was collected from a depth of two feet below the south end of the sump floor (7 feet total depth). Soil sample SS-2 was collected from a similar depth from the north end of the sump pit. Each sample was collected using the "grab sample method" described above.

Product odor and staining were not noted in the soil samples, although there was product odor noted in the excavated pit.

As per the instructions in the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Storage Tank Sites, 1990," the soil samples were analyzed for the following constituents:

- WO-1, SS-1 & SS-2 Total Petroleum Hydrocarbons as gasoline (TPHg) (EPA Method 5030/8015), Total Petroleum Hydrocarbons as diesel (TPHd) (EPA Method 3550/8015), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) (EPA Method 8020), Total Oil and Grease (EPA Method 5520 E&F), Cadmium (EPA Method 7130), Chromium (EPA Method 7190), Lead (EPA Method 7420), Nickel (EPA Method 7590), Zinc (EPA Method 7950), and Chlorinated Halocarbons (EPA Method 8010).

- D1M & D1F TPHd and BTEX.

- L1F & L1T TPHg and BTEX

- U1M & U1T TPHg, BTEX, and Lead

Chemical analyses performed on the groundwater sample were as follows:

- WS-WO TPHg, TPHd (EPA Method 3510/8015), BTEX (EPA Method 602), Lead, and Chlorinated Halocarbons (EPA Method 601).

ANALYTICAL RESULTS

All soil and groundwater samples were analyzed at Chromalab, Inc. of San Ramon, California. The results of the laboratory analyses are shown in Tables 1 through 8. A copy of the laboratory reports are included in Appendix C.

Underground Storage Tank Samples

Laboratory results from the soil samples collected during the tank removal and shown on Table 1 (TPHg & BTEX), Table 2 (Oil and Grease & TPHd), and Table 3 (Metals).

Sample WO1 contained TPHg at a concentration of 29 parts per million (ppm). BTEX was also present at concentrations of 290 parts per billion (ppb) for Benzene, 18 ppb for Toluene, 760 ppb for Ethylbenzene, and 1100 ppb for Total Xylenes. Oil and Grease, TPHd, and Chlorinated Halocarbons were not present at concentrations above their detection limits. The five heavy metals were present at concentrations below ten times their respective Soluble Threshold Limit Concentrations: Cadmium was detected at a concentration of 0.409 ppm, Chromium at 7.67 ppm, Lead at 0.66 ppm, Nickel at 7.52 ppm, and Zinc at 14.1 ppm.

Samples U1M and U1T both contained TPHg in excess of the 100 ppm guideline used by the Santa Clara Valley Water District to prioritize site clean-up. TPHg was detected at a concentration of 1500 ppm in sample U1M and 410 ppm in sample U1T. Benzene, Toluene, Ethylbenzene, and Xylenes were also detected at concentrations of 1400 ppm, 19000 ppm, 16000 ppm, and 64000 ppm, respectively, for sample U1M and at concentrations of 2400 ppm, 23000 ppm, 8000 ppm, and 23000 ppm, respectively, for sample U1T. Lead was present at a concentration of 11.5 ppm in sample U1M and at a concentration of 7.39 ppm in sample U1T.

Samples L1F and L1T also contained TPHg in excess of the 100 ppm guideline. L1F contained TPHg at a concentration of 800 ppm and L1T contained TPHg at a concentration of 560 ppm. BTEX was also detected at elevated concentrations with sample L1F containing Benzene at 550 ppb, Toluene at 21000 ppb, Ethylbenzene at 8200 ppb, and Xylenes at 29000 ppb. Sample L1T contained these constituents at concentrations of 1500 ppb, 11000 ppb, 4200 ppb, and 23000 ppb, respectively.

TPHd was detected in samples D1M and D1F at elevated concentrations. D1M contained TPHd at a concentration of 480 ppm, which is in excess of the 100 ppm guideline. D1F contained TPHd at a concentration of 33 ppm. Benzene, Toluene, Ethylbenzene, and Xylenes were detected at concentrations of 1600 ppb, 150 ppb, 300 ppb, and 590 ppb, respectively, for sample D1M and at concentrations of 1600 ppb, 73 ppb, 490 ppb, and 430 ppb, respectively, for sample D1F.

Groundwater Sample

Analytical results for the groundwater sample are shown in Table 4 (TPHg & BTEX) and Table 5 (Oil and Grease, TPHd, and Lead).

Groundwater sample WS-WO contained TPHg and TPHd at concentrations of 14000 ppb and 3800) ppb, respectively. Oil and Grease was detected at a concentration of 18 ppm. Benzene and Toluene were detected at concentrations of 2000 ppb and 110 ppb, respectively, which are in excess of the Department of Health Services Action Levels of 0.7 ppb for Benzene and 100 ppb for Toluene. Ethylbenzene and Xylenes were detected at concentrations of 22 ppb and 440 ppb, respectively. Lead and Chlorinated Halocarbons were not detected in the groundwater sample.

Waste Water Sump Samples

Analytical results from samples collected for the June 10, 1991, waste water sump removal are presented in Table 6 (TPHg & BTEX), Table 7 (Oil and Grease & TPHd), and Table 8 (Metals).

Soil samples SS-1 and SS-2 did not contain concentrations of TPHg, TPHd. BTEX, or Oil and Grease above detection limits. Both samples contained heavy metals at concentrations below ten times their respective STLCs. Cadmium was detected at a concentration of 0.221 ppm in sample SS-1 and at a concentration of 0.204 in sample SS-2. Chromium was present at a concentration of 8.06 ppm in SS-1 and at a concentration of 7.14 in SS-2. Concentrations of Lead of 8.32 ppm and 5.75 ppm were reported in samples SS-1 and SS-2, respectively. Nickel was detected at a concentration of 10.3 ppm in sample SS-1 and at a concentration of 8.96 ppm in sample SS-2. Concentrations of Zinc of 17.3 ppm and 17.1 ppm were reported in samples SS-1 and SS-2, respectively. The chlorinated halocarbon tetrachloroethene was the only chlorinated halocarbon detected and was detected in sample SS-2 at a concentration of 35 ppb.

FINDINGS AND RECOMMENDATIONS

Based on the data collected during our tank removal procedures, the following findings have been determined:

- Soils in the vicinity of the removed underground storage tanks have been adversely impacted by petroleum hydrocarbon contamination
- TPHg is present at concentrations ranging from 29 ppm to 1500 ppm
- TPHd is present at concentrations ranging from non-detectable to 480 ppm
- Benzene is present at concentrations ranging from 290 ppb to 5500 ppb
- Toluene is present at concentrations ranging from 18 ppb to 23000 ppb
- Ethylbenzene is present at concentrations ranging from 300 ppb to 16000 ppb
- Total Xylenes are present at concentrations ranging from 420 ppb to 64000 ppb
- Soils in the vicinity of the removed waste water sump contained Tetrachloroethene at a concentration of 35 ppb
- Groundwater, which occurs at approximately 15-1/2 feet below surface grade, was found to be impacted by petroleum hydrocarbon contamination
- TPHg is present in the groundwater at a concentration of 14000 ppb
- TPHd is present in the groundwater at a concentration of 38000 ppb
- Benzene is present in the groundwater at a concentration of 2000 ppb
- Toluene is present in the groundwater at a concentration of 110 ppb
- Ethylbenzene is present in the groundwater at a concentration of 22 ppb
- Total Xylenes are present in the groundwater at a concentration of 440 ppb

- Oil and Grease is present in the groundwater at a concentration of 18 ppm
- Sand was used as back-fill material during the initial tank installation
- Subsurface materials encountered in the tank excavation pit were typically low permeability clays and silty clays with local lenses and layers of moderately permeable sands

RECOMMENDATIONS

Based on the above findings, the following recommendations may be made:

- Interim remediation of the groundwater is required by the Santa Clara Valley Water District whenever floating product is present in the groundwater
  - Interim groundwater remediation may include extraction, treatment and/or disposal
- Conduct a Remedial Investigation with the following objectives:
  - Define the horizontal and vertical extent and severity of soil and groundwater pollution at the site. This will entail the installation of soil borings and groundwater monitoring wells.
  - Identify current and potential impacts on present and future beneficial uses of water.
  - Determine direction of groundwater flow and gradients.
  - Conduct a well survey.
- Evaluate remediation options and propose a final remediation plan.

Copies of this report should be sent to:

- Inspector Joe Valenti, Santa Clara Fire Department, 777 Benton Street, Santa Clara, CA 95050
- Santa Clara Valley Water District, UST Section, 5750 Almaden Expressway, San Jose, CA 95118
- Regional Water Quality Control Board, 2101 Webster Street, Room 500, Oakland, CA 94612

LIMITATIONS

The conclusions and professional guidelines presented herein were developed in accordance with generally accepted practice for addressing fuel leaks from underground storage tanks as outlined in the guidelines from the Santa Clara Valley Water District and the California Water Quality Control Board. Because the analytical results are based on data collected from the sampling locations only, TECC cannot have full knowledge of the underlying conditions at the site. Conditions at the project site may change with time due to the works of man and/or acts of nature. Accordingly, the findings of this report may be subject to change in light of new information.

Table 1 Analytical Results (Soil Organics)

Sample Number	TPHg (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
D1M	NA	1600	150	300	590
D1F	NA	1600	73	490	430
L1F	880	5500	21000	8200	29000
L1T	560	1500	11000	4200	23000
U1M	1500	1400	19000	16000	64000
U1T	410	2400	23000	8000	23000
WO1	29	290	18	760	1100
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

NA = Not Analyzed

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
D1M	480	NA
D1F	33	NA
L1F	NA	NA
L1T	NA	NA
U1M	NA	NA
U1T	NA	NA
WO1	ND	ND
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

NA = Not Analyzed

N.D. = Not Detected

Table 2 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
U1M	NA	NA	11.5	NA	NA
U1T	NA	NA	7.39	NA	NA
WO1	0.409	7.67	0.66	7.52	14.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

NA = Not Analyzed

Table 3 Analytical Results (Soil Metals)

Sample Number	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
WS-WO	14000	2000	110	22	440
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

Table 4 Analytical Results (Water Organics)

Sample Number	TPHd (ppb)	Oil and Grease (ppm)	Lead (ppm)
WS-WO	38000	18	N.D.
DETECTION LIMIT	50	0.5	0.05
METHOD OF ANALYSIS	3550/ 8015	5520 E&F	7420

N.D. = Not Detected

Table 5 Analytical Results (Water Misc.)

Sample Number	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)
SS-1	N.D.	N.D.	N.D.	N.D.	N.D.
SS-2	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

N.D. = Not Detected

Table 6 Analytical Results (Soil Organics)

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
SS-1	N.D.	N.D.
SS-2	N.D.	N.D.
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

N.D. = Not Detected

Table 7 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
SS-1	0.221	8.06	8.32	10.3	17.3
SS-2	0.204	7.14	5.75	8.96	17.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

Table 8 Analytical Results (Soil Metals)

APPENDIX A

TANK REMOVAL PERMIT

CITY OF SANTA CLARA

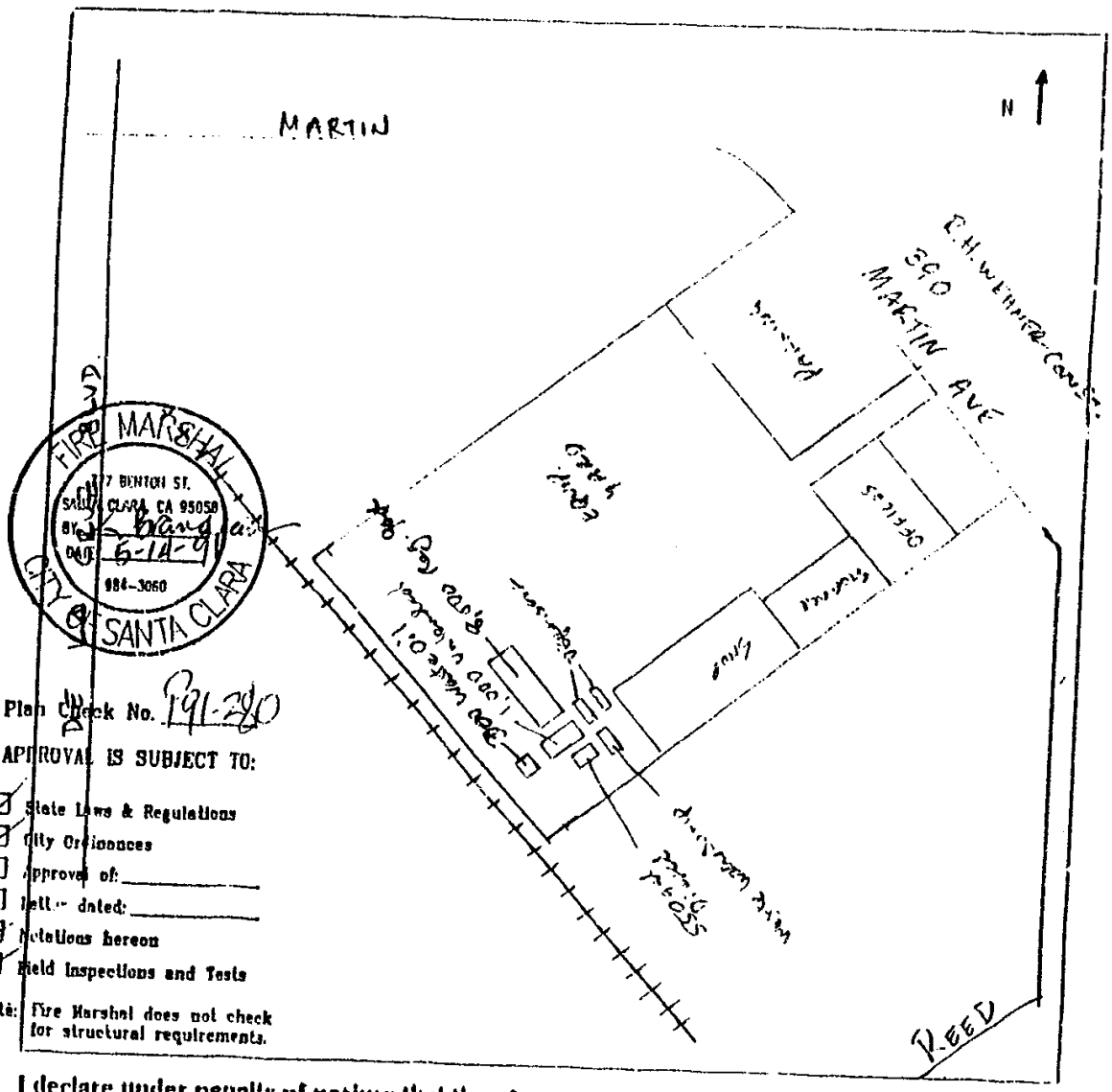
CLOSURE PLAN FOR HAZARDOUS MATERIALS STORAGE TANKS

RECEIVED
MAY 7 1991
S.C.F.D.

1. Facility Name: R.H. WEHNER CONCRETE CONSTRUCTION COMPANY
   Address: 390 MARTIN AVE, SANTA CLARA, CA. 95050
   Contact Person: ROBERT HAZELTON
   Phone Number: (408) 727-6607
2. Tank Closure Contractor: THE ENVIRONMENTAL CONSTRUCTION COMPANY
   Street: 775 MONTAGUE EXPRESSWAY
   City: MILPITAS, CA. 95035
   Contact Person: LORI GAUS
   Phone Number: (408) 957-7700
3. Name and phone number of firm who will take soil samples:
   THE ENVIRONMENTAL CONSTRUCTION COMPANY
4. Name and phone number of laboratory that will analyze samples (must be certified by State of California, Department of Health Services):
   CHROMALAB (415) 831-1788
5. The Tank Closure Permit expires 180 days from the date of closure plan approval.
6. Name of tank hauler: H&H SHIP SERVICE
   Destination of tanks: 220 CHINA BASIN SAN FRANCISCO, CA. 94107
   Intended reuse or method of disposal: RECYCLING
7. Tanks to be removed:

	Size	Tank Contents
Tank 1:	8000 GALLON	REGULAR GASOLINE
Tank 2:	1000 GALLON	UNLEADED GASOLINE
Tank 3:	550 GALLON	DIESEL
Tank 4:	300 GALLON	WASTE OIL
Tank 5:		

8. Provide a plot plan of the tanks to be closed. Indicate the nearest cross streets to the facility, the buildings immediately adjacent to the tanks, and the location of the tank to be closed.



I declare under penalty of perjury that the aforementioned information is correct to the best of my knowledge. If there is any change which would materially affect the above information, I will notify the S.C.F.D., Fire Prevention Bureau.

Date

Applicant's Signature

APPENDIX B

HAZARDOUS WASTE MANIFEST/CERTIFICATE OF DISPOSAL

State of California--Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch) typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD009515917 | Manifest Document No. 000011 | Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
P H WERNER CONCRETE CONSTRUCTION
700 Martin Avenue Santa Clara, Ca. 95050

4. Generator's Phone (408) 727-6607

A. State Manifest Document Number: 90538064

B. State Generator's ID

5. Transporter 1 Company Name: H & H Ship Service Company | 6. US EPA ID Number: CAD041716168

C. State Transporter's ID: 200559

D. Transporter's Phone: (415) 543-4835

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: H & H Ship Service Company, 210 China Basin Street, San Francisco, CA 94107 | 10. US EPA ID Number: CAD041716168

G. State Facility's ID: CAD041716168

H. Facility's Phone: (415) 543-4835

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. PETROLEUM GASOLINE TANK, RQ, RCRA HAZARDOUS WASTE SOLID	001	TP	00100	P	State 512 / EPA/Other
b. PETROLEUM GASOLINE TANK, RQ, RCRA HAZARDOUS WASTE SOLID	001	TP	00100	P	State 512 / EPA/Other
c. PETROLEUM DIESEL TANK, RQ, RCRA HAZARDOUS WASTE SOLID	001	TP	00550	P	State 512 / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
PUMPED OUT 8,000, 1,000 and 550 gallon tanks last containing gasoline and diesel. Tanks inerted with dry ice for transport.
PROFILE #A0

K. Handling Codes for Wastes Listed Above
a. 01 b. 01 c. 01 d.

15. Special Handling Instructions and Additional Information
[illegible] #7624
24 Hr. Emergency Contact: H & H #(415) 543-4835
USE APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: [illegible] | Signature: [signature] | Month 10 Day 15 Year 12

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature: [signature] | Month 10 Day 15 Year 12

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY — 19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month Day Year

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A
EPA 8700--22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency
Form Approved, OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A C 0 0 0 5 9 3 0 8 0 | Manifest Document No. 0 0 9 0 1 2 | Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
P H WEHRLE CONCRETE CONSTRUCTION
12 - Martin Avenue, Santa Clara, Ca. 95050
4. Generator's Phone (408) 727-4607

A. State Manifest Document Number 90538067
B. State Generator's ID

5. Transporter 1 Company Name: U & H Shot Service Company | 6. US EPA ID Number: C A D 0 0 4 2 7 7 1 1 6 8
C. State Transporter's ID 200559
D. Transporter's Phone (415) 583-4835
7. Transporter 2 Company Name | 8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone 3265

9. Designated Facility Name and Site Address: Environ Inc. [illegible]
[illegible] Bay Blvd.
Redwood City, CA 94301 | 10. US EPA ID Number: C A D 0 0 0 1 9 4 6 6 3 9 2
G. State Facility's ID C A D 0 0 0 9 4 6 6 3 9 2
H. Facility's Phone (415) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, NOS		TP	000	P	State 512 / EPA/Other
b. CK42803					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty: 1 Empty Storage Tank (s) #_____
_____ Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Gals. Capacity.

K. Handling Codes for Wastes Listed Above
a. | b. | c. | d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear breathing when working around U.S.T.'s. 24 Hr. Cont act Name H & H Phone #(415) 583-4835 JOB #7519

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name [illegible] | Signature [illegible] | Month 10 | Day 12 | Year 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name HERMAN L. BERG | Signature [illegible] | Month 10 | Day 12 | Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month | Day | Year

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

GENERATOR

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

CERTIFICATE OF DISPOSAL

MAY 24, 1991

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

H & H Ship Service Company hereby certifies to THE ENVIRONMENTAL CONSTRUCTION COMPANY that:

1. The storage tank(s), size(s) 1-8,000 GALS., 1-1,000 GALS. AND 1-550 GALS.

   removed from the R. H. WEHNER CONCRETE CONSTRUCTION

   facility at 390 MARTIN AVENUE

   SANTA CLARA, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number 7624 have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: SCHNITZER STEEL, OAKLAND, CALIFORNIA.

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 · DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

MAY 23, 1991

H & H Ship Service Company hereby certifies to THE ENVIRONMENTAL CONSTRUCTION COMPANY that:

1. The storage tank(s), size(s) ONE (1) 300 GALS.

   removed from the R. H. WEHNER CONCRETE CONSTRUCTION

   facility at 390 MARTIN AVENUE
   SANTA CLARA, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number 7619

   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: LEVIN METALS COMPANY, RICHMOND, CALIFORNIA.

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valley
Operations Coordinator

APPENDIX C

LABORATORY REPORT AND CHAINS OF CUSTODY

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991 ChromaLab File No.: 0591145

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: Seven rush soil samples for Gasoline/BTEX, and Diesel, analyses

Project Name: R H WEHNER
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 23-24, 1991 Date Analyzed: May 23-24, 1991

RESULTS:

Sample No.	Gasoline (mg/kg)	Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl Benzene (µg/kg)	Total Xylenes (µg/kg)
D1M	----	480	1600	150	300	590
D1F	----	33	1600	73	490	430
L1F	880	----	5500	21000	8200	29000
L1T	560	----	1500	11000	4200	23000
U1M	1500	----	1400	19000	16000	64000
U1T	410	----	2400	23000	8000	23000
WO1	29	N.D.	290	18	760	1100
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	94.8%	87.3%	91.4%	85.4%	86.9%	85.7%
DUP SPIKE REC	97.4%	81.8%	92.5%	96.2%	102.1%	106.8%
DET. LIMIT	1.0	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, # • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991 ChromaLab File No.: 0591145

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: Seven rush soil samples for Oil & Grease, Cadmium, Chromium, Lead, Nickel, and Zinc analyses

Project Name: R H WEHNER
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 23-24, 1991 Date Analyzed: May 23-24, 1991

RESULTS:

Sample No.	Oil & Grease (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
D1M	----	----	----	----	----	----
D1F	----	----	----	----	----	----
L1F	----	----	----	----	----	----
L1T	----	----	----	----	----	----
U1M	----	----	----	11.5	----	----
U1T	----	----	----	7.39	----	----
WO1	N.D.	0.409	7.67	0.66	7.52	14.1
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	----	100.3%	97.7%	101.4%	90.2%	89.6%
DET. LIMIT	10	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	5520 E&F	7130	7190	7420	7590	7950

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991 — ChromaLab File # 0591145

Client: The Env. Construction Co. — Attn: Tim Whalen
Date Sampled: May 21, 1991 — Date Submitted: May 22, 1991
Date of Analysis: May 24, 1991

Project Name: R H Wehner — Project No.: 290
Sample I.D.: WO 1
Method of Analysis: EPA 8010 — Detection Limit: 5.0 ug/kg

COMPOUND NAME	ug/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	89.5% 90.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	90.4% 89.2%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	88.7% 85.7%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	87.2% 86.8%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

THE ENVIRONMENTAL CONSTRUCTION COMPANY (TECC)
KINNEY DRIVE
SAN JOSE, CA. [illegible]

Chromalab

CHAIN-OF-CUSTODY RECD CHROMALAB FILE # 591145

2370

Project Manager: Jim Whalen
Phone #: (408) 997-1555

Address: (Site) 390 Martin Ave
FAX #: (408) 292-1430

Project Number: 290
Project Name: RH Wehner

Project Location: (City) Santa Clara
Sampler Signature: Brian Keddie

ANALYSIS REQUEST

OTHER

SPECIAL HANDLING

Sample ID	Lab # (Lab use only)	# Containers	Volume/Amount	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	Other	Sampling: Date	Time	BTEX (502/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet Fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPA 6 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	Organic LEAD	Cd, Cr, Pb, Zn, Ni	5-day TAT see 1/8 m. TAT	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2 4 days)	VERBAL S/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
W01		1		X					X		5/21	10:30		X	X		X				X										X	X					
D2M		1		X					X		5/21	10:50	X		X																	X					
D2F		1		X					X		5/21	11:00	X		X																	X					
W2M		1		X					X		5/21	11:10		X																		X					
W2T		1		X					X		5/21	11:10		X														X	X			X					
D1T		1		X					X		5/21	11:15		X																		X					
D1F		1		X					X		5/21	11:20		X																		X					

Relinquished by:	Date	Time	Received by:
Laurie Soles	5-22-91	11:25	T. Johnson
Relinquished by	Date	Time	Received by:
Relinquished	Date	Time	Received by Laboratory:
	5-22-91	4:35	T Johnson

1. Have all samples received for analysis been stored in ice? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? N
   If so, give estimate of amount. —
4. Were samples in appropriate containers and proper [illegible]? Y

T Johnson

5-22-91

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 30, 1991 ChromaLab File No.: 0591146

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: One water sample for Gasoline/BTEX, Diesel, Oil & Grease, and Lead analyses

Project Name: R H Wehner
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 29, 1991 Date Analyzed: May 29, 1991

RESULTS:

Sample No.	Gasoline (µg/l)	Diesel (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl Benzene (µg/l)	Total Xylenes (µg/l)	Oil & Grease (mg/l)	Lead (mg/l)
MW-WO	14000	38000	2000	110	22	440	18	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	95.9%	89.7%	82.3%	95.1%	90.8%	92.0%	-----	101.4%
DETECTION LIMIT	50	50	0.5	0.5	0.5	0.5	0.5	0.05
METHOD OF ANALYSIS	5030/ 8015	3510/ 8015	602	602	602	602	5520 B&F	7420

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

May 30, 1991

ChromaLab File # 0591146

Client: The Env. Construction Co. Attn: Tim Whalen
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date of Analysis: May 30, 1991

Project No.: 290 Project Name: R H Wehner
Sample I.D.: WS-WO
Method of Analysis: EPA 501 Detection Limit: 5.0 ug/l*

COMPOUND NAME	ug/l	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	87.2% 91.5%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	88.4% 89.6%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	91.3% 92.5%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	87.7% 90.1%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

*High detection limit due to presence of high gasoline in sample.

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1768 • Facsimile 415/831-8798
Federal ID #68-0140157

THE ENVIRONMENTAL CONSTRUCTION COMPANY (TECC)
2010 KINNEY DRIVE
SAN JOSE, CA. [illegible]

Chromalab

CHAIN-OF-CUSTODY RECD CHROMALAB FILE # 591146

2371

Project Manager: Tim Whalen
Phone #: (408) 997-1505
Address: (Site) 390 Martin Av. /
FAX #: (408) 292-1430 TECC
Project Number: 290
Project Name: RH Wehner
Project Location: (City) Santa Clara
Sampler Signature: Brian Reddick

Sample ID	Lab # (Lab use only)	# Containers / Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	None	OTHER	Sampling: DATE	TIME
WS-WD		2 1L	X					X					5/21	3:00
WS-WD		2 VOA	X					X					5/21	3:00
WS-WD		1 1L	X					X					5/21	3:00
WS-WD		1 VOA	X					X					5/21	3:00

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 3270)	TPH as Jet Fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX 8 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD	OTHER: 5 day T.A.T.	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2 / days)	VERBAL 9/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
	X																	X					
X																		X					
				X												X		X					
							X											X					

Relinquished by: Candy Soles — Date Time: 5-22-91 11:26 — Received by: T. Jones

Relinquished by — Date Time — Received by:

Relinquished — Date Time: 5-22-91 4:35 — Received by Laboratory: T. J

1. Have all samples received for analysis been stored in ice? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? N
   If so, give estimate of amount.
4. Were samples in appropriate containers and proper [illegible] packaged? Y

T. J

5-22

CHROMALAB, INC.

Analytical Laboratory (E654)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File No.: 0691071

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Ron Legue

RE: Two soil samples for Gasoline/BTEX, Diesel, Oil & Grease, Cadmium, Chromium, Lead, Nickel, and Zinc analyses

Project Name: R. H. WEHNER
Date Sampled: June 10, 1991
Date Extracted: June 12-14,1991

Project Number: 290
Date Submitted: June 10, 1991
Date Analyzed: June 12-14,1991

RESULTS:

Sample No.	Gasoline (mg/kg)	Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl Benzene (µg/kg)	Total Xylenes (µg/kg)
SS-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SS-2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	94.8%	91.8%	91.4%	85.4%	86.9%	85.7%
DET. LIMIT	1.0	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020

Sample No.	Oil & Grease (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
SS-1	N.D.	0.221	8.06	8.32	10.3	17.3
SS-2	N.D.	0.204	7.14	5.75	8.96	17.1
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	-----	90.9%	109.0%	95.6%	106.8%	93.4%
DET. LIMIT	10	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	5520 E&F	7130	7190	7420	7590	7950

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File # 0691071.A

Client: The Env. Construction Co.
Attn: Ron LeGue
Date Sampled: June 10, 1991
Date Submitted: June 10, 1991
Date of Analysis: June 17, 1991

Project No.: 290
Project Name: R. H. Wehrer
Sample I.D.: SS-1
Method of Analysis: EPA 8010
Detection Limit: 5.0 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	82.8% 90.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	91.3% 88.7%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	89.8% 85.4%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	86.7% 88.2%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1768 • Facsimile 415/831-8798

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File # 0691071 B

Client: The Env. Construction Co.
Attn: Ron LeQue
Date Sampled: June 10, 1991
Date Submitted: June 10, 1991
Date of Analysis: June 17, 1991

Project No.: 290
Project Name: R. H. Wehner
Sample I.D.: SS-2
Method of Analysis: EPA 8010
Detection Limit: 5.0 ug/kg

COMPOUND NAME	ug/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	---
METHYLENE CHLORIDE	N.D.	82.8% 90.1%
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	91.3% 88.7%
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	35	89.8% 85.4%
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	86.7% 88.2%
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

ENVIRONMENTAL CONSTRUCTION COMPANY (ECC)
KINNEY DRIVE
SAN JOSE, CA.

Chroma lab

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

TURN AROUND TIME:

Project M... E...: Ron Le ...ve
Phone #: (408) 957-135
Address: (Site)
FAX #: (408) 292-1430
Project Number: 290
Project Name: R.A. Wehner
Project Location: (City) Santa Clara
Sampler Signature: Brian Keddie

Sample ID	Lab # (Lab use only)	Container(s)	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: ICE	HCl	HNO3	OTHER	Sampling: DATE	TIME
SS-1		6		X					X					
SS-2		6		X					X					

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet Fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX 8 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	Organic LEAD	CAM Cr, Pb, Zn, Ni	5 day T.A.T.	PRIORITY ONE SERVICE (24 hr)	EXTENDED SERVICE (8 days)	VERBAL 8/AM	SPECIAL DETECTION LIMIT (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
X	X	X		X	*	X												X	X					
X	X	X		X		X												X	X					

Relinquished by:	Date	Time	Received by:
M Heinrich	6/10	2:35	T. J
Relinquished by	Date	Time	Received by:
Relinquished	Date	Time	Received by Laboratory:

1. Have all samples received for analysis been stored in ice? y
2. Will samples remain refrigerated until analyzed? y
3. Did any samples received for analysis have head space? n
   If so, give estimate of amount:
4. Were samples in appropriate containers and prop... received? y

T. J

6-10-91

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM A

COMPLETE THIS FORM FOR EACH FACILITY/SITE

MARK ONLY ONE ITEM: [ ] 1 NEW PERMIT [ ] 2 INTERIM PERMIT [ ] 3 RENEWAL PERMIT [ ] 4 AMENDED PERMIT [ ] 5 CHANGE OF INFORMATION [X] 7 PERMANENTLY CLOSED SITE [ ] 8 TEMPORARY SITE CLOSURE

I. FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLETED)

DBA OR FACILITY NAME	NAME OF OPERATOR	
R.H. WEHNER CONCRETE CONSTRUCTION COMPANY	ROBERT HAZELTON	
ADDRESS: 390 MARTIN AVE	NEAREST CROSS STREET: DE LA CRUZ AVE	PARCEL # (OPTIONAL)
CITY NAME: SANTA CLARA, CA.	STATE: CA / ZIP CODE: 95050	SITE PHONE # WITH AREA CODE: (408) 727-6607

✓ BOX TO INDICATE: [X] CORPORATION [ ] INDIVIDUAL [ ] PARTNERSHIP [ ] LOCAL-AGENCY DISTRICTS [ ] COUNTY-AGENCY [ ] STATE-AGENCY [ ] FEDERAL-AGENCY

TYPE OF BUSINESS: [ ] 1 GAS STATION [ ] 2 DISTRIBUTOR [ ] 3 FARM [ ] 4 PROCESSOR [X] 5 OTHER

[ ] ✓ IF INDIAN RESERVATION OR TRUST LANDS | # OF TANKS AT SITE: 4 | E. P. A. I. D. # (optional): CAC000593080

EMERGENCY CONTACT PERSON (PRIMARY)		EMERGENCY CONTACT PERSON (SECONDARY) - optional	
DAYS: NAME (LAST, FIRST): HAZELTON, ROBERT	PHONE # WITH AREA CODE: (408) 727-6607	DAYS: NAME (LAST, FIRST):	PHONE # WITH AREA CODE:
NIGHTS: NAME (LAST, FIRST):	PHONE # WITH AREA CODE:	NIGHTS: NAME (LAST, FIRST):	PHONE # WITH AREA CODE:

II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED)

NAME	CARE OF ADDRESS INFORMATION		
~~XXXXXXXXXXXX~~ R.H. WEHNER	✓ box to indicate: [ ] INDIVIDUAL [ ] LOCAL-AGENCY [ ] STATE-AGENCY		
MAILING OR STREET ADDRESS: 390 MARTIN AVE	[X] CORPORATION [ ] PARTNERSHIP [ ] COUNTY-AGENCY [ ] FEDERAL-AGENCY		
CITY NAME: SANTA CLARA, CA.	STATE: CA	ZIP CODE: 95050	PHONE # WITH AREA CODE: (408) 727-6607

III. TANK OWNER INFORMATION - (MUST BE COMPLETED)

NAME OF OWNER	CARE OF ADDRESS INFORMATION		
R.H. WEHNER	✓ box to indicate: [ ] INDIVIDUAL [ ] LOCAL-AGENCY [ ] STATE-AGENCY		
MAILING OR STREET ADDRESS: 390 MARTIN AVE	[X] CORPORATION [ ] PARTNERSHIP [ ] COUNTY-AGENCY [ ] FEDERAL-AGENCY		
CITY NAME: SANTA CLARA	STATE: CA	ZIP CODE: 95050	PHONE # WITH AREA CODE: (408) 727-6607

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER - Call (916) 739-2582 if questions arise.

TY (T" [4][4]-[ ][ ][ ][ ][ ][ ]

V. NOTIFICATION AND BILLING ADDRESS

Legal notification and billing will be sent to the tank owner unless box I or II is checked.

USE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NOTIFICATIONS AND BILLING: I. [ ] II. [ ] III. [ ]

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE)	APPLICANT'S TITLE	DATE MONTH/DAY/YEAR
LORRAINE GAUS Lorraine M. Gaus	VP administration	5-2-91

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	FACILITY #
[ ][ ]	[ ][ ][ ]	[ ][ ][ ][ ][ ][ ]

LOCATION CODE - *OPTIONAL*	CENSUS TRACT # - *OPTIONAL*	SUPVISOR - DISTRICT CODE - *OPTIONAL*

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE PERMIT APPLICATION - **FORM B**, UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY

STATE OF CALIFORNIA — WATER RESOURCES CONTROL BOARD

FORM 'B': **TANK**

UNDERGROUND STORAGE TANK PROGRAM
TANK PERMIT APPLICATION INFORMATION

COMPLETE A SEPARATE FORM WITH THE FOLLOWING INFORMATION FOR EACH TANK.

NO 41888

MARK ONLY ONE ITEM				
☐ 1 NEW PERMIT	☐ 3 RENEWAL PERMIT	☐ 5 CHANGE OF INFORMATION	☐ 7 PERMANENTLY CLOSED TANK
☐ 2 INTERIM PERMIT	☐ 4 AMENDED PERMIT	☐ 6 TEMPORARY TANK CLOSURE	☒ 8 TANK REMOVED

FACILITY/SITE NAME WHERE TANK IS INSTALLED: FARM TANK - YES ☐ NO ☒

I. TANK DESCRIPTION — COMPLETE ALL ITEMS - IF UNKNOWN -- SO SPECIFY

A. OWNERS TANK ID # UNKNOWN	B. MANUFACTURED BY: UNKNOWN
C. YEAR INSTALLED UNKNOWN	D. TANK CAPACITY IN GALLONS 8000

II. TANK CONTENTS — IF (A.1), IS MARKED, COMPLETE ITEM C. IF (A.1), IS NOT MARKED, COMPLETE ITEM D.

A	B	C
☒ 1 MOTOR VEHICLE FUEL ☐ 2 PETROLEUM		☐ 1 UNLEADED ☒ 2 LEADED ☐ 3 DIESEL
☐ 3 CHEMICAL PRODUCT ☐ 4 OIL	☒ 1 PRODUCT	☐ 4 GASAHOL ☐ 5 JET FUEL ☐ 6 AVIATION GAS
☐ 5 HAZARDOUS ☐ 80 EMPTY ☐ 95 UNKNOWN	☐ 2 WASTE	☐ 7 METHANOL ☐ 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF NOT MOTOR VEHICLE FUEL, ENTER NAME OF HAZARDOUS SUBSTANCE STORED & C.A.S. # C.A.S. #:

III. TANK CONSTRUCTION — MARK ONE ITEM ONLY IN BOX A, B, C, & D

A. TYPE OF SYSTEM	☐ 1 DOUBLE WALLED	☐ 3 SINGLE WALLED WITH EXTERIOR LINER	☐ 95 UNKNOWN	
	☒ 2 SINGLE WALLED	☐ 4 SECONDARY CONTAINMENT	☐ 99 OTHER	
B. TANK MATERIAL	☒ 1 STEEL/IRON	☐ 2 STAINLESS STEEL	☐ 3 FIBERGLASS	☐ 4 STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC
	☐ 5 CONCRETE	☐ 6 POLYVINYL CHLORIDE	☐ 7 ALUMINUM	☐ 8 100% METHANOL COMPATIBLE FRP
	☐ 9 BRONZE	☐ 10 GALVANIZED STEEL	☐ 95 UNKNOWN	☐ 99 OTHER
C. INTERIOR LINING	☐ 1 RUBBER LINED	☐ 2 ALKYD LINING	☐ 3 EPOXY LINING	☐ 4 PHENOLIC LINING
	☐ 5 GLASS LINING	☐ 6 UNLINED		☐ 95 UNKNOWN
	☐ IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL?	☐ YES ☐ NO	☐ 99 OTHER NONE	
D. CORROSION PROTECTION	☐ 1 POLYETHLENE WRAP	☐ 2 TAR OR ASPHALT	☐ 3 VINYL WRAP	☐ 4 FIBERGLASS REINFORCED PLASTIC
	☐ 5 CATHODIC PROTECTION	☒ 91 NONE	☐ 95 UNKNOWN	☐ 99 OTHER

IV. PIPING INFORMATION — CIRCLE **A** IF ABOVE GROUND, **U** IF UNDERGROUND, **BOTH IF APPLICABLE**

A. SYSTEM TYPE	A (U) 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
B. CONSTRUCTION	A (U) 1 SINGLE WALLED	A U 2 DOUBLE WALLED	A U 3 LINED TRENCH	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
C. MATERIAL	A (U) 1 STEEL/IRON	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE	A U 91 NONE
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL CLAD W/FRP	A U 8 100% METHANOL COMPATIBLE FRP	
	A U 9 GALVANIZED STEEL	A U 95 UNKNOWN	A U 99 OTHER		

V. LEAK DETECTION SYSTEM — CIRCLE **P** FOR PRIMARY, OR **S** FOR SECONDARY. **A PRIMARY LEAK DETECTION SYSTEM MUST BE CIRCLED.**

P S 1 VISUAL CHECK	P S 2 INVENTORY RECONCILIATION	P S 3 VADOSE WELLS	P S 4 ELECTRONIC MONITOR	P S 5 GROUND WATER MONITORING WELLS
P S 6 PRECISION TESTING	P S 7 PRESSURE TESTING	(P S) 91 NONE	P S 95 UNKNOWN	P S 99 OTHER

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED (MO/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING IN GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? ☐ YES ☐ NO

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE
LORRAINE GANS Lorraine M. Gans	5-2-91

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	TANK ID #

CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME	PHONE # WITH AREA CODE

PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE

CHECK #	PERMIT AMOUNT	SURCHARGE AMT.	FEE CODE	RECEIPT #	BY:

FORM B (6-29-88) **THIS FORM MUST BE ACCOMPANIED BY A FACILITY/SITE APPLICATION, FORM 'A' UNLESS A CURRENT FORM 'A' HAS BEEN FILED**

DATA PROCESSING COPY

STATE OF CALIFORNIA — WATER RESOURCES CONTROL BOARD

FORM 'B': **TANK**

UNDERGROUND STORAGE TANK PROGRAM
TANK PERMIT APPLICATION INFORMATION

COMPLETE A SEPARATE FORM WITH THE FOLLOWING INFORMATION FOR EACH TANK.

No. 41887

MARK ONLY ONE ITEM

- [ ] 1 NEW PERMIT
- [ ] 2 INTERIM PERMIT
- [ ] 3 RENEWAL PERMIT
- [ ] 4 AMENDED PERMIT
- [ ] 5 CHANGE OF INFORMATION
- [ ] 6 TEMPORARY TANK CLOSURE
- [ ] 7 PERMANENTLY CLOSED TANK
- [X] 8 TANK REMOVED

FACILITY/SITE NAME WHERE TANK IS INSTALLED: **FARM TANK - YES** [ ] **NO** [X]

I. TANK DESCRIPTION — COMPLETE ALL ITEMS - IF UNKNOWN — SO SPECIFY

A. OWNERS TANK ID # UNKNOWN	B. MANUFACTURED BY UNKNOWN
C. YEAR INSTALLED UNKNOWN	D. TANK CAPACITY IN GALLONS: 300

II. TANK CONTENTS — IF (A.1), IS MARKED, COMPLETE ITEM C. IF (A.1), IS NOT MARKED, COMPLETE ITEM D.

A.
- [ ] 1 MOTOR VEHICLE FUEL
- [ ] 2 PETROLEUM
- [ ] 3 CHEMICAL PRODUCT
- [X] 4 OIL
- [ ] 5 HAZARDOUS
- [ ] 80 EMPTY
- [ ] 95 UNKNOWN

B.
- [ ] 1 PRODUCT
- [X] 2 WASTE

C.
- [ ] 1 UNLEADED
- [ ] 2 LEADED
- [ ] 3 DIESEL
- [ ] 4 GASAHOL
- [ ] 5 JET FUEL
- [ ] 6 AVIATION GAS
- [ ] 7 METHANOL
- [ ] 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF NOT MOTOR VEHICLE FUEL, ENTER NAME OF HAZARDOUS SUBSTANCE STORED & C.A.S. # WASTE OIL — C.A.S. #:

III. TANK CONSTRUCTION — MARK ONE ITEM ONLY IN BOX A, B, C, & D

A. TYPE OF SYSTEM
- [ ] 1 DOUBLE WALLED
- [X] 2 SINGLE WALLED
- [ ] 3 SINGLE WALLED WITH EXTERIOR LINER
- [ ] 4 SECONDARY CONTAINMENT
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

B. TANK MATERIAL
- [X] 1 STEEL/IRON
- [ ] 2 STAINLESS STEEL
- [ ] 3 FIBERGLASS
- [ ] 4 STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC
- [ ] 5 CONCRETE
- [ ] 6 POLYVINYL CHLORIDE
- [ ] 7 ALUMINUM
- [ ] 8 100% METHANOL COMPATIBLE FRP
- [ ] 9 BRONZE
- [ ] 10 GALVANIZED STEEL
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

C. INTERIOR LINING
- [ ] 1 RUBBER LINED
- [ ] 2 ALKYD LINING
- [ ] 3 EPOXY LINING
- [ ] 4 PHENOLIC LINING
- [ ] 5 GLASS LINING
- [ ] 6 UNLINED
- [ ] 95 UNKNOWN
- [ ] IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? [ ] YES [ ] NO
- [ ] 99 OTHER NONE

D. CORROSION PROTECTION
- [ ] 1 POLYETHYLENE WRAP
- [ ] 2 TAR OR ASPHALT
- [ ] 3 VINYL WRAP
- [ ] 4 FIBERGLASS REINFORCED PLASTIC
- [ ] 5 CATHODIC PROTECTION
- [X] 91 NONE
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

IV. PIPING INFORMATION — CIRCLE A IF ABOVE GROUND, U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A (U) 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
B. CONSTRUCTION	A (U) 1 SINGLE WALLED	A U 2 DOUBLE WALLED	A U 3 LINED TRENCH	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
C. MATERIAL	A (U) 1 STEEL/IRON	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE	A U 91 NONE
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL CLAD W/FRP	A U 8 100% METHANOL COMPATIBLE FRP	
	A U 9 GALVANIZED STEEL	A U 95 UNKNOWN	A U 99 OTHER		

V. LEAK DETECTION SYSTEM — CIRCLE P FOR PRIMARY, OR S FOR SECONDARY, A PRIMARY LEAK DETECTION SYSTEM MUST BE CIRCLED.

P S 1 VISUAL CHECK — P S 2 INVENTORY RECONCILIATION — P S 3 VADOSE WELLS — P S 4 ELECTRONIC MONITOR — P S 5 GROUND WATER MONITORING WELLS
P S 6 PRECISION TESTING — P S 7 PRESSURE TESTING — (P) (S) 91 NONE — P S 95 UNKNOWN — P S 99 OTHER

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED (MO/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING IN GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? [ ] YES [ ] NO

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE
LORRAINE M. GRAUS Lorraine M. Graus	5-2-91

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	TANK ID #

CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME	PHONE # WITH AREA CODE

PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE

CHECK #	PERMIT AMOUNT	SURCHARGE AMT.	FEE CODE	RECEIPT #	BY:

FORM B (6-29-88) **THIS FORM MUST BE ACCOMPANIED BY A FACILITY/SITE APPLICATION, FORM 'A', UNLESS A CURRENT FORM 'A' HAS BEEN FILED**

DATA PROCESSING COPY

STATE OF CALIFORNIA — WATER RESOURCES CONTROL BOARD

FORM 'B': **TANK**

UNDERGROUND STORAGE TANK PROGRAM
TANK PERMIT APPLICATION INFORMATION

COMPLETE A SEPARATE FORM WITH THE FOLLOWING INFORMATION FOR EACH TANK.

No. 41886

MARK ONLY ONE ITEM				
☐ 1 NEW PERMIT	☐ 3 RENEWAL PERMIT	☐ 5 CHANGE OF INFORMATION	☐ 7 PERMANENTLY CLOSED TANK
☐ 2 INTERIM PERMIT	☐ 4 AMENDED PERMIT	☐ 6 TEMPORARY TANK CLOSURE	☒ 8 TANK REMOVED

FACILITY/SITE NAME WHERE TANK IS INSTALLED: FARM TANK - YES ☐ NO ☐

I. TANK DESCRIPTION — COMPLETE ALL ITEMS - IF UNKNOWN — SO SPECIFY

A. OWNERS TANK ID # UNKNOWN	B. MANUFACTURED BY: UNKNOWN
C. YEAR INSTALLED UNKNOWN	D. TANK CAPACITY IN GALLONS: 550

II. TANK CONTENTS — IF (A.1), IS MARKED, COMPLETE ITEM C. IF (A.1), IS NOT MARKED, COMPLETE ITEM D.

A.	B.	C.
☒ 1 MOTOR VEHICLE FUEL ☐ 2 PETROLEUM	☒ 1 PRODUCT	☐ 1 UNLEADED ☐ 2 LEADED ☒ 3 DIESEL
☐ 3 CHEMICAL PRODUCT ☐ 4 OIL	☐ 2 WASTE	☐ 4 GASAHOL ☐ 5 JET FUEL ☐ 6 AVIATION GAS
☐ 5 HAZARDOUS ☐ 80 EMPTY ☐ 95 UNKNOWN		☐ 7 METHANOL ☐ 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF NOT MOTOR VEHICLE FUEL, ENTER NAME OF HAZARDOUS SUBSTANCE STORED & C.A.S. # C.A.S. #:

III. TANK CONSTRUCTION — MARK ONE ITEM ONLY IN BOX A, B, C, & D

A. TYPE OF SYSTEM	☐ 1 DOUBLE WALLED	☐ 3 SINGLE WALLED WITH EXTERIOR LINER	☐ 95 UNKNOWN	
	☒ 2 SINGLE WALLED	☐ 4 SECONDARY CONTAINMENT	☐ 99 OTHER	
B. TANK MATERIAL	☒ 1 STEEL/IRON	☐ 2 STAINLESS STEEL	☐ 3 FIBERGLASS	☐ 4 STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC
	☐ 5 CONCRETE	☐ 6 POLYVINYL CHLORIDE	☐ 7 ALUMINUM	☐ 8 100% METHANOL COMPATIBLE FRP
	☐ 9 BRONZE	☐ 10 GALVANIZED STEEL	☐ 95 UNKNOWN	☐ 99 OTHER
C. INTERIOR LINING	☐ 1 RUBBER LINED	☐ 2 ALKYD LINING	☐ 3 EPOXY LINING	☐ 4 PHENOLIC LINING
	☐ 5 GLASS LINING	☐ 6 UNLINED		☐ 95 UNKNOWN
	☐ IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL?	☐ YES ☐ NO	☐ 99 OTHER NONE	
D. CORROSION PROTECTION	☐ 1 POLYETHILENE WRAP	☐ 2 TAR OR ASPHALT	☐ 3 VINYL WRAP	☐ 4 FIBERGLASS REINFORCED PLASTIC
	☐ 5 CATHODIC PROTECTION	☒ 91 NONE	☐ 95 UNKNOWN	☐ 99 OTHER

IV. PIPING INFORMATION — CIRCLE **A** IF ABOVE GROUND, **U** IF UNDERGROUND, **BOTH IF APPLICABLE**

A. SYSTEM TYPE	A (U) 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
B. CONSTRUCTION	A (U) 1 SINGLE WALLED	A U 2 DOUBLE WALLED	A U 3 LINED TRENCH	A U 91 NONE	A U 95 UNKNOWN A U 99 OTHER
C. MATERIAL	A (U) 1 STEEL/IRON	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE	A U 91 NONE
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL CLAD W/FRP	A U 8 100% METHANOL COMPATIBLE FRP	
	A U 9 GALVANIZED STEEL	A U 95 UNKNOWN	A U 99 OTHER		

V. LEAK DETECTION SYSTEM — CIRCLE **P** FOR PRIMARY, OR **S** FOR SECONDARY. **A PRIMARY LEAK DETECTION SYSTEM MUST BE CIRCLED.**

P S 1 VISUAL CHECK	P S 2 INVENTORY RECONCILIATION	P S 3 VADOSE WELLS	P S 4 ELECTRONIC MONITOR	P S 5 GROUND WATER MONITORING WELLS
P S 6 PRECISION TESTING	P S 7 PRESSURE TESTING	(P) (S) 91 NONE	P S 95 UNKNOWN	P S 99 OTHER

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED (MO/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING IN GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? ☐ YES ☐ NO

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE
LORRAINE GAUS Lorraine M. Gaus	5-2-91

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	TANK ID #

CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME	PHONE # WITH AREA CODE

PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE

CHECK #	PERMIT AMOUNT	SURCHARGE AMT.	FEE CODE	RECEIPT #	BY:

FORM B (6-29-88) **THIS FORM MUST BE ACCOMPANIED BY A FACILITY/SITE APPLICATION, FORM 'A', UNLESS A CURRENT FORM 'A' HAS BEEN FILED**

DATA PROCESSING COPY

STATE OF CALIFORNIA — WATER RESOURCES CONTROL BOARD

FORM 'B': **TANK**

UNDERGROUND STORAGE TANK PROGRAM
TANK PERMIT APPLICATION INFORMATION

COMPLETE A SEPARATE FORM WITH THE FOLLOWING INFORMATION FOR EACH TANK.

No. 41889

MARK ONLY ONE ITEM
- [ ] 1 NEW PERMIT
- [ ] 2 INTERIM PERMIT
- [ ] 3 RENEWAL PERMIT
- [ ] 4 AMENDED PERMIT
- [ ] 5 CHANGE OF INFORMATION
- [ ] 6 TEMPORARY TANK CLOSURE
- [ ] 7 PERMANENTLY CLOSED TANK
- [X] 8 TANK REMOVED

FACILITY/SITE NAME WHERE TANK IS INSTALLED: **FARM TANK - YES** [ ] **NO** [X]

I. TANK DESCRIPTION — COMPLETE ALL ITEMS - IF UNKNOWN — SO SPECIFY

A. OWNERS TANK ID # UNKNOWN	B. MANUFACTURED BY: UNKNOWN
C. YEAR INSTALLED UNKNOWN	D. TANK CAPACITY IN GALLONS: 1000

II. TANK CONTENTS — IF (A.1), IS MARKED, COMPLETE ITEM C. IF (A.1), IS NOT MARKED, COMPLETE ITEM D.

A.
- [X] 1 MOTOR VEHICLE FUEL
- [ ] 2 PETROLEUM
- [ ] 3 CHEMICAL PRODUCT
- [ ] 4 OIL
- [ ] 5 HAZARDOUS
- [ ] 80 EMPTY
- [ ] 95 UNKNOWN

B.
- [X] 1 PRODUCT
- [ ] 2 WASTE

C.
- [X] 1 UNLEADED
- [ ] 2 LEADED
- [ ] 3 DIESEL
- [ ] 4 GASAHOL
- [ ] 5 JET FUEL
- [ ] 6 AVIATION GAS
- [ ] 7 METHANOL
- [ ] 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF NOT MOTOR VEHICLE FUEL, ENTER NAME OF HAZARDOUS SUBSTANCE STORED & C.A.S. # C.A.S #:

III. TANK CONSTRUCTION — MARK ONE ITEM ONLY IN BOX A, B, C, & D

A. TYPE OF SYSTEM
- [ ] 1 DOUBLE WALLED
- [X] 2 SINGLE WALLED
- [ ] 3 SINGLE WALLED WITH EXTERIOR LINER
- [ ] 4 SECONDARY CONTAINMENT
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

B. TANK MATERIAL
- [X] 1 STEEL/IRON
- [ ] 2 STAINLESS STEEL
- [ ] 3 FIBERGLASS
- [ ] 4 STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC
- [ ] 5 CONCRETE
- [ ] 6 POLYVINYL CHLORIDE
- [ ] 7 ALUMINUM
- [ ] 8 100% METHANOL COMPATIBLE FRP
- [ ] 9 BRONZE
- [ ] 10 GALVANIZED STEEL
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

C. INTERIOR LINING
- [ ] 1 RUBBER LINED
- [ ] 2 ALKYD LINING
- [ ] 3 EPOXY LINING
- [ ] 4 PHENOLIC LINING
- [ ] 5 GLASS LINING
- [ ] 6 UNLINED
- [ ] 95 UNKNOWN
- [ ] IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? [ ] YES [ ] NO
- [ ] 99 OTHER NONE

D. CORROSION PROTECTION
- [ ] 1 POLYETHLENE WRAP
- [ ] 2 TAR OR ASPHALT
- [ ] 3 VINYL WRAP
- [ ] 4 FIBERGLASS REINFORCED PLASTIC
- [ ] 5 CATHODIC PROTECTION
- [X] 91 NONE
- [ ] 95 UNKNOWN
- [ ] 99 OTHER

IV. PIPING INFORMATION — CIRCLE **A** IF ABOVE GROUND, **U** IF UNDERGROUND, **BOTH IF APPLICABLE**

A. SYSTEM TYPE	A (U) 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 91 NONE	A U 95 UNKNOWN	A U 99 OTHER
B. CONSTRUCTION	A (U) 1 SINGLE WALLED	A U 2 DOUBLE WALLED	A U 3 LINED TRENCH	A U 91 NONE	A U 95 UNKNOWN	A U 99 OTHER
C. MATERIAL	A (U) 1 STEEL/IRON	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE	A U [illegible]NE	
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL CLAD W/FRP	A U 8 100% METHANOL COMPATIBLE FRP		
	A U 9 GALVANIZED STEEL	A U 95 UNKNOWN	A U 99 OTHER			

V. LEAK DETECTION SYSTEM — CIRCLE **P** FOR PRIMARY, OR **S** FOR SECONDARY, **A PRIMARY LEAK DETECTION SYSTEM MUST BE CIRCLED.**

P S 1 VISUAL CHECK P S 2 INVENTORY RECONCILIATION P S 3 VADOSE WELLS P S 4 ELECTRONIC MONITOR P S 5 GROUND WATER MONITORING WELLS
P S 6 PRECISION TESTING P S 7 PRESSURE TESTING (P) (S) 91 NONE P S 95 UNKNOWN P S 99 OTHER

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED (MO/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING IN GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? [ ] YES [ ] NO

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE
LORRAINE GAUS Lorraine M Gaus	5-2-91

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	AGENCY #	FACILITY ID #	TANK ID #

CURRENT LOCAL AGENCY FACILITY ID #	APPROVED BY NAME	PHONE # WITH AREA CODE

PERMIT NUMBER	PERMIT APPROVAL DATE	PERMIT EXPIRATION DATE

CHECK #	PERMIT AMOUNT	SURCHARGE AMT.	FEE CODE	RECEIPT #	BY:

FORM B (6-29-88) **THIS FORM MUST BE ACCOMPANIED BY A FACILITY/SITE APPLICATION, FORM 'A', UNLESS A CURRENT FORM 'A' HAS BEEN FILED**

DATA PROCESSING COPY

TELEPHONE CONVERSATION

DATE 5/17/94 TIME _____ PHONE NO. (408) 286-6372

PERSON CALLING/CALLED Brenda McNab

AGENCY REPRESENTED Wanwan Pharmacy - 390 Manzanita Avenue

CONVERSATION

Brenda called regarding this property before she left employment at BrC.

We discussed the levels of contaminants at MW-2 and the lack of effectiveness of the ORC application. Brenda felt that the orc was not effective because it was not installed further up gradient.

We discussed why MW-2 had such high contamination in MW-2 and why the investigation near the source failed to detect the migration pathway. We surmised that maybe there was channelization in the subsurface that was not detected. MW-2 had coarser grained materials (per Brenda). Also it was possible that the channel was cut off such that the MW-2 well was at the end of a 'pod' and there was little flow of gw. thru area. Boundary conditions down gradient deflecting flow. So gw. in the MW2 area remained anaerobic thus little degradation and possible could explain the failure of ORC. Brenda felt that spillage or an offsite source would not be a likely other explanation for MW-2.

Santa Clara Valley Water District

FC 817 (01-27-92)

(Initials)

Santa Clara Valley Water District

FUND BREAK WORK LOG
FC 873 (09-15-92)

Site Number: 10-015
Site Name: 211 Walker Court
Site Address: 340 Martin Ave SC

Date	Name	Task Code	Hours	Action
2/8/93	Tullock	812	1.05	Review file for PP info
				Leave message for attorney
				to return call
2/10/93	Tullock	812	0.15	Bill Wm called. Will forward
				Cost Act/Cost Recovery
2/11/93	"	812	0.75	Cost Act Package
4/15/93			0.25	Revised NOLR
6/30 7/1/93		815	3	Review file add to ICS, prepare letter
10/20/93	"	"	0.25	Extension letter. Update DB/Routing
11/2/93	"	"	1.25	Review 11/2/93 proposal. Draft
				letter.
11/29/93	"	812	0.25	Review [illegible] Engineer
				[illegible] thought I had made it
				[illegible]
8/16/93	"	815	1	Review briefly 7/15/94 PSA,
				discussed w/ Liz C
3/1/95	"	815	2	Review 12/94 OMR & Draft Letter
9/19/95	"	"	0.1	Check status w/ Liz C

TELEPHONE CONVERSATION

DATE 8/16/94 TIME _____ PHONE NO. (_____) _____

PERSON CALLING/CALLED Ken Price

AGENCY REPRESENTED E2C

CONVERSATION Discussed their proposal. I said I would like to have a better estimate for when they could start excavation (proposal on phone as winter). I could only see delay beyond two months if additional soil investigation was performed to facilitate excavation. I would probably rather see SVE before waiting until December for excavation. Primary reason for not delaying excavation is because Migration Control in groundwater will be necessary soon, but would have to wait for excavation work to be completed. Need to complete 12. Hydro punch it to locate wells. I will also want to see proposal for MC after further delineation. I will draft letter after he gets back to me.

Santa Clara Valley Water District

FC 817 (01-27-92)

CT
(Initials)

TELEPHONE CONVERSATION

DATE 2/16/93 TIME _____ PHONE NO. (_____)

PERSON CALLING/CALLED Bill Klein

AGENCY REPRESENTED Attorney for Wehner

CONVERSATION P.H. Wehner ~~A~~ est recovery

P.H. Wehner - terminal Prosight

PH Wehner Trust land operator property owner.

Bill Klein will inform PH Wehner of current/last recovery

Bill wants to discuss the letter my review before letter.

Santa Clara Valley Water District

TC 817 (01 27-92)

(Initials)

QUARTERLY GROUNDWATER MONITORING
SECOND QUARTER 1999
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
MR. RICHARD H. WEHNER
May 27, 1999

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

May 27, 1999
Job Number 5850100

Mr. Richard H. Wehner
18876 Masson Terrace Court
Saratoga, CA 95070

SUBJECT: GROUNDWATER MONITORING REPORT – SECOND QUARTER 1999
390 Martin Avenue
Santa Clara, California

Dear Mr. Wehner:

E_2C, Inc. presents herein the results of groundwater sampling conducted at the above-referenced site (see Figure 1). The scope of work performed consisted of the sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow direction.

GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring well MW-2 on April 12, 1999 and MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on May 7, 1999.

Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were collected until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, groundwater samples were collected using bailers. Sample material (e.g., preservative) was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport, accompanied by proper chain-of-custody documentation, to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory (DOHS Certification #2224). The samples collected from MW-2 on April

12, 1999, were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 8015 Modified and 8020, respectively. The groundwater samples collected from MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on May 7, 1999, were analyzed for TPHg, TPHd, MTBE, and BTEX using EPA Test Methods 8015 Modified and 8020, respectively.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses are presented in Table 1 and on Figure 2. Laboratory reports are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1, MW-2, MW-3, MW-4, and MW-5, which correspond to mean sea level benchmark datum, are shown in Table 2, and groundwater gradient and flow direction information is presented in Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

E_2C, Inc.

REGISTERED ENVIRONMENTAL ASSESSOR
MATTHEW G. WOLFINGER
No. 04381
Expires: 6/99
STATE OF CALIFORNIA

Matthew G. Wolfinger, REA
Director of Environmental, Health & Safety

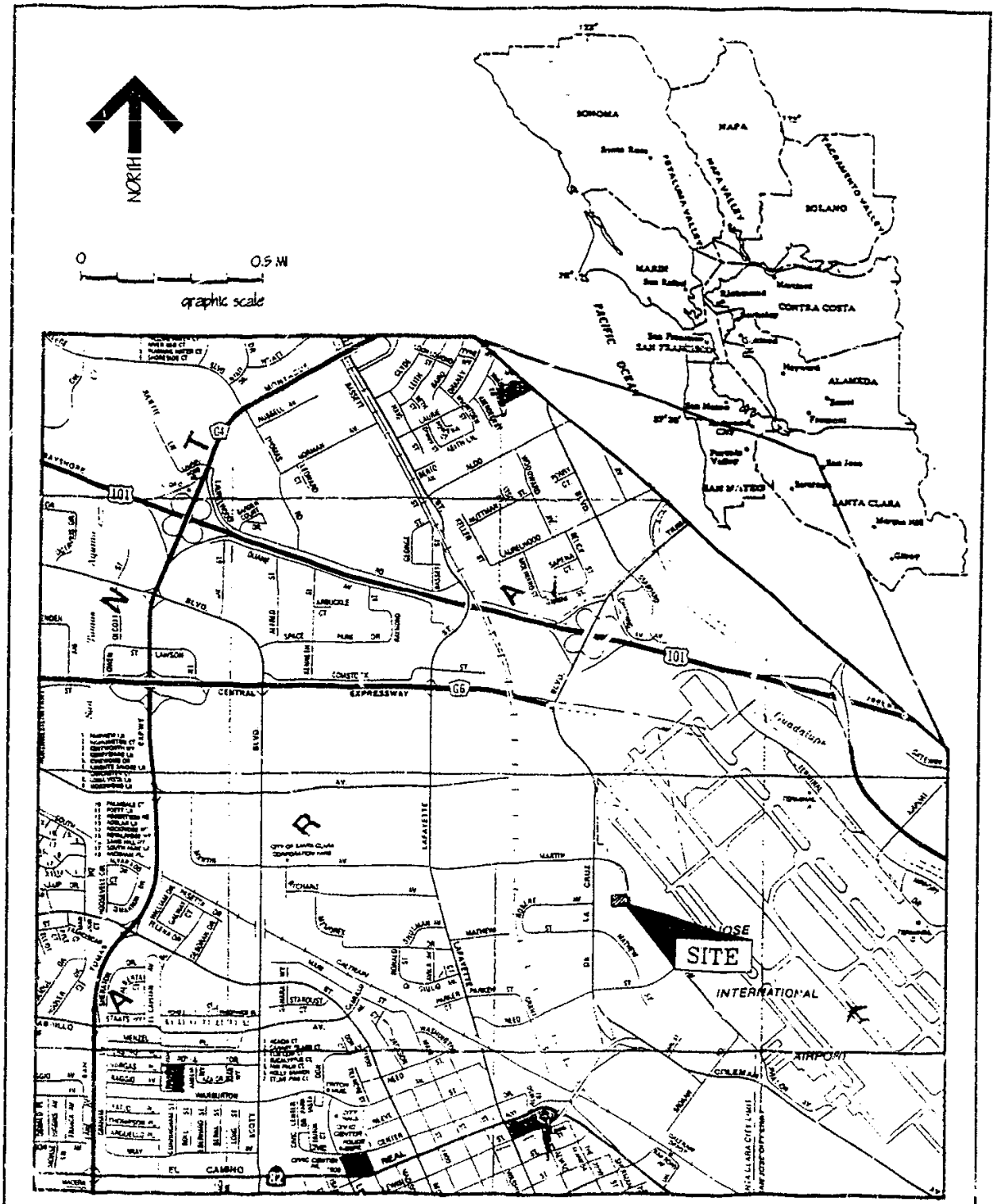
Kendall W. Price, CEG/REA
President

c:\gwmrpts\5850100 2nd qt.99.doc

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch



FIGURES AND TABLES



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 585010C FIGURE 1 DRAWN BY: C. ZARICH APPROVED BY: K. PRICE

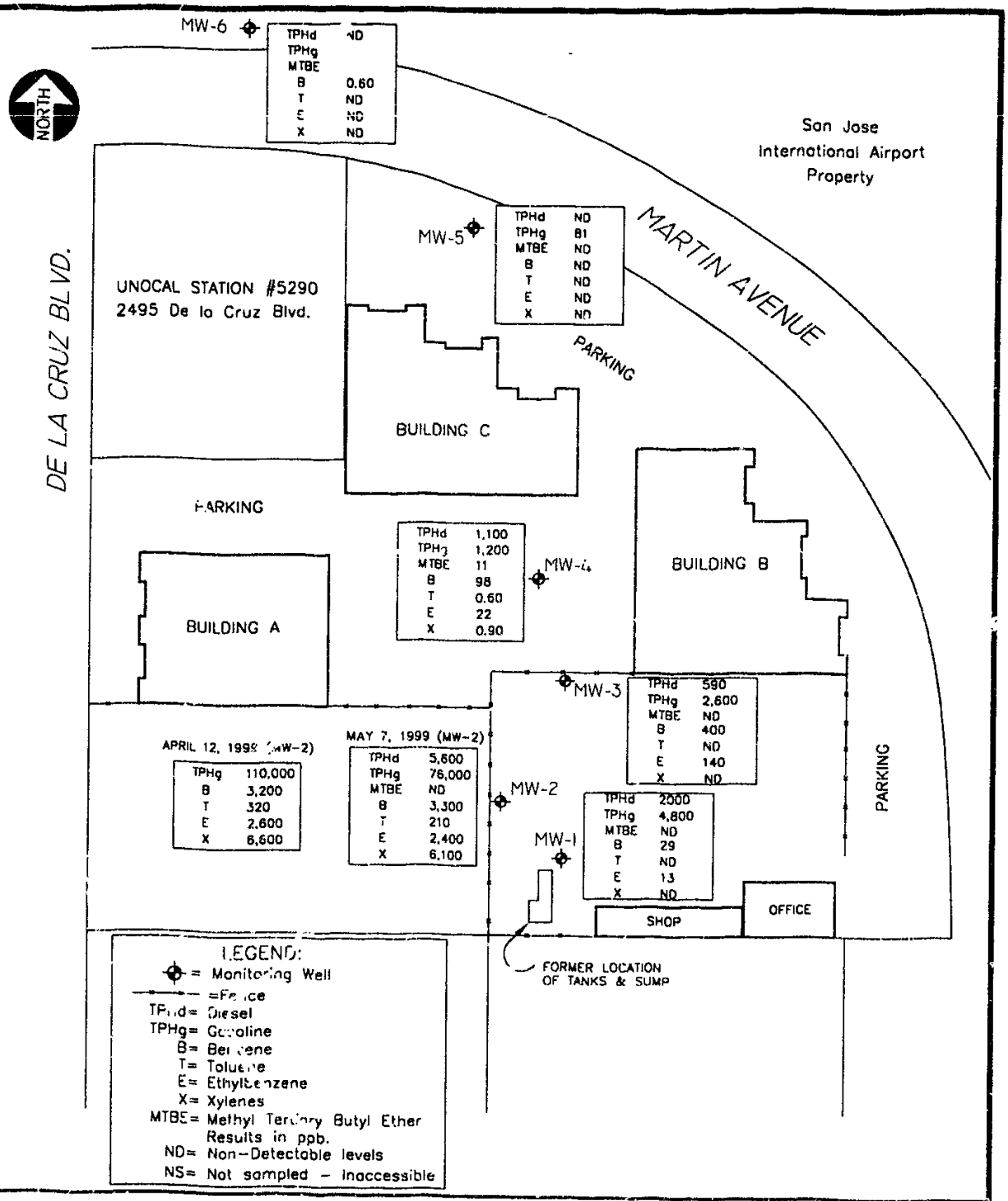


FIGURE 2 - SITE PLAN

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	04 and 05/07/99 390 MARTIN AVENUE Santa Clara, California	Project Number 5850100	MAY 1999

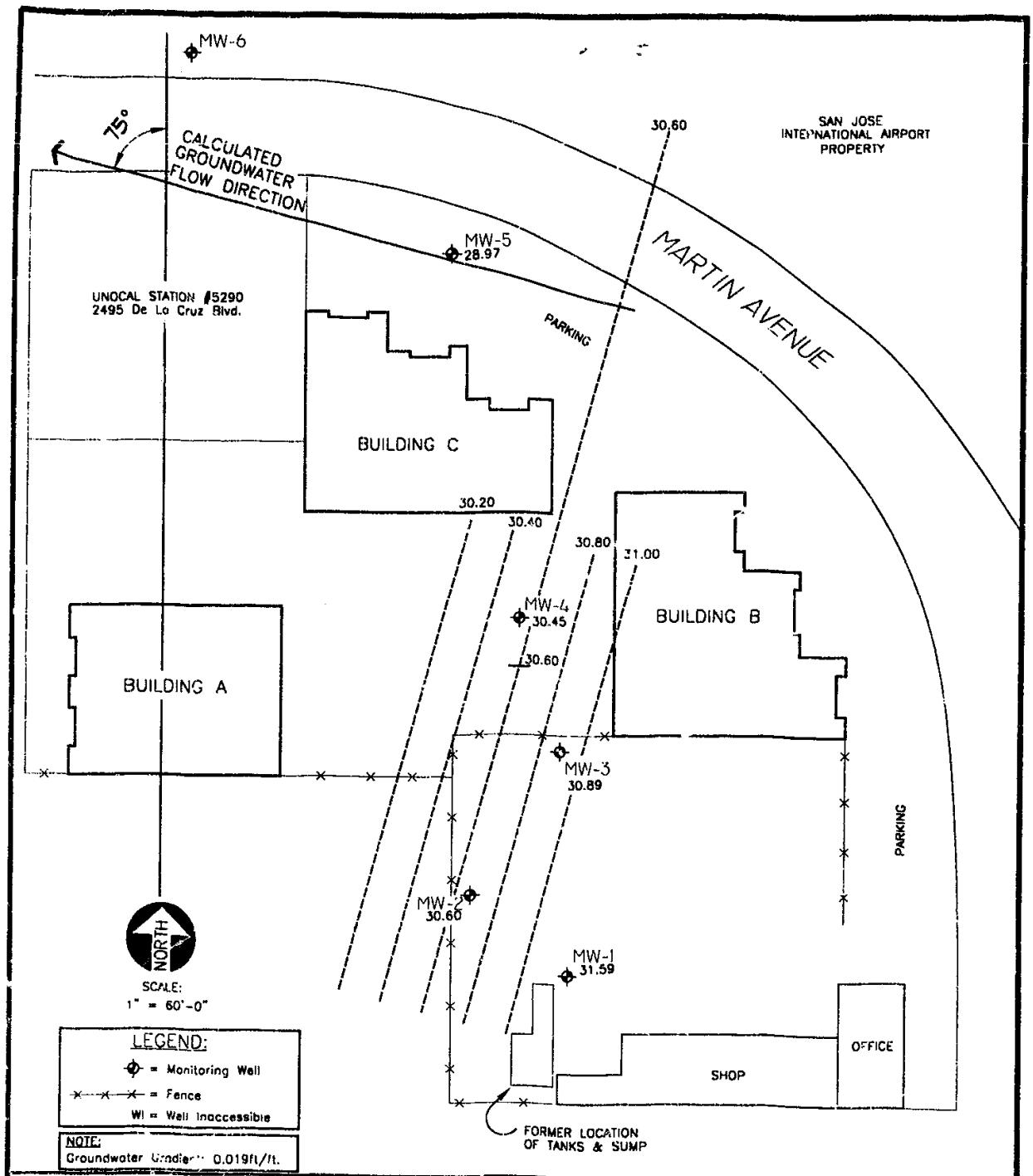


FIGURE 3 - GROUNDWATER GRADIENT CONTOUR MAP Corrected

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 MARTIN AVENUE Santa Clara, California	Project Number 5550100	May 1999

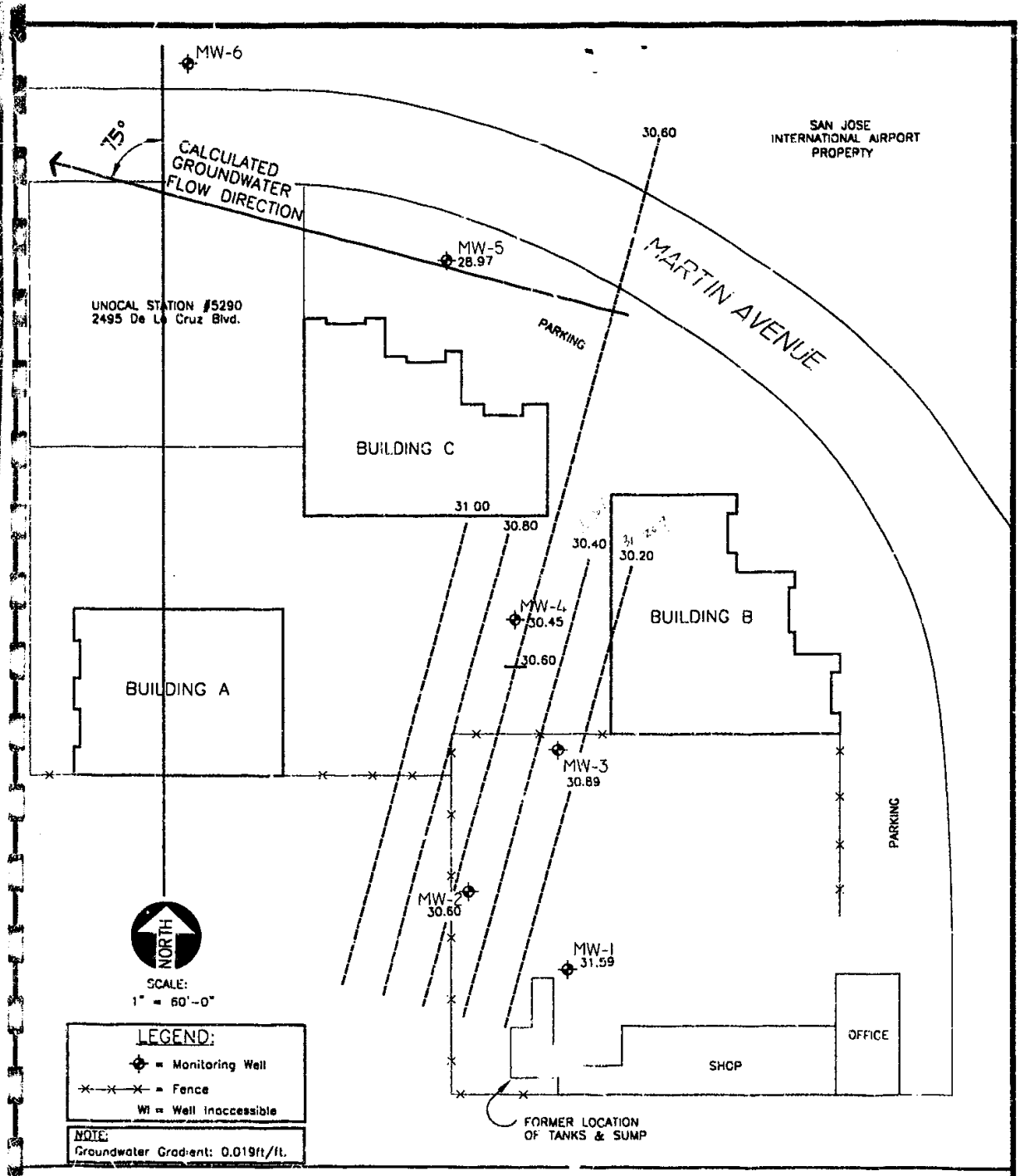


FIGURE 3 - GROUNDWATER GRADIENT CONTOUR MAP

Environmental/Engineering Consultants Civic Center Tower [illegible] North First Street, Suite 500 San Jose, CA 95112	Project Location 390 MARTIN AVENUE Santa Clara, California	Project Number 6850100	May 1999

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	8.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter – June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter – August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	81	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter – November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter – February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,800	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter – May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.3	527	7.2	82	29	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TEPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	< 0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	.660	<5.0	5.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	7	1,500	200	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	--	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	3.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	9.0	43	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	2,600	6,100	530	---	--	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 – CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – February 14, 1997																
MW-1	0.530	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	<.5	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	30	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	280	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.68	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.8F	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	5.1	---	5.0	77	10	29	13	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	93	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTbE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – April 7, 1998																
MW-1	<.05	--	3.2	44	<0.5	15	3.2	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	65	<.05	(9.8)	---	---	<0.5	---	---	---	---	---
MW-4	0.63	---	5.9	220	<0.5	140	<0.5	(28)	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	1.6	(5.4)	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<0.05	1.3	0.71	<0.5	<0.5	(5.2)	---	---	<0.5	---	---	---	---	---
Second Quarter - June 29, 1998																
MW-1	<0.05	---	3.0	97	4.8	15	7.3	200	---	---	---	---	---	---	---	---
MW-2	<0.05	---	42.0	2,000	98	2,000	3,800	1,200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	280	10	[illegible]	---	---	---	---	---	---	---	---
MW-4	<0.05	---	6.4	160	<0.5	87	6.6	270	---	---	---	---	---	---	---	---
MW-5	<0.05	---	.053	<0.5	<0.5	<0.5	<0.5	10	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	28	---	---	---	---	---	---	---	---
Third Quarter – September 16, 1998																
MW-1	<50	---	5.9	100	<0.5	15	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	1,000	---	150	300	340	2,000	3,700	640 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.3	670	<0.5	280	8.6	73 (<50)	---	---	---	---	---	---	---	---
MW-4	<50	---	7.4	280	1.4	150	26	130 (<50)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	40 (61)	---	---	---	---	---	---	---	---
Fourth Quarter – November 4, 1998																
MW-1	<50	---	6.6	20	2.9	7.4	5.8	24 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	62	3,700	140	2,400	2,200	<500	---	---	---	---	---	---	---	---
MW-3	<50	---	8.8	610	2.6	400	5.2	31 (<2.5)	---	---	---	---	---	---	---	---
MW-4	<50	---	9.7	230	<2.5	100	5.8	84 (<25)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---

TABLE 1 – CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro Form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	[illegible] ug/l	Freon ug/l
November 30, 1995																
MW-1	350	---	99	76	3.8	15	4.5	53 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	310	2,80J	210	2,700	3,300	1,000 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.4	360	3.1	150	9.6	55 (23)	---	---	---	---	---	---	---	---
MW-4	320	---	8.4	520	43	290	240	150 (31)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	0.57	<0.5	<0.5	<0.5	6.1	---	---	---	---	---	---	---	---
First Quarter - February 4 and 10, 1999																
MW-1	<50	---	1.8	21	4.4	110	26	23	---	---	---	---	---	---	---	---
MW-2	<50	---	15	4,500	220	3,100	6,500	80	---	---	---	---	---	---	---	---
MW-3	NS	---	NS	NS	NS	NS	NS	NS	---	---	---	---	---	---	---	---
MW-4	<50	---	4.3	99	0.83	37	1.8	28	---	---	---	---	---	---	---	---
MW-5	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*
Second Quarter - April 12, 1999 (MW-2 Only)																
MW-2	---	---	110	3,200	320	2,600	6,600	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*
Second Quarter - May 7, 1999 (All Wells)																
MW-1	2.0	---	4.8	23	<5.0	13	<5.0	<50	---	---	---	---	---	---	---	---
MW-2	5.6	---	78	3,300	210	2,400	6,100	<500	---	---	---	---	---	---	---	---
MW-3	0.59	---	2.6	400	<5.0	140	<2.5	<25	---	---	---	---	---	---	---	---
MW-4	1.10	---	1.2	99	0.60	22	0.90	11	---	---	---	---	---	---	---	---
MW-5	<50	---	0.091	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	0.070	0.60	<0.5	<0.5	<0.5	36	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Corrected.

SEP 4 1957

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro Form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
November 30, 1998																
MW-1	350	---	99	78	3.8	15	4.5	53 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	310	2,800	210	2,730	3,900	1,000 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.4	360	3.1	150	9.6	55 (23)	---	---	---	---	---	---	---	---
MW-4	320	---	8.4	520	43	290	240	150 (31)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	0.57	<0.5	<0.5	<0.5	6.6	---	---	---	---	---	---	---	---
First Quarter - February 4 and 10, 1999																
MW-1	<50	---	1.8	21	4.4	110	26	23	---	---	---	---	---	---	---	---
MW-2	<50	---	15	4,500	220	3,100	8,500	60	---	---	---	---	---	---	---	---
MW-3	NS	---	NS	NS	NS	NS	NS	NS	---	---	---	---	---	---	---	---
MW-4	<50	---	4.3	99	0.83	37	1.8	28	---	---	---	---	---	---	---	---
MW-5	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*
Second Quarter - April 12, 1999 (MW-2 Only)																
MW-2	---	---	110	3,200	320	2,600	6,600	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*
Second Quarter - May 7, 1999 (All Wells)																
MW-1	2.6	---	4.8	29	<5.0	13	<5.0	<50	---	---	---	---	---	---	---	---
MW-2	5.5	---	76	3,300	210	2,400	6,100	<500	---	---	---	---	---	---	---	---
MW-3	0.59	---	2.8	430	<5.0	140	<2.5	<25	---	---	---	---	---	---	---	---
MW-4	1.0	---	1.2	98	0.50	22	0.90	11	---	---	---	---	---	---	---	---
MW-5	<50	---	0.051	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	0.076	0.60	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE	=	Tetrachloroethene	---	=	Samples not analyzed for these analytes.
1,1-DCA	=	1,1-Dichloroethane	TCE	=	Trichloroethene
1,2-DCA	=	1,2-Dichloroethane	Freon	=	Trichlorofluoromethane
1,1-DCE	=	1,1-Dichloroethene	MCLs	=	Maximum Contaminant Levels for drinking water.
Meth	=	Methylene Chloride	NE	=	MCLs have not been established for these compounds.
MTBE	=	Methyl Tertiary Butyl Ether	( )	=	Results of verification analyses for MTBE using EPA Test Method 8240 or 8260.
NE	=	Not Sampled – Inaccessible			

TABLE 2
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.23'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.75'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 2 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.65'	30.72'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		
4/7/98	MW-1	Unknown	Unknown	20.55"	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

TABLE 2 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
6/25/98	MW-1	Unknown	Unknown	2[illegible].51'	38.89'	7.63'	31.[illegible]3'	Northeast	0.011
	MW-2	18'	8'-18'	16.97'	39.28'	8.22'	31.06'		
	MW-3	18'	8'-18'	17.83'	39.35'	8.65'	30.70'		
	MW-4	20'	7'-20'	18.74'	37.37'	7.06'	30.31'		
	MW-5	20'	5'-20'	18.77'	36.98'	8.13'	28.85'		
	MW-6	20'	5'-20'	19.79'	---	9.47'	---		
9/16/98	MW-1	20'	Unknown	20.15'	38.89'	8.05'	30.84'	North - NW	0.004
	MW-2	16'	8'-18'	15.90'	39.28'	8.75'	30.53'		
	MW-3	17'	8'-18'	17.35'	39.35'	9.05'	30.30'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.28'	30.09'		
	MW-5	19'	5'-20'	18.75'	36.98'	8.50'	28.48'		
	MW-6	17'	5'-20'	17.46'	---	9.71	---		
11/4/98	MW-1	20'	Unknown	20.21	38.89'	7.93'	30.96'	North - NW	0.004
	MW-2	16'	8'-18'	1[illegible]8'	39.28'	8.60'	30.68'		
	MW-3	17'	8'-18'	17.24	39.35'	8.94'	30.41'		
	MW-4	19'	7'-20'	18.89'	37.37'	7.22'	30.15'		
	MW-5	19'	5'-20'	18.78'	36.98'	8.39'	28.59'		
	MW-6	17'	5'-20'	17.50	---	9.80'	---		

TABLE 2 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/30/98	MW-1	20'	Unknown	20.15'	38.89'	7.69	31.20'	North - NW	0.004
	MW-2	16'	8'-18'	16.89'	39.28'	8.29'	30.99'		
	MW-3	17'	8'-18'	17.36'	39.35'	8.75'	30.60'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.00'	30.37'		
	MW-5	19'	5'-20'	18.76'	36.98'	8.00'	28.98'		
	MW-6	17'	5'-20'	17.47'	---	9.28'	---		
2/4/99	MW-1	20'	Unknown	20.38'	38.89'	7.40'	31.49'	North - NW	0.008
	MW-2	16'	8'-18'	15.89'	39.28'	8.00'	31.28'		
	MW-3	17'	8'-18'	WI	39.35'	WI	WI		
	MW-4	19'	7'-20'	18.87'	37.37'	6.93'	30.44'		
	MW-5	19'	5'-20'	18.78'	36.98'	7.98'	29.00'		
	MW-6	17'	5'-20'	17.50'	---	9.35'	---		
5/7/99	MW-1	20'	Unknown	20.38'	38.89'	7.30'	31.59'	Northwest	0.019
	MW-2	16'	8'-18'	15.89'	39.28'	8.68'	30.60'		
	MW-3	17'	8'-18'	WI	39.35'	8.46'	30.89'		
	MW-4	19'	7'-20'	18.87'	37.37'	6.92'	30.45'		
	MW-5	19'	5'-20'	18.78'	36.98'	8.01'	28.97'		
	MW-6	17'	5'-20'	17.50'	---	9.35'	---		

Not used in second quarter 1999

TABLE 2 - BIOLOGICAL PARAMETERS

Sample No.	Date	Dissolved Oxygen mg/l	ORP mV	Alkalinity mg/l	Ferrous Iron mg/l	Nitrate mg/l	Sulfate mg/l
MW-1	4/7/98	1.3	36	440	<0.01	0.21	300
	6/29/98	1.6	214	440	0.27	<0.10	290
	9/16/98	0.6	-170	450	<0.05	<0.10	340
	11/4/98	0.7	129	410	<0.01	<0.10	350
	11/30/98	0.6	-34	--	---	---	---
MW-2	4/7/98	1.7	122	620	<0.01	0.33	190
	6/29/98	1.9	211	730	<0.01	<0.10	150
	9/16/98	0.7	-169	730	<0.05	<0.10	120
	11/4/98	0.8	95	640	<0.01	<0.10	<0.10
	11/30/98	0.5	-51	---	---	---	---
MW-3	4/7/98	1.5	64	600	<0.01	<0.10	90
	6/29/98	1.7	223	640	0.27	<0.10	80
	9/16/98	1.3	-187	650	<0.05	<0.10	48
	11/4/98	3.0	150	580	<0.01	<0.10	<0.10
	11/30/98	1.2	-25	---	---	---	---
MW-4	4/7/98	1.3	6	680	<0.01	<0.10	31
	6/29/98	1.3	233	650	<0.01	<0.10	38
	9/16/98	0.5	-146	700	<0.05	<0.10	27
	11/4/98	1.2	-10	240	<0.01	<0.10	<0.10
	11/30/98	0.4	-119	---	---	---	---

TABLE 2 CONTINUED - BIOLOGICAL PARAMETERS							
Sample No.	Date	Dissolved Oxygen mg/l	ORP m/V	Alkalinity mg/l	Ferrous Iron mg/l	Nitrate mg/l	Sulfate mg/l
MW-5	4/7/98	1.5	186	520	<0.01	<0.10	420
	6/29/98	1.6	184	530	<0.01	<0.10	490
	9/16/98	2.2	-134	520	<0.05	<0.10	500
	11/4/98	0.7	177	460	<0.01	<0.10	450
	11/30/98	1.7	46	---	---	---	---
MW-6	4/7/98	2.8	230	500	<0.01	3.3	520
	6/29/98	1.8	164	640	<0.01	0.94	420
	9/16/98	1.3	-122	680	<0.05	<0.10	430
	11/4/98	2.1	207	500	<0.01	<0.10	400
	11/30/98	1.6	190	---	---	---	---

APPENDIX A
WELL MONITORING DATA SHEETS

WELL GAUGING DATA

Project # 990412-21 Date 4-12-99 Client E2C HOPKINS & CARLEY 390, 405-416 MARTIN. SANTA CLARA

Site

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-2	2					8.10	15.90	TOC	

WELL MONITORING DATA SHEET

Project #: 990412-21	Client: E & C
Sampler: JR	Start Date: 4-12-99
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 15.90	Depth to Water: 8.10
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer ✓ Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer ✓ Disposable Bailer; Extraction Port; Other: ___

1.2 (Gals.) X 3 = 3.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
845	62.0	7.7	1459	7200	1.25	grey, odor, sheen
847	63.4	7.7	1380	7200	2.5	
850	63.3	7.7	1421	7200	3.75	

Did well dewater? Yes (No) Gallons actually evacuated: 3.75

Sampling Time: 852 Sampling Date: 4-12-99

Sample I.D.: MW-2 Laboratory: Enech

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL GAUGING DATA

Project # 030807-K1 Date 5/11/09 Client E2C

Site 390 Martin Ave San Jose

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
mw-1	2					7.30	20.55 JJ	TOC	
mw-2	2					8.68	19.71 JJ		
mw-3	2					8.46	17.45		
mw-4	2					6.92	18.34 JJ		
mw-5	2					8.01	18.35 JJ		
mw-6	3/4					9.35	18.19 JJ		

WELL MONITORING DATA SHEET

Project #: 990-.06-K1	Client: E2C
Sampler: Mark	Start Date: 5/6/99
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 20.55	Depth to Water: 7.30
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer✓ / Disposable Bailer / Extraction Port / Other: ___

7.1 (Gals.) X 3 = 6.3 Gals.
1 Case Volume × Specified Volumes = Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1018	69.5	7.0	1267	>200	2.25	grey turbid
1021	69.7	7.0	1236	>200	4.5	odor
1025	70.1	7.0	1238	>200	6.5	
						DTW= 7.75

Did well dewater? Yes (No)		Gallons actually evacuated: 6.5	
Sampling Time: 1030		Sampling Date: 5/6/99	
Sample I.D.: MW-1		Laboratory: Entech	
Analyzed for: ~~TPH-G~~ BTEX MTBE (TPH-D)		Other:	
Equipment Blank I.D.:	@ Time	Duplicate I.D.:	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other:	
D.O. (if req'd):	Pre-purge: mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge: mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990906-K1	Client: [illegible]
Sampler: Mark	Start Date: 8/16/99
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 15.71	Depth to Water: 8.68
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer✓ / Disposable Bailer / Extraction Port / Other: ___

1.1 (Gals.) X 3 = 3.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1127	71.2	7.8	1336	>200	1.25	grey, turbid
1129	69.1	7.7	1313	>200	2.5	strong odor
1130	68.4	7.7	1307	>200	3.5	
						DTW: 8.94

Did well dewater? Yes (No) Gallons actually evacuated: 3.5

Sampling Time: 1140 Sampling Date: 8/16/99

Sample I.D.: MW-2 Laboratory: Entech

Analyzed for: ~~TPH-G~~ BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990506-K1	Client: E.C
Sampler: Mark	Start Date: 5/6/99
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.45	Depth to Water: 8.46
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer✓ Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: ___

Sampling Method: Bailer✓ Disposable Bailer Extraction Port Other: ___

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

1.1 (Gals.) X 3 = 3.2 Gals.
1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1110	68.8	7.4	1251	>200	1.5	grey turb.
1112	68.6	7.3	1258	>200	3.0	odor
1114	69.4	7.3	1245	>200	4.25	
						DTW = 8.91

Did well dewater? Yes (No) Gallons actually evacuated: 4.25

Sampling Time: 1120 Sampling Date: 5/6/99

Sample I.D.: MW-3 Laboratory: Entech

Analyzed for: ~~TPH-G~~ BTEX MTBE ~~TPH-D~~ Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990936-K1	Client: E2C
Sampler: Mark	Start Date: 5/6/99
Well I.D.: MW-4	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: 12.34	Depth to Water: 6.92
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer✓ / Disposable Bailer / Extraction Port / Other: ___

1.8 (Gals.) X 3 = 5.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1045	73.8	6.8	1239	>200	2	gray turbid
1048	71.7	6.8	1257	>200	4	silt
1052	69.9	6.9	1273	>200	5.5	
	DTW					DTW = 6.93

Did well dewater? Yes (No) Gallons actually evacuated: 5.5

Sampling Time: 1100 Sampling Date: 5/6/99

Sample I.D.: MW-4 Laboratory: Entech

Analyzed for: ~~TPH-G~~ BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990906-K1	Client: E2C
Sampler: Mark	Start Date: 5/6/99
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth. 18.35	Depth to Water: 8.01
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer× / Disposable Baile. / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer✓ / Disposable Bailer / Extraction Port / Other: ___

1 Case Volume	Specified Volumes	Calculated Volume
1.7 (Gals.) X	3	= 5.1 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
951	69.2	7.0	1542	>200	1.75	turbid, brown
953	68.7	7.1	1519	>200	3.50	
955	68.0	7.1	1514	>200	5.25	
						DTW = 8.07

Did well dewater? Yes (No)	Gallons actually evacuated: 5.25
Sampling Time: 1305	Sampling Date: 5/6/99
Sample I.D.: MW-5	Laboratory: Entech
Analyzed for: (TPH-G BTEX MTBE TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
D.O. (if req'd): Pre-purge: mg/L	Post-purge: mg/L
ORP (if req'd): Pre-purge: mV	Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 990906-K1	Client: E2C
Sampler: Mark	Start Date: 9/6/99
Well I.D.: MW-6	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth: 12.19	Depth to Water: 9.35
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer x / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer x / Disposable Bailer / Extraction Port / Other: _____

0.2 (Gals.) X 3 = 6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	x Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
927	63.6	6.8	2080	>200	0.2	Brown + odor
933	67.1	6.8	1786	>200	0.4	
940	66.8	6.9	1669	>200	0.6	
						DTW = 9.57

Did well dewater? Yes (No)	Gallons actually evacuated: 0.6
Sampling Time: 945	Sampling Date: 9/6/99
Sample I.D.: MW-6	Laboratory: Entech
Analyzed for: ~~TPH-G~~ BTEX MTBE (TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B
LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 4/20/99
Date Received: 4/13/99
Project: 585-0100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW 2										
Sample Date	4/12/99										
Sample Time	8:52										
Lab #	G9186										
	Result	DF	DLR							PQL	Method
Results in µg/Liter:											
Analysis Date	4/16/99										
TPH-Gas	**110,000**	200	10000							50	8015M
Benzene	**3,200**	200	100							0.50	8020
Toluene	**320**	200	100							0.50	8020
Ethyl Benzene	**2,600**	200	100							0.50	8020
Xylenes (total)	**6,600**	200	100							0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

- Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

for
Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suit
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4990416
Matrix: Water
Units: µg/L

Date Analyzed: 04/16/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	40	99	40	101	1.6	25	83-108
Toluene	8020	<0.50	40	ND	39	98	45	114	14.7	25	68-116
Ethyl Benzene	8020	<0.50	40	ND	40	99	45	112	11.6	25	88-115
Xylenes	8020	<0.50	120	ND	118	98	125	104	6	25	84-109
Gasoline	8015	<50.0	500	ND	593	119	523	105	12.6	25	73-129

Note: LCS and LCSD results reported for the following Parameters:
All

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #990412-21

CLIENT E2C

SITE Hopkins & Carley
390 Martin Ave
Santa Clara, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to
E2C
Attn: Brenda McNabb
Proj # 505-0100

SAMPLE I.D.	Date	Time	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C	TPH-G	BTEX	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2	4-12	852	W	3		X	X				
G9186											

SAMPLING COMPLETED DATE 4/12/99 TIME 855

SAMPLING PERFORMED BY Jason

RESULTS NEEDED NO LATER THAN "1 WEEK TAT"

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	4/13/99	1455	S. McClure	4-13-99	3:00
S. McClure	4/13/99	3:37	[signature]	4/13/99	3:40 pm
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

WELL HEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client E2C

Site address HOPKINS & CARLEY 390, 406-416 MARTIN, SANTA CLARA

Inspection date: 4-12-99

Inspected by: GR

BTS Event # 990412-2L

1. Lid on the box? Yes No	5. Water standing in the well box?	7. Can cap be pulled loose?
2. Lid whole?	5a. Standing above well top?	8. Can cap seal out water?
3. Lid secure?	5b. Standing below well top?	9. Padlock present?
4. Lid seal intact?	5c. Water even with top of well cap?	10. Padlock found locked?
	6. Well cap/plug present?	11. Padlock functional?

☐ Check box if *no deficiences* were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken
*MW-2	Cap not on well when arrived in bottom of well box	re-secured cap to well

Note below all deficiences that could not be corrected and *still need to be corrected.*

Well I.D.	Persisting Deficiency

BTS Office assigns or defers Correction to:	Date assigned	Date corrected

Office review and assignments made by _____ date _____

Blaine Tech Services, Inc. File WELLCHK.s

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 5/10/99
Date Received: 5/7/99
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-2										
Sample Date	5/7/99										
Sample Time	11:40										
Lab #	G10742										
	Result	DF	DLR							PQL	Method
Results in µg/Liter:											
Analysis Date	5/7/99										
TPH-Diesel	**5,600** [x]	1.0	50							50	8015M
Analysis Date	5/7/99										
TPH-Gas	**76,000**	100	5000							50	8015M
MTBE	**ND**	100	500							5.0	8020
Benzene	**3,300**	100	50							0.50	8020
Toluene	**210**	100	50							0.50	8020
Ethyl Benzene	**2,400**	100	50							0.50	8020
Xylenes (total)	**6,100**	100	50							0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

[x] Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 5/14/99
Date Received: 5/7/99
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-3			MW-4				
Sample Date	5/7/99			5/7/99			5/7/99				
Sample Time	10:30			11:20			11:00				
Lab #	G10743			G10744			G10745				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	5/11/99			5/11/99			5/11/99				
TPH-Diesel	**2,000** [x]	1.0	50	**590** [x]	1.0	50	**1,100** [x]	1.0	50	50	8015M
Analysis Date	5/13/99			5/13/99			5/14/99				
TPH-Gas	**4,800**	10	500	**2,600**	5.0	250	**1,200**	1.0	50	50	8015M
MTBE	**ND**	10	50	**ND**	5.0	25	**11**	1.0	5.0	5.0	8020
Benzene	**29**	10	5.0	**400**	5.0	2.5	**98**	1.0	0.50	0.50	8020
Toluene	**ND**	10	5.0	**ND**	5.0	2.5	**0.60**	1.0	0.50	0.50	8020
Ethyl Benzene	**13**	10	5.0	**140**	5.0	2.5	**22**	1.0	0.50	0.50	8020
Xylenes (total)	**ND**	10	5.0	**ND**	5.0	2.5	**0.90**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# I-2346

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E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 5/14/99
Date Received: 5/7/99
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-5			MW-6							
Sample Date	5/7/99			5/7/99							
Sample Time	10:05			9:45							
Lab #	G10746			G10747							
	Result	DF	DLR	Result	DF	DLR				PQL	Method
Results in µg/Liter:											
Analysis Date	5/11/99			5/11/99							
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50				50	8015M
Analysis Date	5/13/99			5/13/99							
TPH-Gas	**81**	1.0	50	**70**	1.0	50				50	8015M
MTBE	**ND**	1.0	5.0	**36**	1.0	5.0				5.0	8020
Benzene	**ND**	1.0	0.50	**0.60**	1.0	0.50				0.50	8020
Toluene	**ND**	1.0	0.50	**ND**	1.0	0.50				0.50	8020
Ethyl Benzene	**ND**	1.0	0.50	**ND**	1.0	0.50				0.50	8020
Xylenes (total)	**ND**	1.0	0.50	**ND**	1.0	0.50				0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1-2346

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STANDARD LAB QUALIFIERS
July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW990502
Matrix: Water
Units: µg/L

Date analyzed: 05/05/99
Date extracted: 05/0[illegible]99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	860	91	874	92	1.6	25	55-132

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW990504
Matrix: Water
Units: µg/L

Date analyzed: 05/11/99
Date extracted: 05/11/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	867	91	878	92	1.2	25	56-132

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4990506
Matrix: Water
Units: µg/L

Date Analyzed: 05/06/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP % R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	41	**102**	38	**96**	5.7	25	83-110
Toluene	8020	<0.50	40	ND	42	**104**	40	**99**	4.5	25	65-112
Ethyl Benzene	8020	<0.50	40	ND	40	**101**	39	**98**	2.8	25	82-110
Xylenes	8020	<0.50	120	ND	123	**102**	118	**98**	4	25	83-110
Gasoline	8015	<50.0	500	ND	503	**101**	492	**98**	2.2	25	74-127
aaa-TFT(S.S.)-PID	8020			92%	93%		96%				65-135
aaa-TFT(S.S.)-FID	8015			101%	94%		96%				65-135

Note: LCS and LCSD results reported for the following Parameters:
All

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2990512
Matrix: Water
Units: µg/L

Date Analyzed: 05/12/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD 30.83	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	4.5	ND	4.5	**100**	4.4	**98**	2.2	25	80-115
Toluene	8020	<0.50	25.0	ND	24.5	**98**	24.4	**98**	0.4	25	82-114
Ethyl Benzene	8020	<0.50	4.5	ND	4.8	**107**	4.7	**104**	2.1	25	80-118
Xylenes	8020	<0.50	25.0	ND	25.8	**103**	25.4	**102**	1.6	25	83-115
Gasoline	8015	<50.0	500	ND	547	**109**	551	**110**	0.7	25	75-125
aaa-TFT(S.S.)-PID	8020			103%	101%		102%				65-135
aaa-TFT(S.S.)-FID	8015			97%	97%		98%				65-135

Note. LCS and LCSD results reported for the following Parameters:
All

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2990513
Matrix: Water
Units: µg/L

Date Analyzed: 05/13/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD 30.83	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	4.5	ND	3.9	**87**	4.4	**98**	12.0	25	80-115
Toluene	8020	<0.50	25.0	ND	20.9	**84**	23.8	**95**	13.0	25	82-114
Ethyl Benzene	8020	<0.50	4.5	ND	4.1	**91**	4.7	**104**	13.6	25	80-118
Xylenes	8020	<0.50	25.0	ND	22.2	**89**	25.3	**101**	13.1	25	83-115
Gasoline	8015	<50.0	500	ND	547	**109**	551	**110**	0.7	25	75-125
aaa-TFT(S.S.)-PID	8020			104%	102%		100%				65-135
aaa-TFT(S.S.)-FID	8015			98%	98%		100%				65-135

Note: LCS and LCSD results reported for the following Parameters:
All

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTJ # 990507-K

CLIENT E2C

SITE Hopkins / Carley
390 Martin Ave
Santa Clara, CA

SAMPLE I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-G/BTEX/MTBE (8015/8020)	TPH-DIESEL
MW-1	5/7/99	1030	W	5		X	X
MW-2		1140		5			
MW-3		1120		5			
MW-4		1100		5			
MW-5		1005		5			
MW-6		945		4		X	X

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
Invoice & Report to: E2C
ATTN: BRENDA MCNABB
P.O. # 5850100
* MW-2 ON 24 hr TAT. ALL OTHERS ON NORMAL TAT.

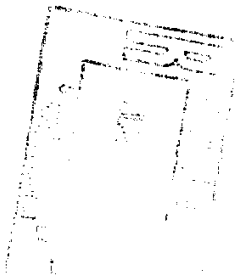
ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			G10743
			G10742
			G10744
			G10745
			G10746
			G10747

SAMPLING COMPLETED DATE 5/7/99 TIME 1140
SAMPLING PERFORMED BY Mark Spandler

RESULTS NEEDED NO LATER THAN MW-2 ON 24 hr TAT. - ALL OTHERS ON NORMAL TAT

	DATE	TIME		DATE	TIME
RELEASED BY	5/7/99	1255	RECEIVED BY	5/7/99	1255
RELEASED BY			RECEIVED BY		
RELEASED BY			RECEIVED BY		

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	



Richard Wehner Const Co

CORRECTIVE ACTION PLAN
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
March 24, 1999

For

Mr. Richard H. Wehner

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA

E2C INC.

Environmental/Engineering Consultants

March 24, 1999
Job Number 5850100

Mr. Richard H. Wehner
18876 Masson Terrace Court
Saratoga, CA 95070

SUBJECT: CORRECTIVE ACTION PLAN
390 Martin Avenue
Santa Clara, California

Dear Mr. Wehner:

E_2C, Inc. presents herein the results of the Corrective Action Plan (CAP) for the above-referenced petroleum fuel release site. The CAP was prepared in accordance with Santa Clara Valley Water District directives and guidelines.

The intent of the CAP is to define the extent of soil and groundwater contamination, and evaluate the optimal remedial action technology necessary to meet groundwater quality objectives.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

REGISTERED ENVIRONMENTAL ASSESSOR
BRENDA D. McNABB
No. 03818
Expires: 6/99
STATE OF CALIFORNIA

cc: Ms. Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

Civic Center Tower • 675 North First Street, Fifth Floor • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

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APPENDIX A	WELL SURVEY MAP
APPENDIX B	SUMMARY OF RESULTS FROM PREVIOUS INVESTIGATIONS

1.0 INTRODUCTION

E_2C, Inc. has prepared this Corrective Action Plan (CAP) for the Leaking Underground Storage Tank (LUST) site located at 390 Martin Avenue in Santa Clara, California. Due to the release of gasoline and diesel from four USTs that were removed in 1991, soil and groundwater beneath the Site is impacted with petroleum hydrocarbons.

1.1 Purpose

The intent of this CAP is as follows:

- Summarize the extent of soil and groundwater contamination.
- Establish groundwater cleanup goals.
- Evaluate the feasibility of various remedial technologies to meet the applicable groundwater cleanup goals; and
- Present this data within the acceptable format of a CAP, as determined by State guidelines.

2.0 CONCEPTUAL SITE MODEL

2.1 Site Description

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level and is located in Section 35 of Township 6 south, Range 1 west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The 0.75-acre subject property was most recently operated as the office, shop, and equipment yard of a concrete construction company. Currently, the site is unoccupied. Figure 2 shows the location of the existing buildings, the groundwater monitoring wells, and the former Underground Storage Tanks (USTs), which were removed from the site in 1991.

The subject site is located in an area zoned Light-Industrial. Light-industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

2.2 Historic Land Use Summary

According to historical aerial photographs, the Site was utilized for agricultural purposes (row crops) in 1954. An aerial photograph dated 1963 shows the site as vacant land that no longer appears to be used for agricultural purposes. Sometime between the mid-1960's and mid-1970's, the site was developed to its existing condition (office building, shop building, and partially paved yard). The developed site was occupied by a concrete construction company until approximately 1997, but is currently unoccupied.

2.3 Regional Geology

The site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas Fault Zone and the Santa Cruz Coastal Mountains, and on the northeast by the Calaveras Fault Zone, Hayward Fault Zone, and

the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas. Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. The alluvial material is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay (Helley & Lajoie, 1979).

2.4 Site Geology and Hydrogeology

The soil encountered during previous drilling operations consisted of slightly silty clays to an approximate depth of 12 feet, where a fine sand with some silt and clay is encountered. This material extends to a depth of approximately 18 feet, where the on-site borings for wells MW-1, MW-2, and MW-3 were terminated.

Lithology encountered during the advancement of probes for grab groundwater sampling and the drilling of wells MW-4 and MW-5, however, revealed sandy or silty clays to a depth of approximately 10 feet. This material is underlain by a fine, clayey sand that grades to a very gravely sand, which extends to a depth of at least 20 feet.

2.5 Groundwater Flow Direction

Groundwater gradient calculations have consistently shown throughout the monitoring period (1994 to present) that groundwater beneath the sites flows in a northerly direction with a variation of north-northeasterly to north-northwesterly. The most recent groundwater gradient calculation is north-northwesterly as depicted on Figure 3.

2.6 Former Fuel Tanks Located in the Site Area

The site is located in a commercial/industrial area where several upgradient sites have had fuel USTs. The closest former off-site UST

was located immediately beyond the southern property line of the subject site at 382 Martin Avenue (Chioini Property). A fuel UST was also located on the adjacent property to the west at 2433 De la Cruz (approximately 40 feet from shared property line). Other former upgradient fuel tank sites include Quality Fork Lift at 2375 De la Cruz and the commercial property located at 376 Martin Avenue. Releases of fuel to the groundwater have occurred at all of these nearby sites.

2.7 Well Survey

Information on the location of active, inactive, and destroyed water production wells in the area of the site was obtained through the SCVWD, Well Division on March 23, 1999. The results of the survey, which are depicted on the map presented in Appendix A, indicate that there are no active or inactive water production wells located within 1/4-mile downgradient of the site. Two active or inactive wells are located approximately 1,200 feet west (cross-gradient) and south (upgradient) of the site, respectively. One destroyed water well is located approximately 400 feet downgradient of the site. This well was discovered and destroyed in the summer of 1998.

Based on this well survey information, it appears that the groundwater contaminant plume from the subject site (estimated current length of 200 feet) does not pose a threat to existing, documented active or inactive water production wells.

3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

3.1 Underground Storage Tank Removals - May 1991

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the USTs for tank monitoring purposes. In 1989, operation of the tanks ceased, and the four USTs were removed in May of 1991. Soil samples collected from the UST excavation at the time of tank removal were found to contain up to 480 parts per million (ppm) Total Petroleum Hydrocarbons as diesel (TPHd), up to 1,500 ppm Total Petroleum Hydrocarbons as gasoline (TPHg), up to 5.5 ppm Benzene, and low to moderate concentrations of Toluene, Ethylbenzene, and Xylenes. A groundwater sample collected from the excavation was found to contain 14,000 parts per billion (ppb) TPHg, 38,000 ppb TPHd, 18,000 ppb Total Recoverable Petroleum Hydrocarbons (TRPH), and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation. Please refer to Appendix B for diagrams and tables that indicate the results of soil and groundwater sampling performed during this phase of investigation.

3.2 Preliminary Site Assessment - February 1994

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of groundwater monitoring wells MW-2 and MW-3 (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low to moderate levels of TPHd, TPHg, and BTEX, with the highest concentrations detected in soil samples collected from the 10-foot depth (capillary zone).

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32 to 81 ppm and TPHd levels from 0.08 to 120 ppm. Oil & Grease (O & G) was also detected in the groundwater samples at levels ranging from 20 to 317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site (see Figure 2). Please refer to the site diagrams and table presented in Appendix B,

which indicate the results of soil and groundwater sampling performed during this phase of investigation.

3.3 Remedial Investigation - May 1996

In a letter dated March 2, 1995, the SCVWD requested the performance of a Remedial Investigation (RI). The required investigation was performed in May of 1996 and consisted of the collection of 10 soil samples and four grab groundwater samples from the area surrounding the former UST excavation (reference E_2C, Inc. Remedial Investigation Report, dated June 18, 1996). The results of RI soil sampling indicated that limited soil impact existed in the immediate area (within 20 feet) of the former tank excavation. The maximum TRPH level was 250 ppm, the maximum TPHd was 30 ppm, the maximum TPHg was 7.2 ppm, and the maximum Benzene concentration was 0.038 ppm (Benzene present in only two of the 10 soil samples).

Grab groundwater sampling performed during the RI identified impacted groundwater to the north and west of the former tanks. The grab groundwater sampling also identified TPHg and BTEX to the south of the former USTs, indicating an upgradient off-site contribution to the on-site groundwater impact. Refer to Appendix B for diagrams depicting the results of this phase of investigation.

3.4 Groundwater Monitoring Well Installation - September 1996

In September of 1996, off-site groundwater monitoring well MW-4 was installed approximately 60 feet north of the northern property line of the subject site (reference E_2C, Inc. Well Installation Report, dated November 22, 1996). During initial sampling of well MW-4 in September of 1996, elevated levels of TPHg and related constituents were detected. Refer to Appendix B for diagrams depicting the results of this phase of investigation.

3.5 Continuing Groundwater Investigation - February 1997

Additional grab groundwater sampling and the installation of well MW-5 was conducted in January and February of 1997 (reference E_2C, Inc. Continuing Groundwater Investigation Report, dated March 24, 1997). During this investigation, the eastern and western edges of the plume were further defined, downgradient of the site. Due to the

elevated levels of contaminants detected in the grab groundwater sample collected adjacent to the Unocal service station, located at the corner of De la Cruz and Martin Avenue, further downgradient assessment was required in addition to evaluating the Unocal station as a possible source or co-contributor to the levels of contaminants detected in grab sample W-4 (please refer to diagrams in Appendix B).

3.6 Soil and Groundwater Investigation - January and June 1997

During this phase of investigation, six soil punch samples were collected within the former UST excavation to evaluate remaining levels of petroleum hydrocarbons within the tank pit backfill. In addition, two grab groundwater samples were collected using a GeoProbe sampling rig at locations immediately downgradient of the Unocal service station, and downgradient monitoring well MW-6 was installed (reference E_2C, Inc. Continuing Groundwater Investigation Report, dated July 24, 1997).

Soil samples collected from the former tank excavation were found to contain only low levels of TPHd (3.7 to 51 ppm), TPHg (non-detect to 1.3 ppm), Benzene (one sample at 0.0070 ppm), Ethylbenzene (non-detect to 0.057 ppm), and Xylenes (non-detect to 0.0087 ppm), thus indicating that remaining soil contaminant levels were low and do not represent a continuing source of groundwater contamination.

The two grab groundwater samples collected downgradient of the Unocal USTs were found to contain TPHg ranging from 720 to 48,000 ppb, up to 4,700 ppb TPHd, up to 99 ppb Benzene, and detectable levels of Toluene, Ethylbenzene, and Xylenes. A groundwater sample collected from MW-6 was found not to contain levels of contaminants above laboratory detection limits. Based on these results, E_2C, Inc. concluded that the groundwater plume associated with the subject site had been defined, and that the identified groundwater impact at locations along Martin Avenue to the north of the site likely originated from the Unocal service station.

3.7 Ongoing Quarterly Groundwater Monitoring Program

Petroleum hydrocarbon levels in the site groundwater have shown a decreasing trend over the monitoring period (February 1994 through February 1999). The decreasing trend for Benzene was shown on a graph presented in the Third Quarter Groundwater Monitoring Report

for 1997, dated August 29, 1997. A copy of this graph is presented in Appendix B, and historical groundwater monitoring well sampling results are presented in Table 1. As required by the SCVWD, Fuel Oxygenates analyses were performed in April of 1998. These analyses detected MTBE in wells MW-3 through MW-6, and tert-Butanol in well MW-4 (see Appendix B).

3.8 Enhanced Bioremediation

In a letter dated January 23, 1998, the State Underground Storage Tank Cleanup Fund approved funds associated with the installation of Oxygen Release Compound (ORC) at the subject site. ORC is a patented formulation of magnesium peroxide that slowly releases molecular oxygen when hydrated, enhancing aerobic contaminant biodegradation. On March 23, 1998, ORC was injected into the water-bearing zone in the areas of wells MW-2 and MW-3. Approximately 34 pounds of ORC slurry was injected within borings near well MW-2 and approximately 6 pounds of ORC slurry was injected within borings near well MW-4. The ORC was injected using a GeoProbe sampling rig at the injection points shown on the diagram presented in Appendix B. This remediation activity appears to be showing signs of enhancement to the natural progress of bioattenuation as shown in the decreasing levels of contaminants within these two wells (see Table 1).

3.9 Redevelopment of Wells MW-1 and MW-2

On February 10, 1999, wells MW-1 and MW-2 were redeveloped using a Middlebury pump and a surge block. This action was taken due to the turbidity of the water within these wells and in an effort to remove any accumulation of contamination from the well screens. The redevelopment also introduced groundwater into the wells from a larger radius than that which usually occurs during normal sampling operations. During redevelopment operations, approximately 46 and 17 gallons of groundwater were purged from wells MW-1 and MW-2, respectively.

Subsequent analyses of samples collected from the two wells in early February of 1999, revealed a significant decrease in contaminant levels from the November 1998 sampling. TPHg levels in well MW-1 decreased from 99,000 ppb to 1,800 ppb and Benzene levels decreased from 76 ppb to 21 ppb. TPHg levels in well MW-2

decreased from 310,000 ppb to 15,000 ppb. Benzene levels in well MW-2, however, went from 2,800 ppb to 4,500 ppb in well MW-2.

In addition to the decrease in redeveloped wells MW-1 and MW-2, contaminant levels also decreased in wells MW-4 and MW-6. Contaminant levels in well MW-5 remained at non-detect, and well MW-3 was inaccessible during this sampling event.

4.0 EXTENT OF SOIL AND GROUNDWATER IMPACT

4.1 Extent of Soil Impact

TPHd in Soil

The cumulative results of TPHd impact in soil are presented on Figure 4. These results indicate that the highest levels of TPHd (11 ppm at 5 feet and 270 ppm at 10 feet) were detected at the location of well MW-2 in 1994. Sampling conducted within the former tank excavation in 1997 revealed up to 51 ppm TPHd, while samples collected within 20 feet horizontal of the former excavation in 1996 were found to contain only 2.7 to 30 ppm TPHd.

TPHg in Soil

The cumulative results of TPHg impact to soil are presented on Figure 5. The levels of TPHg in soil were also highest at the location of well MW-2 in 1994 (70 ppm at 5 feet and 1,100 ppm at 10 feet). TPHg was also detected at levels of 26 ppm (5 feet) and 130 ppm (10 feet) at the location of well MW-3. Only very low levels of TPHg (1.2 to 7.2 ppm) were detected in samples collected to the north and east of the former tank excavation. Soil samples collected to the south and west of the former excavation, as well as samples collected from the center and northern portions of the former excavation, were not found to contain TPHg above laboratory detection limits. A concentration of 10 ppm TPHg was detected at a depth of 10 feet in the southernmost boring advanced within the former tank excavation.

Benzene in Soil

The cumulative results of Benzene impact to soil are presented on Figure 6. The highest levels of Benzene were also detected at the location of well MW-2 in 1994 (0.24 ppm at 5 feet and .99 ppm at 10 feet). Levels of Benzene below 1 ppm were also detected at the location of wells MW-3 and MW-4, and within and to the east of the former tank excavation. Benzene was not detected in soil samples collected to the south or west of the former tank excavation.

In summary, impact to soil from TPHd and TPHg extends an estimated 30 feet northeast, 100 feet northwest, and 170 feet north of the former USTs. Benzene impact to soil appears to be limited to the area around well MW-2, and the area within 30 feet to the northeast of the former tanks.

4.2 Extent of Groundwater Impact

The most recent results of groundwater sampling are presented on Figure 7 and in the E_2C, Inc. report entitled, "Groundwater Monitoring Report - First Quarter 1999", dated March 24, 1999. During the most recent sampling event in February of 1999, contaminants were not detected in downgradient wells MW-5 or MW-6. Moderate levels were detected in wells MW-2 and MW-4, and moderate to low levels were detected in well MW-1. Well MW-3 was not accessible.

In summary, the plume appears to extend an estimated 200 feet from the former on-site tanks. Based on the results of grab groundwater sampling performed in January of 1997, the plume shape is an elongated oval.

TPHg in Groundwater

The highest levels of groundwater contamination have historically been detected in well MW-2, followed by wells MW-1, MW-4, and MW-3, respectively. Prior to the most recent sampling of the wells on February 4 and 10, 1999, wells MW-1 and MW-2 were redeveloped as discussed in Subsection 3.9. This redevelopment resulted in a significant decrease in TPHg levels from November 1998 to February of 1999 (from 99,000 to 1,800 ppb in well MW-1 and from 310,000 to 15,000 ppb in well MW-2).

Benzene in Groundwater

The Benzene in well MW-1 also showed a significant decrease from 76 ppb in November of 1998 to 21 ppb in February of 1999. The level of Benzene in well MW-2, however, showed an increase from 2,800 to 4,500 ppb during the same time period.

MTBE in Groundwater

MTBE groundwater sample analytical results have been confirmed through the performance of EPA Test Methods 8240 or 8260 during four separate sampling events. These confirmation results are presented within parenthesis in Table 1. These results indicated that MTBE levels ranged from non-detected (detection limits ranging from 5.0 to 100 ppb) to a confirmed 61 ppb in well MW-6, which is located downgradient of the Unocal station. A concentration of 28 ppb MTBE was detected in well MW-4 during the first quarter of 1998, and 31 ppb was detected during the November 30, 1998 sampling of the well. These results confirm the highest levels of MTBE that can be attributed to the release of fuel from the site.

Based on the results of MTBE confirmation analyses, the SCVWD has not required that an MTBE study be performed.

Fuel Oxygenates in Groundwater

In accordance with SCVWD directives, samples from wells MW-1 through MW-6 were analyzed for Fuel Oxygenates in April of 1998. These analyses detected MTBE in wells MW-3 through MW-6, and tert-Butanol in well MW-4 only (see table in Appendix B).

5.0 INTRINSIC BIOREMEDIATION ANALYTE RESULTS

Based on recent well monitoring data, monitoring wells MW-1, MW-2, MW-3, and MW-4 are impacted with petroleum hydrocarbons, and downgradient wells MW-5 and MW-6 are not currently impacted with contaminants. Wells MW-5 and MW-6 are, therefore, considered to be representative of background conditions for this intrinsic bioremediation evaluation. Table 2 presents a cumulative summary of intrinsic bioremediation analytes measured in the monitoring wells during the First, Second, and Third Quarters of 1998.

Average dissolved oxygen (DO) concentrations and oxidation-reduction potential (ORP) values for the three groundwater monitoring events were lowest in the impacted wells, which indicates aerobic contaminant biodegradation. Average alkalinity levels were elevated in impacted wells MW-2, MW-3, and MW-4, compared to the background wells, MW-5 and MW-6. This is indicative of the production of carbon dioxide, the end product of aerobic biodegradation.

As groundwater DO concentrations decrease, the ORP decreases and alternate (anaerobic) terminal electron acceptors (TEAs), such as nitrate, ferric iron, and sulfate, are utilized by bacteria for hydrocarbon biodegradation. In addition to its function as a TEA, nitrate is also an essential microbial nutrient.

Nitrate levels were low in all of the wells except the background well MW-6. This indicates microbial utilization of nitrate as a TEA or nutrient for biodegradation. Sulfate levels were markedly low in the impacted wells compared to the background wells, thus, indicating that contaminant degradation through microbial reduction of sulfate is occurring in the impacted groundwater. Ferrous iron was only detected during the Second Quarter 1998 groundwater monitoring event in wells MW-1 and MW-3. This indicates that microbial reduction of ferric iron is occurring to a small extent in the impacted groundwater.

Petroleum hydrocarbon levels have generally shown a decreasing trend in the site groundwater; however, contaminant levels in MW-2 have fluctuated. Both aerobic and anaerobic biodegradation appear to be occurring in the site groundwater.

6.0 APPLICABLE SITE CLEANUP LEVELS

According to the State Water Resources Control Board (SWRQCB) Resolution No. 88-63, Sources of Drinking Water Policy, all waters are considered suitable for municipal or domestic water supply use except where Total Dissolved Solids exceed 3,000 mg/l, contamination exists that cannot be reasonably treated, and the source does not sufficiently supply an average sustained yield of 200 gallons per day. Since these parameters have not been evaluated in groundwater beneath the site, it is conservatively assumed that the site groundwater is suitable for drinking water.

Applicable site cleanup levels for petroleum hydrocarbon-related constituents in groundwater are the primary Maximum Contaminant Levels (MCLs) for drinking water, which have been established by the State of California Office of Drinking Water. These MCLs are as follows:

• Benzene	1.0 ppb
• Toluene	100 ppb
• Ethylbenzene	680 ppb
• Xylenes	1,750 ppb
• MTBE	5.0 ppb (Secondary MCL)
• ter-Butanol	(No cleanup level established)

6.1 Low Risk Soils and Groundwater Case

Based on the available Site data and in accordance with the January 1996 RWQCB guidance regarding releases from USTs, the Site qualifies as a low risk soils and groundwater case based on the following:

- *The on-site source of petroleum hydrocarbon impact has been removed;*

The USTs were removed in 1991 and the sampling of backfill soils indicates they do not represent a continuing source of petroleum impacted to groundwater as described in Subsection 3.6.

- *The extent of soil and groundwater impact related to the gasoline/diesel release(s) at the Site has been adequately characterized;*

Previous soil and groundwater investigations have adequately defined the extent of soil and groundwater impact at the site as discussed in Section 3.0.

- *The petroleum hydrocarbon plume is stable;*

As shown on Table 1, concentrations of diesel and gasoline-related constituents in the Site groundwater have shown a decreasing trend.

- *No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted;*

As discussed in Subsection 2.7, there are currently no active or inactive water production wells located within 1/4-mile downgradient of the site (see Appendix A). Current beneficial use of Site groundwater is limited due to poor groundwater quality and low production rates which typify the regional shallow water-bearing zone. There are no nearby surface waters or other sensitive receptors that are likely to be impacted by the petroleum hydrocarbon plume.

7.0 FEASIBILITY EVALUATION

The feasibility of the following remedial technologies was evaluated for the remediation of gasoline-related contaminants in soil and groundwater:

- Dual-Phase Groundwater/Vapor Extraction;
- Polymer-Based Groundwater Pump and Treat;
- Intrinsic Bioremediation; and
- Enhanced Bioremediation.

7.1 Dual-Phase Groundwater/Vapor Extraction

Dual-Phase Groundwater/Vapor Extraction (DPGVE) consists of a vacuum extraction system which strips gasoline-related compounds from soils and groundwater. This technology enhances aerobic biodegradation of VOCs due to enhanced aeration. However, there is a potential for direct human exposure to contaminants.

DPGVE is considered to be infeasible for remediation of contaminated soils and groundwater beneath the Site due to the low permeability of the clay soils which would prevent effective extraction of the gasoline-related VOCs. Due to the infeasibility of this remedial technology, no associated costs are presented.

7.2 Polymer-Based Groundwater Pump and Treat

This technology utilizes a polymer and carbon aggregate to adsorb organic contaminants in groundwater.

ADVANTAGES	DISADVANTAGES
• Spent polymer is recyclable.	• May draw contaminants from nearby off-site sources.
• Treatment system unit is relatively small in size.	• Associated disposal costs.
	• Potential for direct human exposure to contaminants.

Estimated Costs	
ITEM	COST
• Water Quality Analysis	$ 300.00
• Installation of 4-inch diameter Extraction Well (includes analytical costs and soil disposal)	5,500.00
• Pump Test to Determine Flow Rate (includes 600-gallon purge water storage tank and purge water disposal)	5,000.00
• Design & Installation of Pump and Treat System	20,000.00
• Polymer Material	10,000.00
• Polymer Disposal Costs	5,000
• Groundwater Monitoring Costs (period of two years)	12,000
• Operation and Maintenance Costs (period of two years)	10,000
TOTAL	$67,800.00

Please note that the above costs are a rough estimate based on a groundwater flow rate of at least 5 gallons per minute. More accurate costs could only be determined after applicable water quality parameters and a site-specific flow rate are obtained.

7.3 Intrinsic Bioremediation

In this process, indigenous microorganisms present in soil and groundwater utilize contaminants as a source of carbon and energy, forming inorganic endproducts such as carbon dioxide and water. As discussed in Subsection 5.0, intrinsic biodegradation of contaminants is occurring in the Site groundwater. Advantages and disadvantages of this technology are presented below. There are no costs associated with this remedial option.

As discussed in Subsection 3.8, the intrinsic bioremediation process has been enhanced at the site at the locations of wells MW-2 and MW-4 by the injection of an ORC slurry within the saturated zone of the contaminant area. This remediation activity appears to be showing signs of enhancement to the natural progress of bioattenuation as shown in the decreasing levels of contaminants within these two wells (see Table 1).

Estimated Degradation Time

Based on a review of historical petroleum hydrocarbon concentrations in the site groundwater, and a review of published degradation rates for the petroleum hydrocarbon constituents (Howard et al., 1991), it is estimated that applicable cleanup levels within the majority of the

groundwater plume will be reached within a 5-year period of time via intrinsic bioremediation. A period of 5 to 10 years, however, may be required to reach applicable cleanup levels in the area of well MW-2.

ADVANTAGES	DISADVANTAGES
• Degrades contaminants in situ, preventing disruption to Site activities and eliminating removal and transportation costs.	• Relatively long remediation period to reach clean-up objectives.
• No associated operating costs.	

7.4 Recommended Remedial Action

Intrinsic bioremediation is recommended for remediation of the diesel and gasoline-related constituents present in site soil and groundwater. This option was selected due to the following reasons:

- Contaminants are degraded in situ preventing disruption to site activities and preventing direct exposure of contaminants to humans; and
- There are no costs associated with intrinsic bioremediation as proposed within this CAP.

8.0 CONCLUSIONS AND RECOMMENDATIONS

E_2C, Inc. has completed a Corrective Action Plan for the property located at 390 Martin Avenue in Santa Clara, California. Based on the research performed during this investigation, E_2C, Inc. makes the following conclusions and recommendations:

- Soil and groundwater impact related to the former fuel USTs has been adequately defined.
- Intrinsic bioremediation of gasoline-related constituents appears to be occurring in the site groundwater.
- Intrinsic bioremediation has been enhanced at the locations of wells MW-2 and MW-4 through the injection of ORC.
- The site qualifies as a low risk soil and groundwater case with respect to the petroleum hydrocarbon impact.
- Intrinsic bioremediation was selected for remediation of petroleum hydrocarbon-related impact to the site soil and groundwater based on our feasibility analysis.
- Based on the levels of contaminants present in the wells during the last several groundwater monitoring events, and the decreasing concentrations of contaminants over time, E_2C, Inc. anticipates that cleanup goals will be achieved within 5 to 10 years, with the majority of the plume reaching cleanup goals within a 5-year period of time.

Based on these conclusions, E_2C, Inc. requests that this fuel leak case be considered for closure by the SCVWD.

9.0 PROFESSIONAL CERTIFICATION AND LIMITATIONS

This report has been prepared by E_2C, Inc., under the professional supervision of the Principal whose seal and signature appears herein.

The conclusions of this report are based solely on the Scope of Services outlined and the sources of information referenced in this report. Any additional information that becomes available concerning this site should be submitted to E_2C, Inc. so that our conclusions may be reviewed and modified, if necessary. This report was prepared for the sole use of Mr. Richard H. Wehner and/or his agents.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

10.0 REFERENCES

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E_2C, Inc. June 1996. *Remedial Investigation Report, 390 Martin Avenue, Santa Clara, California.*

E_2C, Inc. November 1996. *Well Installation Report, 390 Martin Avenue, Santa Clara, California.*

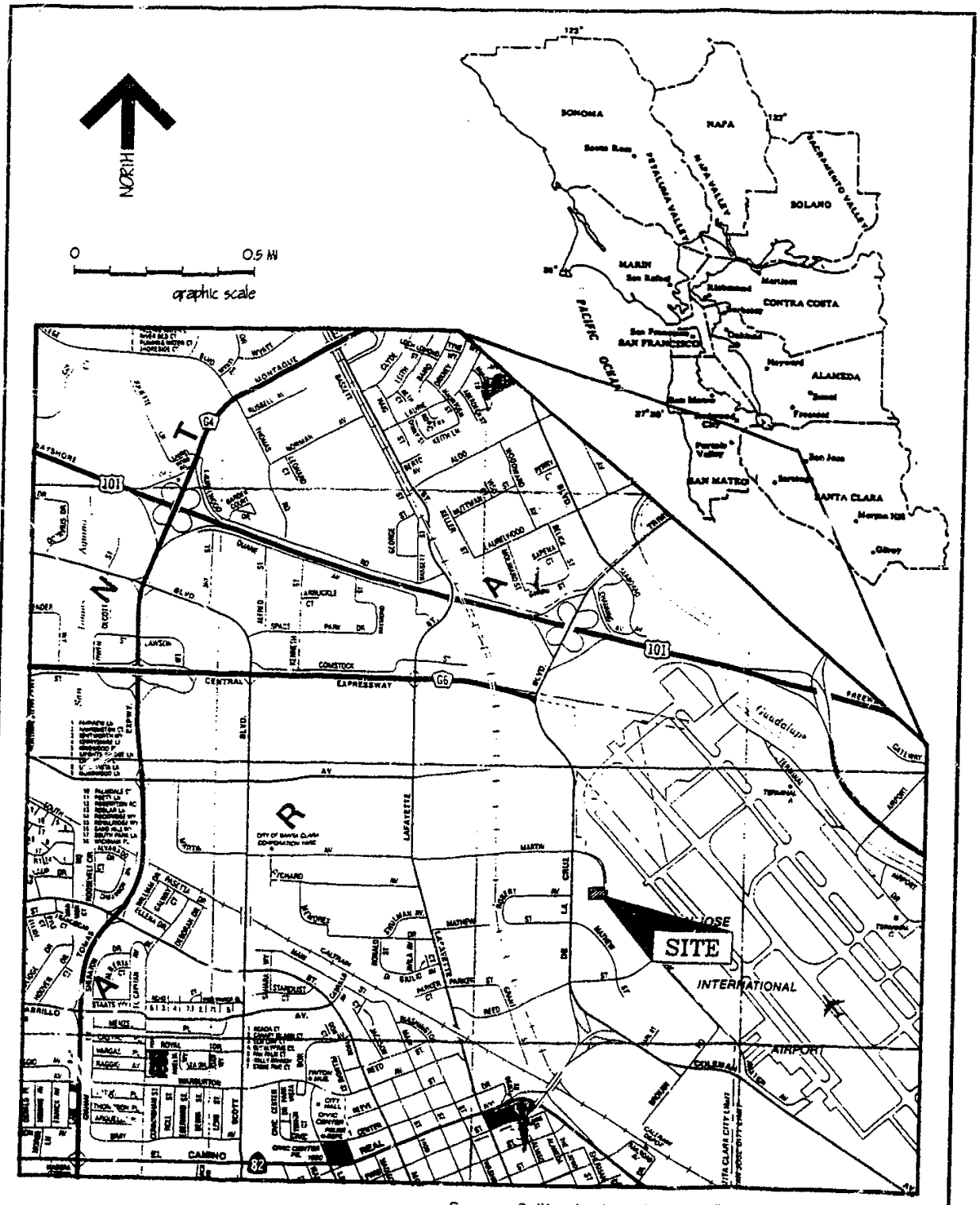
E_2C, Inc. March 1997. *Continuing Groundwater Investigation Report, 390 Martin Avenue, Santa Clara, California.*

E_2C, Inc. July 1997. *Continuing Groundwater Investigation Report, 390 Martin Avenue, Santa Clara, California.*

E_2C, Inc. March 1999. *Quarterly Groundwater Monitoring - First Quarter 1999, 390 Martin Avenue, Santa Clara, California.*

Helley, E.J. and Lajoie, K.R. 1979. *Flatland Deposits of the San Francisco Bay Region, California*, USGS Professional Paper 943.

Howard, Boethling, Jarvis, Meylan, and Michalenko. 1991. *Handbook of Environmental Degradation Rates.*



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPROVED BY: K. PRICE	1999

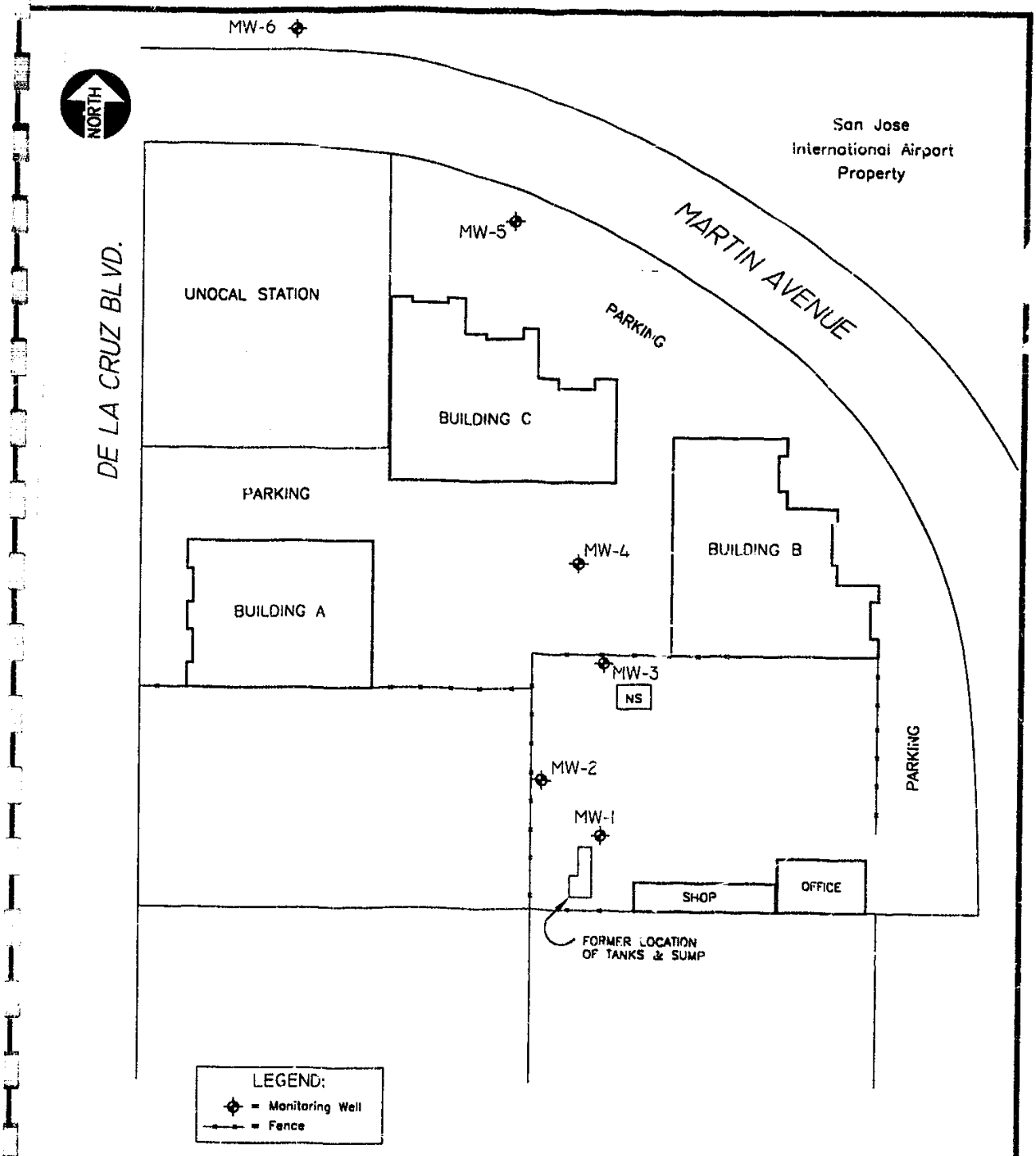


FIGURE 2 - SITE PLAN

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	390 MARTIN AVENUE Santa Clara, California	Project Number 5850100	March 1999

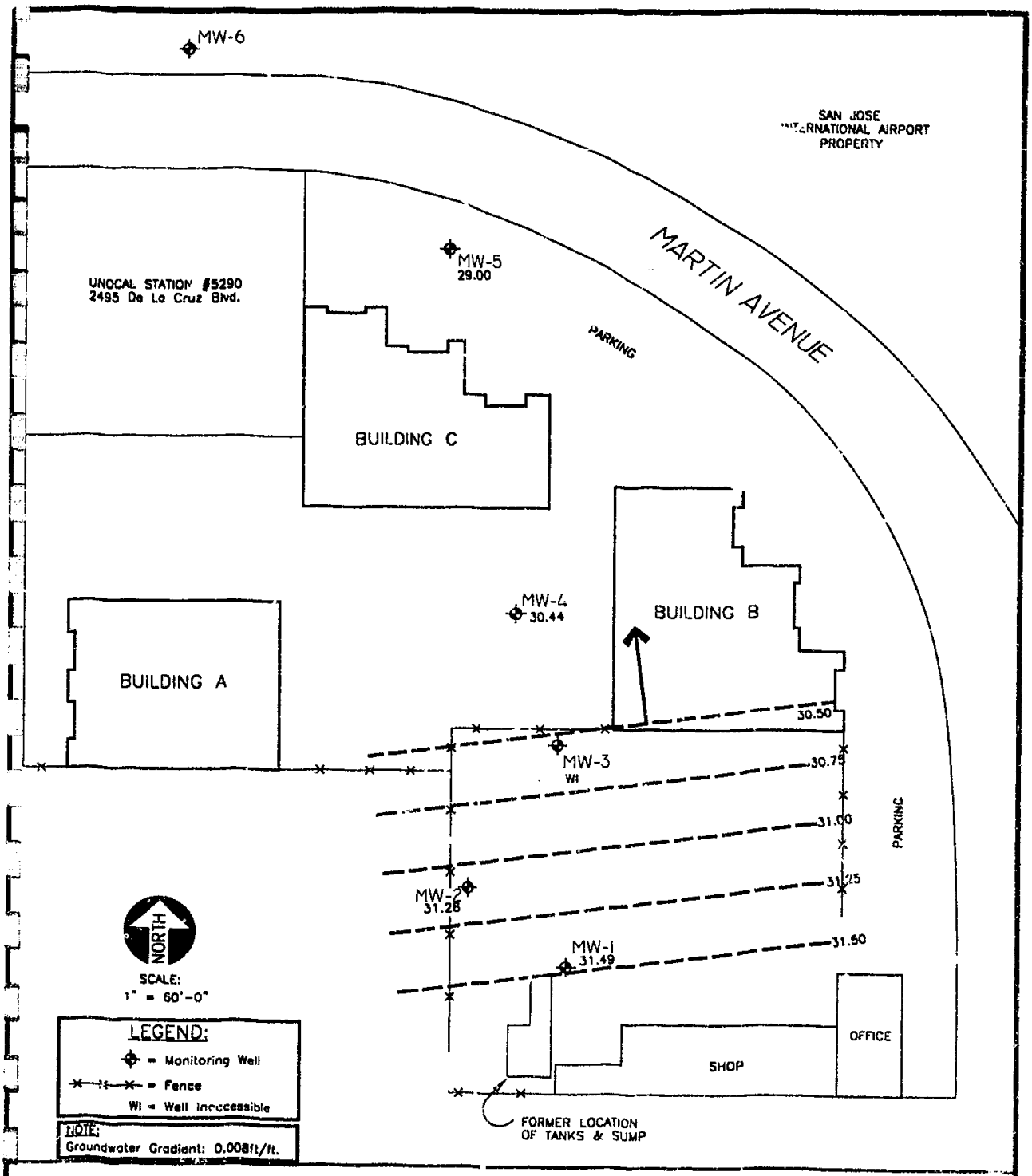


FIGURE 3 - GROUNDWATER GRADIENT CONTOUR MAP

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 MARTIN AVENUE Santa Clara, California	Project Number 5850100	Feb 1999

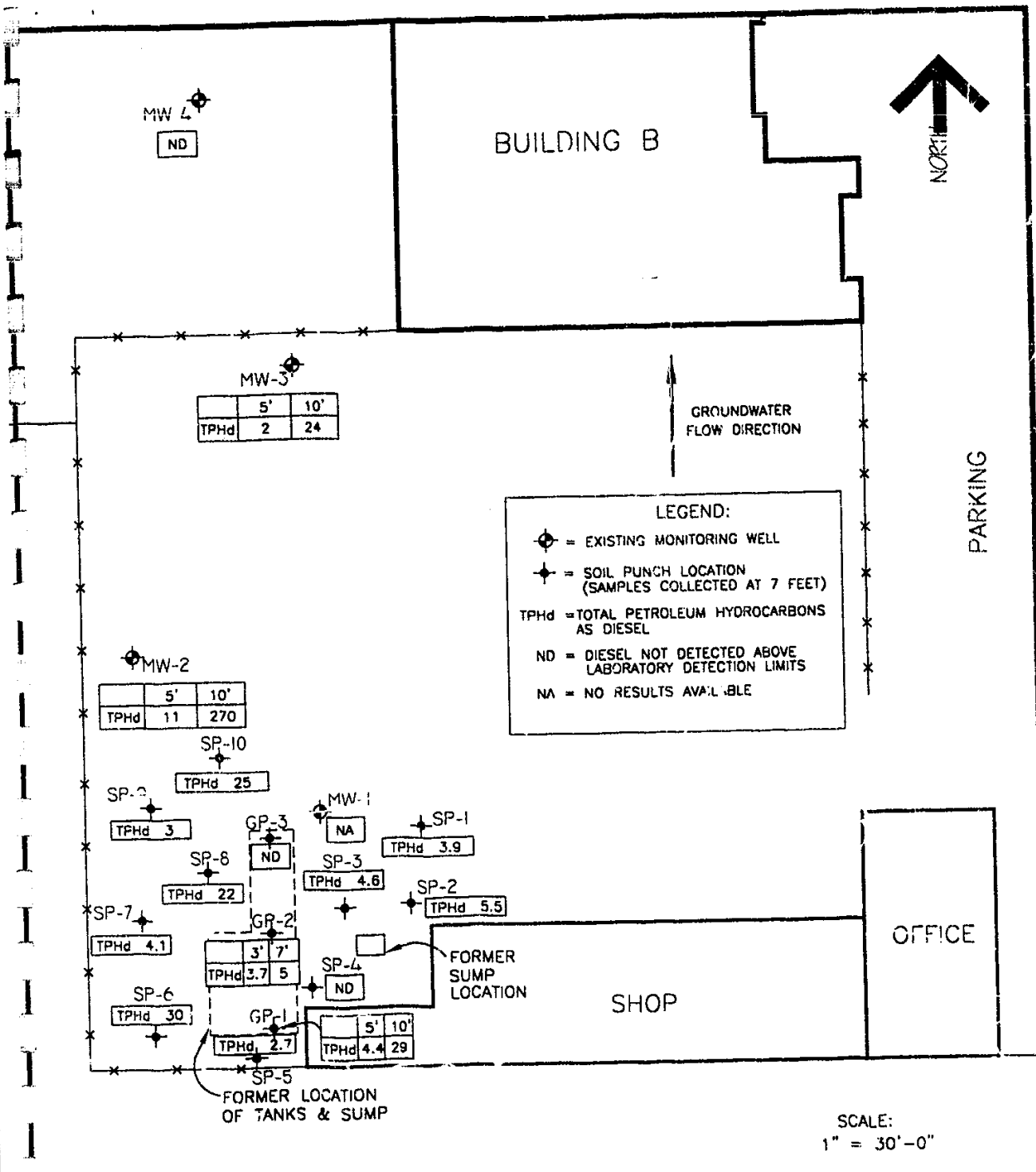


FIGURE 4 - TPHd CONCENTRATION IN SOIL (ppm)

Environmental/Engineering Consultants Civic Center Tower 671 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 Martin Avenue Santa Clara, California	Project Number 5850100	March 1999

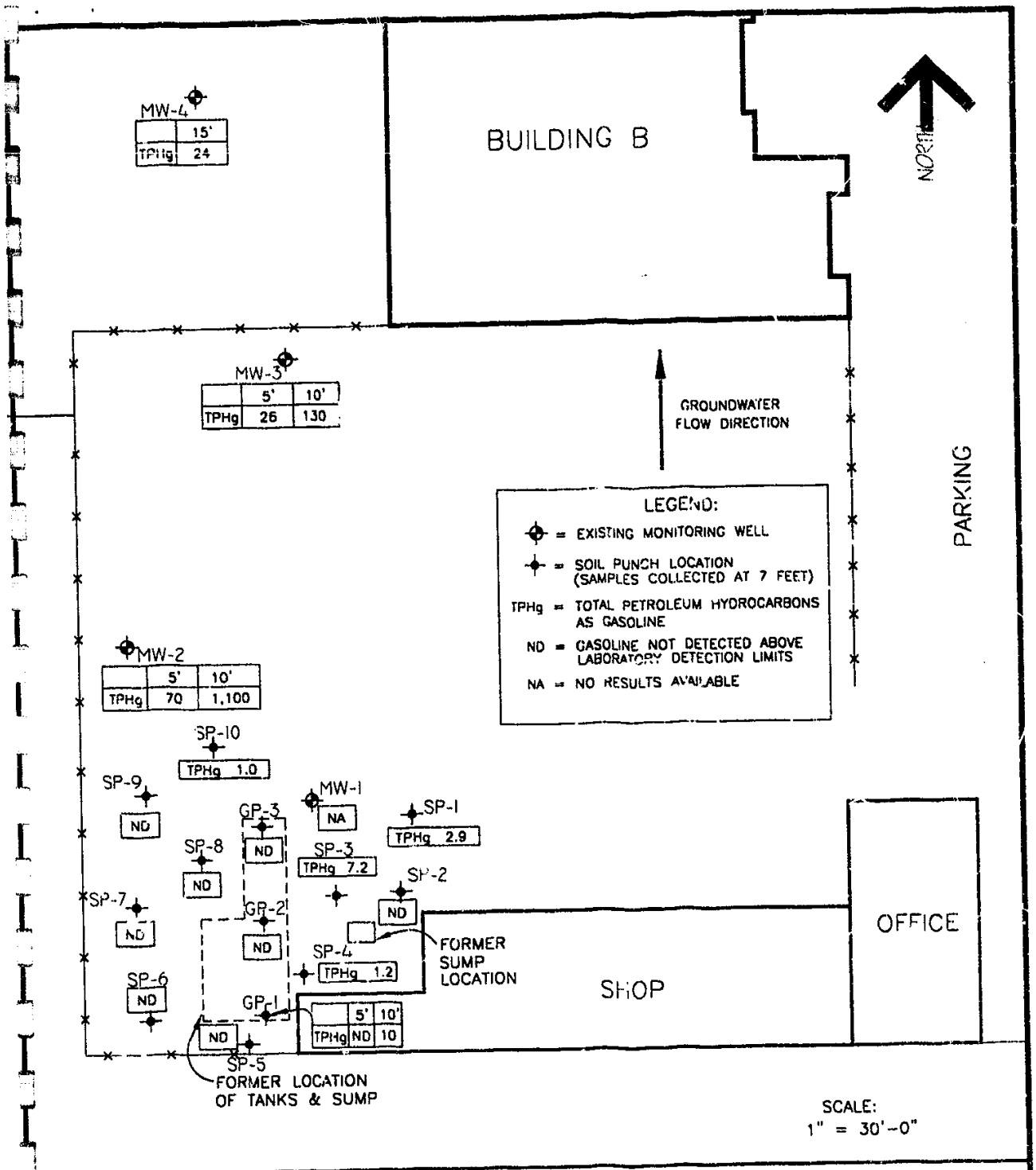


FIGURE 5 - TPHg CONCENTRATION IN SOIL (ppm)

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 Martin Avenue Santa Clara, California	Project Number 5850100	March 1999

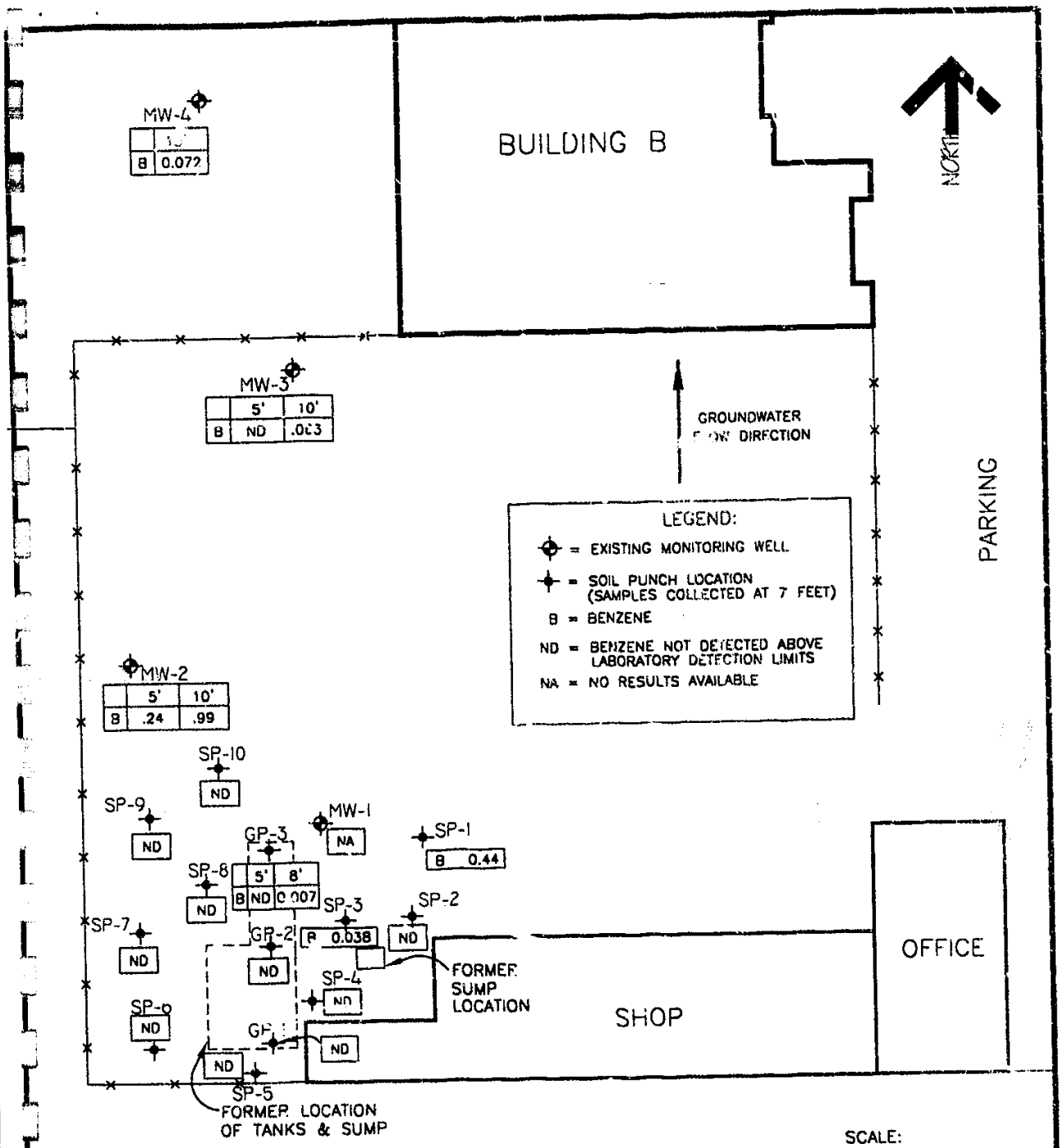


FIGURE 6 - BENZENE CONCENTRATION IN SOIL (ppm)

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 Martin Avenue Santa Clara, California	Project Number 5850100	March 1999

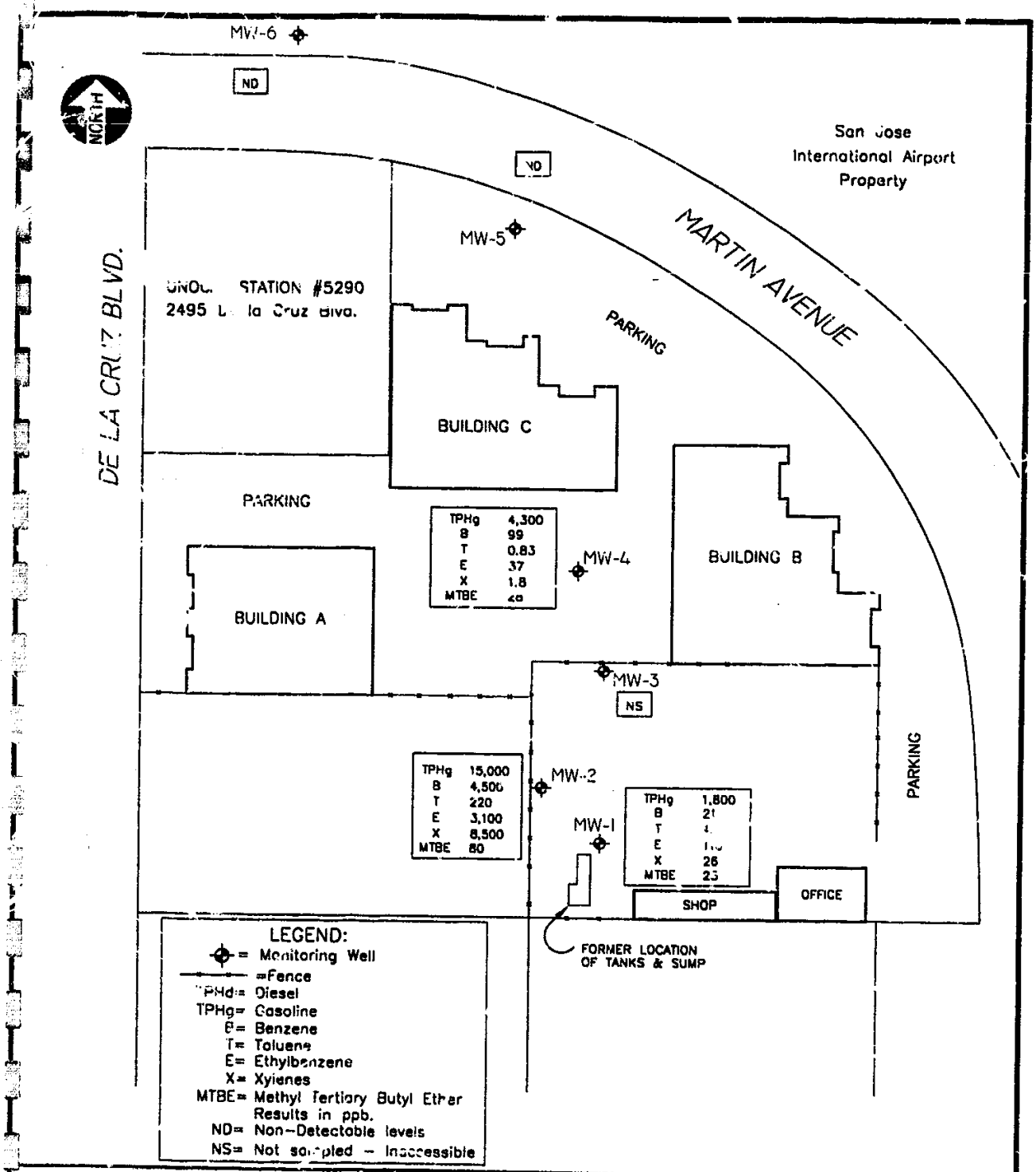


FIGURE 7 - GROUNDWATER CONTAMINANT MAP

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	February 1999 300 MARTIN AVENUE Santa Clara, California	Project Number 5850100	March 1999

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – February 25, 1994																
MW-1	0.05	2	88	6,000	14,700	2,900	9,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	0.2	3.2	2	5,700	10,400	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	0.4	2.0	0.5	1,200	89	290	1,800	<0.4	<0.5	5.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter – June 10, 1994																
MW-1	0.07	7.1	1.0	8,600	8,500	1,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	0.26	1.8	1.0	7,600	770	2,500	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	0.2	1.5	0.2	2,400	1,180	540	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter – August 31, 1994																
MW-1	<0.5	5.8	0.6	3,400	2,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	1.0	3,800	600	1,300	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	0.5	1270	<30.0	<30.0	1,080	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter – November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	0.4	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	28	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter – February 27, 1995																
MW-1	0.2	31	2.0	5,200	2,100	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	0.2	7.4	1.0	5,800	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	0.2	8	2.0	780	<0.3	200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter – May 30, 1995																
MW-1	0.1	16	1.0	3,500	1,800	2,200	6,800	<0.5	0.7	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	0.1	8.5	0.5	1,400	160	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	0.8	627	74	92	28	<0.5	2.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Third Quarter – August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,300	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	2.4	5.0	2.8	24	0.8	6.0	200	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	87	750	5	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter – November 14, 1995																
MW-1	5.1	6.0	9.2	1,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	0.9	5.0	4.8	1,900	0.5	200	680	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	69	460	2.0	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter – February 23, 1996																
MW-1	5.6	14	5.0	2,300	300	2,100	6,300		---	---	---	---	---	---	---	---
MW-2	0.37	5.0	4.9	1,000	220	700	1,200	---	---	---	---	---	---	---	---	
MW-3	0.5	<5.0	18.0	320	0.5	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter – May 31, 1996																
MW-1	5.6	<5.0	37	1,500	62.0	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	3.0	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter – August 7, 1996																
MW-1	0.89	27	61	1,300	2.0	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	360	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	610	<0.5	770	<0.5	---	---	---	---	---	---	---	---	---
Fourth Quarter – November 27, 1996																
MW-1	5.1	9.0	46	2,700	2.0	2,300	5,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.8	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	1.1	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – February 14, 1997																
MW-1	0.560	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	[illegible]	[illegible]	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	[illegible]	[illegible]	<0.5	[illegible]	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	[illegible]	[illegible]	[illegible]	[illegible]	<0.5	[illegible]	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	[illegible]	<0.5	<0.5	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-2	[illegible]	[illegible]	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	[illegible]	[illegible]	<0.5	[illegible]	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	[illegible]	[illegible]	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	[illegible]	[illegible]	<0.5	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	[illegible]	---	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-2	[illegible]	---	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	<5.0	---	---	---	---	---	---	---	---
MW-3	[illegible]	---	[illegible]	[illegible]	<0.5	[illegible]	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	[illegible]	---	[illegible]	[illegible]	<0.5	[illegible]	<0.5	[illegible]	---	---	---	---	---	---	---	---
MW-5	<0.05	---	[illegible]	<0.5	<0.5	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	[illegible]	[illegible]	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	---	---	---	---	---
MW-2	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	<300	---	---	---	---	---	---	---	---
MW-3	[illegible]	---	[illegible]	[illegible]	<5	[illegible]	[illegible]	[illegible]	---	---	---	---	---	---	---	---
MW-4	[illegible]	---	[illegible]	[illegible]	<10	[illegible]	<10	[illegible]	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	[illegible]	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

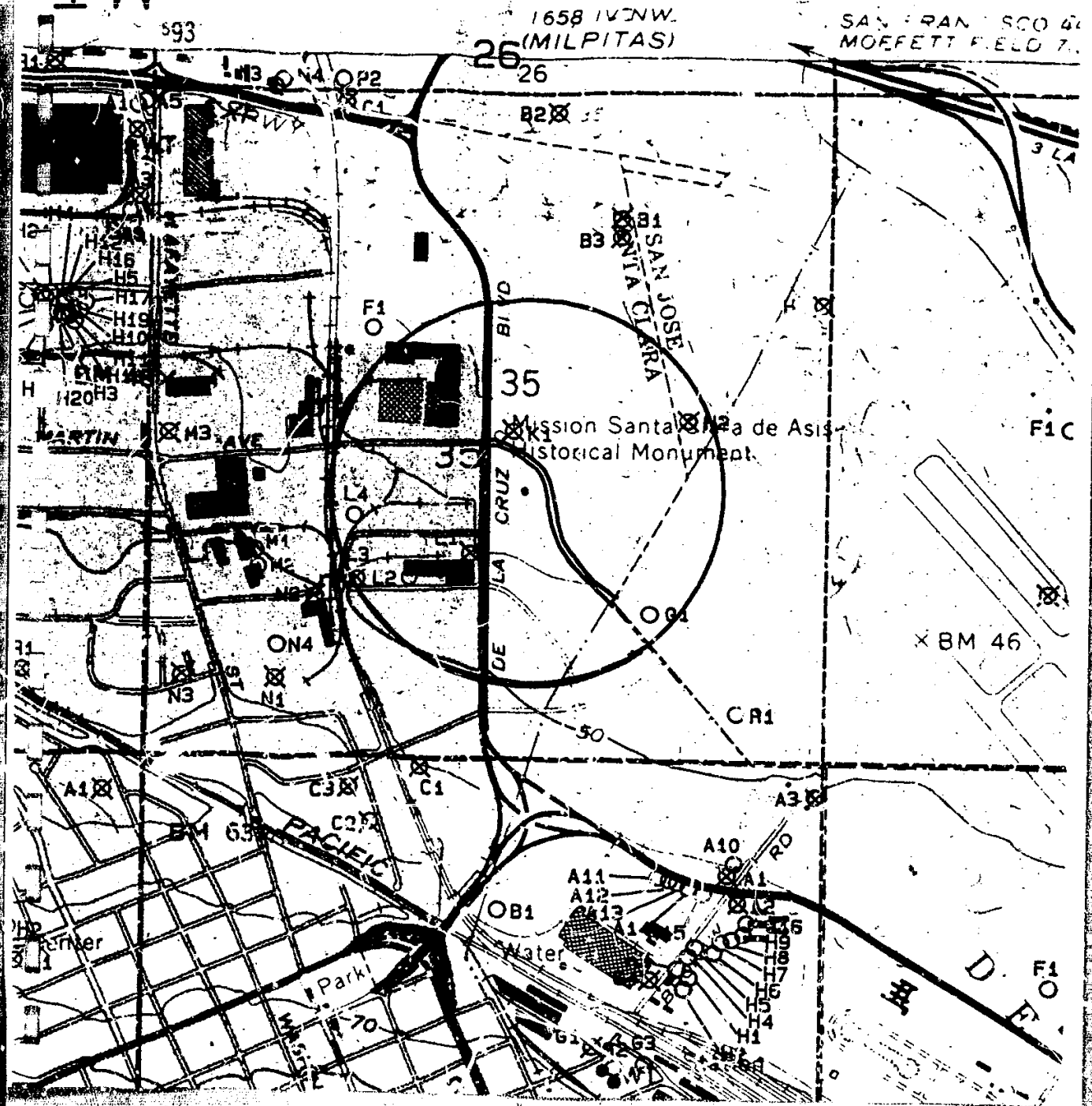
TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – April 7, 1998																
MW-1	<.05	---	3.2	44	<0.5	16	3.2	(<5.0)	--	---	<0.5	---	---	---	---	---
MW-2	7.2	---	10.0	1200	30	2,200	3000	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	166	<.05	(9.8)	---	---	<0.5	---	---	---	---	---
MW-4	0.63	---	5.9	220	<0.5	140	<0.5	(28)	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	16	(5.4)	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<0.05	<0.5	0.74	<0.5	<0.5	(6.2)	---	---	<0.5	---	---	---	---	---
Second Quarter - June 29, 1998																
MW-1	<0.05	---	0.9	2.5	2.8	15	7.3	200	---	---	-	---	---	---	---	---
MW-2	<0.05	---	4.0	200	85	2,000	800	1200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	280	10	60	---	---	---	---	---	---	---	---
MW-4	<0.05	---	5.4	160	<0.5	87	6.6	2	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.53	<0.5	<0.5	<0.5	<0.5	10	---	---	--	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	6.2	---	---	---	---	---	---	---	---
Third Quarter – September 16, 1998																
MW-1	<50	---	6.9	100	<0.5	15	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	1,000	---	150	39	20	2,900	3,700	640 (<100)	---	---	---	---	---	---	---	---
MW-3	<.50	---	5.3	670	<0.5	280	28.6	73 (<50)	---	---	---	---	---	---	---	---
MW-4	<50	---	7.4	280	3.14	130	26	190 (<50)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	5.40 (61)	---	---	---	---	---	---	---	---
Fourth Quarter – November 4, 1998																
MW-1	<50	---	6.6	2.9	2.7	2.45	5.8	24 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	82	3700	100	2,400	6,200	<50C	---	---	---	---	---	---	---	---
MW-3	<50	---	8.8	610	2.5	1,400	5.2	31 (<2.5)	---	---	---	---	---	---	---	---
MW-4	<50	---	9.7	260	<2.5	100	5.4	54 (<25)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	9.2	---	---	---	---	---	---	---	---

TABLE 1 - CONTINUED

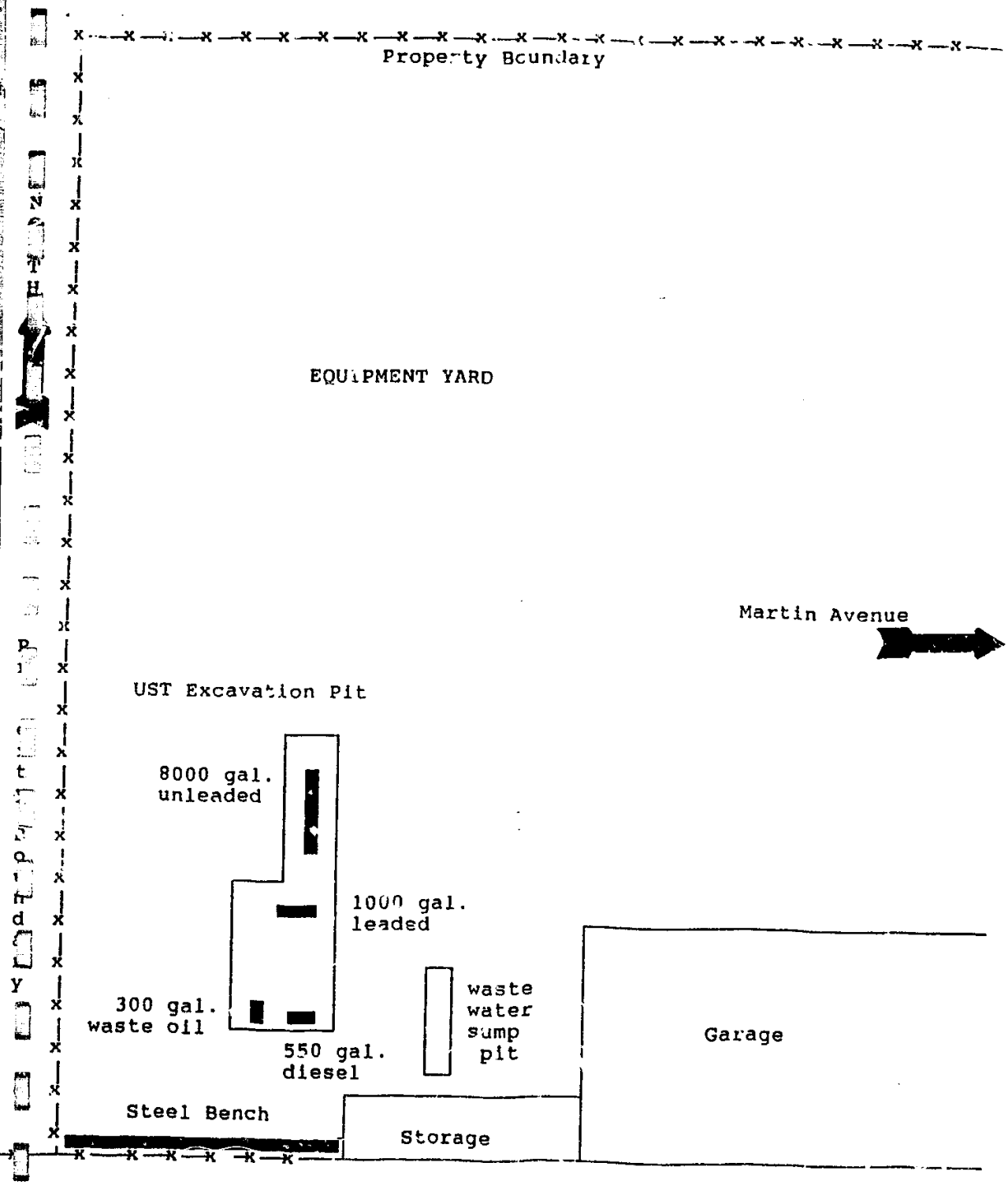
Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro Form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
November 30, 1998																
MW-1	350	---	[illegible]					<50	---	---	---	---	---	---	---	---
MW-2	<50	---							---	---	---	---	---	---	---	---
MW-3	<50	---							---	---	---	---	---	---	---	---
MW-4		---							---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05		<0.5	<0.5	<0.5		---	---	---	---	---	---	---	---
First Quarter - February 4 and 10, 1999																
MW-1	<50	---	[illegible]					<50	---	---	---	---	---	---	---	---
MW-2	<50	---							---	---	---	---	---	---	---	---
MW-3	NS	---	NS	NS	NS	NS	NS	NS	---	---	---	---	---	---	---	---
MW-4	<50								---	---	---	---	---	---	---	---
MW-5	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
NE = Not Sampled – Inaccessible
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.
( ) = Results of verification analyses for MTBE using EPA Test Method 8240 or 8260.


1W
1658 IV NW.
(MILPITAS)
SAN FRANCISCO 4
MOFFETT FIELD 7.
26
26
SAN JOSE
SANTA CLARA
BLVD
DE LA CRUZ
35
Mission Santa Clara de Asis
Historical Monument
BM 46
CR1
50
MARTIN AVE
PACIFIC
Water
Park
70
F1
C
D
E

APPENDIX B
SUMMARY DATA FOR PREVIOUS INVESTIGATIONS

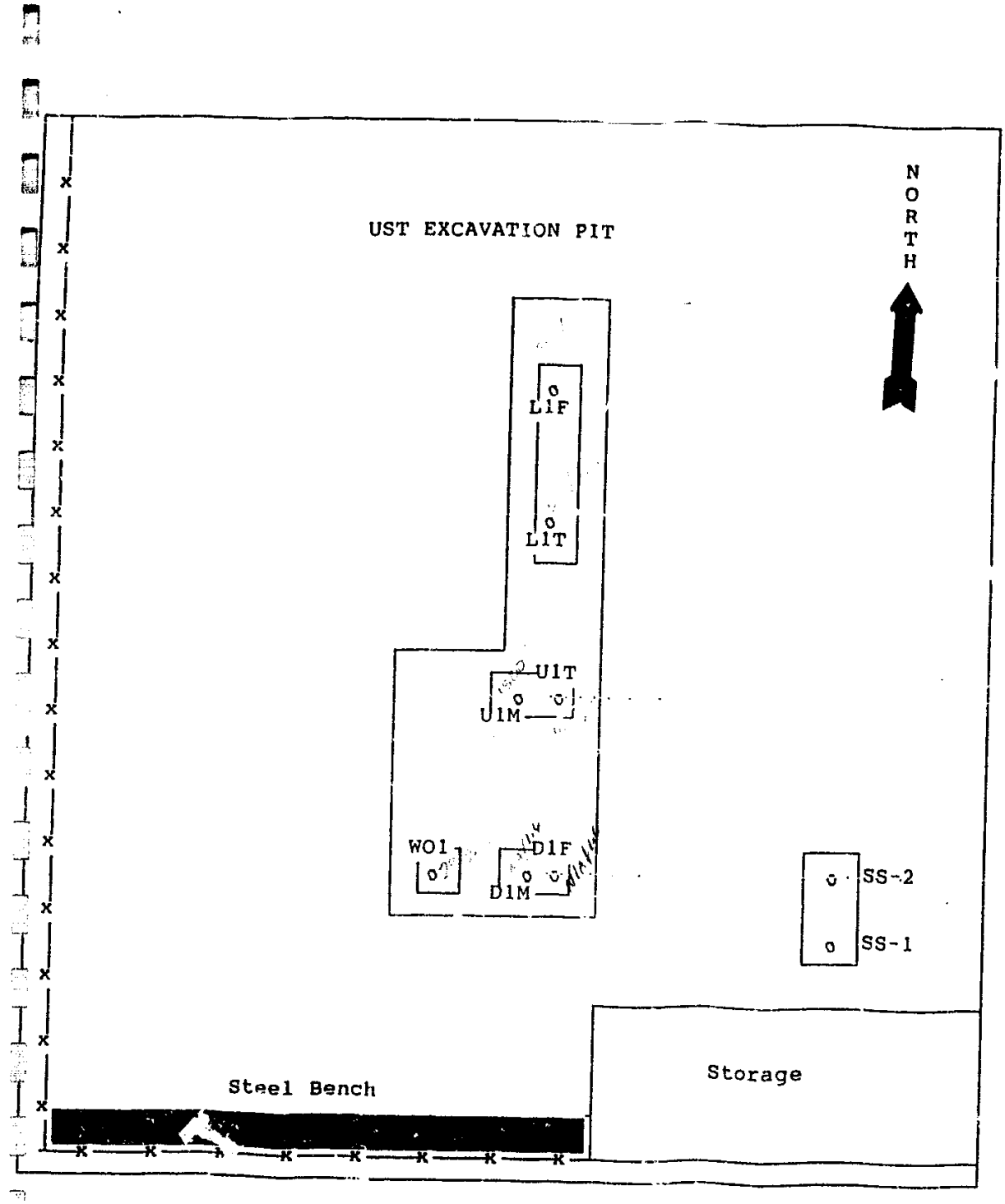
Underground Storage Tank Removal Data
dated June 1991



Scale: 1in = 20ft

SITE CHARACTERIZATION MAP

FIGURE 2



Scale: 1 in = 10 ft

SAMPLING LOCATION MAP

FIGURE 3

Table 1 Analytical Results (Soil Organics)

Sample Number	TPHg (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
D1M	NA	1600	150	300	590
D1F	NA	1600	73	490	430
L1F	8[illegible]	5500	21000	8200	29000
L1T	360	1500	11000	4200	23000
U1M	1500	1400	19000	16000	64000
U1T	410	2400	23000	8000	23000
WO1	29	290	18	760	1100
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

NA = Not Analyzed

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
D1M	480	NA
D1F	33	NA
L1F	NA	NA
L1T	NA	NA
U1M	NA	NA
U1T	NA	NA
WC1	ND	ND
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

NA = Not Analyzed

N.D. = Not Detected

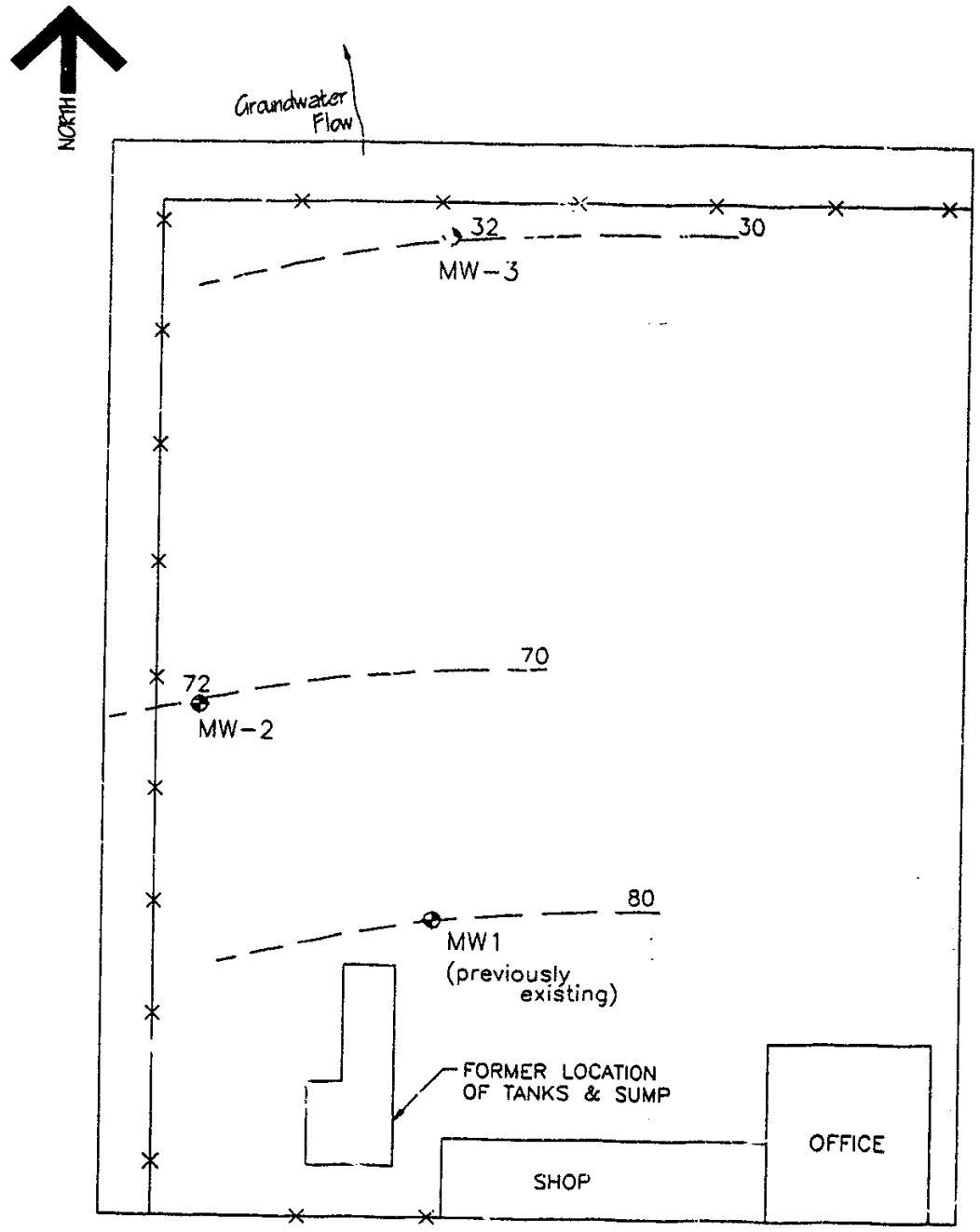
Table 2 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
U1M	NA	NA	11.5	NA	NA
U1T	NA	NA	7.39	NA	NA
WO1	0.409	7.67	0.66	7.52	14.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

NA = Not Analyzed

Table 3 Analytical Results (Soil Metals)

Preliminary Site Assessment Report Data
dated July 5, 1994



NOTE: Results in parts per million.

LEGEND:

Contaminant Contour Lines

Groundwater monitoring wells

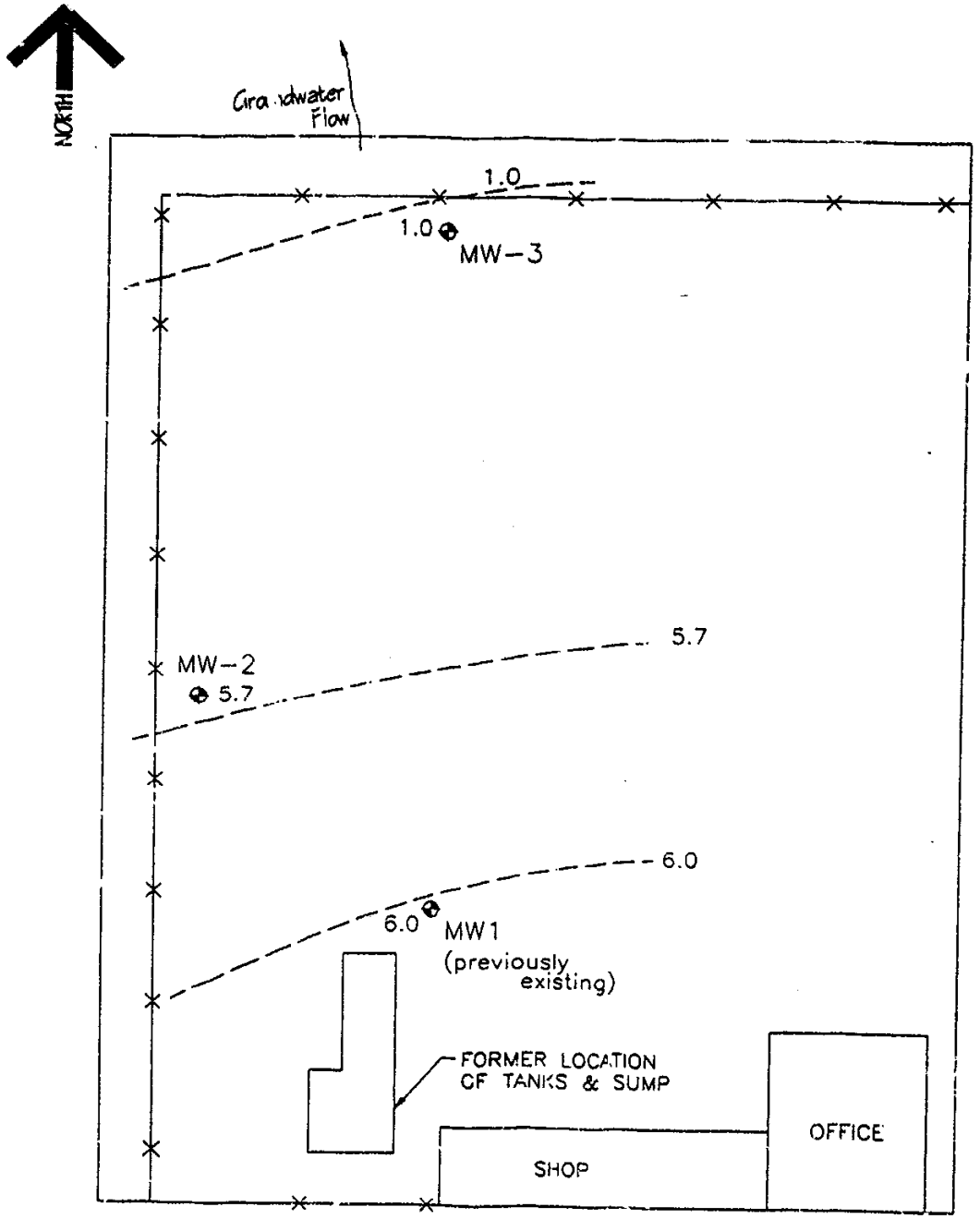
0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, California 94089

TPHg CONCENTRATIONS IN GROUNDWATER
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE
DRAWN BY:	C. ZARICI	6
APPROVED BY:	K. PRICE	March 1994



NOTE: Results in parts per million.

LEGEND:

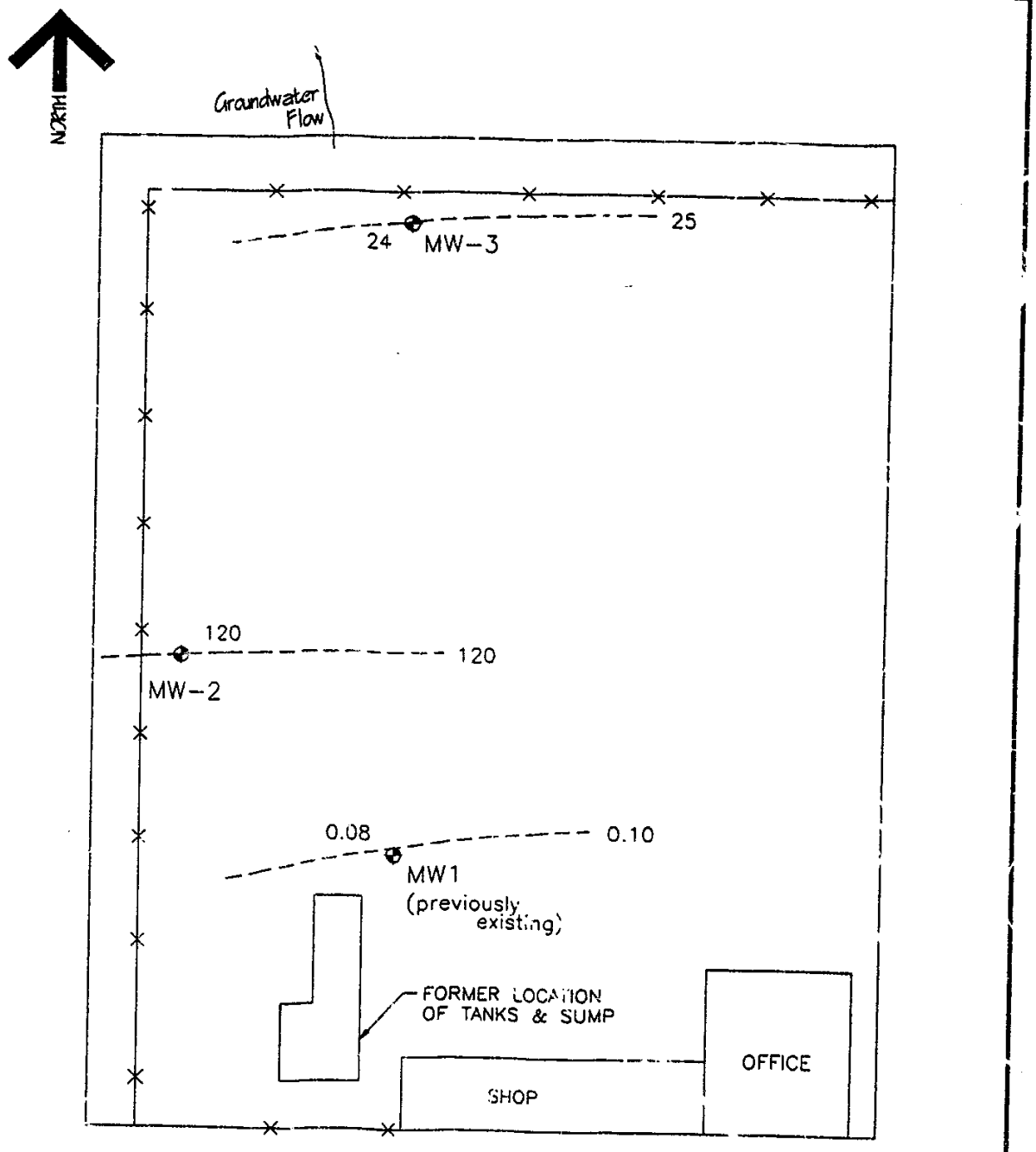
Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	BENZENE CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 7 March 1994



NOTE: Results in parts per million.

LEGEND:

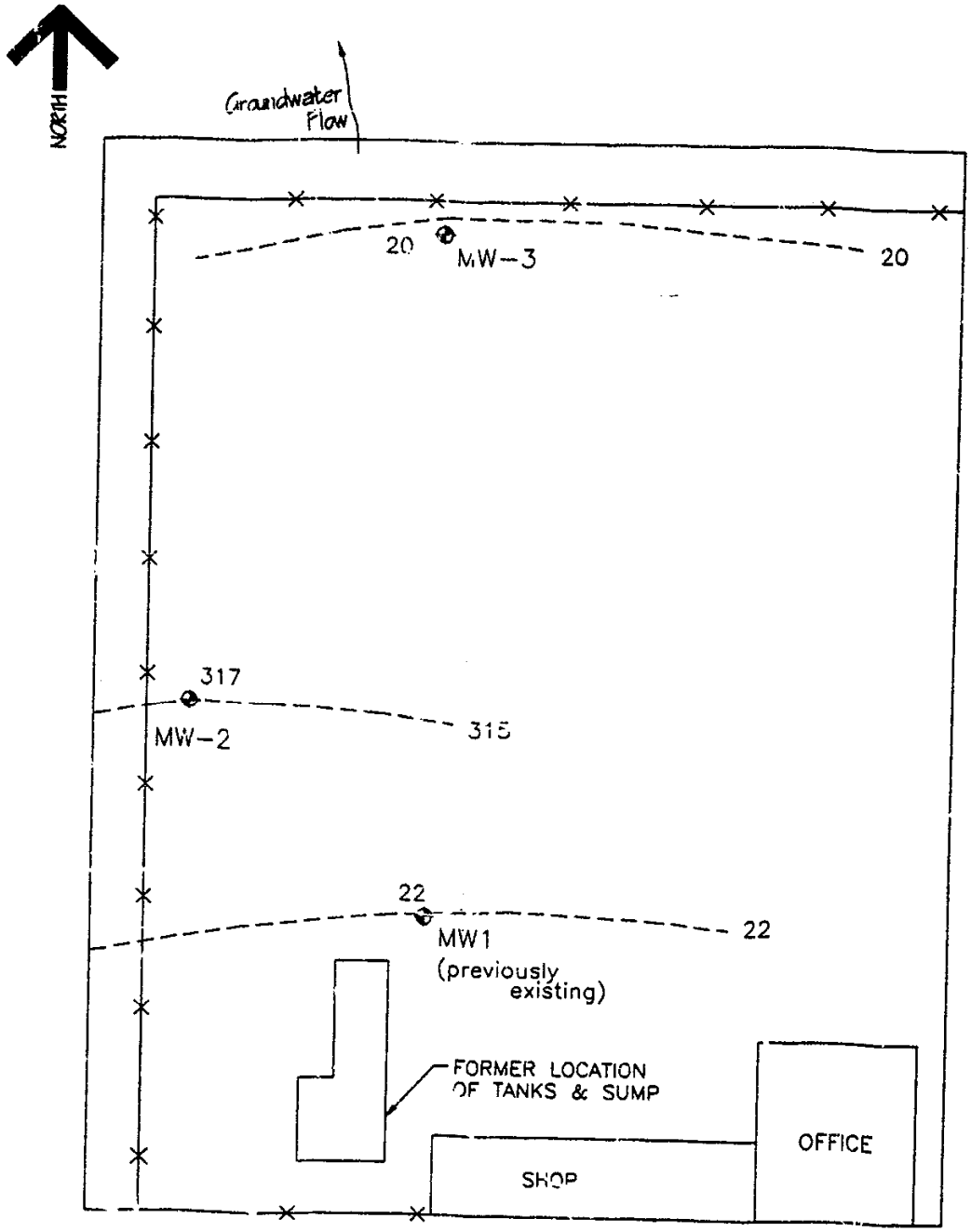
Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	TPHd CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5850100	FIGURE 8
		DRAWN BY. C. ZARICI	
		APPROVED BY: K. PRICE	March 1994



NOTE: Results in parts per million.

LEGEND:

Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	O & G CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5350100	FIGURE 9
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	March 1994

TABLE 3

SOIL SAMPLE RESULTS

Borehole No.	Sample No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes ug/kg
MW-2	MW2-5'	11	<5.0	70	240	160	530	1,600
	MW2-10'	270	<5.0	1,100	990	<5.0	9,000	26,000
MW-3	MW3-5'	2	<5.0	26	<5.0	<5.0	<5.0	<5.0
	MW3-10'	24	<5.0	130	63	63	300	197

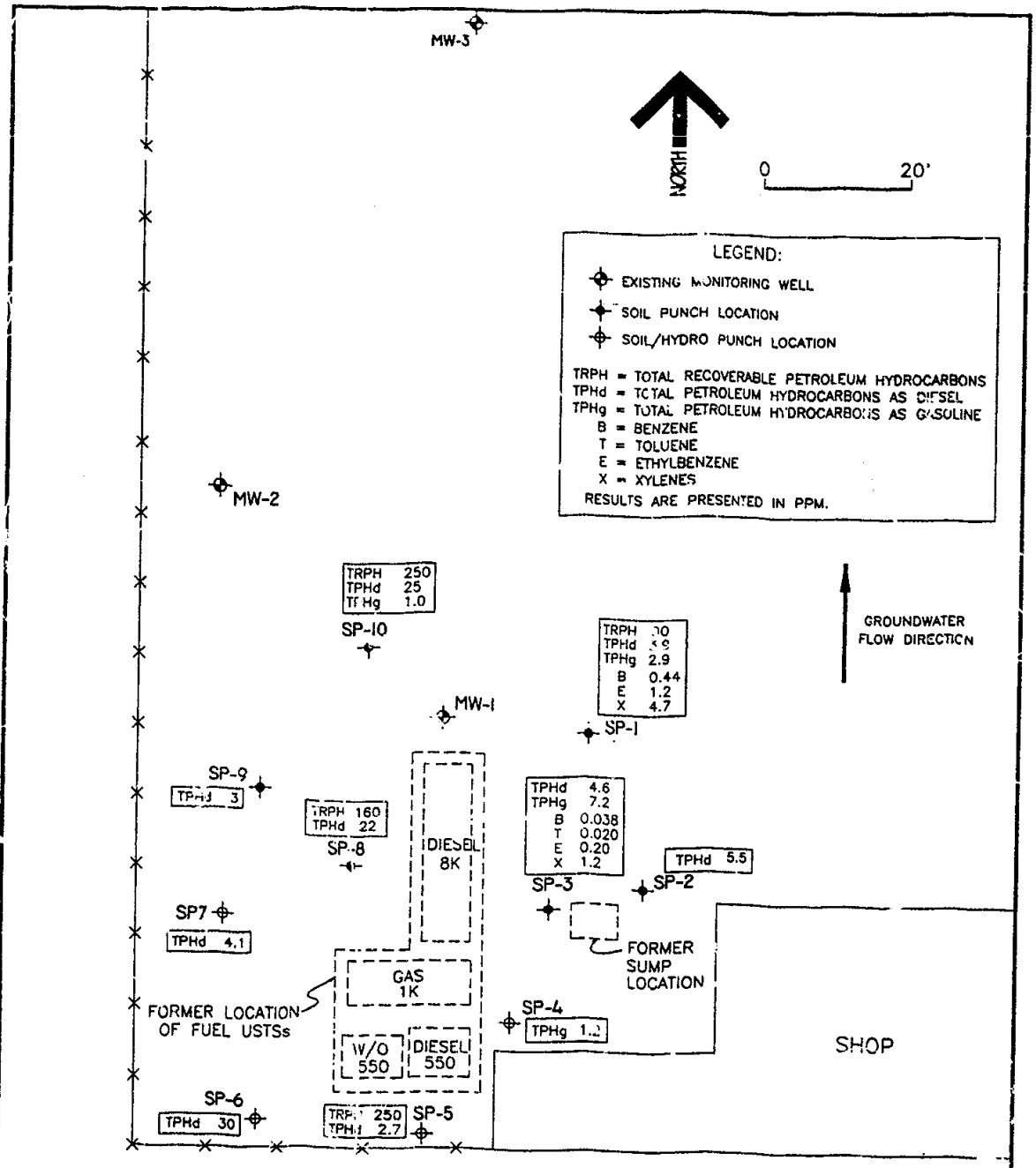
TABLE 4

GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylben ug/kg	Xylenes ug/kg	Carbon Tetra ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	TCE ug/kg	Freon ug/kg
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	6.6	<0.8	<0.4	<0.4	<0.8
MW-2	120	31	72	5,700	1,100	2,200	8,200	<0.4	2	12	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.9	2.0	0.9	2.1	1.0
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*5.0*	*1,200*

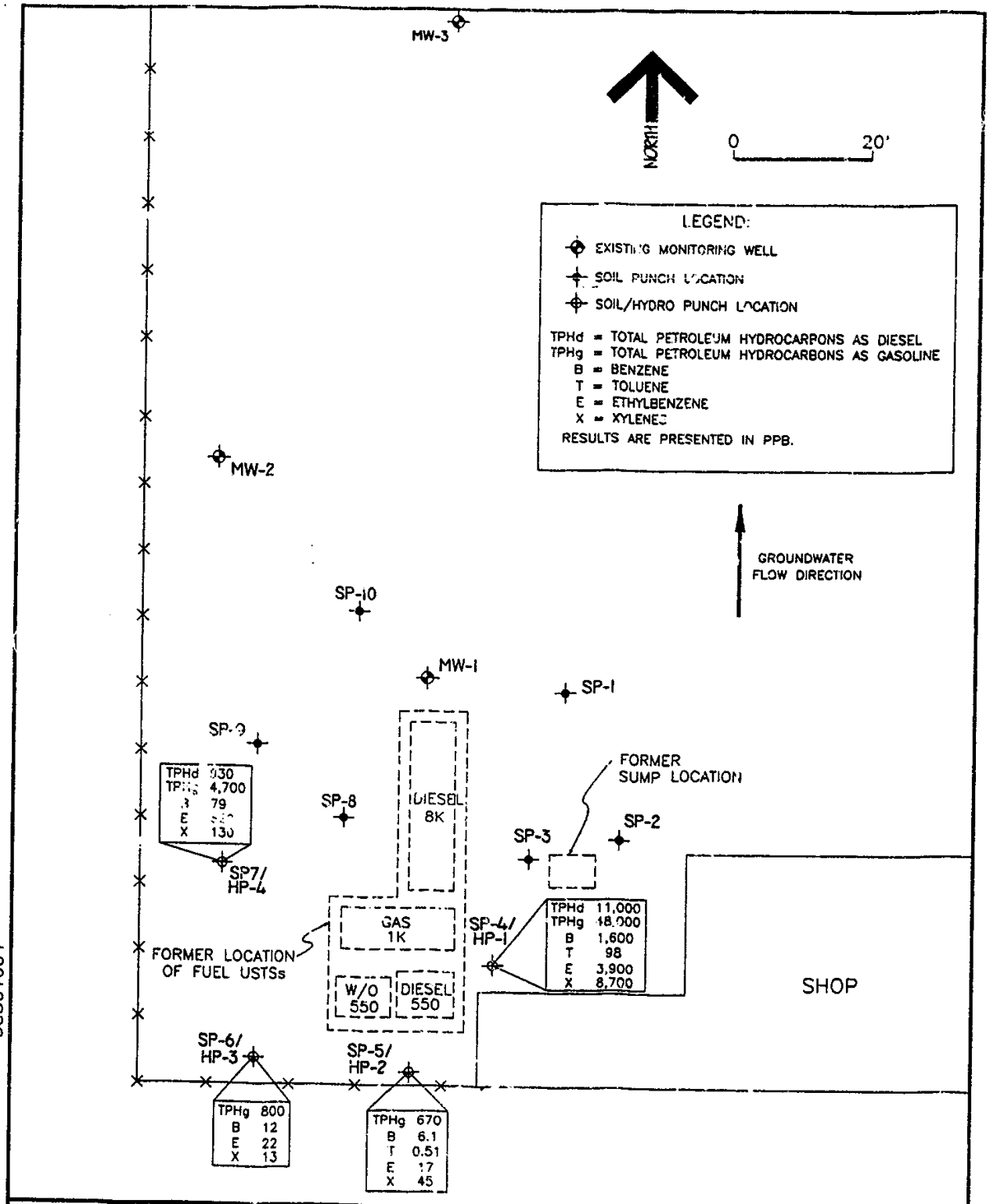
Ethylben = Ethylbenzene
Carbon Tetra = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

Remedial Investigation Report Data
dated June 18, 1996



Note: All soil samples were collected from an approximate depth of 7 feet.

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SOIL SAMPLING RESULTS 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 June 1996

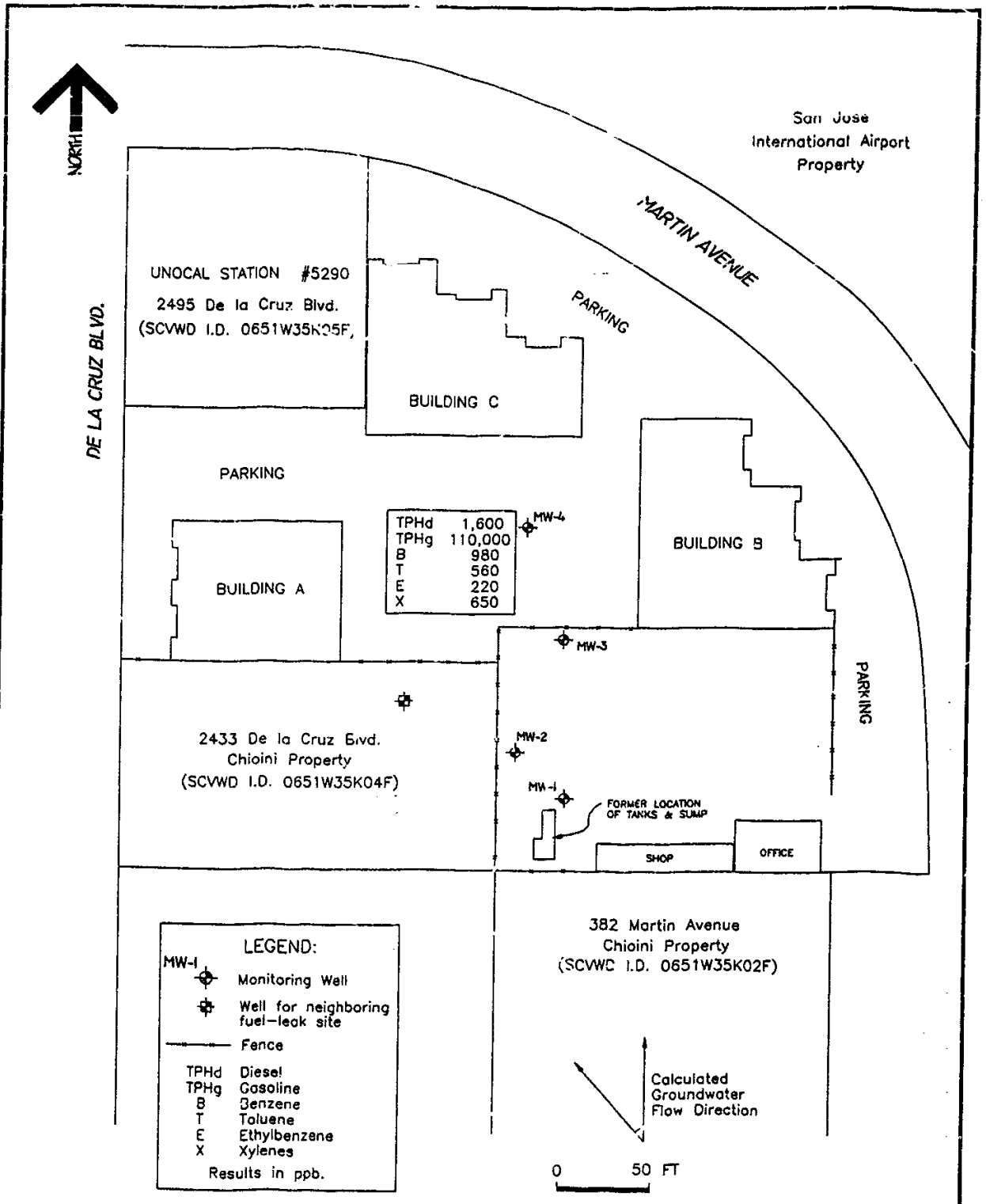


Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

GRAB GROUNDWATER SAMPLING RESULTS
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE 4
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	June 1996

Well Installation Report Data
dated November 22, 1996



5850100Z

Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

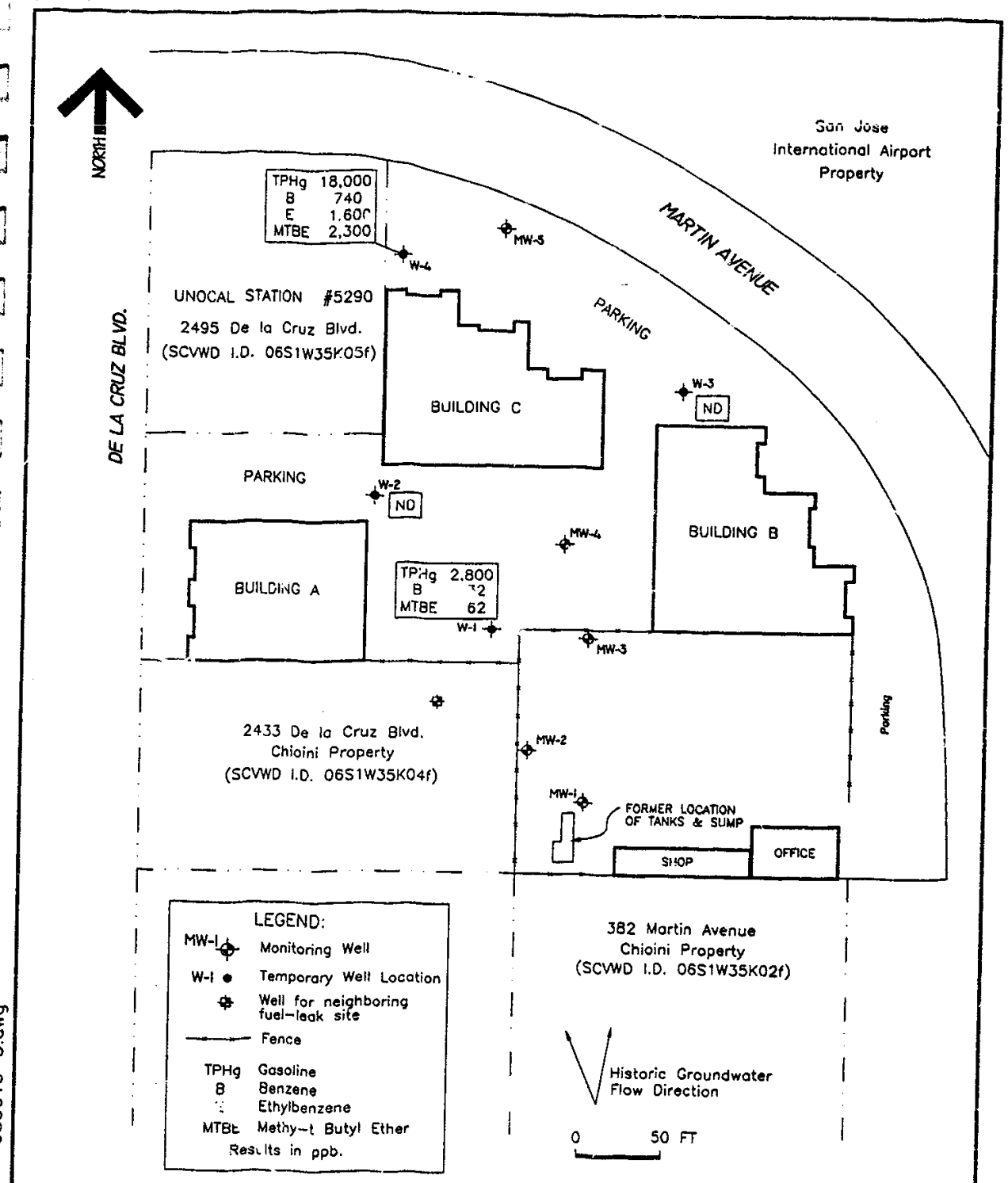
SITE PLAN
390 Martin Avenue
Santa Clara, California

JOB NO:	5850100	FIGURE
DRAWN BY:	C. ZARICI	2
APPROVED BY:	K. PRICE	November 1996

TABLE 1
SOIL AND GROUNDWATER SAMPLE RESULTS

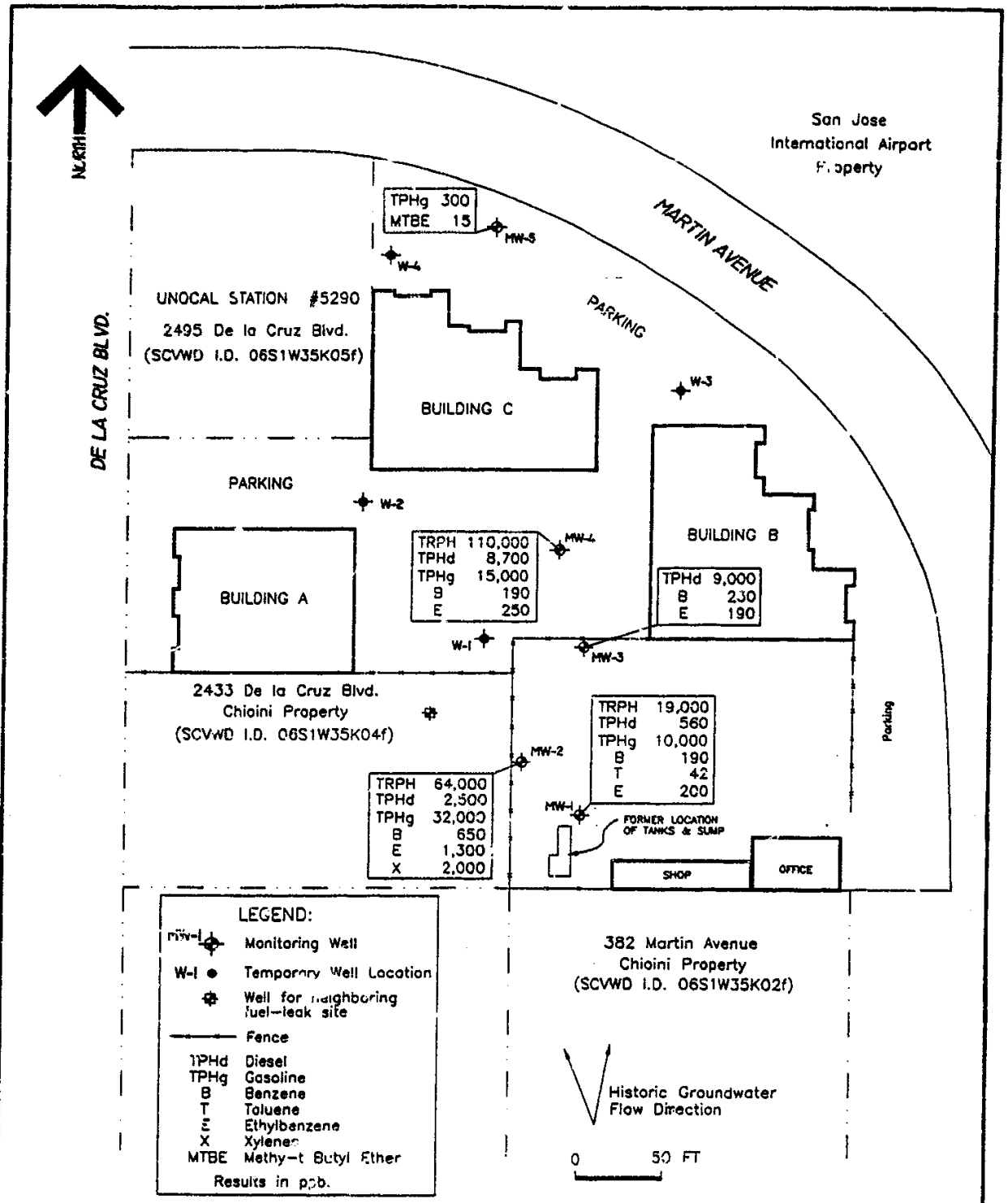
Soil Sampling Results							
Sample No.	**TRPH**	**TPHd**	**TPHg**	**Benzene**	**Toluene**	**Ethylbenzene**	**Xylenes**
MW4-5'	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
MW4-10'	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
MW4-15'	<5.0	<1.0	24	0.072	0.080	<0.005	0.075
Groundwater Sampling Results (ug/l)							
MW-4	<5,000	1,600	110,000	980	560	220	650

Continuing Groundwater Investigation Report Data
dated March 24, 1997



585010-3.dwg

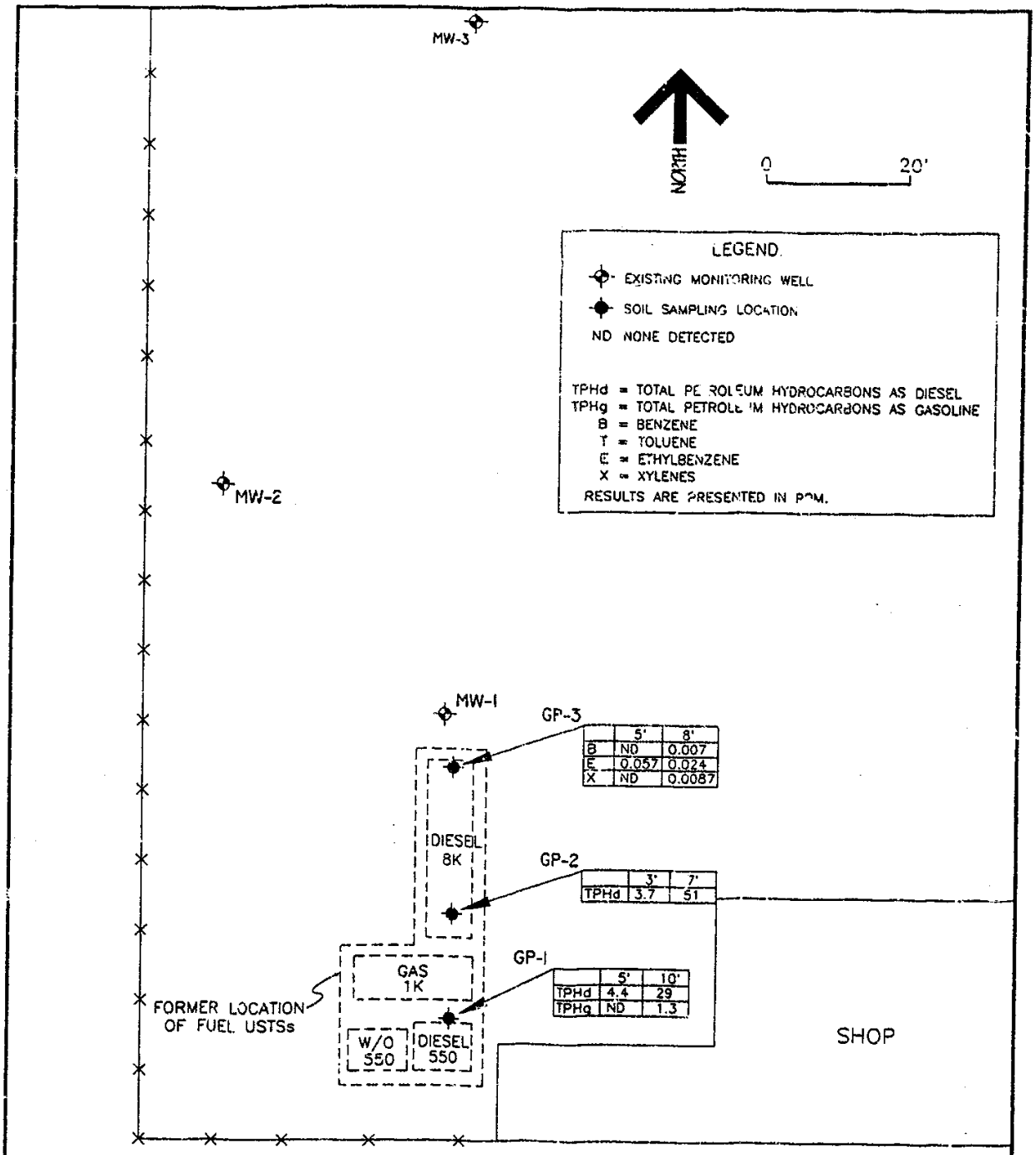
Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	RESULTS OF GRAB GROUNDWATER SAMPLING 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 February 1997



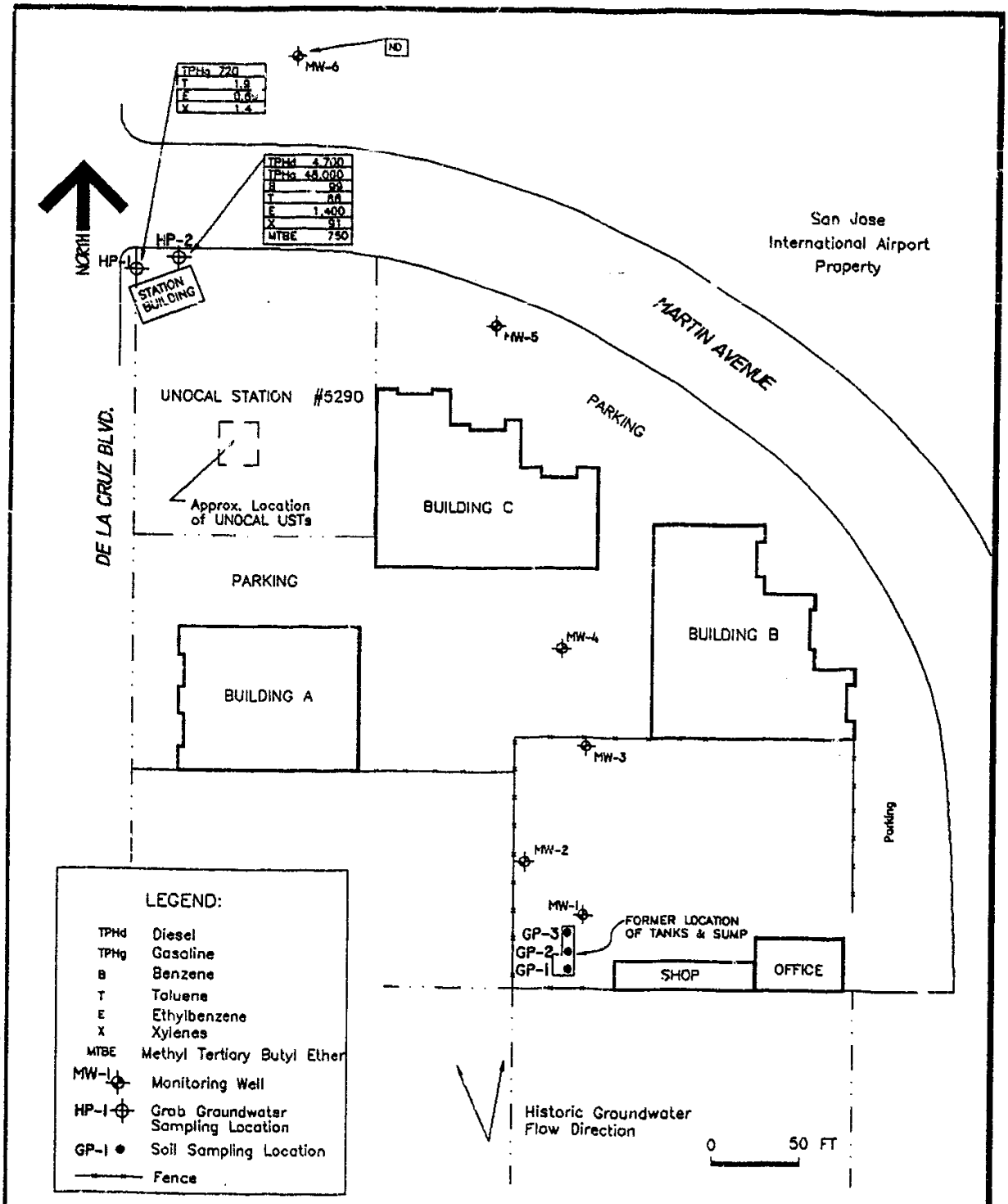
Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	RESULTS OF MONITORING WELL SAMPLING (February 13 & 14, 1997) 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 5
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	February 1997

5850100-5.dwg

Continuing Groundwater Investigation Report Data
dated July 24, 1997



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SOIL SAMPLING RESULTS 390 Martin Avenue Santa Clara, California	JOB NO. 5850100	FIGURE 3
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	July 1997



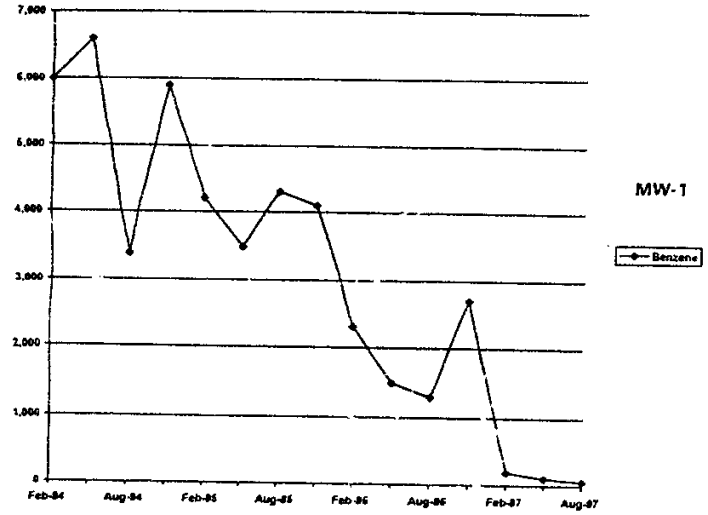
Note: Results in parts per billion (ppb)

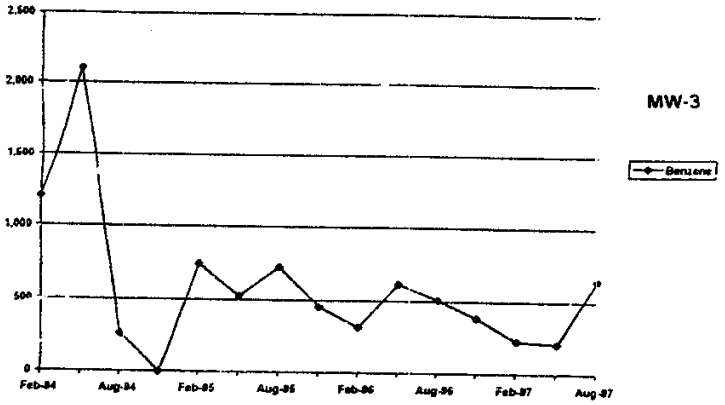
585010-2.dwg

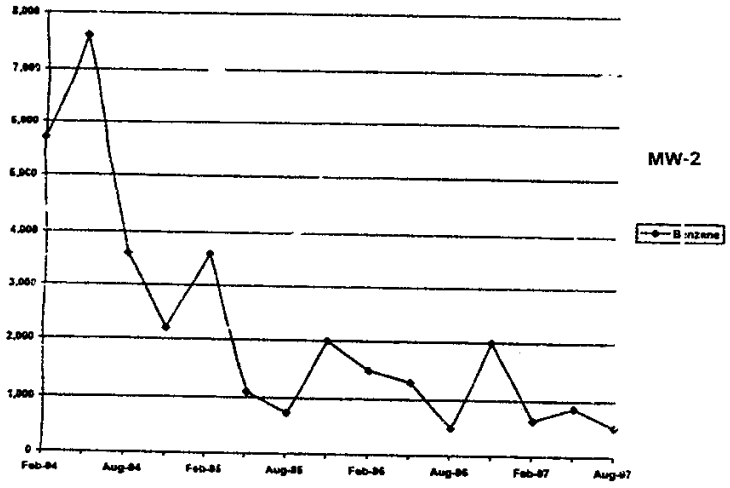
Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER SAMPLING LOCATION 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 5 July 1997

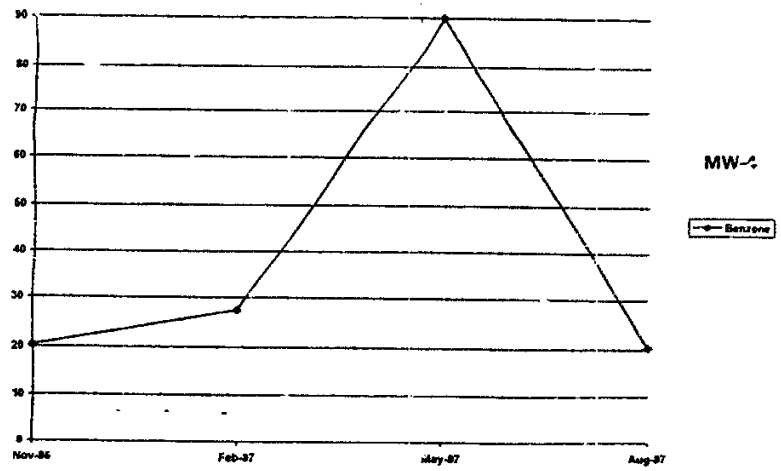
Graph 1
Quarterly Groundwater Monitoring Third Quarter 1997
dated August 29, 1997

GRAPH 1
BENZENE CONCENTRATIONS IN MONITORING WELLS MW-1 THROUGH MW-4
(Results in ppb)









Oxygen Release Compound (ORC) Injection Points Map
dated March 23, 1998

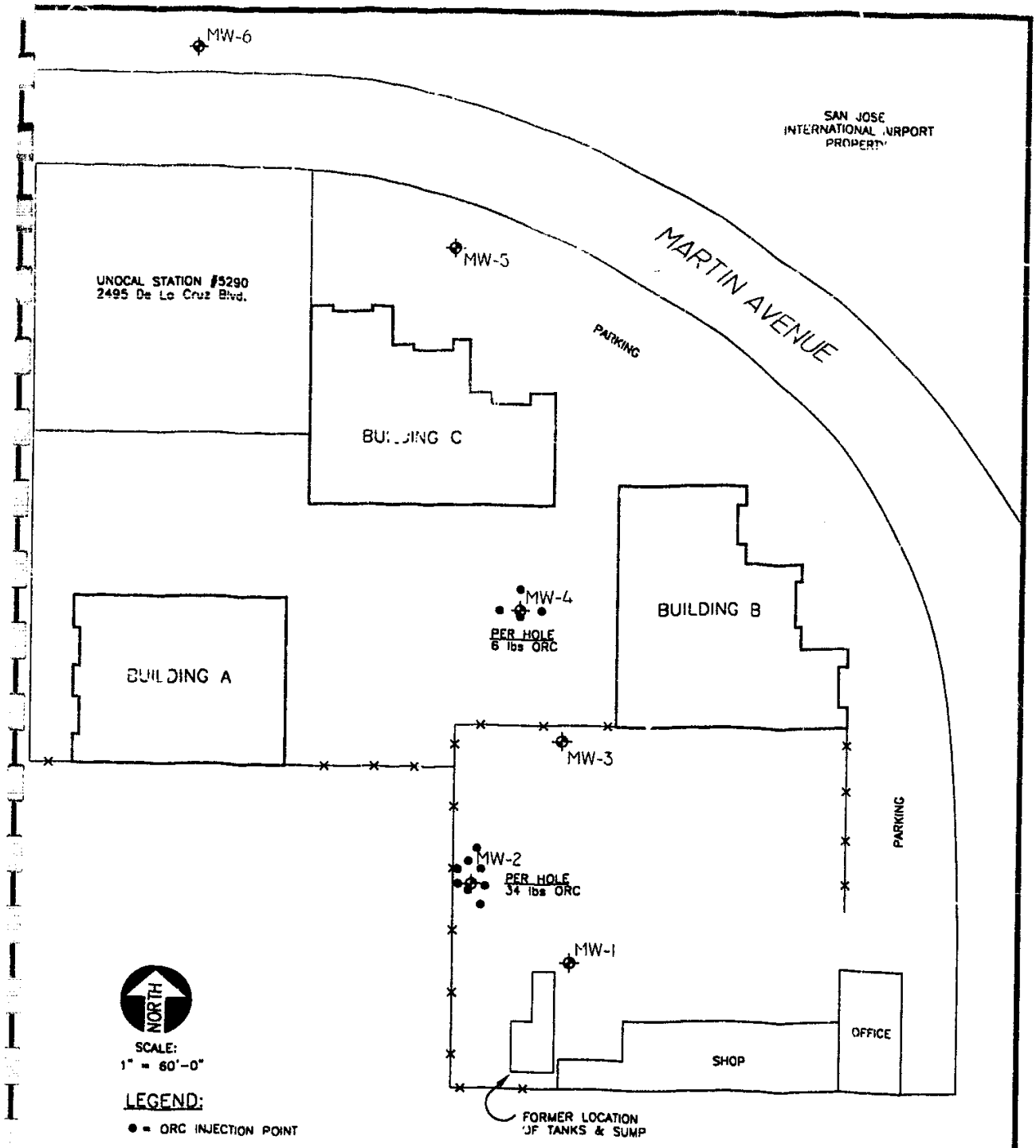


FIGURE 1 - ORC INJECTION LOCATIONS

Environmental/Engineering Consultants *Civic Center Tower* *675 North First Street, Suite 500* *San Jose, CA 95112*	Project Location 390 MARTIN AVENUE Santa Clara, California	Project Number 5850100	March 1998

Results of Fuel Oxygenates Analyses
dated April 7, 1998

RESULTS of FUEL OXYGENATES

Test Methods DF-EPA 8260 and DF-EPA 8010

TABLE 2							
First Quarter - April 7, 1998							
Sample No.	tert-Butanol ug/l	MTBE ug/l	Diisopropyl ether ug/l	ETBE ug/l	tert-Amylmethyl ether ug/l	1,2-DCA ug/l	Ethylene Dibromide ug/l
MW-1	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-2	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-3	<20.0	9.8	<5.0	<5.0	<5.0	<0.5	<0.5
MW-4	43.0	28.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-5	<20.0	5.4	<5.0	<5.0	<5.0	<0.5	<0.5
MW-6	<20.0	5.2	<5.0	<5.0	<5.0	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*NE*	*NE*	*.0005*	*.0005*

MTBE = Methyl-tert-butyl ether
ETBE = Ethyl-tert-butyl ether
1,2 DCA = 1,2-Dichloroethane
ug/l = unit grams per liter
MCLs = Maximum Contaminant Levels for drinking water
NE = MCLs have not been established for these compounds

E2C INC.

Environmental/Engineering Consultants

January 12, 1999
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **REQUEST FOR REVIEW OF MTBE DATA**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

On behalf of Mr. Richard Wehner, we are requesting that a review of the historical MTBE results as presented in the attached report be performed to determine if additional investigatory actions will be required in relation to MTBE.

Please note that four rounds of confirmation analyses for MTBE have been performed. We are hopeful that this information will be sufficient for your review.

Should you have any questions, please do not hesitate to contact us.

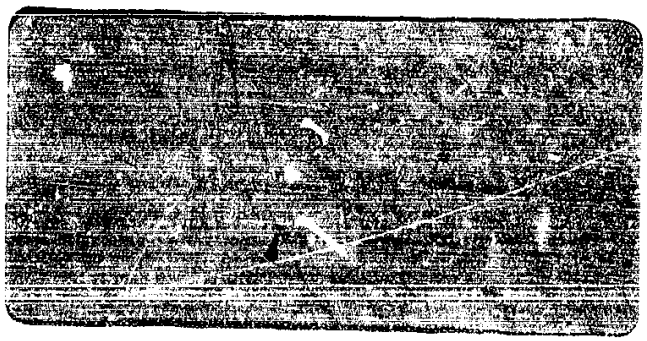
Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

REGISTERED ENVIRONMENTAL ASSESSOR
BRENDA D. McNABB
No. 03618
Expires: 6/99
STATE OF CALIFORNIA

cc: Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
Attn: Mr. Richard Wehner

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333



E2C INC.

Environmental/Engineering

Consultants

GROUNDWATER MONITORING
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
HOPKINS & CARLEY
A LAW CORPORATION
January 8, 1999

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

January 8, 1999
Job Number 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **GROUNDWATER MONITORING REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of two series of groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on November 4 and November 30, 1998. The November 30th sampling represented the Fourth Quarterly sampling of 1998. The November 4th sampling was an additional sampling event that occurred in response to a meeting with the SCVWD and the need to further evaluate potential addition plume definition requirements in relation to Methyl Tertiary Butyl Ether (MTBE). During both sampling events, the following scope of work was performed:

Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to

Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), TPH as diesel (TPHd), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and MTBE using EPA Test Methods 8015 and 8020, respectively. Due to the detection of MTBE in samples MW-1, MW-3, and MW-4 in the samples collected on November 4th, and the detection of MTBE in samples MW-1, MW-2, MW-3, and MW-4 in the samples collected on November 30th using EPA Test Method 8020, these samples were reanalyzed using EPA Test Method 8260. These results are presented parenthetically in Table 2 and on Figure 2.

The November 4, 1998 samples were also analyzed for the biological degradation parameters of Dissolved Oxygen (DO), Oxygen Reduction Potential (ORP), Alkalinity, Sulfate, Nitrate, and Ferrous Iron. The November 30th samples were measured for DO and ORP in addition to the chemical analyses listed in the previous paragraph.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses are presented in Tables 1 and 2 and on Figure 2. Laboraotry reports are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on both sampling dates. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3 and Figure 4.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

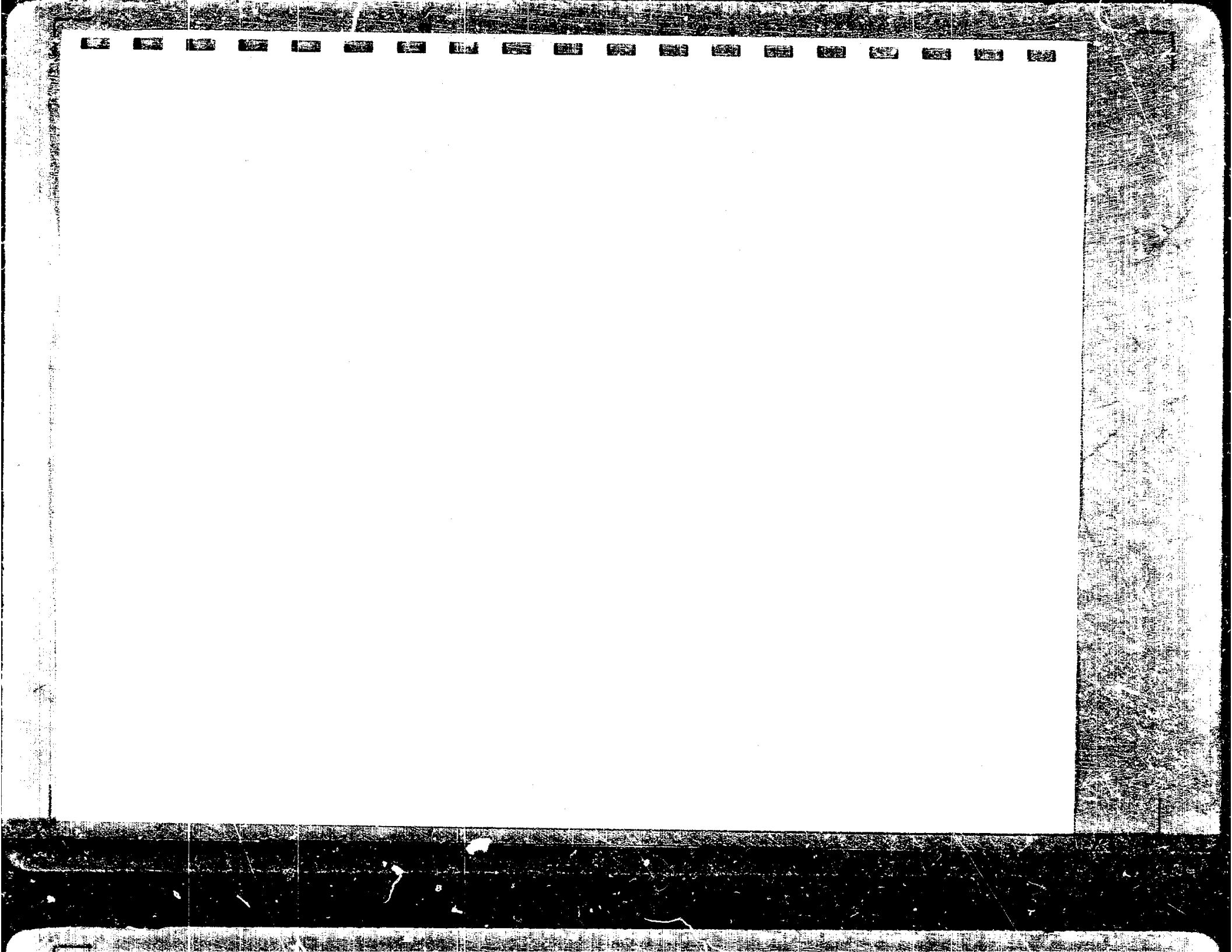
E_2C, Inc.

Brenda D. McNabb, REA
Senior Project Manager

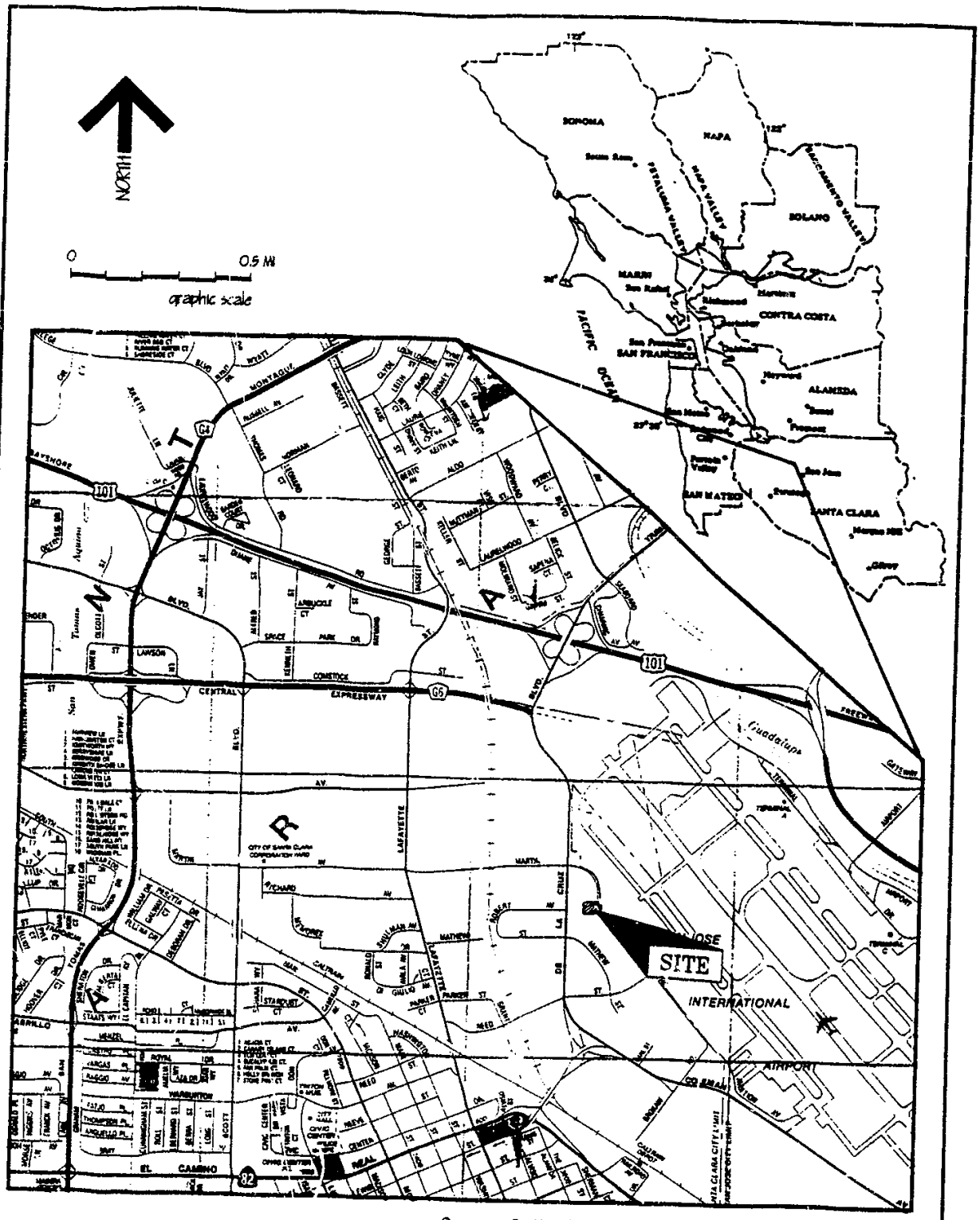
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner



FIGURES



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 575 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	

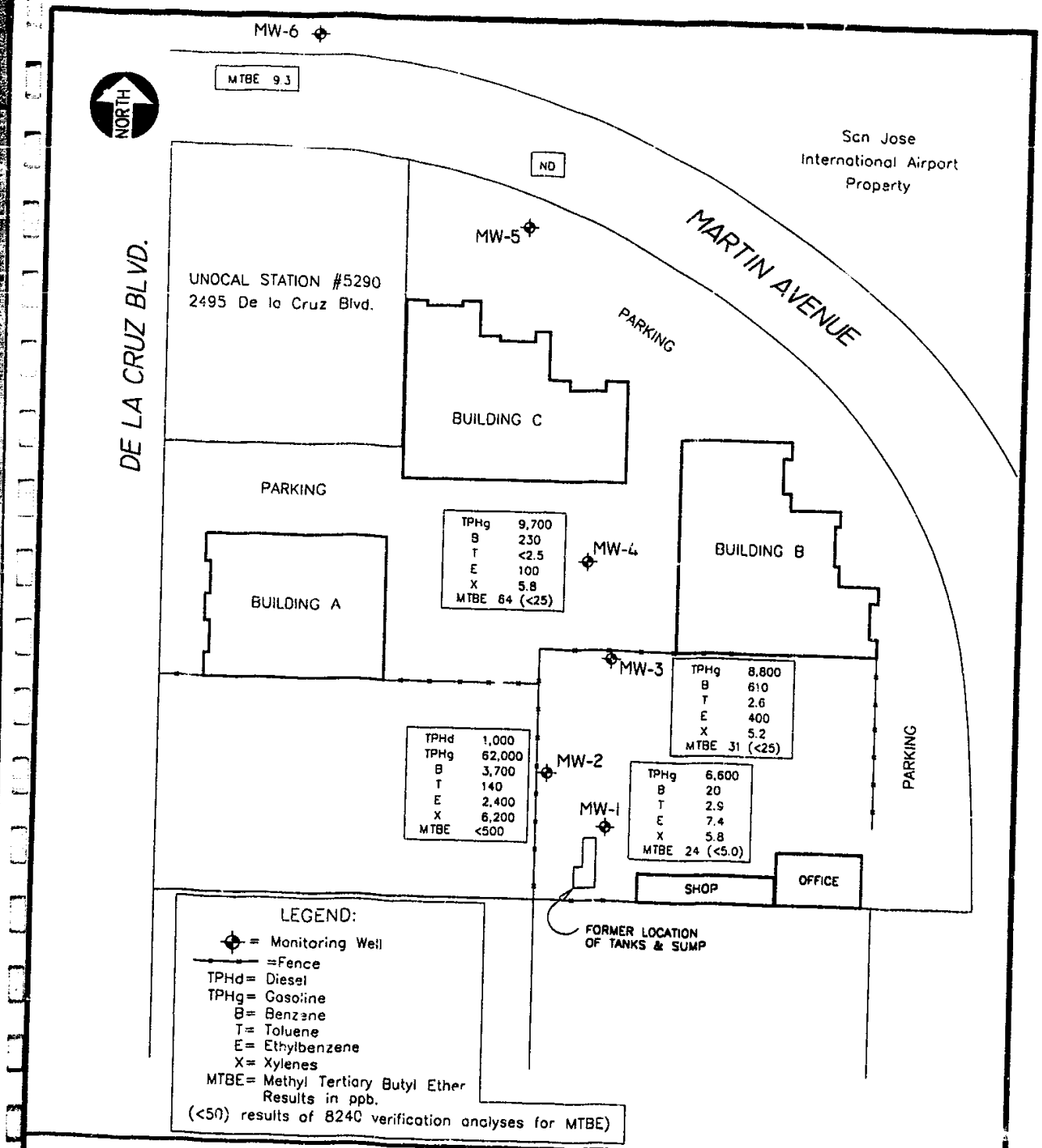


FIGURE 2 - SITE PLAN

Environmental/Engi .ng Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	11/4/98 390 MARTIN AVENUE Santa Clara, California	Project Number 5850100

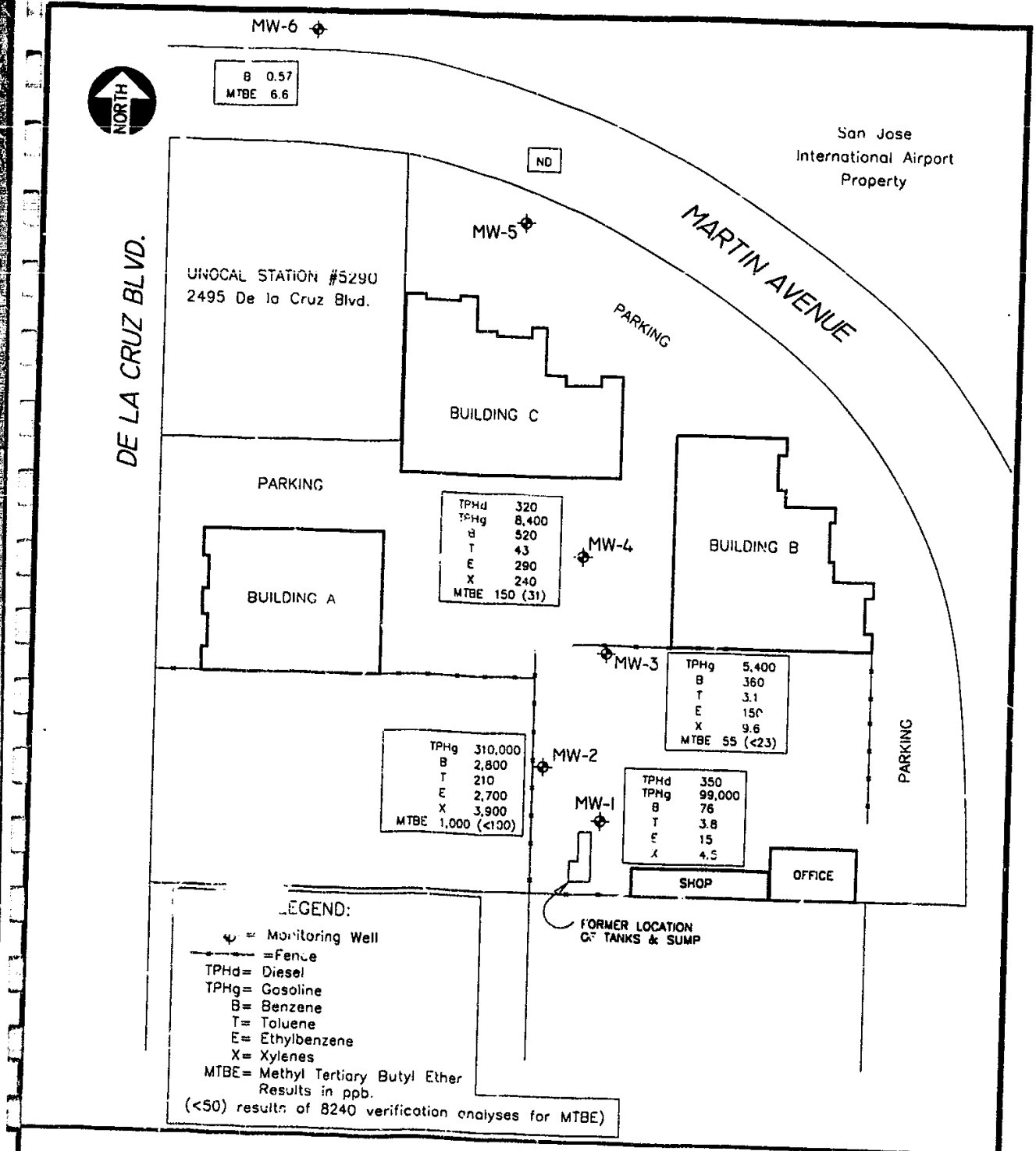


FIGURE 3 - SITE PLAN

Environmental/Engineering Consultants *Civic Center Tower* *675 North First Street, Suite 500* *San Jose, CA 95112*	11/30/98 390 MARTIN AVENUE Santa Clara, California	Project Number 5850100

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 25, 1994																
MW-1	0.05	22	91	5,000	4,700	2,900	8,800	3.3	<0.5	6.8	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	38	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	865	730	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	4,000	2,000	8,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	500	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	3	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	81	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	6	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	4,500	1,300	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	9.8	527	7.2	82	28	<0.5	5.0	<0.5	4.6	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Third Quarter - August 10, 1995																
MW-1	9.1	12	67	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	2.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	89	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	28	2,000	510	1,200	530	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	5.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,800	280	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	4.1	510	<0.5	37	8.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	9.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,800	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	490	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 14, 1997																
MW-1	0.580	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.9	24	7.2	110	<5	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	280	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.96	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	8.1	---	5.0	77	10	29	16	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.8	---	3.5	200	<5	90	6	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	380	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - April 7, 1998																
MW-1	<.05	---	3.2	44	<0.5	15	3.2	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	65	<.05	(9.8)	---	---	<0.5	---	---	---	---	---
MW-4	0.53	---	5.8	220	<0.5	40	<0.5	(28)	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	1.6	(5.4)	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<0.05	1.3	0.71	<0.5	<0.5	(5.2)	---	---	<0.5	---	---	---	---	---
Second Quarter - June 29, 1998																
MW-1	<0.05	---	5.0	97	4.9	15	7.3	200	---	---	---	---	---	---	---	---
MW-2	<0.05	---	42.0	2,000	98	2,000	3,800	1,200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	280	10	160	---	---	---	---	---	---	---	---
MW-4	<0.05	---	6.4	160	<0.5	87	6.8	270	---	---	---	---	---	---	---	---
MW-5	<0.05	---	.053	<0.5	<0.5	<0.5	<0.5	10	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	26	---	---	---	---	---	---	---	---
Third Quarter - September 16, 1998																
MW-1	<50	---	6.9	100	<0.5	15	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	1,000	---	150	300	340	2,000	3,700	640 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.3	670	<0.5	280	8.8	73 (<50)	---	---	---	---	---	---	---	---
MW-4	<50	---	7.4	280	14	130	26	130 (<50)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	40 (61)	---	---	---	---	---	---	---	---
Fourth Quarter - November 4, 1998																
MW-1	<50	---	6.6	20	2.9	7.4	5.9	24 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	62	2,700	140	2,400	6,200	<500	---	---	---	---	---	---	---	---
MW-3	<50	---	8.8	610	2.6	400	5.2	31 (<2.5)	---	---	---	---	---	---	---	---
MW-4	<50	---	3.7	230	<2.5	100	5.8	84 (<25)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
November 30, 1998																
MW-1	350	—	99	75	3.8	15	4.5	53 (<5.0)	—	—	—	—	—	—	—	—
MW-2	<50	—	310	2,900	210	2,200	3,900	1,900 (<100)	—	—	—	—	—	—	—	—
MW-3	<50	—	5.4	360	3.1	150	9.6	55 (13)	—	—	—	—	—	—	—	—
MW-4	320	—	8.4	520	4.3	290	240	150 (31)	—	—	—	—	—	—	—	—
MW-5	<50	—	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	—	—	—	—	—	—	—	—
MW-6	<50	—	<0.05	0.57	<0.5	<0.5	<0.5	6.6	—	—	—	—	—	—	—	—
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
— = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.
( ) = Results of verification analyses for MTBE using EPA Test Method 8240 or 8260.

TABLE 2 - BIOLOGICAL PARAMETERS

Sample No.	Date	Dissolved Oxygen mg/l	ORP m/V	Alkalinity mg/l	Ferrous Iron mg/l	Nitrate mg/l	Sulfate mg/l
MW-1	4/7/98	1.3	36	440	<0.01	0.21	300
	6/29/98	1.6	214	440	0.27	<0.10	290
	9/16/98	0.6	-170	450	<0.05	<0.10	340
	11/4/98	0.7	129	410	<0.01	<0.10	350
	11/30/98	0.6	-34	—	—	—	—
MW-2	4/7/98	1.7	122	620	<0.01	0.33	190
	6/29/98	1.9	211	730	<0.01	<0.10	150
	9/16/98	0.7	-169	730	<0.05	<0.10	120
	11/4/98	0.8	95	640	<0.01	<0.10	<0.10
	11/30/98	0.5	-51	—	—	—	—
MW-3	4/7/98	1.5	64	600	<0.01	<0.10	90
	6/29/98	1.7	223	640	0.27	<0.10	80
	9/16/98	1.3	-187	650	<0.05	<0.10	48
	11/4/98	3.0	150	580	<0.01	<0.10	<0.10
	11/30/98	1.2	-25	—	—	—	—
MW-4	4/7/98	1.3	6	680	<0.01	<0.10	31
	6/29/98	1.3	233	690	<0.01	<0.10	38
	9/16/98	0.5	-146	700	<0.05	<0.10	27
	11/4/98	1.2	-10	240	<0.01	<0.10	<0.10
	11/30/98	0.4	-119	—	—	—	—

TABLE 2 CONTINUED - BIOLOGICAL PARAMETERS							
Sample No.	Date	Dissolved Oxygen mg/l	ORP mV	Alkalinity mg/l	Ferroue iron mg/l	Nitrate mg/l	Sulfate mg/l
MW-5	4/7/98	1.5	186	520	<0.01	<0.10	420
	6/29/98	1.6	184	530	<0.01	<0.10	490
	9/16/98	2.2	-134	520	<0.05	<0.10	500
	11/4/98	0.7	177	460	<0.01	<0.10	450
	11/30/98	1.7	46	—	—	—	—
MW-6	4/7/98	2.8	230	500	<0.01	3.3	520
	6/29/98	1.8	164	640	<0.01	0.94	420
	9/16/98	1.3	-122	680	<0.05	<0.10	430
	11/4/98	2.1	207	500	<0.01	<0.10	400
	11/30/98	1.6	190	—	—	—	—

TABLE 3
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 3 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	18.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		
4/7/98	MW-1	Unknown	Unknown	20.55'	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

TABLE 3 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
6/29/98	MW-1	Unknown	Unknown	20.51'	38.89'	7.63'	31.26'	Northeast	0.011
	MW-2	18'	8'-18'	16.97	39.28'	8.22'	31.06'		
	MW-3	18'	8'-18'	17.83'	39.35'	8.65'	30.70'		
	MW-4	20'	7'-20'	18.74'	37.37'	7.06'	30.31'		
	MW-5	20'	5'-20'	18.77'	36.98'	8.13'	28.85'		
	MW-6	20'	5'-20'	19.79'	---	9.47'	---		
9/16/98	MW-1	20'	Unknown	20.15'	38.89'	8.05'	30.84'	North - NW	0.004
	MW-2	16'	8'-18'	15.80'	39.28'	8.75'	30.53'		
	MW-3	17'	8'-18'	17.35'	39.35'	9.05'	30.30'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.28'	30.09'		
	MW-5	19'	5'-20'	18.75'	36.98'	8.50'	28.48'		
	MW-6	17'	5'-20'	17.46'	---	9.71	---		
11/4/98	MW-1	20'	Unknown	20.21	38.89'	7.93'	30.96'	North - NW	0.004
	MW-2	16'	8'-18'	15.98'	39.28'	8.60'	30.68'		
	MW-3	17'	8'-18'	17.24	39.35'	8.94'	30.41'		
	MW-4	19'	7'-20'	18.89'	37.37'	7.22'	30.15'		
	MW-5	19'	5'-20'	18.78'	36.98'	8.39'	28.59'		
	MW-6	17'	5'-20'	17.50	---	9.80'	---		

TABLE 3 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/30/98	MW-1	20'	Unknown	20.15'	38.89'	7.69	31.20'	North - NW	0.004
	MW-2	16'	8'-18'	16.89'	39.28'	8.29'	30.99'		
	MW-3	17'	8'-18'	17.36'	39.35'	8.75'	30.60'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.00'	30.37'		
	MW-5	19'	5'-20'	18.76'	36.98'	8.00'	28.98'		
	MW-6	17'	5'-20'	17.47'	---	9.28'	---		

APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: E.C @ Hopkins & Carr
Sampler: JR	Start Date: 11-4-98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Deptn: 20.21	Depth to Water: 7.93
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

2.0 (Gals.) X 3 = 6.0 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1055	69.8	6.9	1400	>200	2.0	-black
1058	69.6	6.8	1400	>200	4.0	-odor
1101	69.8	6.8	1300	>200	6.0	-sheen
					D.O. =	0.7 mg/L
					ORP =	129

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Time: 1105 Sampling Date: 11-4-98

Sample I.D.: MW-1 Laboratory: Entech

Analyzed for: (TPH-G BTEX MTBE TPH-D) Other: Alkalinity, Nitrate, Sulfate, Ferrous Iron

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: E2C @ Hopkins & Cove
Sampler: JR	Start Date: 11-4-98
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 15.98	Depth to Water: 8.60
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

1.2 (Gals.) X 3 = 3.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1031	69.8	7.2	1300	>200	1.3	odor, sheen
1034	69.8	7.1	1400	>200	2.6	black
1037	69.6	7.1	1300	>200	4.0	
					D.O. =	0.8 mg/L
					ORP =	95

Did well dewater? Yes (No) Gallons actually evacuated: 4.0

Sampling Time: 1040 Sampling Date: 11-4-98

Sample I.D.: MW-2 Laboratory: Entech

Analyzed for: (TPH-G) BTEX MTBE (TPH-D) Other: Alkalinity, Nitrate, Sulfate, Ferrous Iron

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: E & C @ Hopkins & Carey
Sampler: SR	Start Date: 11-4-98
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.24	Depth to Water: 8.94
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

1.3 (Gals.) X 3 = 3.9 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1007	70.2	6.6	1400	>200	1.5	-black, odor
1009	69.6	6.6	1400	>200	3	- Turbid
1011	69.4	6.6	1300	>200	4.5	
					D.O =	3.0 mg/L
					ORP =	150

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Time: 1015 Sampling Date: 11-4-98

Sample I.D.: MW-3 Laboratory: Entech

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

~~Equipment Blank~~ I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Alkalinity, Nitrate, Sulfate, Ferrous Iron

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: EnC @ Hopkins & Carus
Sampler: JR	Start Date: 11-4-98
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.89 After	Depth to Water: Before 7.22 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.9 (1 Case Volume) × 3 (Specified Volumes) = 5.7 gallons

Purging: Bailer Y
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: Bailer Y
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1222	71.2	7.0	1400	7200	2	-gas
1225	70.2	7.0	1300	>200	4	-odor
1228	70.0	7.0	1300	>200	6	
					D.O=	1.2 mg/L
					ORP=	-10

Did Well Dewater? (No) If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 1230 Sampling Date: 11-4-98

Sample I.D.: MW-4 Laboratory: Enthech

Analyzed for: (TPH-G BTEX TPH-D) OTHER: Alkalinity, Nitrate, Sulfate, Ferrous Iron
MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: EC @ Hopkins & Carey
Sampler: SR	Start Date: 11-4-98
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.78	Depth to Water: 8.39
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

1.7 (Gals.) X 3 = 5.1 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1118	69.8	6.9	1500	>200	2	brown, turbid
1122	69.6	6.9	1600	>200	4	
1126	69.4	6.9	1500	>200	6	
					D.O = 0.7 mg/L	
					ORP = 177	

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Time: 1130 Sampling Date: 11-4-98

Sample I.D.: MW-5 Laboratory: Entech

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Alkalinity, Nitrate, Sulfate, Ferrous Iron

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 981104-21	Client: Ez C @ Hopkins & C
Sampler: JR	Start Date: 11-4-98
Well I.D.: MW-6	Well Diameter: (circle one) 2 3 4 6 (.34")
Total Well Depth: Before 17.50 After	Depth to Water: Before 9.80 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.18 (1 Case Volume) x 3 (Specified Volumes) = .54 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other pi bailer X

Sampling: Bailer
Disposable Bailer
Extraction Port
Other pi bailer X

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1145	70.6	6.8	1700	7200	0.2	very turbid
1150	70.2	7.0	1600	>200	0.4	-brown
1155	70.2	7.0	1400	>200	0.6	
					D.O = 2.1 mg/L	
					ORP = 207	

Did Well Dewater? (No) If yes, gals. Gallons Accually Evacuated: 0.6

Sampling Time: 1205 Sampling Date: 11-4-98

Sample I.D.: MW-6 Laboratory: Entech

Analyzed for: TPH-G BTEX TPH-D (MTBE) OTHER: Alkalinity, Nitrate, Sulfate, Ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 98130-53	Client: Hopkins & Conley
Sampler: Steve	Start Date: 11/30/98
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 20.15	Depth to Water: 7.69
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer ×
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other: ___

Sampling Method: Bailer ×
Disposable Bailer
Extraction Port
Other: ___

2.0	(Gals.) X	3	=	6.0	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1306	65.8	7.3	1400	7200	2.0	
1310	65.5	7.2	1400	7200	4.0	
1314	65.4	7.2	1410	7200	6.0	

Did well dewater? Yes (No)	Gallons actually evacuated: 6.0
Sampling Time: 1319	Sampling Date: 11/30/98
Sample I.D.: MW-1	Laboratory: Entech
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:	
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D Other:	
D.O. (if req'd): Pre-purge: ___ mg/L	Post-purge: 0.6 mg/L
ORP (if req'd): Pre-purge: ___ mV	Post-purge: -34 mV

WELL MONITORING DATA SHEET

Project #: 981130-53	Client: Hopkins & Carley
Sampler: Steve	Start Date: 11/30/98
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 16.89	Depth to Water: 8.29
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer ✓, Disposable Bailer, Middleburg, Electric Submersible, Extraction Pump, Other: ___

Sampling Method: Bailer ✓, Disposable Bailer, Extraction Port, Other: ___

1.4 (Gals.) X 3 = 4.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1243	66.6	7.8	1407	7200	1.5	
1246	66.3	7.7	1400	7200	3.0	
1249	66.2	7.7	1420	7200	4.5	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Time: 1254 Sampling Date: 11/30/98

Sample I.D.: MW-2 Laboratory: Enkelv

Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D) Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.5	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	-51	mV

WELL MONITORING DATA SHEET

Project #: 98113c-53	Client: Hopkins & Carley
Sampler: Steve	Start Date: 11/30/98
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.36	Depth to Water: 8.75
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

1.4 (Gals.) X 3 = 4.2 Gals.
1 Case Volume; Specified Volumes; Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	5"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1220	67.2	7.2	1390	7200	1.5	
1223	67.0	7.1	1400	7200	3.0	
1226	67.4	7.1	1410	7200	4.5	
						~~D.O. = 1.2 mg/L~~
						~~ORP = -25 mV~~

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Time: 1231 Sampling Date: 11/30/98

Sample I.D.: MW-3 Laboratory: Enkeln

Analyzed for: (TPH-G) BTEX (MTBE) (TPH-D) Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.2	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	-25	mV

WELL MONITORING DATA SHEET

Project #: 9[illegible]-53	Client: Hopkins & Cooley
Sampler: [illegible]	Start Date: 11/30/98
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 18.80	Depth to Water: 7.00
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ____

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ____

1.9 (Gals.) X 3 = 5.7 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1417	67.2	7.1	1200	7200	2.0	
1420	66.5	7.0	1280	7200	4.0	
1424	66.3	7.1	1300	7200	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Time: 1429 Sampling Date: 11/30/98

Sample I.D.: MW-4 Laboratory: Enkelv

Analyzed for: (TPH-G) BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.4 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	[illegible] - 119 mV

WELL MONITORING DATA SHEET

Project #: 981130-J3	Client: Hopkins & Carley
Sampler: Stuart	Start Date: 11/30/98
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.76	Depth to Water: 8.00
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer X; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other: ___

Sampling Method: Bailer X; Disposable Bailer; Extraction Port; Other: ___

1.7 (Gals.) X 3 = 5.1 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1330	66.0	7.1	1670	7100	2.0	
1334	65.7	7.0	1650	7200	3.5	
1338	65.4	7.0	1640	7200	5.5	

Did well dewater? Yes (No)

Gallons actually evacuated: 5.5

Sampling Time: 1342

Sampling Date: 11/30/98

Sample I.D.: MW-5

Laboratory: Enkeln

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:

Equipment Blank I.D.: @ Time

Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.7 mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	41 mV

WELL MONITORING DATA SHEET

Project #: 981201-33	Client: Hopkins & Carley
Sampler: Stuel	Start Date: 12/1/98
Well I.D.: MW-6	Well Diameter: 2 3 4 6 8 (3/4")
Total Well Depth: 16.88	Depth to Water: 9.44
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer, Disposable Bailer, Middleburg, Electric Submersible, Extraction Pump, Other: Pvc Bailer

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Other: Pvc Bailer

.20 (Gals.) X 3 = .60 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

.022 x 18

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1455	67.0	6.8	1670	7200	.20	
1508	67.7	6.9	1650	7200	.40	
1520	67.6		1650	7200	.60	

Did well dewater? Yes (No) Gallons actually evacuated: .60

Sampling Time: 1530 Sampling Date: 12/1/98

Sample I.D.: MW-6 Laboratory: Enviro

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.6 mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	190 mV

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

EIC, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 11/11/9
Date Received: 11/4/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	11/4/98			11/4/98			11/4/98				
Sample Time	11:05			10:40			10:15				
Lab #:	E19856			E19857			E19858				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	11/6/98			11/6/98			11/6/98				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	11/6/98			11/6/98			11/6-11/9/98				
TPH-Gas	**6,600**	1.0	50	**62,000**	100	5000	**8,800**	1.0	50	50	8015M
MTBE	**24**	1.0	5.0	**ND**	100	500	**31**	1.0	5.0	5.0	8020
Benzene	**20**	1.0	0.50	**3,700**	100	50	**610**	10	5	0.50	8020
Toluene	**2.9**	1.0	0.50	**140**	100	50	**2.6**	1.0	0.50	0.50	8020
Ethyl Benzene	**7.4**	1.0	0.50	**2,400**	100	50	**400**	1.0	0.50	0.50	8020
Xylenes	**5.8**	1.0	0.50	**6,200**	100	50	**5.2**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2 , Inc.
675 North t Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 11/11/98
Date Received: 11/4/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Repo :

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	11/4/98			11/4/98			11/4/98				
Sample Time	11:30			11:50			12:05				
Lab #	E19859			E19860			E19861				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	11/6/98			11/10/98			11/10/98				
TPH-Diesel	ND	1.0	50	ND	1.0	50	ND	1.0	50	50	8015M
Analysis Date	11/6/98			11/6/98			11/6/98				
TPH-Gas	9,700	5.0	250	ND	1.0	50	ND	1.0	50	50	8015M
MTBE	64	5.0	25	ND	1.0	5.0	2.3	1.0	5.0	5.0	8020
Benzene	230	5.0	2.5	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Toluene	ND	5.0	2.5	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Ethyl Benzene	100	5.0	2.5	ND	1.0	0.50	ND	1.0	0.50	0.50	8020
Xylenes	5.8	5.0	2.5	ND	1.0	0.50	ND	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

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E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 11/11/98
Date Received: 11/4/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	11/4/98			11/4/98			11/4/98				
Sample Time	11:05			10:30			10:15				
Lab #	E19856			E19837			E19858				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	11/4-11/6/98			11/4-11/6/98			11/4-11/6/98				
Results in mg/Liter											
Alkalinity	410	1.0	0.10	640	1.0	0.10	580	1.0	0.10	0.10	310.1
Ferrous Iron	ND	1.0	0.010	ND	1.0	0.010	ND	1.0	0.010	0.010	SM 3500
Nitrate-Nitrogen	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	0.10	353.3
Sulfate	350	10	1.0	ND	1.0	0.10	ND	1.0	0.10	0.10	375.4

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

DF=Dilution Factor
PQL= Practical Quantitation Limit

ND=None Detected above DLR
DLR=Detection Reporting Limit

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

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E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 11/11/98
Date Received: 11/4/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	11/4/98			11/4/98			11/4/98				
Sample Time	12:30			11:30			12:05				
Lab #	E19859			E19860			E19861				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	11/4-11/6/98			11/4-11/6/98			11/4-11/6/98				
Results in mg/Liter:											
Alkalinity	**240**	1.0	0.10	**460**	1.0	0.10	500	1.0	0.10	0.10	310.1
Ferrous Iron	**ND**	1.0	0.010	**ND**	1.0	0.010	**ND**	1.0	0.010	0.010	SM 3500
Nitrate-Nitrogen	**ND**	1.0	0.10	**ND**	1.0	0.10	**ND**	1.0	0.10	0.10	353.3
Sulfate	**ND**	1.0	0.10	**450**	10	1.0	400	10	1.0	0.10	375.4

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

DF=Dilution Factor
PQL= Practical Quantitation Limit

ND=None Detected above DLR
DLR=Detection Reporting Limit

Environmental Analysis Since 1983

Eutech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GHG4981106
Matrix: Water
Units: µg/L

Date Analyzed: 11/06/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	97	40	99	2.0	25	77-115
Toluene	8020	<0.50	40	ND	37	94	39	98	4.4	25	76-115
Ethyl Benzene	8020	<0.50	40	ND	38	95	40	99	4.0	25	77-115
Xylenes	8020	<0.50	120	ND	118	98	120	100	1.4	25	77-117
Gasoline	8015	<50.0	500	ND	521	104	537	107	3.1	25	67-135

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW981101
Matrix: Water
Units: µg/L

Date analyzed: 11/04/98
Date extracted: 11/04/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	850	89	740	78	14	25	62-131

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #

CLIENT E2C

SITE ~~BP~~ HOPKINS & CARLEY

390

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ___
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO:
E2C
ATTN: BERNIE McNABB
* Samples have short Hold Time
Proj # 5350100

SAMPLE I.D.	Date	Time	MATRIX S=SOIL W=H2O	CONTAINERS TOTAL		C	TPH-G, BTEX, MTBE	ALKALINITY *	NITRATE *	SULFATE *	FERROUS IRON *	TPH-Diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-~~1~~2	11/4/98	1105	W	8	E19856		X	X	X	X	X	X	*Ferrous Iron has 24 hour hold time			
MW-~~2~~5		1040			E19857		X	X	X	X	X	X	*Alkalinity, Nitrate, Sulfate has 48 hour hold time			
MW-~~3~~4		1015 ~~1250~~			E19858		X	X	X	X	X	X				
MW-~~4~~6		1230			E19859		X	X	X	X	X	X				
MW-5		1130			E19860		X	X	X	X	X	X				
MW-~~6~~3		1205			E19861		X	X	X	X	X	X				

SAMPLING COMPLETED	DATE	TIME
	11/4/98 ~~12/4/98~~	1230

SAMPLING PERFORMED BY Jeremy

RESULTS NEEDED NO LATER THAN Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	11/4/98	16:05		11-4-98	16:05
	11-4-98	6:45p		11/4/98	6:50pm

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

EZC, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 11/19/98
Date Received: 11/4/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-3			MW-4				
Sample Date	11/4/98			11/4/98			11/4/98				
Sample Time	11:05			10:15			12:30				
Lab #	E19856			E19858			E19859				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	11/18/98			11/18/98			11/18/98				
MTBE	ND	1.0	5.0	ND [1]	5.0	25	ND [1]	5.0	25	5.0	8260

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample diluted due to high concentrations of non-target hydrocarbons
2. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Ave., Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Compounds

QC Batch #: WGCSM981115
Matrix: Water
Units: µg/L

Date analyzed: 11/17/98
Spiked Sample: Blank Spike

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
1,1- Dichloroethene	8240/8260	25	ND	23	92%	24	94%	2.1	25	50-150
Benzene	8240/8260	25	ND	23	92%	23	94%	2.2	25	50-150
Trichloroethene	8240/8260	25	ND	21	84%	21	84%	0.0	25	50-150
Toluene	8240/8260	25	ND	25	100%	25	101%	1.2	25	50-150
Chlorobenzene	8240/8260	25	ND	26	103%	26	103%	0.4	25	50-150
1,2,4-Trichlorobenzene	8240/8260	25	ND	26	105%	26	102%	3.1	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

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FAX (408) 573-7771
PHONE (408) 573-0555

SERVICES INC.

CHAIN OF CUSTODY BTS #

CLIENT E2C

SITE ~~BTS~~ HOPKINS & CARLEY

390

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO:
E2C
ATTN: BRENDA MCNABB
* Samples to be shown Hold Time.
PROJ # SB50100

SAMPLE I.D	Date	Time	MATRIX S=SOIL W=H2O	CONTAINERS TOTAL		C=COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-G, BTEX, MTBE	Alkalinity *	Nitrate *	Sulfate *	Ferrous Iron *	TPH-Diesel	MTBE by 8260 added 11/12/98 SHD TAT (X)	As obtained from core	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1 ~~EXT~~	11/4/98	1105	W	8	E19856		X	X	X	X	X	X	X		* Ferrous Iron has 24 hour hold time			
MW-2 ~~EXT~~		1040			E19857		X	X	X	X	X	X			* Alkalinity, Nitrate, Sulfate has 48 hour hold time			
MW-3 ~~EXT~~		~~1015~~ 1220			E19858		X	X	X	X	X	X	X					
MW-4 ~~EXT~~		1230			E19859		X	X	X	X	X	X	X					
MW-5 ~~EXT~~		1130			E19860		X	X	X	X	X	X						
MW-6 ~~EXT~~	↓	1205	↓	↓	E19861		X	X	X	X	X	X						

SAMPLING COMPLETED	DATE	TIME
	11/4/98 ~~11/5/98~~	1230

SAMPLING PERFORMED BY Jeremy

RESULTS NEEDED NO LATER THAN Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	11/4/98	16:05		11-4-98	16:05
	11-4-98	6:45		11/4/98	6:50pm

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 12/9/98
Date Received: 12/2/98
Project: 5850700
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	11/30/98			11/30/98			11/30/98				
Sample Time	13:19			12:54			12:31				
Lab #	E21520			E21521			E21522				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	12/4/98			12/4/98			12/4/98				
TPH-Diesel	350 [1]	1.0	50	ND [1]	20	1000	ND	1.0	50	50	8015M
Analysis Date	12/5-12/6/98			12/5/98			12/5-12/9/98				
TPH-Gas	99,000	50	2500	310,000	100	5000	5,400	1.0	50	50	8015M
MTBE	53	5.0	25	1,000	100	500	55	1.0	5.0	5.0	8020
Benzene	76	5.0	2.5	2,800	100	50	3	10	5	0.50	8020
Toluene	3.8	5.0	2.5	210	100	50	3.1	1.0	0.50	0.50	8020
Ethyl Benzene	15	5.0	2.5	2,700	100	50	150	1.0	0.50	0.50	8020
Xylenes	4.5	5.0	2.5	3,900	100	50	9.6	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample diluted due to high concentrations of non-target hydrocarbons
2. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

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E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 12/9/98
Date Received: 12/2/98
Project: 5850700
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	11/30/98			11/30/98			12/1/98				
Sample Time	14:29			13:42			15:30				
Lab #	E21523			E21524			E21525				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	12/4/98			12/4/98			12/4/98				
TPH-Diesel	**320** *	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	12/6/98			12/5/98			12/5/98				
TPH-Gas	**8,400**	20	1000	**ND**	1.0	50	**ND**	1.0	50	50	8015M
MTBE	**150**	2.0	10	**ND**	1.0	5.0	**6.6**	1.0	5.0	5.0	8020
Benzene	**520**	2.0	1	**ND**	1.0	0.50	**0.57**	1.0	0.50	0.50	8020
Toluene	**43**	2.0	1	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Ethyl Benzene	**290**	2.0	1	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Xylenes	**240**	2.0	1	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

* Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

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STANDARD LAB QUALIFIERS
July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows.

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4981204
Matrix: Water
Units: µg/L

Date Analyzed: 12/04/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	98	39	97	1.2	25	85-108
Toluene	8020	<0.50	40	ND	40	99	39	98	1.3	25	86-108
Ethyl Benzene	8020	<0.50	40	ND	39	99	40	99	0.5	25	86-107
Xylenes	8020	<0.50	120	ND	120	100	119	99	0.8	25	87-108
Gasoline	8015	<50.0	500	ND	593	119	579	116	2.3	25	82-128

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2981207
Matrix: Water
Units: µg/L

Date Analyzed: 12/07/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	98	37	94	4.3	25	76-112
Toluene	8020	<0.50	40	ND	39	97	38	95	2.3	25	77-112
Ethyl Benzene	8020	<0.50	40	ND	39	98	38	95	2.8	25	76-114
Xylenes	8020	<0.50	120	ND	118	99	115	96	2.7	25	77-115
Gasoline	8015	<50.0	500	ND	443	89	382	76	14.7	25	75-112

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW981202
Matrix: Water
Units: µg/L

Date analyzed: 12/03/98
Date extracted: 12/03/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	832	88	895	94	7.2	25	63-131

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

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SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY: 981130-J3

CLIENT: E2C

SITE: HOPKINS & CARLEY
390 MARION AVE
SAN LUIS, CA

CONDUCT ANALYSIS TO DETECT

LAB: ENTECH DHS #:

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ UA
☐ OTHER

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO:
E2C
ATTN: BRENDA MCNABB
PROJ # 980700

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	CONTAINERS ICED	TPH-G, BTEX, MTBE	TPH-D	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	11/30/98	1714	W	5	Y	X	X				E21520
MW-2		1254	W	5	Y	X	X				E21521
MW-3		1231	W	5	Y	X	X				E21522
MW-4		1429	W	5	Y	X	X				E21523
MW-5		1342	W	5	Y	X	X				E21524
~~MW-6~~		~~1405~~	~~W~~	~~5~~	~~Y~~	~~X~~	~~X~~	~~HOLD~~			~~@ 12/1/98~~
MW-6	12/1/98	1530	W	4	Y	X	X				E21525

SAMPLING COMPLETED	DATE	TIME
	11/30/98	1429

SAMPLING PERFORMED BY: Steve Smith

RESULTS NEEDED NO LATER THAN: Per client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	12/2/98	1445		12-2-98	2:51
	12-2-98	3:17		12/2/98	3:20

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 12/28/98
Date Received: 12/2/98
Project: 5850700
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	11/30/98			11/30/98			11/30/98				
Sample Time	13:19			12:54			12:31				
Lab #	E21520			E21521			E21522				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	12/18/98			12/18/98			12/23/98				
MTBE	ND	1.0	5.0	ND [1]	20	100	23	1.0	5.0	5.0	8260

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample diluted due to high levels of non-target compounds
2. Samples analyzed for MTBE by 8260 past holding time due to lab error
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 12/28/98
Date Received: 12/2/98
Project: 5850700
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4										
Sample Date	11/30/98										
Sample Time	14:29										
Lab #	E21523										
	Result	DF	DLR							PQL	Method
Results in µg/Liter:											
Analysis Date	12/23/98										
MTBE	3i	1.0	5.0							5.0	8260

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample analyzed for MTBE by 8260 past holding time due to lab error
2. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Ave., Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Compounds

QC Batch #: WGCMS981217
Matrix: Water
Units: µg/L

Date analyzed: 12/18/98
Spiked Sample: Blank Spike

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
1,1- Dichloroethene	8240/8260	25	ND	23	92	24	95	2.6	25	50-150
Methyl-tert-butyl ether	8240/8260	25	ND	24	98	27	106	8.3	25	50-150
Benzene	8240/8260	25	ND	23	92	24	94	2.6	25	50-150
Trichloroethene	8240/8260	25	ND	27	108	28	114	5.1	25	50-150
Toluene	8240/8260	25	ND	26	104	26	106	1.1	25	50-150
Chlorobenzene	8240/8260	25	ND	25	102	26	103	1.6	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Ave., Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Compounds

QC Batch #: WGCMS981222
Matrix: Water
Units: µg/L

Date analyzed: 12/23/98
Spiked Sample: Blank Spike

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
1,1- Dichloroethene	8240/8260	25	ND	31	125	32	127	1.3	25	50-150
Methyl-tert-butyl ether	8240/8260	25	ND	30	120	30	119	0.7	25	50-150
Benzene	8240/8260	25	ND	25	99	23	92	8.0	25	50-150
Trichloroethene	8240/8260	25	ND	25	99	24	95	4.1	25	50-150
Toluene	8240/8260	25	ND	27	107	26	104	3.4	25	50-150
Chlorobenzene	8240/8260	25	ND	25	100	24	97	3.2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

ATTN: Jennifer

CHAIN OF CUSTODY 98130-J3

CLIENT E2C

SITE Mobil / Chevron
390 Main Ave
Santa Cruz, CA

LAB ENTECH

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to:
E2C
Attn: Rhonda McNabb
Proj # SB50700

CONDUCT ANALYSIS TO DETECT

	SAMPLE I.D.	DATE	TIME	MATRIX (S=SOIL W=H2O)	CONTAINERS TOTAL	CONTAINERS ICED	C - COMPOSITE ALL CONTAINERS	TPHG, BTEX, MTBE	TPH-D	MTBE (8260)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
X	MW-1	11/30/98	1719	W	5	Y		X	X	X	Please Run on Standard Turn-around.			E21520
X	MW-2		1254	W	5	Y		X	X	X				E21521
X	MW-3		1231	W	5	Y		X	X	X				E21522
X	MW-4		1449	W	5	Y		X	X	X				E21523
X	MW-5		1342	W	5	Y		X	X	X				E21524
	~~MW-6~~	~~12/1/98~~	~~1405~~	W	5	Y		X	X		~~Hold~~			~~E21525~~ 12/1/98
X	MW-6	12/1/98	1530	W	4	Y		X	X					E21525

SAMPLING COMPLETED: DATE 11/30/98 TIME 1429
SAMPLING PERFORMED BY: Steve Smith

RELEASED BY: [signature] DATE 12/2/98 TIME 1445 — RECEIVED BY: [signature]

RELEASED BY: [signature] DATE 12/2/98 TIME 3:17 — RECEIVED BY: [signature]

RELEASED BY: DATE TIME — RECEIVED BY: DATE TIME

RESULTS NEEDED NO LATER THAN: Per client

SHIPPED VIA | DATE SENT | TIME SENT | COOLER # | 12/2/98 3:20

ENTECH ANALYTICAL 408/351-4124 12:29 PM 12/02/98

Dec-10-98 09:07A E2C, Inc. 408 286 6300 P.01

RECEIVED
MAR 5 1999

QUARTERLY GROUNDWATER MONITORING
SECOND QUARTER 1998
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
HOPKINS & CARLEY
A LAW CORPORATION
July 15, 1998

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

July 15, 1998
Job Number 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - SECOND QUARTER 1998**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Second Quarter 1998 Groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on April 7, 1998. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells

using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 418.1, 8015, and 8020, respectively. In accordance with the March 2, 1998 drective of the Santa Clara Valley Water District (SCVWD), the samples were also analyzed for Methyl Tertiary Butyl Ether (MTBE), tert-Butanol, Diisopropyl ether, 1,2 Dichloroethane and Ethylene Dibromide using EPA Test Methods 8260 and 8010. The samples were also analyzed for biological degradation parameters including Alkalinity, Ferrous Iron, Nitrate, Sulfate, dissolved oxyen, and oxygen reduction potential.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event, as well as past quarterly results, are shown in Table 1 and the results of 8260 and 8010 analyses and Biological Parameters are shown in Tables 2 and 3, respectfully. This quarter's results are also presented on Figure 2.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on April 7, 1998. These elevations are shown in Table 4 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

E_2C, Inc.

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

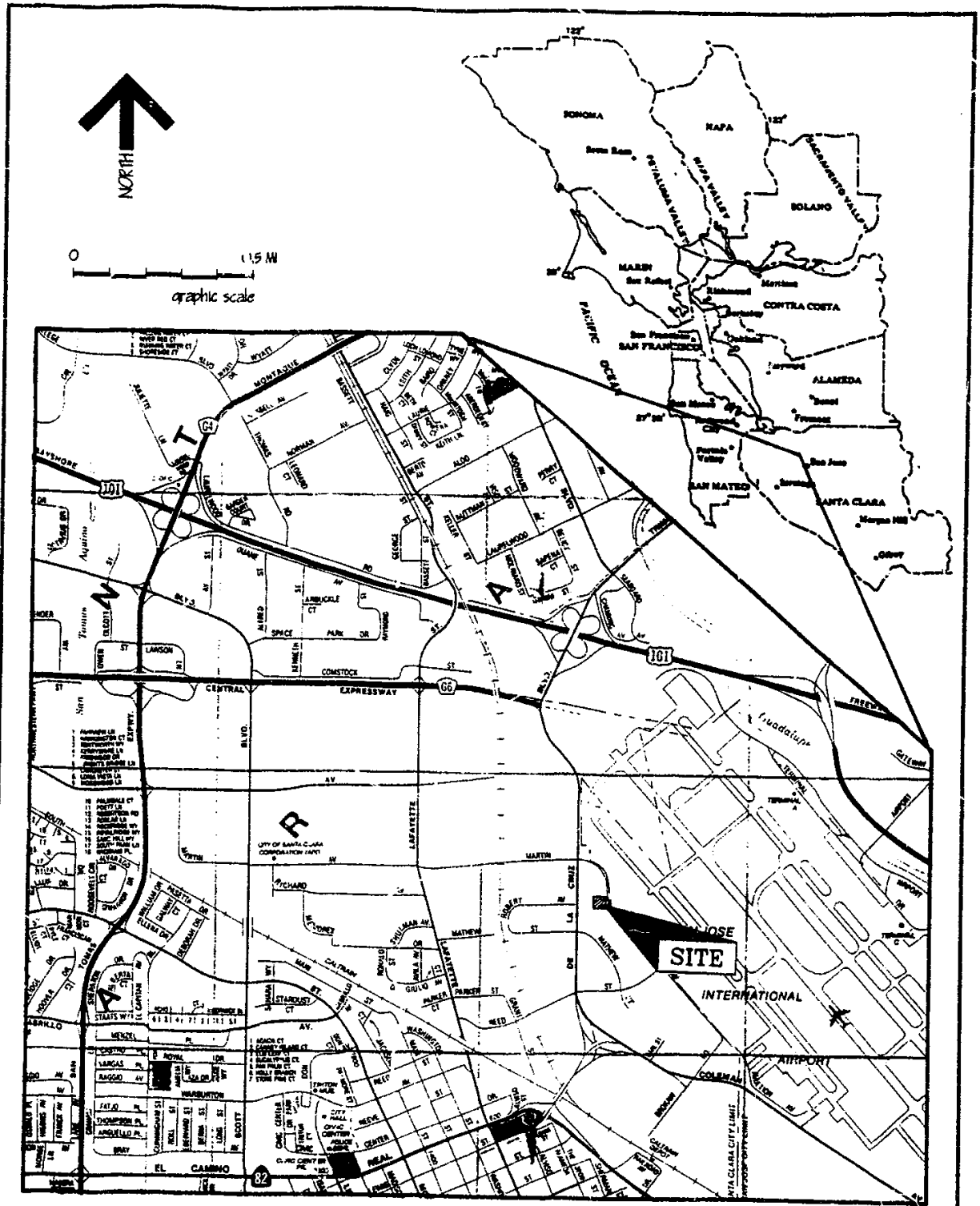
BDM\KWP:dlm

Attachments

a:\quarterlymonitoring\5850100.Q16

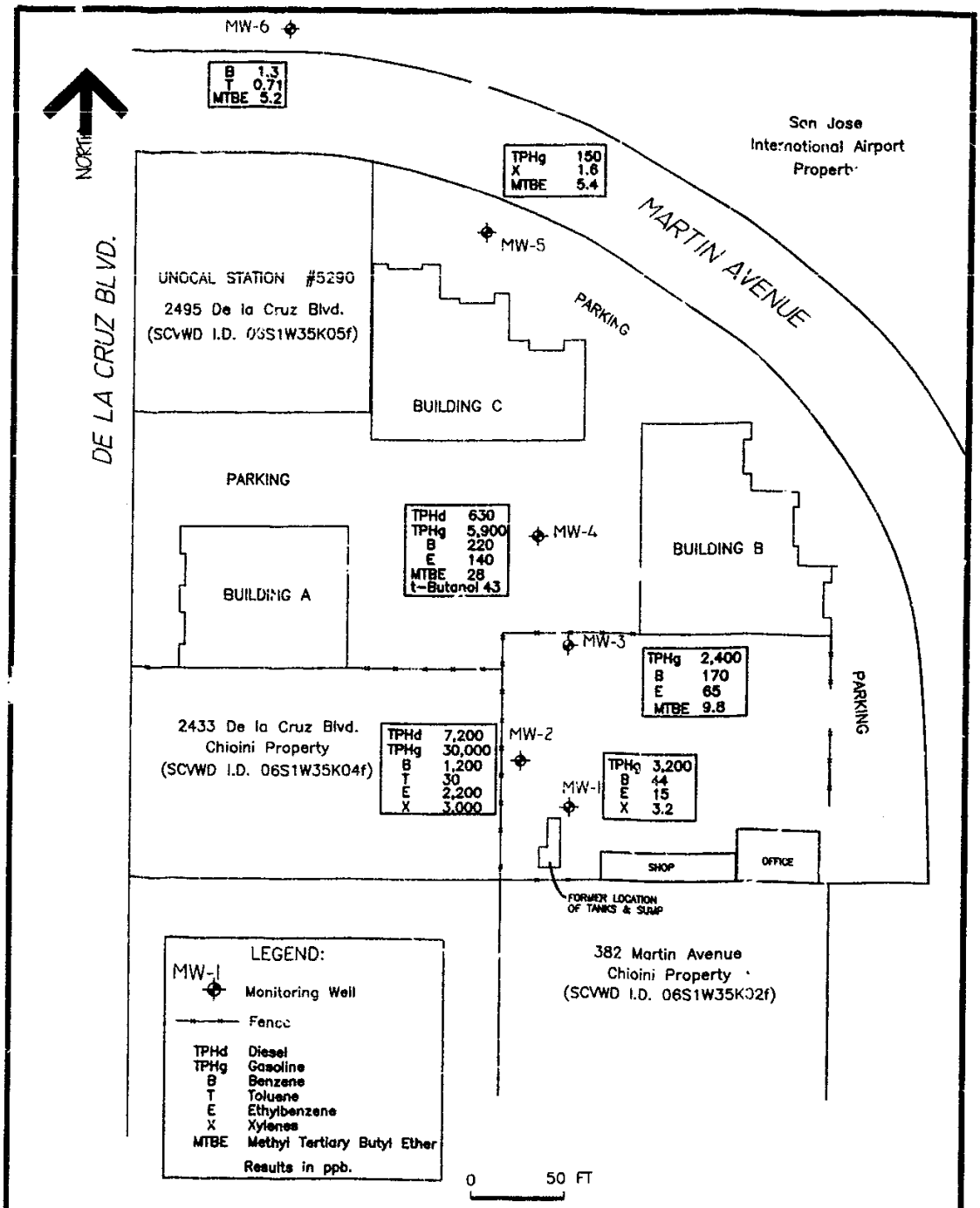
cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

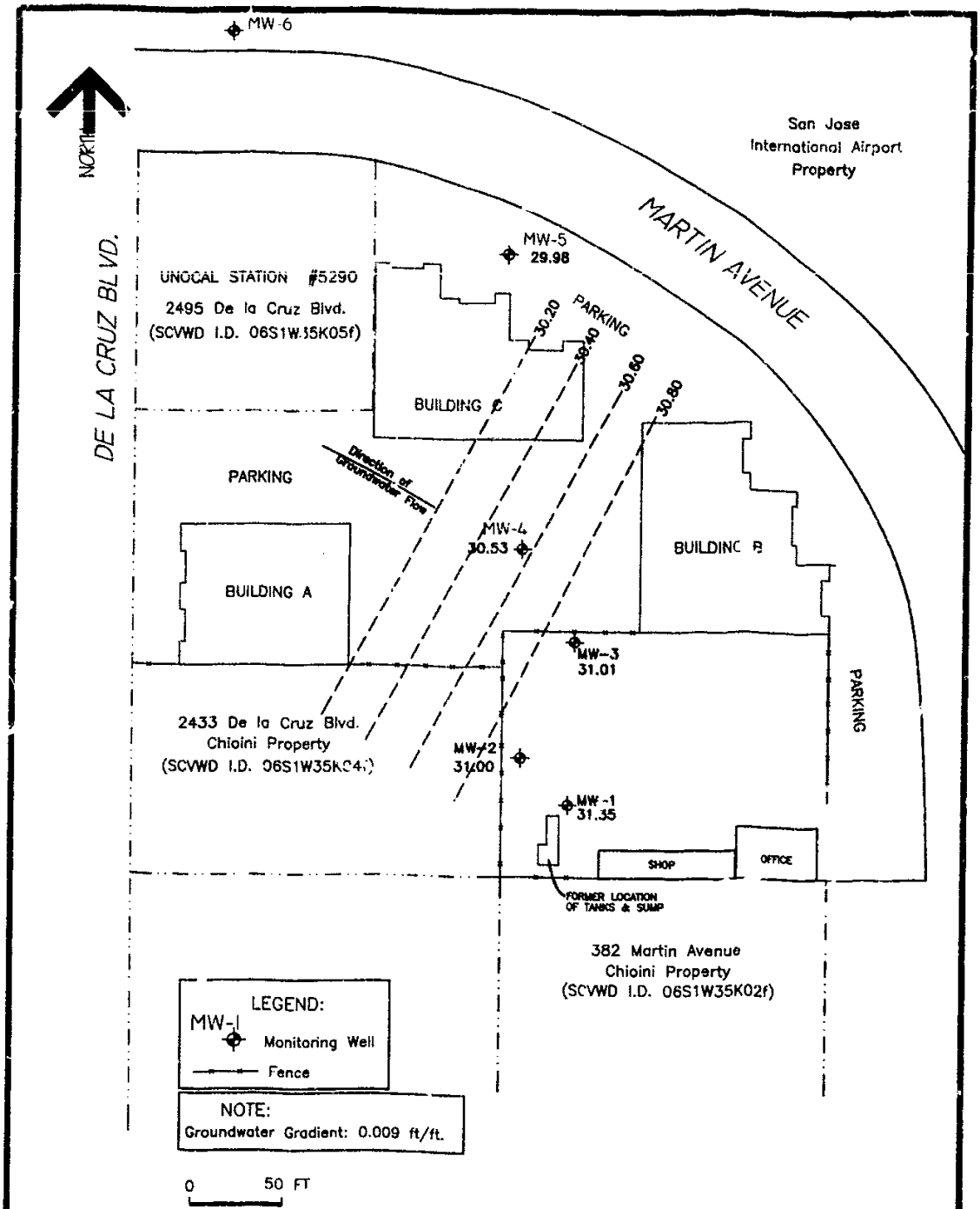


Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPPROVED BY: K. PRICE	



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 2 July 1998



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP 4/7/98 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 3

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	31	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.6	0.6	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
	Third Quarter - August 10, 1995															
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fourth Quarter - November 14, 1995															
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	.660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	First Quarter - February 29, 1996															
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
	Second Quarter - May 31, 1996															
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
	Third Quarter - August 7, 1996															
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
	Fourth Quarter - November 27, 1996															
MW-1	1.1	9.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 14, 1997																
MW-1	0.560	19	10	190	12	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	260	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.86	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	8.1	---	5.0	77	10	29	16	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	90	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Second Quarter - April 7, 1998

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
MW-1	<.05	---	3.2	44	<0.5	15	3.2	<5.0	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	<5.0	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	65	<.05	9.8	---	---	<0.5	---	---	---	---	---
MW-4	0.63	---	5.9	220	<0.5	140	<0.5	28	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	1.6	6.4	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<.05	1.3	0.71	<0.5	<0.5	5.2			<0.5					
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethane
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

RESULTS of FUEL OXYGENATES

Test Methods DF-EPA 8260 and DF-EPA 8010

TABLE 2

Second Quarter - April 7, 1998

Sample No.	tert-Butanol ug/l	MTBE ug/l	Diisopropyl ether ug/l	ETBE ug/l	tert-Amylmethyl ether ug/l	1,2-DCA ug/l	Ethylene Dibromide ug/l
MW-1	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-2	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-3	<20.0	9.8	<5.0	<5.0	<5.0	<0.5	<0.5
MW-4	43.0	28.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-5	<20.0	5.4	<5.0	<5.0	<5.0	<0.5	<0.5
MW-6	<20.0	5.2	<5.0	<5.0	<5.0	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*NE*	*NE*	*.0005*	*.0005*

MTBE = Methyl-tert-butyl ether
ETBE = Ethyl-tert-butyl ether
1,2 DCA = 1,2-Dichloroethane
ug/l = unit grams per liter
MCLs = Maximum Contaminant Levels for drinking water
NE = MCLs have not been established for these compounds

RESULTS of FUEL OXYGENATES

Test Methods DF-EPA 8260 and DF-EPA 8010

TABLE 2							
First Quarter - April 7, 1998							
Sample No.	tert-Butanol ug/l	MTBE ug/l	Diisopropyl ether ug/l	ETBE ug/l	tert-Amylmethyl ether ug/l	1,2-DCA ug/l	Ethylene Dibromide ug/l
MW-1	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-2	<20.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-3	<20.0	9.8	<5.0	<5.0	<5.0	<0.5	<0.5
MW-4	43.0	28.0	<5.0	<5.0	<5.0	<0.5	<0.5
MW-5	<20.0	5.4	<5.0	<5.0	<5.0	<0.5	<0.5
MW-6	<20.0	5.2	<5.0	<5.0	<5.0	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*NE*	*NE*	*.0005*	*.0005*

MTBE = Methyl-tert-butyl ether
ETBE = Ethyl-tert-butyl ether
1,2 DCA = 1,2-Dichloroethane
ug/l = unit grams per liter
MCLs = *Maximum Contaminant Levels for drinking water*
NE = *MCLs have not been established for these compounds*

TABLE 3 - BIOLOGICAL PARAMETERS					
Sample No.	Date	Alkalinity mg/l	Ferrous Iron mg/l	Nitrate as Nitrogen mg/l	Sulfate mg/l
MW-1	4/7/98	440	<0.01	0.21	300
MW-2	4/7/98	620	<0.01	0.33	190
MW-3	4/7/98	600	<0.01	<0.10	90
MW-4	4/7/98	680	<0.01	<0.10	31
MW-5	4/7/98	520	<0.01	<0.10	420
MW-6	4/7/98	500	<0.01	3.3	520

TABLE 4
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.1[illegible]	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 4 WELL MEASUREMENTS - Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.60'	---		
4/7/98	MW-1	Unknown	Unknown	20.55'	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

APPENDIX A
WELL MONITORING DATA SHEETS

APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: G2C
Sampler: CM	Start Date: 4-7-98
Well I.D.: MW 1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.55 After	Depth to Water: Before 7.54 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume		Specified Volumes		gallons
2.1	x	3	=	6.3

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
13:05	66.1	6.7	1300	> 200	2.1	
13:08	65.4	6.9	1300	700	4.2	
13:12	65.9	6.9	1300	200	6.3	
					DO	13 mg/L
					ORP	36

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 6.3

Sampling Time: 13:20 Sampling Date: 4-7-98

Sample I.D.: MW-1 Laboratory: Enviro

Analyzed for: (TPH-G BTEX TPH-D) OTHER: Alkalinity, Sulfate, Nitrate, MTBE, Ferrous Iron, 8260, 8010

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: EnC
Sampler: CM	Start Date: 4-7-98
Well I.D.: MW2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 16.98 After	Depth to Water: Before 8.28 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) × 3 (Specified Volumes) = 4.2 gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
12:30	63.4	7.4	1306	7200	1.4	
1233	64.4	8.0	1006	7200	2.8	
1236	64.5	8.1	940	7200	4.2	
					DO	1.7 mg/L
					ORP	122

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.2

Sampling Time: 12:40 Sampling Date: 4-7-98

Sample I.D.: MW2 Laboratory: Enteeh

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: Alkalinity, Sulfate, Nitrate, MTBE Ferrous Iron, 8260, 810.

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: E & C
Sampler: CM	Start Date: 4-7-98
Well I.D.: MW 3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.80 After	Depth to Water: Before 8.34 After
Depth to Free Product: ___	Thickness of Free Product (feet): ___
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.5 (1 Case Volume) x 3 (Specified Volumes) = 4.5 gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
11:59	65.4	7.3	1500	7200	1.5	odor
12:03	65.2	6.7	1400	7200	3.0	"
12:07	65.0	6.6	1300	7200	4.5	"
					DO	1.5 mg/L
					ORP	-64

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 12:10 Sampling Date: 4-7-98

Sample I.D.: MW3 Laboratory: Entech

Analyzed for (Circle): TPH-G BTEX TPH-D OTHER: Alkalinity, Sulfate, Nitrate, MTBE, Ferrous Iron, 8260, 8010

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for (Circle): TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: EzC
Sampler: CM	Start Date: 4-7-98
Well I.D.: MW 4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.70 After	Depth to Water: Before 6.84 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.9 (1 Case Volume) x 3 (Specified Volumes) = 5.7 gallons

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:15	69.2	7.4	1300	> 200	1.9	odor
15:18	68.6	7.6	1400	> 200	3.8	"
15:21	67.8	7.7	1380	> 200	5.7	"
					DO=	1.3
					ORP	-000

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 15:30 Sampling Date: 4-7-98

Sample I.D.: MW 4 Laboratory: Entech

Analyzed for: (TPH-G BTEX TPH-D) OTHER: Nitrate, Sulfate, Alkalinity, FMTBE, Ferrous Iron; 8260, 8010

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: E2C
Sampler: cm	Start Date: 4-7-98
Well I.D.: MW5	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.79 After	Depth to Water: Before 8.00 After
Depth to Free Product: ___	Thickness of Free Product (feet): ___
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.7 (1 Case Volume) x 3 (Specified Volumes) = 5.1 gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
13:40	63.8	7.4	1300	>200	1.7	
1344	65.4	7.2	1200	>200	3.4	
1348	65.6	7.2	1100	>200	5.1	
					DO =	1.5 mg/L
					ORP =	186

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 5.1

Sampling Time: 13:55 Sampling Date: 4-7-98

Sample I.D.: mw5 Laboratory: Entech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: Nitrate, Sulfate, Alkalinity, MTBE, Ferrous Iron, 8260, 8010.

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980407-C2	Client: E2C
Sampler: CM	Start Date: 4-7-98
Well I.D.: MW 6	Well Diameter: (circle one) 2 3 4 6 (3/4")
Total Well Depth: Before 19.80 After	Depth to Water: Before 9.37 After
Depth to Free Product:	Thickness of Free Product (feet): —
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.1 (1 Case Volume) x 3 (Specified Volumes) = 0.3 gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other Pin Bailer X

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other Pin Bailer X

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1415	63.8	6.7	1500	7200	0.1	
1422	65.0	6.6	1700	7200	0.2	
1430	65.8	6.7	1650	7200	0.3	
				above Hole	DO =	2.8 mg/L
					ORP =	230

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 0.3

Sampling Time: 1438 Sampling Date: 4-7-98

Sample I.D.: MW-6 Laboratory: Entech

Analyzed for: (TPH-G BTEX TPH-D) OTHER: Nitrate, Sulfate, Alkalinity, MTBE, Ferrous Iron; 8260, 8010

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	4/21/98
Date Received:	4/7/98
Date Analyzed:	4/10-4/17/98
Project:	5850100
Sampled By:	Blaine Tech Services

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	4/7/98	4/7/98	4/7/98	4/7/98			
Sample Time	1320	1246	1210	1530			
Lab #	E6863	E6864	E6865	E6866			
DF-Diesel	1	10	1	1			
TPH-Diesel	**ND**	**7,200[2]**	**ND**	**630[2]**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	4	40	25	50			
TPH-Gas	**3,200**	**30,000**	**2,400**	**5,900**	µg/liter	50.0 µg/l	8015M
Benzene	**44**	**1,200**	**170**	**220**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**30**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**15**	**2,200**	**65**	**140**	µg/liter	0.5 µg/l	8020
Xylenes	**3.2**	**3,000**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
DF-EPA 8260	1	50[3]	1	1			
tert-Butanol	**ND**	**ND**	**ND**	**43**	µg/liter	20 µg/l	8260
Methyl-tert-butyl ether	**ND**	**ND**	**9.8**	**28**	µg/liter	5.0 µg/l	8260
Diisopropyl ether	**ND**	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8260
Ethyl-tert-butyl ether	**ND**	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8260
tert-Amylmethyl ether	**ND**	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8260
DF-EPA 8010	1	20[3]	10[3]	20[3]			
1,2-Dichloroethane	**ND**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8010
Ethylene Dibromide	**ND**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8010

1. DLR=DF x PQL
2. TPH-Diesel chromatogram, although within the reporting limits, does not match the typical Diesel pattern
3. Sample diluted due to high levels of non-target compounds
4. EPA 8260 analysis performed by WEST Laboratory (CAELAP #1346); WEST report attached for reference
5. Remaining analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	4/21/98
Date Received:	4/7/98
Date Analyzed:	4/11-4/16/98
Project:	5850100
Sampled By:	Blaine Tech Services

Certified Analytical Report

Water Sample Analysis:

Test	*MW-5*	*MW-6*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water			
Sample Date	4/7/98	4/7/98			
Sample Time	1355	1438			
Lab #	E6867	E6868			
DF-Diesel	1	1			
TPH-Diesel	**ND**	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	1	1			
TPH-Gas	**150**	**ND**	µg/liter	50.0 µg/l	8015M
Benzene	**ND**	**1.3**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**0.71**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**1.6**	**ND**	µg/liter	0.5 µg/l	8020
DF-EPA 8260	1	1			
tert-Butanol	**ND**	**ND**	µg/liter	20 µg/l	8260
Methyl-tert-butyl ether	**5.4**	**5.2**	µg/liter	5.0 µg/l	8260
Diisopropyl ether	**ND**	**ND**	µg/liter	5.0 µg/l	8260
Ethyl-tert-butyl ether	**ND**	**ND**	µg/liter	5.0 µg/l	8260
tert-Amylmethyl ether	**ND**	**ND**	µg/liter	5.0 µg/l	8260
DF-EPA 8010	1	1			
1,2-Dichloroethane	**ND**	**ND**	µg/liter	0.5 µg/l	8010
Ethylene Dibromide	**ND**	**ND**	µg/liter	0.5 µg/l	8010

1. DLR=DF x PQL
2. EPA 8260 analysis performed by WEST Laboratory (CAELAP #1346); WEST report attached for reference
3. Remaining analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	4/21/98
Date Received:	4/7/98
Date Analyzed:	4/8-4/14/98
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	4/7/98	4/7/98	4/7/98	4/7/98			
Sample Time	1320	1246	1210	1530			
Lab #	E6863	E6864	E6865	E6866			
Alkalinity	**440**	**620**	**600**	**680**	mg/liter	0.10 mg/l	310.1
Ferrous Iron	**ND**	**ND**	**ND**	**ND**	mg/liter	0.01 mg/l	SM3500-FE
Nitrate as Nitrogen	**0.21**	**0.33**	**ND**	**ND**	mg/liter	0.10 mg/l	353.3
Sulfate	**300**	**190**	**90**	**31**	mg/liter	0.10 mg/l	375.4

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	4/21/98
Date Received:	4/7/98
Date Analyzed:	4/8-4/14/98
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-5*	*MW 6*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water			
Sample Date	4/7/98	4/7/98			
Sample Time	1355	1438			
Lab #	E6867	E6868			
Alkalinity	**520**	**500**	mg/liter	0.10 mg/l	310.1
Ferrous Iron	**ND**	**ND**	mg/liter	0.01 mg/l	SM3500-FE
Nitrate as Nitrogen	**ND**	**3.3**	mg/liter	0.10 mg/l	353.3
Sulfate	**420**	**520**	mg/liter	0.10 mg/l	375.4

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

WEST LABORATORY

Sample Log 18307
April 15, 1998

Mike Golden
Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

Subject : Water samples
Project Name : E2C 5850100
Project Number :

Dear Mr. Golden,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

D. Podolsky

Stewart Podolsky

1046 Olive Drive, Suite 2 • Davis, CA 95616 • (530) 757-0920 • Fax (530) 753-6091

WEST LABORATORY

Sample Log 18307
April 15, 1998

Subject : 6 Water samples
Project Name : E2C 5850100
Project Number :

Case Narrative

Sample E6664 (MW2)

MS aborted at 1:1 dilution. At 1:10 the internal standard recovery was acceptable but the large quantity of hydrocarbons present interfered with surrogate recovery. A higher dilution factor will be analyzed and reported.

Stewart Podolsky

1046 Olive Drive, Suite 2 • Davis, CA 95616 • (530) 757-0920 • Fax (530) 753-6091

WEST LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E5863 (MW-1)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/10/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:1
Sample Matrix : Water
Lab Number : 18307-01

Parameter	MRL	Measured Conc.	Units
tert-Butanol	20	<20	ug/L
Methyl-tert-butyl ether	5.0	<5.0	ug/L
Diisopropyl ether	5.0	<5.0	ug/L
Ethyl-tert-butyl ether	5.0	<5.0	ug/L
tert-Amylmethyl ether	5.0	<5.0	ug/L
Dibromofluoromethane		90	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : John Medina

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WEST LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E6864 (MW-2)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/14/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:10
Sample Matrix : Water
Lab Number : 18307-02

Parameter	MRL	Measured Conc.	Units
tert-Butanol	200	<200	ug/L
Methyl-tert-butyl ether	50	<50	ug/L
Diisopropyl ether	50	<50	ug/L
Ethyl-tert-butyl ether	50	<50	ug/L
tert-Amylmethyl ether	50	<50	ug/L
Dibromofluoromethane		NR	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : John Medina

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WEST LABORATORY

Sample Log 18307
April 16, 1998

8260 Oxygenates

Sample Name : **E6864 (MW-2)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/15/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:50
Sample Matrix : Water
Lab Number : 18307-02

Parameter	MRL	Measured Conc.	Units
tert-Butanol	1000	<1000	ug/L
Methyl-tert-butyl ether	250	<250	ug/L
Diisoprooyl ether	250	<250	ug/L
Ethyl-tert-butyl ether	250	<250	ug/L
tert-Amylmethyl ether	250	<250	ug/L
Dibromofluoromethane		99	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : John Medina

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WEST LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E6865 (MW-3)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/14/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:1
Sample Matrix : Water
Lab Number : 18307-03

Parameter	MRL	Measured Conc.	Units
tert-Butanol	20	<20	ug/L
Methyl-tert-butyl ether	**5.0**	**9.8**	ug/L
Diisopropyl ether	5.0	<5.0	ug/L
Ethyl-tert-butyl ether	5.0	<5.0	ug/L
tert-Amylmethyl ether	5.0	<5.0	ug/L
Dibromofluoromethane		93	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : Joi Medina

1046 Olive Drive, Suite 2 • Davis, CA 95616 • (530) 757-0920 • Fax (530) 753-0091

IEST LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E6866 (MW-4)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/11/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:1
Sample Matrix : Water
Lab Number : 18307-04

Parameter	MRL	Measured Conc.	Units
tert-Butanol	**20**	**43**	ug/L
Methyl-tert-butyl ether	**5.0**	**28**	ug/L
Diisopropyl ether	5.0	<5.0	ug/L
Ethyl-tert-butyl ether	5.0	<5.0	ug/L
tert-Amylmethyl ether	5.0	<5.0	ug/L
Dibromofluoromethane		102	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : John Medina

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WEST LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E6867 (MW-5)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/11/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:1
Sample Matrix : Water
Lab Number : 18307-05

Parameter	MRL	Measured Conc.	Units
tert-Butanol	20	<20	ug/L
Methyl-tert-butyl ether	**5.0**	**5.4**	ug/L
Diisopropyl ether	5.0	<5.0	ug/L
Ethyl-tert-butyl ether	5.0	<5.0	ug/L
tert-Amylmethyl ether	5.0	<5.0	ug/L
Dibromofluoromethane		102	% Recovery

MRL = Method Reporting Limit Conc. = Concentration
B = Analyte was detected in Method Blank.
E = Concentration exceeded calibration range.

Approved By : John Medina

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IES LABORATORY

Sample Log 18307
April 15, 1998

8260 Oxygenates

Sample Name : **E6868 (MW-6)**

Project Name : E2C 5850100
Project Number :
Sample Date : 04/07/98
Date Analyzed : 04/11/98
Analysis Method : EPA 8260

Date Received : 04/08/98
Dilution : 1:1
Sample Matrix : Water
Lab Number : 18307-06

Parameter	MRL	Measured Conc.	Units
tert-Butanol	20	<20	ug/L
Methyl-tert-butyl ether	**5.0**	**5.2**	ug/L
Diisopropyl ether	5.0	<5.0	ug/L
Ethyl-tert-butyl ether	5.0	<5.0	ug/L
tert-Amylmethyl ether	5.0	<5.0	ug/L
Dibromofluoromethane		102	% Recovery

MRL = Method Reporting Limit Conc. = Concentration

B = Analyte was detected in Method Blank.

E = Concentration exceeded calibration range.

Approved By : John Medina

1046 Olive Drive, Suite 2 • Davis, CA 95616 • (530) 757-0920 • Fax (530) 753-6091

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW980404
Matrix: Water
Units: µg/L

Date analyzed: 04/13/98
Date extracted: 04/09/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	938	99	954	100	2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2980411
Matrix: Water
Units: ug/L

Date Analyzed: 04/11/98
Quality Control Sample: E7011

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.50	40	ND	34	86	37	92	6.6	25	50-150
Toluene	8020	<0.50	40	ND	33	83	36	90	7.9	25	50-150
Ethyl Benzene	8020	<0.50	40	ND	34	86	37	91	6.4	25	50-150
Xylenes	8020	<0.50	120	ND	106	89	112	93	5.0	25	50-150
Gasoline	8015	<50.0	1000	ND	960	96	990	99	3.1	25	50-150

Note: LCS and LCSD results reported for the following Parameters:
None

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4980413
Matrix: Water
Units: ug/L

Date Analyzed: 04/13/98
Quality Control Sample: E6957

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.50	32	ND	30	93	26	83	11.8	25	50-150
Toluene	8020	<0.50	32	ND	30	93	26	81	13.4	25	50-150
Ethyl Benzene	8020	<0.50	32	ND	31	96	26	83	14.5	25	50-150
Xylenes	8020	<0.50	96	ND	94	98	75	78	22.1	25	50-150
Gasoline	8015	<50.0	1000	ND	1020	102	960	95	7.1	25	50-150

Note: LCS and LCSD results reported for the following Parameters:
None

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography - Volatile Organics

QC Batch #: VOCW980417
Matrix: Water
Units: µg/L

Date Analyzed: 04 7/98
Quality Control Sample: E7367

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	602	40	ND	38	96	38	95	0.8	25	50-150
Chlorobenzene	601	40	ND	37	93	41	103	9.5	25	50-150
1,1-Dichloroethane	601	40	ND	40	100	44	110	9.8	25	50-150
Toluene	602	40	ND	38	94	37	93	1.6	25	50-150
Trichloroethene	601	40	ND	41	102	45	111	8.7	25	50-150

Note: LCS and LCSD results reported for the following Parameters:
None

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography - Volatile Organics

QC Batch #: VOCW980415 — Date Analyzed: 04/15/98
Matrix: Water — Quality Control Sample: E7143
Units: ug/L

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	602	40	ND	38	96	38	96	0.3	25	50-150
Chlorobenzene	601	40	ND	41	102	40	100	2.2	25	50-150
1,1-Dichloroethane	601	40	ND	43	107	41	102	4.5	25	50-150
Toluene	602	40	ND	39	96	39	96	0.0	25	50-150
Trichloroethene	601	40	ND	44	109	42	106	3.5	25	50-150

Note: LCS and LCSD results reported for the following Parameters:
None

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography - Volatile Organics

QC Batch #: VOCW980416
Matrix: Water
Units: µg/L

Date Analyzed: 04/16/98
Quality Control Sample: E7012

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	602	40	ND	37	91	38	94	3.0	25	50-150
Chlorobenzene	601	40	ND	37	93	40	99	6.8	25	50-150
1,1-Dichloroethane	601	40	ND	38	96	41	102	6.3	25	50-150
Toluene	602	40	ND	37	93	38	94	3.2	25	50-150
Trichloroethene	601	40	ND	38	96	41	103	7.3	25	50-150

Note: LCS and LCSD results reported for the following Parameters:
None

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

19307

Subcontract Lab:	Date Sent:	Project Name:	Due Date:
WEST LABS	4/1/98	GSC SS 50100	4/14/98

Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres?	
E6863 (mw1)	W	MTBE, BTEX, DIPE, TBA by 8260	4/1/98		2-40ml VOA		01
E6864 (mw2)	↓	↓	↓		↓		02
E6865 (mw3)							03
E6866 (mw4)							04
E6867 (mw5)							05
E6868 (mw6)	↓	↓	↓		↓		06

Relinquished By:	Received By:	Date:	Time:
Victor via Fed Express	Overnight	4/7/98	5:45pm
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
	Stan Woodard	4/8/98	1100

Notes: _____

BLAINE TECH SERVICES INC

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY

CLIENT: E2C

SITE: Hopkins & Carlson
390 Martin Ave
Santa Clara

SAMPLE I.D.	Date	Time	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS
MW1	4/7	1320	W	14	
MW2		1246		14	
MW3		1210		14	
MW4		1530		14	
MW5		1355		14	
MW6	↓	1438	↓	14	

CONDUCT ANALYSIS TO DETECT

TPH-G, BTEX, MTBE	ALKALINITY	NITRATE *	SULFATE	FERROUS IRON *	TPH-DIESEL	MTBE, TAME, ETBE, DIPE, TBA by 8260	1,2-DCA, EDB by 8010	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
X	X	X	X	X	X	X	X				E6863
X	X	X	X	X	X	X	X				E6864
X	X	X	X	X	X	X	X				E6865
X	X	X	X	X	X	X	X				E6866
X	X	X	X	X	X	X	X				E6867
X	X	X	X	X	X	X	X				E6868

LAB: ENTECH

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO:
E2C
ATTN: BRENDA McNABB
JOB # SB50100
* SHORT HOLD TIME

SAMPLING COMPLETED: DATE 4-7-98 TIME 1600

SAMPLING PERFORMED BY: C McClutine

RESULTS NEEDED NO LATER THAN: PER CLIENT

		DATE	TIME			DATE	TIME
RELEASED BY		4-7-98		RECEIVED BY	VTRAN	4/7/98	1515
RELEASED BY				RECEIVED BY			
RELEASED BY				RECEIVED BY			

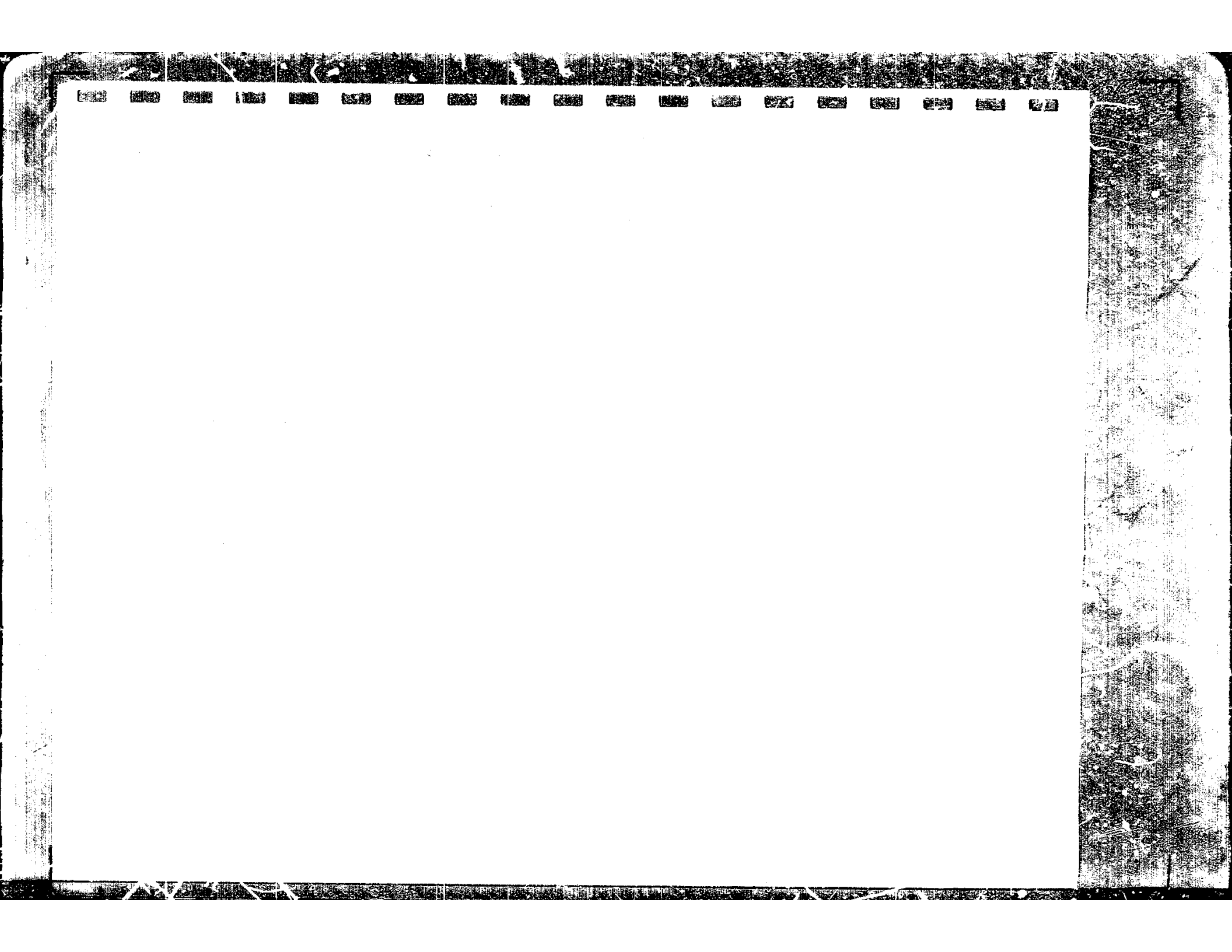
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

Richard Wehner Const. Co

QUARTERLY GROUNDWATER MONITORING
FOURTH QUARTER 1998
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
HOPKINS & CARLEY
A LAW CORPORATION
October 7, 1998

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112



E2C INC.

Environmental/Engineering Consultants

October 7, 1998
Job Number 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING REPORT - FOURTH QUARTER 1998**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Fourth Quarter 1998 groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on September 16, 1998. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), TPH as diesel (TPHd), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tertiary Butyl Ether (MTBE) using EPA Test Methods 8015 and 8020, respectively. Due to the levels of MTBE detected in samples MW-2, MW-3, MW-4, and MW-6 using 8020 analyses, these samples were reanalyzed for MTBE using EPA Test Method 8240. These results are presented parenthetically in Table 2 and on Figure 2. The samples were also analyzed for the biological degradation parameters of Dissolved Oxygen, Oxygen Reduction Potential, Alkalinity, Sulfate, Nitrate, and Ferrous Iron.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses are presented in Tables 1 and 2 and on Figure 2. The levels of MTBE reported using EPA 8020 analysis for samples MW-2, MW-3, MW-4, and MW-6 were verified using EPA Test Method 8240. These verification analysis indicate that MTBE is not present above laboratory detection limits in sample MW-2 MW-3, and MW-4 (detection limits of 50 parts per billion (ppb) and 100 ppb due to high levels of non-target compounds). The level of MTBE detected in sample MW-6 (well located downgradient to the Unocal site) is 61 ppb. Benzene levels ranged from non-detect in wells MW-5 and MW-6, to 100 to 670 ppb in wells MW-1 through MW-4.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on September 16, 1998. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

E_2C, Inc.

Brenda D. McNabb, REA
Senior Project Manager

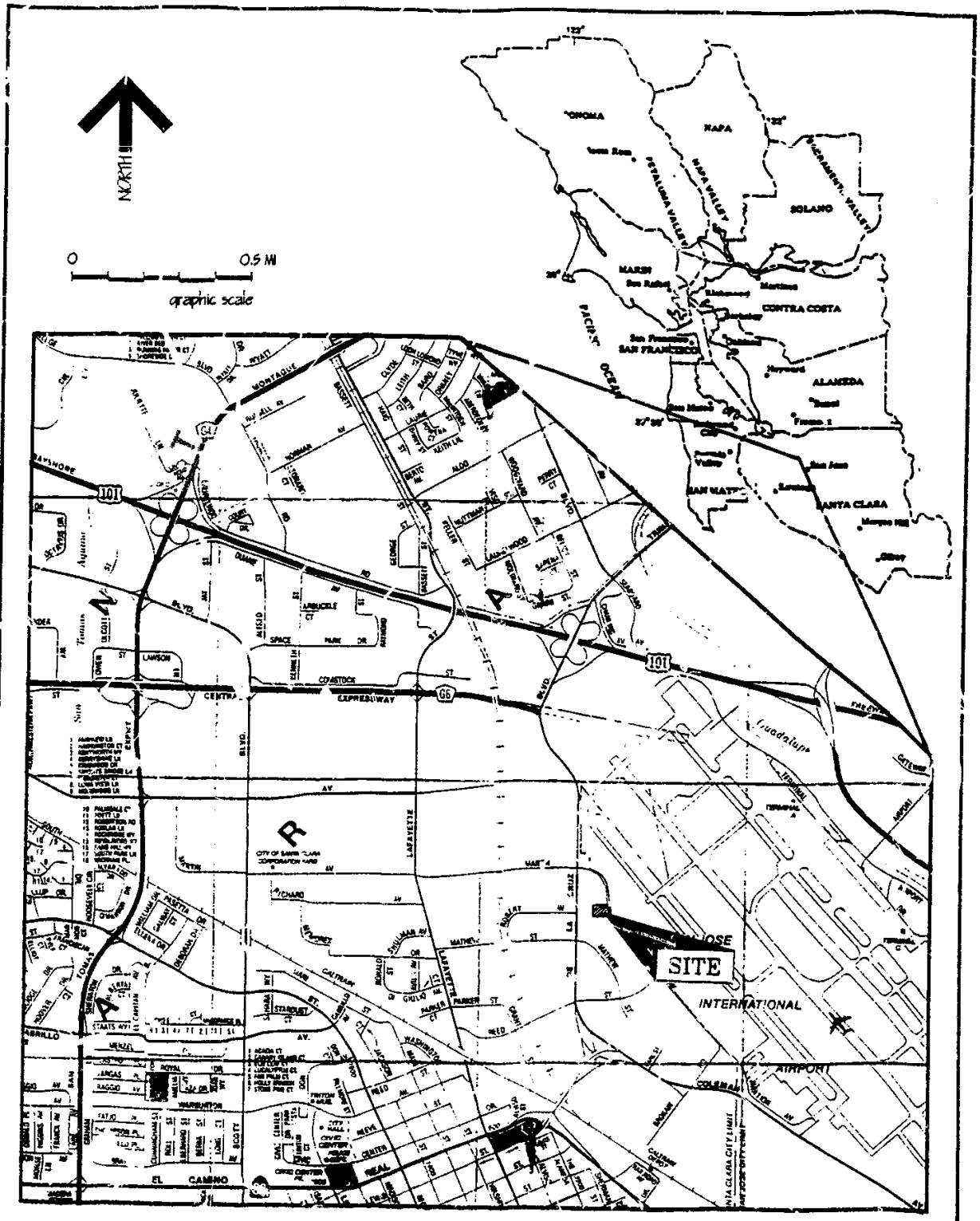
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

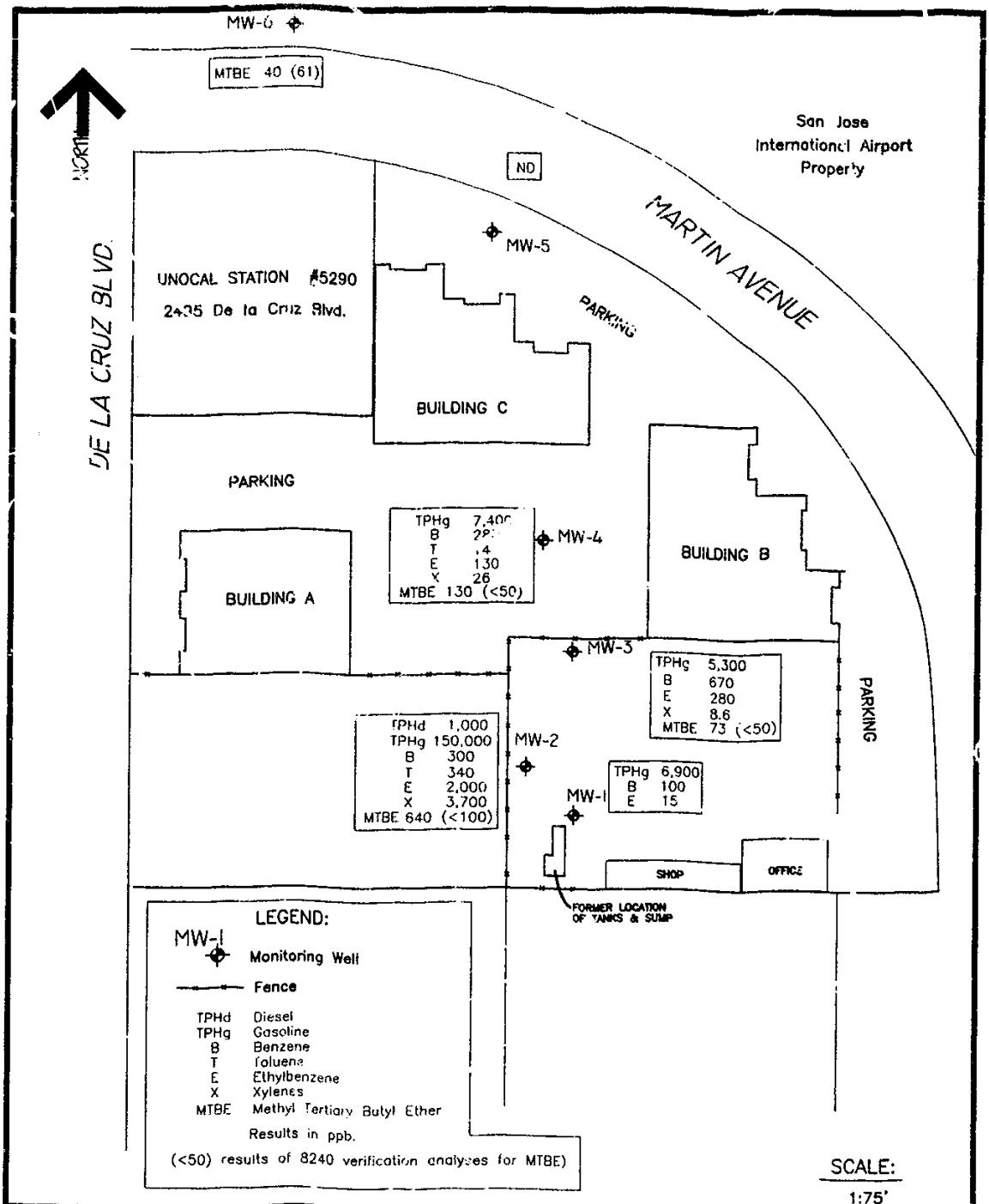
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c:\gwmrpts\5850100.Q18

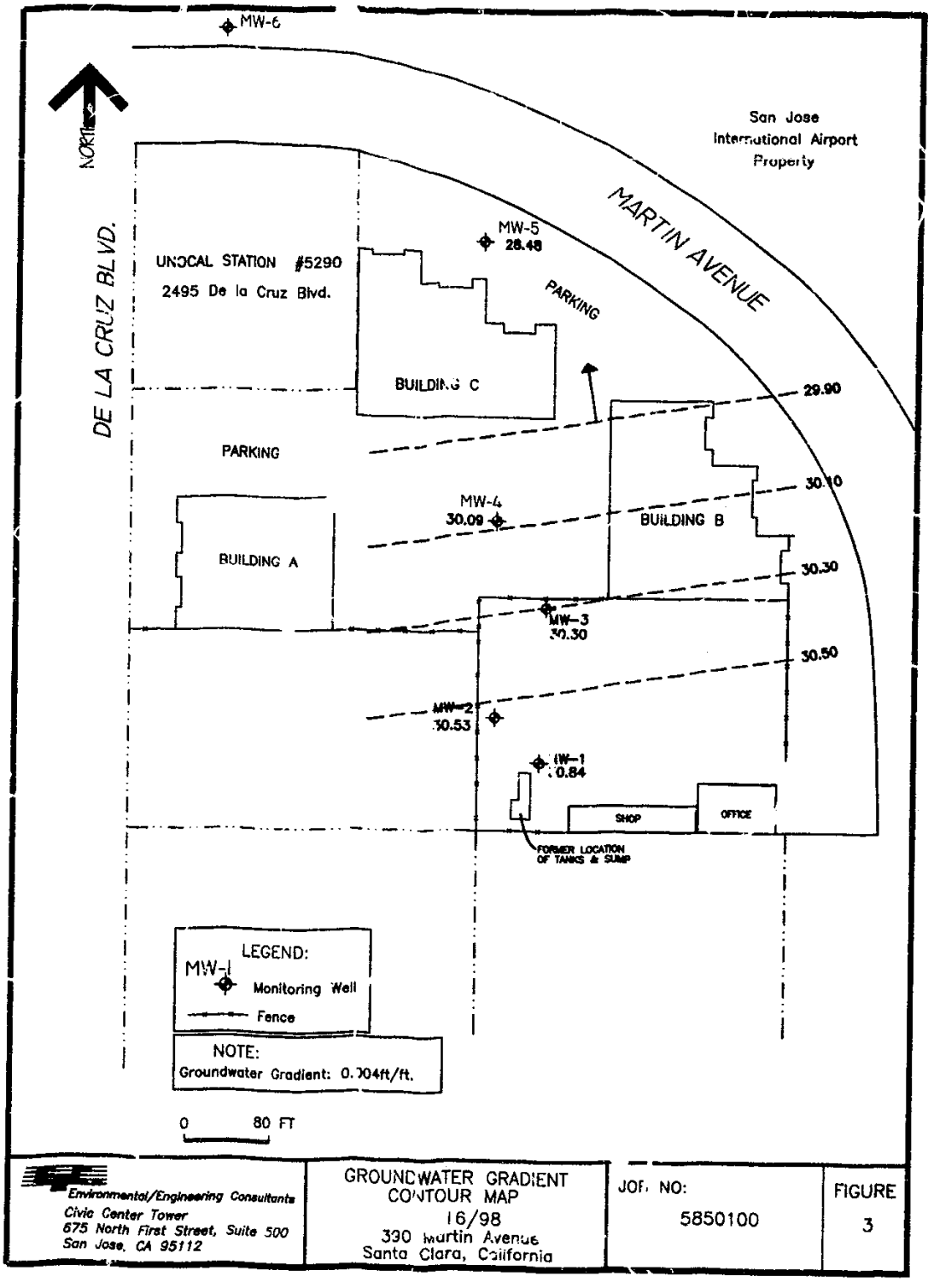


Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 2 Oct. 1998



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP 6/98 330 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 3

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-OCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 25, 1994																
MW-1	0.08	22	81	5,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	1,700	1,100	2,200	6,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	800	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,100	2,500	2,200	7,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	2,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	1.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	3.0	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	690	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW 3	2.6	<5.0	8.7	730	89	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 28, 1996																
MW-1	5.5	4	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.0	320	6.0	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	2,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	46	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	520	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	9.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 14, 1997																
MW-1	0.650	13	10	120	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	<5	64	32	650	<0.5	1,900	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	180	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	260	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	2.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.86	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	8.1	---	5.0	77	12	29	16	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	90	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Second Quarter - April 7, 1998																
MW-1	<.05	---	3.2	44	<0.5	15	3.2	<5.0	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	<5.0	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	65	<.05	9.8	---	---	<0.5	---	---	---	---	---
MW-4	0.63	---	5.9	220	<0.5	140	<0.5	28	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	1.6	5.4	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<0.05	1.3	0.71	<0.5	<0.5	5.2	---	---	<0.5	---	---	---	---	---
Third Quarter - June 29, 1998																
MW-1	<0.05	---	5.0	97	4.8	15	7.3	200	---	---	---	---	---	---	---	---
MW-2	<0.05	---	42.0	2,000	98	2,000	3,800	1,200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	280	10	160	---	---	---	---	---	---	---	---
MW-4	<0.05	---	6.4	160	<0.5	87	6.6	270	---	---	---	---	---	---	---	---
MW-5	<0.05	---	.053	<0.5	<0.5	<0.5	<0.5	10	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	26	---	---	---	---	---	---	---	---
Fourth Quarter - September 16, 1998																
MW-1	<50	---	6.9	190	<0.5	16	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	1,000	---	150	300	340	2,900	3,700	640 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.3	670	<0.5	280	8.6	73 (<50)	---	---	---	---	---	---	---	---
MW-4	<50	---	7.4	280	14	130	26	130 (<50)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	40 (61)	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*5.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.
( ) = Results of verification analyses for MTBE using EPA Test Method 8240.

TABLE 2 - BIOLOGICAL PARAMETERS							
Sample No.	Date	Dissolved Oxygen mg/l	ORP m/V	Alkalinity mg/l	Ferrous iron mg/l	Nitrate mg/l	Sulfate mg/l
MW-1	4/7/98	1.3	36	440	<0.01	0.21	300
	6/29/98	1.6	214	440	0.2	<0.10	290
	9/16/98	0.6	-170	450	<0.05	<0.10	340
MW-2	4/7/98	1.7	122	620	<0.01	0.33	190
	6/29/98	1.9	211	730	<0.01	<0.10	150
	9/16/98	0.7	-169	730	0.05	<0.10	120
MW-3	4/7/98	1.5	64	600	<0.01	<0.10	90
	6/29/98	1.7	223	640	0.27	<0.10	80
	9/16/98	1.3	-187	650	<0.05	<0.10	48
MW-4	4/7/98	1.3	6	680	<0.01	<0.10	31
	6/29/98	1.3	233	690	<0.01	<0.10	38
	9/16/98	0.5	-146	700	<0.05	<0.10	27
MW-5	4/7/98	1.5	186	520	<0.01	<0.10	420
	6/29/98	1.6	184	530	<0.01	<0.10	490
	9/16/98	2.2	-134	520	<0.05	<0.10	500
MW-6	4/7/98	2.8	230	500	<0.01	3.1	520
	6/29/98	1.8	164	640	<0.01	0.94	420
	9/16/98	1.3	-122	680	<0.05	<0.10	430

TABLE 3
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.003
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.81'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 3 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.[illegible]	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		
4/7/98	MW-1	Unknown	Unknown	20.55"	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

TABLE 3 WELL MEASUREMENTS - Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
6/29/98	MW-1	Unknown	Unknown	20.51'	38.89'	7.63'	31.26'	Northeast	0.011
	MW-2	18'	8'-18'	16.97'	39.28'	8.22'	31.06'		
	MW-3	18'	8'-18'	17.83'	39.35'	8.65'	30.70'		
	MW-4	20'	7'-20'	18.74'	37.37'	7.06'	30.31'		
	MW-5	20'	5'-20'	18.77'	36.98'	8.13'	28.85'		
	MW-6	20'	5'-20'	19.79'	---	9.47'	---		
9/16/98	MW-1	20'	Unknown	20.15'	38.89'	8.05'	30.84'	North - NW	0.004
	MW-2	16'	5 -18'	15.90'	39.28'	8.75'	30.53'		
	MW-3	17'	8'-18'	17.35'	39.35'	9.05'	30.30'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.28'	30.09'		
	MW-5	19'	5'-20'	18.75'	36.98'	8.50'	28.48'		
	MW-6	17'	5'-20'	17.46'	---	9.71	---		

APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 980916-R1	Client: Hopkins + Carley
Sampler: Doug + Chris	Start Date: 9-16-98
Well I.D.: MW1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.15 After	Depth to Water: Before 8.05 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.93 (1 Case Volume) x 3 (Specified Volumes) = 5.79 gallons

Purging: (Bailer) Disposable Bailer, Middleburg, Electric Submersible, Extraction Pump, Other ___

Sampling: (Bailer) Disposable Bailer, Extraction Port, Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
919	68.4	7.7	320	>200	2	Black color
922	68.9	7.6	320	>200	4	sheen
925	68.7	7.6	310	>200	6	slight odor
						D.O. = 0.6 mg/l
						ORP = -170

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 930 Sampling Date: 9-16-98

Sample I.D.: MW1 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) OTHER: MTBE Alkalinity, Nitrate, Sulfate, Ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980916-R1	Client: Hopkins Cadey
Sampler: Doug + Chris	Start Date: 9-16-98
Well I.D.: MW2	Well Diameter: (circle) 2 3 4 6
Total Well Depth: Before 15.90 After:	Depth to Water: Before 8.75 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.14 (1 Case Volume) x 3 (Specified Volumes) = 3.42 gallons

Purging: Bailer x
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
900	69.0	7.6	310	>200	1	Black color
902	69.1	7.6	310	>200	2	Strong odor
905	69.0	7.6	310	>200	3.5	Sheen
						D.O. = 0.7 mg/l
						ORP = -169

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 3.5

Sampling Time: 910 Sampling Date: 9-16-98

Sample I.D.: MW2 Laboratory: Entech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: MTBE, Alkalinity, nitrate, sulfate, ferrous iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980916-R1	Client: Hopkins + Carley
Sampler: Doug + Chris	Start Date: 9-16-98
Well I.D.: MW3	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 17.35 After	Depth to Water: Before 9.05 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.32	x	3	3.96
1 Case Volume		Specified Volumes	= gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
836	70.4	8.3	330	>200	1.5	Black color
839	69.8	7.9	320	>200	3	Odor
841	69.3	7.8	320	>200	4	Very turbid
						D.O. = 1.3 mg/L
						ORP = -187

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4

Sampling Time: 845 Sampling Date: 9-16-98

Sample I.D.: MW3 Laboratory: Entech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: MTBE, Alkalinity, nitrate, sulfate, ferrous iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980916-R1	Client: Hopkins + Carley
Sampler: Doug & Chris	Start Date: 9-16-98
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.90 After	Depth to Water: Before 7.28 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.84 (1 Case Volume) x 3 (Specified Volumes) = 5.52 gallons

Purging: (Bailer)
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1119	69.5	7.4	310	>200	2	Strong Odor
1122	69.4	7.4	310	>200	4	Sheen
1125	69.8	7.4	310	>200	6	brown-gray color
						D.O. = 0.5 mg/L
						ORP = -146

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 1130 Sampling Date: 9-16-98

Sample I.D.: MW-4 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) (OTHER): MTBE, Alkalinity, Nitrate, Sulfate, + ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 980916-81	Client: Hopkins + Carley
Sampler: Doug + Chris	Start Date: 9-16-98
Well I.D.: MW5	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.75 After	Depth to Water: Before 8.50 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.64 (1 Case Volume) x 3 (Specified Volumes) = 4.92 gallons

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
953	67.9	7.5	370	>200	1.5	Tan color
956	68.4	7.4	370	>200	3.5	
959	68.6	7.4	360	>200	5	
						D.O. = 2.2 mg/l
						ORP = -134

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 5

Sampling Time: 1005	Sampling Data: 9-16-98
Sample I.D.: MW5	Laboratory: Entech
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER: MTBE, Alkalinity, Nitrate, Sulfate, Ferrous iron
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER:

WELL MONITORING DATA SHEET

Project #: 980911-R1	Client: E2C
Sampler: DOUG + CHRIS	Start Date: 9-16-98
Well I.D.: MW-6	Well Diameter: (circle one) ~~2~~ ~~3~~ ~~4~~ ~~6~~ 3/4"
Total Well Depth: Before 17.46 After	Depth to Water: Before 9.71 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

radius = 0.375

3/4" = 0.023

$r^2 \times 0.163 =$

0.2 (1 Case Volume) x 3 (Specified Volumes) = 0.5 gallons

Purging: Bailer; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; (Other) pin bailer

Sampling: Bailer; Disposable Bailer; Extraction Port; (Other) pin bailer

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1028	67.6	7.4	380	>200	0.2	Turbid - brown color
1044	68.8	7.3	390	>200	0.4	
1059	68.4	7.3	390	>200	0.5	
						D.O. = 1.3 mg/l
						ORP = -122

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 0.5

Sampling Time: 1110 Sampling Date: 9-16-98

Sample I.D.: MW-6 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) (OTHER): MTBE, Alkalinity, Nitrate, sulfate + ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/23/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	9:30			9:10			8:45				
Lab #	E16743			E16744			E16745				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/19/98			9/19/98			9/19/98				
TPH-Gas	**6,900**	20	1000	**150,000**	100	5000	**5,300**	10	500	50	8015M
MTBE	**ND**	20	100	**640**	100	500	**73**	10	50	5	8020
Benzene	**100**	20	10	**300**	100	50	**670**	10	5	0.50	8020
Toluene	**ND**	20	10	**340**	100	50	**ND**	10	5	0.50	8020
Ethyl Benzene	**15**	20	10	**2,000**	100	50	**280**	10	5	0.50	8020
Xylenes	**ND**	20	10	**3,700**	100	50	**8.6**	10	5	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson
Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/23/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	11:30			10:05			11:10				
Lab #	E16746			E16747			E16748				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/19/98			9/19/98			9/19/98				
TPH-Gas	**7,400**	20	1000	**ND**	1.0	50	**ND**	1.0	50	50	8015M
MTBE	**130**	20	100	**ND**	1.0	5	**40**	1.0	5	5	8020
Benzene	**280**	20	10	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Toluene	**14**	20	10	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Ethyl Benzene	**130**	20	10	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Xylenes	**26**	20	10	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson
Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/23/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	9:30			9:10			8:45				
Lab #	E16743			E16744			E16745				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Dates:	9/17-9/18/98			9/17-9/18/98			9/17-9/18/98				
Alkalinity	**450**	1.0	0.1	**730**	1.0	0.1	**650**	1.0	0.1	0.1	310.1
Ferrous Iron	**ND**	1.0	0.05	**ND**	1.0	0.05	**ND**	1.0	0.05	0.05	SM3500
Nitrate-Nitrogen	**ND**	1.0	0.1	**ND**	1.0	0.1	**ND**	1.0	0.1	0.1	353.3
Sulfate	**340**	1.0	0.1	**120**	1.0	0.1	**48**	1.0	0.1	0.1	375.4

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 198[illegible]

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/23/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	11:30			10:05			11:10				
Lab #	E16746			E16747			E16748				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Dates:	9/17-9/18/98			9/17-9/18/98			9/17-9/18/98				
Alkalinity	**700**	1.0	0.1	**520**	1.0	0.1	**680**	1.0	0.1	0.1	310.1
Ferrous Iron	**ND**	1.0	0.05	**ND**	1.0	0.05	**ND**	1.0	0.05	0.05	SM3500
Nitrate-Nitrogen	**ND**	1.0	0.1	**ND**	1.0	0.1	**ND**	1.0	0.1	0.1	353.3
Sulfate	**27**	1.0	0.1	**50**	1.0	0.1	**430**	1.0	0.1	0.1	375.4

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2980919
Matrix: Water
Units: ug/L

Date Analyzed: 09/19/98
Quality Control Sample: E16759

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	42	106	41	102	3.6	25	78-112
Toluene	8020	<0.50	40	ND	39	98	38	95	3.4	25	79-111
Ethyl Benzene	8020	<0.50	40	ND	39	97	38	94	3.6	25	79-113
Xylenes	8020	<0.50	120	ND	117	97	111	93	4.7	25	80-114
Gasoline	8015	<50.0	1000	ND	810	81	790	79	2.5	25	64-125

Note: LCS and LCSD results reported for the following Parameters:
Gasoline

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 980916-R1

CLIENT EZC

SITE HOPKINS & CARLEY
390, 406, 416 MARTIN AVE
SANTA CLARA, CA

SAMPLE I.D.	9/16	Time	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	40ml VOAs 250 1 Liters	C = COMPOSITE ALL CONTAINERS	TPH-G/BTEX	MTBE	ALKALINITY	NITRATE [redacted]	SULFATE	FERROUS IRON
MW1		9:30	W	8			X	X	X	X	X	X
MW2		9:10					X	X	X	X	X	X
MW3		8:45					X	X	X	X	X	X
MW4		11:30					X	X	X	X	X	X
MW5		10:05					X	X	X	X	X	X
MW6		11:10					X	X	X	X	X	X

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
INVOICE & REPORT
TO EZC
ATTN BRENDA McNABB
PROJ # 5552.00
[redacted] TIMES

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			E16743
			E16744
			E16745
			E16746
			E16747
			E16748

SAMPLING COMPLETED DATE 9/16/98 TIME 11:30

SAMPLING PERFORMED BY Chris LaPlante

RESULTS NEEDED NO LATER THAN ~~TAT~~ PER CLIENT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Chris LaPlante	9/16/98	14:12	J. Bailey	9/16/98	2:10 pm
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/30/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	9:30			9:10			8:45				
Lab #	E16743			E16744			E16745				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/24/98			9/24/98			9/24/98				
TPH-Diesel	ND	1.0	50	1,000 *	1.0	50	ND	1.0	50	50	8015M

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

* Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/30/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	11:30			10:05			11:10				
Lab #	E16746			E16747			E16748				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/24/98			9/24/98			9/24/98				
TPH-Diesel	ND	1.0	50	ND	1.0	50	ND	1.0	50	50	8015M

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

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CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

STANDARD LAB QUALIFIERS
July, 1998

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier	Description
U	Compound was analyzed for but not detected
J	Estimated valued for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 980916-R1

CLIENT E2C

SITE Hopkins / Carley
390, 406, 416 Martin Ave
Santa Clara, CA

SAMPLE I.D.	Date	Time	Matrix (Soil / Water)	Containers	TPH-g / BTEX	Nitrate	Alkalinity	Nitrate #	Sulfate	Perchlorate 8330 #	TPH-Diesel (Extended) #
MW1	9/16	9:30	W	8	X	X	X	X	X	X	X
MW2		9:10			X	X	X	X	X	X	X
MW3		8:45			X	X	X	X	X	X	X
MW4		11:30			X	X	X	X	X	X	X
MW5		10:05			X	X	X	X	X	X	X
MW6		8:10			X	X	X	X	X	X	X

C - COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB ENTECH

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA
☐ LIA
☐ OTHER
☐ RWQCB REGION

SPECIAL INSTRUCTIONS
Invoice / Report
TO E2C
Attn: Brenda McNabb
Post @ 6050.00
* Short Hold Times

ADDL INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			616743
			616744
			616745
			616746
			616747
			616748

SAMPLING COMPLETED DATE 9/16/98 TIME 11:30

SAMPLING PERFORMED BY Chris LaMarche

RESULTS NEEDED NO LATER THAN Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Chris LaMarche	9/16/98	1415			
				9/16/98	2:10

SHIPPED VIA | DATE SENT | TIME SENT | COOLER # |

09/30/1998 17:34 SEP-23 98(WED) 15:51 4087351594 BLAINE TECH SERVICES, INC ENTECH ANALYT LABS TEL 408 573 7771 PAGE 07 P.002

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/30/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	9:30			9:10			8:45				
Lab #	E16743			E16744			E16745				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/30/98			9/30/98			9/30/98				
MTBE	na	1.0	5	ND [1]	20	100	ND [1]	10	50	5	8240

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample diluted due to high levels of non-target hydrocarbons
2. na: not analyzed
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 9/30/98
Date Received: 9/16/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	9/16/98			9/16/98			9/16/98				
Sample Time	11:30			10:05			11:10				
Lab #	E16746			E16747			E16748				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	9/30/98			9/30/98			9/30/98				
MTBE	ND [1]	10	50	na [2]	1.0	5	61	1.0	5	5	8240

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Sample diluted due to high levels of non-target hydrocarbons
2. na: not analyzed
3. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 980916-BJ

CLIENT E2C

SITE Hacienda / Coolidge
390, 4865, 416 Martin Ave
Santa Clara, CA

C = COMPOSITE ALL CONTAINERS

| SAMPLE I.D. | LAB # | DATE | TIME | MATRIX SOIL/AIR | MATRIX WATER | CONTAINERS VOA | CONTAINERS 1 LITER | CONTAINERS 250 ML | CONTAINERS OTHER | TPH-G / BTEX | TPH-D | Alkanes | Aromatics | Halogens | Oil & Grease | 8240 (VOA) | 8270 (SVOA) | 8015 Modified | 8015 Modified | 8015 Modified

QUARTERLY GROUNDWATER MONITORING
THIRD QUARTER 1998
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
HOPKINS & CARLEY
A LAW CORPORATION
August 24, 1998

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

August 24, 1998
Job Number 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - THIRD QUARTER 1998**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Third Quarter 1998 groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on June 29, 1998. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE) using EPA Test Methods 8015 and 8020, respectively. The samples were also analyzed for the

biological degradation parameters of dissolved oxygen, oxygen reduction potential, alkalinity, sufate, nitrate, and ferrous iron.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses are presented in Tables 1 and 2 and on Figure 2. The elevated levels of MTBE reported using EPA 8020 analysis for samples MW-1, MW-2, MW3, and MW-4 are considered anomolous and not representative of actual site conditions. Second Quarter 1998 results for MTBE are considered to be more accurate since those results are based on the more accurate analytical method of EPA 8260. Should further sampling events reveal elevated levels of MTBE using EPA Test Method 8020, those results will be confirmed through 8260 analysis.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on June 29, 1998. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

E_2C, Inc.

Brenda D. McNabb, REA
Senior Project Manager

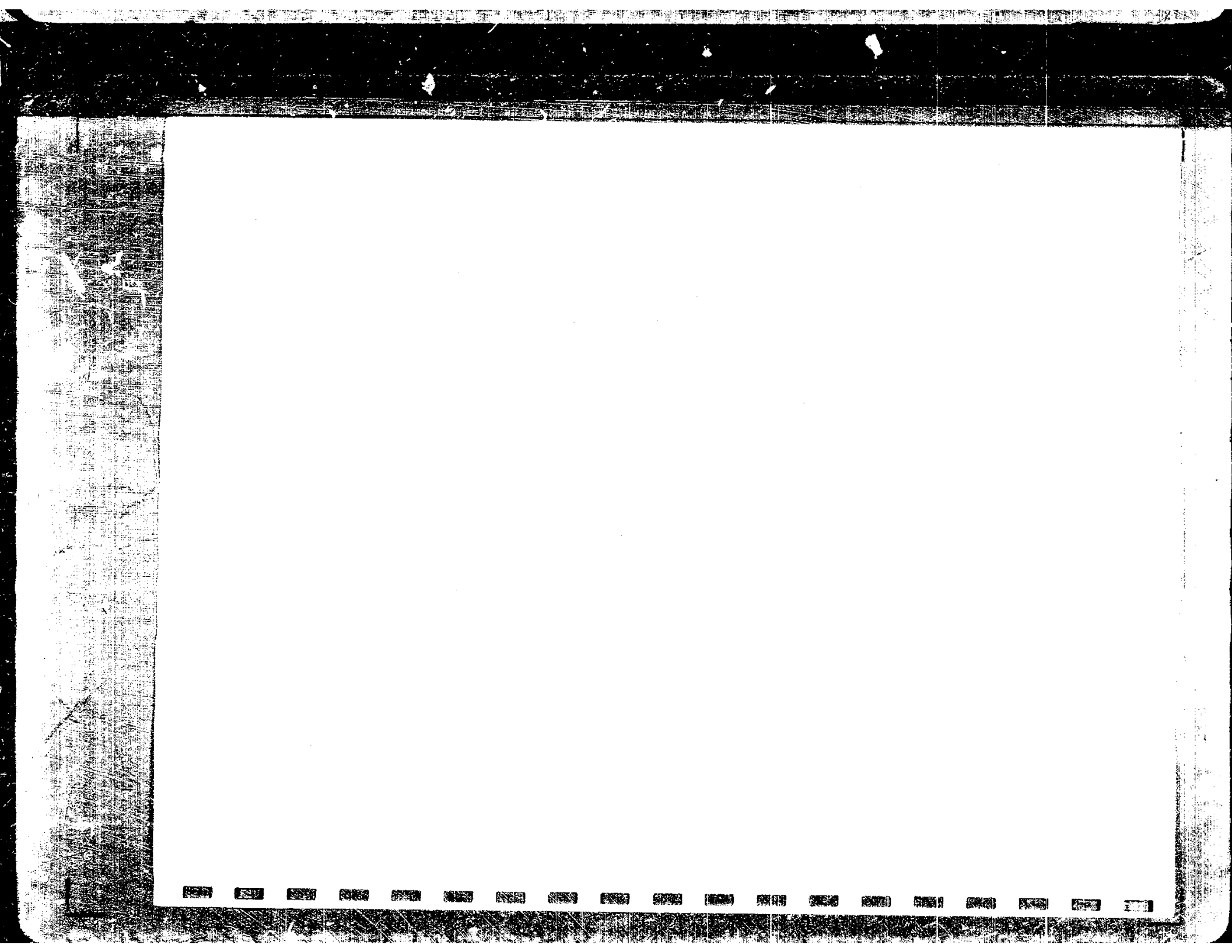
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

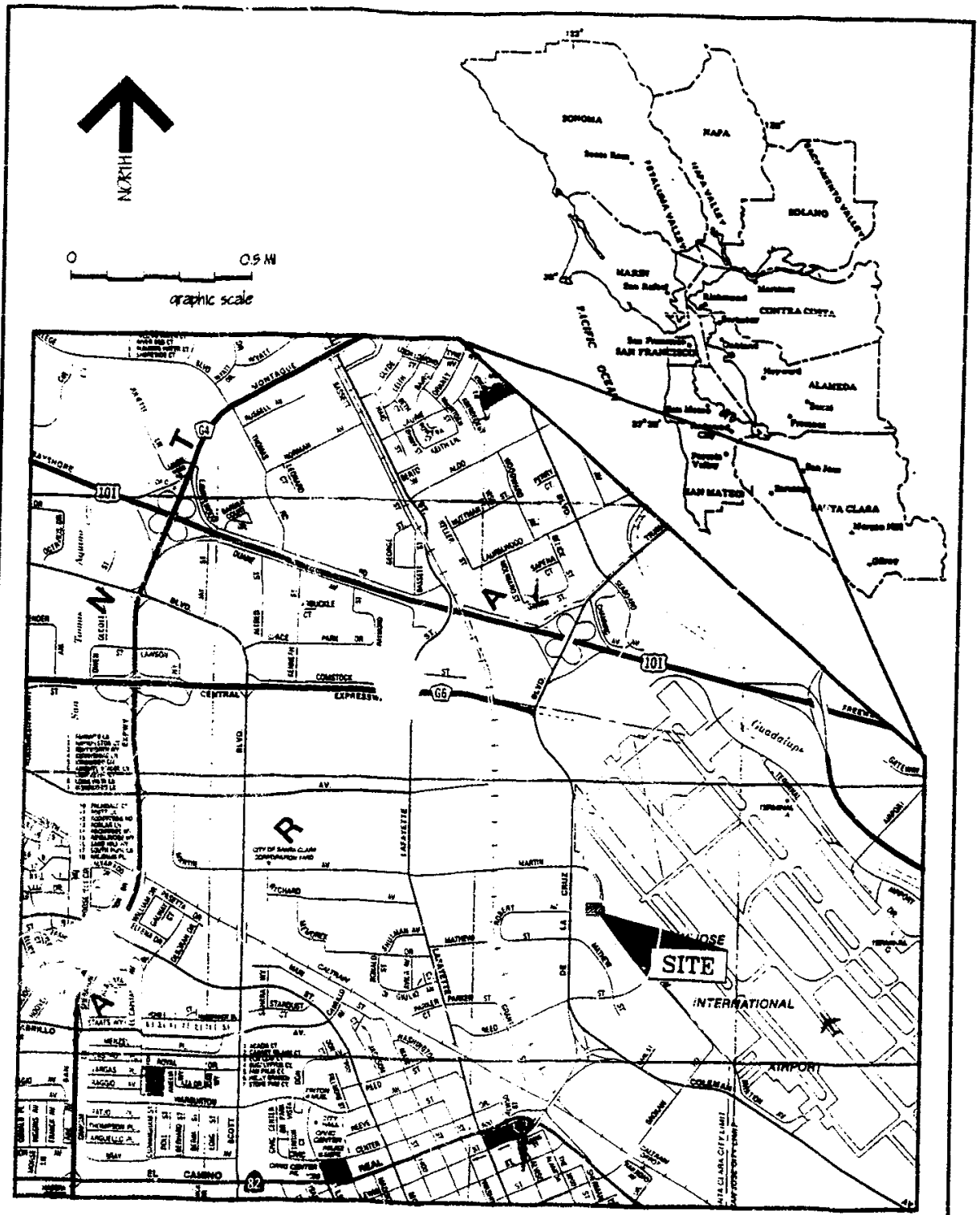
Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

BDM/KWP:dlm

a:\QGMR\5850100.Q17

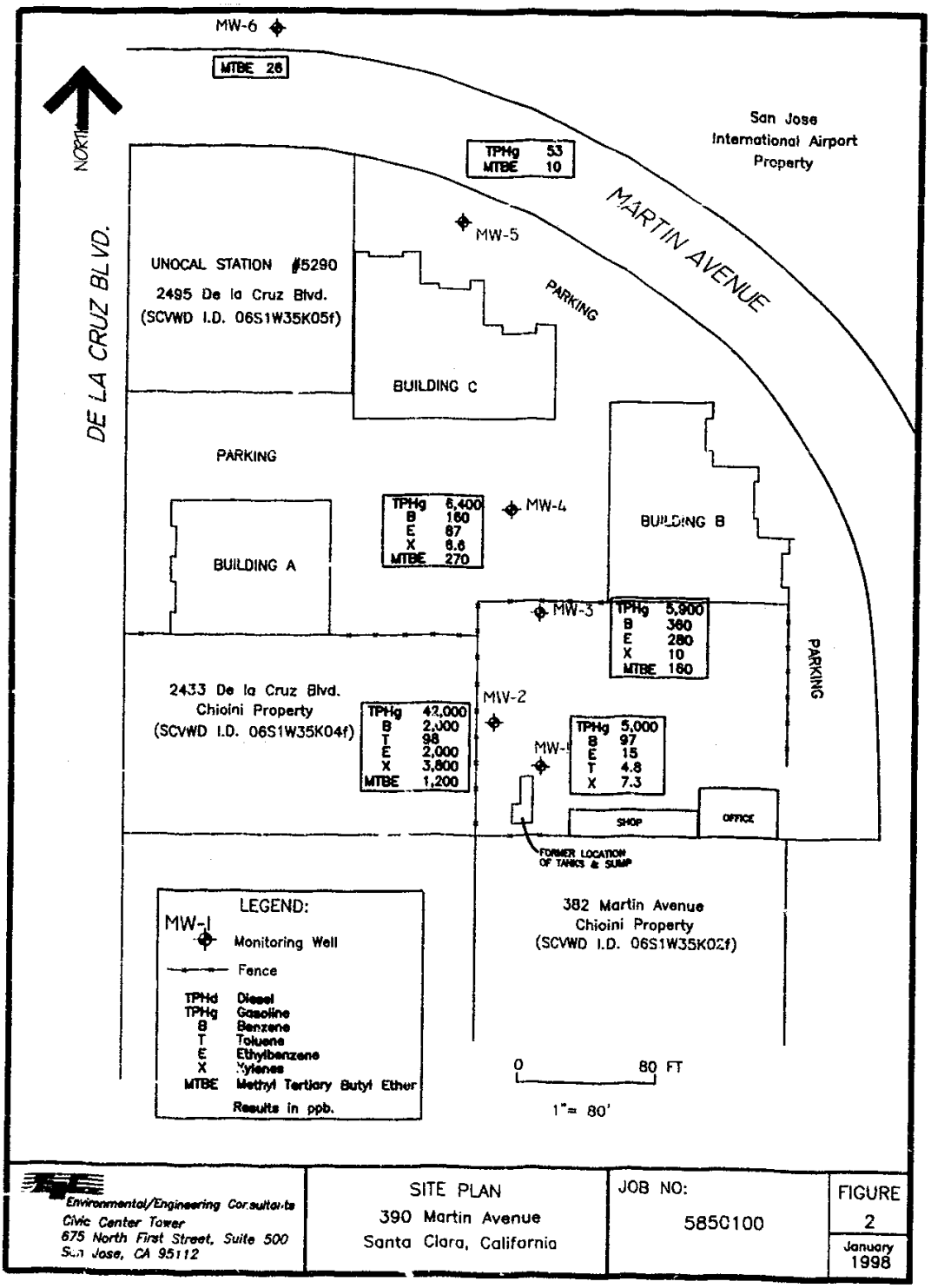


FIGURES

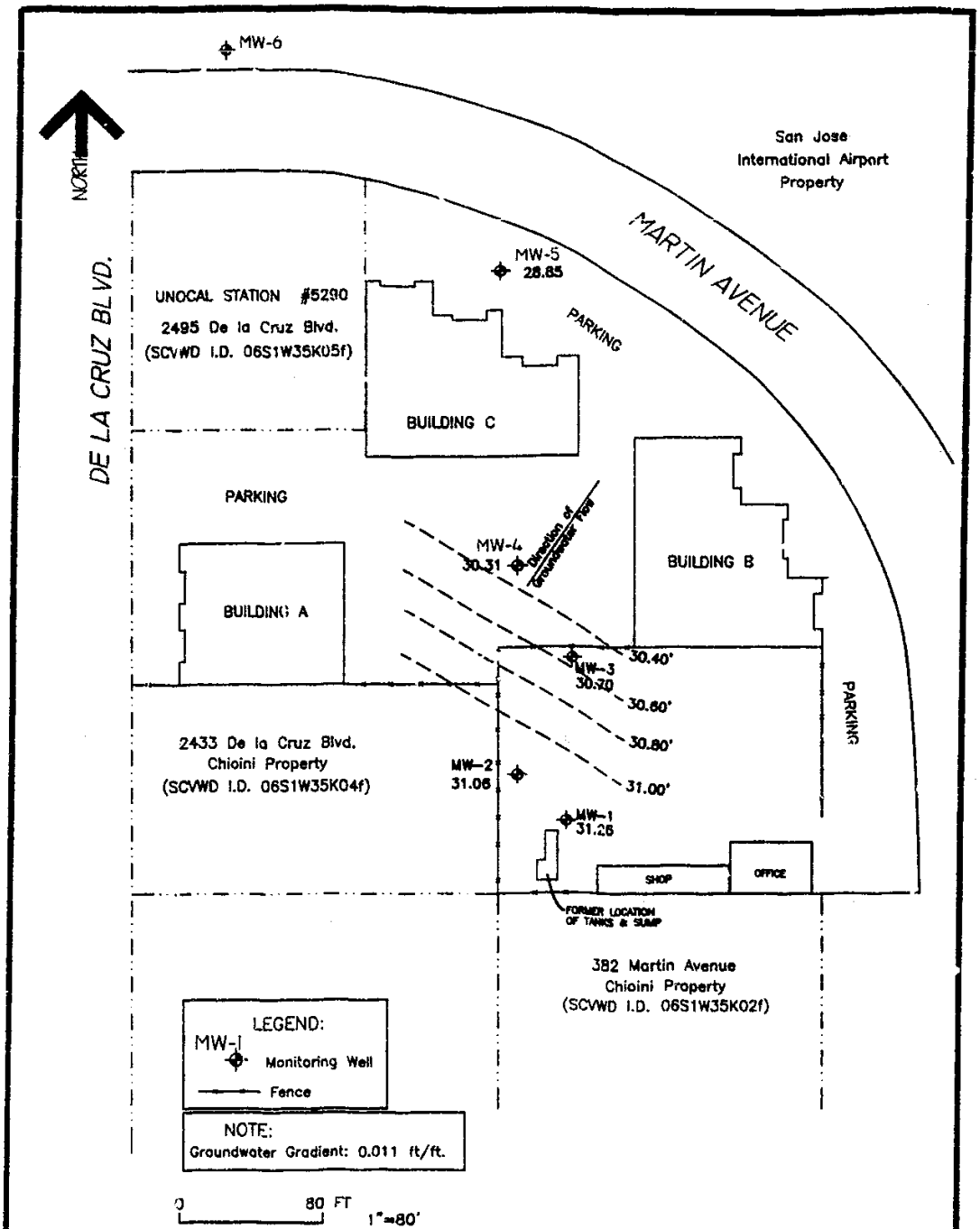


Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 2 January 1998



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP 4/7/98 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 3

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,800	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	28	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	6,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.6	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,800	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	6.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
	Third Quarter - August 10, 1995															
MW-1	9.1	12	57	4,300	1,400	2,400	5,10C	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	9<	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fourth Quarter - November 14, 1995															
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	First Quarter - February 29, 1996															
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	--	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
	Second Quarter - May 31, 1996															
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	6.6	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
	Third Quarter - August 7, 1996															
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
	Fourth Quarter - November 27, 1996															
MW-1	1.1	9.0	48	2,700	440	2,900	3,700	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,600	6,100	530	--	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1 0*	*NE*	*680*	*1.750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 14, 1997																
MW-1	0.569	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	240	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	250	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.85	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	8.1	---	5.0	77	10	29	16	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	90	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freor ug/l
Second Quarter - April 7, 1998																
MW-1	<.05	---	3.2	44	<0.5	15	3.2	<5.0	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	<5.0	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	170	<0.5	55	<.05	9.8	---	---	<0.5	---	---	---	---	---
MW-4	0.53	---	5.9	220	<0.5	140	<0.5	28	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	0.15	<0.5	<0.5	<.05	1.5	5.4	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<.05	1.3	0.71	<0.5	<0.5	5.2	---	---	<0.5	---	---	---	---	---
Third Quarter - June 29, 1998																
MW-1	<0.05	---	5.0	97	4.8	15	7.3	200	---	---	---	---	---	---	---	---
MW-2	<0.05	---	42.0	7,000	98	2,000	3,800	1,200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	280	10	150	---	---	---	---	---	---	---	---
MW-4	<0.05	---	6.4	160	<0.5	87	6.6	270	---	---	---	---	---	---	---	---
MW-5	<0.05	---	.053	<0.5	<0.5	<0.5	<0.5	10	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	26	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether

--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 2

BIOLOGICAL PARAMETERS					
Sample No.	Date	Alkalinity mg/l	Ferrous Iron mg/l	Nitrate as Nitrogen mg/l	Sulfate mg/l
MW-1	4/7/98	440	<0.01	0.21	300
	6/29/98	440	0.27	<0.10	290
MW-2	4/7/98	620	<0.01	0.33	190
	6/29/98	730	<0.01	<0.10	150
MW-3	4/7/98	600	<0.01	<0.10	90
	6/29/98	640	0.27	<0.10	80
MW-4	4/7/98	680	<0.01	<0.10	31
	6/29/98	690	<0.01	<0.10	38
MW-5	4/7/98	520	<0.01	<0.10	420
	6/29/98	530	<0.01	<0.10	490
MW-6	4/7/98	500	<0.01	3.3	520
	6/29/98	640	<0.01	0.94	420

TABLE 3
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.002
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 3 WELL MEASUREMENTS - Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/13/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	13.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		
4/7/98	MW-1	Unknown	Unknown	20.55"	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

TABLE 3 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
6/29/98	MW-1	Unknown	Unknown	20.51'	38.89'	7.63'	31.26'	Northeast	0.011
	MW-2	18'	8'-18'	16.97'	39.28'	8.22'	31.06'		
	MW-3	18'	8'-18'	17.83'	39.35'	8.65'	30.70'		
	MW-4	20'	7'-20'	18.74'	37.37'	7.06'	30.31'		
	MW-5	20'	5'-20'	18.77'	36.98'	8.13'	28.85'		
	MW-6	20'	5'-20'	19.79'	---	9.47'	---		

APPENDIX A
WELL MONITORING DATA SHEETS

WELL GAUGING DATA

Project # 980629-D1 Date 6/29/98 Client E.C.

Site Hopkins & Carley 390 Martin Ave Santa Clara

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	2					7.63	20.51	TOC	
MW-2	2					8.22	16.97		
MW-3	2					8.65	17.83		
MW-4	2	~~FR~~	~~DOT~~	~~DBS~~	—	7.06	18.74		
MW-5	2					8.13	18.77		
MW-6	3/4					9.47	19.79		

WELL MONITORING DATA SHEET

Project #: 980629-D1	Client: E&C @ Hopkins & Carley
Sampler: DV	Start Date: 6/29
Well I.D.: MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.51 After	Depth to Water: Before 7.63 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	V	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
2.0	x	3	=	6.0

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
10:32	67.3	7.8	1430	>200	2	
10:35	67.5	7.5	1430	>200	4	
10:37	68.0	7.3	1420	>200	6	
				DO = 1.6		ORP = -214

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 10:43 Sampling Date: 6/29

Sample I.D.: MW-1 Laboratory: Entech

Analyzed for: (Circle) ~~TPH-G~~ BTEX TPH-D OTHER: MTBE Alkalinity Nitrate Sulfate Ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980629 · 01	Client: EsC @ Hopkins & Carley
Sampler: DV	Start Date: 6/29
Well I.D.: MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 16.97 After	Depth to Water: Before 8.22 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (TOC)	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) x 3 (Specified Volumes) = 4.2 gallons

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	ph	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
10:05	66.8	8.0	1510	>200	1.5	odor/sheen
10:08	66.3	8.1	1580	>200	3.0	↓
10:10	66.7	8.3	1590	>200	4.25	↓
				DO: 1.9		ORP = -211

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 4.25

Sampling Time: 10:15 Sampling Date: 6/29

Sample I.D.: MW-2 Laboratory: ~~Kiff~~ Entech

Analyzed for: ~~TPH-G~~ BTEX ~~TPH-D~~ (Circle) OTHER: MTBE Alkalinity Nitrate Sulfate Ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D (Circle) OTHER:

WELL MONITORING DATA SHEET

Project #: 980629.01	Client: EnC @ Hopkins & Carley
Sampler: DV	Start Date: 6/29
Well I.D.: MW-3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.83 After	Depth to Water: Before 8.65 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
1.5	x	3	=	4.5

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
9:30	66.3	7.2	1460	>200	1.5	odor
9:33	65.3	7.2	1440	>200	3.0	↓
9:36	64.9	7.1	1400	>200	4.5	↓
				DO = 1.7		ORP = -223

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 9:45 Sampling Date: 6/29

Sample I.D.: MW-3 Laboratory: Entech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: MTBE, Alkalinity, Nitrate, Sulfate, Ferrous Iron

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 980629-D1	Client: E&C @ Hopkins & Carley
Sampler: DV	Start Date: 6/29
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ____
Total Well Depth: Before 18.74 After	Depth to Water: Before 7.06 After
Depth to Free Product: none	Thickness of Free Product (feet):
Measurements referenced to: (TOC)	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.8	x	3		5.4
1 Case Volume		Specified Volumes	=	gallons

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
11:38	67.7	7.7	1450	>200	1.5	odor/sheen
11:40	69.4	7.4	1430	>200	3.5	↓
11:43	69.2	7.3	1410	>200	5.5	↓
				DO = 1.3		ORP = -233

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 5.6

Sampling Time: 11:50	Sampling Date: 6/29
Sample I.D.: MW-4	Laboratory: Entech
Analyzed for: ~~TPH-G~~ (BTEX) (TPH-D) (Circle)	OTHER: MTBE Alkalinity Sulfate Nitrate Ferrous Iron
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D (Circle)	OTHER:

WELL MONITORING DATA SHEET

Project #: 980629-D1	Client: E & C
Sampler: DV	Start Date: 6/29
Well I.D.: MW-5	Well Diameter: (circle one) (2) 3 4 6 ____
Total Well Depth: Before 18.77 After	Depth to Water: Before 8.13 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.7	x	3	5.1
1 Case Volume		Specified Volumes	= gallons

Purging: Bailer ✓
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer ✓
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
11:08	66.7	7.5	1680	>200	2.0	
11:11	66.7	7.3	1690	>200	4.0	
11:14	67.0	7.2	1720	>200	5.25	
				DO: 1.6		ORP: -184

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 5.25

Sampling Time: 11:20	Sampling Date: 6/29
Sample I.D.: MW-5	Laboratory: Entech
Analyzed for: (Circle) ~~TPH-G~~ ~~BTEX~~ ~~TPH-D~~	OTHER: MTBE Alkalinity Nitrate Sulfate Ferrous Iron
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER:

WELL MONITORING DATA SHEET

Project #: 980629-D1	Client: E2C
Sampler: DV	Start Date: 6/29
Well I.D.: MW-6	Well Diameter: (circle one) 2 3 4 6 (3/4")
Total Well Depth: Before 19.79 After	Depth to Water: Before 9.47 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.1 x 3 = 0.3

1 Case Volume | Specified Volumes | gallons

Purging: Bailer, Disposable Bailer, Middleburg, Electric Submersible, Extraction Pump, Other pin bailer

Sampling: Bailer, Disposable Bailer, Extraction Port, Other pin bailer

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
12:15	68.4	7.3	1860	>200	0.1	
12:18	68.9	7.1	1890	>200	0.2	
12:20	69.5	7.1	1900	>200	0.3	
				DO: 1.8		ORP: -164

Did Well Dewater? No If yes, gals. ons Actually Evacuated: 0.3

Sampling Time: 12:40	Sampling Date: 6/29
Sample I.D.: MW-6	Laboratory: Entech
Analyzed for: (Circle) ~~TPH-G~~ ~~BTEX~~ ~~TPH-D~~	OTHER: MTBE Alkalinity Nitrate Sulfate Ferrous Iron
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER:

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 7/7/98
Date Received: 6/29/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	6/29/98			6/29/98			6/29/98				
Sample Time	10:43			10:15			9:45				
Lab #	E12405			E12406			E12407				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	6/30/98			6/30/98			6/30/98				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	6/30/98			6/30/98			6/30/93				
TPH-Gas	**5,000**	5.0	250	**42,000**	50	2500	**5,900**	10	500	50	8015M
MTBE	**200**	5.0	25	**1,200**	50	250	**160**	10	50	5	8020
Benzene	**97**	5.0	2.5	**2,000**	50	25	**360**	10	5	0.50	8020
Toluene	**4.8**	5.0	2.5	**98**	50	25	**ND**	10	5	0.50	8020
Ethyl Benzene	**15**	5.0	2.5	**2,000**	50	25	**280**	10	5	0.50	8020
Xylenes	**7.3**	5.0	2.5	**3,800**	50	25	**10**	10	5	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

M. Golden, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

1725 Del Rey Avenue Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 7/7/98
Date Received: 6/29/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	*MW-4*			*MW-5*			*MW-6*				
Sample Date	6/29/98			6/29/98			6/29/98				
Sample Time	11:50			11:20			12:40				
Lab #	**E12408**			**E12409**			**E12410**				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	6/30/98			6/30/98			6/30/98				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	6/30/98			6/30/98			6/30/98				
TPH-Gas	**6,400**	10	500	**53**	1.0	50	**ND**	1.0	50	50	8015M
MTBE	**270**	10	50	**10**	1.0	5	**2.6**	1.0	5	5	8020
Benzene	**160**	10	5	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Toluene	**ND**	10	5	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Ethyl Benzene	**87**	10	5	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Xylenes	**6.6**	10	5	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

1. Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

M. Golden, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

EAC, Inc.
675 N[illegible]st Street, Suite 500
San [illegible] 95112
Attn: Brenda McNabb

Date: 7/7/98
Date Received: 6/29/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	*MW-1*			*MW-2*			*MW-3*				
Sample Date	6/29/98			6/29/98			6/29/98				
Sample Time	10:43			10:15			9:45				
Lab #	E12405			E12406			E12407				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Dates:	6/29-7/1/98			6/29-7/1/98			6/29-7/1/98				
Alkalinity	440	1.0	0.1	730	1.0	0.1	640	1.0	0.1	0.1	310.1
Ferrous Iron	0.27	1.0	0.05	ND	1.0	0.05	0.27	1.0	0.05	0.05	SM3500
Nitrate-Nitrogen	ND	1.0	0.1	ND	1.0	0.1	ND	1.0	0.1	0.1	353.3
Sulfate	290	1.0	0.1	150	1.0	0.1	80	1.0	0.1	0.1	375.4

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

M. Golden, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95113
Attn: Brenda McNabb

Date: 7/7/98
Date Received: 6/29/98
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	*MW-4*			*MW-5*			*MW-6*				
Sample Date	6/29/98			6/29/98			6/29/98				
Sample Time	11:50			11:20			12:40				
Lab #	**E12408**			**E12409**			**E12410**				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in mg/Liter:											
Analysis Dates:	6/29-7/1/98			6/29-7/1/98			6/29-7/1/98				
Alkalinity	**690**	1.0	0.1	**530**	1.0	0.1	**640**	1.0	0.1	0.1	310.1
Ferrous Iron	**ND**	1.0	0.05	**ND**	1.0	0.05	**ND**	1.0	0.05	0.05	SM3500
Nitrate-Nitrogen	**ND**	1.0	0.1	**ND**	1.0	0.1	**0.94**	1.0	0.1	0.1	353.3
Sulfate	**38**	1.0	0.1	**490**	1.0	0.1	**420**	1.0	0.1	0.1	375.4

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

M. Golden, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4980630
Matrix: Water
Units: ug/L

Date Analyzed: 06/30/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	80	ND	80	100	86	107	6.7	25	75-116
Toluene	8020	<0.50	80	ND	81	101	84	105	4.1	25	75-115
Ethyl Benzene	8020	<0.50	80	ND	83	104	83	104	0.5	25	76-115
Xylenes	8020	<0.50	240	ND	242	101	236	99	2.4	25	75-118
Gasoline	8015	<50.0	1000	ND	1060	106	1030	103	2.9	25	62-128

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2980630
Matrix: Water
Units: ug/L

Date Analyzed: 06/10/98
Quality Control Sample: E10386

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	SP % R	SPD ug/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	98	41	102	4.2	25	77-111
Toluene	8020	<0.50	40	ND	39	98	41	102	3.9	25	79-110
Ethyl Benzene	8020	<0.50	40	ND	41	101	42	106	4.0	25	78-112
Xylenes	8020	<0.50	120	ND	125	104	130	108	3.6	25	79-113
Gasoline	8015	<50.0	1000	ND	970	97	990	99	2.0	25	60-125

Note: LCS and LCSD results reported for the following Parameters:
Gasoline

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94085

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW980610 — Date analyzed: 06/29/98
Matrix: Water — Date extracted: 06/29/98
Units: µg/L — Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	1038	109	958	101	8	25	58-136

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0565

CHAIN OF CUSTODY: Job # 980629-D1

CLIENT: E2C

SITE: Hopkins & Carley
390, 406-416 Martin
Santa Clara, CA

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL	TPH-G, BTEX, MTBE	TPH-Diesel	Alkalinity	Nitrate *	Sulfate	Ferrous Iron *	ADD'L INFORMATION	STAT JS	CONDITION	LAB SAMPLE #
MW-1	6/29	10:45	W	8	X	X	X	X	X	X				E12405
MW-2	6/29	10:15			X	X	X	X	X	X				E12406
MW-3		9:45			X	X	X	X	X	X				E12407
MW-4		11:50			X	X	X	X	X	X				E12408
MW-5		11:20			X	X	X	X	X	X				E12409
MW-6		12:40			X	X	X	X	X	X				E12410

CONDUCT ANALYSIS TO DETECT

LAB: ENTECH DHS #:

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION ____

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO E2C
ATTN: BRENDA McNABB
PROJ #: 5850100
* WATCH HOLD TIMES

SAMPLING COMPLETED	DATE	TIME
	6/29/98	12:45

SAMPLING PERFORMED BY: [signature]

RESULTS NEEDED NO LATER THAN: ASAP CLIENT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	6/29/98		[signature]	6/29/98	1:20
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

QUARTERLY GROUNDWATER MONITORING
FOURTH QUARTER 1997
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

Richard Weber Const. FOR

HOPKINS & CARLEY
A LAW CORPORATION
January 20, 1998

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

January 20, 1998
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - FOURTH QUARTER 1997**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Fourth Quarter 1997 Groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on November 18, 1997. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tertiary Butyl Ether (MTBE) using EPA Test Methods 418.1, 8015, and 8020, respectively.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on November 18, 1997. These elevations are shown in Table 1 and groundwater gradient and flow direction are presented on Figure 3.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 2 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the November 18, 1997 sampling event are presented in Appendix B. With the exception of the increase in Benzene concentrations in well MW-2 during this past quarterly monitoring event, Benzene levels have either stabilized or are decreasing in all other wells.

CONCLUSIONS AND RECOMMENDATIONS

Based on the general decline in Benzene levels, it appears that natural attenuation factors will continue to lower the overall concentrations of Benzene in the groundwater. It is our recommendation that quarterly monitoring be continued pending the results of a Corrective Action Plan (CAP) and a Risk-Based Corrective Action (RBCA) evaluation. E_2C, Inc. also proposes the injection of Oxygen Release Compound in the areas of wells MW-2 and MW-4 to facilitate a more expedient decrease in contaminant levels.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

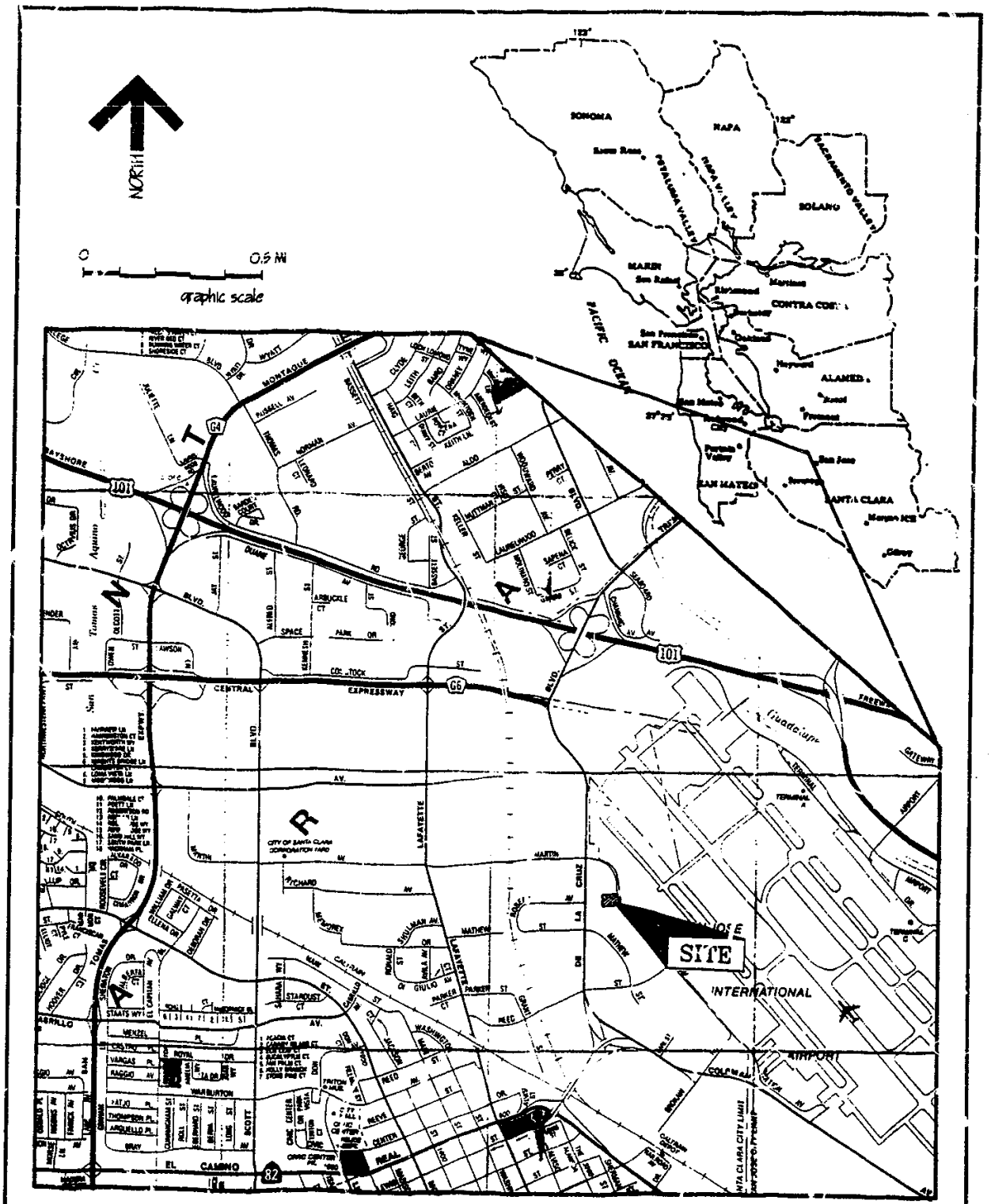
Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

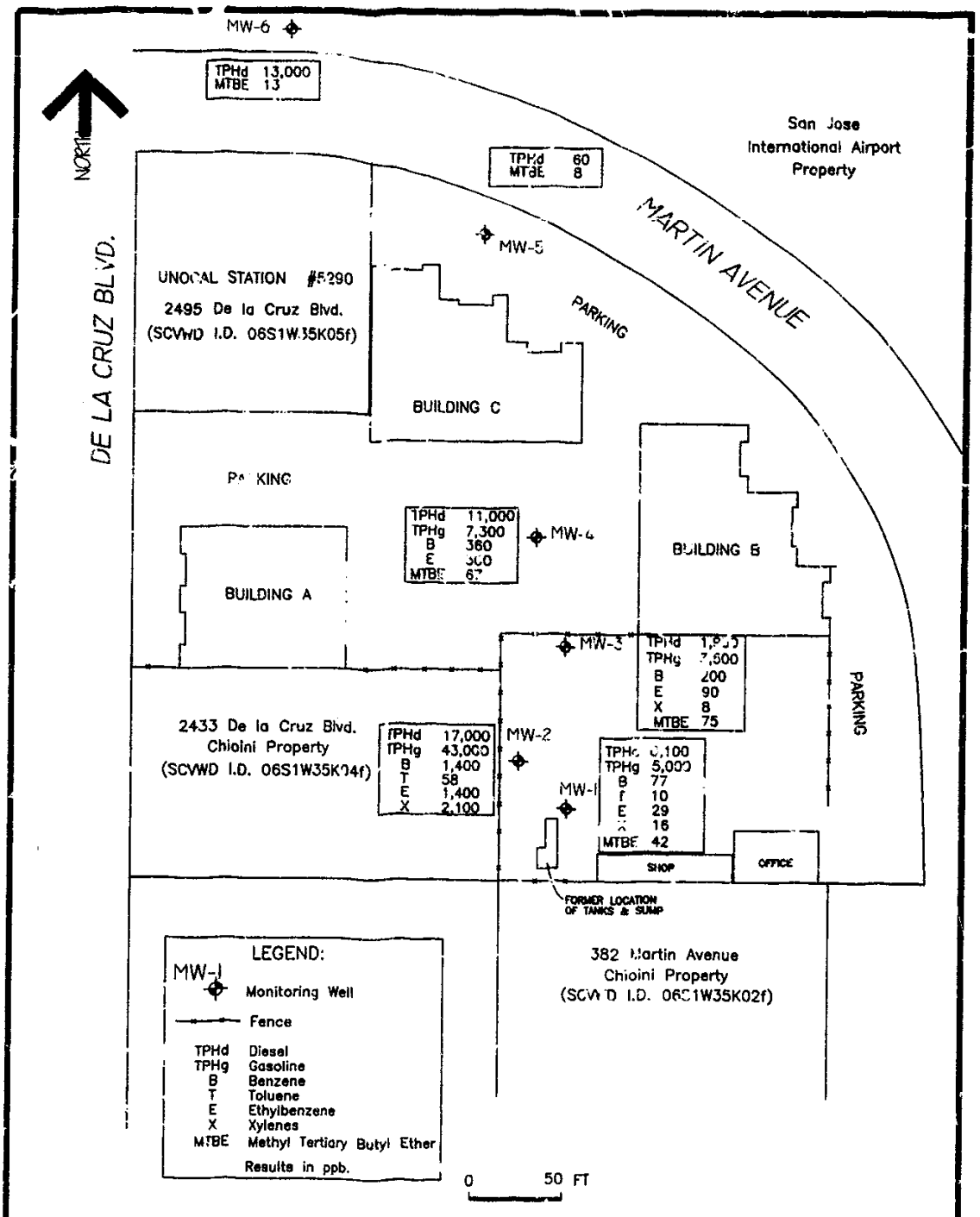
cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

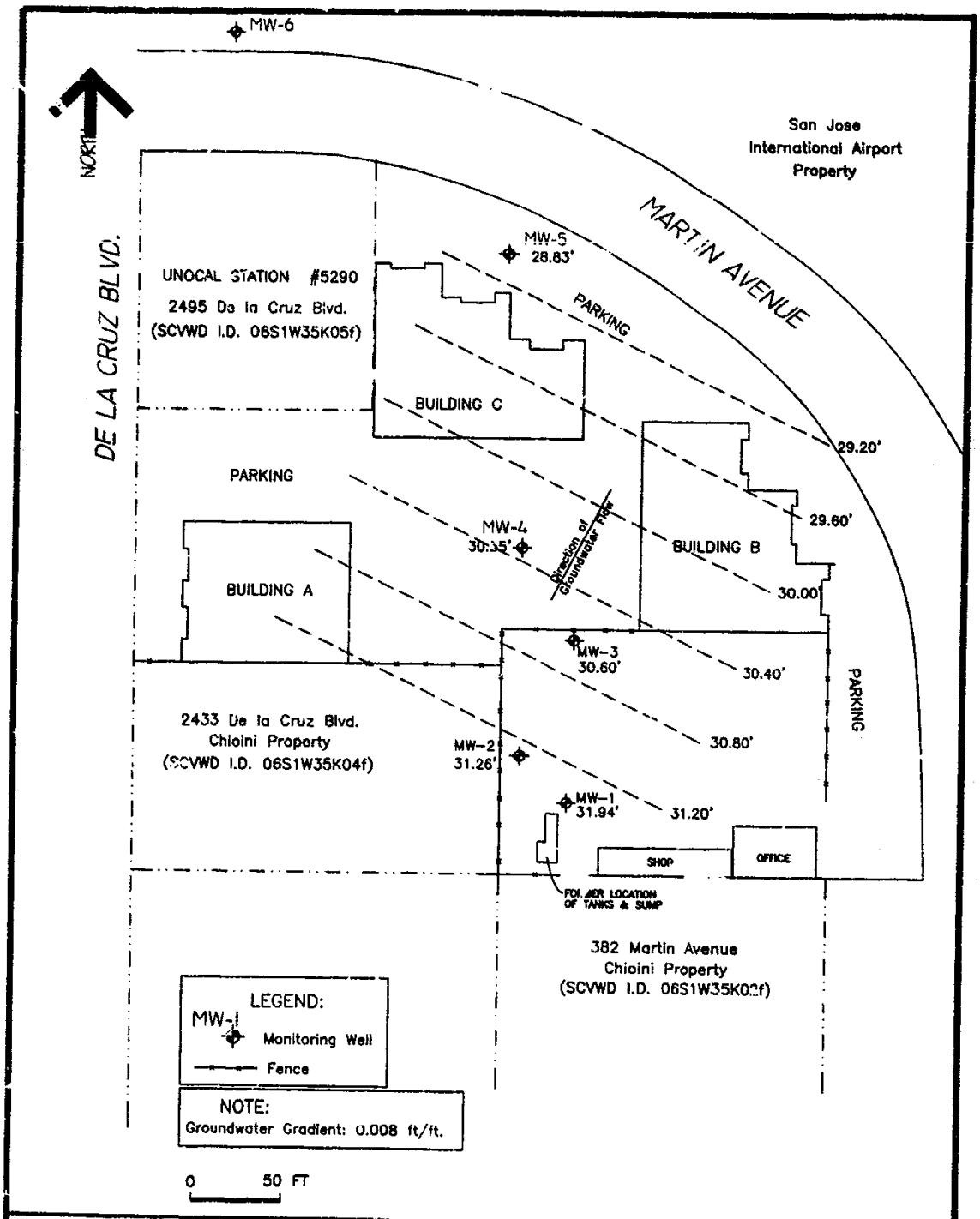


Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP [illegible] Martin Avenue Santa Clara, California	JOB NO. 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 2 January 1998



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP 11/18/97 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 3

TABLE 1
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 1 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		

TABLE 2
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	MeCl ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	37	72	5,700	4,100	2,200	8,200	<0.4	<0.5	3.2	1.2	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.67	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	25	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	2	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	27	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	25	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	2.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*NE*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	520	1,300	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	7.0	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	56	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,200	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	820	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	520	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	7.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	1,60	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 14, 1997																
MW-1	0.560	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	220	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	9.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	260	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.86	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	3.1	---	5.0	77	10	29	<6	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	90	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE	=	Tetrachloroethene	---	=	Samples not analyzed for these analytes.
1,1-DCA	=	1,1-Dichloroethane	TCE	=	Trichloroethene
1,2-DCA	=	1,2-Dichloroethane	Freon	=	Trichlorofluoromethane
1,1-DCE	=	1,1-Dichloroethene	MCLs	=	Maximum Contaminant Levels for drinking water.
Meth	=	Methylene Chloride	NE	=	MCLs have not been established for these compounds.
MTBE	=	Methyl Tertiary Butyl Ether			

APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 971118-61	Client: E2C
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.54 After	Depth to Water: Before 6.95 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (TOC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

2.2 (1 Case Volume) x 3 (Specified Volumes) = 6.6 gallons

Purging: ~~Bailer~~
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: ~~Bailer~~
Disposable Bailer
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1457	70.2	7.2	1100	>200	2.3	Odor
1500	70.0	7.1	1100	>200	4.6	
1503	69.8	7.1	1000	>200	7.0	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 7.0

Sampling Time: 1508 Sampling Date: 11/18/97

Sample I.D.: MW-1 Laboratory: Columbia

Analyzed for: (TPH-G BTEX TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 971118-C1	Client: E.C
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 16.90 After	Depth to Water: Before 8.02 Aft
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) x 3 (Specified Volumes) = 4.2 gallons

Purging: ~~Bailer~~
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: ~~Bailer~~
Disposable Bailer
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1429	72.0	7.2	1200	>200	1.5	Odor/Sheen
1431	71.8	7.2	1100	>200	3.0	
1433	71.8	7.2	1100	>200	4.5	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1438 Sampling Date: 11/18/97

Sample I.D.: MW-2 Laboratory: Columbia

Analyzed for: (TPH-G BTEX TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 97118-61	Client: EzC
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.96 After	Depth to Water: Before 8.75 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.5 (1 Case Volume) x 3 (Specified Volumes) = 4.5 gallons

Purging: Bailer; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other ____

Sampling: Bailer; Disposable Bailer; Extraction Port; Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1409	72.0	7.4	1100	>200	1.5	Odor
1411	71.6	7.4	1100	>200	3.0	
1413	71.4	7.4	1000	>200	4.5	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1418 Sampling Date: 11/18/97

Sample I.D.: MW-3 Laboratory: Columbia

Analyzed for: (TPH-G BTEX TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 97118-61	Client: E2C
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.70 After	Depth to Water: Before 7.02 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.9 (1 Case Volume) × 3 (Specified Volumes) = 5.7 gallons

Purging: X Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: X Bailer
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1314	71.4	7.2	1200	>200	2	Odor/Sheen
1316	71.0	7.2	1100	>200	4	
1318	70.6	7.2	1100	>200	6	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 1323 Sampling Date: 11/18/97

Sample I.D.: MW-4 Laboratory: Columbia

Analyzed for: (Circle) (TPH-G BTEX TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 97118-61	Client: E2C
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-5	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.79 After	Depth to Water: Before 8.15 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.7 (1 Case Volume) x 3 (Specified Volumes) = 5.1 gallons

Purging: ~~X~~ Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: ~~X~~ Bailer
Disposable Bailer
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1249	70.6	7.0	1500	>200	1.75	
1251	69.8	7.0	~~1~~1400	>200	3.5	
1253	69.4	7.0	1400	>200	4.25	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 4.25

Sampling Time: 1258	Sampling Date: 11/18/97
Sample I.D.: MW-5	Laboratory: Columbia
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER: MTBE
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER:

WELL MONITORING DATA SHEET

Project #: 97118-G1	Client: EnC
Sampler: MG	Start Date: 11/18/97
Well I.D.: MW-6	Well Diameter: (circle one) 2 3 4 6 (3/4")
Total Well Depth: Before 19.76 After	Depth to Water: Before 9.90 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.1 (1 Case Volume) x 3 (Specified Volumes) = 0.3 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other Pin Bailer

Sampling: Bailer
Disposable Bailer
Extraction Port
Other Pin Bailer

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1211	70.6	7.4	1600	>200	0.1	
1214	70.2	7.3	1600	>200	0.2	
1217	70.0	7.3	1600	>200	0.3	

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: 0.3

Sampling Time: 1226 Sampling Date: 11/18/97

Sample I.D.: MW-6 Laboratory: Columbia

Analyzed for: (TPH-G) BTEX (TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Columbia Analytical Services, Inc.

November 26, 1997 Service Request No.: S9702411

Brenda McNabb
Environmental Engineering Consultants
Civic Center Tower
675 North First Street
Suite 500
San Jose, CA 95112-5111

RE: Hopkins & Carley/5850100

Dear Ms. McNabb:

The following pages contain analytical results for sample(s) received by the laboratory on November 19, 1997. Results of sample analyses are followed by Appendix A which contains sample custody documentation and quality assurance deliverables requested for this project. The work requested has been assigned the Service Request No. listed above. To help expedite our service, please refer to this number when contacting the laboratory.

Analytical results were produced by procedures consistent with Columbia Analytical Services' (CAS) Quality Assurance Manual (with any deviations noted). Signature of this CAS Analytical Report below confirms that pages 2 through 13, following, have been thoroughly reviewed and approved for release in accord with CAS Standard Operating Procedure ADM-DatRev3.

Please feel welcome to contact me should you have questions or further needs.

Sincerely,

Steven L. Green
Project Chemist

2059 Junction Avenue • San Jose, California 95131 • Telephone 408/428-1280 • Fax 408/437-9356

COLUMBIA ANALYTICAL SERVICES, Inc.
Acronyms

A2LA	American Association for Laboratory Accreditation
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAM	California Assessment Metals
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
COD	Chemical Oxygen Demand
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank sample
ICP	Inductively Coupled Plasma atomic emission spectrometry
ICV	Initial Calibration Verification sample
J	Estimated concentration. The value is less than the MRL, but greater than or equal to the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level. The highest permissible concentration of a substance allowed in drinking water as established by the U. S. EPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert-Butyl Ether
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the paper industry for Air and Stream Improvement
ND	Not Detected at or above the method reporting/detection limit (MRL/MDL)
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992
STLC	Solubility Threshold Limit Concentration
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. SW-846, 3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.
TCLP	Toxicity Characteristic Leaching Procedure
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
tr	Trace level. The concentration of an analyte that is less than the PQL but greater than or equal to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.
TRPH	Total Recoverable Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

APPENDIX A

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Environmental Engineering Consultants-AZ
Project: Hopkins & Carley/5850100
Sample Matrix: Water

Service Request: S9702411
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: NA

Surrogate Recovery Summary
TPH as Diesel

Prep Method: LPA 3510
Analysis Method: CA/LUFT

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery p-Terphenyl
MW-1	S9702411-001		64
MW-2	S9702411-002		52
MW-3	S9702411-003		69
MW-4	S9702411-004		79
MW-5	S9702411-005		85
MW-6	S9702411-006		114
Method Blank	S971121-MB		66

CAS Acceptance Limits: 41-140

SUR1/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Environmental Engineering Consultants-AZ
Project: Hopkins & Carley/5850100
Sample Matrix: Water

Service Request: S9702411
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: NA

Surrogate Recovery Summary
BTEX, MTBE and TPH as Gasoline

Prep Method: EPA 5030
Analysis Method: 8020 CA/LUFT

Units: PERCENT
Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery 4-Bromofluorobenzene	Percent Recovery a,a,a-Trifluorotoluene
MW-1	S9702411-001		79	125 S
MW-2	S9702411-002		97	98
MW-3	S9702411-003		96	95
MW-4	S9702411-004		91	103
MW-5	S9702411-005		98	100
MW-6	S9702411-006		100	97
Method Blank	S971124-WB1		101	98

CAS Acceptance Limits: 69-116 69-116

S The surrogate recovery is out of limit because of matrix interference.

SUR2/020397p

DIF VOA T/H EXT

5470247

BLAINE TECH SERVICES INC

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY

CLIENT: E2C

SITE: Hopkins & Carley
390 Martin Ave
Santa Clara, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB: Columbia DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

INVOICE & REPORT TO:
E2C
ATTN: BRENDA McNABB
PROJ # 5250100

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	TPH-Gas BTEX	TPH-Diesel	MTBE	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1 MW-1	11/18/97	1503	W	4	X	X	X				
2 MW-2		1438			X	X	X				
3 MW-3		1418			X	X	X				
4 MW-4		1323			X	X	X				
5 MW-5		1258			X	X	X				
6 MW-6	↓	1226	↓	↓	X	X	X				

SAMPLING COMPLETED	DATE	TIME
	11/18/97	1515

SAMPLING PERFORMED BY

RESULTS NEEDED NO LATER THAN: AS CONTRACTED 5 days

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	11/20/97	2:15	CAS	11-21-97	2:10 PM
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

R30154

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

TPH as Diesel

Prep Method:	EPA 3510	Units:	ug/L (ppb)
Analysis Method:	CA/LUFT	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-1	S9702411-001	50	5	11/21/97	11/24/97	8100	D1
MW-2	S9702411-002	50	5	11/21/97	11/24/97	17000	D1
MW-3	S9702411-003	50	1	11/21/97	11/22/97	1900	D1,D2
MW-4	S9702[illegible]004	50	5	11/21/97	11/24/97	11000	D1
MW-5	S9702[illegible]005	50	1	11/21/97	11/22/97	ND	D3
MW-6	S97[illegible]11-006	50	5	11/21/97	11/24/97	13000	D1
Method Blank	S971121-MB	50	1	11/21/97	11/21/97	ND	

D1 This sample contained a mixture of gasoline and diesel quantified as diesel.
D2 Sample contained heavy oil at 630 ppb.
D3 Sample contained heavy oil at 1700 ppb.

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-1	Units:	ug/L (ppb)
Lab Code:	S9702411-001	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	10	NA	11/24/97	5000	
Benzene	EPA 5030	8020	0.5	10	NA	11/24/97	77	
Toluene	EPA 5030	8020	0.5	10	NA	11/24/97	10	
Ethylbenzene	EPA 5030	8020	0.5	10	NA	11/24/97	29	
Xylenes, Total	EPA 5030	8020	0.5	10	NA	11/24/97	16	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	10	NA	11/24/97	42	

1522/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-2	Units:	ug/L (ppb)
Lab Code:	S9702411-002	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	100	NA	11/25/97	43000	
Benzene	EPA 5030	8020	0.5	100	NA	11/25/97	1400	
Toluene	EPA 5030	8020	0.5	100	NA	11/25/97	58	
Ethylbenzene	EPA 5030	8020	0.5	100	NA	11/25/97	1400	
Xylenes, Total	EPA 5030	8020	0.5	100	NA	11/25/97	2100	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	100	NA	11/25/97	<300	C1

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

1522/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-3	Units:	ug/l (ppb)
Lab Code:	S9702411-003	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	10	NA	11/25/97	3500	
Benzene	EPA 5030	8020	0.5	10	NA	11/25/97	200	
Toluene	EPA 5030	8020	0.5	10	NA	11/25/97	<5	C1
Ethylbenzene	EPA 5030	8020	0.5	10	NA	11/25/97	90	
Xylenes, Total	EPA 5030	8020	0.5	10	NA	11/25/97	8	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	10	NA	11/25/97	75	

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

1322/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-4	Units:	ug/L (ppb)
Lab Code:	S9702411-004	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	20	NA	11/25/97	7300	
Benzene	EPA 5030	8020	0.5	20	NA	11/25/97	360	
Toluene	EPA 5030	8020	0.5	20	NA	11/25/97	<10	C1
Ethylbenzene	EPA 5030	8020	0.5	20	NA	11/25/97	300	
Xylenes, Total	EPA 5030	8020	0.5	20	NA	11/25/97	<10	C1
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	20	NA	11/25/97	67	

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

1522/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-5	Units:	ug/L (ppb)
Lab Code:	S9702411-005	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	11/24/97	60	
Benzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Toluene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	11/24/97	8	

1522/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	11/18/97
Sample Matrix:	Water	**Date Received:**	11/19/97

BTEX, MTBE and TPH as Gasoline

Sample Name:	MW-6	Units:	ug/L (ppb)
Lab Code:	S9702411-006	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	11/24/97	ND	
Benzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Toluene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	11/24/97	13	

1522/020397p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Environmental Engineering Consultants-AZ	**Service Request:**	S9702411
Project:	Hopkins & Carley/5850100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

BTEX, MTBE and TPH as Gasoline

Sample Name:	Method Blank	Units:	ug/L (ppb)
Lab Code:	S971124-WB1	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	11/24/97	ND	
Benzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Toluene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	11/24/97	ND	
Methyl *tert*-Butyl Ether	EPA 5030	8020	3	1	NA	11/24/97	ND	

IS22/020597p

REQUEST FOR CASE CLOSURE
QUARTERLY GROUNDWATER MONITORING
THIRD QUARTER 1997
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

Richard Wehner Cons

FOR

HOPKINS & CARLEY
A LAW CORPORATION
August 29, 1997

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

August 29, 1997
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **REQUEST FOR CASE CLOSURE**
QUARTERLY GROUNDWATER MONITORING - THIRD QUARTER 1997
330 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Third Quarter 1997 Groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 on August 8, 1997. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tertiary Butyl Ether (MTBE) using EPA Test Methods 418.1, 8015, and 8020, respectively.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1 through MW-5, which correspond to mean sea-level benchmark datum, were acquired on August 8, 1997. These elevations are shown in Table 2 and groundwater gradient and flow direction are presented on Figure 3.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 1 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the August 8, 1997 sampling event are presented in Appendix B. Graph 1 shows the trend of Benzene concentrations in wells MW-1 through MW-4 over time. This evaluation indicates that the levels of Benzene have either stabilized or are decreasing due to natural attenuation mechanisms.

CONCLUSIONS AND RECOMMENDATIONS

Based on the decline in Benzene levels in wells MW-1 through MW-4, it appears that natural attenuation factors will continue to lower the overall concentrations of Benzene in the groundwater. Moreover, Benzene concentrations in the wells have not exceeded 880 ppb during the last three quarterly monitoring events. As such, we are requesting that this case be considered for closure at this time on the basis that natural attenuation mechanisms will eventually result in the reduction of Benzene levels to Maximum Contaminant Levels.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

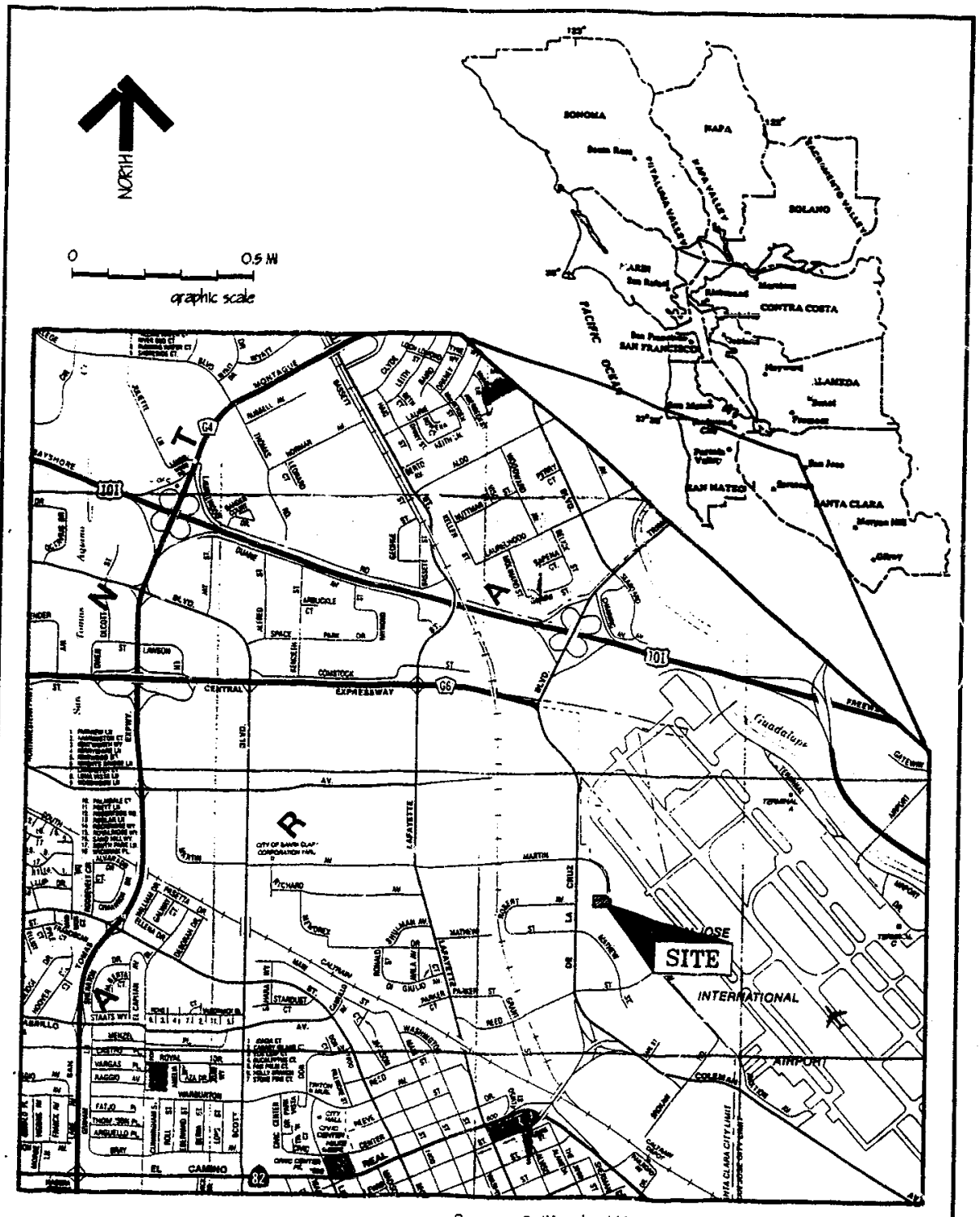
Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

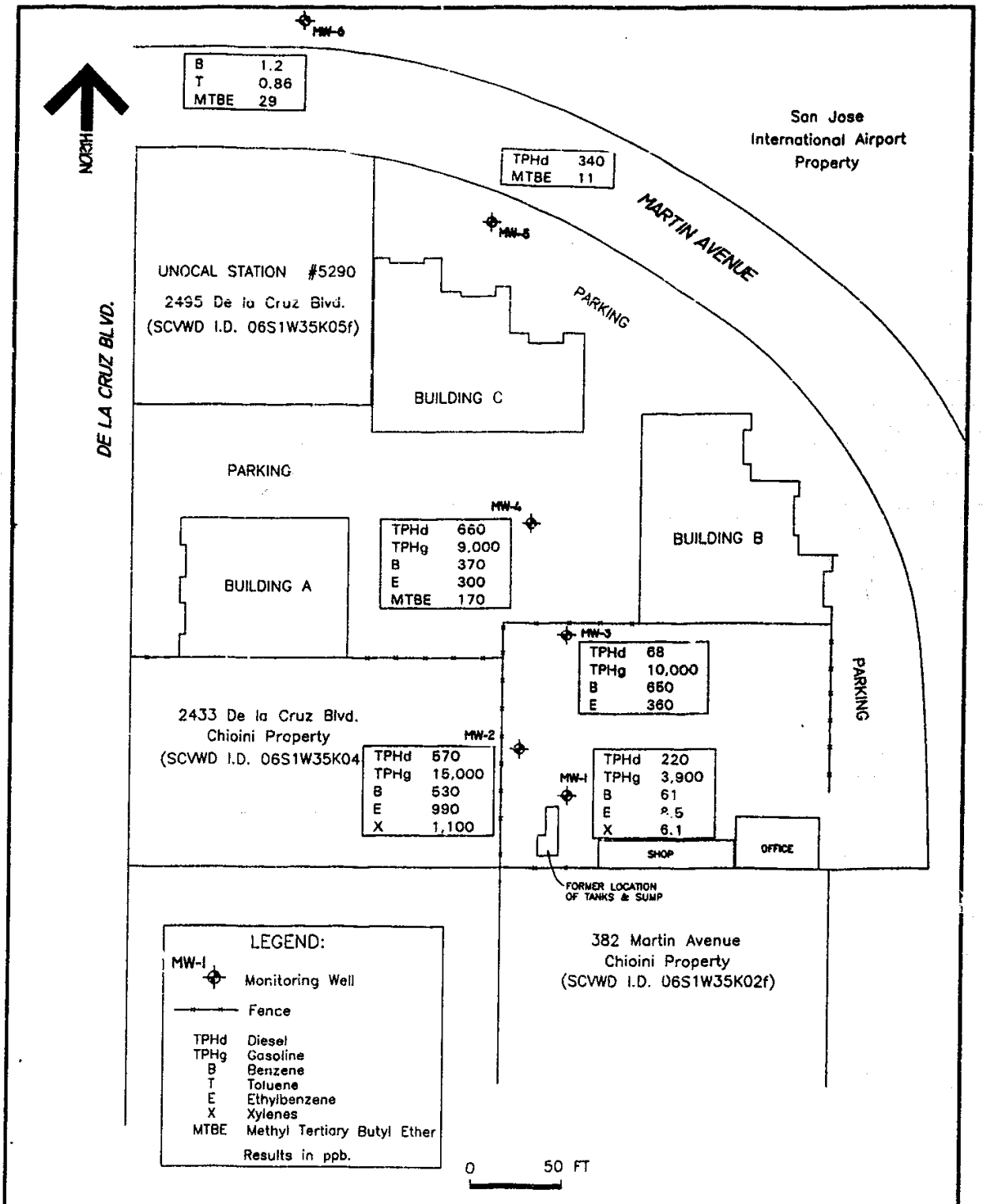
cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1

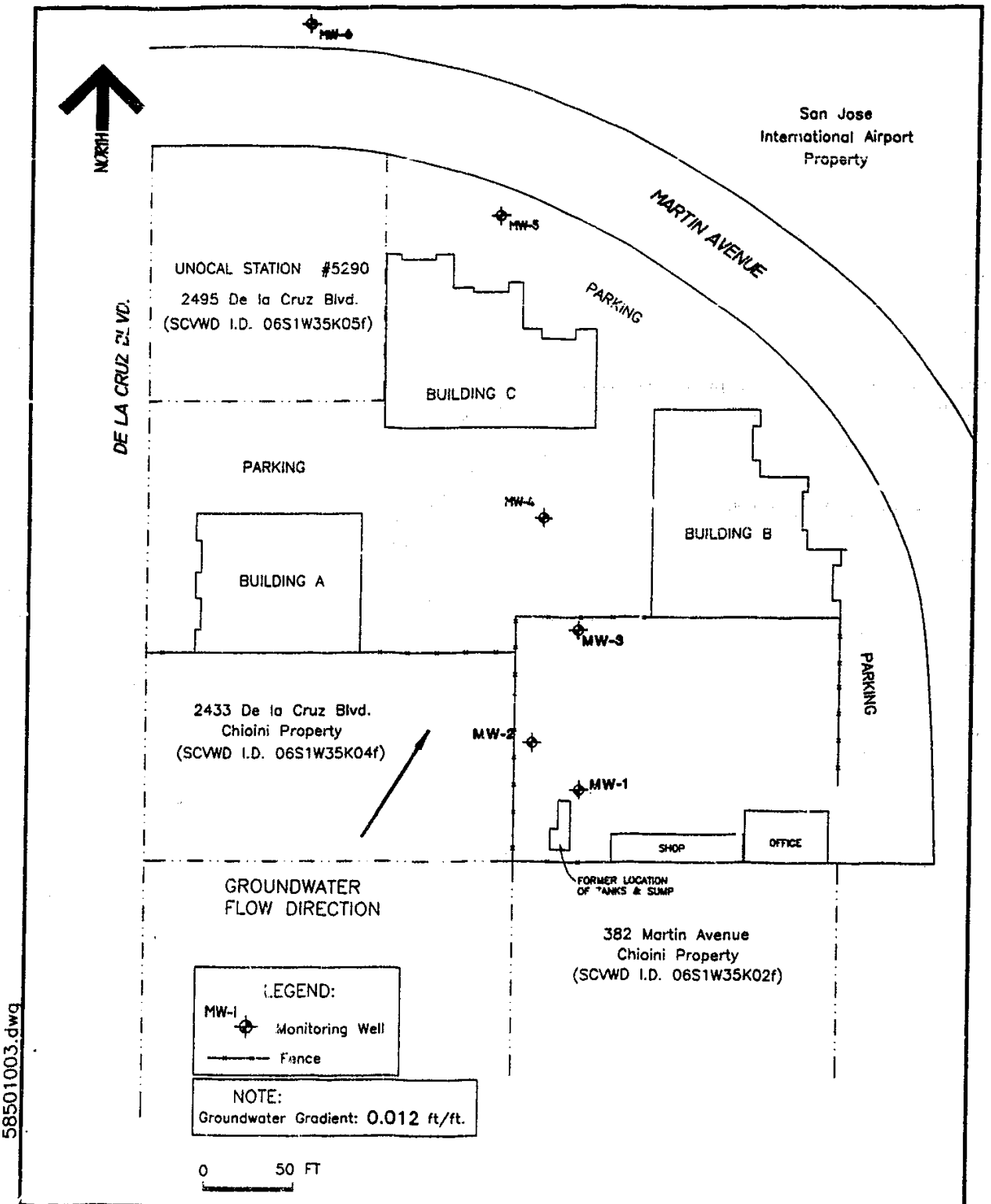


58501002

Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

SITE PLAN
390 Martin Avenue
Santa Clara, California

JOB NO:	5850100	FIGURE
DRAWN BY:	C. ZARICI	2
APPROVED BY:	K. PRICE	1997



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP **8/8/97** 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARIC	3
		APPROVED BY: K. PRICE	1997

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	800	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Frecn ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.35	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	9.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.3	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 14, 1997																
MW-1	0.560	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	64	32	650	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1,300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	5.9	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16.2	260	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	380	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	11	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.86	<0.5	<0.5	29	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*5.0*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

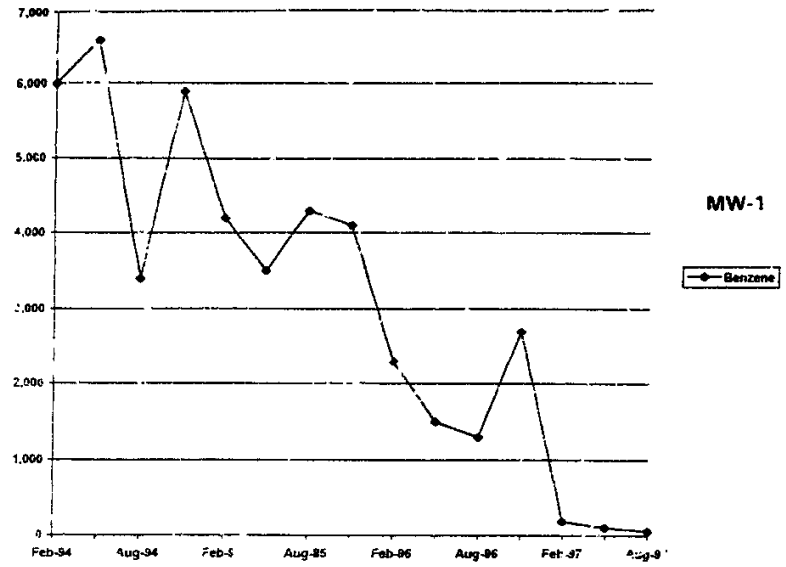
PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

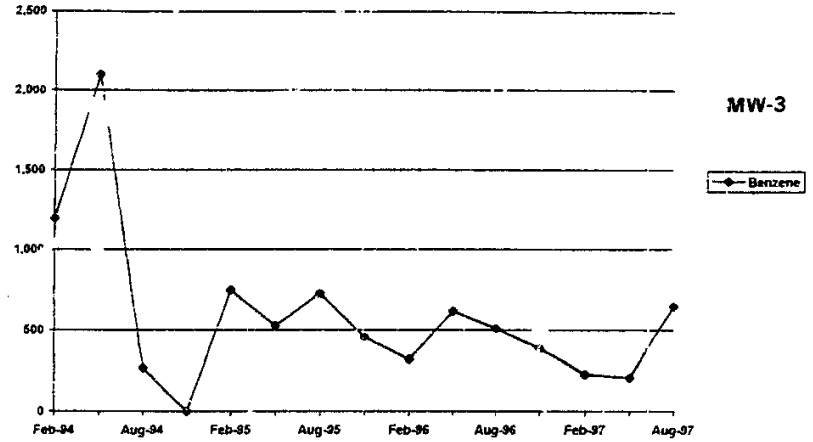
TABLE 2
WELL MEASUREMENTS

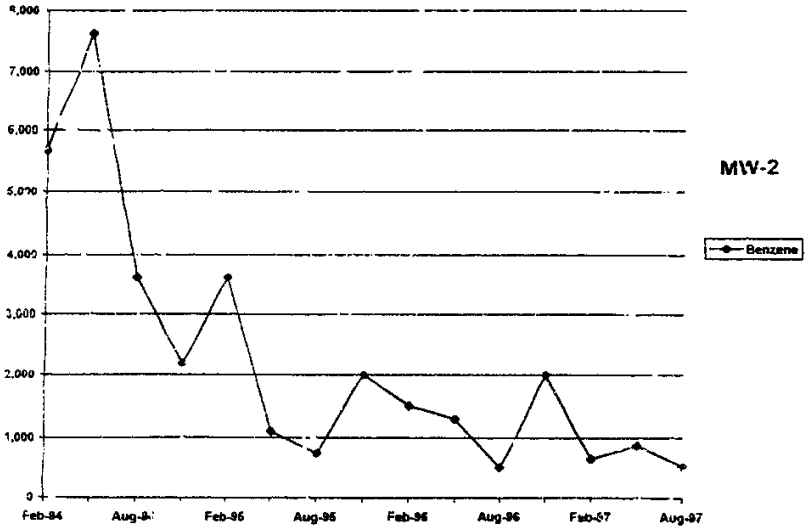
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.003
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

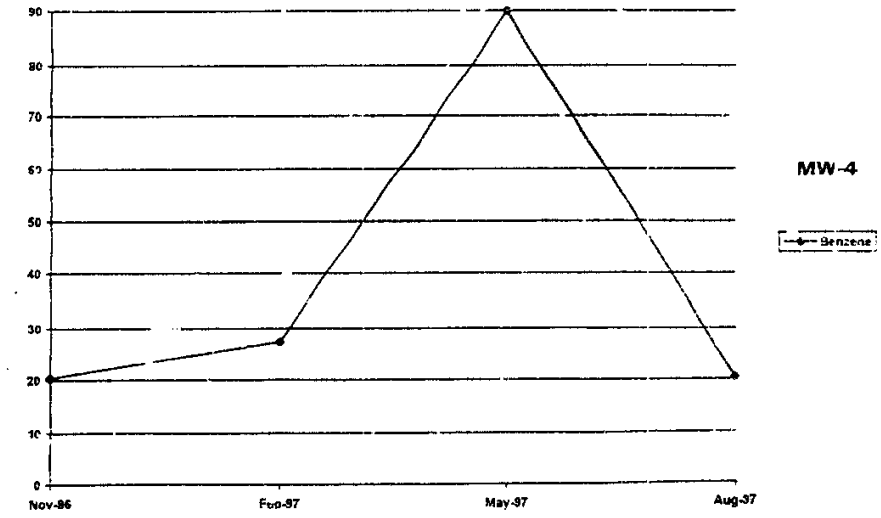
TABLE 2 WELL MEASUREMENTS - Continued									
DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'		
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		

GRAPH 1
BENZENE CONCENTRATIONS IN MONITORING WELLS MW-1 THROUGH MW-4
(Results in ppb)









APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 970808-N2	Client: EC 5650100
Sampler: MIKEL	Start Date: 8-8-97
Well I.D.: MW1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.20 After	Depth to Water: Before 7.15 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
2.2	x	3	=	6.6

Purging: Bailer; Disposable Bailer X; Middleburg; Electric Submersible; Extraction Pump; Other ___

Sampling: Bailer; Disposable Bailer X; Extraction Port; Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1503	67.4	6.9	800	>200	2.5	ODOR
1506	70.4	7.1	850	>200	5.0	"
1509	67.0	7.1	800	>200	7.0	"

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 7.0

Sampling Time: 1515 Sampling Date: 8-8-97

Sample I.D.: MW1 Laboratory: GTECH

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 970808-M2	Client: EnC 5850100
Sampler: MIKEL	Start Date: 8-8-97
Well I.D.: MW2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 16.90 After	Depth to Water: Before 8.18 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4	x	3	4.2
1 Case Volume		Specified Volumes	= gallons

Purging: Bailer
Disposable Bailer X
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: Bailer
Disposable Bailer X
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1443	66.0	7.2	720	>200	1.5	ODOR
1445	66.2	6.6	680	>200	3.0	"
1446	66.4	6.6	600	>200	4.5	"

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1450	Sampling Date: 8-8-97
Sample I.D.: MW2	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	MTBE
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	

WELL MONITORING DATA SHEET

Project #: 970808.M2	Client: E & C 5B50100
Sampler: Mike L	Start Date: 8-8-97
Well I.D.: MW3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.84 After	Depth to Water: Before 8.99 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) x 3 (Specified Volumes) = 4.2 gallons

Purging: Bailer; Disposable Bailer; Middleburg; Electric Submersible; Extraction Pump; Other ___

Sampling: Bailer; Disposable Bailer; Extraction Port; Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1410	66.4	7.9	620	>200	1.5	ODOR
1412	65.6	7.4	650	>200	3.0	"
1414	66.6	7.4	750	>200	4.5	"

Did Well Dewater? ✓ If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1420	Sampling Date: 8-8-97
Sample I.D.: MW3	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: MTBE	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	

WELL MONITORING DATA SHEET

Project #: 970800-M2	Client: E.C 5B50100
Sampler: Mikel	Start Date: 8-8-97
Well I.D.: MW4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.79 After	Depth to Water: Before 6.66 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.9	x	3	=	5.7
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
Disposable Bailer ✓
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: Bailer
Disposable Bailer ✓
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1630	66.3	6.8	780	>200	2.0	
1633	67.0	6.9	780	>200	4.0	
1636	67.4	6.9	780	>200	6.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 1640	Sampling Date: 8-8-97
Sample I.D.:	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER: MTBE
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D	OTHER:

WELL MONITORING DATA SHEET

Project #: 970803-M2	Client: E2C 850100
Sampler: MIKEL	Start Date: 8-8-97
Well I.D.: MW5	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.92 After	Depth to Water: Before 8.24 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.7	x	3	=	5.1
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
Disposable Bailer X
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: Bailer
Disposable Bailer X
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1530	65.8	7.1	980	>200	2.0	ODOR
1532	65.0	5.3	1050	>200	4.0	"
1535	65.2	5.3	1020	>200	5.5	"

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 5.5

Sampling Time: 1540	Sampling Date: 8-8-97
Sample I.D.: MW5	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX (TPH-D) OTHER:	MTBE
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	

WELL MONITORING DATA SHEET

Project #: 970800-M2	Client: E_2C 5850100
Sampler: Mikel	Start Date: 8-8-97
Well I.D.: MW6	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 19.79 After	Depth to Water: Before 10.09 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
.2	x	3	=	.6

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other PIN BAILER

Sampling: Bailer
Disposable Bailer
Extraction Port
Other PIN BAILER

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1545	70.2	7.0	1900	>200	.2	
1550	69.8	7.0	2000	>200	.4	
1555	70.0	7.0	2000	>200	.6	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: .6

Sampling Time: 1600 Sampling Date: 8-8-97

Sample I.D.: MW6 Laboratory:

Analyzed for: (TPH-G) BTEX (TPH-D) OTHER: MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 2224

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E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	8/15/97
Date Received:	8/11/97
Date Analyzed:	8/13/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW 1*	*MW 2*	*MW 3*	*MW 4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date							
Sample Time							
Lab #	D12685	D12686	D12687	D12688			
DF-Diesel	1	1	1	1			
TPH-Diesel	**220[2]**	**570[2]**	**68[2]**	**660[2]**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	8	40	20	20			
TPH-Gas	**3,900**	**15,000**	**10,000**	**9,000**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	**ND**	**ND**	**170**	µg/liter	5.0 µg/l	8020
Benzene	**61**	**530**	**650**	**370**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**8.5**	**990**	**360**	**300**	µg/liter	0.5 µg/l	8020
Xylenes	**6.1**	**1,100**	**ND**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. TPH-Diesel chromatograms for Lab #D12685-88 although within the reporting range, do not match the typical Diesel pattern
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	8/15/97
Date Received:	8/11/97
Date Analyzed:	8/12-8/13/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW 5*	*MW 6*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water			
Sample Date					
Sample Time					
Lab #	D12689	D12690			
DF-Diesel	1	1			
TPH-Diesel	**ND**	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	1	1			
TPH-Gas	**340**	**ND**	µg/liter	50.0 µg/l	8015M
MTBE	**11**	**29**	µg/liter	5.0 µg/l	8020
Benzene	**ND**	**1.2**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**0.86**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**ND**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970812
Matrix: Water
Units: µg/L

Date Analyzed: 08/12/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	ND	27.3	109	25.6	103	6.1	25	50-150
Toluene	8020	<0.5	25	ND	26.3	105	28.5	114	8.1	25	50-150
Ethyl Benzene	8020	<0.5	25	ND	26.2	105	28.2	113	7.1	25	50-150
Xylenes	8020	<0.5	75	ND	72	96	74	99	2.7	25	50-150
Gasoline	8015	<50.0	625	ND	632	101	609	97	3.7	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970813
Matrix: Water
Units: µg/L

Date Analyzed: 08/13/97
Quality Contrc Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	ND	25.7	103	24.5	98	4.6	25	50-150
Toluene	8020	<0.5	25	ND	26.8	107	26.8	107	0.1	25	50-150
Ethyl Benzene	8020	<0.5	25	ND	26.4	106	27.1	108	2.5	25	50-150
Xylenes	8020	<0.5	75	ND	72	96	73	97	1.4	25	50-150
Gasoline	8015	<50.0	625	ND	652	104	589	94	10.2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 970506142

CLIENT Exl

SITE Hopkins & Carley
390 Martin Ave.
Santa Clara CA.

CONDUCT ANALYSIS TO DETECT

LAB ENTech

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION

SPECIAL INSTRUCTIONS = Voice & Report to Blaine Tech Services Attn: Brenda McNabb Project # 585.0100

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPH-GAS, BTEX	TPH Diesel	TPH	MTBE	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	1610	5/6	W	5		X	X	X	X				D7936
MW-2	1635	5/6	W	5		X	X	X	X				D7937
MW-3	1655	5/6	W	5		X	X	X	X				D7938
MW-4	1715	5/6	W	5		X	X	X	X				D7939
MW-5	1745	5/6	W	5		X	X	X	X				D7940

SAMPLING COMPLETED DATE 5/6/97 TIME

SAMPLING PERFORMED BY TROY N. HORNER

RESULTS NEEDED NO LATER THAN Per client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Troy N. Horner	5/8/97	13:20		5/8/97	13 20
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

SCUWD6JUN13'97pm12:48

CONTINUING
GROUNDWATER INVESTIGATION REPORT
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

March 24, 1997

Richard Liebner Cont.

For

HOPKINS & CARLEY
A LAW CORPORATION

PREPARED BY
E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA

E2C INC.

Environmental/Engineering Consultants

March 24, 1997
Job No. 5850100

Hopkins & Carley
A Law Corporation
10 Almaden Boulevard, 8th Floor
San Jose, CA 95113-2089

ATTN: Mr. William Klein
SUBJECT: **CONTINUING GROUNDWATER INVESTIGATION REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. has prepared the attached Continuing Groundwater Investigation Report for submittal to the Santa Clara Valley Water District (SCVWD) in response to their requirement for additional groundwater plume definition for the above-mentioned fuel leak site (reference SCVWD letter, dated March 2, 1995).

The attached report describes the Scope of Services performed and the findings of this study. Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine A. Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

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1.0 INTRODUCTION

This Continuing Groundwater Investigation Report describes the collection of four grab groundwater samples; the installation, development, and initial sampling of groundwater monitoring well MW-5; and the quarterly sampling of previously existing monitoring wells MW-1 through MW-4 at 406-416 Martin Avenue in Santa Clara, California. The work presented herein is part of the continuing study of hydrocarbon-impacted groundwater downgradient from 390 Martin Avenue (see Figure 1). The well was installed pursuant to the directives of the Santa Clara Valley Water District (SCVWD) in their letter to Mr. R. H. Wahner (owner of 390 Martin Avenue property), dated March 2, 1995.

1.1 Scope of Services

The Scope of Services for the performance of this project included the following tasks:

- Collection of four grab groundwater samples using a GeoProbe sampling methodology.
- Acquisition of a well installation permit through the SCVWD.
- Installation of one, two-inch diameter groundwater monitoring well, identified as MW-5.
- Collection and chemical analysis of four soil samples at five-foot depth intervals during the drilling of well MW-5.
- Development of well MW-5 in accordance with EPA and SCVWD guidelines.

- Quarterly sampling of wells MW-1, MW-2, MW-3, MW-4, and MW-5 in accordance with EPA and SCVWD guidelines.

- Laboratory analyses of four grab groundwater samples, four soil samples, and five monitoring well groundwater samples for the presence of Total Petroleum Hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tertiary Butyl Ether (MTBE) using EPA Test Methods 8015 and 8020. Soil and monitoring well groundwater samples were also analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), using EPA Test Method 418.1.

- Surveying of wells MW-4 and MW-5 to mean sea level datum.

- Preparation of this technical report.

2.0 SITE LOCATION AND DESCRIPTION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1 west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The 0.75 acre subject property was most recently operated as the office, shop, and equipment yard of a concrete construction company. At the time of the work described in this report, the site was unoccupied. Figure 2 shows the location of existing buildings, groundwater monitoring wells, and the location of former Underground Storage Tanks (USTs), which were removed from the site in 1991.

The subject site is located in an area zoned Light-Industrial (ML). Light-industrial buildings are located to the north, west, and south of the subject site, and San Jose International Airport is located across Martin Avenue to the east.

2.1 Regional Geology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas Fault Zone and the Santa Cruz Coastal Mountains, and on the northeast by the Calaveras Fault Zone, Hayward Fault Zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas

of uplift that formed highland areas. Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. The alluvial material is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay (Helley & Lajoie, 1979).

2.2 Soil Conditions and Hydrology

The soil encountered during previous drilling operations at 390 Martin Avenue consisted of slightly silty clays to an approximate depth of 12 feet, where a fine sand with some silt and clay is encountered. This material extends to a depth of approximately 18 feet, where the on-site borings for previously existing wells MW-1, MW-2, and MW-3 were terminated.

Lithology encountered during the advancement of probes for grab groundwater sampling and the drilling of wells MW-4 and MW-5, however, revealed sandy or silty clays to a depth of approximately 10 feet, where a fine, clayey sand was encountered that grades to a very gravely sand, which extends to a depth of at least 20 feet.

During the drilling of well MW-5, groundwater was first encountered at an approximate depth of 9 feet bgs. Static depth to groundwater within the well was measured at approximately 8.0 feet on February 14, 1997. Groundwater flow direction has been consistently calculated as north to northwest (see Figures 2 and 6).

3.0 SITE BACKGROUND

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the UST's for monitoring purposes. In 1989, operation of the tanks ceased, and the four USTs were removed in 1991. Soil samples collected from the UST excavation were found to contain up to 1,500 parts per million (ppm) TPHg, as well as low-to-moderate concentrations TPHd and BTEX. A groundwater sample collected from the excavation was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, TRPH at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation.

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of groundwater monitoring wells MW-2 and MW-3 (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-moderate levels of TPHd, TPHg, and BTEX, with the highest concentrations detected in soil samples collected from the 10-foot depth (capillary zone).

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08-to-120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site (see Figure 2).

Quarterly groundwater monitoring of the three wells has been conducted since February of 1994. The levels of contaminants detected in the wells over this time period remain within the same general range of magnitude with a slight decrease in BTEX levels over time.

Based on the cumulative results of soil and groundwater sampling conducted at the subject site to date, the SCVWD requested continued quarterly groundwater monitoring and the performance of a Remedial Investigation (reference SCVWD letter, dated March 2, 1995). The required RI was performed in May of 1996 and consisted of the collection of 10 soil samples and four grab groundwater samples using SoilPunch/HydroPunch-type methodology. The results of RI soil sampling indicate that limited soil impact exists in the immediate area of the former tank excavation. Grab groundwater sampling and historical groundwater monitoring well sampling has identified impacted groundwater in the area of the former tanks and to the west and north.

In September of 1996, off-site groundwater monitoring well MW-4 was installed approximately 60 feet north of the northern property line of the subject site. During initial sampling of the well in September of 1996, elevated levels of TPHg and related constituents were identified. Based on this off-site groundwater data, continued downgradient plume definition was determined to be necessary. Further off-site plume characterization activities are described in this report.

4.0 GROUNDWATER INVESTIGATION

4.1 GeoProbe Grab Groundwater Sampling

On January 23, 1997, four grab groundwater samples (identified as W-1, W-2, W-3, and W-4) were collected using a GeoProbe sampling methodology. The locations of the grab samples are shown on Figure 3. The methodology used consisted of the advancement of a 1.5-inch diameter Screen Point Sampler rod into the subsurface via a vehicle-mounted, hydraulically powered probing machine. The lead section of the rod has a blank outer casing and a screened inner casing (0.004 inch slot size), which was not exposed until the lead rod was situated within the desired sampling interval. Once the lead rod is properly situated, the outer rod is retracted approximately 44 inches to expose the inner screened portion of the lead rod. Groundwater flows through the screen and into the sampling rod. A peristaltic pump was used to remove approximately 10 gallons of groundwater from each grab sampling location. After development, a bailer was used to collect the samples. Refer to Subsection 4.6 for a discussion of samples analyses.

After sample collection, the borings were filled with a cement/bentonite slurry brought to grade, and topped with asphalt patching.

4.2 Monitoring Well Drilling Program

Prior to drilling and well installation operations, a permit for groundwater monitoring well MW-5 was obtained through the SCVWD. A copy of the permit is presented in Appendix A. MW-5 was placed approximately 275 feet north-northwest (downgradient) of the subject site.

Drilling and well installation were conducted on February 7, 1997. HEW Drilling of East Palo Alto, California, was contracted to drill the soil boring and install

the shallow groundwater monitoring well under the direct supervision of E_2C, Inc. personnel. The boring for MW-5 was drilled using a truck-mounted, CME-75 drill rig fitted with eight-inch diameter hollow-stem augers. Samples collected from the boring were obtained using a California modified, split-spoon sampler equipped with two-inch diameter brass sample tubes. Upon retrieval from the sampler, the ends of the sample tubes containing soil selected for laboratory analyses were covered with aluminum foil, sealed with plastic caps, and stored on ice. Four soil samples, identified as MW5-5', MW5-10', MW5-15', and MW5-20', were retained for subsequent chemical analyses (see Subsection 4.6).

The soils that were encountered during drilling operations were logged continuously by examination of the soil cuttings and soil contained within the brass liners. This information was noted on the boring log for MW-5, which is included in this report as Figure 4. The borehole was extended to a total depth of approximately 20 feet. Groundwater was first encountered within the borehole at a depth of approximately 9 feet bgs, and static groundwater was measured at approximately 8.0 feet.

4.3 Monitoring Well Installation

Monitoring well MW-5 was constructed by inserting a two-inch diameter flush-threaded, schedule 40 PVC well casing into the open borehole. The slotted portion of the well casing has a screen size of 0.020. After installation of the casing, the borehole annulus was backfilled with washed, kiln-dried #3 sand to a point approximately two feet above the top of the casing slots. A one-foot layer of bentonite pellets was placed on top of the sand, and concrete grout was placed on top of the bentonite and brought to the ground surface. Grouting of the well was observed by a representative of the SCVWD. The casing was capped using a locking, water-tight plug, and the well was covered

with a bolted manhole-type steel cover. A schematic diagram of well construction can be found on the Boring Log presented as Figure 4.

4.4 Well Development

MW-5 was developed using a Middleburg Pump and a Surge Block on February 13, 1997. Prior to purging, the total depth of the well was measured at approximately 19.65 feet bgs, and the depth to groundwater was measured at approximately 8.0 feet bgs. Approximately 20 gallons of water (or an amount in excess of ten well-casing volumes) were removed from the well during development (refer to the Well Development Data Sheet in Appendix B). Purgewater generated during well development *did not* exhibit a hydrocarbon odor or sheen.

4.5 Well Sampling

Groundwater monitoring wells MW-1 through MW-5 were sampled on February 14, 1997. Prior to purging, total depth and depth to water measurements were collected from each well. An amount of groundwater in excess of three well-casing volumes was purged from each well using a dedicated disposable bailer. Physical groundwater parameters including turbidity, electrical conductivity, temperature, and pH were collected after purging. Purging continued until physical parameter readings indicated that the wells had stabilized (refer to the Well Sampling Data Sheets presented in Appendix B). Hydrocarbon odor and sheen were noted in the purge water generated during the sampling of wells MW-1, MW-2, MW-3, and MW-4. No sheen or odor was noted in the purge water from well MW-5.

Once the wells had stabilized, samples were collected from each well using dedicated disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled,

and placed on ice in a cooler for transport to Entech Analytical Laboratories, Inc. of Sunnyvale, California, a State-certified analytical laboratory. For a more detailed description of well installation, development, and sampling protocol, please refer to Appendix C.

4.6 Laboratory Analysis and Sample Results

All soil and groundwater samples were analyzed for TPHd, TPHg, BTEX, and MTBE using EPA Test Methods 8015 and 8020. Soil and monitoring well samples were also analyzed for TRPH using EPA Test Method 418.1. The results of grab groundwater and soil boring sample analyses are presented in Table 1 and the results of groundwater monitoring well sampling are presented in Table 2. Grab samples and monitoring well groundwater sample results are also presented on Figures 3 and 5. The laboratory-issued analytical reports and corresponding Chain-of-Custody forms are presented in Appendix D.

Grab groundwater samples W-1 and W-4 were found to contain detectable levels of TPHg and related constituents. Analysis of grab groundwater samples W-2 and W-3, and all four soil samples collected from boring MW-5, however, indicate that TRPH, TPHd, TPHg, BTEX, and MTBE are not present at levels above laboratory detection limits. Groundwater samples obtained from wells MW-1 through MW-5 were found to contain varying levels of hydrocarbons and related constituents. Only low levels of TPHg and MTBE were found in downgradient well MW-5 (see Table 2 and Figure 5).

4.7 Groundwater Gradient and Flow Direction

Groundwater gradient and flow direction were determined using water levels collected from wells MW-1 through MW-5 on February 14, 1997. The results of these calculations are presented on Figure 6. Surveyed elevations and water levels are presented in Table 3.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Based on the results of additional groundwater plume definition conducted during this investigation, concentrations of hydrocarbons attenuate to low levels within 275 feet of the northern property line of the subject site (300 ppb TPHg in downgradient well MW-5). Based on these results, it appears that the downgradient extent of the plume is approximately 300 feet north of the northern property line of the subject site.

The results of analyses conducted on grab groundwater sample W-4 (18,000 ppb TPHg, 740 Benzene, and 2,300 MTBE), in particular the levels of MTBE detected, suggest that a release is likely to have occurred in the area of the Unocal Station.

5.2 Recommendation

E_2C, Inc. recommends that quarterly sampling of wells MW-1 through MW-5 be continued with the collection of data to evaluate the degree of natural attenuation occurring in relation to the groundwater contaminant plume.

6.0 PROFESSIONAL CERTIFICATION AND LIMITATIONS

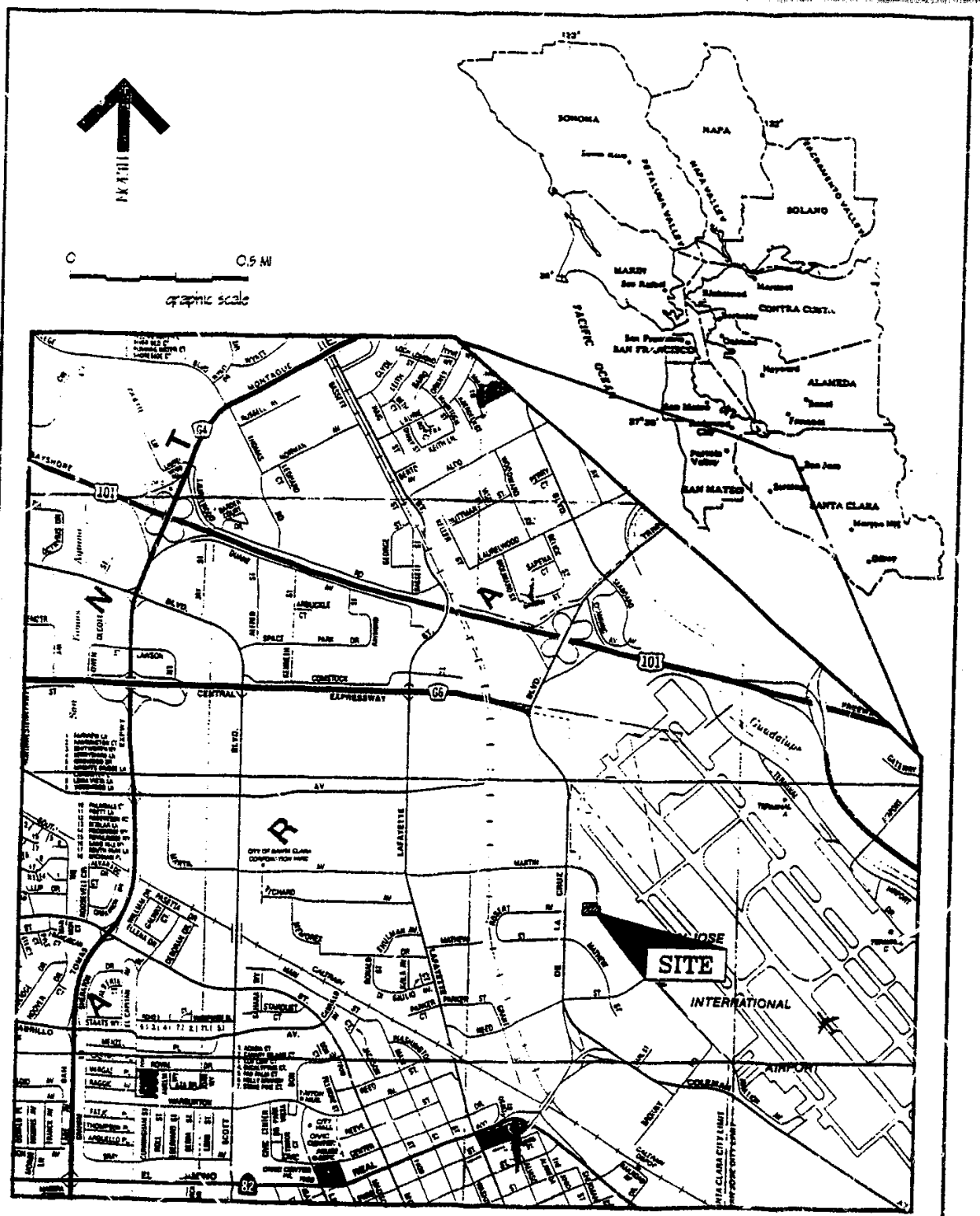
This report has been prepared by E_2C, Inc., under the professional supervision of the Principal whose seal and signature appears herein. The Conclusions of this report are based solely on the Scope of Services outlined and the sources of information referenced in this report. Any additional information that becomes available concerning this site should be submitted to E_2C, Inc. so that our Conclusions may be reviewed and modified, if necessary. This report was prepared for the sole use of Hopkins & Carley, A Law Corporation and/or its agents.

7.0 REFERENCES

Atwater, T. 1970. Implications of Plate Tectonics for Cenozoic Tectonic Evolution of Western North America. Geologic Society of America Bulletin 1981, pp. 3513-35375.

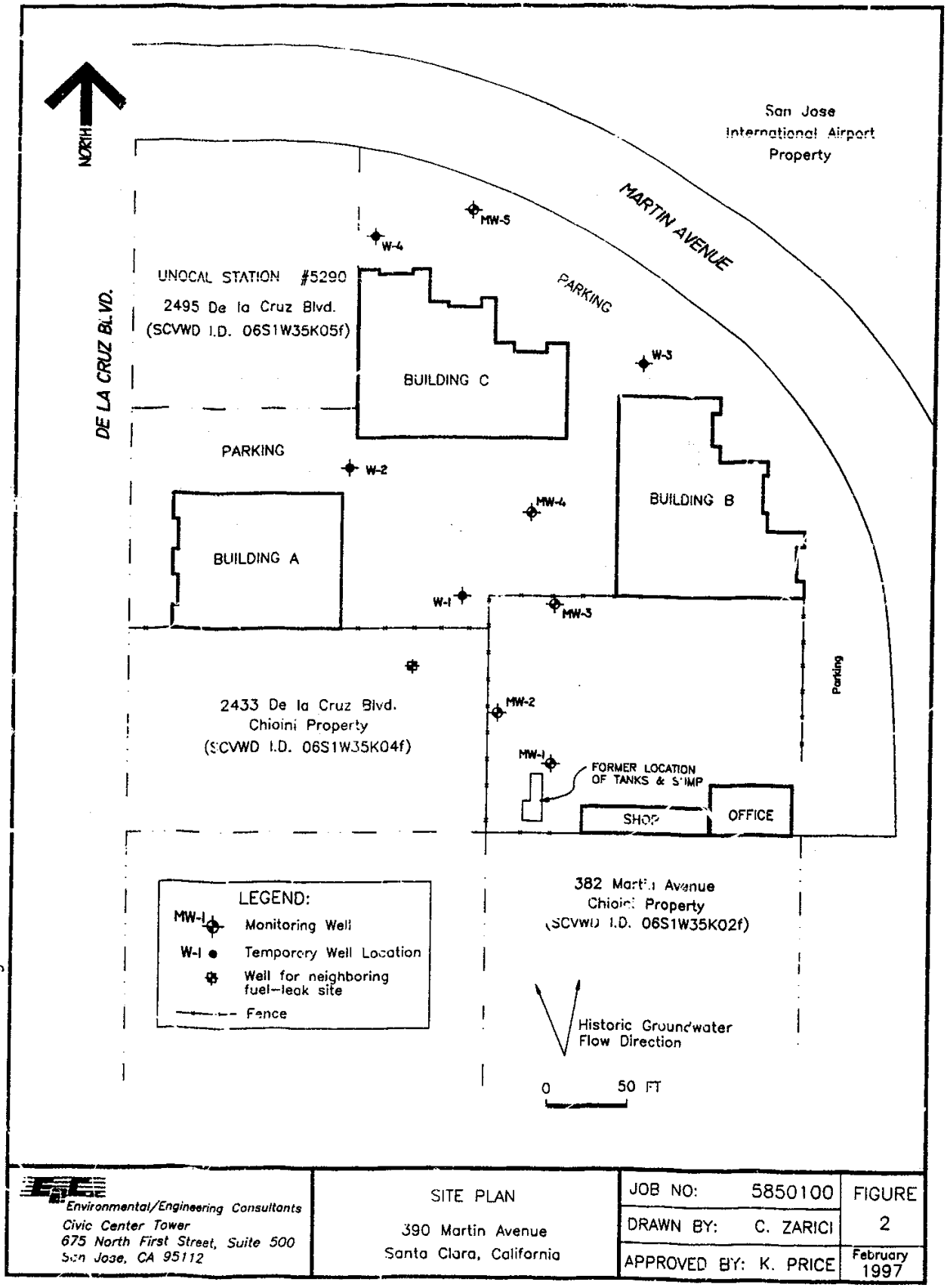
Helley, E.J. and Lajoie, K.R. 1979. Flatland Deposits of the San Francisco Bay Region, California USGS Professional Paper 943.

United States Geological Survey. 7.5 Minute Topographical Map, San Jose West Quadrangle.



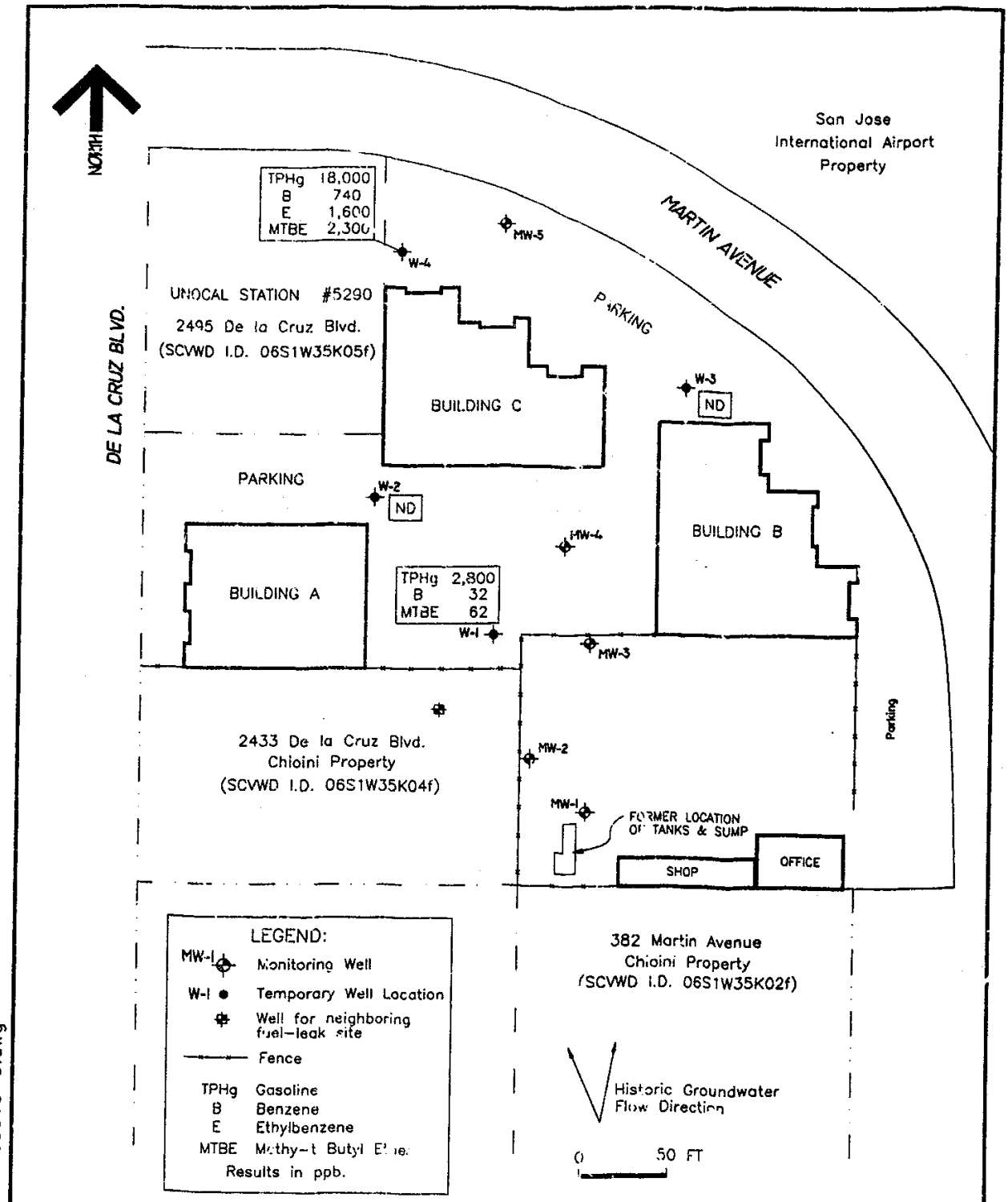
Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPROVED BY: K. PRICE	1997



585010-2.dwg

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 February 1997



585010-3.dwg

Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

RESULTS OF
GRAB GROUNDWATER SAMPLING
390 Martin Avenue
Santa Clara, California

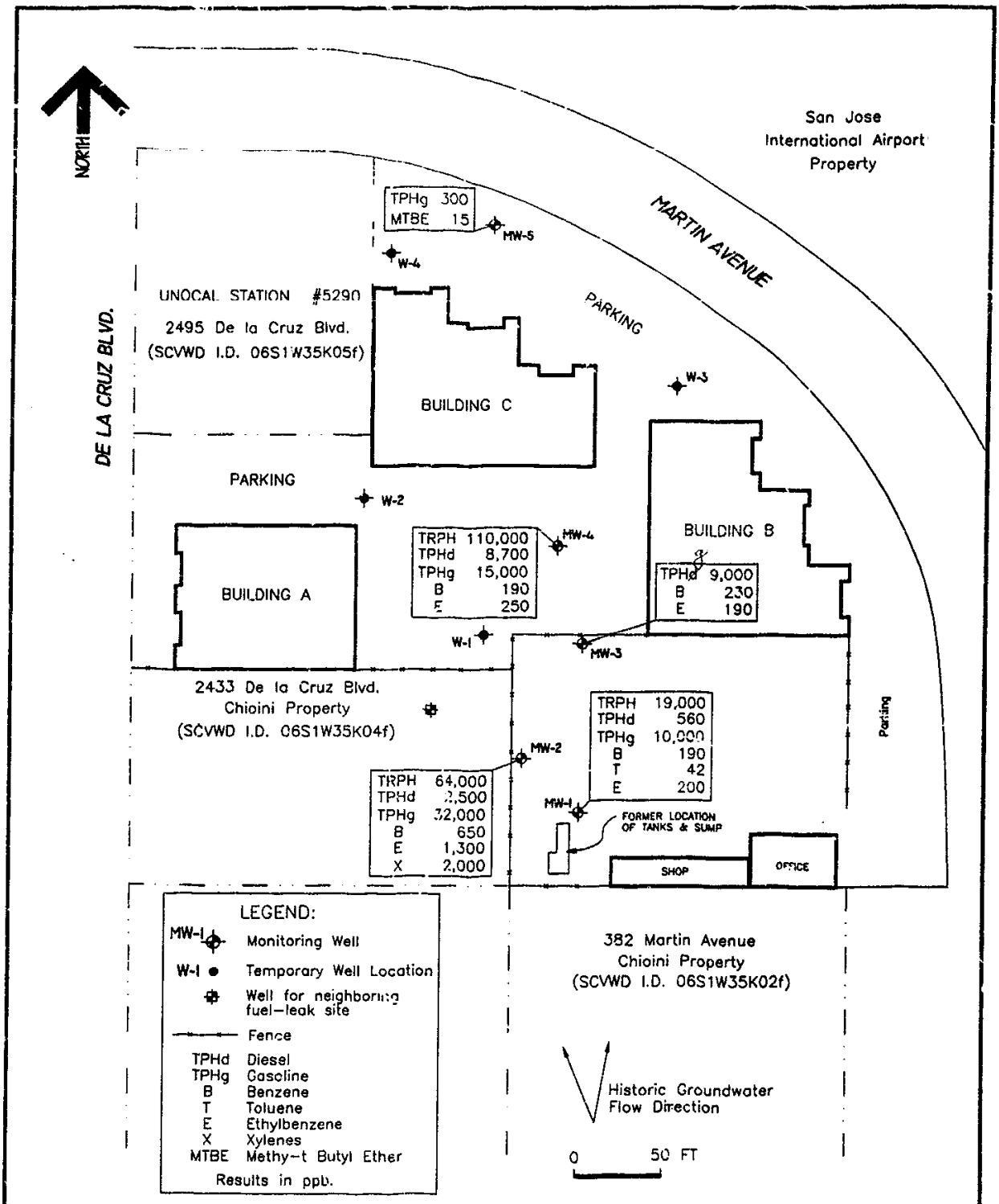
JOB NO:	5850100	FIGURE 3
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	February 1997

PROJECT: 5850100		DRILLING CONTRACTOR: HEW	BORING NO.: MW-5
LOCATION: 390 Martin Avenue Santa Clara, California		DRILLING METHOD: HOLLOW STEM AUGER	GROUNDWATER FIRST ENCOUNTERED: 9.0'
LOGGED BY: Brenda McNabb		SAMPLING METHOD: CALIFORNIA SPLIT-SPOON	STATIC DEPTH OF GROUNDWATER: 8.05'
START DATE: 2/7/97	COMPLETION DATE: 2/7/97	BORING DIAMETER: 8"	DATE OF GROUNDWATER MEASUREMENT: 2/14/97

PENETRATION	SAMPLE I.D.	DEPTH (FT)	MATERIAL DESCRIPTION	MW 1R	USCS I.D.	LITHOLOGY
			Asphalt and fill material to 12"			
			SILTY CLAY, dark brown, dry			
5/8/9	MW5-5'	5			CL	
	▽					
			SILTY CLAYEY SAND, medium grained, greyish brown, wet			
5/8/10	MW5-10'	10			SM	
			GRAVELLY SAND, dark brown, wet			
13/7/3	MW5-15'	15			GP	
			SANDY CLAY, greenish grey, wet			
					SC	
3/4/4	MW5-20'	20	Boring terminated at 20'.			

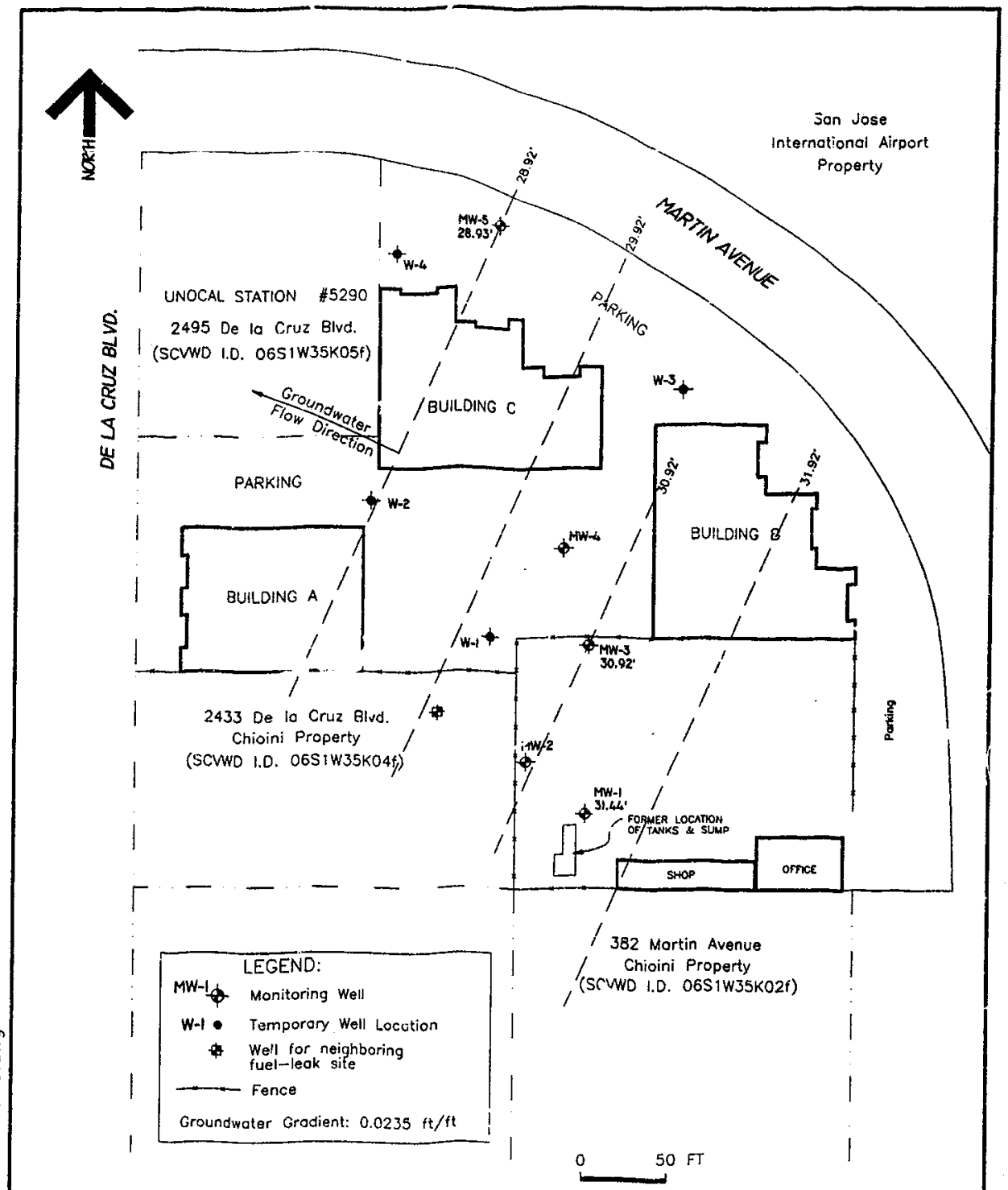
58501MW5.DWG

Environmental/Engineering Consultant's Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	PROJECT 390 Martin Avenue Santa Clara, CA	LOG OF BORING MW-5	FIGURE 4



585010-5.dwg

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	RESULTS OF MONITORING WELL SAMPLING (February 13 & 14, 1997) 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 5 February 1997



585010-5.dwg

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 6 March 1997

TABLE 1
RESULTS OF GRAB GROUNDWATER AND SOIL SAMPLE ANALYSES

Grab Groundwater Samples (in ppb)								
Sample No.	TRPH	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
W-1	---	<50	2,800	32	<0.5	<0.5	<0.5	62
W-2	---	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
W-3	---	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
W-4	---	<50	18,000	740	<0.5	1,600	<0.5	2,300
Soil Samples (in ppm)								
MW5-5'	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW5-10'	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW5-15'	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW5-20'	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05

TABLE 1 - CONTINUED

First Quarter - February 14, 1997

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
MW-1	0.560	19	10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.5	60	32	850	<0.5	1,300	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	3.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2 DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 2
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	1,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	75	2,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,500	600	1,600	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	250	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	7.1	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	521	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,300	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	65	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	680	<5.0	6.9	460	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,400	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,900	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	600	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.60	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fouth Quarter - November 27, 1996																
MW-1	1.1	9.3	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,600	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	190	56	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCL	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

APPENDIX A
WELL INSTALLATION PERMIT

Santa Clara Valley Water District

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

WELL CONSTRUCTION APPLICATION

FC 158 (04-22-92) (DP 4-901)

TO BE COMPLETED BY DISTRICT

District Permit No.:	Date Issued:	Well Registration No:
97W00124	2-4-97	
Geologic Setting:	**Expiration Date:**	**Driller's Log No:**
1	8-4-97	501824

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner:	Well Owner (if different):	Drilling Co
Delamart, Calif Gen'l Partnership	Richard H. Lwelmer	HEW Drilling
Address:	**Address of Well Site:**	**Driller's Contractors License Number (C-57 Req'd):**
4370 Alpine Rd.	402 Martin Ave.	# 604987
City, State, Zip:	**City, State, Zip:**	**Address:**
Portola Valley, CA 94028	Santa Clara, CA	1045 Weeks St.
Telephone No:	**Telephone No:**	**City, State, Zip:**
(415) 851-8006		E. Palo Alto, CA 94303
Assessor's Parcel No. of Well site: Book 230 Page 47 Parcel 109	**Owner's/Consultant's Well No:** MW-6	**Telephone No:** (415) 322-2651

Estimated depth of completed well: ☒ Less than 50 ft. ☐ 50 to 300 ft. ☐ Over 300 ft.

Purpose of Well: ☐ Domestic ☐ Municipal/Industrial ☐ Agricultural ☒ *Monitoring ☐ Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: ☐ To comply with City or County Hazardous Materials Storage Permit Ordinance ☒ Exploration studies
☐ Other (specify): _____ ☐ Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: _____

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? ☐ Yes ☐ No

Consultant's Name (Company): EQC, Inc.

Address: 675 No 1st St. #500

City, State, Zip: San Jose, CA 95112

Telephone No.: (408) 286-6300

Type of monitoring device: ☒ Groundwater ☐ Vadose
Type of extraction device ☐ Groundwater ☐ Vadose
Monitoring well use: ☐ Depth ☒ Quality ☐ Chloride
Vadose device installation: ☐ Vapor ☐ Interface ☐ Suction Lysimeter

Signature of Responsible Professional
(No substitution of signature will be accepted)

Registration No. Civil Engineer _____ OR Certificate No. Engineering Geologist 1182

TOPOGRAPHIC FEATURES

Well is to be constructed: ☐ In a public sidewalk ☐ In a public road ☐ On public property ☒ On private property ☐ On SCVWD property

Within 50 ft of the top of a creek bank	☐ Yes	☒ No	Within 50 ft. of any existing well	☒ Yes	☐ No
Within 50 ft. of a sanitary sewer	☐ Yes	☒ No	Within 150 ft of a cesspool or seepage pit	☐ Yes	☒ No
Within 100 ft. of a pit privy, septic tank, leachfield	☐ Yes	☒ No	Other wells exist on this property	☒ Yes	☐ No

Status: ☒ Active ☐ Inactive ☐ Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which is indicated on this application form.

Signature of Well Owner/Agent _____ Date 1/27/97

Signature of Driller/Agent _____ Date 1/27/97

MONITORING WELL PLAN APPROVAL

City/County: _____

Approved by: _____

Date: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 927-0710 Ext. 660. For weekends, holidays, after hours call (408) 395-8121 or (408) 927-0714.

APPENDIX B
WELL DEVELOPMENT AND SAMPLING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 970213-T3	Client: E2C
Sampler: MT	Start Date: 2/14
Well I.D.: MW1	Well Diameter: (circle one) ② 3 4 6 ___
Total Well Depth: Before 20.22 After	Depth to Water: Before 7.45 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

2.0	x	3	=	6.0
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
13:54	64.8	6.2	1400	>200	2	odor, sheen
13:57	65.8	6.2	1300	>200	4	" "
14:00	66.6	6.1	1200	>200	6	" "

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 14:05 Sampling Date: 2/14

Sample I.D.: MW1 Laboratory: Inchtech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 970213-T3	Client: E2C
Sampler: MT	Start Date: 2/14
Well I.D.: MW2	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 17.05 After	Depth to Water: Before 9.00 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: ~~PVC~~	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.3	x	3	=	3.9
1 Case Volume		Specified Volumes		Gallons

Purging: Bailer X
Disposable Bailer X
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer X
Disposable Bailer X
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:18	69.8	7.9	1400	>200	1.5	Strong Odor
14:20	68.8	7.7	1200	>200	3	Strong Odor
14:22	68.0	7.6	1200	>200	4	Strong Odor

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4

Sampling Time: 14:30 Sampling Date: 2/14

Sample I.D.: MW2 Laboratory: ENCHTECH

Analyzed for: (Circle) ~~TPH-G~~ BTEX ~~TPH-D~~ OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 970213-T2	Client: EnC
Sampler: MT	Start Date: 2/14
Well I.D.: MW3	Well Diameter: (circle one) ② 3 4 6 ___
Total Well Depth: Before 17.54 After	Depth to Water: Before 8.43 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (TOC)	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.5	x	3	=	4.5
1 Case Volume		Specified Volumes		gallons

Purging: Bailer X
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer X
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:36	66.8	7.5	1300	>200	1.5	Strong Odor
14:38	66.0	7.4	1200	>200	3	Strong Odor
14:40	68.4	7.4	1260	>200	4.5	Strong Odor

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 14:45 Sampling Date: 2/14

Sample I.D.: MW3 Laboratory: INCHTECH

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 970213-T3	Client: E2C @ Hopkins
Sampler: MT & KW	Start Date: 2/13
Well I.D.: MW4	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 19.39 After	Depth to Water: Before 6.99 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: E2C	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
2	x	3	=	6

Purging: Bailer
Disposable Bailer
Middleburg X
Electric Submersible
Extraction Pump
Other ___

Sampling: Bailer
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:45	66.4	7.60	1600	>200	2	Silty, Strong odor, Sh
14:47	66.4	7.5	1600	>200	4	Silty, Strong odor, Sh
14:50	66.6	7.5	1600	>200	6	Silty, Strong odor, Sh

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6

Sampling Time: 14:55 Sampling Date: 2/13

Sample I.D.: MW4 Laboratory: Enfech

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL DEVELOPMENT DATA SHEET

Project #: 970213-T3	Client: EC
Developer: MT	Date Developed: 2/13
Well I.D.: MW5	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 19.65 After	Depth to Water: Before 8.00 After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
$(\pi \times (d^2/4) \times n)/231$
Where
12 = in/feet
d = diameter (in.)
π = 3.1416
231 = in3/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 5.87

1.9	x	10	=	19
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump _____

Other equipment used _____

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
13:20	64.8	7.6	2100	>200	2	Removing Silt,
13:22	65.0	7.7	2000	>200	4	" "
13:24	65.0	7.8	2000	>200	6	" "
13:26	65.2	7.7	1900	>200	8	" "
13:28	65.4	7.7	1800	>200	10	" "
13:30	66.6	7.4	1200	192.2	12	" ", clearing up
13:32	66.4	7.4	1200	107.6	14	" " "
13:34	66.0	7.4	1200	196.4	16	" "
13:36	66.0	7.4	1200	>200.0	18	" "
13:38	66.4	7.4	1100	>200.0	20	" "
13:40	66.6	7.3	1100	170.0	22	" "
13:42	66.6	7.4	1100	164.6	24	" "
13:44	67.2	7.4	1200	166.7	26	" "

Did Well Dewater? If yes, note above. Gallons Actually Evacuated: 26

WELL MONITORING DATA SHEET

Project #: 970213-T3	Client: E&C
Sampler: MT	Start Date: 2/14
Well I.D.: MW5	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 19.80 After	Depth to Water: Before 8.05 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.9	x	3	=	5.7
1 Case Volume		Specified Volumes		gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:48	66.2	7.4	1200	>200	2	
14:52	66.0	7.3	1200	>200	4	
14:54	66.0	7.3	1200	>200	5.75	

Did Well Dewater? no If yes, gals. Gallons Actually Evacuated: 5.75

Sampling Time: 15:00 Sampling Date: 2/14

Sample I.D.: MW5 Laboratory: Intech

Analyzed for: (Circle) ~~TPH-G~~ BTEX TPH-D OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

APPENDIX C
WELL INSTALLATION PROTOCOL

E_2C, INC.
DRILLING, WELL CONSTRUCTION, AND SAMPLING PROTOCOLS FOR SHALLOW GROUNDWATER WELLS

Drilling Protocol

1. E_2C, Inc. acquired the proper governmental permits necessary to drill the well.

2. The boring was drilled by a California-certified C-57 Drilling Contractor, utilizing hollow-stem, continuous flight augers. All drilling and sampling equipment was thoroughly steam-cleaned prior to use to prevent the introduction of contaminants into the bore hole. Working components of the drilling rig (subs, collars, and all parts of the rig chassis near the borehole) were also steam-cleaned. Cleaned augers, rods, and other tools were stored and covered when not in use. Cleaning operations were verified by a representative of E_2C, Inc.

3. The subsurface stratigraphy and aquifer characteristics were established by examining the soil cuttings brought to the surface by the drilling operations, and by the sampling of undisturbed soils every 5 feet. A detailed boring log was maintained of the soil materials, noting color, soil type, texture, moisture content, density, and plasticity (utilizing the Unified Soil Classification System), and any unusual characteristics noted (e.g., chemical odor).

Soil Sampling Protocol

1. Soil samples were taken at least every 5 feet with a California-modified split-spoon sampler driven 18 inches into the undisturbed soil. The number of blows necessary to drive the sampler was used to help evaluate the density of the soils encountered.

2. The soil sampler and brass liners were cleaned with a tri-sodium phosphate solution, rinsed with clean tap water, and air-dried prior to each sampling.

3. Soil removed from the top two liners and the drilling bit was used for logging purposes, and was disposed of with cuttings from the bore hole. The bottom liner was saved for laboratory analyses.

4. The brass liner containing the soil sample retrieved for laboratory analyses was immediately sealed and labeled. Aluminum foil was placed on the ends of the liner, followed by plastic caps. The liner was then sealed with masking tape. The sample was then stored and transported on ice in an ice chest under Chain-of-Custody to a California-certified laboratory.

5. Pending results of the laboratory analyses, drill cuttings will remain on-site in approved 55-gallon drums. Uncontaminated soils may be appropriately disposed of on-site or off-site by the client without agency approval. Soils found to contain levels of contaminants above local or state action levels can be left on-site for proper disposal by the client within a maximum period of 90 days. At the client's request, we will act as the client's agent by assisting in the proper disposal of the drum-contained material.

Well Construction

1. The well was constructed with factory flush-threaded, 2-inch diameter, schedule 40 PVC casing (screen slot size was 0.02 of an inch). All screens and casings used were in a contaminant-free condition when placed in the well. Slotted casing was extended from the bottom of the bore hole, through the water-bearing zone, to approxiamtely 2 feet above the aquifer. The annular space of the borehole surrounding the slotted casing was filled with No. 3 sand as a filter pack to a point approximately 2 feet above the top of the slotted casing. A seal above the filter pack was formed by placing 1-foot of bentonite pellets in the bore hole around the casing. Neat cement was then placed on top of the bentonite, and brought to the surface.

2. A locking, water-tight plug was placed on top of the PVC casing, and a locking, metal Christy box was secured at the well head using cement grout. This was to prevent entry of surface contamination, unauthorized entry, and tampering.

3. The groundwater depth in the well was measured by using a calibrated electric cable with an alarm indicator, activated upon touching water. The measurement from the highest point on the casing to groundwater in the well was determined to within 0.01 foot.

Well Development

1. The monitoring well was developed in order to clean the well and to stabilize the sand, gravel, and disturbed aquifer materials from around the screened internal perforations. Well development was performed using a Middleburg pump and a Surge Block. Well development continued until 10 casing volumes were evacuated from the well.

2. Development water was contained in a labelled 55-gallon drum pending laboratory results of the groundwater samples. Disposal should conform to applicable hazardous waste requirements.

3. A period of at least 72 hours was allowed between well development and sampling to allow groundwater in the well to stabilize.

Groundwater Sampling Protocols

1. In order to obtain a representative sample of the groundwater, stagnant water in the well casing was removed to permit well recharge with non-stagnant aquifer water. This was accomplished by purging 3 well casing volumes from the well. The purge water was stored in a labeled, 55-gallon drum for future disposal according to applicable hazardous waste requirements.

2. The groundwater samples were removed from the well by a teflon bailer after stabilization of temperature, conductivity, and pH had occurred.

Sample Handling, Storage, and Transport

1. All laboratory chemical testing was performed at a California-certified laboratory facility. All chemical analyses, handling, and storage were conducted under the direction of our consulting Analytical Chemist.

2. All equipment that contacts samples was thoroughly cleaned prior to arriving on the site, and between samplings. New or used sampling equipment was washed with an anionic detergent solution (i.e., Liquinox or Alconox), rinsed well with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry with a clean towel prior to use.

3. The groundwater samples were collected for a pre-determined, specific set of parameters. The containers and preservatives utilized were done in accordance with agency-established guidelines. All containers used in the collection of groundwater samples were provided by a California-certified laboratory.

4. All samples were collected in an order such that samples for those parameters most sensitive to volatilization were collected first.

5. All sample containers were immediately labeled after collection and sealing. Each label contained the date, sample number, location, time sample was recovered, and the name of the person collecting the sample.

6. Under no circumstances were sample containers opened by anyone other than laboratory personnel.

7. In order to document and trace possession of the samples from the time of collection, a signature Chain-of-Custody record was filled out by the sampler and accompanied the samples through laboratory analyses. The completed Chain-of-Custody document is included with the analytical report from the laboratory.

APPENDIX D
LABORATORY REPORTS

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Rob Noravian

Date:	1/31/97
Date Received:	1/24/97
Date Analyzed:	1/27-1/29/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*W1*	*W2*	*W3*	*W4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	1/23/97	1/23/97	1/23/97	1/23/97			
Sample Time							
Lab #	D2124	D2125	D2126	D2127			
DF-Diesel	1	1	1	1			
TPH-Diesel	**ND**	**ND**	**ND**	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	4	1	1	40			
TPH-Gas	**2,800**	**ND**	**ND**	**18,000**	µg/liter	50.0 µg/l	8015M
MTBE	**62**	**ND**	**ND**	**2,300**	µg/liter	5.0 µg/l	8020
Benzene	**32**	**ND**	**ND**	**740**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	**ND**	**ND**	**1,600**	µg/liter	0.5 µg/l	8020
Xylenes	**ND**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970128
Matrix: Water
Units: µg/L

Date Analyzed: 01/28/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	0.0	28.42	**114**	28.22	**113**	0.7	25	50-150
Toluene	8020	<0.5	25	0.0	26.91	**108**	27.66	**110**	2.4	25	50-150
Ethyl Benzene	8020	<0.5	25	0.0	28.41	**114**	28.85	**115**	1.5	25	50-150
Xylenes	8020	<0.5	75	0.0	83.27	**111**	84.42	**113**	1.4	25	50-150
Gasoline	8015	<50.0	625	0	643	**103**	636	**102**	1.1	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970127
Matrix: Water
Units: µg/L

Date Analyzed: 01/27/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	0.0	27.91	**112**	27.32	**109**	2.1	25	50-150
Toluene	8020	<0.5	25	0.0	26.12	**104**	25.99	**104**	0.5	25	50-150
Ethyl Benzene	8020	<0.5	25	0.0	27.6	**110**	27.34	**109**	0.9	25	50-150
Xylenes	8020	<0.5	75	0.0	81.24	**108**	81.55	**109**	0.4	25	50-150
Gasoline	8015	<50.0	625	0	598	**96**	606	**97**	1.3	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW970105
Matrix: Water
Units: µg/L

Date analyzed: 01/29/97
Date extracted: 01/29/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	806	85	760	80	6	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

CHAIN-OF-CUSTODY RECORD

E$_2$C, Inc.
Environmental/Engineering Consultants
Civic Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408)286-8300
Fax: (408)286-8333

LABORATORY: Enkeb

Site Name and Address: 390 Martin Ave., Santa Clara

Project #: 5950100

Sampler: Rob Mokarian

Company: E2C, Inc.

ANALYSIS REQUESTED

Sample I.D.	Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX / MTBE	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
W1	4		X					1/23/97	D2124	X	X	X								
W2	4		X						D2125	X	X	X								
W3	4		X						D2126	X	X	X								
W4	4		X						1127	X	X	X								

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-day
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? _____
2) Did any VOA samples received have any head space? _____
3) Were samples in appropriate containers and packaged properly? _____

Relinquished by sampler: Rob Mokarian	Date 1/29/97	Time 15:00	Received by: E2C, Inc. Refrigerator	COOLER TEMPERATURE:
Relinquished by: E2C, Inc. Refrigerator	Date 1/31/97 (1/21/97 ...)	Time 3:07	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	2/12/97
Date Received:	2/7/97
Date Analyzed:	2/13-2/12/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*MW5-5'*	*MW5-10'*	*MW5-15'*	*MW5-20'*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil	Soil	Soil			
Sample Date	2/7/97	2/7/97	2/7/97	2/7/97			
Sample Time	11:30	11:40	11:50	12:00			
Lab #	D2828	D2829	D2830	D2831			
TRPH	**ND**	**ND**	**ND**	**ND**	mg/kg	50 mg/kg	418.1
DF-Diesel	1	1	1	1			
TPH-Diesel	**ND**	**ND**	**ND**	**ND**	mg/kg	1.0 mg/kg	8015M
DF-Gas/BTEX	1	1	1	1			
TPH-Gas	**ND**	**ND**	**ND**	**ND**	mg/kg	1.0 mg/kg	8015M
MTBE	**ND**	**ND**	**ND**	**ND**	mg/kg	0.05 mg/kg	8020
Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

QC Batch #: DS970202
Matrix: Soil
Units: mg/Kg

Date analyzed: 02/11/97
Date extracted: 02/10/97
Quality Control Sample: D2833

PARAMETER	Method #	MB mg/Kg	SA mg/Kg	SR mg/Kg	SP mg/Kg	SP %R	SPD mg/Kg	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<1.0	25	0.0	21.3	85	20.0	80	6.3	25	50-150

Definition of Terms:

MB: Method Blank
na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4970210
Matrix: Soil
Units: ug/kg

Date Analyzed: 02/10/97
Quality Control Sample: D2830

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<5.0	80	0.0	84	106	87	109	2.8	25	50-150
Toluene	8020	<5.0	80	0.0	84	105	85	107	2.1	25	50-150
Ethyl Benzene	8020	<5.0	80	0.0	8	102	84	105	3.4	25	50-150
Xylenes	8020	<5.0	240	0.0	247	103	259	108	4.7	25	50-150
Gasoline*	8015	<1000.00	1000	0.00	1110	111	980	98	12.4	25	50-150

*LCS and LCSD were analyzed for this parameter.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4970211
Matrix: Soil
Units: ug/kg

Date Analyzed: 02/11/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	SP % R	SPD ug/kg	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	%R
Benzene	8020	<5.0	80	0.0	93	116	97	121	4.1	25	50-150
Toluene	8020	<5.0	80	0.0	90	112	94	117	4.2	25	50-150
Ethyl Benzene	8020	<5.0	80	0.0	91	114	97	121	5.9	25	50-150
Xylenes	8020	<5.0	240	0.0	274	114	291	121	6.0	25	50-150
Gasoline	8015	<1000.00	1000	0.00	1100	110	1070	107	2.8	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch : STRPIR970212
Matrix: Soil
Units: mg/Kg

Date Analyzed: 02/12/97
Spiked Sample: D2830

PARAMETER	MB mg/Kg	SA mg/Kg	SR mg/Kg	SP mg/Kg	SP PR	SPD mg/Kg	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	<50	250	0.0	273.	109	285.	114	4.1	25	50-150

Definition of Terms:

MB: Method Blank
SA: Spike Added
SR: Sample Result
SP: Matrix Spike Result
SP (PR): Matrix Spike % Recovery
SPD: Matrix Spike Duplicate Result
SPD (PR): Matrix Spike Duplicate % Recovery
RPD: Matrix Spike Recovery % Variance

CHAIN-OF-CUSTODY RECORD

E_2C, Inc.
Environmental/Engineering Consultants
Civic Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408)286-6300
Fax: (408)286-6333

LABORATORY: Entech

Site Name and Address: 406-416 Martin Ave, Santa Clara, CA

Project #: 585010

Sampler: Brenda D. McNabb

Company: Fox, Inc.

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX / MTBE	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
MW5-5'	1	X					11:30	2/7/97	D2828	X	X	X	X							
MW5-10'	1	X					11:40	"	D2829	X	X	X	X							
MW5-15'	1	X					11:50	"	D2830	X	X	X	X							
MW5-20'	1	X					12:00	"	D2831	X	X	X	X							

TURN-AROUND TIME REQUESTED:
☐ 24 HOURS ☐ 7 day
☐ 48 HOURS ☒ NORMAL
☐ OTHER

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? Yes
2) Did any VOA samples received have any head space? ____
3) Were samples in appropriate containers and packaged properly? Yes

	Date	Time		
Relinquished by sampler:	2/7/97	13:55	Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	2/25/97
Date Received:	2/18/97
Date Analyzed:	2/19-2/25/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW1*	*MW2*	*MW3*	*MW4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	2/14/97	2/14/97	2/14/97	2/13/97			
Sample Time	1405	1430	1445	1455			
Lab #	D3209	D3210	D3211	D3212			
TRPH	**19**	**64**	**ND**	**110**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1	1	1	1			
TPH-Diesel	**560**	**2,500**	**ND**	**8,700**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	80	80	80	80			
TPH-Gas	**10,000**	**32,000**	**9,000**	**15,000**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8020
Benzene	**190**	**650**	**230**	**190**	µg/liter	0.5 µg/l	8020
Toluene	**42**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**200**	**1,300**	**190**	**250**	µg/liter	0.5 µg/l	8020
Xylenes	**ND**	**2,000**	**ND**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5970219
Matrix: Water
Units: µg/L

Date Analyzed: 02/19/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	0.0	24	**95**	25	**100**	5.2	25	50-150
Toluene	8020	<0.5	25	0.0	25	**100**	26	**102**	1.6	25	50-150
Ethyl Benzene	8020	<0.5	25	0.0	26	**103**	26	**105**	2.5	25	50-150
Xylenes	8020	<0.5	75	0.0	76	**102**	78	**104**	1.8	25	50-150
Gasoline	8015	<50.0	625	0	714	**114**	623	**100**	13.6	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW970204
Matrix: Water
Units: µg/L

Date analyzed: 02/12/97
Date extracted: 02/11/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	952	100	1022	108	7	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch ID: WTRPIR970225
Matrix: Water
Units: mg/L

Date Analyzed: 02/25/97
Spiked Sample: Blank Spike

PARAMETER	SA mg/L	SR mg/L	SP mg/L	SP PR	SPD mg/L	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	20	0	18.3	92	19.4	97	5.8	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Spike Result
SP (PR): Spike % Recovery
SPD: Spike Duplicate Result
SPD (PR): Spike Duplicate % Recovery

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
S[illegible], JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 97021.3-T3

CLIENT EzL

SITE Hopkins & Carley
390 Hinton Ave
Santa Clara, Ca

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
* NOTE: MW-5 Rush - 24hr TAT
MW-5 ONLY
Invoice & Report to Ezl
Attn: Brenda McNabb
Project # 5850100

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH G, BTEX, MTBE	TPH D	TPH M	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW1	2/14/97	1405	W	5	VOA/2		X	X	X				D3209
MW2	2/14/97	1430	W	5	VOA/2		X	X	X				D3210
MW3	2/14/97	1445	W	5	VOA/2		X	X	X				D3211
MW4	2/14/97	1455	W	5	VOA/2		X	X	X				D3212
* MW5	2/14/97	1500	W	5	VOA/2		X	X	X				D3213

SAMPLING COMPLETED DATE 2/14/97 TIME 1500

SAMPLING PERFORMED BY Mike Tall

RESULTS NEEDED NO LATER THAN * 24hr TAT for MW-5 All Others Routine

RELEASED BY Mike Tall	DATE 2/18/97	TIME 11:50	RECEIVED BY	DATE 2/18/97	TIME 11:50
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	2/19/97
Date Received:	2/18/97
Date Analyzed:	2/18/97
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW5*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water			
Sample Date	2/14/97			
Sample Time	1500			
Lab #	D3213			
TRPH	**ND**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1			
TPH-Diesel	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	1			
TPH-Gas	**300**[2]	µg/liter	50.0 µg/l	8015M
MTBE	**15**	µg/liter	5.0 µg/l	8020
Benzene	**ND**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. TPH-Gas chromatogram for Lab #D3213, although within the reporting range, does not match the typical Gas pattern
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG3970211
Matrix: Water
Units: µg/L

Date Analyzed: 02/11/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	0.0	27.19	**109**	26.95	**108**	0.9	25	50-150
Toluene	8020	<0.5	25	0.0	27.14	**109**	26.86	**107**	1.0	25	50-150
Ethyl Benzene	8020	<0.5	25	0.0	26.99	**108**	26.82	**107**	0.6	25	50-150
Xylenes	8020	<0.5	75	0.0	80.00	**107**	80	**107**	0.0	25	50-150
Gasoline	8015	<50.0	625	0	534	**85**	496	**79**	7.4	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW970204
Matrix: Water
Units: µg/L

Date analyzed: 02/12/97
Date extracted: 02/11/97
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	952	100	1022	108	7	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch ID: WTRPIR970211
Matrix: Water
Units: mg/L

Date Analyzed: 02/11/97

PARAMETER	SA mg/L	SR mg/L	SP mg/L	SP PR	SPD mg/L	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	20	0	18.8	94	19.3	97	2.6	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Spike Result
SP (PR): Spike % Recovery
SPD: Spike Duplicate Result
SPD (PR): Spike Duplicate % Recovery

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 970213-T3

CLIENT E2C

SITE Hopkins & Conley
360 Mountain View
Santa Clara, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION _____
☐ LA
☐ OTHER

SPECIAL INSTRUCTIONS
* NOTE: MW-5 Rush - 24hr TAT
MW-5 ONLY
Invoice & Report to Eze
Attn: Brenda McNabb
Project # 585010C

SAMPLE ID			MATRIX S=SOIL W=H2O	CONTAINERS TOTAL		TPHG BTEX MTBE	TPHD	TPHK	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW1	2/14/97	1405	W	5	VOA/2	X	X	X				D3209
MW2	2/14/97	1430	W	5	VOA/2	X	X	X				D3210
MW3	2/14/97	1445	W	5	VOA/2	X	X					D3211
MW4	2/14/97	1455	W	5	VOA/2	X	X					D3212
* MW5	2/14/97	1510	W	5	VOA/2	X	X					D3213

SAMPLING COMPLETED DATE 2/14/97 TIME 1510

SAMPLING PERFORMED BY Mike Toll

RESULTS NEEDED NO LATER THAN 24hr. TAT for MW-5 All Others Routine

RELEASED BY Mike Toll DATE 2/18/97 TIME 11:50 RECEIVED BY DATE 2/18/97 TIME 11:50

RELEASED BY DATE TIME RECEIVED BY DATE TIME

RELEASED BY DATE TIME RECEIVED BY DATE TIME

SHIPPED VIA DATE SENT TIME SENT COOLER #

RECEIVED
MAR 27
SANTA CLARA VALLEY
WATER DISTRICT

RECEIVED
SANTA CLARA VALLEY
WATER DISTRICT

QUARTERLY GROUNDWATER MONITORING
FOURTH QUARTER 1996
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

E. H. Wehner (Richard Wehner)

FOR

HOPKINS & CARLEY
A LAW CORPORATION
January 31, 1997

PREPARED BY

E_2C INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

January 31, 1997
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - FOURTH QUARTER 1996**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Fourth Quarter 1996 Groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-3, and MW-4 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, MW-3, and MW-4 on November 27, 1996. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tertiary Butly Ether (MTBE) using EPA Test Methods 418.1, 8015, and 8020, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 1 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the November 27, 1996 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for each on-site well, which correspond to mean sea-level benchmark datum, were acquired on November 27, 1996. These elevations are shown in Table 2 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

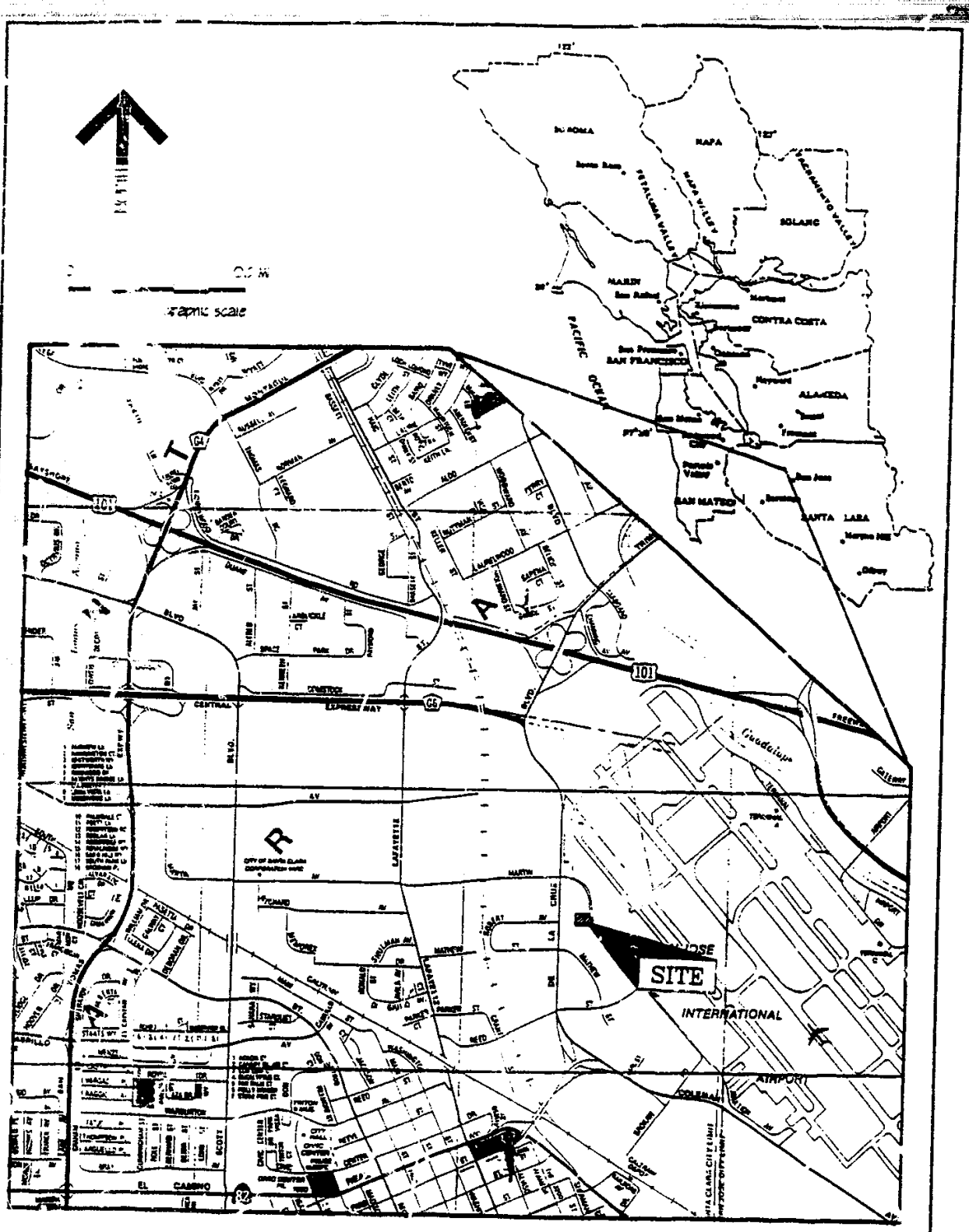
Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

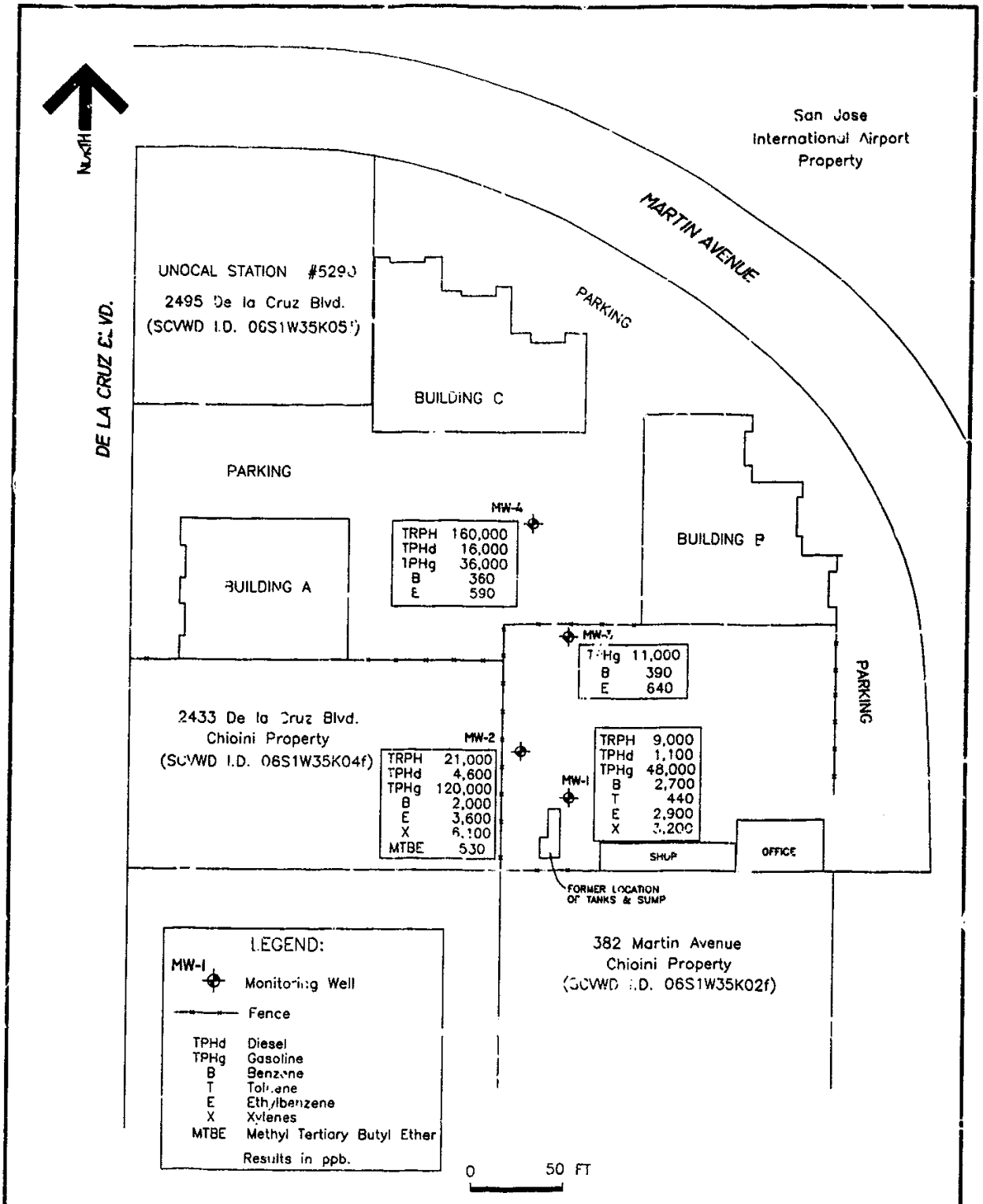
Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

SCUWD6FEB18'97pm 3:39



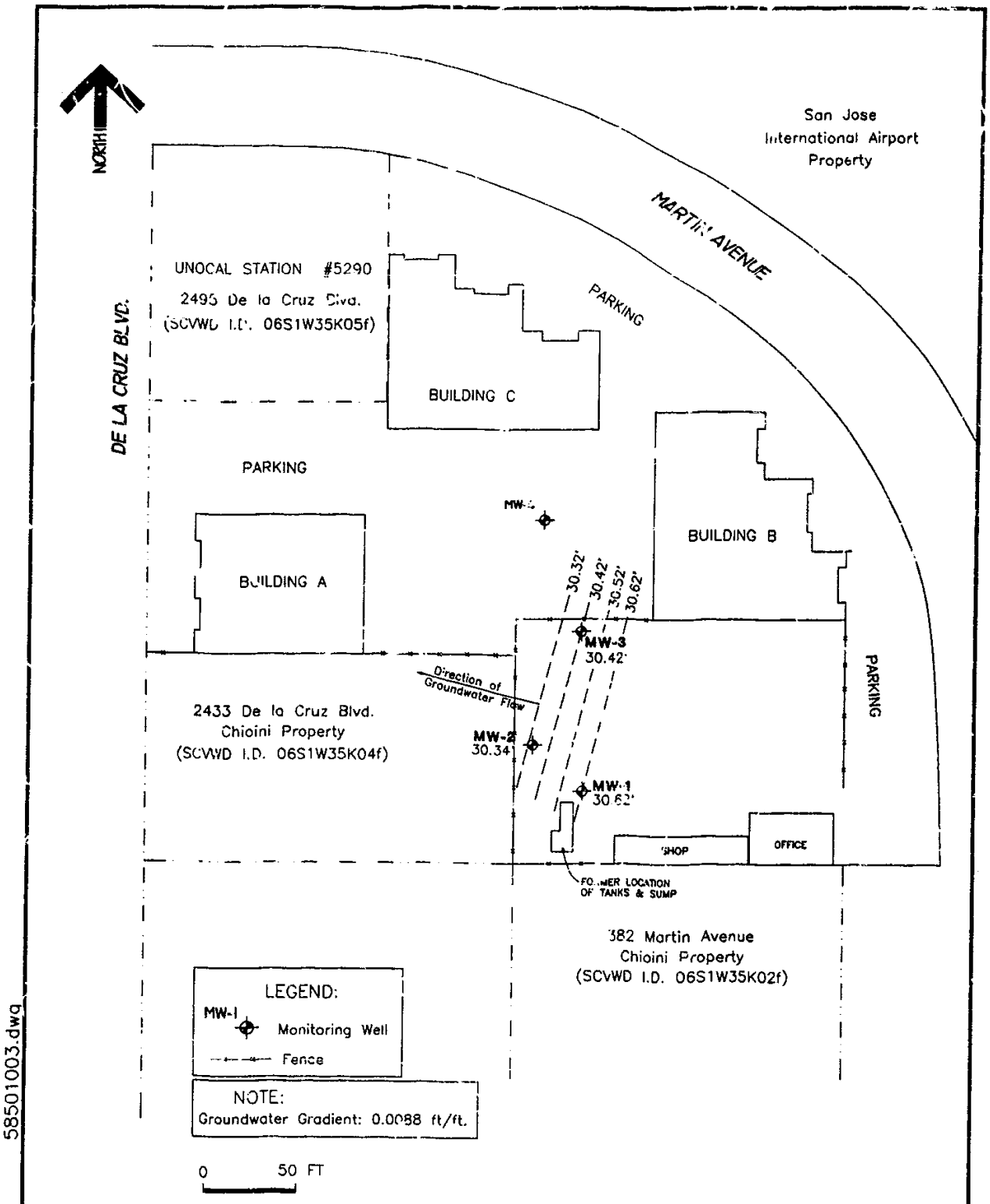
Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	February 1997



58501002

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 January 1997



58501003.dwg

Environmental Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER GRADIENT CONTOUR MAP 11/27/96 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARIC APPROVED BY: K. PRICE	FIGURE January 1997

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TPPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	61	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	417	72	5,700	1,100	2,200	8,200	<0.4	<0.5	9.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	85	790	1,600	<0.4	<0.5	6.9	2.5	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,500	600	[illegible]	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,530	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	25	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	MTBE ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	690	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	6.7	730	89	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	69	4,100	1,500	<0.5	1,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	880	<5.0	6.9	460	23	85	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	300	2,300	4,500	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	3,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	8.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	2.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	2.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fouth Quarter - November 27, 1996																
MW-1	1.1	9.0	48	2,700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,500	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	1F	180	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Mathylene Chloride
--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 2
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.0141
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.0094
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.0092
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
3/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.0056
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.35'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-Northwest	0.0088
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	-	7.48'	---		

APPENDIX A
WELL MONITORING DATA SHEETS

WELL MONITORING DATA SHEET

Project #: 96127-C3	Client: EzC
Sampler: DOUG	Start Date: 11-27-96
Well I.D.: MW-1	Well Diameter: (circle one) (2) 3 4" 6 ___
Total Well Depth: Before 18.14 After	Depth to Water: Before 8.27 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.6 (1 Case Volume) x 3 (Specified Volumes) = 4.7 Gallons

Purging: (Bailer)
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:39	70.4	6.8	1200	>200	1.5	
15:42	70.4	6.8	1200	>200	3.5	
15:45	70.0	6.8	1100	>200	5.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 5.0

Sampling Time: 15:50 Sampling Date: 11-27-96

Sample I.D.: MW-1 Laboratory: Entech

Analyzed for: (Circle) (TPH-G) (BTEX) (TPH-D) OTHER: MTBE, TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

WELL MONITORING DATA SHEET

Project #: 961127-C3	Client: E2C
Sampler: DOUG	Start Date: 11-27-96
Well I.D.: MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.25 After	Depth to Water: Before 8.94 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.3 (1 Case Volume) x 3 (Specified Volumes) = 4.0 gallons

Purging: (Bailer)
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ____

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:21	70.2	7.0	1300	>200	1.5	Odor ✓
15:23	69.8	6.9	1200	>200	3.0	Heavy Sheen
15:25	70.0	6.9	1200	>200	4.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.0

Sampling Time: 15:30 Sampling Date: 11-27-96

Sample I.D.: MW-2 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) OTHER: MTBE, TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 961127-C3	Client: E2C
Sampler: DOU	Start Date: 11-27-96
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 17.63 After	Depth to Water: Before 8.93 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) x 3 (Specified Volumes) = 4.2 gallons

Purging: (Bailer)
~~Disposable Bailer~~
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	CONT.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:02	70.6	7.0	1400	>200	1.5	
15:04	70.4	7.0	1300	>200	3.0	
15:06	70.4	7.0	1400	>200	4.5	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 15:10 Sampling Date: 11-27-96

Sample I.D.: MW-3 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) OTHER: MTBE, TRPH
(Circle)

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 961127-C3	Client: E2C
Sampler: DOUG	Start Date: 11-27-96
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.84 After	Depth to Water: Before 7.48 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	7"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

2.0	x	3		5.9
1 Case Volume		Specified Volumes	=	gallons

Purging: (Bailer) Disposable Bailer Middleburg Electric Submersible Extraction Pump Other ___

Sampling (Bailer) Disposable Bailer Extraction Port Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
16:00	70.2	6.8	1200	>200	2	Odor + Heavy
16:03	70.2	6.8	1200	>200	4	Sheen
16:06	70.0	6.9	1200	>200	6	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 16:10 Sampling Date: 11-27-96

Sample I.D.: MW-4 Laboratory: Entech

Analyzed for: (Circle) (TPH-G) (BTEX) (TPH-D) OTHER: MTBE, TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	12/9/96
Date Received:	12/2/96
Date Analyzed:	12/3-12/6/96
Project No.:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water	Water			
Sample Date	11/27/96	11/27/96	11/27/96	11/27/96			
Sample Time	15:50	15:30	15:10	16:10			
Lab #	C16716	C16717	C16718	C16719			
TRPH	**9.0**	**21**	**ND**	**160**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1	1	1	12.5			
TPH-Diesel	**1,100**	**4,600**	**ND**	**16,000**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	80	80	80	80			
TPH-Gas	**48,000**	**120,000**	**11,000**	**36,000**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	**530**	**ND**	**NT**	µg/liter	5.0 µg/l	8020
Benzene	**2,700**	**2,000**	**390**	**360**	µg/liter	0.5 µg/l	8020
Toluene	**440**	**ND**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**2,900**	**3,600**	**640**	**590**	µg/liter	0.5 µg/l	8020
Xylenes	**3,200**	**6,100**	**ND**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch ID: WTRP96.204
Matrix: Water
Units: mg/L

Date Analyzed: 12/04/96

PARAMETER	SA mg/L	SR mg/L	SP mg/L	SP PR	SPD mg/L	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	20	0	16.3	82	17.9	90	9.4	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Spike Result
SP (PR): Spike % Recovery
SPD: Spike Duplicate Result
SPD (PR): Spike Duplicate % Recovery

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG5961204
Matrix: Water
Units: µg/L

Date Analyzed: 12/04/96
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Benzene	8020	<0.5	25	ND	26.6	107	26.8	107	0.7	25	50-150
Toluene	8020	<0.5	25	ND	25.8	103	26.0	104	0.5	25	50-150
Ethyl Benzene	8020	<0.5	25	ND	26.9	108	26.9	108	0.2	25	50-150
Xylenes	8020	<0.5	75	ND	77.0	103	75.0	100	2.6	25	50-150

Definition of Terms:

- na. Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percen Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW961201
Matrix: Water
Units: µg/L

Date analyzed: 12/02/96
Date extracted: 12/02/96
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	994	105	1118	118	12	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 961127-C3

CLIENT E2C

SITE Hopkins & Carley
390 Martin Ave
Santa Clara

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.			MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL	TPH-Gas BTEX	TPH-Diesel	TRPH	MTBE
MW-1	11-27-96	15:00	W	6	X	X	X	X
MW-2	11-27-96	15:30	W	6	X	X	X	X
MW-3	11-27-96	15:10	W	6	X	X	X	X
MW-4	11-27-96	16:10	W	6	X	X	X	X

CONDUCT ANALYSIS TO DETECT

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
Invoice & Report to
E2C Attn: Brenda McKeith
Project # 585C100

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			C16716
			C16717
			C16718
			C16719

SAMPLING COMPLETED DATE 11-27-96 TIME 16:20
SAMPLING PERFORMED BY DOUG SANDERS

RESULTS NEEDED NO LATER THAN AS Contracted

RELEASED BY _____ DATE 12-2-96 TIME 4:25 RECEIVED BY _____

RELEASED BY _____ DATE _____ TIME _____ RECEIVED BY _____ DATE 12-2-96 TIME 4:25

RELEASED BY _____ DATE _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____

SCUMD6FEB1997pm 3:09

E2C INC.

Environmental/Engineering Consultants

December 23, 1996
Job No. 5850100

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **SCHEDULE OF ACTIVITIES FOR CONTINUING INVESTIGATION**
R. H. Wehner Site
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

The anticipated Schedule of Activities for the performance of Continuing Groundwater Investigation is presented below:

• Execution of Access Agreement	Janaury 3, 1997
• Submittal of Pre-Approval Package to State Cleanup Fund	Week of Janaury 6, 1997
• Installation of Temporary Wells	Week of January 20, 1997
• Installation of Permanent Wells	Week of Febraury 3, 1997
• Submittal of Investigation Report	End of March 1997

We hope this satisfies your request for a schedule of activities. Should you have any questions, please call.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

REGISTERED ENVIRONMENTAL ASSESSOR
BRENDA D. McNABB
No. 000:8
Expires: 6/97
STATE OF CALIFORNIA

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6301 • FAX (408) 286-6333

WELL INSTALLATION REPORT
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
November 22, 1996

For
F H Wheaver
HOPKINS & CARLEY
A LAW CORPORATION

PREPARED BY
E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA

E$_2$C INC.

Environmental/Engineering Consultants

November 22, 1996
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William Klein
SUBJECT: **WELL INSTALLATION REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E$_2$C, Inc. has prepared the attached Well Installation Report for submittal to the Santa Clara Valley Water District (SCVWD) in response to their requirement for additional groundwater plume definition for the above-mentioned fuel leak site (reference SCVWD letter, dated March 2, 1995).

The attached report describes well installation procedures and presents the results of initial well sampling. Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine A. Tulloch

Richard Webner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Webner

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SCWD1MW25'96AM 8:49

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1.0 INTRODUCTION

This Well Installation Report describes the installation, development, and initial sampling of groundwater monitoring well MW-4, located at 406-416 Martin Avenue in Santa Clara, California. The well was installed as part of the continuing study of hydrocarbon-impacted groundwater downgradient from 390 Martin Avenue (see Figure 1). The well was installed pursuant to the directives of the Santa Clara Valley Water District (SCVWD) in their letter to Mr. R. H. Wehner (owner of 390 Martin Avenue property), dated March 2, 1995.

1.1 Scope of Services

The scope of services for the performance of this project included the following tasks:

- Acquisition of a well installation permit through the SCVWD.
- Installation of one two-inch diameter groundwater monitoring well, identified as MW-4.
- Collection of three soil samples at five-foot depth-intervals during the drilling of well MW-4 for subsequent chemical analyses.
- Development and sampling of well MW-4 in accordance with EPA and SCVWD guidelines.
- Laboratory analyses of three soil samples and one groundwater sample from finished well MW-4 for the presence of Total Recoverable Petroleum Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 418.1, 8015M/5030, 8015M/3510, and 8020, respectively. Groundwater sample MW-4
- Preparation of this technical report, which includes recommendations for, and a description of, proposed further investigative actions.

2.0 SITE LOCATION AND DESCRIPTION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The subject property, which consists of approximately .75 acres of land, was most recently operated as the office, shop, and equipment yard for a concrete construction company. At the time of the work described in this report, the site was unoccupied. Figure 2 shows the location of existing buildings and groundwater monitoring wells, as well as the location of former Underground Storage Tanks (USTs), which were removed from the site in 1991.

The site is located in an area zoned Light-Industrial (ML). Light-industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

2.1 Regional Geology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas Fault Zone and the Santa Cruz Coastal Mountains, and on the northeast by the Calaveras Fault Zone, Hayward Fault Zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas.

Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. Other sediments occupying the Valley originated from the marine environment that covered a portion of the basin. The basin generally consists of about 1,000 to 2,000 feet of these deposits that unconformably overlie bedrock formations.

The alluvial material in the Santa Clara Valley is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay. These bedded deposits vary from being moderately or highly permeable (sands and gravels) to relatively low permeable (clays) that may exist as aquitards (Helley & Lajoie, 1979).

2.2 Soil Conditions and Hydrology

The soil encountered during previous drilling operations at 390 Martin Avenue consists of slightly silty clays to an approximate depth of 12 feet, where a very fine sand with some silt and clay is encountered. This material extends to a depth of approximately 18 feet, where the on-site borings for previously existing wells MW-1, MW-2, and MW-3 were terminated.

Lithology encountered during the drilling of well MW-4, however, revealed sandy or silty clays to a depth of approximately 13 feet, where a gravelly sand, containing gravels up to 1-inch in diameter, was encountered that extended to the total depth of the boring at approximately 20 feet.

During the drilling of well MW-4, groundwater was first encountered at an approximate depth of 12 feet bgs. Static depth to groundwater within the well has been recently measured at approximately 7.5 feet. Using previously existing wells on the 390 Martin site, groundwater flow direction has been consistently calculated as north or northwest (see Figure 2).

3.0 SITE BACKGROUND

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the UST's for monitoring purposes. In 1989, operation of the tanks ceased, and the four USTs were removed in 1991. Soil samples collected from the UST excavation were found to contain up to 1,500 parts per million (ppm) TPHg, as well as TPHd and BTEX. A groundwater sample collected from the excavation was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, TRPH at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of two groundwater monitoring wells MW-2 and MW-3 (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-moderate levels of hydrocarbons and related constituents. The highest concentrations of TPHg and TPHd were detected in soil samples collected from the 10-foot depth in each of the borings (capillary zone).

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08-to-120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site (see Figure 2).

Quarterly groundwater monitoring of the three wells has been conducted since February of 1994. The levels of contaminants detected in the wells over this time period remain within the same general range of magnitude with a slight decrease in BTEX levels over time.

Based on the cumulative results of soil and groundwater sampling conducted at the subject site to date, the SCVWD requested continue quarterly groundwater monitoring and performance of a Remedial Investigation (reference SCVWD letter, dated March 2, 1995). The required RI was performed in May of 1996 and consisted of the collection of 10 soil samples and four grab groundwater samples using Soil Punch/HydroPunch-type methodology. The results of RI soil sampling indicate that limited soil impact exists in the immediate area of the former tank excavation. Grab groundwater sampling and historical groundwater monitoring well sampling has identified low-to-moderately impacted groundwater immediately to the south and west of the former excavation, and moderate to elevated levels exist immediately to the east and north of the former excavation.

4.0 GROUNDWATER INVESTIGATION

4.1 Drilling Program

Prior to drilling and well installation operations, a permit for groundwater monitoring well MW-4 was obtained through the SCVWD. A copy of the permit is presented in Appendix A. MW-4 was placed approximately 55 feet north (downgradient) of the of the subject site.

Drilling and well installation were conducted on September 4, 1996. HEW Drilling of East Palo Alto, California, was contracted to drill the soil boring and install the shallow groundwater monitoring well under the direct supervision of E_2C, Inc. personnel. The boring for MW-4 was drilled using a truck-mounted, CME-75 drill rig fitted with eight-inch diameter hollow-stem augers. Samples collected from the boring were obtained using a California modified, split-spoon sampler equipped with two-inch diameter brass sample tubes. Upon retrieval from the sampler, the ends of the sample tubes containing soil selected for laboratory analyses were covered with aluminum foil, sealed with plastic caps, and stored on ice. Three soil samples, identified as MW4-5', MW4-10', and MW4-15', were retained for subsequent chemical analyses.

The soils that were encountered during drilling operations were logged continuously by examination of the soil cuttings and soil contained within the brass liners. This information was noted on the boring log for MW-4, which is included in this report as Figure 3. The borehole was extended to a total depth of approximately 20 feet. Groundwater was first encountered within the borehole at a depth of approximately 12 feet bgs, and static groundwater was measured at approximately 7.5 feet

4.2 Monitoring Well Installation

Monitoring well MW-4 was constructed by inserting a two-inch diameter flush-threaded, schedule 40 PVC well casing into the open borehole. The slotted portion of the well casing has a screen size of 0.020. After installation of the casing, the borehole annulus was backfilled with washed, kiln-dried #3 sand to a point approximately two feet above the top of the casing slots. A one-foot layer of bentonite pellets was placed on top of the sand, and concrete grout was placed on top of the bentonite and brought to the ground surface. Grouting of the well was observed by a representative of the SCVWD. The casing was capped using a locking, water-tight plug, and the well was covered with a bolted manhole-type steel cover. A schematic diagram of well construction can be found on Figure 4.

4.3 Well Development and Water Sampling

MW-4 was developed using a Middleburg Pump and a Surge Block on August 23, 1996. Prior to purging, the total depth of the well was measured at approximately 18.90 feet bgs, and the depth to groundwater was measured at approximately 7.66 feet bgs. Total well depth was measured at approximately 19.84 feet after development. Approximately 18 gallons of water, or an amount in excess of ten well-casing volumes, were removed from the well during development (refer to the Well Development Data Sheet in Appendix C). Purge-water generated during well development exhibited a hydrocarbon odor and light-sheen.

A groundwater sample was obtained from monitoring well MW-4 on September 25, 1996. Prior to purging, total depth and depth to water measurements were collected from the well. An amount of groundwater in excess of three well-casing volumes was purged from the well using a disposable bailer. Physical groundwater parameters including electrical conductivity, temperature, and pH were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the well had stabilized (refer to the Well Sampling Data Sheet presented in Appendix B). Hydrocarbon odor and sheen were noted in the purge water generated during the sampling of MW-4.

Once the well had stabilized and post-purging well measurements were obtained, a sample was collected from the well using a disposable bailer. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Laboratories, Inc. of Sunnyvale, California, a State-certified analytical laboratory. For a more detailed description of well installation, development, and sampling protocol, please refer to Appendix C.

4.4 Laboratory Analysis and Sample Results

All soil and groundwater samples were analyzed for TRPH, TPHd, TPHg, and BTEX using EPA Test Methods 418.1, 8015M/5030,8015M/3510, and 8020, respectively. The results of samples analyses are shown in Table 1 and the laboratory-issued analytical reports and corresponding chain-of-custody forms are presented in Appendix D.

Soil sample analyses indicate that samples MW4-5' and MW4-10' do not contain contaminants sampled for at levels above laboratory detection limits. Only low levels of TPHg, Benzene, Toluene, and Xylenes were detected in soil sample MW4-15'. Analysis of groundwater sample MW-4 revealed elevated levels of TPHg and moderate levels of TPHd and BTEX constituents. Table 2 presents the results of the most recent four quarters of groundwater sampling for wells MW-1, MW-2, and MW-3 in relation to the detection of elevated levels in well MW-4.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Based on the results of soil and groundwater sampling conducted in conjunction with well MW-4, groundwater immediately north of the R. H. Wehner property at 390 Martin Avenue has been impacted with hydrocarbons including TPHd, TPHg, and BTEX. Drilling conducted during the installation of well MW-4 identified the presence of a gravelly sand at a depth extending from approximately 13 feet bgs to at least 20 feet bgs where boring MW-4 was terminated. This gravelly sand was not encountered during the drilling of previously installed wells MW-2 or MW-3 on the 390 Martin Avenue property. Lithology encountered during the drilling of well MW-1 was not available for review.

The elevated levels of TPHg detected in downgradient well MW-4 in relation to historic contaminant levels detected in wells MW-1, MW-2, and MW-3 (located closer to the former USTs) do not depict a typical lateral attenuation scenario. The marked increase in contaminant levels in well MW-4 may be attributable to one, or all, of the following:

1) The fairly common detection of elevated levels during the first sampling of a new well.

2) The distinct lithology at MW-4. The gravelly sands encountered suggest the likely presence of a very porous channel, which may have resulted in an accumulation of contaminants.

3) The presence of contaminants from other known or unknown hydrocarbon releases in the immediate area of the subject site.

5.2 Recommendation

E_2C, Inc. recommends that wells MW-1 through MW-4 be sampled during the next scheduled quarterly monitoring event (end of November 1996) to provide additional groundwater data for contaminant concentration contouring purposes.

Proposed Further Definition of Groundwater Impact-

In addition, E_2C, Inc. recommends that additional groundwater plume definition be performed to the north and northwest of the subject site as required by the SCVWD. E_2C, Inc. proposes that this additional definition work be performed in two Phases as described below:

Phase I - Install four Temporary Wells (TWs) on the adjacent property to the north and northwest as shown on Figure 5 for the collection of Grab

groundwater samples. The borings (anticipated total depth of 15-20 feet) will be installed using a drilling rig equipped with six- or eight-inch diameter, hollow-stem augers. All drive-casings will be thoroughly steam-cleaned before drilling operations commence and between soil boring locations. All drill cuttings and equipment decontamination rinseate will be stored on-site (390 Martin Avenue) in labeled 55-gallon drums, pending appropriate disposal.

Once drilled, a 4-inch diameter casing will be placed into the open borehole and a 2-inch diameter casing will inserted into the 4-inch casing. Approximately 5-to-8 feet of the annulus between the lead, slotted sections of the two casing will be filled with clean sand, which will serve as a filter-pack. A Middleburg Pump or disposable bailer will then be used to remove approximately 10-to-15 gallons of groundwater from each TW. Samples of groundwater will then be collected from each well using disposable bailers. The water will be transferred from the bailers into clean sample bottles in a manner that minimizes the potential evaporation of volatile constituents. The bottles will be secured, labeled, and placed on ice in a cooler for transport to a State-certified laboratory. Grab groundwater samples will be analyzed for TRPH, TPHd, TPHg, BTEX, and MTBE.

After sample collection, the casing will be removed from each well and all TWs will be destroyed by filling the boring to grade with a Type II Portland Cement.

Phase II -

The results of Grab groundwater sampling will be used to determine the most beneficial locations for two additional off-site groundwater monitoring wells (two-inch diameter). The locations of the wells will be discussed with Ms. Christine Tulloch of the SCVWD prior to installation. Groundwater well installation will be performed in accordance with the specifications presented in Appendix C of this report. Soil samples will be collected at depth intervals of five feet for soil characterization purposes. Two soil samples from each well boring, and groundwater samples from the two finished wells will be analyzed for TRPH, TPHd, TPHg, and BTEX. Well samples will also be analyzed for MTBE.

The performance of Phase I and II work will be dependant upon the allowance of access to the adjacent north/northwestern property (Dela Mart Center). In addition, should the results of Phase I work support the likelihood of a source of groundwater impact other than the subject site (390 Martin Avenue), a modified proposal for Phase II actions may be submitted to the SCVWD.

6.0 PROFESSIONAL CERTIFICATION AND LIMITATIONS

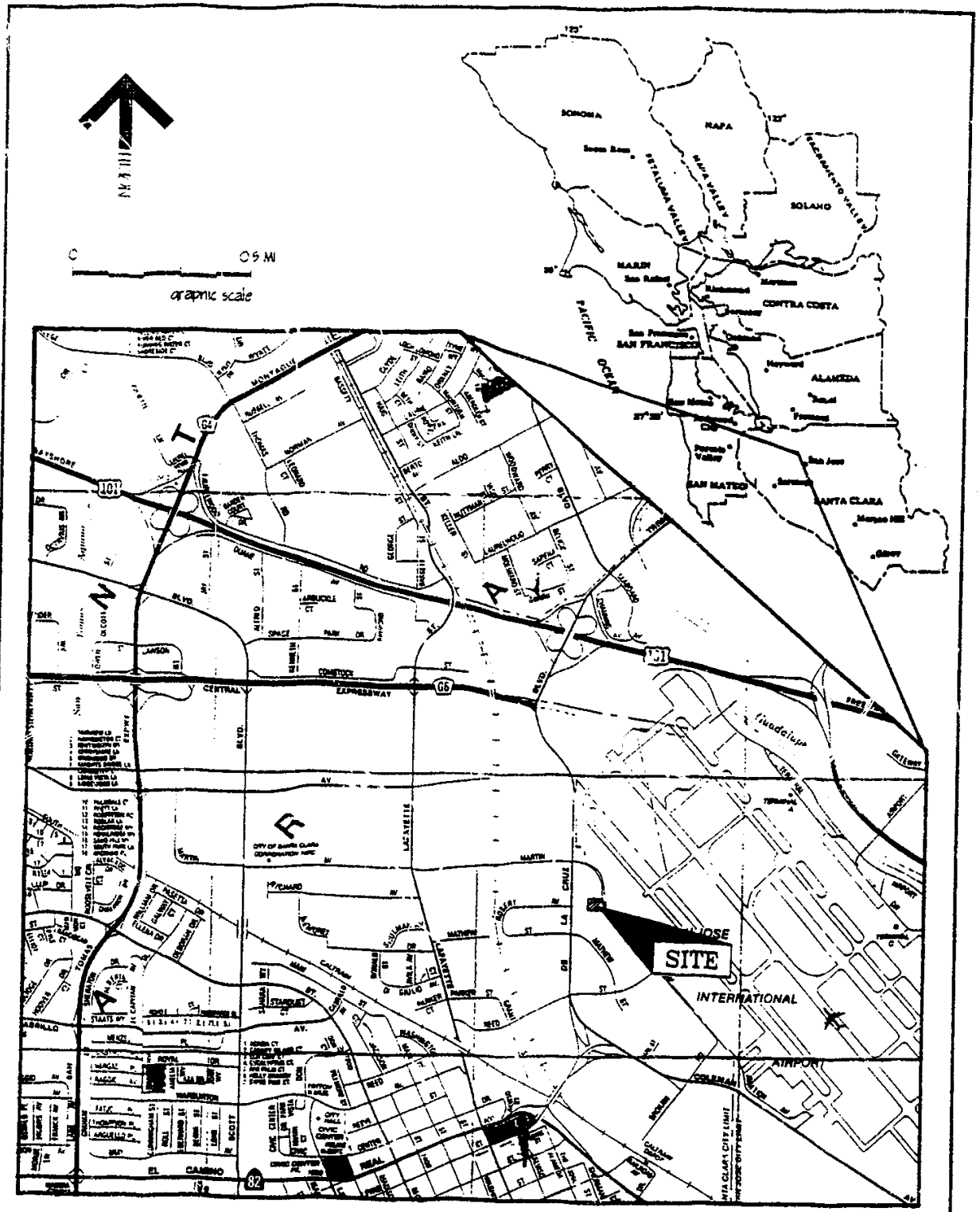
This report has been prepared by E_2C, Inc., under the professional supervision of the Principal whose seal and signature appears herein. The conclusions of this report are based solely on the scope of services outlined and the sources of information referenced in this report. Any additional information that becomes available concerning this site should be submitted to E_2C, Inc. so that our conclusions may be reviewed and modified, if necessary. This report was prepared for the sole use of Hopkins & Carley, A Law Corporation and/or its agents.

7.0 REFERENCES

Atwater, T. 1970. Implications of Plate Tectonics for Cenozoic Tectonic Evolution of Western North America. Geologic Society of America Bulletin 1981, pp. 3513-35375.

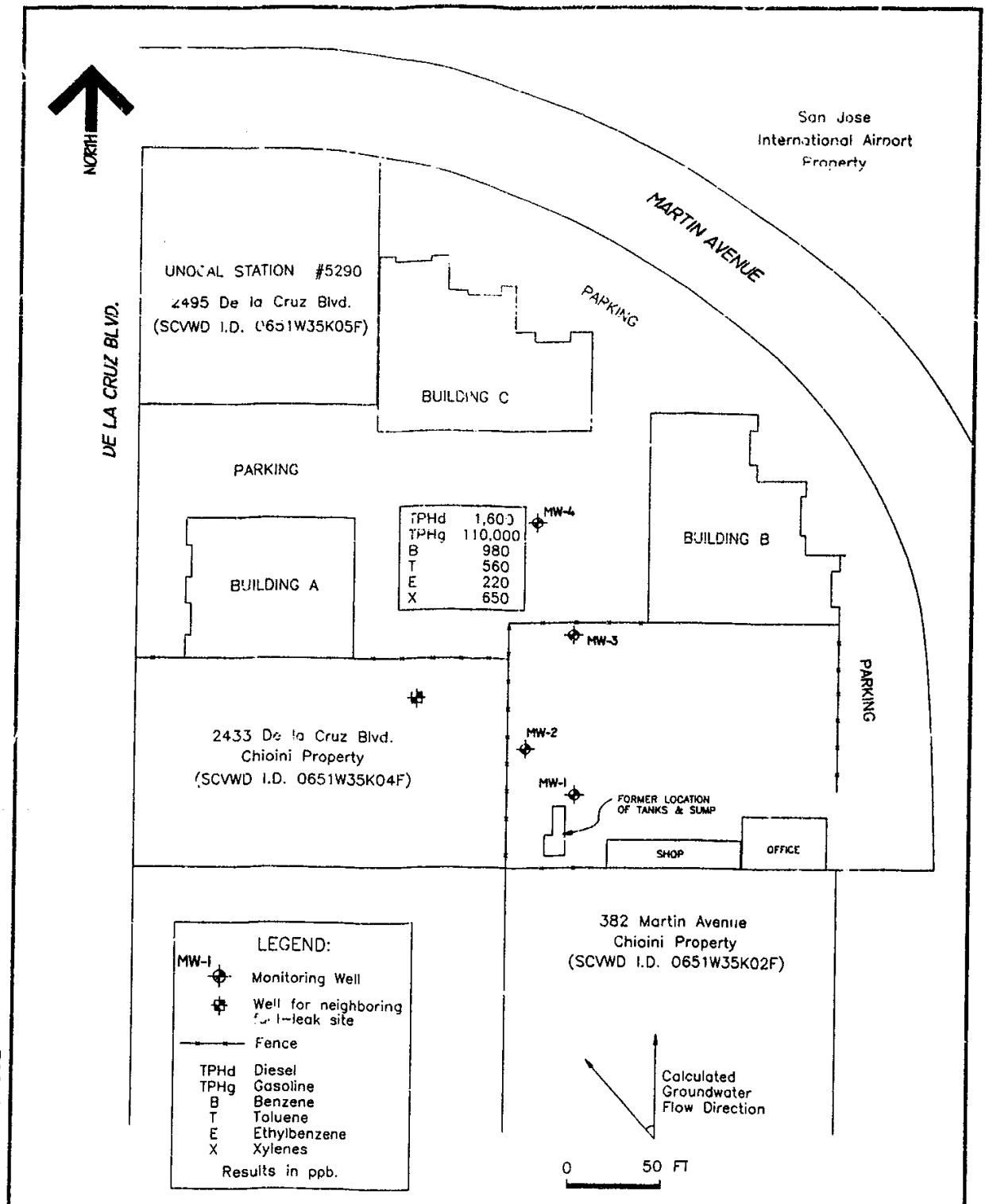
Helley, E.J. and Lajoie, K.R. 1979. Flatland Deposits of the San Francisco Bay Region, California USGS Professional Paper 943.

United States Geological Survey. 7.5 Minute Topographical Map, San Jose West Quadrangle.



Source: Californic AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPROVED BY: K. PRICE	1996



5850100Z

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE PLAN 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 | FIGURE 2 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE | November 1996

PROJECT NO.	5850100	DRILLING CONTRACTOR	HEW	BORING NO.	MW-4
LOCATION	R. H. WEHNER PROPERTY 390 MARTIN AVENUE SANTA CLARA, CALIFORNIA	DRILLING METHOD	HOLLOW-STEM AUGER	GROUNDWATER FIRST ENCOUNTERED	12.0'
LOGGED BY	BRENDA McNABB	SAMPLING METHOD	CALIFORNIA SPLIT-SPOON	STATIC DEPTH OF GROUNDWATER	7.5'
START DATE	9/4/96	COMPLETION DATE	9/4/96	BORING DIAMETER	8"
DATE OF GROUNDWATER MEASUREMENT	9/25/96				

PENETRATION	SAMPLE I.D.	DEPTH (FT)	MATERIAL DESCRIPTION	USCS I.D.	LITHOLOGY
			Sandy Silty CLAY, dark grey, stiff, dry to slightly moist		
			– color change –		
2/4/5	MW4-5'	5	Sandy Silty CLAY, green-brown, stiff, slightly moist	CL	
2/4/4	MW4-10'	10	Sandy Silty CLAY, green-brown, stiff, slightly moist to moist.		
	▽				
8/20/22	MW4-15'	15	Gravelly Silty SAND, grey-green, poorly sorted, angular wet (moderate hydrocarbon odor)	SP	
12/30/40	MW4-20'	20	Gravelly Silty SAND, grey-green, poorly sorted, angular wet (slight hydrocarbon odor)		
			Bottom of boring @ 20'.		

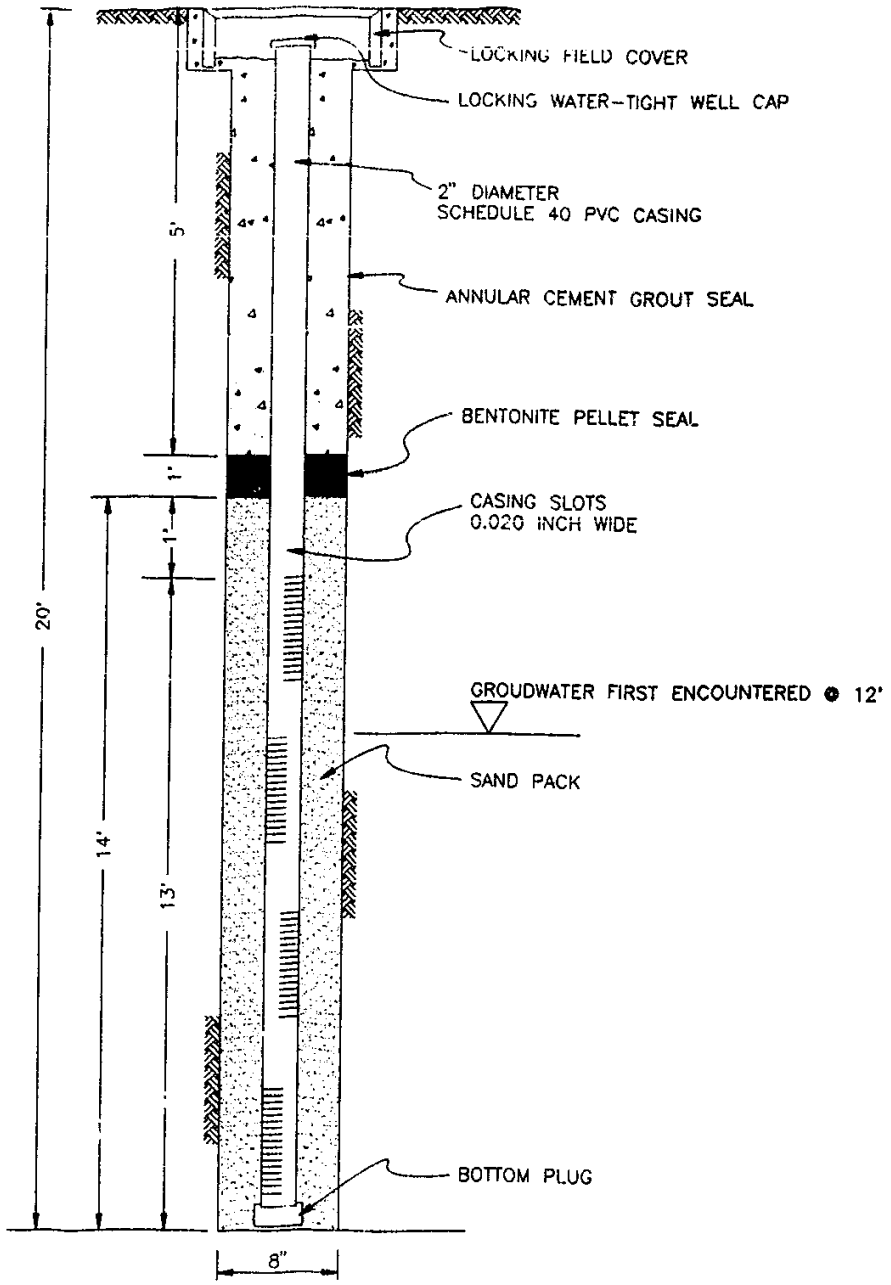
58501003

Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

PROJECT: 390 Martin Avenue, Santa Clara, California

LOG OF BORING: MW-4

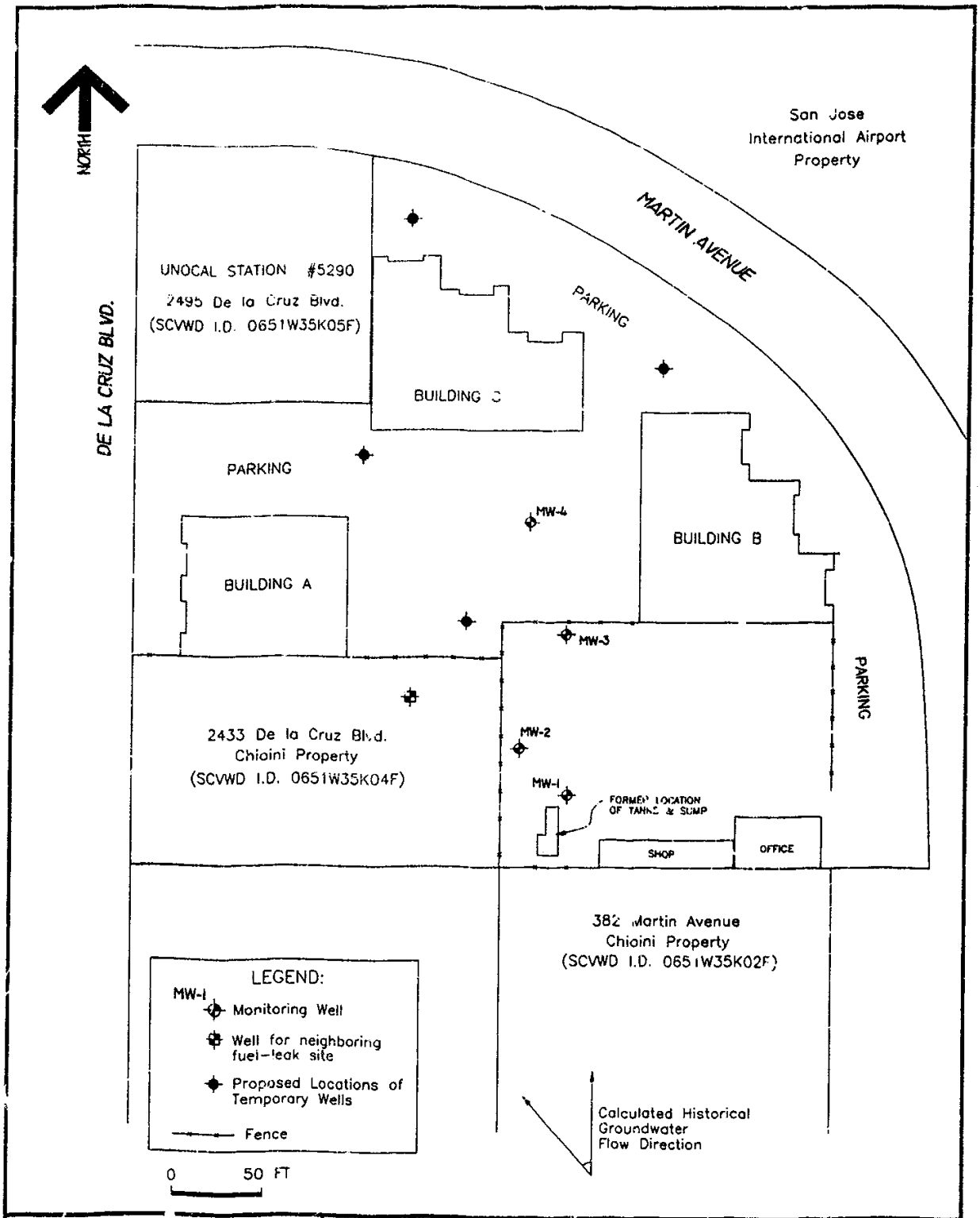
FIGURE: 3



58501004

NOT TO SCALE

Environmental/Engineering Consultants 1220 Crossman Avenue. Suite 200 Sunnyvale. California 94089	PROJECT 390 Martin Avenue Santa Clara, Californi	WELL DIAGRAM MW-4	PROJECT NO. 5850100	FIGURE 4



5850100S

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Proposed Sampling Locations 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 5 November 1996

TABLE 1
SOIL AND GROUNDWATER SAMPLE RESULTS

Soil Sampling Results							
Sample No.	TRPH	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW4-5'	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
MW4-10'	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
MW4-15'	<5.0	<1.0	24	0.072	0.080	<0.005	0.075
Groundwater Sampling Results (ug/l)							
MW-4	<5,000	1,600	110,000	980	530	220	650

TABLE 2
GROUNDWATER SAMPLE ANALYSES

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg
	Third Quarter - August 10, 1995						
MW-1	9.1	12	57	4,300	1,400	2,400	5,100
MW-2	7.4	10	23	740	180	680	1,900
MW-3	2.6	<5.0	6.7	730	89	550	<0.5
	Fourth Quarter - November 14, 1995						
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400
MW-2	1.9	7.5	38	2,000	510	1,200	630
MW-3	.660	<5.0	6.9	460	23	95	<0.5
	First Quarter - February 29, 1996						
MW-1	5.5	14	310	2,300	900	2,300	4,900
MW-2	3.7	14	190	1,500	220	1,700	4,200
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5
	Second Quarter - May 31, 1996						
MW-1	5.6	<5.0	17	1,500	250	1,300	2,200
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5
	Third Quarter - August 7, 1996						
MW-1	0.69	27	51	1,300	290	2,200	1,700
MW-2	0.95	<5.0	29	500	<0.5	84	1,100
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4
MW-4*	1.6	<5.0	110	960	560	220	650
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*

* = Sampled on September 25, 1996.

APPENDIX A
WELL INSTALLATION PERMIT

Santa Clara Valley Water District

WELL CONSTRUCTION APPLICATION

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

FC 158 (04-22-92) (DP 4-901)

TO BE COMPLETED BY DISTRICT

District Permit No.: 96WW0592	Date Issued: 8/7/97	Well Registration No:
Geologic Setting: 1	Expiration Date: 2/7/97	Driller's Log No: 526191

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner: Delamart Calif Gen. Partn.	Well Owner (if different): Richard Wehner	Drilling Co. HEI Drilling
Address: 43 to Alpine Rd.	Address of Well Site: 402-416 Martin Ave.	Driller's Contractors License Number (C-57 Req'd): 1045 Weeks St.
City, State, Zip: Portola Valley, CA 94028	City, State, Zip: Santa Clara, CA	Address: Lic# 604987
Telephone No: (415) 851-8006	Telephone No:	City, State, Zip: East Palo Alto, CA 94303
Assessor's Parcel No. of Well site: Book 230 Page 17 Parcel 109	Owner's/Consultant's Well No: MW-4	Telephone No: (415) 322-2851

Estimated depth of completed well: ☒ Less than 50 ft. ☐ 50 to 300 ft. ☐ Over 300 ft.

Purpose of Well: ☐ Domestic ☐ Municipal/Industrial ☐ Agricultural ☒ *Monitoring ☐ Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: ☐ To comply with City or County Hazardous Materials Storage Permit Ordinance ☒ Exploration studies ☐ Other (specify): _____ ☐ Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: Delamart Business Center

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? ☐ Yes ☐ No

Consultant's Name (Company): EDC, Inc.

Address: 675 No. 1st St. #500

City, State, Zip: San Jose, CA 95112

Telephone No.: (408) 286-6300

Type of monitoring device: ☒ Groundwater ☐ Vadose

Type of extraction device ☐ Groundwater ☐ Vadose

Monitoring well use: ☒ Depth ☒ Quality ☐ Chloride

Vadose device installation: ☐ Vapor ☐ Interface ☐ Suction Lysimeter

Signature of Responsible Professional
(No substitution of signature will be accepted)

Registration No. Civil Engineer _____ OR Certificate No. Engineering Geologist 1127

TOPOGRAPHIC FEATURES

Well is to be constructed: ☐ In a public sidewalk ☐ In a public road ☒ On public property ☐ On private property ☐ On SCVWD property

Within 50 ft of the top of a creek bank	☐ Yes	☒ No	Within 50 ft. of any existing well	☒ Yes	☐ No
Within 50 ft. of a sanitary sewer	☐ Yes	☒ No	Within 150 ft of a cesspool or seepage pit	☐ Yes	☒ No
Within 100 ft. of a pit privy, septic tank, leachfield	☐ Yes	☒ No	Other wells exist on this property	☐ Yes	☒ No

Status: ☐ Active ☐ Inactive ☐ Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which is indicated on this application form.

Signature of Well Owner/Agent — Date: 8-1-96

Signature of Driller/Agent — Date: 8-1-96

MONITORING WELL PLAN APPROVAL

City/County: _____

Approved by: _____

Date: _____

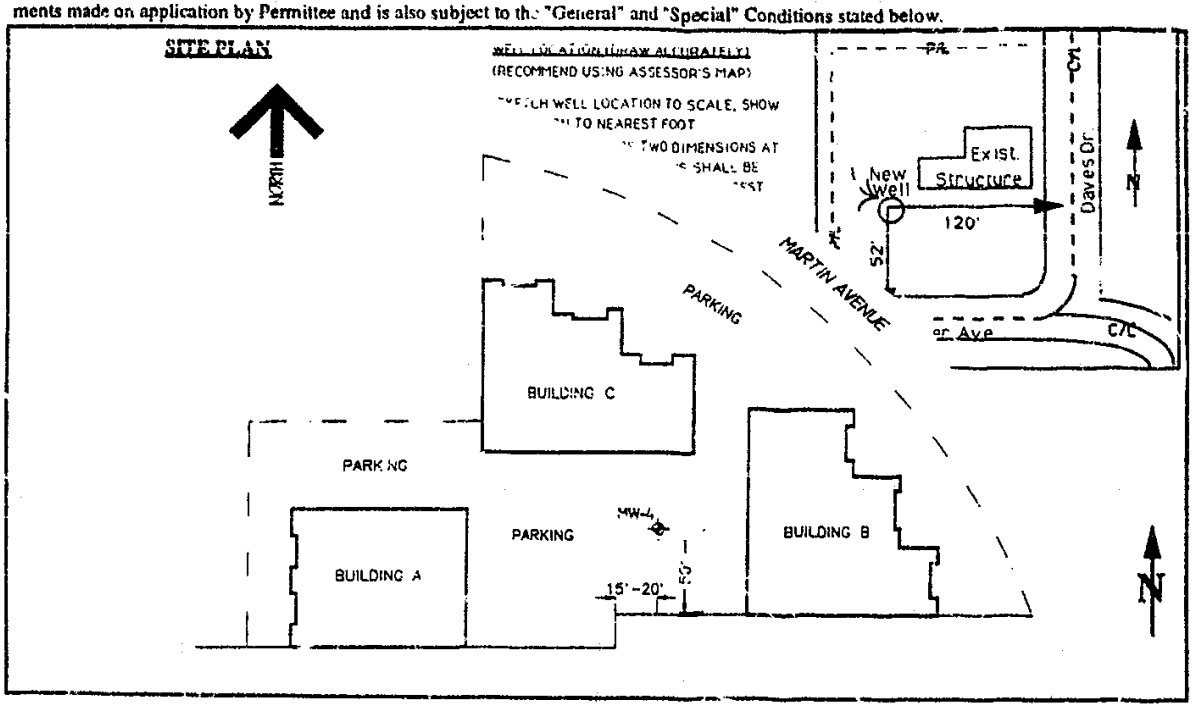
IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 927-0710 Ext. 560. For weekends, holidays, after hours call (408) 395-8121 or (408) 927-0714.

SCVWD AUG 5'96AM11:38

DISTRICT WELL PERMIT NO.: 96W0592 **WELL CONSTRUCTION APPLICATION**

Based on information on the application and attachment(s) hereto (if any) and subject to approval noted below, permission is hereby granted to construct (drill) the described well. Permission to start may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

SITE PLAN



GENERAL CONDITIONS

A. S.C.V.W.D. Well Inspection Department (Telephone 408-927-0710, ext. 660) must be notified a minimum of one working day prior to starting work.
Construction under this Permit is subject to any instructions by District representative relative to the "Standards for the Construction of Wells in Santa Clara County". A District Inspector must be on site to witness all annular sanitary seals.

B. Permit may be voided before work begins if field check reveals any misrepresentation under "well location" or "Topographic Features" on application.

C. This Permit is valid only for the purpose specified herein. No change in construction procedure as prescribed in District Standards and in Special Conditions below will be allowed except upon written permission of the District.

D. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents and employees free and harmless from any and all expense, cost or liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

E. Compliance with "CAL/OSHA", California Labor Code Section 6300 (and following) is required.

F. Water quality and production from all wells to be used for public water supply must be approved by the County Environmental Health Services.

G. Permit will be automatically canceled if not exercised or if extension is not requested by Permittee within 180 calendar days.

H. Driller is to complete State DWR Form 188 and mail original to Santa Clara Valley Water District within 30 days of completion of well construction.

I. For the construction of all types of wells, a Permittee must be a licensed C-57 water well drilling contractor.

J. Dry holes shall be backfilled within one week of drilling. Backfilling shall be done in accordance with District Standards.

K. Each well requires a separate Well Construction Application and Permit.

L. Permittee shall seal all abandoned wells on the property.

M. All drilling fluid and materials will be safely handled and properly disposed of in the appropriate method.

N. Permittee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS: (5)

SCVWD APPROVED: Harold C. Jorgensen DATE: 8/5/96

FC 158 (04-22-92)

APPENDIX B
WELL DEVELOPMENT AND SAMPLING DATA SHEETS

WELL DEVELOPMENT DATA SHEET

Project #: 960923-L1	Client: EzC
Developer: LAD	Date Developed: 9-23-96
Well I.D.: MW-4	Well Diameter: (circle one) ② 3 4 6 ___
Total Well Depth: Before 18.90 After 19.84	Depth to Water: Before 7.66 After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):

$(12 \times (d^2/4) \times \pi)/231$

Where

12 = inches/foot
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.	VCF
2"	0.16
3"	0.37
4"	0.64
5"	1.02
6"	1.47
8"	2.61
12"	5.88

1.8	x	10	=	18.0
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer ☐ Middleburg ☒ Electric Submersible ☐ Suction Pump ☐

Type of Installed Pump _____

Other equipment used 2" SURGE BLOCK

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
840	- SURGED WELL FOR 10 MIN					- STRONG
900	68.6	6.9	1400.	>200.	2.	HYDROCARBON
902	69.0	7.1	1400.	>200.	4.	ODOR
904	68.8	7.0	1400.	>200.	6.	- LIGHT SHEEN
906	69.0	7.1	1400.	>200.	8.	- DTW @ 7.80'
908	68.6	7.2	1400.	>200.	10.	DURING PURGE - SAND REMOVED
910	68.8	7.2	1400.	>200.	12.	FROM WELL BOTTOM
914	68.6	7.2	1400.	>200	14.	- DTW @ 7.95'
916	68.8	7.2	1400.	>200.	16.	- SURGED WELL
918	68.6	7.2	1300.	>200	18.	- WELL BOTTOM
920	68.4	7.2	1400.	>200.	20.	IS CLEAN/CLAY
922	68.6	7.2	1400	>200.	22.	
924	68.4	7.1	1400.	>200.	24.	

Did Well Dewater? NO If yes, note above. Gallons Actually Evacuated: 24.

960923-L1 MW-4 WELL DEVELOPMENT

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
926	68.0	7.2	1400.	>200.	26.	DTW@ 7.75'
928	68.4	7.2	1400.	>200	28.	-LESS TURBID.
930	68.4	7.2	1400.	>200.	30.	
932	68.2	7.2	1400.	>200.	32.	-MORE SAND
934	68.2	7.2	1400.	>200	34.	REMOVED ~~FROM~~
936	68.2	7.2	1300.	>200.	36.	FROM WELL
938	68.4	7.2	1300.	181.	38.	- PURGE WATER
940.	68.4	7.2	1300.	194.	40.	IS WITHOUT
942	68.4	7.2	1300.	176.	42.	SHEEN NOW
944	68.2	7.2	1300.	178.	44	- WELL BOTTOM
946	68.4	7.2	1300.	165.	46.	HARD/CLEAN
948	68.0	7.2	1400.	171.	48.	DTW = 7.70'
950.	68.2	7.2	1400.	162.	50.	TD = 19.84'

WELL MONITORING DATA SHEET

Project #: 960925-C1	Client: E & C @ Delamart Center
Sampler: DOUG S.	Start Date: 9-25-96
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.84 After	Depth to Water: Before 7.61 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

2.0 (1 Case Volume) x 3 (Specified Volumes) = 6.0 gallons

Purging: Bailer
(Disposable Bailer)
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: Bailer
(Disposable Bailer)
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
8:54	69.2	7.4	1500	>200	2.0	* ODOR and
8:58	69.0	7.0	1400	>200	4.0	Sheen
9:02	69.0	7.1	1400	>200	6.0	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6.0

Sampling Time: 9:10 Sampling Date: 9-25-96

Sample I.D.: MW-4 Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (TPH-D) OTHER: TRPH
(Circle)

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

APPENDIX C
WELL INSTALLATION PROTOCOL

E_2C, INC.
DRILLING, WELL CONSTRUCTION, AND SAMPLING PROTOCOLS FOR SHALLOW GROUNDWATER WELLS

Drilling Protocol

1. E_2C, Inc. acquired the proper governmental permits necessary to drill the well.

2. The boring was drilled by a California-certified C-57 Drilling Contractor, utilizing hollow-stem, continuous flight augers. All drilling and sampling equipment was thoroughly steam-cleaned prior to use to prevent the introduction of contaminants into the bore hole. Working components of the drilling rig (subs, collars, and all parts of the rig chassis near the borehole) were also steam-cleaned. Cleaned augers, rods, and other tools were stored and covered when not in use. Cleaning operations were verified by a representative of E_2C, Inc.

3. The subsurface stratigraphy and aquifer characteristics were established by examining the soil cuttings brought to the surface by the drilling operations, and by the sampling of undisturbed soils every 5 feet. A detailed boring log was maintained of the soil materials, noting color, soil type, texture, moisture content, density, and plasticity (utilizing the Unified Soil Classification System), and any unusual characteristics noted (e.g., chemical odor).

Soil Sampling Protocol

1. Soil samples were taken at least every 5 feet with a California-modified split-spoon sampler driven 18 inches into the undisturbed soil. The number of blows necessary to drive the sampler was used to help evaluate the density of the soils encountered.

2. The soil sampler and brass liners were cleaned with a tri-sodium phosphate solution, rinsed with clean tap water, and air-dried prior to each sampling.

3. Soil removed from the top two liners and the drilling bit was used for logging purposes, and was disposed of with cuttings from the bore hole. The bottom liner was saved for laboratory analyses.

4. The brass liner containing the soil sample retrieved for laboratory analyses was immediately sealed and labeled. Aluminum foil was placed on the ends of the liner, followed by plastic caps. The liner was then sealed with masking tape. The sample was then stored and transported on ice in an ice chest under Chain-of-Custody to a California-certified laboratory.

5. Pending results of the laboratory analyses, drill cuttings will remain on-site in approved 55-gallon drums. Uncontaminated soils may be appropriately disposed of on-site or off-site by the client without agency approval. Soils found to contain levels of contaminants above local or state action levels can be left on-site for proper disposal by the client within a maximum period of 90 days. At the client's request, we will act as the client's agent by assisting in the proper disposal of the drum contained material.

Well Construction

1. The well was constructed with factory flush-threaded, 2-inch diameter, schedule 40 PVC casing (screen slot size was 0.02 of an inch). All screens and casings used were in a contaminant-free condition when placed in the well. Slotted casing was extended from the bottom of the bore hole, through the water-bearing zone, to approxiamtely 2 feet above the aquifer. The annular space of the borehole surrounding the slotted casing was filled with No. 3 sand as a filter pack to a point approximately 2 feet above the top of the slotted casing. A seal above the filter pack was formed by placing 1-foot of bentonite pellets in the bore hole around the casing. Neat cement was then placed on top of the bentonite, and brought to the surface.

2. A locking water-tight plug was placed on top of the PVC casing, and a locking, metal Christy box was secured at the well head using cement grout. This was to prevent entry of surface contamination, unauthorized entry, and tampering.

3. The groundwater depth in the well was measured by using a calibrated electric cable with an alarm indicator, activated upon touching water. The measurement from the highest point on the casing to groundwater in the well was determined to within 0.01 foot.

Well Development

1. The monitoring well was developed in order to clean the well and to stabilize the sand, gravel, and disturbed aquifer materials from around the screened internal perforations. Well development was performed using a Middleburg pump and a Surge Block. Well development continued until 10 casing volumes were evacuated from the well.

2. Development water was contained in a labelled 55-gallon drum pending laboratory results of the groundwater samples. Disposal should conform to applicable hazardous waste requirements.

3. A period of at least 72 hours was allowed between well development and sampling to allow groundwater in the well to stabilize.

Groundwater Sampling Protocols

1. In order to obtain a representative sample of the groundwater, stagnant water in the well casing was removed to permit well recharge with non-stagnant aquifer water. This was accomplished by purging 3 well casing volumes from the well. The purge water was stored in a labeled, 55-gallon drum for future disposal according to applicable hazardous waste requirements.

2. The groundwater samples were removed from the well by a teflon bailer after stabilization of temperature, conductivity, and pH had occurred.

Sample Handling, Storage, and Transport

1. All laboratory chemical testing was performed at a California-certified laboratory facility. All chemical analyses, handling, and storage were conducted under the direction of our consulting Analytical Chemist.

2. All equipment that contacts samples was thoroughly cleaned prior to arriving on the site, and between samplings. New or used sampling equipment was washed with an anionic detergent solution (i.e., Liquinox or Alconox), rinsed well with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry with a clean towel prior to use.

3. The groundwater samples were collected for a pre-determined, specific set of parameters. The containers and preservatives utilized were done in accordance with agency-established guidelines. All containers used in the collection of groundwater samples were provided by a California-certified laboratory.

4. All samples were collected in an order such that samples for those parameters most sensitive to volatilization were collected first.

5. All sample containers were immediately labeled after collection and sealing. Each label contained the date, sample number, location, time sample was recovered, and the name of the person collecting the sample.

6. Under no circumstances were sample containers opened by anyone other than laboratory personnel.

7. In order to document and trace possession of the samples from the time of collection, a signature Chain-of-Custody record was filled out by the sampler and accompanied the samples through laboratory analyses. The completed Chain-of-Custody document is included with the analytical report from the laboratory.

APPENDIX D
LABORATORY REPORTS

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	9/12/96
Date Received:	9/5/96
Date Analyzed:	9/6-9/11/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*MW4-5'*	*MW4-10'*	*MW4-15'*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil	Soil			
Sample Date	9/4/96	9/4/96	9/4/96			
Sample Time	9:20	9:45	10:00			
Lab #	C11754	C11755	C11756			
TRPH	**ND**	**ND**	**ND**	mg/kg	50 mg/kg	418.1
DF-Diesel	1	1	1			
TPH-Diesel	**ND**	**ND**	**ND**	mg/kg	1.0 mg/kg	8015M
DF-Gas/BTEX	1	1	2.5			
TPH-Gas	**ND**	**ND**	**24**	mg/kg	1.0 mg/kg	8015M
Benzene	**ND**	**ND**	**0.072**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	**0.080**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	**ND**	**0.075**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Ent .h Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2091096
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 09/10/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	80.5M	237	ND	290	122	256	108	12.5	25	50-150
Benzene	8020	20	ND	24.1	121	21.5	108	11.4	25	50-150
Toluene	8020	20	ND	22.8	114	20.1	101	12.6	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QA/QC Officer: Rich F. Gaone
N. Gaone

Eutech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch : STRP960901
Matrix: Soil
Units: mg/Kg

Date Analyzed: 09/11/96

PARAMETER	SA mg/Kg	SR mg/Kg	SP mg/Kg	SP PR	SPD mg/Kg	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	160	0.0	142.	89	130.	81	8.8	25	50-150

Definition of Terms:

SA: Spike Added
SR: Sample Result
SP: Matrix Spike Result
SP (PR): Matrix Spike % Recovery
SPD: Matrix Spike Duplicate Result
SPD (PR): Matrix Spike Duplicate % Recovery
RPD: Matrix Spike Recovery % Variance

QA/QC OFFICER: Nick J Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

QC Batch #: DS099602
Matrix: Soil
Units: mg/Kg

Date analyzed: 09/09/96
Date extracted: 09/09/96

PARAMETE	Method #	SA mg/Kg	SR mg/Kg	SP mg/Kg	SP %R	SPD mg/Kg	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	25	ND	27.3	109	25.6	102	6.4	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike Duplicate % Recovery
- NC: Not Calculated

QA/QC Officer: Nick F. Gaone
N. Gaone

E_2C, Inc. Environmental/Engineering Consultants Civic Center Tower, 675 North First Street, Suite 500 San Jose, CA 95112-5111	Phone: (408)286-8300 Fax: (408)286-8333	LABORATORY: Entech

CHAIN-OF-CUSTODY RECORD

Site Name and Address	Project #
406-416 Martin Ave., Santa Clara, CA	5850100

Sampler	Company
Brenda McNabb	E2C, Inc.

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
MW4-5'	1	X					9:20	9/4/96	C11754	X	X	X	X							
MW4-10'	1	X					9:45	"	C11755	X	X	X	X							
MW4-15'	1	X					10:00	"	C11756	X	X	X	X							
MW4-20'	1	X					10:20	"	C11757											(Hold)

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7 day
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? _____
2) Did any VOA samples received have any head space? _____
3) Were samples in appropriate containers and packaged properly? _____

Relinquished by sampler:	Date 9/5/96	Time 11:53	Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose CA 95112
Attn: Brenda McNabb

Date:	10/3/96
Date Received:	9/26/96
Date Analyzed:	10/1-10/2/96
Job #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water			
Sample Date	9/25/96			
Sample Time	9:10			
Lab #	C13069			
TRPH	**ND**	mg/liter	5.0 mg/l	SM5520F
DF-Diesel	1			
TPH-Diesel	**1,600**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	100			
TPH-Gas	**110,000**	µg/liter	50.0 µg/l	8015M
Benzene	**980**	µg/liter	0.5 µg/l	8020
Toluene	**560**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**220**	µg/liter	0.5 µg/l	8020
Xylenes	**650**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

575 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW961001
Matrix: Water
Units: µg/L

Date analyzed: 10/02/96
Date extracted: 10/01/96

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	950	ND	958	101	1030	108	7.2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

QA/QC Officer: M. Golden

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 9406[illegible]

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG296102
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 10/02/96

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	8015M	<50.0	203	ND	221	109	212	104	4.2	25	50-150
Benzene	8020	<0.5	20	ND	21.4	107	20.4	102	4.8	25	50-150
Toluene	8020	<0.5	20	ND	21.0	105	19.7	99	6.4	25	50-150
Ethyl Benzene	8020	<0.5	20	ND	22.0	110	21.0	105	4.7	25	50-150
Xylenes	8020	<0.5	60	ND	65.0	108	62.6	104	3.8	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QA/QC Officer: M. Golden

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch ID: WTRP961001
Matrix: Water
Units: mg/L

Date Analyzed: 10/01/96

PARAMETER	SA mg/L	SR mg/L	SP mg/L	SP PR	SPD mg/L	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	40	0	43.6	109	44.4	111	1.8	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Spike Result
SP (PR): Spike % Recovery
SPD: Spike Duplicate Result
SPD (PR): Spike Duplicate % Recovery

BLAINE TECH SERVICES

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 960925-C1

CLIENT E2C

SITE Delaware
406-416 Martin Ave.
Santa Clara

SAMPLE I.D.	MATRIX (SOIL / WATER / AIR)	# CONTAINERS	C = COMPOSITE ALL CONTAINERS	TPH-Gas, BTEX	TPH-Diesel	TRPH
MW-4	W	5		X	X	X

CONDUCT ANALYSIS TO DETECT

LAB Entech DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION

SPECIAL INSTRUCTIONS Invoice & Report To E2C, Attn: Brenda McNabb

Job # 585016C

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
C13069			

SAMPLING COMPLETED DATE 9/25/96 TIME 9:10

SAMPLING PERFORMED BY DOUG SANDERS

RESULTS NEEDED NO LATER THAN "As Contracted"

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	9-26-96	12:50	[signature]	9-26-96	12:50
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

QUARTERLY GROUNDWATER MONITORING
THIRD QUARTER 1996
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FOR

HOPKINS & CARLEY
A LAW CORPORATION
November 8, 1996

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

SCHOLASTIC 8-84

E2C INC.

Environmental/Engineering Consultants

November 8, 1996
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - THIRD QUARTER 1996**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Third Quarterly Groundwater Sampling for 1996, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on August 7, 1996. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel (TPHd), TPH as

gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 418.1, 8015 modified (for TPHd and TPHg), and 8020, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 1 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the August 7, 1996 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for each well, which correspond to mean sea-level benchmark datum, were acquired on August 7, 1996. These elevations are shown in Table 2 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

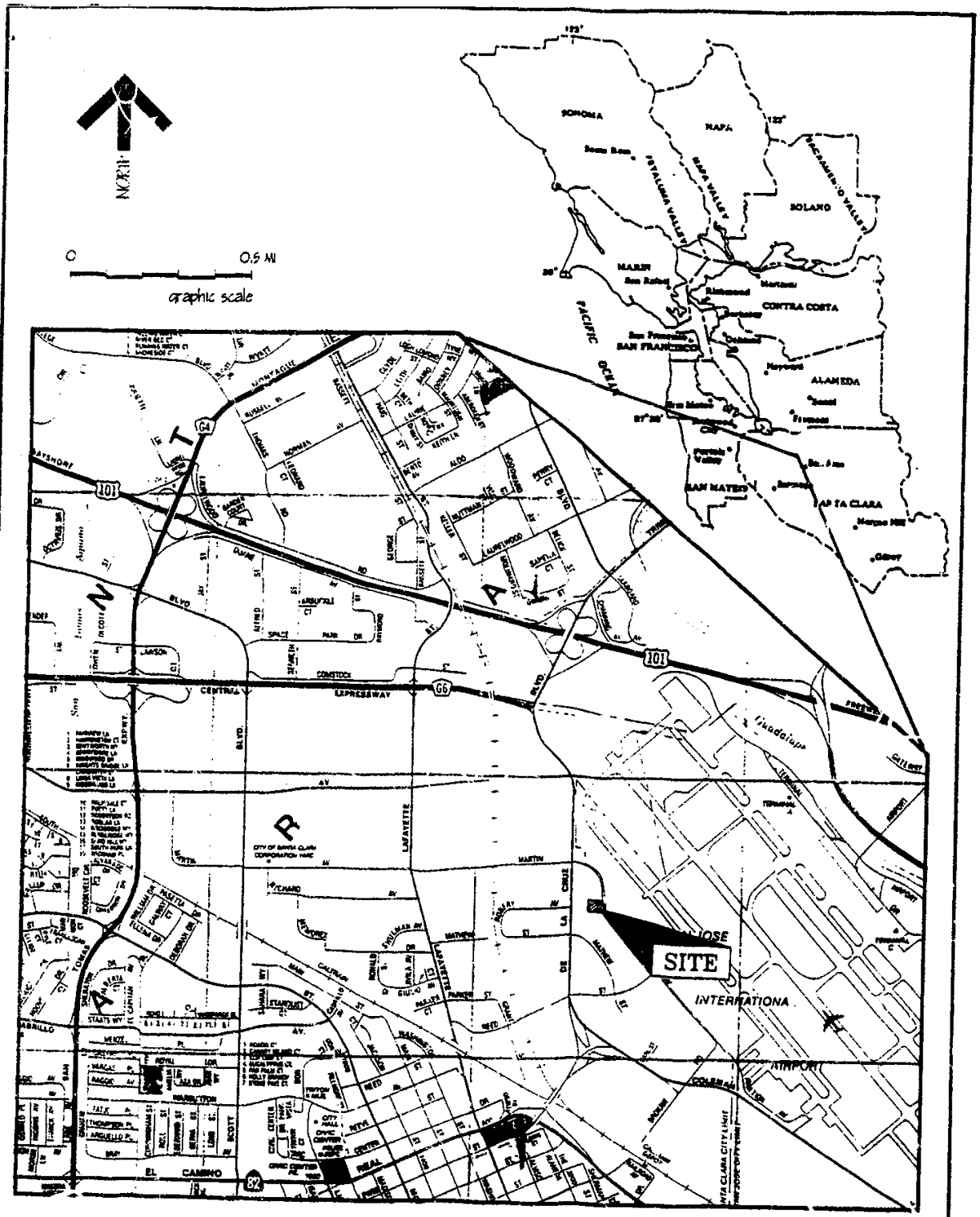
Brenda D. McNabb, REA
Senior Project Manager



Kendall W. Price, CEG/REA
President

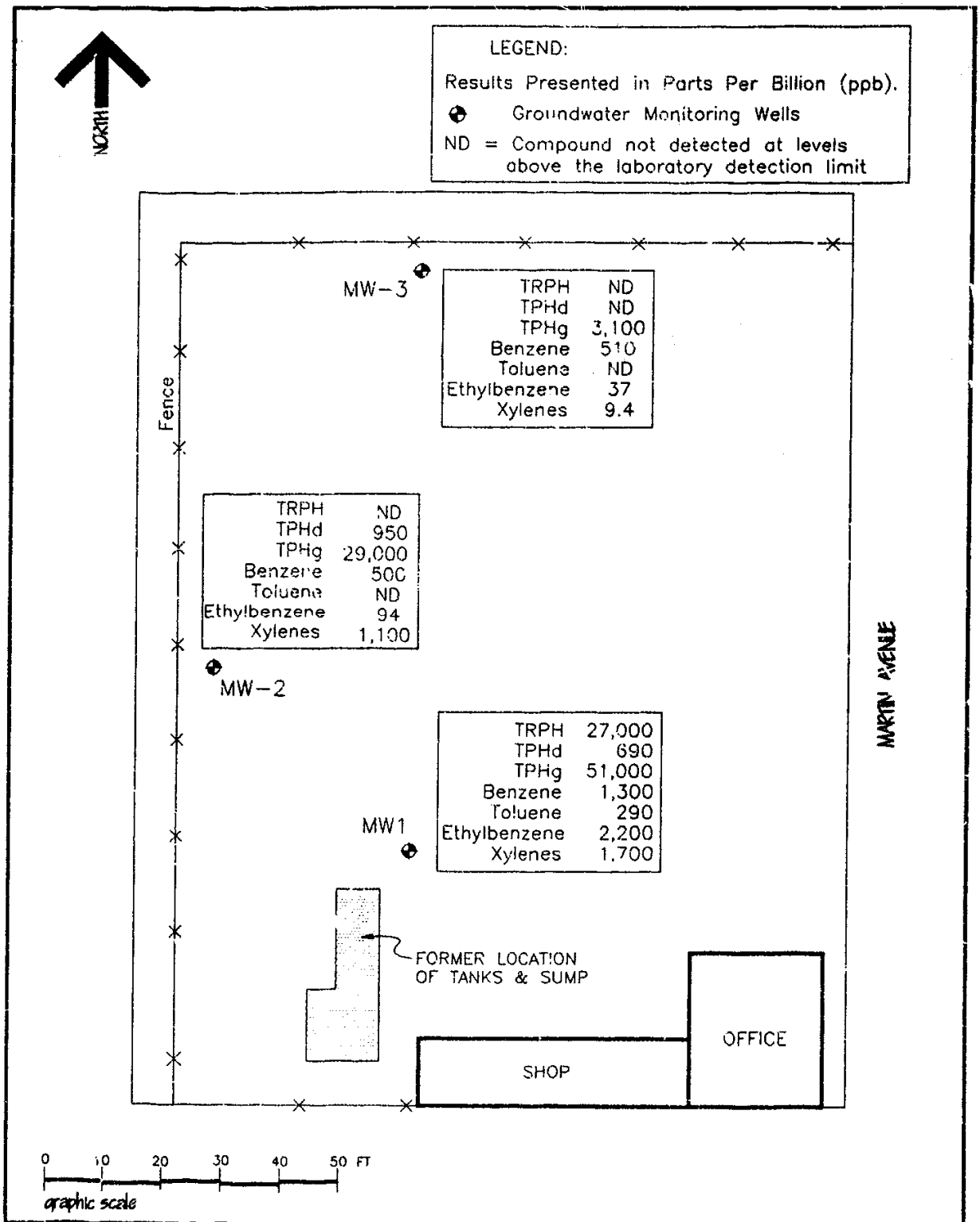
cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1750 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. CARCI	1
		APPROVED BY: K. PRICE	1996

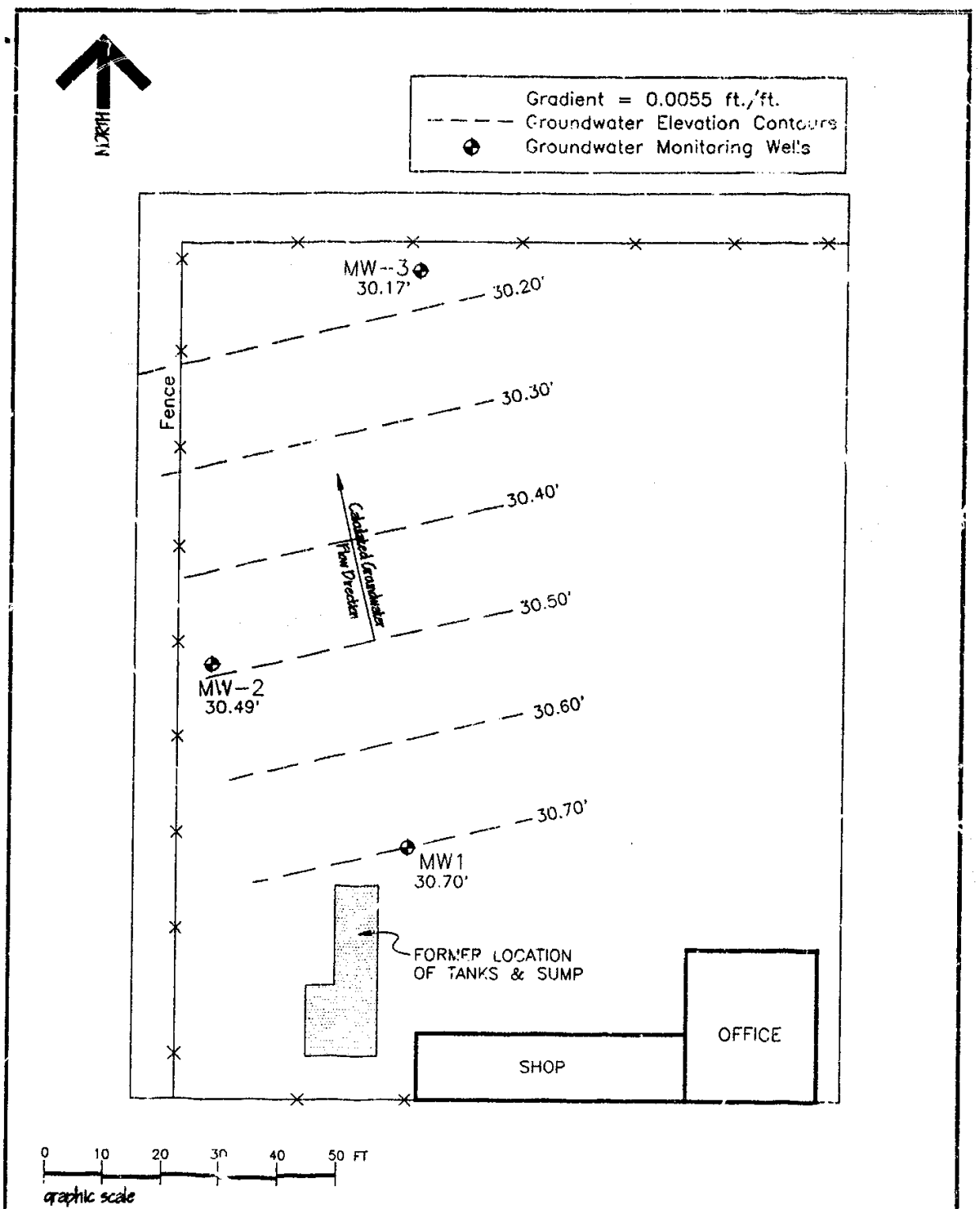


52501-2

Environmental Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

RESULTS OF GROUNDWATER SAMPLE ANALYSES
3/7/96
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE 2
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	November 1996



Environmental/Engineering Consultants Civic Center Tower 75 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER ELEVATION CONTOUR MAP 8/7/96 390 Marlin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY. C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 November 1996

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg		Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,800	8,600	3.8	<0.5	8.6	<0.8	<0.4	<1.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<1.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	780	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	25	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	8,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	81	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	28	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 2[illegible], 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	2,100	2,700	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,800	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	8.1	12	57	4,300	1,400	2,400	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	95	550	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.8	7.5	38	2,000	510	1,200	660	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	.660	<5.0	6.9	460	23	95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	120	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	5.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	2,700	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	4,2[illegible]	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	290	2,200	1,[illegible]30	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	84	1,100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
--- = Samples not analyzed for these analytes.
PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 2
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	Unknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.0141
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.0094
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.0092
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.0055
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		

APPENDIX A
FIELD DATA LOGS

WELL MONITORING DATA SHEET

Project #: 960807-A-2	Client: E2C
Sampler: Fred	Start Date: 8-7-96
Well I.D.: MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.20 After	Depth to Water: Before 8.19 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.60	x	3	4.80
1 Case Volume		Specified Volumes	= gallons

Purging: (Bailer)
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1251	71.6	6.8	1200	>200	1.5	
1253	69.0	6.6	1200	>200	3.0	
1257	69.0	6.6	1200	>200	5.0	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 5.0

Sampling Time: 1307	Sampling Date: 8-7-96
Sample I.D.: MW-1	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: TRPH MTBE	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:	

WELL MONITORING DATA SHEET

Project #: 960807-4-2	Client: E2C
Sampler: Fred	Start Date: 8-7-96
Well I.D.: MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.24 After	Depth to Water: Before 8.79 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.35 (1 Case Volume) x 3 (Specified Volumes) = 4.05 gallons

Purging: ~~Bailer~~
~~Disposable Bailer~~
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1224	70.0	7.0	1400	>200	1.5	SOT Sheen
1227	68.6	6.8	1400	>200	3.0	"
1229	68.6	6.8	1400	>200	4.5	"

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1229 Sampling Date:

Sample I.D.: MW-2 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX TPH-D) OTHER: TRPH
(Circle) MTBE

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

L MONITORING DATA SHEET

Project #: 96087-V-2	Client: E2C
Sampler: Fred	Start Date: 8-7-96
Well I.D.: MW-3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.65 After	Depth to Water: Before 9.18 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.35 (1 Case Volume) × 3 (Specified Volumes) = 4.06 gallons

Purging: (Bailer)
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other ___

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1153	69.2	7.0	1200	>200	1.5	
1155	68.4	6.8	1400	>200	3.0	
1200	68.4	6.8	1400	>200	4.5	
			Slow to recharge			

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1210	Sampling Date: 8-9-96
Sample I.D.: MW-3	Laboratory: ENTECH
Analyzed for: (Circle) TPH-G BTEX TPH-D (WILL BE) OTHER: (TRPH)	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D OTHER:	

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E$_2$C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	8/13/96
Date Received:	8/8/96
Date Analyzed:	8/9-12/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water			
Sample Date	8/7/96	8/7/96	8/7/96			
Sample Time						
Lab #	C10683	C10684	C10685			
TRPH	27	**ND**	**ND**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1	1	1			
TPH-Diesel	**690**	**950**	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	100	100	10			
TPH-Gas	**51,000**	**29,000**	**3,100**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	**ND**	**ND**	µg/liter	5.0 µg/l	8020
Benzene	**1,300**	**500**	**510**	µg/liter	0.5 µg/l	8020
Toluene	**290**	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**2,200**	**94**	**37**	µg/liter	0.5 µg/l	8020
Xylenes	**1,700**	**1,100**	**9.4**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

QC Batch ID: WTRP960802
Matrix: Water
Units: mg/L

Date Analyzed: 08/09/96

PARAMETER	SA mg/L	SR mg/L	SP mg/L	SP PR	SPD mg/L	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	80	0	83.2	104	82.4	103	1.0	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Spike Result
SP (PR): Spike % Recovery
SPD: Spike Duplicate Result
SPD (PR): Spike Duplicate % Recovery

QA/QC OFFICER Nick F. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW089601
Matrix: Water
Units: µg/L

Date analyzed: 08/01/96
Date extracted: 08/01/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	950	ND	896	94%	813	86%	9.7	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

QA/QC Officer: Nick F. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4080996
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 08/09/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	8015M	225	ND	201	89%	240	107%	17.7	25	50-150
Benzene	8020	20	ND	17.0	85%	19.0	95%	11.1	25	50-150
Toluene	8020	20	ND	17.0	85%	19.0	95%	11.1	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QA/QC Officer: Nick J. Gaone
N. Gaone

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 960807-V-2

CLIENT E_2C

SITE Hopkins & Carley

390 Martin Ave.

Santa Clara, CA

CONDUCT ANALYSIS TO DETECT

LAB ENTECH

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____

☐ LIA

☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to E_2C, ATTN: Brenda McNabb

PROJECT #5850100

SAMPLE ID		MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	VOA TPH-Gas	TPH-Diesel 1 Liter	BTEX VOA	TRPH 1 Liter	MTBE VOA	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	C10683	W	5	VOAs/Qts		✓	✓	✓	✓	✓				C10683
MW-2	C10684	W	5	1		✓	✓	✓	✓	✓				C10684
MW-3	C10685	W	5			✓	✓	✓	✓	✓				C10685

RESULTS NEEDED NO LATER THAN AS CONTRACTED

	DATE	TIME		DATE	TIME
SAMPLING COMPLETED	8-7-96	1310	SAMPLING PERFORMED BY	F.A. VANDENBROEK	
RELEASED BY			RECEIVED BY		
RELEASED BY	8/8/96	4:00	RECEIVED BY	8/8/96	4:00
RELEASED BY			RECEIVED BY		

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

REMEDIAL ACTION PLAN
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
August 5, 1996

For

HOPKINS & CARLEY
A LAW CORPORATION

PREPARED BY
E_2C, INC
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA

E2C INC.

Environmental/Engineering Consultants

August 5, 1996
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William Klein
SUBJECT: **REMEDIAL ACTION PLAN**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. has prepared the attached Remedial Action Plan (RAP) for submittal to the Santa Clara Valley Water District (SCVWD) in response to their requirement for source removal and migration control at the above-mentioned fuel leak site (reference SCVWD letter, dated March 2, 1995). The proposed actions include the excavation of soil from the former tank pit and the removal of groundwater from the open excavation. Specific information on the proposed Scope of Work is presented in the attached Remedial Action Plan.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

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SCUWD4AUG 6'96PM 3:34

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1.0 INTRODUCTION

This Remedial Action Plan (RAP) has been prepared for the property located at 390 Martin Avenue, Santa Clara, California (see Figure 1), pursuant to the Santa Clara Valley Water District (SCVWD) letter order dated March 2, 1995. The Plan outlines remediation actions proposed for source removal and contaminant migration control.

2.0 SITE LOCATION AND DESCRIPTION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop, and equipment yard for a concrete construction company. Figure 2 shows the location of existing buildings and groundwater monitoring wells, as well as the location of former Underground Storage Tanks (USTs) that were removed from the site in 1991.

The site is located in an area zoned Light-Industrial (ML). Light-industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

2.1 Geology and Hydrology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas Fault Zone and the Santa Cruz Coastal Mountains, and on the northeast by the Calaveras Fault Zone, Hayward Fault Zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas.

Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. Other sediments occupying the Valley originated from the marine environment that covered a portion of the basin. The basin generally consists of about 1,000 to 2,000 feet of these deposits that unconformably overlie bedrock formations.

The alluvial material in the Santa Clara Valley is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay. These bedded deposits vary from being moderately or highly permeable (sands and gravels) to relatively low permeable (clays) that may exist as aquitards (Helley & Lajoie, 1979).

The soil encountered during previous drilling operations consists of slightly silty clays to an approximate depth of 12 feet, where a very fine sand with some silt and clay is encountered. This material extends to a depth of approximately 18 feet, where the borings were terminated.

Groundwater was first encountered at an approximate depth of 13 feet bgs during drilling. Static depth to groundwater within the wells has been measured at an approximate depth of 8-to-10 feet since February of 1994. Groundwater flow direction is due north, as depicted on Figure 2.

3.0 SITE BACKGROUND

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the UST's for monitoring purposes. This well remains on the subject site. In 1989, operation of the tanks ceased and they were not used again. The four USTs were removed from the site in May and June of 1991. Soil samples collected from the UST excavation were found to contain up to 1,500 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), as well as Total Petroleum Hydrocarbons as diesel (TPHd), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). In addition, a groundwater sample collected from the UST excavation at an approximate depth of 16 feet was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, O & G at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation.

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of two groundwater monitoring wells to the north, or downgradient, of the former USTs (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-moderate levels of hydrocarbons and related constituents. TPHg levels within the soil samples collected ranged from 26-to-1,100 ppm and TPHd levels ranged from 2-to-270 ppm. The highest concentrations of TPHg and TPHd were detected in soil samples collected from the 10-foot depth in each of the borings, which is likely to be representative of the capillary zone (static groundwater levels in the wells have historically been approximately 9 feet). No O & G was detected in the four soil samples collected during well installations for the PSA.

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08 to 120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site (see Figure 2).

Quarterly groundwater monitoring of the three wells has been conducted since February of 1994. The levels of contaminants detected in the wells over this time period remain within the same general range of magnitude.

Based on the cumulative results of soil and groundwater sampling conducted at the subject site to date, the SCVWD requested that quarterly groundwater monitoring be continued and that a Remedial Investigation (RI) be performed (reference SCVWD letter, dated March 2, 1995). The required RI was performed in May of 1996 and consisted of the collection of 10 soil samples and four grab groundwater samples using Soil Punch/HydroPunch technology. The results of RI soil sampling, which are shown on Figure 3, indicate that limited soil impact exists in the immediate area of the former tank excavation. Grab groundwater sampling and historical groundwater monitoring well sampling has identified low-to-moderately impacted groundwater immediately to the south and west of the former excavation, and moderate to elevated levels exist immediately to the east and north of the former excavation.

4.0 PROPOSED REMEDIAL ACTIONS

All work will be performed in accordance with the Site Safety Plan presented in Appendix A of this report, as well as acceptable regulatory and industry standards.

4.1 Proposed Soil Removal

The proposed remedial actions consist of the removal of approximately 600-insitu cubic yards of soil from the former UST excavation (see cross-hatched area on Figure 4). The estimated dimensions of the excavation will be 58' x 18' x 15'. The soil to be removed is essentially the former tank excavation area where levels of TPHg as high as 1,500 ppm were detected in tank removal samples. Prior to soil removal, approximately eight soil samples will be taken from within the area of proposed excavation, using a Soil Punch sampling methodology. The results of this sampling will be used for insitu profiling of the soil for landfill acceptance. Insitu profiling will enable the immediate transport of removed soil from the site to the accepting landfill.

4.2 Proposed Groundwater Removal

In addition to removing the proposed approximate 600-cubic yards of insitu soil, approximately 8,000-to-10,000 gallons of groundwater (two vacuum truck loads and the estimated amount necessary for two recharges of groundwater into the excavation) will be pumped from the open excavation.

4.3 Soil Sampling Methodology

Upon completion of soil removal operations, eight discrete confirmatory soil samples will be collected from the walls of the excavation using a backhoe bucket to provide data on remaining levels of hydrocarbons at the excavation perimeter. Samples will be collected from the walls of the excavation using the

bucket of the backhoe. After the first 2 or 3 inches of slough have been removed from the soil held within the bucket, the samples will be contained by driving clean brass tubes into the soil lying just above the teeth of the bucket. The soil will be packed into the tubes to prevent headspace and reduce the possibility of volatilization of contaminants within the containers. The ends of the tubes will covered with aluminum foil, capped, and labeled.

4.4 Sample Analyses

All confirmatory soil samples will be analyzed for TRPH, TPHd, TPHg, and BTEX using EPA Test Methods 418.1, 5030/8015M, 3550/8015M, and 8020, respectively. Selected soil samples may also be analyzed using Total Characteristic Leaching Process (TCLP) analyses to determine the leachability of specific contaminants present. Selected soil samples may also be analyzed for parameters directly related to the natural degradation of fuel hydrocarbons in the soil matrix (including pH, alkalinity, nitrates, sulfate, and ferrous iron analyses).

4.5 Backfill, Compaction, and Soil Disposal

After sample collection, the excavation will be backfilled and compacted in accordance with appropriate engineering specifications. Backfill material will consist of rock, to be placed in the water-bearing zone at the bottom of the excavation, and clean imported fill material placed above. All fill will be placed in uniform lifts of six-to-eight inches and compacted to not less than 90% relative compaction in accordance with ASTM Test Procedure D1551-91.

Insitu profiling of the soil that will be excavated and hauled from the site is anticipated. However, should insitu profiling not occur, excavated soil will be stored on site on top of concrete or asphalt paving and covered by hydrocarbon-resistant plastic until landfill acceptance is obtained via stockpile

profiling analyses. The soil will then be transported to a Class II or III landfill, should it meet acceptance criteria.

It is estimated that soil removal operations will take approximately seven working days to complete and that backfilling operations will take an additional six days to complete. Should insitu profiling not occur, the objective will be to profile and remove the stockpiled soil from the subject site within four weeks of the completion of excavation operations, depending upon landfill evaluation and acceptance procedures.

5.0 SUMMARY OF PROPOSED REMEDIAL ACTIONS

E_2C, Inc. proposes to remove approximately 600 cubic yards of soil from the former tank excavation. Prior to excavating the material, insitu profiling will be performed so that the excavated material can be placed into trucks and hauled to the destination landfill immediately upon removal. Once excavation operations are complete, confirmatory soil samples will be collected at the perimeter of the excavation to confirm that moderately impacted soil has been adequately removed.

Upon completion of soil removal and confirmatory soil sampling operations, approximately 8,000-10,000 gallons of impacted groundwater will be removed from the excavation and disposed of through a licensed waste hauler. The excavation will then be backfilled with clean material that is engineered according to acceptable specifications.

6.0 PROPOSED TIME SCHEDULE

The Proposed Time Schedule for RAP execution is as follows:

- Approval of RAP.
- Week 1 - Collection of soil samples from the proposed area of excavation for insitu profiling.
- Week 2 - Submittal of in-situ profiling data to landfill and execution of pre-excavation activities (underground utility locating and site preparation activities).
- Week 3 - Commencement of excavation operations, confirmatory soil sample collection, groundwater removal from excavation.
- Week 4 - Backfill and compaction of excavation.
- Week 9 - Submittal of Final Report documenting remedial actions.
- Quarterly sampling of groundwater monitoring wells in accordance with the current schedule will continue.

7.0 REFERENCES

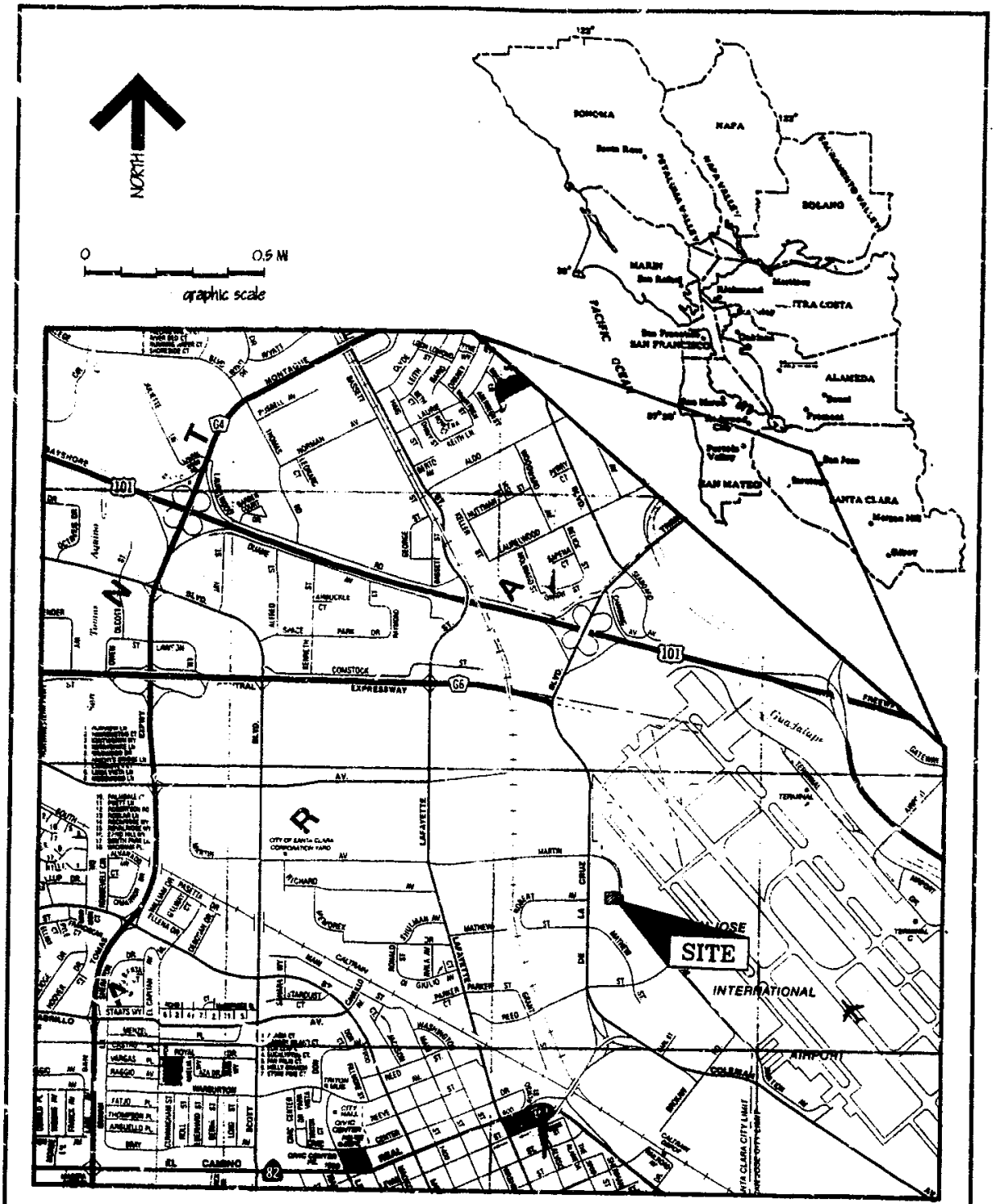
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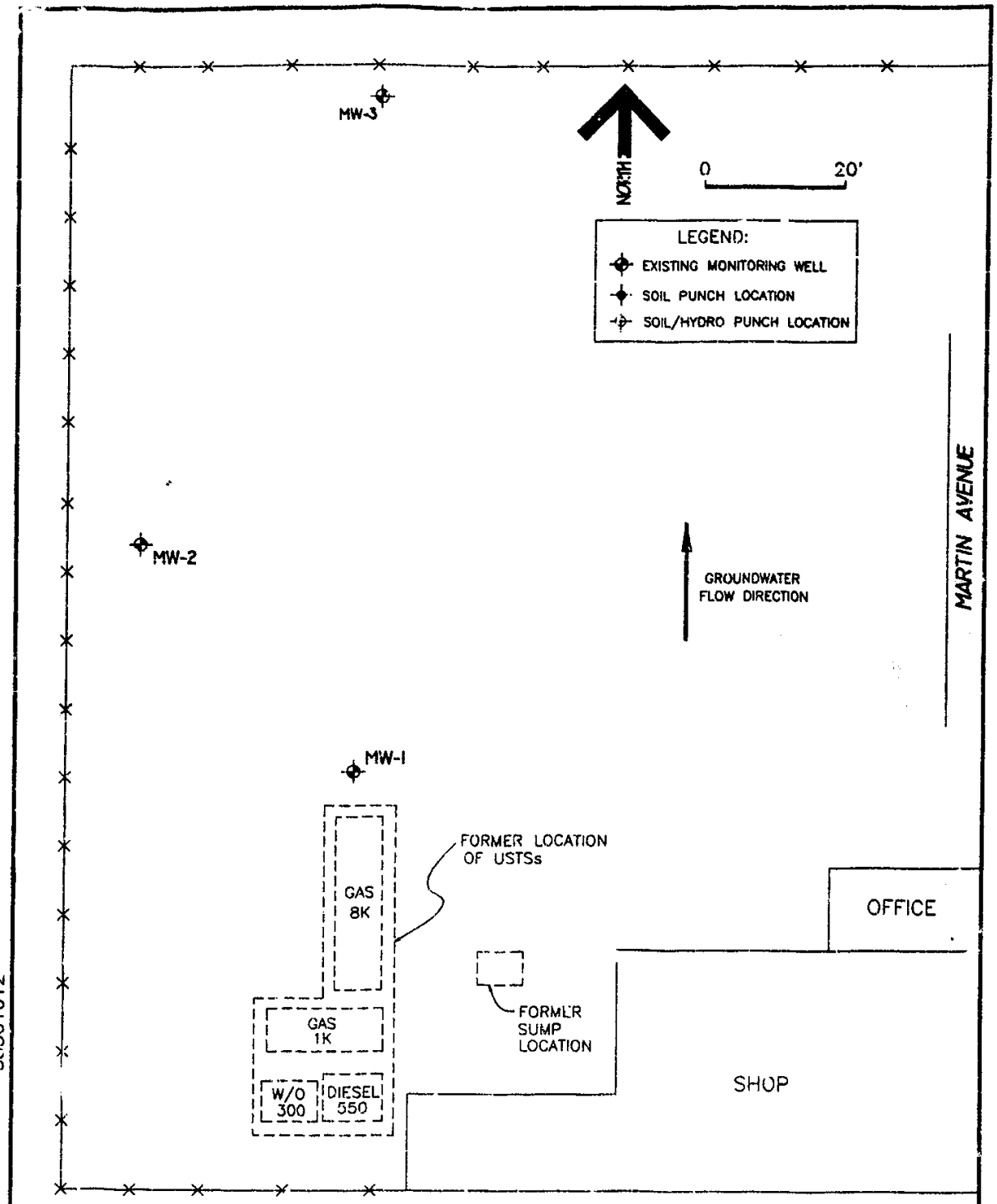
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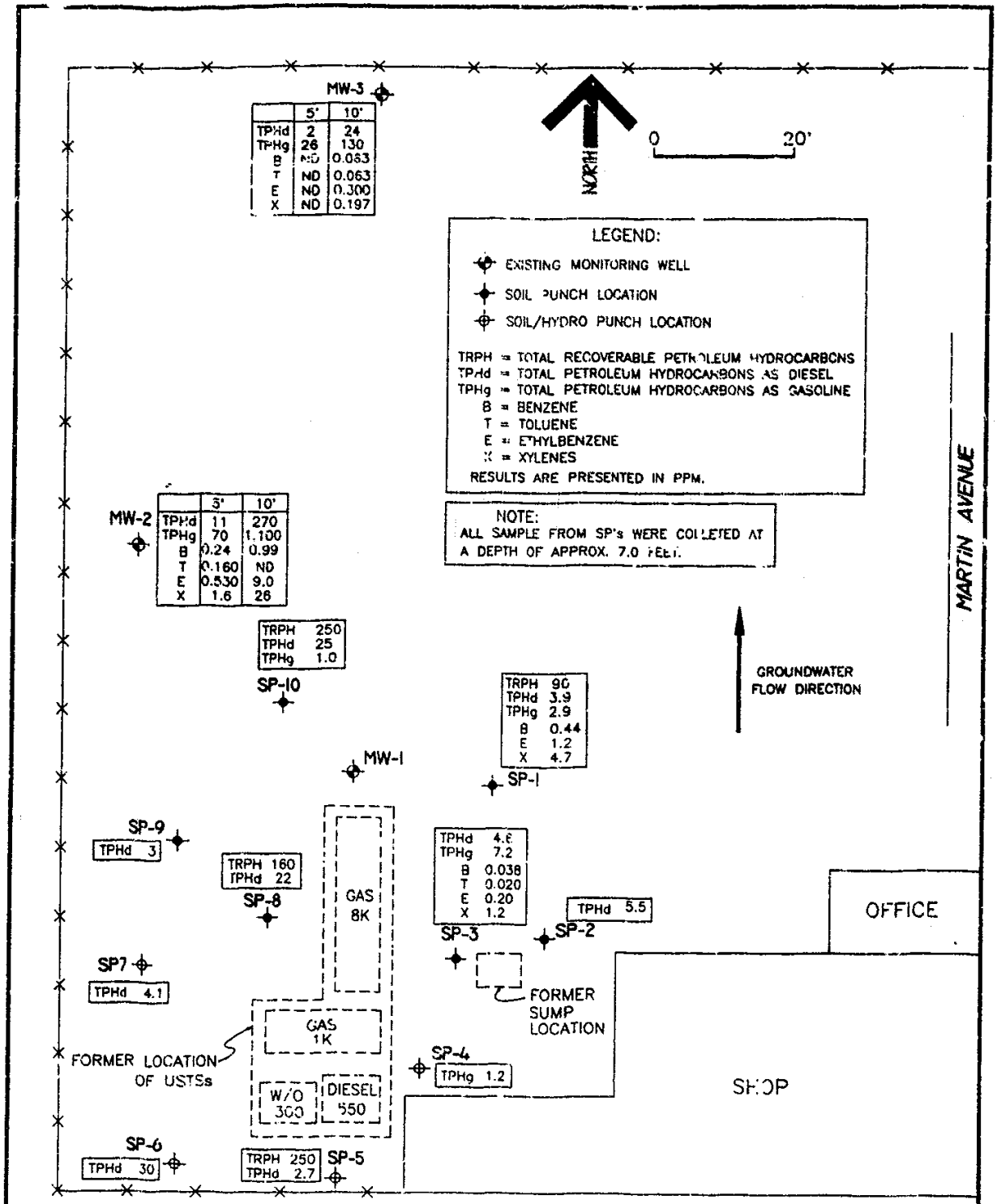


Source: California AAA Map, 1993 – Northern San Jose

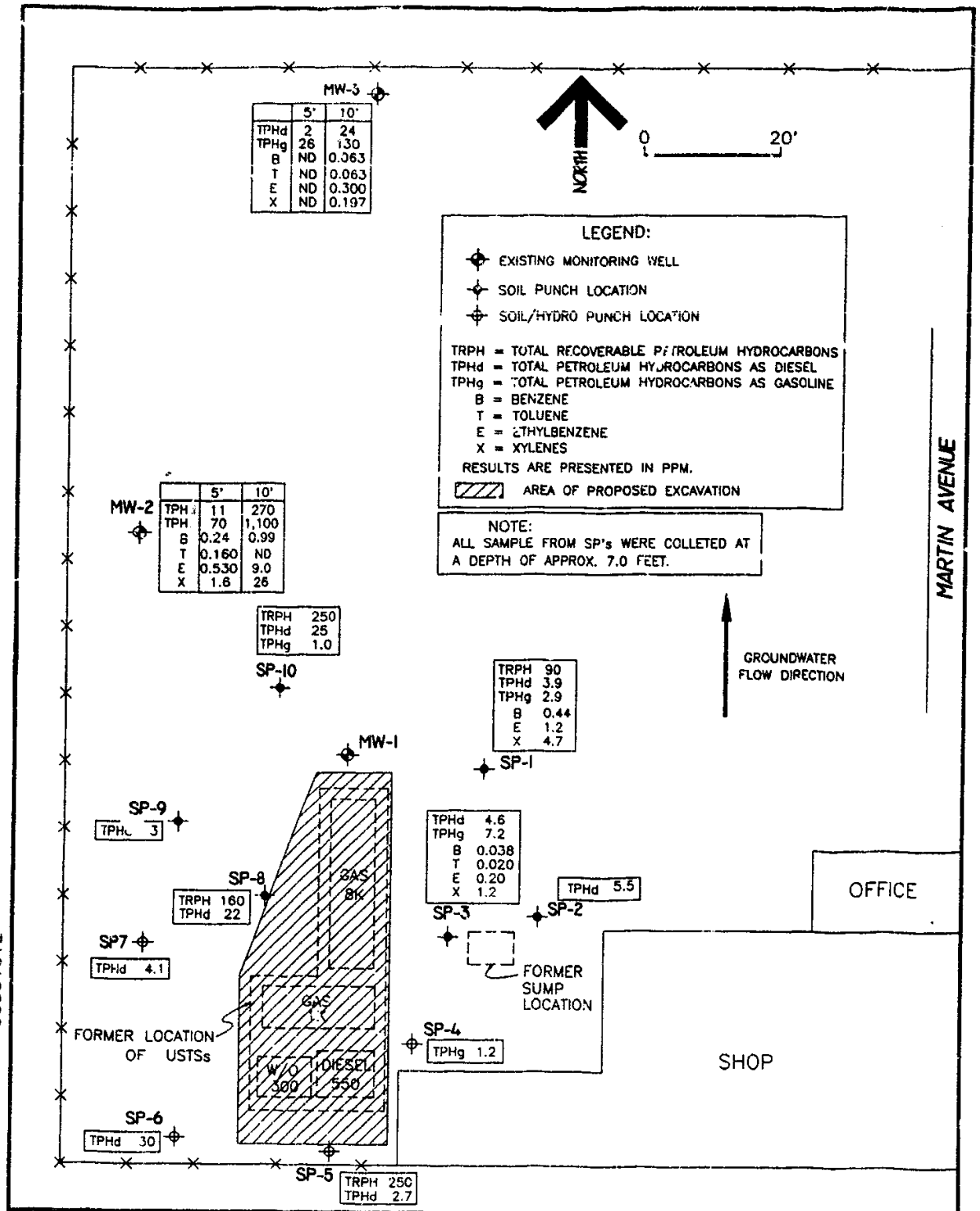
Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850101	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	July 1996



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE DIAGRAM 390 Martin Avenue Santa Clara, California	JOB NO. 5850101 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 July 1996



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SOIL SAMPLING RESULTS 390 Martin Avenue Santa Clara, California	JOB NO. 5850101 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 July 1990



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	PROPOSED SOIL EXCAVATION PLAN 390 Martin Avenue Santa Clara, California	JOB NO. 5850101 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE FIGURE 4 July 1996

APPENDIX A
SITE SAFETY PLAN

SITE SAFETY PLAN

FOR

390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

PREPARED FOR
HOPKINS & CARLEY
A LAW CORPORATION

BY

E_2C, INC.

AUGUST 5, 1996

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TABLE 1 CONTAMINANTS DETECTED IN THE SOILS OF THE SITE

TABLE 2 HAZARD REDUCTION PROCEDURES

TABLE 3 AIR MONITORING ACTION LEVELS

TABLE 4 HAZARD EVALUATION GUIDELINES

I. INTRODUCTION

This Site Safety Plan (SSP) was developed by E_2C, Inc. for a soil and groundwater removal at 390 Martin Avenue in Santa Clara, California. The primary purpose of this SSP is to provide field personnel with an understanding of the potential chemical and physical hazards that exist or may develop during activities conducted at the site, and to provide information concerning emergency response in the event of a release of a hazardous substance(s) or an accident involving a physical injury. To accomplish this objective, all individuals involved in activities at the site (excluding those involved in the temporary delivery of supplies and materials) shall read, acknowledge, and adhere to the policies and procedures established herein. All personnel assigned to the project will read this SSP and sign the Agreement and Acknowledgment Statement in Section X to certify that they have read, understood, and have agreed to abide by the provisions contained herein.

A. Site Background

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. The four USTs were removed from the site in May and June of 1991. Soil samples collected from the UST excavation were found to contain up to 1,500 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), as well as Total Petroleum Hydrocarbons as diesel (TPHd), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). In addition, a groundwater sample collected from the UST excavation at an approximate depth of 16 feet was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, O & G at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation.

A Preliminary Site Assessment, performed in February of 1994, indicated that soil and groundwater in the area of the former USTs, and to the west and north, had been impacted by low-to-moderate levels of hydrocarbons. A Remedial Investigation, performed in May of 1996, identified the area of proposed soil excavation to be implemented during remedial actions.

B. Project Description

The proposed Scope of Work consists of the excavation of approximately 600 cubic yards of soil from the former tank excavation, the removal of approxiamtely 8,000-10,000 gallons of impacted groundwater from the open excavation, the collection of soil samples from the walls of the excavation, and the backfilling and compaction of the excavation. Any change in the scope of this project, conditions at the site, or both, must be amended in writing on the SSP Amendment Sheet contained in this Plan. Changes to the Plan must be approved by the Health and Safety Manager.

II. PROJECT PERSONNEL AND RESPONSIBILITIES

A. Site Safety Officer (SSO): Kip Porter, E_2C, Inc.

The SSO will be on-site during all activities conducted in the known area of contamination or Exclusion Zone, and shall be responsible for the implementation of the SSP. Specific duties will include:

- Monitoring the compliance of field personnel for the proper use of the Personal Protection Equipment (PPE).
- Stopping work on the site if any operation threatens the health and safety of workers or the public and monitoring personnel entering and exiting the site.
- Knowing emergency procedures, evacuation routes, and the telephone numbers of the ambulance, local hospital, poison center, fire and police departments.
- Coordinating the upgrading and downgrading of PPE with the Health and Safety Manager as deemed necessary.
- Arranging for air quality monitoring to be performed by appropriately trained individuals using approved instrumentation.

B. Health and Safety Manager: Brenda McNabb, E_2C, Inc.

The Health and Safety Manager shall be responsible for the overall coordination and oversight of the SSP.

C. Field Personnel

All field personnel shall be responsible for acting in compliance with all safety procedures outlined in this SSP. Any hazardous work situations should be reported to the SSO so that corrective steps can be taken.

III. SITE CHARACTERIZATION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop, and equipment yard for a concrete construction company (see Figure 2). Figure 2 shows the location of the former USTs and the existing groundwater monitoring wells on the site.

The site is located in an area zoned Light-Industrial (ML). Light-industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

IV. SITE SPECIFIC HAZARDS

A. Chemical Hazards

Contaminants that have been detected in the soils of the site at varying concentrations include those listed in Table 1. The maximum concentrations found during previous studies are also shown in the table. Corresponding action levels (levels at which specific safety actions should be implemented) for each of the contaminants are shown in Table 4 on Page 12 of this Plan.

TABLE 1 - CONTAMINANTS DETECTED IN THE SOILS OF THE SITE

CONTAMINANTS	MAXIMUM CONCENTRATION FOUND IN SOIL (IN PPM)
TPH as Diesel	270
TPH as Gasoline	1,500
Benzene	0.99
Toluene	0.16
Ethylbenzene	9.0
Xylenes	26

B. Non-Chemical Hazards

- Underground Utilities
- Heat/Cold Stress
- Slip/Fall Hazards
- Overhead Hazards
- Lifting Hazards

C. Site Hazard Level

For the scope of work to be conducted at the site, the hazard determination has been categorized as follows:

Serious	_____
Moderate	_____
Low	__X__

Based on the hazards listed above, the minimum level of personal protection required on this site is a **modified Level D**. This hazard determination requires that approved air purifying respirators with appropriate cartridges be available to individuals involved with site investigation operations. Respirators will only be worn if air-monitoring indicates that respiratory action levels have been exceeded. This hazard level also requires that dermal protective equipment be used when there is a high probability of skin contact with contaminants. Modified Level D for the purposes of this project will include the following PPE:

- **Coveralls/work uniform;**
- **Hard hat;**
- **Latex gloves when coming in contact with potentially contaminated soil;**
- **Boots with approved steel toe protection;**
- **Approved safety glasses or chemical splash goggles if the potential for splash exists; and**
- **Approved Half-face respirator equipped with organic vapor cartridges (available for immediate use should air-monitoring Action Levels be exceeded).**

Respirators will be NIOSH/MSHA approved, and all individuals wearing respirators will have received a documented qualitative fit test, issued specifically for the respirator in use. Each worker will perform a positive/negative fit test prior to each respirator usage. All personnel will be responsible for cleaning their own respirators and changing cartridges at least once a day. If odor breakthrough is detected while wearing the respirator, or breathing becomes difficult, leave the Exclusion Zone immediately and change cartridges before reentering. Respirators must be used only in accordance with the manufacturer's instructions.

V. HEALTH AND SAFETY REQUIREMENTS

A. Employee Training

All employees with the potential for hazardous exposures are required to obtain 40 hours of Hazardous Waste Operation and Emergency Response Training in compliance with Code 29 of the Federal Regulations, 1910.120. Employees at the Project Manager level or higher must also participate in an additional eight-hour supervisory training course. Following the above-listed training, employees receive a certificate of completion and attend an eight-hour refresher training session within one year of their initial training, as well as an annual medical evaluation.

B. Site Engineering Controls

Airborne particulates of contaminants can create a potential health hazard. To diminish airborne particulates, dust control measures will be implemented as required.

C. Project Information Program

Prior to the onset of activities within the Exclusion Zone, a documented site safety meeting will be held with all concerned workers to discuss potential hazards and required PPE. During this meeting, information regarding air monitoring results, soil sampling results, material handling procedures, accident reporting procedures, and any other pertinent site safety related information will be disseminated.

D. First Aid Equipment

Vehicles used for site work will be equipped with a First Aid kit and safety equipment including cones and barricades, a fire extinguisher, water suitable for drinking, and a portable eye wash.

E. Work Zone Access

For Health and Safety purposes, the site will be divided into three zones: the Exclusion Zone, the Decontamination Zone, and the Support Zone. Entering the **Exclusion Zone** is prohibited to all but approved field personnel. The Exclusion Zone will constitute the area where work is being conducted as well as a 30-foot radius around this area. This Zone will be marked with caution tape, as appropriate.

The **Decontamination Zone** will constitute the area immediately surrounding the Exclusion Zone. This is a clean zone with a reduced probability of exposure through inhalation and no probability of dermal contact with known contaminants. All decontamination activities will take place in this area.

The **Support Zone** will be the area outside of the Exclusion and Decontamination Zones. To enter the Support Zone from the Exclusion Zone, the Decontamination Zone must be passed through and appropriate decontamination activities must be conducted. Equipment storage and worker lunch areas are located within the support zone. Smoking and chewing tobacco will be allowed only in this area. Personnel not authorized or trained to be in the Exclusion Zone must remain in this area while on site.

F. Personal Decontamination - Modified Level D

PPE for modified Level D will be removed in the following manner, inside the Decontamination Zone:

- Remove Tyvek suit by rolling down suit from the inside.
- Remove disposable gloves and put on a new pair.
- Remove respirator, hard hat/face shield and properly dispose of cartridges; wash respirator.
- Clean boots thoroughly in the decontamination water provided.
- Remove boots and then disposable gloves.

G. Subsurface and Sampling Procedures

The work area must be approved for subsurface penetration prior to drilling operations. During sampling procedures, at least two workers should be present in case of a medical emergency (also see Section IX., D., 2.)

H. Illumination

All field work is expected to be conducted during daylight hours. If work is conducted during non-daylight hours, lights will be used to fully illuminate the work area.

I. Material Handling

Contaminated soil and PPE will be stored in 55-gallon drums pending disposal.

J. Sanitation

Potable water will be available to workers on the site for drinking and cleaning purposes during all phases of work.

K. General Health

Medicine and alcohol can increase the effects of exposure to toxic chemicals. Unless specifically approved by a qualified physician, prescription drugs should not be taken by personnel assigned to operations where the potential for absorption, inhalation, or ingestion of toxic substances exists. Drinking alcohol on-site or off-site during working hours is prohibited. Failure to adhere to this prohibition will result in immediate dismissal from the project.

L. Contractors and Subcontractors

Employees of the contractor and subcontractors must sign the Acknowledgment and Agreement Statement in Section X of this SSP prior to performing work within the Exclusion Zone. By signing this Statement, individuals agree to abide by all the provisions presented within the SSP, and also agree to comply with any health-and safety-related directives from the SSO or individuals assuming the role of the SSO during the SSO's absence from the site.

VI. HAZARD EVALUATION & PROCEDURES FOR HAZARD REDUCTION

The potential for unknown hazards cannot be eliminated. Hazards can exist for all exposure routes including but not limited to: dermal contact, ingestion, inhalation, and eye contact. Table 2 below discusses the potential site hazards and the corresponding procedures for hazard reduction.

TABLE 2 - HAZARD REDUCTION PROCEDURES

POTENTIAL HAZARDS	PROCEDURES FOR HAZARD REDUCTION
1. Volatilization of Organic Vapors During all operations, there is a potential hazard via the inhalation of vapors.	A Photoionization Detector (PID) will be on site so that air-monitoring can be performed. Approved respirators equipped with appropriate cartridges will be available to all individuals working within the Exclusion Zone, and will be worn if the Action Limits presented in Table 4 of this SSP are exceeded.
2. Skin and Eye Contact Contact with inorganic or organic chemicals in the soil may occur during so sampling operations.	Work coveralls, latex gloves, and goggles will be required when potential skin/eye contact with contaminated substances is apparent.
3. Ingestion of Organic Chemicals Can occur by accidental swallowing of contaminated soils, liquids, and/or transfer of contaminated particles onto ingestible substances (such as food or drink).	Eating, smoking, drinking, and/or application of cosmetics will only be permitted in the designated Support Zone area of the site.
4. Lifting Hazards	Proper precautions and correct methods for lifting heavy loads shall be used at all times. Two or more persons will be utilized when necessary to lift heavy objects. Dollies or forklifts shall be utilized to move very heavy objects.
5. Contaminated Surfaces	Contact with contaminated surfaces, or surfaces suspected of being contaminated, should be avoided.

POTENTIAL HAZARDS	PROCEDURES FOR HAZARD REDUCTION
6. Exposure to the Elements Heat Stress	Drink plenty of liquids to replace lost body fluids (water, juice, but not soda) during work activities. Provide sufficient rest periods for cooling down. Provide adequate shelter against heat and direct sunlight.
7. Slipping/Tripping Hazards	Look for slipping and tripping hazards. Secure the site with Caution Tape to prevent unauthorized entry.
8. Falling Objects	For protection from head injuries, hard hats must be worn by all personnel.

A. Air Monitoring Procedures

Field air monitoring will be performed as needed, based on the discretion of the Health and Safety Manager, SSO, or Field Team Leader. Air monitoring should evaluate ambient air contaminants within the breathing zone of individuals working in the Exclusion Zone. The air monitoring program should consist of monitoring for organic vapors using a Photoionization Detector (PID). Air monitoring action levels are presented in Table 3 below:

TABLE 3 - AIR MONITORING ACTION LEVELS

CONTAMINANT	LEVEL C RESPIRATORY PPE	LEVEL B RESPIRATORY PPE
VOC's	100-250 ppm	250 - 300 ppm

VII. CHEMICALS OF CONCERN

The potential effects of any exposure are dependent upon several factors, including: substance toxicity, time frame of exposure, concentration of substance, general health of person exposed, and individual use of hazard reduction methods. Each of the chemicals previously detected on the site is discussed below.

A. **Gasoline** is a highly flammable mixture of volatile hydrocarbons, primarily branched-chain paraffins, cycloparaffins, and aromatics. It has a dangerous fire and explosion risk. Inhalation of excessive concentrations of vapor or mist can be irritating to the respiratory passages and can cause headache, dizziness, nausea, vomiting, and loss of coordination. Prolonged or repeated skin contact may cause irritation.

B. **Benzene** is a clear, colorless to light-yellow, highly flammable liquid of dangerous fire risk with a characteristic odor. Acute toxicity (by ingestion or inhalation) leads to irritation of the mucus membranes, restlessness, convulsions, excitement, and depression. Death may follow from respiratory failure. Harmful amounts may also be absorbed through the skin. Benzene is a known carcinogen.

C. **Toluene** is a colorless, flammable liquid with a benzene-like odor and a dangerous fire risk. It is toxic by ingestion, inhalation, and skin absorption. High concentrations have narcotic effects.

D. **Ethylbenzene** is a colorless, flammable liquid with an aromatic odor that, as a vapor, is heavier than air. Irritating to the eyes, skin, and mucous membranes, it is toxic by ingestion, inhalation, and skin absorption. It poses a dangerous fire risk and is narcotic in high concentrations.

E. **Xylenes** are a commercial mixture of the three isomers, o-, m-, and p-xylene. It is a clear, flammable liquid with moderate fire risk, which is toxic by inhalation and ingestion and may be narcotic at high concentrations.

F. **Diesel** is composed chiefly of unbranched paraffins. It is a colorless flammable liquid that poses a moderate fire risk.

VIII. CONTAMINANT ACTION LIMITS

This Section discusses the levels at which additional actions to insure worker safety are implemented. All individuals working within the Exclusion Zone, or in areas where concentrations of airborne contaminants exceed the Action Limits presented in Table 4 below, must wear approved air purifying respirators equipped with organic vapor cartridges. Should contaminant levels exceed respirator cartridge capacities, an upgrade to Level B PPE respiratory protection (Self-Contained Breathing Apparatus [SCBA]) will be required. Saranex suits must be worn at all times by individuals working within the Exclusion Zone.

TABLE 4 - HAZARD EVALUATION GUIDELINES

CONTAMINANT	ROE	PEL	IDLH	ACTION LIMIT
Diesel	C,IG,IH	NE	NE	NE
Gasoline	C,IG,IH	300 ppm	3,000 ppm	150 ppm
Benzene	C,IG,IH	1 ppm	3,000 ppm	0.5 ppm
Toluene	C,IG,IH	100 ppm	3,000 ppm	50 ppm
Ethylbenzene	C,IG,IH	100 ppm	2,000 ppm	50 ppm
Xylenes	C,IG,IH	100 ppm	1,000 ppm	50 ppm

ROE = Route of Entry
PEL = CAL/OSHA Permissible Exposure Limit
IDLH = Immed. Dangerous to Life & Health
C = Dermal Contact
IG = Ingestion
IH = Inhalation
PPM = Parts per million
NE = None Established

IX. EMERGENCY SITUATIONS

In the event of an accident or emergency situation at the site, immediate action must be taken by the first person(s) to recognize the event. It is very important to remember that in any medical emergency, the assisting personnel must also think about their own safety. Entrance into an area to assist an injured individual, where there are chemical contaminants, must not take place without the proper PPE. First Aid equipment is located on-site inside the vehicles of the SSO and Field Team Leader. Immediately after emergency procedures (as described in the following sections) are implemented, the individuals listed below should be contacted at the indicated telephone numbers. If these individuals are not immediately available, a message should be left that details the following: your location, time of day, type of emergency, number of people involved, and intended course of action.

Site Safety Officer: Kip Porter, E_2C, Inc. (408) 286-6300
Health and Safety Manager: Brenda McNabb, E_2C, Inc. (408) 286-6300

A. Emergency Telephone Numbers

Depending on the nature of the situation, one or more of the following authorities should be notified through telephone contact using one, or more, of the following telephone numbers.

Emergencies involving injury:

Local Police	**911**
State Police	**911**
Fire	**911**
Ambulance	**911**
Poison Center	**1-800- 662-9886**

The **Poison Center** should be contacted only in the event that an accident occurs involving the release of a hazardous substance (i.e. a chemical), and 911 response is delayed. If the Poison Center is contacted, be prepared to give the following information:

> The specific chemical involved in the accident. If the specific chemical is not known, go to Page 4 of this document to find a list of the known chemical(s) of concern at the site. Read the list of chemical(s) of concern to the Poison Center employee and follow all instructions.

B. Environmental Emergency (Non-injury)

An environmental emergency is a non-injury event that involves the release, or potential release, of hazardous substances to the environment. In the event of an environmental emergency, personnel encountering a hazardous situation will instruct others on site to evacuate the vicinity IMMEDIATELY. Immediately telephone the Health and Safety Manager, Brenda McNabb. In the event that the Health and Safety Manager is unavailable, contact the City of San Jose Fire Department at 911 and report the incident. UNDER NO CIRCUMSTANCES should any individual re-enter an area in which hazardous substances have been released, nor should an attempt be made to clean up a release until instructions are given by qualified individuals of E_2C, Inc. or the City of San Jose Fire Department.

If the magnitude of an incident exceeds on-site capabilities of control, the site should be evacuated. The SSC should signal the need for immediate site evacuation by sounding three short blasts on a vehicle or air horn. Personnel will immediately leave the site using the most direct route and immediately meet in a predesignated area for a headcount. Decontamination will then take place in this area.

C. Personal Injury

In the event of personal injury, call the pertinent number(s) listed on Page 13 for medical assistance. If a decision is made to transport an injured individual to a medical facility, instruct a person remaining on the site to telephone the receiving medical facility and state the situation, including the nature of the physical injury or chemical exposure (e.g., unconscious, bleeding, blinded by toxic vapors). Injured individuals should be transported to:

O'CONNOR HOSPITAL
2105 FOREST AVENUE
SAN JOSE, CALIFORNIA
(408) 947-2500

NEAREST CROSS-STREET - BELLROSE

The location of O'Conner Hospital is shown on Figure 1A at the end of this report. A copy of this SSP should be taken to the receiving medical facility with the injured person. Notify the SSO, Project Manager, or Health and Safety Manager immediately of all accidents, incidents, or situations that resulted in personal injury.

D. Emergency Treatment for Excess Exposure to Chemical(s)

In all situations involving overexposure to a chemical(s), follow standard procedures as outlined below for poison management, first aid, and if applicable, cardiopulmonary resuscitation. Four different routes of exposure and their respective first aid and poison management procedures are outlined below:

1. Ingestion: IMMEDIATELY transport the person to the nearest medical facility (see Figure 1A for location of San Jose Medical Center) or call the poison control center at telephone number 1-800-662-9886.

2. Inhalation: IN THE EVENT THAT A PERSON IS UNCONSCIOUS, DO NOT ENTER AN AREA WHERE A CHEMICAL CONTAMINANT MAY BE PRESENT, OR A CONFINED SPACE, WITHOUT THE PROPER PERSONAL PROTECTION EQUIPMENT AND AT LEAST ONE OTHER PERSON EQUIPPED WITH THE PROPER PPE AND A SAFETY LINE OVERSEEING THE RESCUE OPERATION. IMMEDIATELY telephone 911 and appraise them of the exact location of the accident and whether it involves a confined space. Instruct an individual to go to the main entrance of the site to direct emergency medical response vehicles to the exact location of the accident.

3. Skin Contact: In the event contact is made between exposed skin and a chemical(s), IMMEDIATELY wash the exposed area with a large amount of water. Remove any contaminated clothing and rewash the exposed skin. Transport the person to the hospital.

4. Eyes: Hold eyelid(s) open, and IMMEDIATELY commence to rinse the eye(s) with copious amounts of water, and continue to do so for at least 15 minutes. If possible, have the person remove his/her contact lenses (if worn). Never permit the eyes to be rubbed. If a decision is made to transport the injured individual to a medical facility, instruct a person remaining on the site to telephone the receiving medical facility and state the situation, including the nature of the injury. Transport the injured person to the designated hospital. The SSO and/or Field Team Leader will have an eye wash kit.

5. Other Types of Exposure: If a person is unconscious, check for cardiac function, and if necessary initiate Cardio-Pulmonary Resuscitation (CPR). Then telephone 911 and appraise them of the exact location of the accident. Instruct an individual to go to the main entrance of the site to direct emergency medical response vehicles to the exact location of the accident.

X. AMENDMENT AGREEMENT AND ACKNOWLEDGMENT STATEMENT

Site Safety Plan Agreement

The designated Site Safety Personnel named in Section II of this Site Safety Plan have the authority to stop work at this site if any work is not performed in accordance with the requirements of this Site Safety Plan.

All project personnel and subcontractor personnel are required to sign the following agreement prior to conducting work in the Exclusion Zone of the site.

1. I have read and fully understand the Site Safety Plan, and agree to abide by the provisions of the Plan.

Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date

AGREEMENT AND ACKNOWLEDGMENT, CONT'D.

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

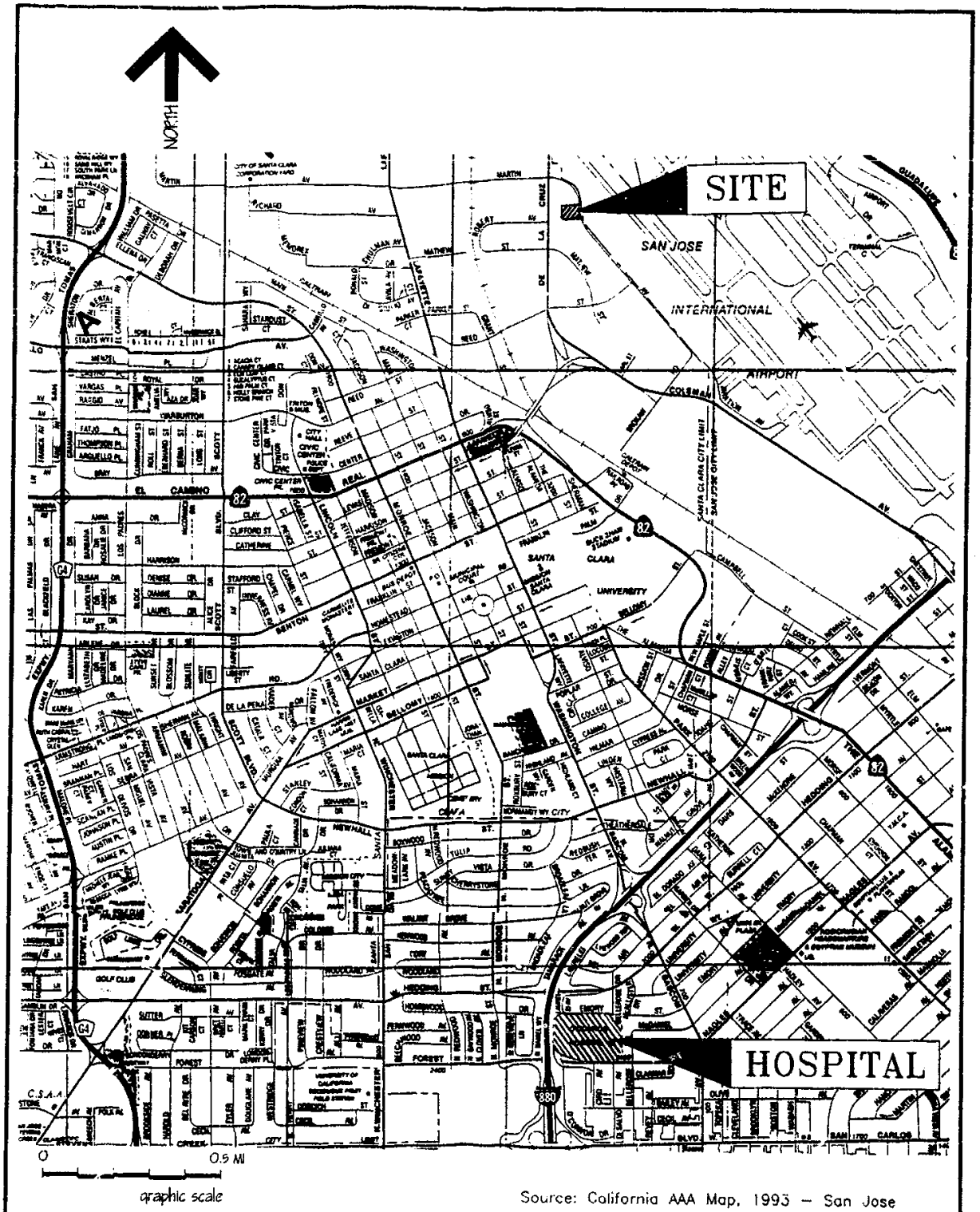
Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____



graphic scale

Source: California AAA Map, 1993 – San Jose

E2C
Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

HOSPITAL LOCATION MAP
O'Connor Hospital
2105 Forest Avenue
San Jose, California

JOB NO:	5850101	FIGURE 1A
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	July 1996

SCUWD4RUG 6'96PM 3:34

QUARTERLY GROUNDWATER MONITORING
SECOND QUARTER 1996
330 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FOR

HOPKINS & CARLEY
A LAW CORPORATION
July 10, 1996

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

July 10, 1996
Job No. 5550100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - SECOND QUARTER 1996**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Second Quarterly Groundwater Sampling for 1996, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on May 31, 1996. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

Once the wells had stabilized, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Recoverable Petroleum

One Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 418.1, 8015 modified (for TPHd and TPHg), and 8020, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 2 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the May 31, 1996 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for each well, which correspond to mean sea-level benchmark datum, were acquired on May 31, 1996. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

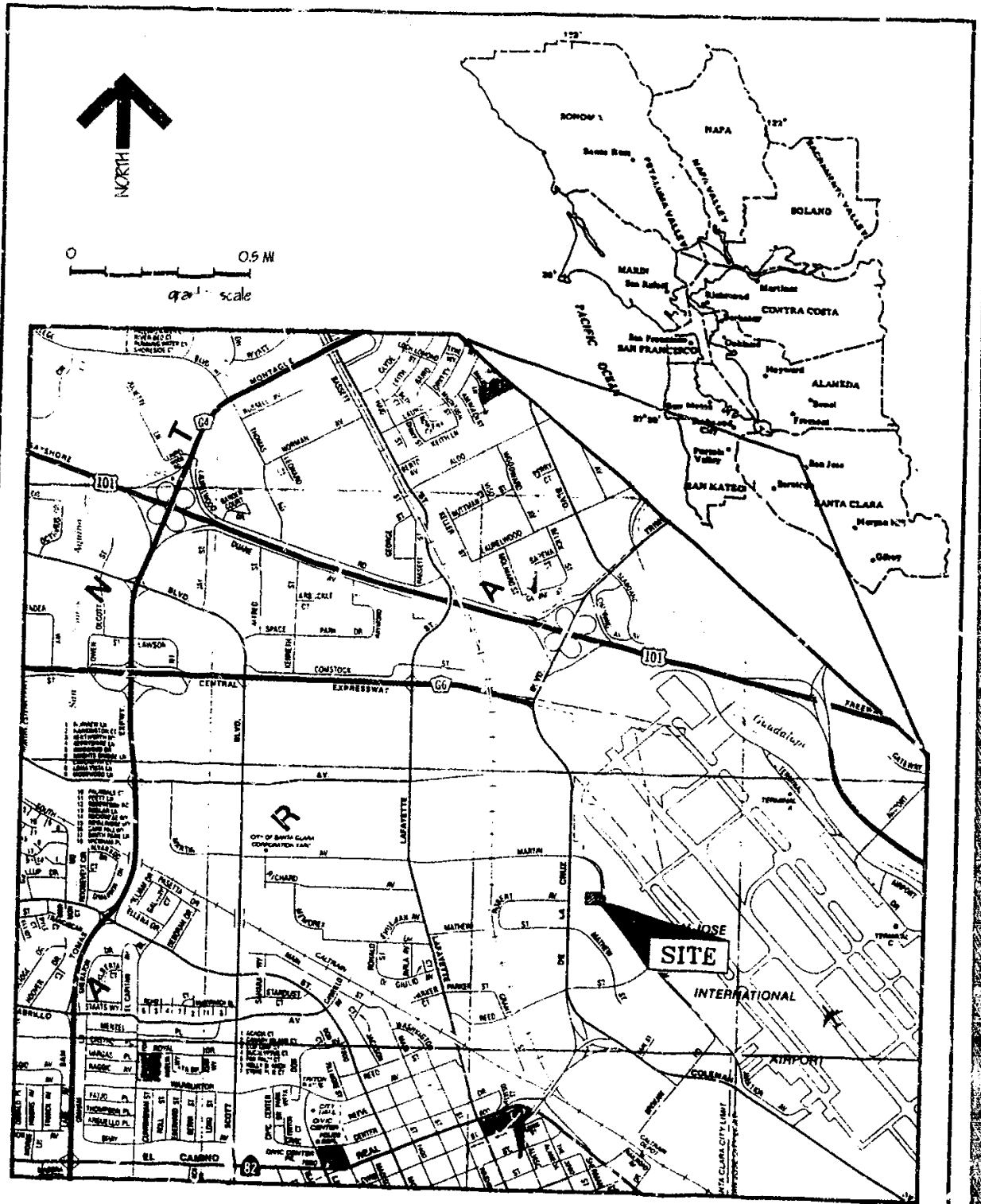
Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

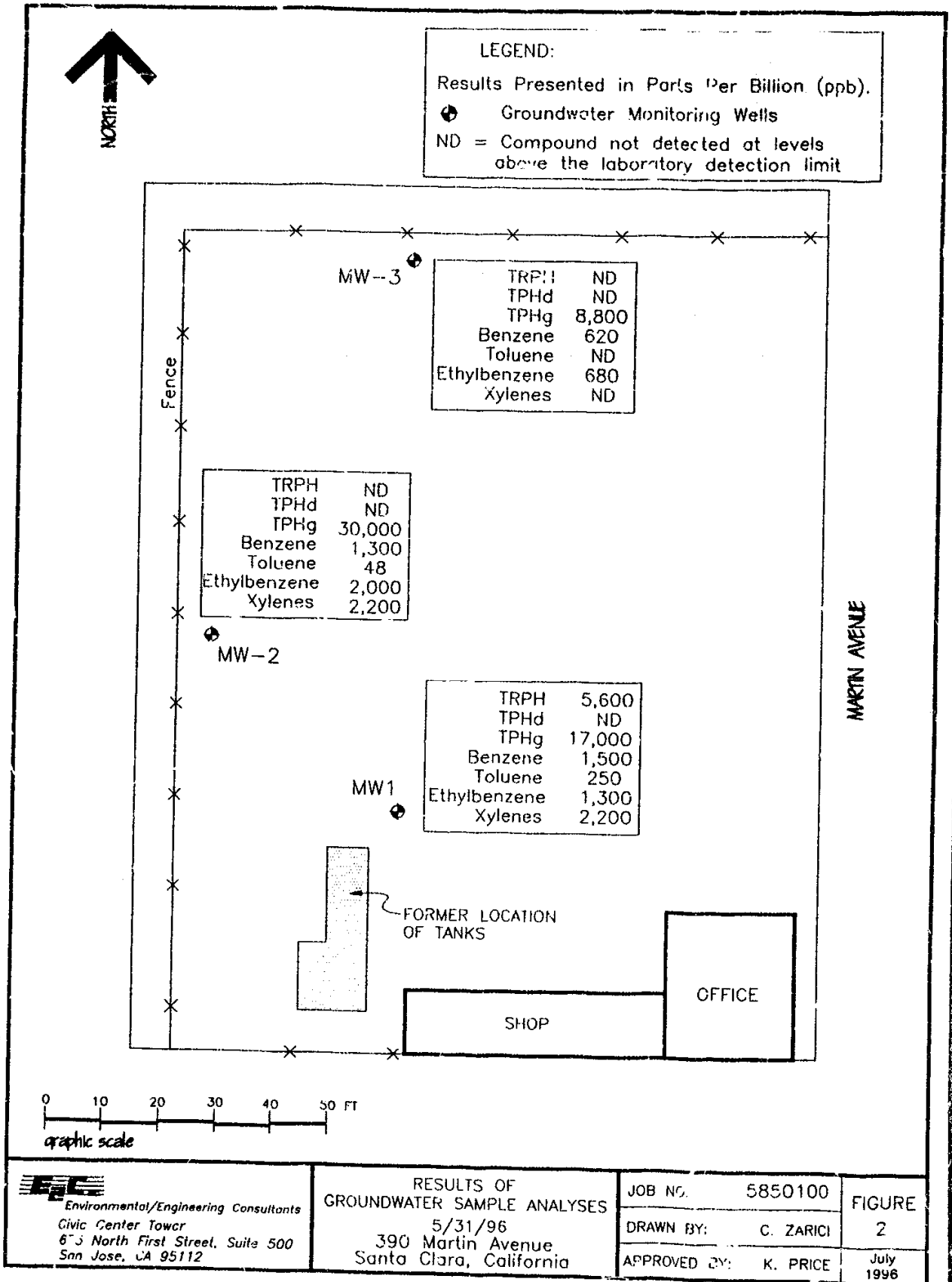
Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN. Mr. Richard Wehner

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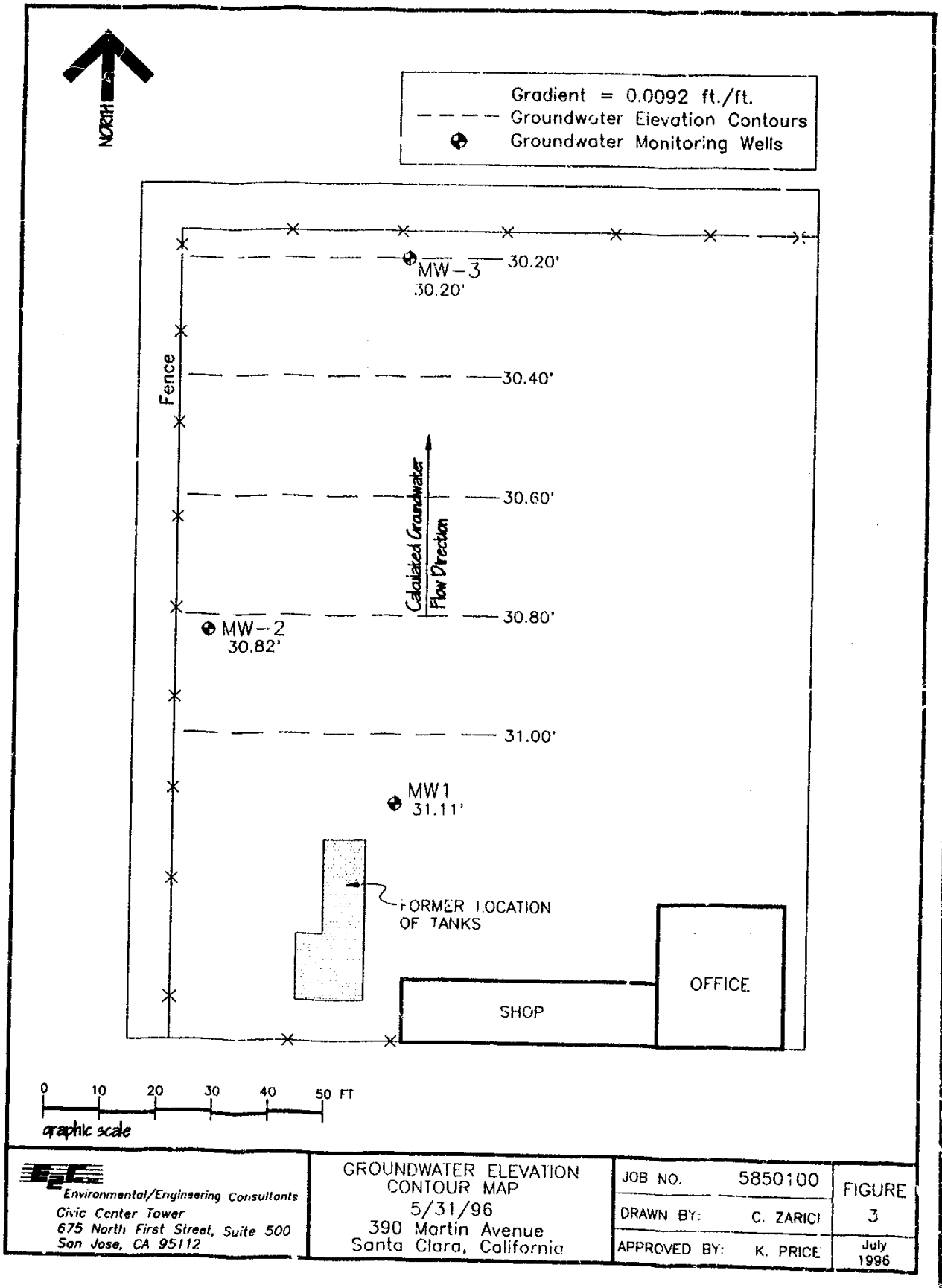
Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPROVED BY: K. PRICE	1996



58501002

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	RESULTS OF GROUNDWATER SAMPLE ANALYSES 5/31/96 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 July 1996



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER ELEVATION CONTOUR MAP 5/31/96 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 July 1996

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
May 31, 1996

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY (u/cm)	TURBIDITY	TEMPERATURE (Fahrenheit)	TOTAL WELL DEPTH	DEPTH TO WATER
MW-1	1.5	7.4	600	> 200	67.4	18.20'	7.78'
	3.0	7.4	600	> 200	67.2		
	5.0	7.4	600	> 200	67.2		
MW-2	1.5	7.6	1,000	> 200	66.4	17.24'	8.46'
	3.0	7.4	800	> 200	67.3		
	4.5	7.4	800	> 200	67.3		
MW-3	1.5	7.8	1,400	> 200	67.2	17.65'	9.15'
	3.0	7.2	1,000	> 200	67.0		
	4.5	---	---	---	---		

TABLE 2
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.03	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	1,0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	28	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,700	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	RPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,100	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5	8.7	730	99	550	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	.660	<5	6.9	460	23	95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<0.5	17	1,500	250	1,300	2,200	---	---	---	---	---	---	---	---	---
MW-2	<50	<0.5	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<50	<0.5	8.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
--- = Samples not analyzed for these analytes.

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)			
WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER	GROUNDWATER ELEVATIONS (MSL)
		5/31/96	5/31/96
MW-1	38.89	7.78	31.11
MW-2	39.28	8.46	30.82
MW-3	39.35	9.15	30.20

MSL = Mean Sea Level

APPENDIX A
FIELD DATA LOGS

WELL MONITORING DATA SHEET

Project #: 960531-V-1	Client: E2C
Sampler: Fred	Start Date: 5-31-96
Well I.D.: MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 18.20 After	Depth to Water: Before 7.78 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.66 (1 Case Volume) x 3 (Specified Volumes) = 5.00 gallons

Purging: ~~Bailer~~
Disposable Bailer
Middleburg
Electric Submersible
Extraction Pump
Other_____

Sampling: ~~Bailer~~
Disposable Bailer
Extraction Port
Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1015	67.4	7.4	600	>200	1.5	odor/sheen
1017	67.2	7.4	600	>200	3.0	
1020	67.2	7.4	600	>200	5.0	✓

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 5.0

Sampling Time: 1030 Sampling Date: 5-31-96

Sample I.D.: MW-1 Laboratory: ENTECH

Analyzed for: ~~TPH-G~~ BTEX ~~TPH-D~~ (Circle) OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER: (Circle)

WELL MONITORING DATA SHEET

Project #: 960531-V-1	Client: E2C
Sampler: Fred	Start Date: 5-31-96
Well I.D.: MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.24 After	Depth to Water: Before 8.46 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.40 (1 Case Volume) x 3 (Specified Volumes) = 4.21 gallons

Purging: ~~Bailer~~ (~~Disposable Bailer~~) Middleburg Electric Submersible Extraction Pump Other_____

Sampling: ~~Bailer~~ ~~Disposable Bailer~~ Extraction Port Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
0940	66.4	7.6	1000	>200	1.5	sheen/odor
0943	67.3	7.4	800	>200	3.0	"
0946	67.3	7.4	800	>200	4.5	"

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 0956 Sampling Date: 5-31-96

Sample I.D.: MW-2 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX TPH-D) OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 960531-V-1	Client: E2C
Sampler: Fred	Start Date: 5-31-96
I.D.: MW-3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.65 After	Depth to Water: Before 9.15 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.36	x	3	=	4.08
1 Case Volume		Specified Volumes		gallons

Purging: (Bailer) Disposable Bailer Middleburg Electric Submersible Extraction Pump Other_____

Sampling: (Bailer) Disposable Bailer Extraction Port Other_____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
0912	67.2	7.0	14.00	>200	1.5	odor/sheen
0915	67.0	7.2	1000	>200	3.0	
0925					4.5	
			Slow To Recharge			

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 0930 Sampling Date: 5-31-96

Sample I.D.: MW-3 Laboratory: ENTECH

Analyzed for: (TPH-G BTEX TPH-D) OTHER: TRPH

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

SANTA CLARA VALLEY
WATER DISTRICT

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	6/10/96
Date Received:	6/3/96
Date Analyzed:	6/5/96
Project:	Hopkins & Carley
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water			
Sample Date	5/31/96	5/31/96	5/31/96			
Sample Time						
Lab #	C7215	C7216	C7217			
TRPH	**5.6**	**ND**	**ND**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1	1	1			
TPH-Diesel	**ND**	**ND**	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	100	10	10			
TPH-Gas	**17,000**	**30,000**	**8,800**	µg/liter	50.0 µg/l	8015M
Benzene	**1,500**	**1,300**	**620**	µg/liter	0.5 µg/l	8020
Toluene	**250**	**48**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**1,300**	**2,000**	**680**	µg/liter	0.5 µg/l	8020
Xylenes	**2,200**	**2,200**	**ND**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 960531-V-1

CLIENT E2C

SITE Hopkins & Carley
390 Martin Ave.
Santa Clara

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS: Invoice & Report to E2C.
Attn: Brenda McNabb
cc: Blaine Tech Services

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-Gas, BTEX	TPH-Diesel	TEPH	ADDL INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	W	5	40ml/Liter		✓	✓	✓				C7215
MW-2	W	5	1		✓	✓	✓				C7216
MW-3	W	5	1		✓	✓	✓				C7217

SAMPLING COMPLETED DATE 5-31-96 TIME 1040

SAMPLING PERFORMED BY E.A. VanderBrook

RESULTS NEEDED NO LATER THAN ASAP Contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
E.A. VanderBrook	6/3/96	1435			
				6/3/96	1435

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

E2C INC.

Environmental/Engineering Consultants

June 18, 1996
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William Klein
SUBJECT: **REMEDIAL INVESTIGATION REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E2C, Inc. presents herein the results of our Remedial Investigation of hydrocarbon-impacted soil and groundwater in the area of the former Underground Storage Tanks (USTs) located at the aforementioned subject site. This work was performed in response to a mandate from the Santa Clara Valley Water District (SCVWD) for additional soil and groundwater data (reference SCVWD letter, dated March 2, 1995). The work performed was outlined in our Work Plan, dated December 6, 1995.

The accompanying report presents the services performed and provides Conclusions and Recommendations based on the results of this study.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine A. Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

R. H. Wehner Concrete
Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, CA 95050
ATTN: Mr. Andy Bardakos

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SANTA CLARA VALLEY
WATER DIST.

36 JUN 2' A7:51

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1.0 INTRODUCTION

This Remedial Investigation Report describes the work performed to further investigate the extent of hydrocarbon-impacted soil and groundwater at 390 Martin Avenue in Santa Clara, California (see Figure 1). A Work Plan, dated December 6, 1995, was prepared and submitted to the Santa Clara Valley Water District (SCVWD) in response to their mandate for a Remedial Investigation. With some modifications, which included a First Phase and Second Phase of investigation this Work Plan was subsequently accepted by Ms. Christine Tulloch of the SCVWD.

The First Phase of investigation, which is documented within this report, involved the collection of soil and grab groundwater samples from Soil Punch/HydroPunch borings on the subject site. The proposed Second Phase of Remedial investigation would involve the installation of one groundwater monitoring well on the adjacent downgradient property to the north. In relation to this SCVWD mandate, E_2C, Inc. has sent correspondence to the adjacent property owner requesting access for this installation. It is E_2C, Inc.'s understanding that an access agreement permitting such installation is currently being negotiated between the parties. Should access be granted, the installation, development, and sampling of this proposed well will be documented in a forthcoming Remedial Investigation Addendum Report.

2.0 SITE LOCATION AND DESCRIPTION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site lies at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop and equipment yard for a concrete construction company (see Figure 2). Figure 2 shows the location of the former USTs and the existing groundwater monitoring wells on the site.

The site is located in an area zoned Light-Industrial (ML). Light-industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

2.1 Geology and Hydrology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas Fault zone and the Santa Cruz Coastal Mountains, and on the northeast by the Calaveras Fault zone, Hayward Fault zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas.

Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. Other sediments occupying the Valley originated from the marine environment that covered a portion of the basin. The basin generally consists of about 1,000 to 2,000 feet of these deposits that unconformably overlie bedrock formations.

The alluvial material in the Santa Clara Valley is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay. These bedded deposits vary from being moderately or highly permeable (sands and gravels) to relatively low permeable (clays) that may exist as aquitards (Helley & Lajoie, 1979).

The soil encountered during previous drilling operations consists of slightly silty clays to an approximate depth of 12 feet, where a very fine sand with some silt and clay is encountered. This material extends to a depth of approximately 18 feet, where the borings were terminated.

Groundwater was first encountered at an approximate depth of 13 feet bgs during drilling. Static depth to groundwater within the wells has been measured at an approximate depth of 8-to-10 feet since February of 1994. General groundwater flow direction is due north, as depicted on Figure 2.

3.0 SITE BACKGROUND

Four USTs containing diesel, gasoline, and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the UST's for monitoring purposes. This well remains on the subject site. In 1989, operation of the tanks ceased and they were not used again. The four USTs were removed from the site in May and June of 1991. Soil samples collected from the UST excavation were found to contain Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons as diesel (TPHd), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). In addition, a groundwater sample collected from the UST excavation at an approximate depth of 16 feet was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, O & G at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation.

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of two groundwater monitoring wells to the north, or downgradient, of the former USTs (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-moderate levels of hydrocarbons and related constituents. TPHg levels within the soil samples collected ranged from 26-to-1,100 ppm and TPHd levels ranged from 2-to-270 ppm. The highest concentrations of TPHg and TPHd were detected in soil samples collected from the 10-foot depth in each of the borings, which is likely to be representative of the capillary zone (static groundwater levels in the wells have historically been approximately 9 feet). No O & G was detected in the four soil samples collected during well installations for the PSA.

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08-to-120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site (see Figure 2).

Quarterly groundwater monitoring of the three wells has been conducted since February of 1994. The levels of contaminants detected in the wells over this time period remain within the same general range of magnitude as shown in Table 2.

Based on the cumulative results of soil and groundwater sampling conducted at the subject site to date, the SCVWD requested that quarterly groundwater monitoring be continued and that a Remedial Investigation be performed (reference SCVWD letter, dated March 2, 1995). This report describes the work performed as part of the required Remedial Investigation.

4.0 SCOPE OF WORK

The Scope of Work conducted during this study included the following actions:

- Subsurface utilities in the area of the former tanks were located prior to subsurface activities.

- Collected ten soil samples from ten boring locations using a Soil Punch sampling apparatus. The soil samples were collected to provide further definition on the lateral extent of soil impact in the area of the former tanks.

- Collected "grab" groundwater samples from four of the ten Soil Punch/HydroPunch locations. After sample collection, the temporary wells were backfilled with cement grout brought to grade.

- Analyzed all soil and groundwater samples for the presence of Total Recoverable Petroleum Hydrocarbons (TRPH), TPHd, TPHg, and BTEX using approved EPA Test Methods 418.1, 8015 (for TPHd and TPHg), and 8020, respectively. All analyses were conducted at a State-certified analytical laboratory.

- Analyzed four of the soil samples for leachable TRPH and two of the samples for leachable Benzene using Total Characteristic Leaching Process (TCLP) analyses.

- Prepared this technical report for submittal to the SCVWD.

The objective of this continuing investigation was to further define impacted soil in the area of the former tanks and evaluate the leachability of identified contaminants.

5.0 SOIL AND GROUNDWATER SAMPLING PROCEDURES

The investigative approach for this Continuing Investigation and Evaluation, and all variations deemed necessary, were consistent with the following governmental guidelines:

- The North Coast, San Francisco Bay, and Central Valley Regional Water Quality Control Board document entitled, "Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites" (August 10, 1990).

- The State of California Water Resources Control Board document entitled, "Leaking Underground Storage Tank Field Manual: Guidelines for Site Assessment, Cleanup and Underground Storage Tank Closure" (October 18, 1989).

- The Site Safety Plan (SSP) that was presented within the December 6, 1995, E_2C, Inc. Work Plan for Remedial Investigation.

5.1 Soil Sampling Protocol

Ten soil samples were collected from borings SP-1 through SP-10 using a Soil Punch sampling methodology. Soil samples were collected from each boring at an approximate depth of 7 feet (see Figure 2).

Soil Punch sampling consists of driving 1-inch diameter galvanized steel pipes (sampling probes) containing a steel rod into the ground until the desired point of sample collection is encountered. Once the desired depth is reached, the rod is removed from the pipe and the open pipe is driven further into the soil causing an undisturbed soil sample to be retained in the end of the pipe. The pipe is then removed from the ground and the section of pipe containing the soil sample is cut off and retained as the sample. The ends of the sample tube

are covered with a small sheet of teflon or aluminum foil and tight-fitting caps. The sample tubes are then labeled and stored on ice prior to, and during, transport to the laboratory.

5.2 "Grab" Groundwater Sampling Protocol

Grab groundwater samples HP-1, HP-2, HP-3, and HP-4, were collected from borings SP-4, SP-5, SP-6, and SP-7, respectively, using a HydroPunch methodology (see Figure 2). HydroPunch sampling consists of driving sections of 1-inch diameter galvanized steel pipes containing a steel rod into the ground until the perforated lead section of pipe is situated within the water bearing zone. Because the lead section of pipe is perforated, groundwater will generally flow into the pipe when the rod is removed. Once groundwater flows into the pipe, a sample is obtained from the conduit using a clean, stainless steel or Teflon bailer. Groundwater was transferred from the bailers into clean sample bottles in a manner that minimized the potential evaporation of volatile constituents. The bottles were then secured, labeled, and placed on ice in a cooler for transport to the laboratory.

5.4 Soil and Groundwater Sample Analyses

Sample analyses were conducted at Entech Analytical Labs, Inc. of Sunnyvale, California (CA ELAP #1369). All samples were analyzed for the presence of TRPH, TPHd, TPHg, and BTEX using 418.1, 8015 (for TPHd and TPHg), and 8020, respectively. Chain-of-Custody documentation was maintained throughout all sampling and transmittal procedures.

6.0 RESULTS OF SAMPLE ANALYSES

Laboratory reports, documenting the results of sample analyses, are presented in Appendix A. These results are also shown in Table 1, and on Figures 3 and 4. Quarterly groundwater sampling results are presented in Table 2.

6.1 Results of Soil Sample Analyses

Soil sample analyses identified low levels of TPHd and/or TPHg (less than 31 ppm) at the locations of borings SP-2, SP-3, SP-4, SP-6, SP-7, and SP-9. Moderately low levels of TRPH or TPHd (90 to 250 ppm) were detected in samples collected from borings SP-1, SP-5, SP-8, and SP-10. BTEX compounds were detected in samples SP-1 and SP-3 only, at levels of 0.44 and 0.038 ppm, <0.005 and 0.020, 1.2 and 0.20, and 4.7 and 1.2 ppm, respectively. Based on these initial results, samples SP-1, SP-3, SP-5, SP-8, and SP-10 were analyzed for TCLP analyses to determine the leachable levels of specific contaminants identified. These results revealed that samples SP-1, SP-8, and SP-10 contained 21, 22, and 7.6 ppm TCLP TRPH. Samples SP-1 and SP-3 were found to contain 0.0038 and 0.0093 ppm TCLP Benzene.

6.2 Results of Groundwater Sample Analyses

Grab groundwater samples HP-1, HP-2, HP-3, and HP-4 were collected from borings SP-4 through SP-7. Elevated levels were detected in sample HP-1 (11,000 ppb TPHd, 48,000 ppb TPHg, 1,600 ppb Benzene, 98 ppb Toluene, 3,900 Ethylbenzene, and 8,700 ppb Xylenes). Moderate to low levels were detected in samples HP-2 through HP-3 (non-detect to 930 ppb TPHd, 670-4,700 ppb TPHg, 6.1-79 ppb, non-detect to 0.51 ppb Toluene, 17-620 ppb Ethylbenzene, and 13-130 ppb Xylenes).

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

E_2C, Inc. has completed services associated with the further definition of soil and groundwater impact at the site. The results of this and prior investigations indicate that limited soil impact exists in the immediate area of the former tank excavation. The levels of TRPH, TPHd, and TPHg detected, however, do not exceed 250 ppm, 30 ppm, and 7.2 ppm, respectively. In addition, TCLP analyses show that the leachable levels of TRPH do not exceed 22 ppm.

The results of analyses, conducted on four grab groundwater samples collected from HydroPunch borings and historical quarterly groundwater monitoring results, indicate that low-to-moderately impacted groundwater exists in the immediate areas to the south and west of the former excavation, and that moderate to elevated levels exist in the immediate areas to the east and north of the former excavation.

7.2 Recommendations

Based on the findings of this and previous studies, E_2C, Inc. recommends that impacted soil in the area of the former tanks be excavated. Based on the soil sampling conducted during this Remedial Investigation, the area of proposed excavation is the former tank excavation and immediately surrounding soils. The degree of excavation should be dictated by the results of confirmatory soil sampling, which may include TCLP analyses. Based on the results of historical groundwater monitoring, it is our recommendation that visibly impacted groundwater be removed from the open excavation prior to backfilling. Continued quarterly groundwater monitoring is also recommended. In accordance with the SCVWD mandate, as soon as the access agreement is executed with the owner of the site to the north, a groundwater monitoring well should be installed on that property.

8.0 REFERENCES

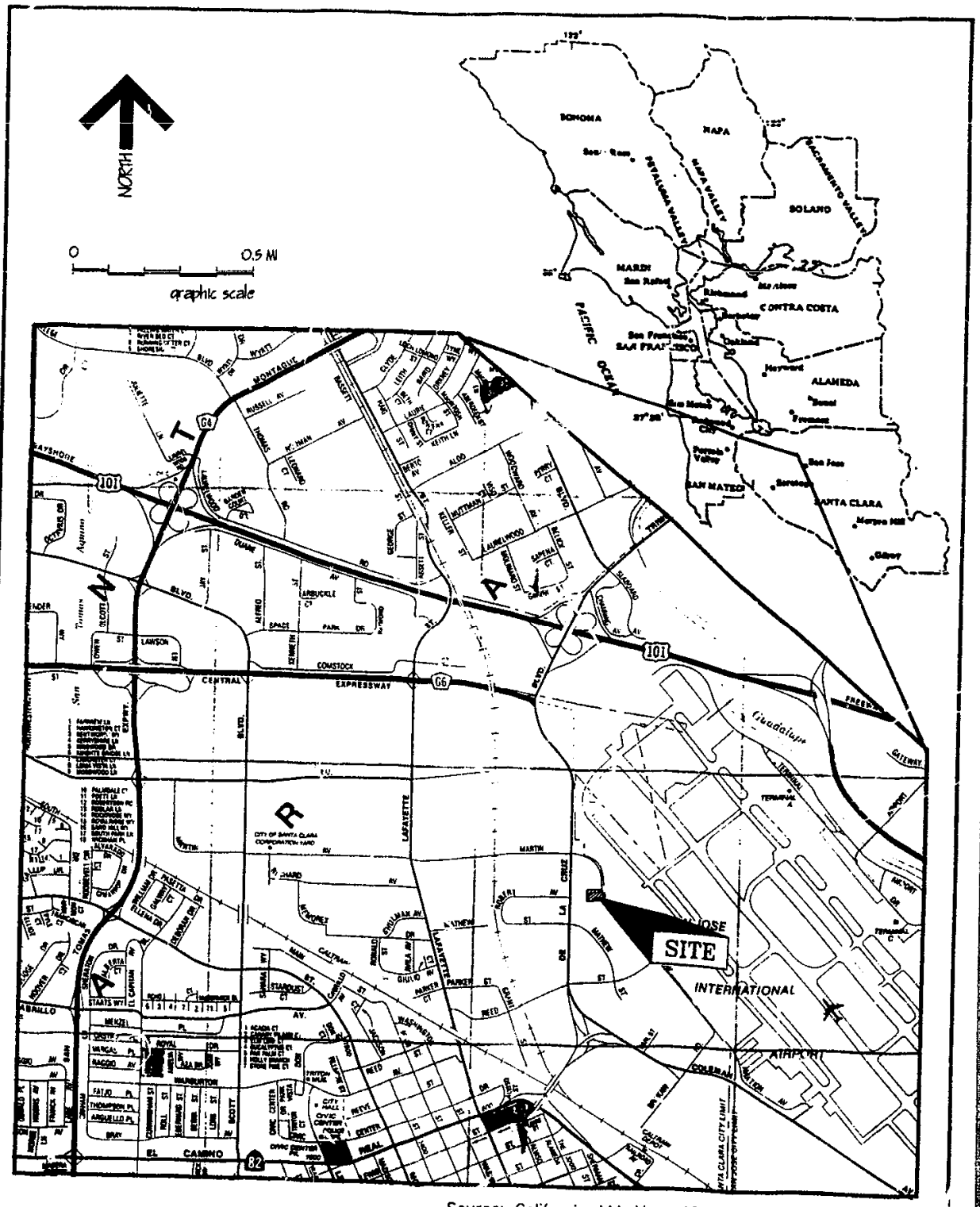
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E_2C, Inc., Quarterly Groundwater Monitoring Report, First Quarter 1996, 390 Martin Avenue Santa Clara, California. March 29, 1996.

E_2C, Inc., Work Plan for Remedial Investigation, 390 Martin Avenue Santa Clara, California. December 6, 1995.

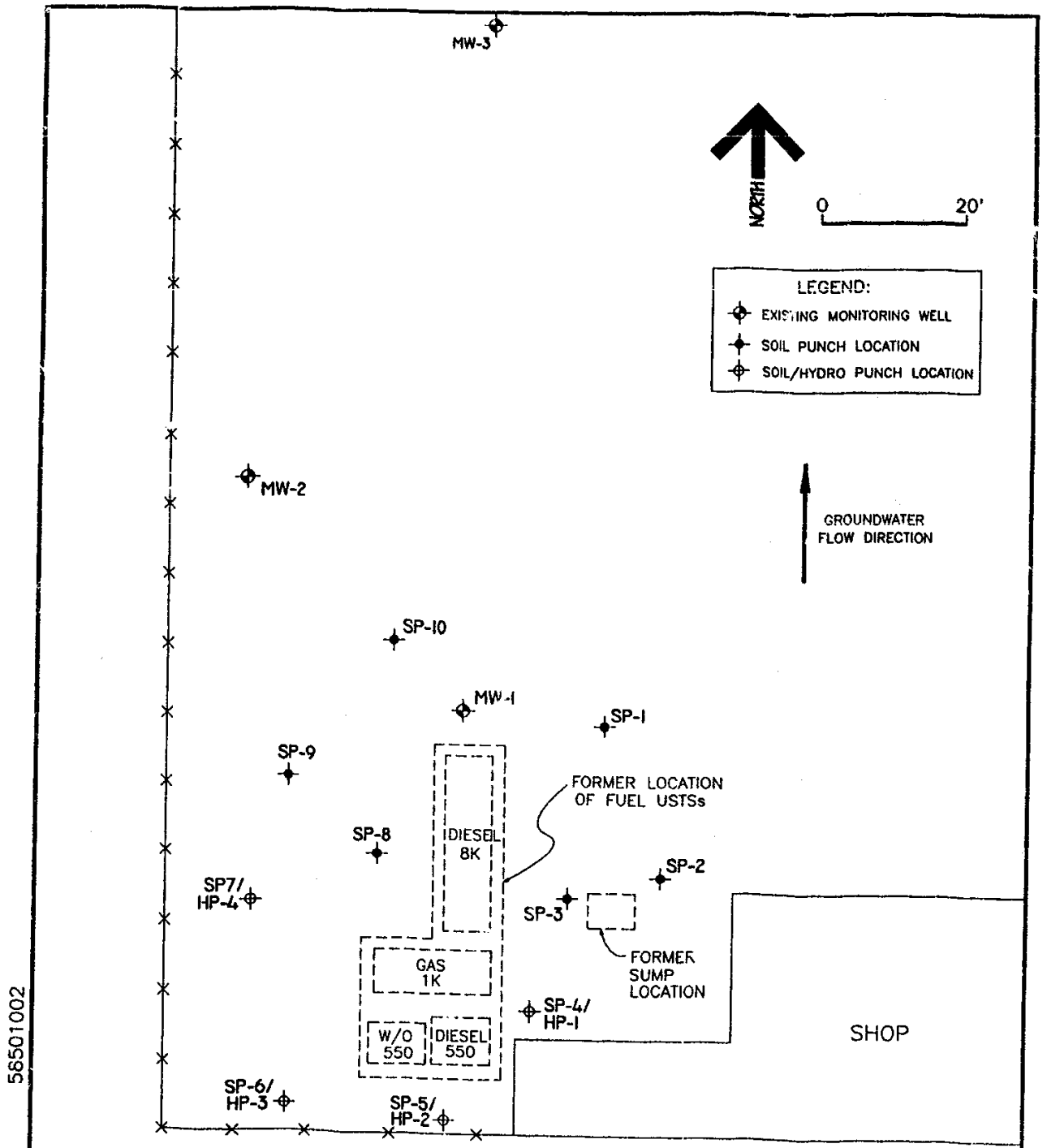
Helley, E.J. and Lajoie, K.R. 1979. Flatland Deposits of the San Francisco Bay Region, California, U.S.G.S. Professional Paper 943.

United States Geologic Survey. 1980. 7 1/2 Minute Series, San Jose West Quadrangle, California Topographic Map.

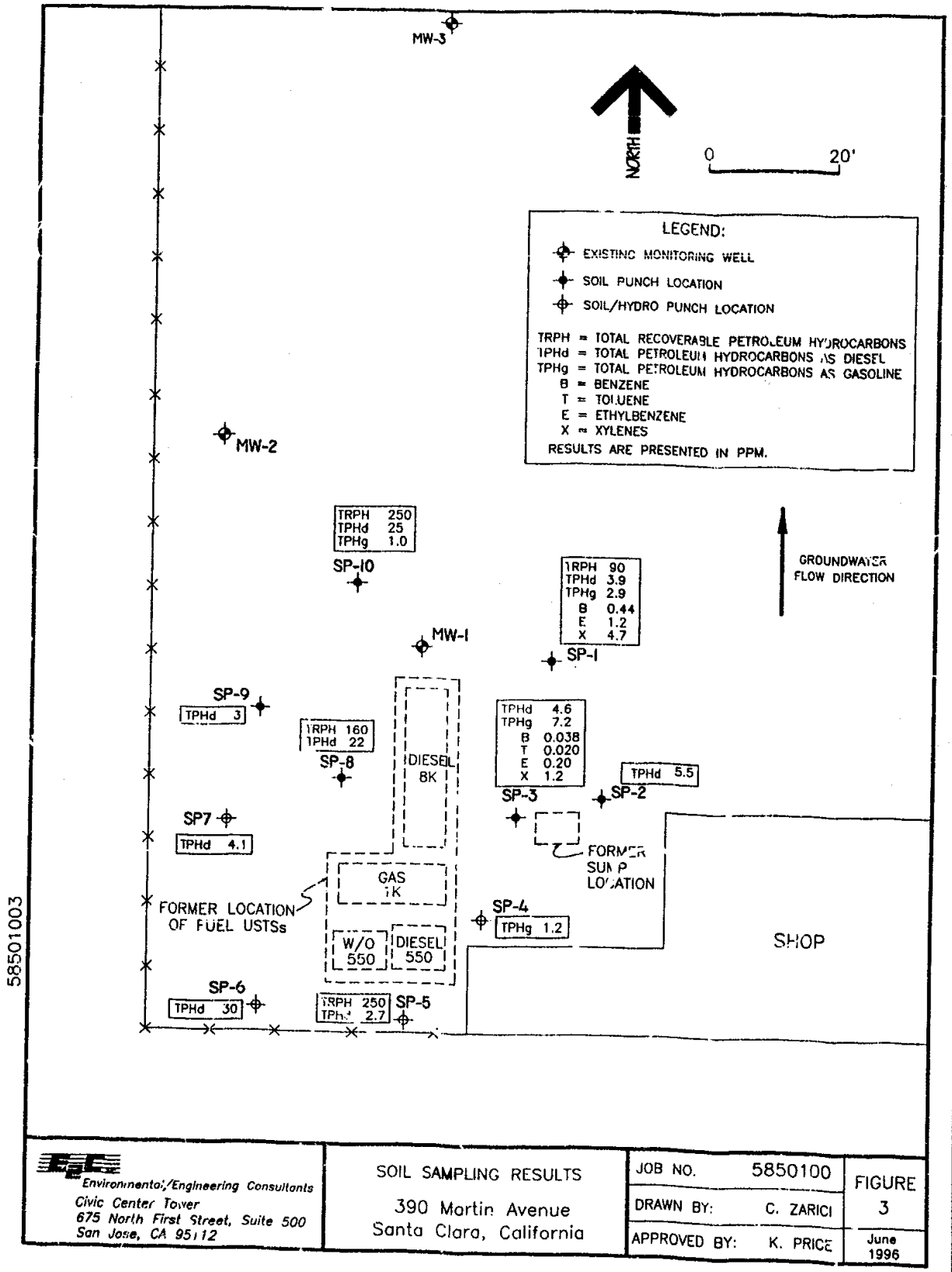


Source: California AAA Map, 1993 – Northern Sc , Jose

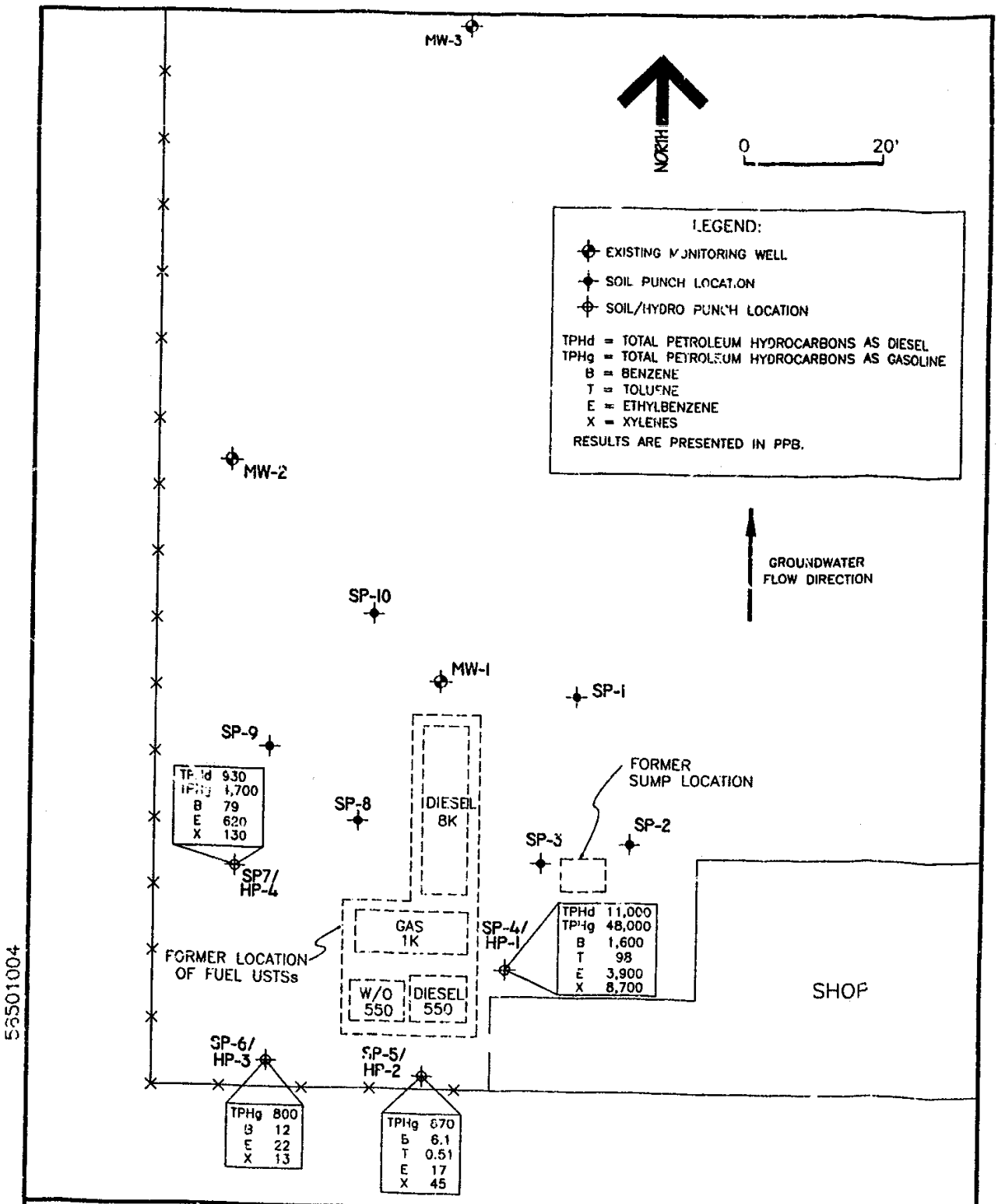
Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE
		DRAWN BY: C. ZARICI	1
		APPROVED BY: K. PRICE	1996



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SAMPLING DIAGRAM 390 Martin Avenue Santa Clara, California	JOB NO. 58501100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 June 1996



EnC Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SOIL SAMPLING RESULTS 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 June 1996



Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

GRAB GROUNDWATER SAMPLING RESULTS
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE
DRAWN BY:	C. ZARICI	4
APPROVED BY:	K. PRICE	June 1996

TABLE 1
RESULTS OF SOIL AND GROUNDWATER SAMPLE ANALYSES

SAMPLE NO.	TRPH	TPHd	TPHg	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TRPH (TCLP)	BENZENE (TCLP)
SOIL SAMPLE RESULTS IN PPM									
SP-1-7'	90	3.9	29	0.44	<0.005	1.2	4.7	21	0.0038
SP-2-7'	<50	5.5	<0.005	<0.005	<0.005	<0.005	<0.005	---	---
SP-3-7'	<50	4.6	7.2	0.038	0.020	0.20	1.2	---	0.0093
SP-4-7'	70	<1.0	1.2	<0.005	<0.005	<0.005	<0.005	---	---
SP-5-7'	250	2.7	<0.005	<0.005	<0.005	<0.005	<0.005	14	---
SP-6-7'	<50	30	<0.005	<0.005	<0.005	<0.005	<0.005	---	---
SP-7-7'	<50	4.1	<0.005	<0.005	<0.005	<0.005	<0.005	---	---
SP-8-7'	160	22	<0.005	<0.005	<0.005	<0.005	<0.005	22	---
SP-9-7'	<50	3.0	<0.005	<0.005	<0.005	<0.005	<0.005	---	---
SP-10-7'	250	25	1.0	<0.005	<0.005	<0.005	<0.005	7.6	---
GROUNDWATER SAMPLE RESULTS IN PARTS PER BILLION (PPB)									
HP-1	<5.0	11,000	48,000	1,600	98	3,900	8,700	---	---
HP-2	<5.0	<400	670	6.1	0.51	17	45	---	---
HP-3	---	<50	800	12	<0.5	22	13	---	---
HP-4	<5.0	930	4,700	79	<0.5	620	130	---	---
MCLs	*NE*	*500[1]*	*500[1]*	*1.0*	*150*	*700*	*1,750*	NA	NA

--- = Sample not analyzed for this substance.
1 = Taste and Odor Threshold - no MCLs established.
NE = No MCL Established.
NA = Not Applicable.

TABLE 2
QUARTERLY GROUNDWATER MONITORING RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro-form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1 DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	5.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	78	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	580	4,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	1.7	9.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	680	1,900	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5	8.7	730	99	550	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	830	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5	6.9	460	23	95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 2[illegible], 1996																
MW-1	5.5	14	310	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5	8.6	320	6.9	46	<0.5	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
--- = Samples not analyzed for these analytes.

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

APPENDIX A
LABORATORY REPORT

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite F • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/17/96
Date Received:	5/10/96
Date Analyzed:	5/14/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*SP1*	*SP2*	*SP3*	*SP4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil	Soil	Soil			
Sample Date	5/9/96	5/9/96	5/9/96	5/9/96			
Sample Time							
Lab #	C6331	C6332	C6333	C6334			
TRPH	**90**	**ND**	**ND**	**70**	mg/kg	50 mg/kg	418.1
DF-Diesel	1	1	1	1			
TPH-Diesel	**3.9**[2]	**5.5**[2]	**4.6**[2]	**ND**	mg/kg	1.0 mg/kg	8015M
DF-Gas/BTEX	5	1	1	1			
TPH-Gas	**29**	**ND**	**7.2**	**1.2**[3]	mg/kg	1.0 mg/kg	8015M
Benzene	**0.44**	**ND**	**0.038**	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	**0.020**	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**1.2**	**ND**	**0.20**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**4.7**	**ND**	**1.2**	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. TPH-Diesel chromatogram for Lab #C6331-C6333, although within the reporting range, does not match the typical Diesel pattern
3. TPH-Gas chromatogram for Lab #C6334, although within the reporting range, does not match the typical Gas pattern
4. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/17/96
Date Received:	5/10/96
Date Analyzed:	5/14/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*SP5*	*SP6*	*SP7*	*SP8*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil	Soil	Soil			
Sample Date	5/9/96	5/9/96	5/9/96	5/9/96			
Sample Time							
Lab #	C6335	C6336	C6337	C6338			
TRPH	**250**	**ND**	**ND**	**160**	mg/kg	50 mg/kg	418.1
DF-Diesel	1	1	1	1			
TPH-Diesel	**2.7**[2]	**30**[2]	**4.1**[2]	**22**[2]	mg/kg	1.0 mg/kg	8015M
DF-Gas/BTEX	1	1	1	1			
TPH-Gas	**ND**	**ND**	**ND**	**ND**	mg/kg	1.0 mg/kg	8015M
Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	**ND**	**ND**	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. TPH-Diesel chromatogram for Lab #C6335-C6338, although within the reporting range, does not match the typical Diesel pattern
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/17/96
Date Received:	5/10/96
Date Analyzed:	5/14/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	*SP9*	*SP10*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Soil	Soil			
Sample Date	5/9/96	5/9/96			
Sample Time					
Lab #	C6339	C6340			
TRPH	**ND**	**250**	mg/kg	50 mg/kg	418.1
DF-Diesel	1	10			
TPH-Diesel	**3.0[2]**	**25[2]**	mg/kg	1.0 mg/kg	8015M
DF-Gas/BTEX	1	1			
TPH-Gas	**ND**	**1.0[3]**	mg/kg	1.0 mg/kg	8015M
Benzene	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Toluene	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Ethyl Benzene	**ND**	**ND**	mg/kg	0.005 mg/kg	8020
Xylenes	**ND**	**ND**	mg/kg	0.005 mg/kg	8020

1. DLR=DF x PQL
2. TPH-Diesel chromatogram for Lab #C6339 & C6340, although within the reporting range, does not match the typical Diesel pattern
3. TPH-Gas chromatogram for Lab #C6340, although within the reporting range, does not match the typical Gas pattern
4. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYCROCARBONS

QC Batch: STRP960502
Matrix: Soil
Units: mg/kg

Date Analyzed: 05/10/96

PARAMETER	SA mg/kg	SR mg/kg	SP mg/kg	SP PR	SPD mg/kg	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	200	0.0	200.	100	200.	100	0.0	25	50-150

Definition of Terms:

SA: Spike Added
SR: Sample Result
SP: Matrix Spike Result
SP (PR): Matrix Spike % Recovery
SPD: Matrix Spike Duplicate Result
SPD (PR): Matrix Spike Duplicate % Recovery
RPD: Matrix Spike Recovery % Variance

QA/QC OFFICER: Nick J Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

QC Batch #: DS059609
Matrix: Soil
Units: mg/kg

Date analyzed: 5/13/96
Date extracted: 5/13/96

PARAMETE	Method #	SA mg/kg	SR mg/kg	SP mg/kg	SP %R	SPD mg/kg	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Diesel	8015M	25	ND	22	88%	23	90%	2.2	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike Duplicate % Recovery
- NC: Not Calculated

QA/QC Officer: Nick J. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4051496
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 05/14/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	8015M	356	ND	339	95%	372	104%	9.3	25	50-150
Benzene	8020	20	ND	18	90%	21	105%	15.4	25	50-150
Toluene	8020	20	ND	19	95%	21	105%	10.0	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QA/QC Officer: Nick T. Gaone
N. Gaone

E_2C, Inc.
Environmental/Engineering Consultants
One Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408)286-8300
Fax: (408)286-8333

LABORATORY: Entech

CHAIN-OF-CUSTODY RECORD

Site Name and Address: Wehner, 390 N. 1st

Project #: 5850100

Sampler: K. Smith

Company: E2C

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
SP1		X				X		5/9/96	C6331	X	X	X	X							
SP2									C6332											
SP3									C6333											
SP4									C6334											
SP5									C6335											
SP6									C6336											
SP7									C6337											
SP8									C6338											
SP9									C6339											
SP10		X				X		X	C6340	X	X	X	X							

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-day
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? _____
2) Did any VOA samples received have any head space? _____
3) Were samples in appropriate containers and packaged properly? _____

Relinquished by sampler: K. Smith	Date: 5/10/96	Time: 3:15	Received by: Jennifer Ellington	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/16/96
Date Received:	5/10/96
Date Analyzed:	5/13/96
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*HP1*	*HP2*	*HP4*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water	Water			
Sample Date	5/10/96	5/10/96	5/10/96			
Sample Time						
Lab #	C6328	C6329	C6330			
TRPH	**ND**	**ND**	**ND**	mg/liter	5.0 mg/l	418.1
DF-Diesel	1	1	1			
TPH-Diesel	**11,000**[2,3]	**ND**[3]	**930**[2,3]	µg/liter	See Below	8015M
DF-Gas/BTEX	100	1	10			
TPH-Gas	**48,000**	**670**	**4,700**	µg/liter	50.0 µg/l	8015M
Benzene	**1,600**	**6.1**	**79**	µg/liter	0.5 µg/l	8020
Toluene	**98**	**0.51**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**3,900**	**17**	**620**	µg/liter	0.5 µg/l	8020
Xylenes	**8,700**	**45**	**130**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. TPH-Diesel chromatogram for Lab #C6328 & C6330, although within the reporting range, does not match the typical Diesel pattern
3. TPH-Diesel for above samples have high PQL due to limited sample volume. C6328 PQL=100 µg/liter; C6329 PQL=400 µg/liter; C6330 PQL=380 µg/liter
4. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: TOTAL RECOVERABLE PETROLEUM HYCROCARBONS

QC Batch ID: WTRP960501 Date Analyzed: 05/10/96
Matrix: Water
Units: mg/l

PARAMETER	SA mg/l	SR mg/l	SP mg/l	SP PR	SPD mg/l	SPD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	80	0	96	120	100	125	4.1	25	70-130

Definition of Terms:

RPD: Relative Percent Difference (Duplicate Analyses)
SA: Spike Added
SR: Sample Result
SP: Matrix Spike Result
SP (PR): Matrix Spike % Recovery
SPD: Matrix Spike Duplicate Result
SPD (PR): Matrix Spike Duplicate % Recovery

QA/QC OFFICER Nick J. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW059602
Matrix: Water
Units: ug/L

Date analyzed: 5/12/96
Date extracted: 5/8/96

PARAMETE	Method #	SA ug/L	SR ug/L	MS ug/L	MS %R	MSD ug/L	MSD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Diesel	8015M	950	ND	600	63%	660	69%	9.5	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- MS: Matrix Spike Result
- MS (%R) Matrix Spike % Recovery
- MSD: Matrix Spike Duplicate Result
- MSD (%R) Matrix Spike Duplicate % Recovery
- NC: Not Calculated

QA/QC Officer: Nick J. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4051396
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 5/13/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	8015M	311	ND	306	98%	293	94%	4.3	25	50-150
Benzene	8020	20	ND	21	105%	18	90%	15.4	25	50-150
Toluene	8020	20	ND	20	100%	18	90%	10.5	25	50-150

Definition of Terms:

na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

QA/QC Officer: Nick F. Gaone
N. Gaone

E_2C, Inc.
Environmental/Engineering Consultants
Civic Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408)286-8300
Fax: (408)286-8333

LABORATORY: Calscience

CHAIN-OF-CUSTODY RECORD

Site Name and Address: Wachovia / 390 Main St

Project #: SE5D.LAD

Sampler: K. Porter

Company: E2C

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
HP1	4		V					5/10/96	CU328	X	X	X	X							
HP2	3		X					5/10/96	CU329	X										
HP4	3		X					5/10/96	CU330	X	X	X	X							

TURNAROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-day
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? ____
2) Did any VOA samples received have any head space? ____
3) Were samples in appropriate containers and packaged properly? ____

Relinquished by sampler: K. Porter	Date 5/10/96	Time 3:15	Received by: Jennifer Ellington	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/17/96
Date Received:	5/13/96
Date Analyzed:	5/15/96
P.O #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*HP3*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water			
Sample Date	5/13/96			
Sample Time				
Lab #	C6391			
DF-Diesel	1			
TPH-Diesel	**ND**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	1			
TPH-Gas	**800**	µg/liter	50.0 µg/l	8015M
Benzene	**12**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**22**	µg/liter	0.5 µg/l	8020
Xylenes	**13**	µg/liter	0.5 µg/l	8020

1. DLR=DF x PQL (DF=1 unless noted)
2. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: DW059603
Matrix: Water
Units: ug/L

Date analyzed: 05/15/96
Date extracted: 05/15/96

PARAMETE	Method #	SA ug/L	SR ug/L	MS ug/L	MS %R	MSD ug/L	MSD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Diesel	8015M	950	ND	717	75%	817	86%	13.0	25	50-150

Definition of Terms:

na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
MS: Matrix Spike Result
MS (%R) Matrix Spike % Recovery
MSD: Matrix Spike Duplicate Result
MSD (%R) Matrix Spike Duplicate % Recovery
NC: Not Calculated

QA/QC Officer: Nick F. Gaone
N. Gaone

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: G3G4051496
Matrix: Water/Soil
Units: µg/L

Date Analyzed: 05/14/96

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
Gasoline	8015M	356	ND	339	95%	372	104%	9.3	25	50-150
Benzene	8020	20	ND	18	90%	21	105%	15.4	25	50-150
Toluene	8020	20	ND	19	95%	21	105%	10.0	25	50-150

Definition of Terms:

- na: Not Analyzed in QC batch
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

QA/QC Officer: Jack J. Gaone
N. Gaone

E$_2$C, Inc.
Environmental/Engineering Consultants
Civic Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408)286-8300
Fax: (408)286-8333

LABORATORY: Entrix

CHAIN-OF-CUSTODY RECORD

Site Name and Address: 390 Martin Ave

Project #: 5850100

Sampler: R Porter

Company: E2C

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
HP3	2		X			X		5/13/96	C6391	X	X	X								

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-day
- ☑ NORMAL

SPECIAL INSTRUCTIONS: Run Diesel with Limited Sample Volume!

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? _____
2) Did any VOA samples received have any head space? _____
3) Were samples in appropriate containers and packaged properly? _____

	Date	Time		
Relinquished by sampler:	5/13/96		Received by: Marc Meinig 542	COOLER TEMPERATURE:
Relinquished by: Marc Meinig 542	5/13/96	3:30pm	Received by: Jennifer Eilinger	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	5/28/96
Date Received:	5/10/96
Date Analyzed:	See Report
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Sample ID	*Sample Time*	*Lab #*	TCLP TRPH	TCLP Benzene
SP1	5/9/96	C6331	21	3.8
SP3	5/9/96	C6333	na	9.3
SP5	5/9/96	C6335	14	na
SP8	5/9/96	C6338	22	na
SP10	5/9/96	C6340	7.6	na

1. na: not analyzed
2. DLR=DF x PQL (DF=1 unless noted)
3. Analysis performed by Advanced Technology Laboratories (CAELAP #1838); see ATL report for individual compounds, detection limits, and analysis dates

Test Methods:

Test	*EPA Method #*	*Units*	*PQL*
TCLP Extraction	1311		
TRPH	418.1	mg/liter	See Report
Benzene	8020	µg/liter	See Report

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Environmental Analysis Since 1983

Advanced Technology Laboratories

May 28, 1996

ELAP No.: 1838

Entech Analytical Labs, Inc.
525 Del Rey Avenue Suite E
Sunnyvale, CA 94086

ATTN: Mr. Mike Golden

Client's Project: 5850100
Lab No.: 11370-001/005

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (310) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Beverly Jamison for

Edgar P. Caballero
Laboratory Director
EPC/ms

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Mailing Address: P.O. Box 9108 Newport Beach, CA 92658
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 5850100

Date Received: 05/21/96
Date Sampled: 05/09/96
TCLP Extraction Date: 05/23/96

Lab No: 11370-001
Sample ID: C6331
Matrix: TCLP Extract

Analysis	Date Analyzed	Results	Units	MDL	DLR	Analyst Initials
EPA 418.1 (TRPH)	05/24/96	21	mg/L	0.04	0.07	LP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: Cheryl de los Reyes
Cheryl de los Reyes
Department Supervisor

Date: 5/28/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 5850100

Date Received: 05/21/96
Date Sampled: 05/09/96
TCLP Extraction Date: 05/23/96

Lab No: 11370-003
Sample ID: C6335
Matrix: TCLP Extract

Analysis	Date Analyzed	Results	Units	MDL	DLR	Analyst Initials
EPA 418.1 (TRPH)	05/24/96	14	mg/L	0.04	0.055	LP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: Cheryl de los Reyes
Cheryl de los Reyes
Department Supervisor

Date: 5/28/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 5850100

Date Received: 05/21/96
Date Sampled: 05/09/96
TCLP Extraction Date: 05/23/96

Lab No: 11370-004
Sample ID: C6338
Matrix: TCLP Extract

Analysis	Date Analyzed	Results	Units	MDL	DLR	Analyst Initials
EPA 418.1 (TRPH)	05/24/96	22	mg/L	0.04	0.055	LP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: Cheryl de los Reyes
Cheryl de los Reyes
Department Supervisor

Date: 5/28/96

The cover letter is a part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 5850100

Date Received: 05/21/96
Date Sampled: 05/09/96
TCLP Extraction Date: 05/23/96

Lab No: 11370-005
Sample ID: C6340
Matrix: TCLP Extract

Analysis	Date Analyzed	Results	Units	MDL	DLR	Analyst Initials
EPA 418.1 (TRPH)	05/24/96	7.6	mg/L	0.04	0.048	LP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: Cheryl de los Reyes
Cheryl de los Reyes
Department Supervisor

Date: 5/28/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 3rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 585010

Date Received: 05/21/96
Matrix: TCLP Extract
TCLP Extraction Date: 05/22/96
TCLP Extraction Method: 1311

METHOD 8015M (Gasoline)/EPA 8020 (BTEX)

Lab No.:			Method Blank		11370-001	
Client Sample I.D.:			--		C6331	
Date Sampled:			--		05/09/96	
QC Batch #:			968G20W2120		968G20W2120	
Date Analyzed:			05/24/96		05/24/96	
Analyst Initials:			DT		DT	
Dilution Factor:			1.0		1.0	
Analyte	MDL	Units	DLR	Results	DLR	Results
TPH (Gas)	0.05	mg/l	0.05	NA	0.05	NA
Benzene	0.5	ug/l	0.5	ND	0.5	3.8
Toluene	0.5	ug/l	0.5	NA	0.5	NA
Ethyibenzene	0.5	ug/l	0.5	NA	0.5	NA
Xylenes (total)	0.5	ug/l	0.5	NA	0.5	NA

MDL = Method Detection Limit
ND = Not Detected. (Below DLR)
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____
Yun Pan
Department Supervisor

Date: 5/28/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories

Client: Entech Analytical Labs, Inc.
Attn: Mr. Mike Golden

Client's Project: 5850100

Date Received: 05/21/96
Matrix: TCLP Extract
TCLP Extraction Date: 05/22/96
TCLP Extraction Method: 1311

METHOD 8015M (Gasoline)/EPA 8020 (BTEX)

Lab No.:			Method Blank		11370-002	
Client Sample I.D.:			–		C6333	
Date Sampled:			–		05/09/96	
QC Batch #:			968G20W2120		968G20W2120	
Date Analyzed:			05/24/96		05/24/96	
Analyst Initials:			DT		DT	
Dilution Factor:			1.0		1.0	
Analyte	MDL	Units	DLR	Results	DLR	Results
TPH (Gas)	0.05	mg/l	0.05	NA	0.05	NA
Benzene	0.5	ug/l	0.5	ND	0.5	9.3
Toluene	0.5	ug/l	0.5	NA	0.5	NA
Ethylbenzene	0.5	ug/l	0.5	NA	0.5	NA
Xylenes (total)	0.5	ug/l	0.5	NA	0.5	NA

MDL = Method Detection Limit
ND = Not Detected. (Below DLR)
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____
Yun Pan
Department Supervisor

Date: 5/28/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: 418.1
Analyst: LP
Data File: 6145-1T

Date: 05/24/96
Sample ID: Blank
Matrix: TCLP

ANALYTE	UNITS	LCS Conc	LCS Res	% Rec	METH BLANK	SPL CONC	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
TRPH	mg/L	0.83	0.83	100	ND	ND	0.83	0.82	0.83	99	100	65-123	1	19	0.04

Approved by: Cheryl de Los Reyes
Cheryl De Los Reyes
Inorganics Supervisor

Date: 5/28/96

Advanced Technology Laboratories

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\5\METHODS\8025WAT.M
Title : EPA M8015 (Gasoline) / EPA 602 (BTEX)
Last Update : Tue May 28 10:28:40 1996
Response via : Initial Calibration

Non-Spiked Sample: V08802.D

	Spike Sample	Spike Duplicate Sample
File ID :	VS8809.D	VS8810.D
Sample :	11395-004 3ppm MS Gas(+BTEX)	11395-004 3ppm MSD Gas(+BTEX)
Acq Time:	25 May 96 02:19 AM	25 May 96 02:54 AM

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Gasoline (mg/l)	0.0	1	1	1	80	71	12	20	66-129
Benzene (ug/l)	0.1	23	22	20	95	87	9	20	73-121
Toluene (ug/l)	0.0	57	56	51	98	90	9	20	70-127

QC Batch #:968G20W2120

Reviewed and Approved by: _____ Date: 5/28/96
Yun Pan
Organics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

RUSH!

Subcontract Lab:		Date Sent:	Project Name:		Due Date:	
Advanced Technology		5-20-96	5850100		5-25-96	
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres?
C6331	Soil	TCLP-TRPH TCLP-BENTEMP	5-9-96		1x Tupi	
C6333		TCLP-BENZENE				
C6335		TCLP-TRPH				
C6338		TCLP-TRPH				
C6340		TCLP-TRPH				

Relinquished By:	Received By:	Date:	Time:
	California Overnight	5-20-96	4:30PM
Relinquished By: California Overnight	Received By: Peter Kang	Date: 5-21-96	Time:
Relinquished By:	Received By:	Date:	Time:

Notes: Perform Analysis within holding time - NOTE SAMPLE DATE

E$_2$C, Inc.
Environmental/Engineering Consultants
Oslo Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-6111
Phone: (408) 289-8300
Fax: (408) 289-8329

LABORATORY: Entech

CHAIN-OF-CUSTODY RECORD

Site Name and Address: Chevron 340 North

Project #: 585010.01

Sampler: K Porter

Company: E2C

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Sldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/8021	8020/602	8240/624	TRPH (TCLP)	Benzene (TCLP)	Asbestos	Comments
SP1		X				X		5/9/96	C6331	X	X	X	X				X	X	X	
SP2									C6332											
SP3									C6333									X		
SP4									C6334											
SP5									C6335								X			
SP6									C6336											
SP7									C6337											
SP8									C6338											
SP9									C6339								X			
SP10		X				X		X	C6340	X	X	X	X							

PLEASE INITIATE 5/20/96

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ 72-day
- ☒ NORMAL
- ☐ OTHER

SPECIAL INSTRUCTIONS: ATTN: Alan Iaks

The following MUST be completed by the laboratory performing analysis for analyses:
1) Have all samples received been logged on ice? Yes
2) Did any VOA samples received have any head space? ____
3) Were samples in appropriate containers and packaged properly?

	Date	Time		
Relinquished by sampler: K Porter	5/10/96	3:15	Received by: Jennifer Ellington	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

05/17/1996 15:04 4087351554 ENTECH ANALYTICAL PAGE 05

SANTA CLARA VALLEY
WATER DIST.

98 JUN 21 A7:51

QUARTERLY GROUNDWATER MONITORING
FIRST QUARTER 1996
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FOR

HOPKINS & CARLEY
A LAW CORPORATION
March 29, 1996

PREPARED BY

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, SUITE 500
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

March 29, 1996
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **QUARTERLY GROUNDWATER MONITORING - FIRST QUARTER 1996**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the First Quarterly Groundwater Sampling for 1996, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on February 29, 1996. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately four well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, temperature, and pH) were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Total depth and depth-to-groundwater readings were then taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. The recharge rates, well measurements, and physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-6911 • (408) 286-6300 • FAX (408) 286-6333

Once the wells had stabilized and post-purging well measurements were obtained, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using EPA Test Methods 418.1, 8015 modified (for TPHd and TPHg), and 8020, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 2 of this report. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the February 29, 1996 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for each well, which correspond to mean sea-level benchmark datum, were acquired on February 29, 1996. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

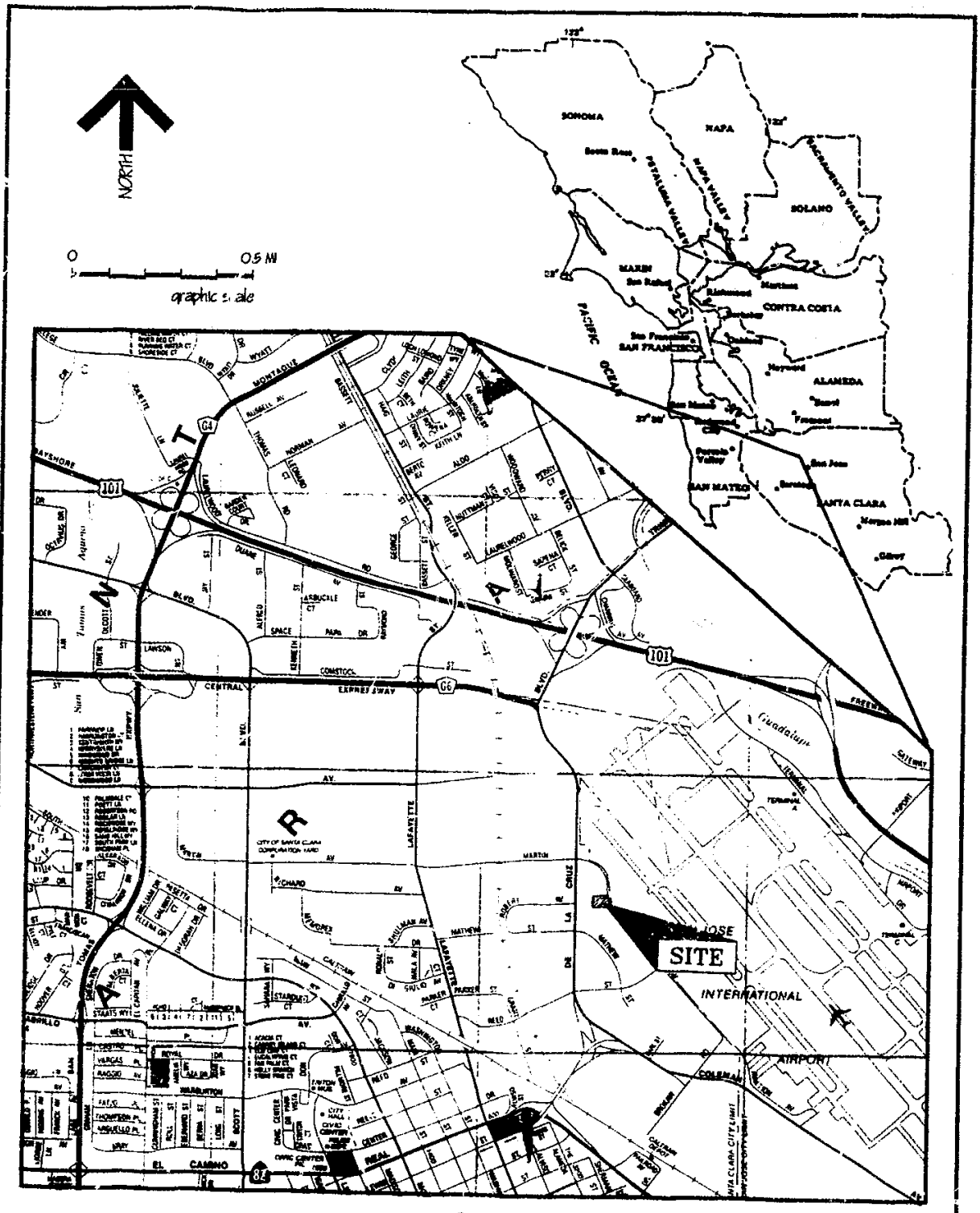
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

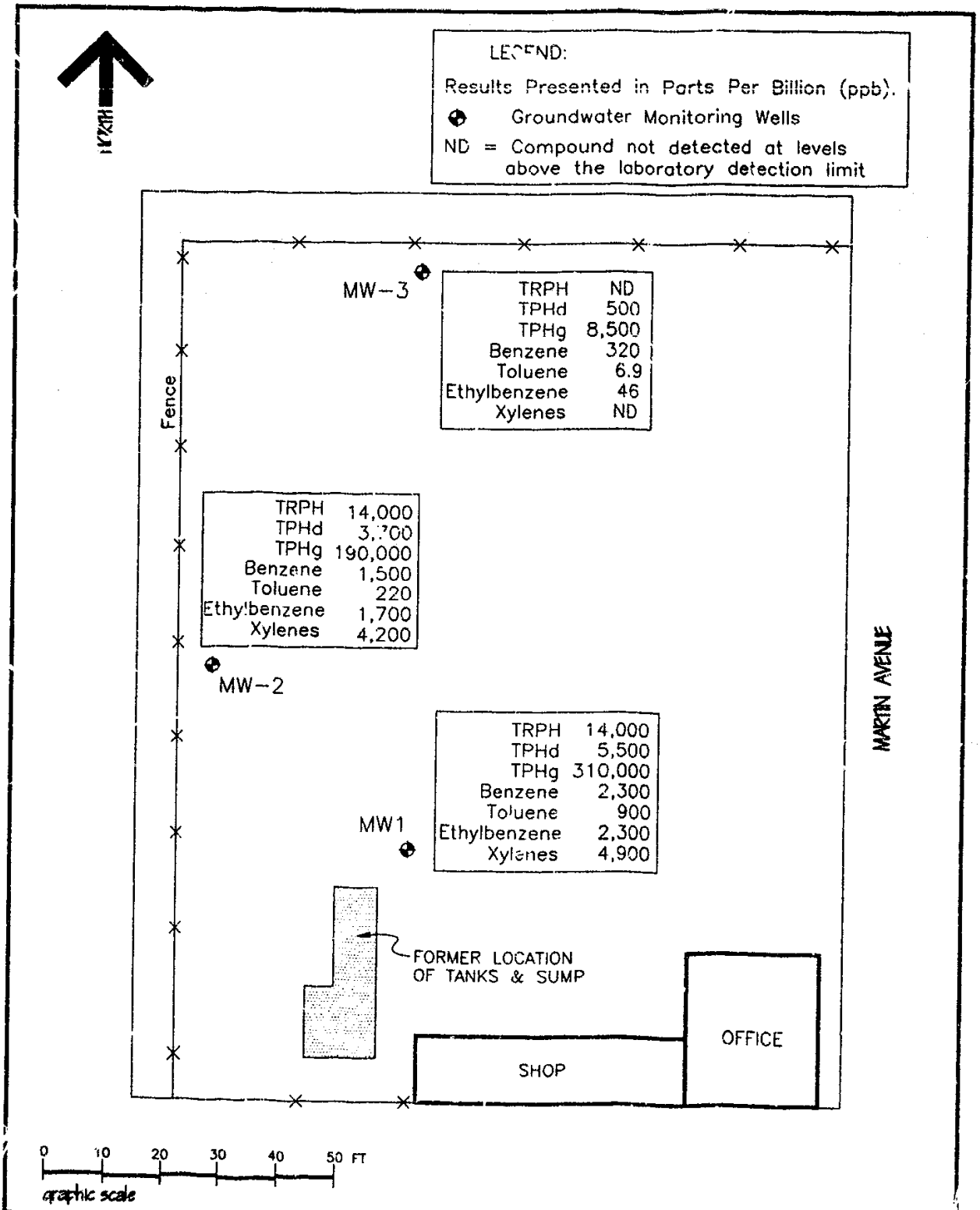
R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

SCUMDSRPR 9'96AM11:23



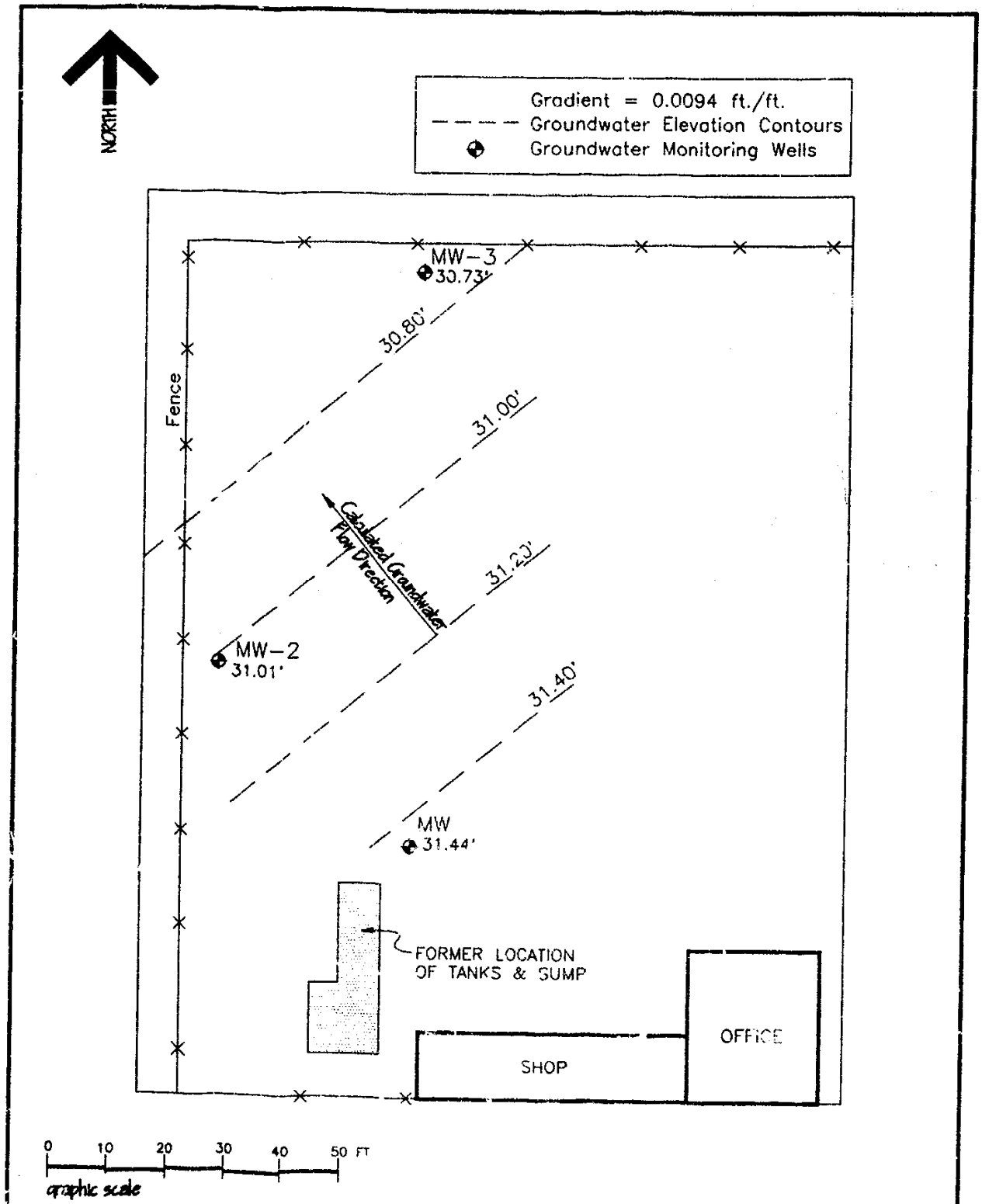
Source: California AAA Map, 1993 -- Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	March 1996



5850100.2

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	RESULTS OF GROUNDWATER SAMPLE ANALYSES 2/29/96 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 March 1996



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER ELEVATION CONTOUR MAP 2/29/96 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 March 1996

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
February 29, 1996

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY u/cm	TEMPERATURE (Fahrenheit)	PRE-PURGING		% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
					TOTAL DEPTH	DEPTH TO WATER		
MW-1	2.0	6.71	12.1×10^2	54.3	17'	7.45'	80%	80%
	4.0	6.71	12.7×10^2	54.3				
	6.0	6.70	12.7×10^2	54.3				
	8.0	6.70	12.7×10^2	54.3				
MW-2	2.0	6.82	13.7×10^2	53.6	17'	8.27'	100%	100%
	4.0	6.82	12.4×10^2	53.6				
	6.0	6.82	12.4×10^2	53.6				
MW-3	2.0	6.91	12.9×10^2	55.7	17'	8.62'	80%	100%
	4.0	6.91	13.7×10^2	55.1				
	6.0	6.91	13.6×10^2	55.1				

TABLE 2
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	75	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	580	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	43	3,500	1,800	1,200	5,500	<0.5	1.2	<0.5	2.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	26	<0.5	5.0	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.5	12	57	4,300	1,400	2,400	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	660	1,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.8	<5	8.7	730	93	650	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	66	4,100	1,500	<0.5	4,400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	820	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	.860	<5	6.9	480	23	95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	410	2,300	900	2,300	4,900	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	---	---	---	---	---	---	---	---	---
MW-3	0.5	<5	5.6	320	6.5	46	<0.5	---	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
--- = Samples not analyzed for these analytes.

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)			
WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER	GROUNDWATER ELEVATIONS (MSL)
		2/29/96	2/29/96
MW-1	38.89	7.45	31.44
MW-2	39.28	8.27	31.01
MW-3	39.35	8.62	30.73

MSL = Mean Sea Level

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APPENDIX A
FIELD DATA LOGS

GROUNDWATER WELL SAMPLING DATA LOG

JOB NO: 5850100 DATE: 2/29/96

SAMPLER: K. Porter PURGE AND SAMPLING METHOD: Bailer

CONVERSION FACTORS: 2" = .17 4" = .66 6" = 1.5

FIELD OBSERVATIONS: Hydrocarbon odor noted in all 3 wells

MATERIALS: Bailers # 3 Drums # 1 Health & Safety Equipment

WELL PARAMETERS

WELL NO.	WELL DIAM.	PURGE VOLUME	pH	ELECT/CONDT	TEMP (F)	TOTAL DEPTH	DEPTH TO WATER	CASING VOLUME	RECHARGE (%/15 min.)
mw1	2"	2	6.71	1.21 x 1	54.3	17'	7.45'	2.0	75-80%
		4	6.71	1.27 "	54.3				
		6	6.70	1.27 "	54.3				
		8	6.70	1.27 "	54.3				
		Total Volume Purged: 8 gallons							
mw2	2"	2	6.82	1.37 x 1	53.6	17'	8.27'	2.0	100%
		4	6.82	1.24 "	53.6				
		6	6.82	1.24 "	53.6				
		Total Volume Purged: 6 gallons							
mw3	2"	2	6.91	1.25 x 1	55.7	17'	3.62'	2.0	100%
		4	6.91	1.27 "	55.1				
		6	6.91	1.37 "	55.1				
		Total Volume Purged: 6 gallons							
		Total Volume Purged:							
		Total Volume Purged:							

Hull Development Labs, Inc.

CA ELAP # 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	E2C
Sample Matrix:	Water
Lab #:	B8076
Sample ID:	MW-2

Date:	8/17/95
Date Received:	8/10/95
Date Analyzed	8/17/95
Dilution Factor	100

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	**Recovery (%)**
4-Bromofluorobenzene	73

1. PQL= Detection Limit x Dilution Factor
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #B8076 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Environmental Analysis Since 1983

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite F • Sunnyvale, CA 94086 • (408) 735 1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	E2C
Sample Matrix:	Water
Lab #:	B8077
Sample ID:	MW-3

Date:	8/17/95
Date Received:	8/10/95
Date Analyzed	8/17/95
Dilution Factor	100

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	79

1. PQL= Detection Limit x Dilution Factor
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #B8077 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Environmental Analysis Since 1983

HULL DEVELOPMENT LABS INC.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY FOR GASOLINE ANALYSIS

GASOLINE
QC sample No.: BLANK SPIKE & DUP Date analyzed: 08-11-95

Matrix. WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	PR
GASOLINE	200	0	198	99	230	115	15	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

HULL DEVELOPMENT LABS INC.

525 Del Rey Avenue suite K
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY
BTEX

QC sample No.: BLANK SPIKE & DUP Date analyzed: 08-11-95

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
BENZENE	20	0	17	85	18	90	6	25	50-150
TOLUENE	20	0	20	100	21	105	5	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

HULL DEVELOPMENT LABS INC.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY
VOLATILE ORGANICS ANALYSIS

QC sample No.: BLANK SPIKE & DUP Date analyzed: 08-10-95

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
BENZENE	20	0	21	105	21	105	0	25	50-150
CHLOROBENZENE	20	0	16	80	16	80	0	25	50-150
1,1-DCA	20	0	20	100	22	110	10	25	50-150
TOLUENE	20	0	19	95	20	100	5	25	50-150
TCE	20	0	21	105	22	110	5	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

HULL DEVELOPMENT LABS INC.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY FOR DIESEL ANALYSIS

DIESEL
QC sample No.: BLANK SPIKE & DUP

Date analyzed: 08-10-95
Date extracted: 08-10-95
QC batch: DS089503

Matrix: SOIL

Units: mg/Kg

Dilution factor: 1

COMPOUND	SA mg/Kg	SR mg/Kg	MS mg/Kg	MS PR	MSD mg/Kg	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
DIESEL	25	0	23	92	23	92	0	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

Hull Development Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: SM5520F/EPA 418.1

QC Batch : 95081
Matrix: Soil
Units: mg/kg

Date Analyzed: 8/3/95

PARAMETER	SA mg/kg	SR mg/kg	MS mg/kg	MS PR	MSD mg/kg	MSD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	80	0	93	116	93	116	0%	25	50-150

Definition of Terms:

SA: Spike Added
SR: Sample Result
MS: Matrix Spike Result
MS (PR): Matrix Spike % Recovery
MSD: Matrix Spike Duplicate Result
MSD (PR): Matrix Spike Duplicate % Recovery
RPD: Matrix Spike Recovery % Variance

LAB DIRECTOR: M. Golden

E_2C, Inc.
Environmental/Engineering Consultants
Civic Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-3111

Phone: (408)286-6300
Fax: (408)286-6333

LABORATORY: Huli Labs

CHAIN-OF-CUSTODY RECORD

Site Name and Address: 390 Martin Ave., Santa Clara, CA

Project #: 585010.

Sampler: Kip Porter

Company: E2C, Inc

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TRPH)	8010/601	8020/602	8240/624			Asbestos	Comments
MW-1	~~7~~5		X		X					X	X	X	X	X						B8075
MW-2	~~7~~5		X		X					X	X	X	X	X						B8076
MW-3	~~7~~5		X		X					X	X	X	X	X						B8077

TURN-AROUND TIME REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-day
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice?_____
2) Did any VOA samples received have any head space?_____
3) Were samples in appropriate containers and packaged properly?_____

	Date	Time		
Relinquished by sampler: Kip Porter	5/10/95	4:30 pm	Received by: Chi Jang	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	



3
39.35
MW-3
N 5103.7527
E 4940.3730

2
39.28
MW-2
N 5038.0101
E 4905.9570

1
38.89
MW-1
N 5005.3065
E 4937.1531

MARTIN AVENUE

LICENSED LAND SURVEYOR
MITCHELL JAMES DURYEA
No. 5680
EXP. 9-30-95
STATE OF CALIFORNIA

MOINTORING WELL SURVEY
390 MARTIN AVE.
SANTA CLARA

Design By: MJD
Drawn By: MJD
Check By: MJD

Duryea & Associates
Surveying & Civil Engineering
2863 Armstead Court
San Jose, CA. 95121
(408)274-6051

Scale: 1"=30'
Date: MARCH 1994
Job No. 94-208A

SANTA CLARA
VALLEY WATER DISTRICT

95 SEP 26 Ail : 24

E2C INC.

Environmental Engineering Consultants

December 6, 1995
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William Klein
SUBJECT: **WORK PLAN FOR REMEDIAL INVESTIGATION**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein our Work Plan for a Remedial Investigation (RI) to further define the area of soil and groundwater impact in the area of the former Underground Storage Tanks (USTs) at the aforementioned subject site.

Our Work Plan was prepared for submittal to the Santa Clara Valley Water District (SCVWD) in response to their mandate for additional soil and groundwater data (reference SCVWD letter, dated March 2, 1995).

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 286-6300 • FAX (408) 286-6333

SANTA CLARA
VALLEY WATER DISTRICT

95 DEC 11 AM : 01

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine A. Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, CA 95050
ATTN: Mr. Andy Bardakos

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1.0 INTRODUCTION

This Work Plan for a Remedial Investigation (RI) describes the work proposed to further define the extent of hydrocarbon-impacted soil and groundwater associated with the subsurface release of hydrocarbons from former fuel Underground Storage Tanks (USTs) at 390 Martin Avenue in Santa Clara, California (see Figure 1). This Work Plan was prepared for submittal to the Santa Clara Valley Water District (SCVWD) in response to their mandate for a Remedial Investigation (RI).

1.1 Site Background

Four USTs containing diesel, leaded and unleaded gasoline and waste-oil were installed at the site prior to 1978. In the 1980's, a single well, MW-1, was installed adjacent to the UST's for monitoring purposes. This well remains on the subject site. In 1989, operation of the tanks ceased and they were not used again. The four USTs were removed from the site in May and June of 1991. Soil samples collected from the UST excavation were found to contain TPHg, TPHd, and BTEX. In addition, a groundwater sample collected from the UST excavation at an approximate depth of 16 feet was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, O & G at 18,000 ppb, and elevated levels of BTEX. The soil removed during tank removal operations was returned to the excavation.

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994 (reference E_2C, Inc. report entitled, "Preliminary Site Assessment, 390 Martin Avenue, Santa Clara, California," dated July 5, 1994). The PSA consisted of the installation of two groundwater monitoring wells to the north, or downgradient, of the former USTs (see Figure 2). The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-high levels of hydrocarbons and related

constituents. TPHg levels within the soil samples collected ranged from 26-to-1,100 ppm and TPHd levels ranged from 2-to-270 ppm. The highest concentrations of TPHg and TPHd were detected in soil samples collected from the 10-foot depth in each of the borings, which is likely to be representative of the capillary zone (static groundwater levels in the wells are approximately 9 feet). No O & G was detected in the four soil samples collected during the PSA.

Initial sampling of the wells in February of 1994 revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08-to-120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site. This finding suggests a possible off-site source to the west of the subject site. Based on the results of chemical analyses conducted on the groundwater sample collected from well MW-3, the downgradient extent of the hydrocarbon plume was determined to be at least 110 feet from the former USTs.

Quarterly groundwater monitoring of the three wells has been conducted since February of 1994. The levels of contaminants detected in the wells over this time period remain within the same general range of magnitude. Table 1 shows the results of historical groundwater sampling at the subject site.

Based on the cumulative results of soil and groundwater sampling conducted at the subject site to date, the SCVWD requested that quarterly groundwater monitoring be continued and that an RI be performed (reference SCVWD letter, dated March 2, 1995). This Work Plan describes the proposed RI.

1.2 Proposed Scope of Work and Objectives

The proposed Scope of Work consists of the collection of ten soil samples from ten separate locations on the subject site using a Soil Punch sampling Methodology. Soil samples will be collected from a depth of approximately seven feet in each of the borings. "Grab" groundwater samples will also be collected from five of the ten Soil Punch locations using a HydroPunch sampling methodology. All soil and groundwater samples will be analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), TPHd, TPHg, and BTEX using approved EPA Test Methods 418.1, 8015 (for TPHd and TPHg), and 8020, respectively. All analyses will be conducted at a state-certified analytical laboratory. The proposed sampling locations are shown on Figure 2.

The objective of this preliminary investigation is to ascertain the extent of soil and groundwater impact in the former UST area. The information generated from this work will also be used to formulate a Remedial Action Plan (RAP). Soil sampling will also be performed to assist in identifying contaminant concentration contour lines (e.g., 1,000, 500, 100 parts per million [ppm] contours). Once these lines have been roughly established, selected soil samples will be analyzed using Toxicity Characteristic Leaching Potential (TCLP) analyses to establish the likelihood of contaminant migration from the soil to groundwater. Cumulative data will then be used to determine the area of soil impact requiring remediation.

2.0 SITE DESCRIPTION

A Site Location Map showing the subject site and surrounding areas is presented as Figure 1 of this Work Plan. The Proposed Sampling Plan (Figure 2) shows the location of the former USTs, the existing groundwater monitoring wells, the results of previous soil sampling, and the proposed locations of borings for this RI.

2.1 Site Location and Surroundings

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site is at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop, and equipment yard for a concrete construction company (see Figure 2). The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River. The site consists of an office building with an attached shop area a parking area, and a heavy equipment storage yard.

The site is located in an area zoned Light Industrial (ML). Light industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

2.2 Regional and Site Geology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas fault zone and the Santa Cruz Coastal Mountains and on the northeast

by the Calaveras fault zone, Hayward fault zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas.

Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. Other sediments occupying the Valley originated from the marine environment that covered a portion of the basin. The basin generally consists of about 1,000 to 2,000 feet of these deposits that unconformably overlie bedrock formations.

The alluvial material in the Santa Clara Valley is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay. These bedded deposits vary from being moderately or highly permeable (sands and gravels) to relatively low permeable (clays) that may exist as aquitards (Helley & Lajoie, 1979).

The soil encountered during drilling consisted of slightly silty clays to an approximate depth of 12 feet, where a very fine sand with some silt and clay was encountered and was found to extend to a depth of approximately 18 feet, where the borings were terminated.

2.3 Hydrologic Conditions

Groundwater was first encountered at an approximate depth of 13 feet bgs during drilling. Depth to groundwater within the wells nas been measured at

an approximately depth of 8-to-10 feet since February of 1994. Depth to groundwater measurements were used in conjunction with well survey data to calculate the site-specific groundwater flow direction and gradient, which was determined to be north-northwest. General groundwater flow direction is depicted on Figure 2.

3.0 METHODS AND PROCEDURES

The proposed investigative approach, and all variations deemed necessary, will be consistent with the following governmental guidelines:

- The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) document entitled, "Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks" (August 10, 1990).

- The State of California Water Resources Control Board document entitled, "Leaking Underground Storage Tank Field Manual: Guidelines for Site Assessment, Cleanup and Underground Storage Tank Closure" (October 18, 1989).

- The SCVWD guidelines entitled "Investigation and Remediation at Fuel Leak Sites" (revised October 1990).

The Site Safety Plan (SSP) presented in Appendix A outlines the Health and Safety protocol that will apply to all field activities. Prior to the execution of on-site activities, all individuals involved with on-site work will be required to sign the Acknowledgement and Agreement Statement within the SSP.

3.1 Soil Punch Sampling Protocol

Soil samples will be collected at a depth of approximately seven (7.0) feet from the 10 borings shown on Figure 2, using a Soil Punch sampling apparatus. Soil Punch sampling consists of using a hydraulic hammer to drive sections of ¾-inch diameter galvanized steel pipes containing a steel rod into the ground until the desired point of sample collection is encountered. Once the desired depth is reached, the rod is removed from the pipe and the open pipe is driven further into the soil causing an undisturbed soil sample to be retained in the end of the pipe. The pipe is then removed from the ground and the section of pipe

containing the soil sample is cut off and retained as the sample. The ends of the sample tube are covered with a small sheet of aluminum foil or Teflon and tight-fitting caps. The tube will then labeled and stored on ice prior to and during transport to the Entech Analytical Labs, Inc. of Sunnyvale, California.

3.2 HydroPunch Groundwater Sampling

Grab groundwater samples will be collected from five of the 10 proposed Soil Punch borings shown on Figure 2. HydroPunch sampling consists of driving 5-foot sections of ¾-inch galvanized steel pipes containing a steel rod into the ground until groundwater is encountered. The lead section of pipe is perforated and, therefore, when the rod is removed, fills with water. A sample of groundwater is then obtained from the conduit using a clean, stainless steel bailer. The samples will be placed in bottles appropriate for the requested analyses and then placed on ice in a cooler for transport to the laboratory. Groundwater samples obtained with the HydroPunch will be filtered to remove solids at the laboratory prior to analyses. After sample collection, the borings will be filled with grout to the ground surface.

3.3 Sample Analyses

All soil and groundwater samples will be analyzed at a state-certified laboratory for TRPH, TPHd, TPHg, and BTEX using EPA test methods 418.1, 8015 (for TPHd and TPHg), and 8020, respectively.

4.0 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

All soil and groundwater sampling, sample handling, and sample storage will be conducted under the direction of E_2C, Inc. and in accordance with EPA guidelines presented in EPA document SW-846. All laboratory analyses will be performed at a laboratory certified by the State of California to perform the requested services. Upon request from the SCVWD, duplicate samples or field split samples will be provided to evaluate the variability of analytical results.

All equipment that contacts samples will be thoroughly cleaned prior to use on the site and between samplings. All non-disposable bailers will be steam-cleaned or washed with an anionic detergent solution (i.e., Liquinox or Alconox), rinsed with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry with a clean towel.

All containers used in the collection of groundwater samples will be provided by the contract laboratory.

5.0 RESULTS

The laboratory reports documenting the results of sar analyses will be presented in an Appendix within the RI Report, and t.. esults of soil and groundwater sample analyses will be summarized in a tabular form.

5.1 Laboratory Quality Assurance/Quality Control

The purpose of a quality assurance/quality control program is to follow field and laboratory sampling and handling procedures that will allow the generated data to be scientifically valid, defensible, and of appropriate quality. Laboratory testing will be performed by a laboratory certified by the State of California Department of Health Services to perform the types of analyses requested. Each laboratory has documented procedures for handling, preparing, and testing samples for the various types of compounds for which that laboratory is certified to test. Copies of these procedures are available at the laboratories and will be provided upon request.

The laboratory will check analytical results, as necessary, by analyzing field blanks or duplicate samples. Field blanks or duplicate split samples may be submitted "blind," and randomly, to the laboratory under separate sample numbers. Duplicate samples may also be submitted to different laboratories for testing to cross-check analytical results.

Laboratory reports will be reviewed to check that analyses are completed within the recommended sample holding times and that proper sample preservation, preparation, and extraction techniques have been used. Measurements of percent recovery for spiked samples will be evaluated for compliance with established laboratory control limits. Data identified as being of sufficient quality will be used; suspect data will be identified as such.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions based on the results of our investigation will be included in our RI report. This information will include the extent of free product, dissolved product, and/or soil contamination, if detected. E_2C, Inc. will recommend appropriate measures to be implemented, based on the conclusions presented. These measures will be presented within a forthcoming RAP.

7.0 TIME SCHEDULE

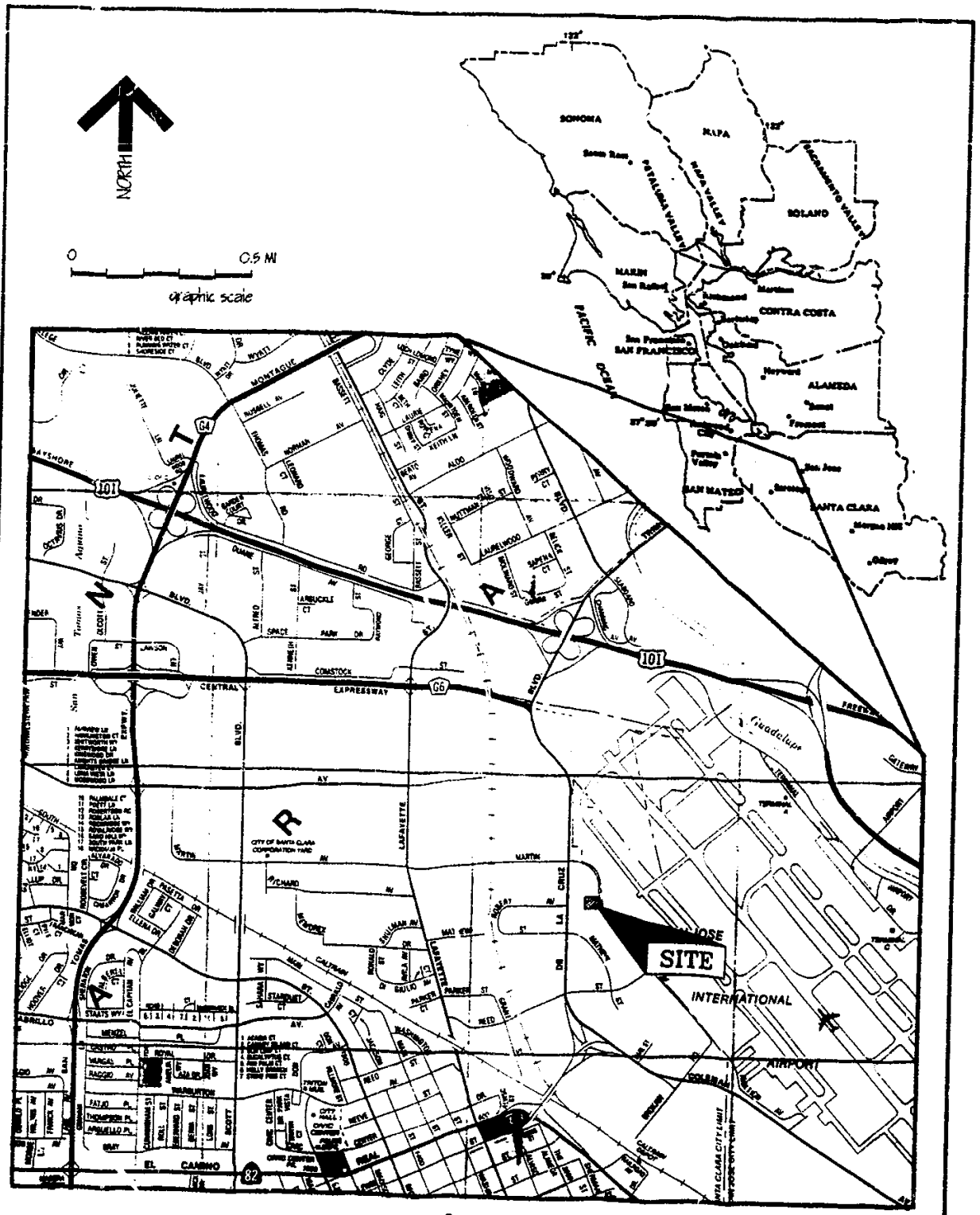
- Proposed Work Plan submitted to SCVWD.
- Week one - Soil and groundwater sample collection.
- Week six - Report submittal.

8.0 CERTIFICATION

To the best of our knowledge, all statements above are true and correct.

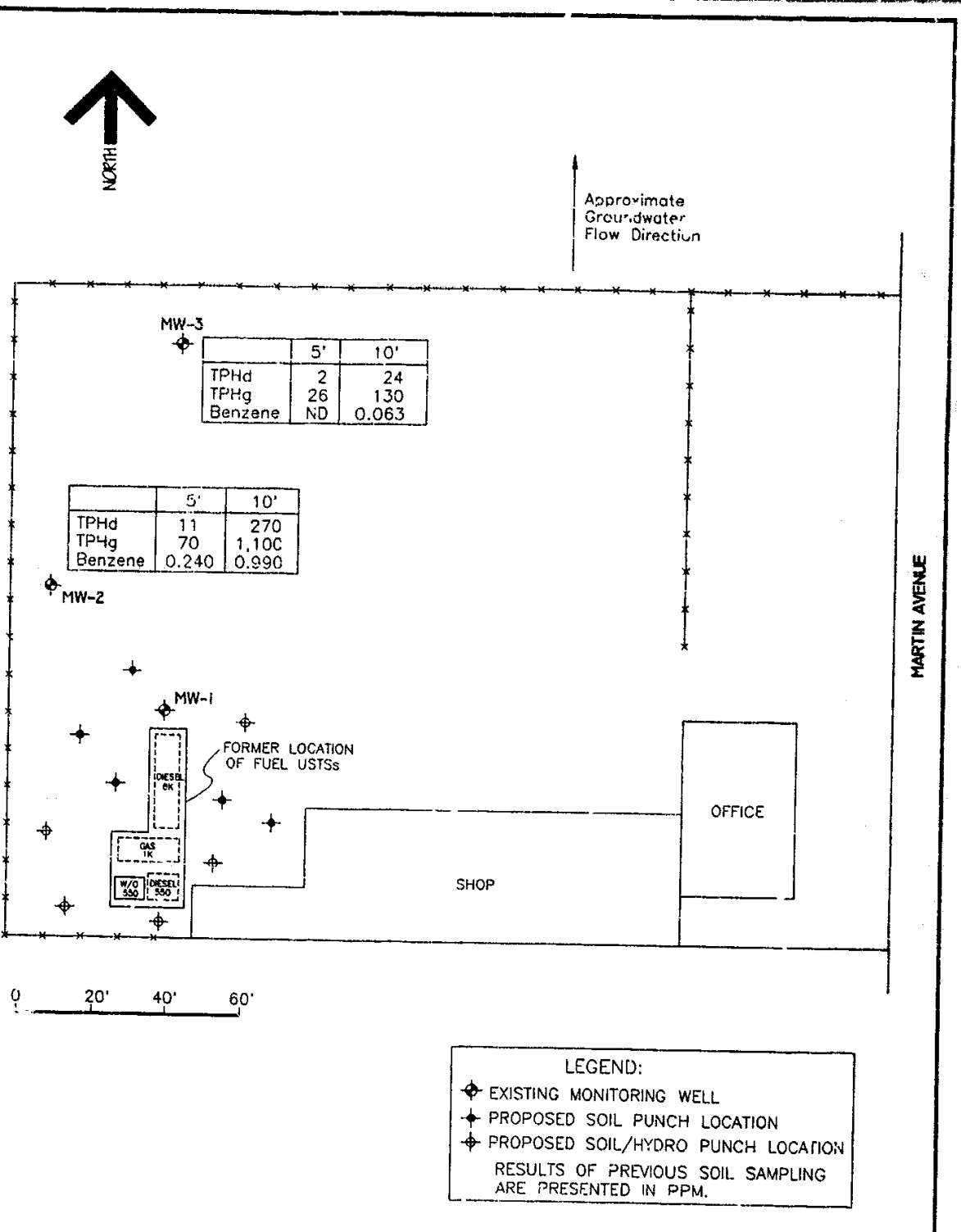
Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 San Martin Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1 November 1995



LEGEND:

- EXISTING MONITORING WELL
- PROPOSED SOIL PUNCH LOCATION
- PROPOSED SOIL/HYDRO PUNCH LOCATION

RESULTS OF PREVIOUS SOIL SAMPLING ARE PRESENTED IN PPM.

58501022

EC Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

PROPOSED SAMPLING PLAN

390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE 2
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	November 1995

TABLE 1

GROUNDWATER SAMPLE RESULTS

Smp. No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbn ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
	First Quarter - February 25, 1994														
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	5.5	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
	Second Quarter - June 10, 1994														
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	6.5	2.3	<0.4	7.5	0.5	2.3	<0.8
	Third Quarter - August 31, 1994														
MW-1	<0.05	5.88	76	3,400	3,00.	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Ethylbn = Ethylbenzene
Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

TABLE 1

GROUNDWATER SAMPLE RESULTS

Smp. No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbn ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
	First Quarter - February 25, 1994														
MW-1	0.08	22	61	6,000	4,700	2,900	8,600	3.8	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
	Second Quarter - June 10, 1994														
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	6.6	2.3	<0.4	7.5	0.5	2.8	<0.8
	Third Quarte. - August 31, 1994														
MW-1	<0.05	5.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.01	61	3,600	600	1,800	3,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Ethylbn = Ethylbenzene
Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
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Meth = Methylene Chloride

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

SITE SAFETY PLAN

FOR

390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

PREPARED FOR

HOPKINS & CARLEY
A LAW CORPORATION

BY

E_2C, INC.

DECEMBER 6, 1995

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TABLE 3 AIR MONITORING ACTION LEVELS
TABLE 4 HAZARD EVALUATION GUIDELINES

I. INTRODUCTION

This Site Safety Plan (SSP) was developed by E_2C, Inc. for Soil Punch and HydroPunch sampling at 390 Martin Avenue in Santa Clara, California. The primary purpose of this SSP is to provide field personnel with an understanding of the potential chemical and physical hazards that exist or may develop during activities conducted at the site, and to provide information concerning emergency response in the event of a release of a hazardous substance(s) or of an accident involving a physical injury.

The primary objective is to ensure the well-being of all individuals working at the site. In order to accomplish this objective, all individuals involved in activities at the site (excluding those involved in the temporal delivery of supplies and materials) shall read, acknowledge, and adhere to the policies and procedures established herein. All personnel assigned to the project under execution at the site will read this SSP and sign the Agreement and Acknowledgement Statement in Section XII to certify that they have read, understood, and have agreed to abide by the provisions contained herein.

A. Site Background

Four USTs containing diesel, leaded and unleaded gasoline, and waste-oil were removed from the site in May and June of 1991. Soil samples collected from the UST excavation were found to contain Total Petroleum Hydrocarbons as gasoline (TPHg) as high as 1,500 parts per million (ppm), Total Petroleum Hydrocarbons as diesel (TPHd) as high as 480 ppm, and elevated levels of Benzene, Toluene, Ethylbenzene, and Xylenes (*BTEX*). In addition, a groundwater sample collected from the UST excavation at an approximate depth of 16 feet was found to contain TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, Oil & Grease (O & G) at 18,000 ppb, and elevated levels of BTEX. Removed soil was returned to the excavation after tank removal.

In response to the findings of tank removal sampling, a Preliminary Site Assessment (PSA) was performed in February of 1994, that consisted of the installation of groundwater monitoring wells MW-2 and MW-3 to the north, or downgradient, of the former USTs. The results of this study indicated that soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, had been impacted by low-to-high levels of hydrocarbons and related constituents. TPHg levels within the soil samples collected ranged from 26-to-1,100 ppm and TPHd levels ranged from 2-to-270 ppm. The highest concentrations of TPHg and TPHd were detected in soil samples collected from the 10-foot depth in each of the borings, which is likely to be representative of the capillary zone (static groundwater levels in the wells are approximately 9 feet). No O & G was detected in the four soil samples collected.

Initial sampling of the wells in February of 1994, revealed TPHg levels from 32-to-81 ppm and TPHd levels from 0.08-to-120 ppm. O & G was also detected in the groundwater samples at levels ranging from 20 to 317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site. Quarterly groundwater monitoring conducted since February of 1994, has revealed contaminants within the same general range of magnitude.

B. Project Description

The proposed Scope of Work consists of the collection of soil samples and groundwater samples from the subject site using a Soil Punch methodology. The sampling locations will be located in a general area of former fuel tanks.

C. Amendments to Site Safety Plan

Any change in the scope of this project, conditions at the site, or both, must be amended in writing on the SSP Amendment Sheet contained in this plan. Changes to the plan must be approved by the Health and Safety Manager.

II. PROJECT PERSONNEL AND RESPONSIBILITIES

A. Site Safety Officer (SSO): Brenda D. McNabb, E_2C, Inc.

The SSO will be on site during all activities conducted in the known area of contamination or Exclusion Zone, and shall be responsible for the implementation of the SSP. Specific duties will include:

- Monitoring the compliance of field personnel for the proper use of the Personal Protection Equipment (PPE).
- Stopping work on the site if any operation threatens the health and safety of workers or the public and monitoring personnel entering and exiting the site.
- Knowing emergency procedures, evacuation routes, and the telephone numbers of the ambulance, local hospital, poison center, fire and police departments.
- Coordinating the upgrading and downgrading of PPE with the Health and Safety Manager as deemed necessary.
- Arranging for air quality monitoring to be performed by appropriately trained individuals using approved instrumentation.

B. Health and Safety Manager: Ken Price, E_2C, Inc.

The Health and Safety Manager shall be responsible for the overall coordination and oversight of the SSP.

C. Field Personnel

All field personnel shall be responsible for acting in compliance with all safety procedures outlined in this SSP. Any hazardous work situations should be reported to the SSO so that corrective steps can be taken.

III. SITE CHARACTERIZATION

The subject site is located at 390 Martin Avenue in Santa Clara, California. According to the United States Geological Survey Map, San Jose West Quadrangle, the site is at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop, and equipment yard for a concrete construction company. The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River. The site consists of an office building with an attached shop area, a parking area, and a heavy equipment storage yard.

The site is located in an area zoned Light Industrial (ML). Light industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

IV. SITE SPECIFIC HAZARDS

A. Chemical Hazards

Contaminants that have been detected in the soils of the site at varying concentrations include those listed in Table 1. The maximum concentrations found during previous studies are also shown in the Table. Corresponding action levels (levels at which specific safety actions should be implemented) for each of the contaminants are shown in Table 4 on Page 14 of this plan.

TABLE 1 - CONTAMINANTS DETECTED IN THE SOILS OF THE SITE

CONTAMINANTS	MAXIMUM CONCENTRATION FOUND IN SOIL (IN PPM)
Oil & Grease	317
TPH as Diesel	270
TPH as Gasoline	1,000
Benzene	1
Toluene	0.160
Ethylbenzene	9
Xylenes	26

B. Non-Chemical Hazards

- Underground Utilities
- Heat/Cold Stress
- Slip/Fall Hazards
- Overhead Hazards
- Lifting Hazards

C. Site Hazard Level

For the Scope of Work to be conducted at the site, the hazard determination has been categorized as follows:

Serious _____
Moderate ___X___
Low _____

Based on the hazards listed above, the minimum level of personal protection required on this site is a **modified Level D**. This hazard determination requires that approved air purifying respirators with appropriate cartridges be available

to individuals involved with site investigation operations. Respirators will only be worn if air-monitoring indicates that respiratory action levels have been exceeded. This hazard level also requires that dermal protective equipment be used when there is a high probability of skin contact with contaminants. Modified Level D for the purposes of this project will include the following PPE:

- **Coveralls/work uniform.**
- **Hard hat.**
- **Tyvek suit and latex gloves when coming in contact with potentially contaminated soil.**
- **Boots with approved steel toe protection.**
- **Approved safety glasses or chemical splash goggles if the potential for splash exists.**
- **Approved Half-face respirator equipped with organic vapor cartridges (available for immediate use should air-monitoring action levels be exceeded).**

Respirators will be NIOSH/MSHA approved, and all individuals wearing respirators will have received a documented qualitative fit test, issued specifically for the respirator in use. Each worker will perform a positive/negative fit test prior to each respirator usage. All personnel will be responsible for cleaning their own respirators and changing cartridges at least once a day. If odor breakthrough is detected while wearing the respirator, or breathing becomes difficult, leave the Exclusion Zone immediately and change cartridges before reentering. Respirators must be used only in accordance with the manufacturer's instructions.

V. HEALTH AND SAFETY REQUIREMENTS

A. Employee Training

All employees with the potential for hazardous exposures are required to obtain 40 hours of Hazardous Waste Operation and Emergency Response Training in compliance with Code 29 of the Federal Regulations, 1910.120. Employees at the Project Manager level or higher must also participate in an additional 8-hour supervisory training course. Following the above-listed training, employees receive a certificate of completion and attend an 8-hour refresher training session within one year of their initial training as well as an annual medical evaluation.

B. Site Engineering Controls

Airborne particulates of contaminants can create a potential health hazard. To diminish airborne particulates, dust control measures will be implemented as required.

C. Project Information Program

Prior to the onset of activities within the Exclusion zone, a documented site safety meeting will be held with all concerned workers to discuss potential hazards and required PPE. During this meeting, information regarding air monitoring results, soil sampling results, material handling procedures, accident reporting procedures, and any other pertinent site safety related information will be disseminated.

D. First Aid Equipment

Vehicles used for site work will be equipped with a first aid kit and safety equipment including cones and barricades, fire extinguisher, water suitable for drinking, and a portable eye wash.

E. Work Zone Access

For health and safety purposes, the site will be divided into three zones: the Exclusion Zone, the Decontamination Zone, and the Support Zone. Entering the **Exclusion Zone** is prohibited to all but approved field personnel. The Exclusion Zone will constitute the area where work is being conducted and a 30-foot radius around this area. This zone will be marked with caution tape as appropriate.

The Decontamination Zone will constitute the area immediately surrounding the Exclusion Zone. This is a clean zone with a reduced probability of exposure through inhalation and no probability of dermal contact with known contaminants. All decontamination activities will take place in this area.

The Support Zone will be the area outside of the Exclusion and Decontamination Zones. To enter the Support Zone from the Exclusion Zone, the Decontamination Zone must be passed through and appropriate decontamination activities must be conducted. Equipment storage and worker lunch areas are located within the support zone. Smoking and chewing tobacco will be allowed only in this area. Personnel not authorized or trained to be in the Exclusion Zone must remain in this area while on site.

F. Personal Decontamination - Modified Level D

PPE for modified Level D will be removed in the following manner, inside the Decontamination Zone:

- Remove Tyvek suit by rolling down suit from the inside.
- Remove disposable gloves and put on a new pair.
- Remove respirator, hard hat/face shield and properly dispose of. cartridges; wash respirator.
- Clean boots thoroughly in decontamination water provided.
- Remove boots and then disposable gloves.

G. Drilling and Sampling Procedures

The work area must be approved for subsurface penetration prior to subsurface activities. During sampling procedures, at least two workers should be present in case of a medical emergency (also see Section X., D., 2.)

H. Illumination

All field work is expected to be conducted during daylight hours. If work is conducted during non-daylight hours, lights will be used to fully illuminate the work area.

I. Material Handling

Contaminated soil and PPE will be stored in 55-gallon drums pending disposal.

J. Sanitation

Potable water will be available to workers on the site for drinking and cleaning purposes during all phases of work.

K. General Health

Medicine and alcohol can increase the effects of exposure to toxic chemicals. Unless specifically approved by a qualified physician, prescription drugs should not be taken by personnel assigned to operations where the potential for absorption, inhalation, or ingestion of toxic substances exists. Drinking alcohol on site or off site during working hours is prohibited. Failure to adhere to this prohibition will result in immediate dismissal from the project.

L. Contractors and Subcontractors

Employees of the contractor and subcontractors must sign the Acknowledgement and Agreement Statement in Section X of this SSP prior to performing work within the Exclusion Zone. By signing this statement, individuals agree to abide by all the provisions presented within the SSP, and also agree to comply with any health and safety related directives from the SSO or individuals assuming the role of the SSO during the SSO's absence from the site.

VI. HAZARD EVALUATION & PROCEDURES FOR HAZARD REDUCTION

The potential for unknown hazards cannot be eliminated. Hazards can exist for all exposure routes including but not limited to: dermal contact, ingestion, inhalation, and eye contact. Table 2 below discusses the potential site hazards and the corresponding procedures for hazard reduction.

TABLE 2 - HAZARD REDUCTION PROCEDURES

POTENTIAL HAZARDS	PROCEDURES FOR HAZARD REDUCTION
1. Volatilization of Organic Vapors During all operations, there is a potential hazard via the inhalation of vapors.	Air monitoring will be performed as required throughout the duration of the project. Approved respirators equipped with appropriate cartridges will be worn by all individuals working within the Exclusion Zone. See Table 3 for Action Limits. Workers should stand upwind from the source of contamination whenever possible.
2. Skin and Eye Contact Contact with inorganic or organic chemicals in the soil may occur during soil sampling operations.	Saranex coveralls, chemical resistant boots, approved gloves and goggles will be required when potential skin/eye contact with contaminated substances is apparent.
3. Ingestion of Organic Chemicals Can occur by accidental swallowing of contaminated soils, liquids, and/or transfer of contaminated particles onto ingestible substances (such as food or drink).	Eating, smoking, drinking, and/or application of cosmetics will only be permitted in the designated Support Zone area of the site.
4. Lifting Hazards	Proper precautions and correct methods for lifting heavy loads shall be used at all times. Two or more persons will be utilized when necessary to lift heavy objects. Dollies or forklifts shall be utilized to move very heavy objects.
5. Contaminated Surfaces	Contact with contaminated surfaces, or surfaces suspected of being contaminated, should be avoided.

	POTENTIAL HAZARDS	PROCEDURES FOR HAZARD REDUCTION
6.	Exposure to the Elements Heat Stress	Drink plenty of liquids to replace lost body fluids (water, juice, but not soda) during work activities. Provide sufficient rest periods for cooling down. Provide adequate shelter against heat and direct sunlight.
7.	Slipping/Tripping Hazards	Look for slipping and tripping hazards. Secure the site with Caution Tape to prevent unauthorized entry.
8.	Falling Objects	For protection from head injuries hard hats must be worn by all personnel.

A. Air Monitoring Procedures

Field air monitoring will be performed as needed, based on the discretion of the Health and Safety Manager, SSO, or Field Team Leader. Air monitoring should evaluate ambient air contaminants within the breathing zone of individuals working in the exclusion zone. The air monitoring program should consist of monitoring for organic vapors using a Photoionization Detector (PID). Air monitoring action levels are presented in Table 3 below:

TABLE 3 - AIR MONITORING ACTION LEVELS

CONTAMINANT	LEVEL C RESPIRATORY PPE	LEVEL B RESPIRATORY PPE
VOC's	0-250 ppm	250 - 300 ppm

VI. CHEMICALS OF CONCERN

The potential effects of any exposure are dependent upon several factors, including substance toxicity, time frame of exposure, concentration of substance, general health of person exposed, and individual use of hazard reduction methods. Each of the chemicals previously detected on the site is discussed below.

A. **Gasoline** is a highly flammable mixture of volatile hydrocarbons, primarily branched-chain paraffins, cycloparaffins, and aromatics. It has a dangerous fire and explosion risk. **Diesel Oil** is composed chiefly of unbranched parafins. It has a moderate fire risk. Both are derived from **Petroleum Oil**, a clear, bright liquid with a mild petroleum odor, that poses a moderate fire risk. Inhalation of excessive concentrations of vapor or mist can be irritating to the respiratory passages and can cause headache, dizziness, nausea, vomiting, and loss of coordination. Prolonged or repeated skin contact may cause irritation.

B. **Benzene** is a clear, colorless to light-yellow, highly flammable liquid of dangerous fire risk with a characteristic odor. Acute toxicity (by ingestion or inhalation) leads to irritation of the mucus membranes, restlessness, convulsions, excitement, and depression. Death may follow from respiratory failure. Harmful amounts may also be absorbed through the skin. Benzene is a known carcinogen.

C. **Toluene** is a colorless, flammable liquid with a benzene-like odor and a dangerous fire risk. It is toxic by ingestion, inhalation, and skin absorption. High concentrations have narcotic effects.

D. **Ethylbenzene** is a colorless, flammable liquid with an aromatic odor that, as a vapor, is heavier than air. Irritating to the eyes, skin and mucous membranes, it is toxic by ingestion, inhalation, and skin absorption. It poses a dangerous fire risk and is narcotic in high concentrations.

E. **Xylenes** are a commercial mixture of the three isomers, o-, m-, and p-xylene. It is a clear, flammable liquid with moderate fire risk, which is toxic by inhalation and ingestion and may be narcotic at high concentrations.

F. **Diesel** is a colorless flammable liquid that poses a moderate fire risk.

VII. CONTAMINANT ACTION LIMITS

This section discusses the levels at which additional actions to insure worker safety are implemented. All individuals working within the Exclusion Zone, or in areas where concentrations of airborne contaminants exceed the Action Limits presented in Table 4 below, must wear approved air purifying respirators equipped with organic vapor cartridges. Should contaminant levels exceed respirator cartridge capacities, an upgrade to Level B PPE respiratory protection (Self-Contained Breathing Apparatus [SCBA]) will be required. Saranex suits must be worn at all times by individuals working within the Exclusion Zone.

TABLE 4 - HAZARD EVALUATION GUIDELINES

CONTAMINANT	ROE	PEL	IDLH	ACTION LIMIT
Diesel	C,IG,IH	NE	NE	NE
Gasoline	C,IG,IH	300 ppm	3,000 ppm	150 ppm
Benzene	C,IG,IH	1 ppm	3,000 ppm	0.5 ppm
Toluene	C,IG,IH	100 ppm	3,000 ppm	50 ppm
Ethylbenzene	C,IG,IH	100 ppm	2,000 ppm	50 ppm
Xylenes	C,IG,IH	100 ppm	1,000 ppm	50 ppm

ROE = Route of Entry
PEL = CAL/OSHA Permissible Exposure Limit
IDLH = Immed. Dangerous to Life & Health
C = Dermal Contact
IG = Ingestion
IH = Inhalation
PPM = Parts per million
NE = None Established

IX. EMERGENCY SITUATIONS

In the event of an accident or emergency situation at the site, immediate action must be taken by the first person(s) to recognize the event. It is very important to remember that in any medical emergency, the assisting personnel must also think about their own safety. Entrance into an area to assist an injured individual, where there are chemical contaminants, must not take place without the proper PPE. First aid equipment is located on site inside the vehicles of the SSO and Field Team Leader. Immediately after emergency procedures as described in the following sections are implemented, the individuals listed below should be contacted at the indicated telephone numbers. If these individuals are not immediately available, a message should be left that details the following: your location, time of day, type of emergency, number of people involved, and intended course of action.

Site Safety Officer: Brenda D. McNabb, E_2C, Inc. (408) 286-6300
Health and Safety Mgr: Ken Price, E_2C, Inc. (408) 286-6300

A. Emergency Telephone Numbers

Depending on the nature of the situation, one or more of the following authorities should be notified through telephone contact using one, or more, of the following telephone numbers.

Emergencies involving injury:

Local Police 911
State Police 911
Fire 911
Ambulance 911
San Jose Poison Center 1-800- 662-9886

The San Jose Poison Center should be contacted only in the event that an accident occurs involving the release of a hazardous substance (i.e. a chemical), and 911 response is delayed. If the Poison Center is contacted, be prepared to give the following information:

> The specific chemical involved in the accident. If the specific chemical is not known, go to page 5 of this document to find a list of the known chemical(s) of concern at the site. Read the list of chemical(s) of concern to the Poison Center employee and follow all instructions.

E. Environmental Emergency (Non-injury)

An environmental emergency is a non-injury event that involves the release, or potential release, of hazardous substances to the environment. In the event of an environmental emergency, personnel encountering a hazardous situation will instruct others on site to evacuate the vicinity IMMEDIATELY. Immediately telephone the Health and Safety Manager, Ken Price. In the event that the Health and Safety Manager is unavailable, contact the City of San Jose Fire Department at 911 and report the incident. UNDER NO CIRCUMSTANCES should any individual re-enter an area in which hazardous substances have been released, nor should an attempt be made to clean up a release until instructions are given by qualified individuals of E_2C, Inc. or the City of San Jose Fire Department.

If the magnitude of an incident exceeds on-site capabilities of control, the site should be evacuated. The SSO should signal the need for immediate site evacuation by sounding three short blasts on a vehicle or air horn. Personnel will immediately leave the site using the most direct route and immediately meet in a predesignated area for a headcount. Decontamination will then take place in this area.

C. Personal Injury

In the event of personal injury, call the pertinent number(s) listed on page 15 for medical assistance. If a decision is made to transport an injured individual to a medical facility, instruct a person remaining on the site to telephone the receiving medical facility and state the situation, including the nature of the physical injury or chemical exposure (e.g., unconscious, bleeding, blinded by toxic vapors). Injured individuals should be transported to:

O'Connor Hospital
2105 Forest Avenue
San Jose, California
(408) 947-2500
Nearest Cross Street: Bellrose Drive

The location of O'Connor Hospital and the most expedient route of approach from the site is shown on Figure 1 at the end of this report. A copy of this SSP should be taken to the receiving medical facility with the injured person. Notify the SSO, Project Manager, or Health and Safety Manager immediately of all accidents, incidents, or situations that resulted in personal injury.

D. Emergency Treatment for Excess Exposure to Chemical(s)

In all situations involving overexposure to a chemical(s), follow standard procedures as outlined below for poison management, first aid, and if applicable, cardiopulmonary resuscitation. Four different routes of exposure and their respective first aid and poison management procedures are outlined below:

1. Ingestion: IMMEDIATELY transport the person to the nearest medical facility (see Figure 1 for location of San Jose Medical Center) or call the poison control center at telephone number 1-800-662-9886.

2. Inhalation: IN THE EVENT THAT A PERSON IS UNCONSCIOUS, DO NOT ENTER AN AREA WHERE A CHEMICAL CONTAMINANT MAY BE PRESENT, OR A CONFINED SPACE, WITHOUT THE PROPER PERSONAL PROTECTION EQUIPMENT AND AT LEAST ONE OTHER PERSON EQUIPPED WITH THE PROPER PPE AND A SAFETY LINE OVERSEEING THE RESCUE OPERATION. IMMEDIATELY telephone 911 and appraise them of the exact location of the accident and whether it involves a confined space. Instruct an individual to go to the main entrance of the site to direct emergency medical response vehicles to the exact location of the accident.

3. Skin Contact: In the event contact is made between exposed skin and a chemical(s), IMMEDIATELY wash the exposed area with a large amount of water. Remove any contaminated clothing and rewash the exposed skin. Transport the person to the hospital.

4. Eyes: Hold eyelid(s) open, and IMMEDIATELY commence to rinse the eye(s) with copious amounts of water, and continue to do so for at least 15 minutes. If possible, have the person remove his/her contact lenses (if worn). Never permit the eyes to be rubbed. If a decision is made to transport the injured individual to a medical facility, instruct a person remaining on the site to telephone the receiving medical facility and state the situation, including the nature of the injury. Transport the injured person to the designated hospital. The SSO and/or Field Team Leader will have an eye wash kit.

5. Other Types of Exposure: If a person is unconscious, check for cardiac function, and if necessary initiate Cardio-Pulmonary Resuscitation (CPR). Then telephone 911 and appraise them of the exact location of the accident. Instruct an individual to go to the main entrance of the site to direct emergency medical response vehicles to the exact location of the accident.

X. AMENDMENT AGREEMENT AND ACKNOWLEDGEMENT STATEMENT

Site Safety Plan Agreement

The designated site safety personnel named in Section II of this Site Safety Plan have the authority to stop work at this site if any work is not performed in accordance with the requirements of this Site Safety Plan.

All project personnel and subcontractor personnel are required to sign the following agreement prior to conducting work in the Exclusion Zone of the site.

1. I have read and fully understand the Site Safety Plan, and agree to abide by the provisions of the Plan.

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

AGREEMENT AND ACKNOWLEDGEMENT CONT'D

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

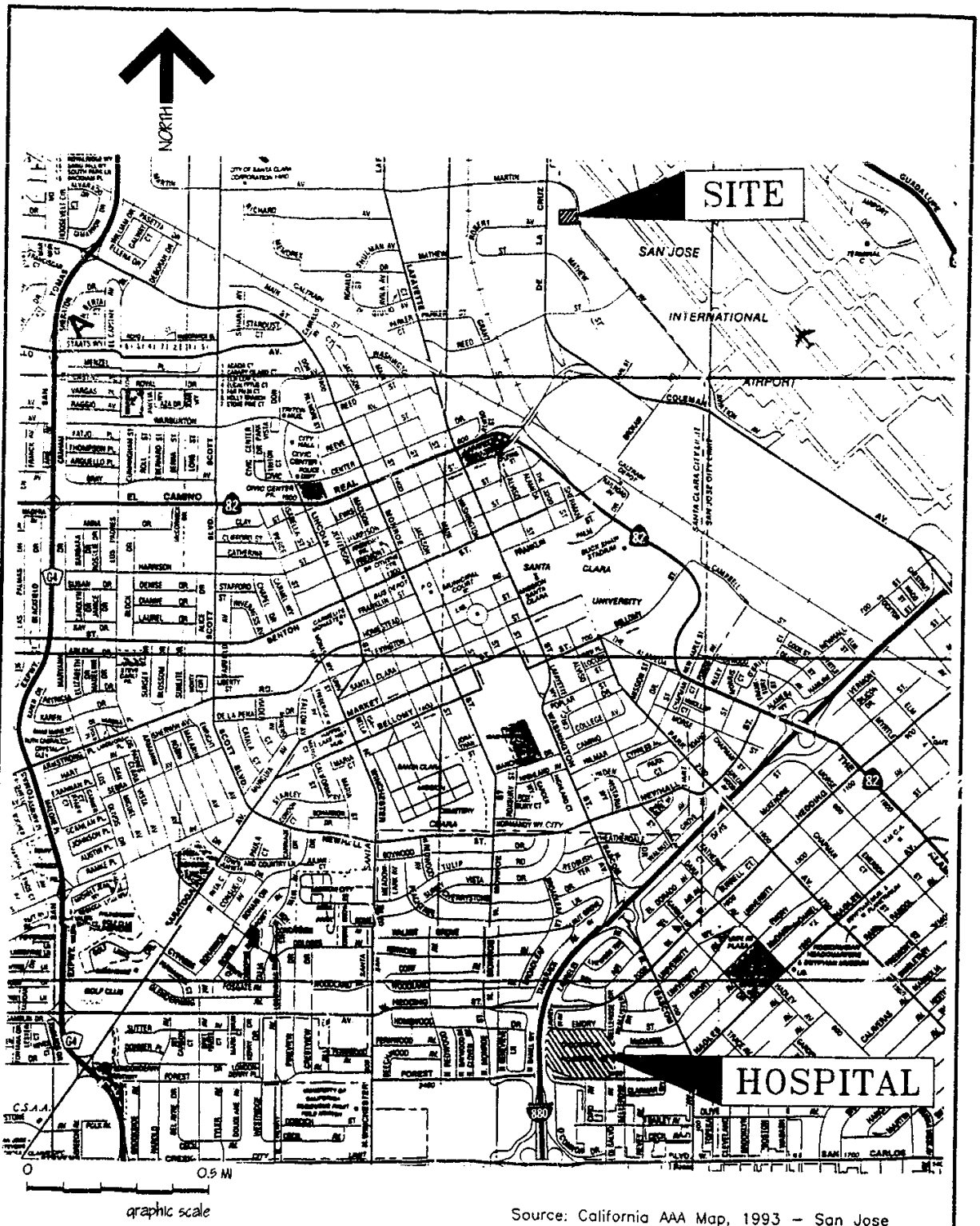
Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____

Name _____ Signature _____

Company _____ Date _____



Source: California AAA Map, 1993 – San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	HOSPITAL LOCATION MAP O'Connor Hospital 2105 Forest Avenue San Jose, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1A November 1995

SANTA CLARA
VALLEY WATER DISTRICT

95 DEC 11 AM : 01

E2C INC.

Environmental/Engineering Consultants

December 21, 1995
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **FOURTH QUARTER 1995 GROUNDWATER SAMPLING REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the Fourth Quarterly Groundwater Sampling for 1995, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2 and 3). The scope of work also included the collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on November 14, 1995. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately four well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, temperature, and pH) were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Total depth and depth-to-groundwater readings were then taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. The recharge rates, well measurements, and physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

Civic Center Tower • 675 North First Street, Suite 500 • San Jose, CA 95112-5111 • (408) 295-6300 • FAX (408) 286-6333

Once the wells had stabilized and post-purging well measurements were obtained, samples were collected from the wells using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Hull Development Labs of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), Total Petroleum Hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and VOCs using EPA Test Methods 418.1, 8015 modified (for TPHd and TPHg), 8020, and 8010, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 2 of this report. These fourth quarter results are also shown on Figure 2. These results indicate that the levels of TPHd, TRPH, TPHg, and BTEX detected during the fourth quarter of 1995 are within the same general level of magnitude as the levels previously detected. Levels of TPHd, TPHg, and BTEX dropped slightly in well MW-3 (downgradient well) during this quarter and TRPH continues to be absent from this well. Copies of the laboratory-issued analytical report and the corresponding Chain-of-Custody form for the November 14, 1995 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for each well, which correspond to mean sea-level benchmark datum, were acquired on November 14, 1995. These elevations are shown in Table 3 and groundwater gradient and flow direction are presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

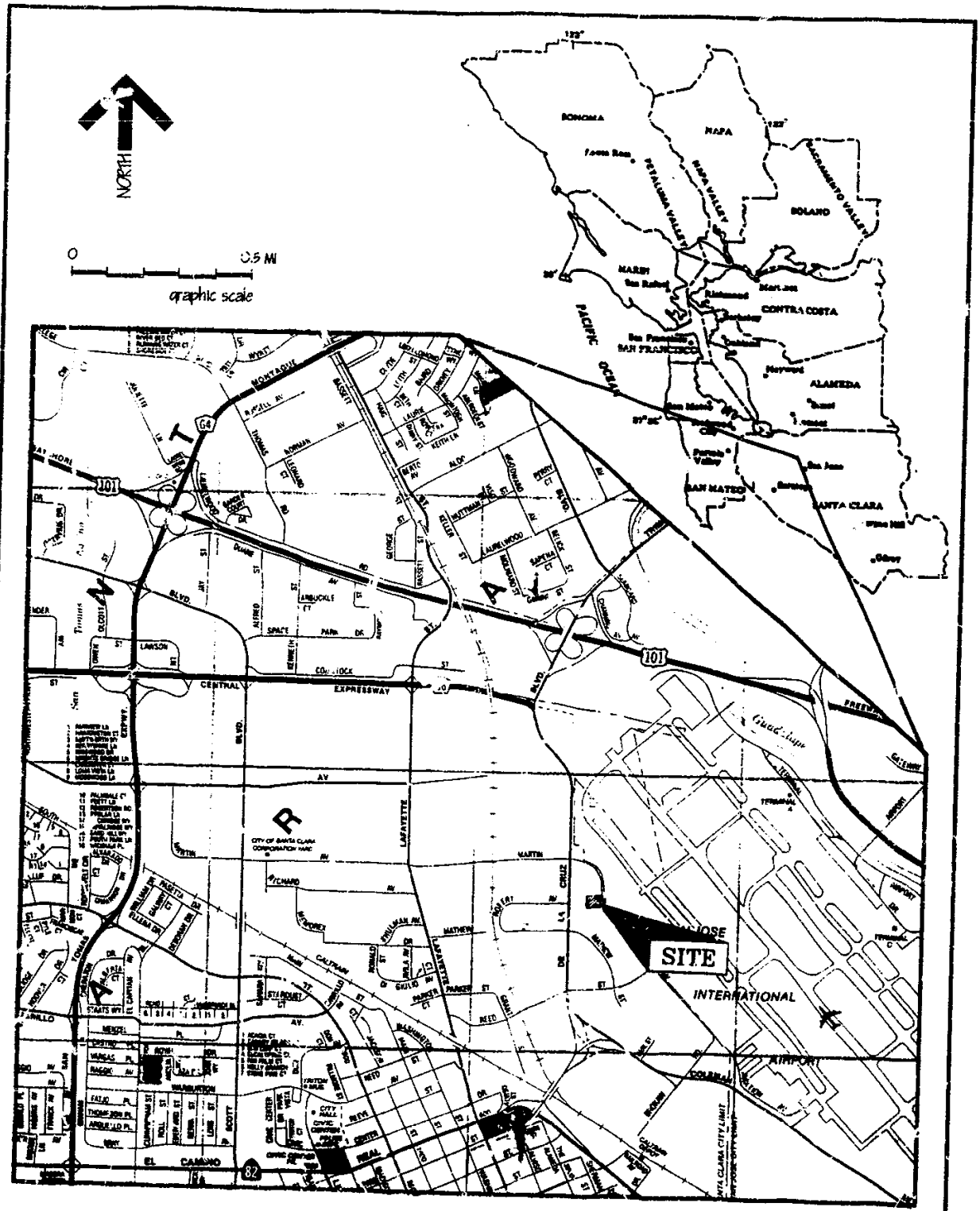
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

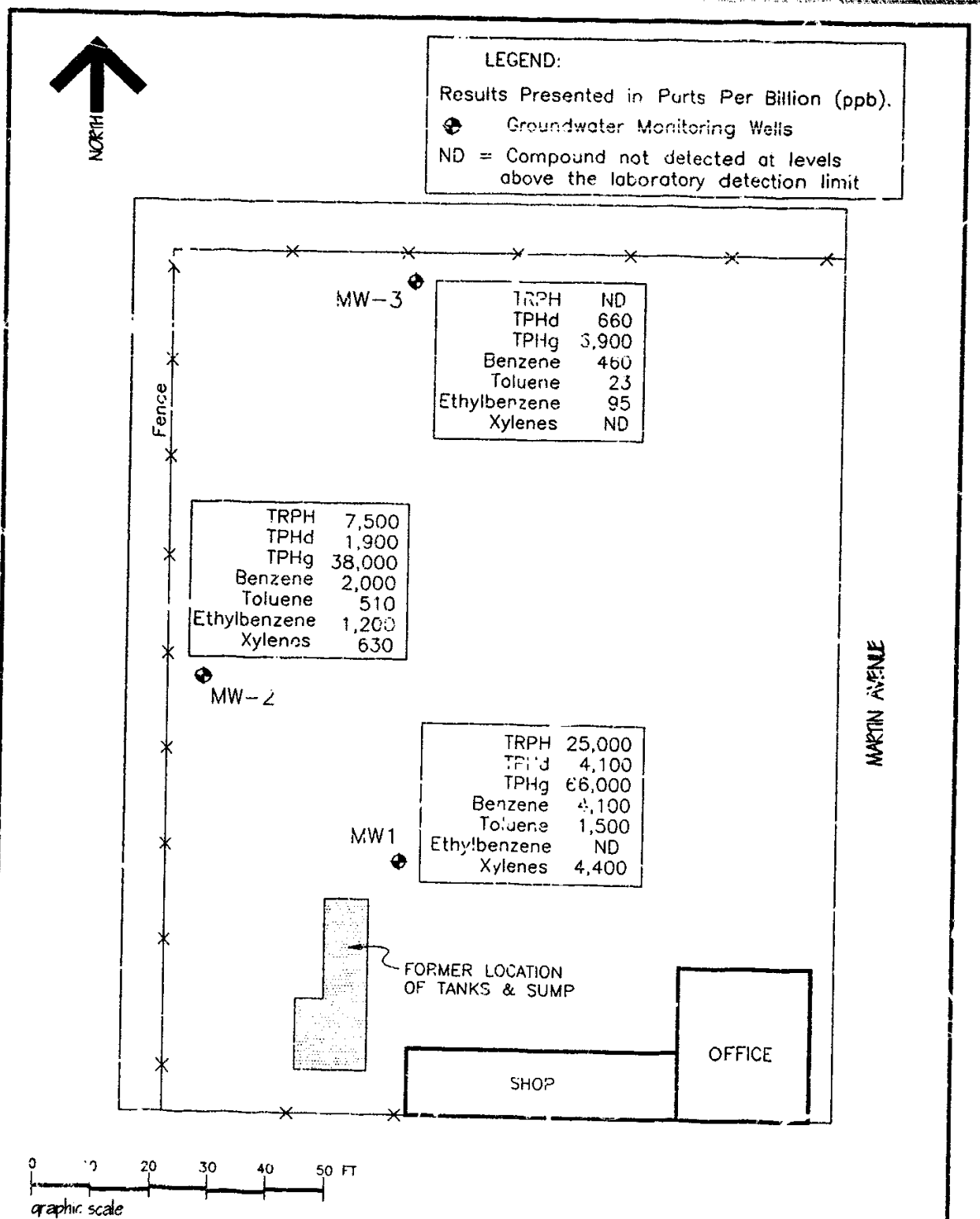
R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

SANTA CLARA
VALLEY WATER DISTRICT
95 DEC 29 AM 8:48



Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 San Martin Santa Clara, California	JOB NO: 5850100	FIGURE 1
		DRAWN BY: C. ZARPI	
		APPROVED BY: K. PRICE	December 1995

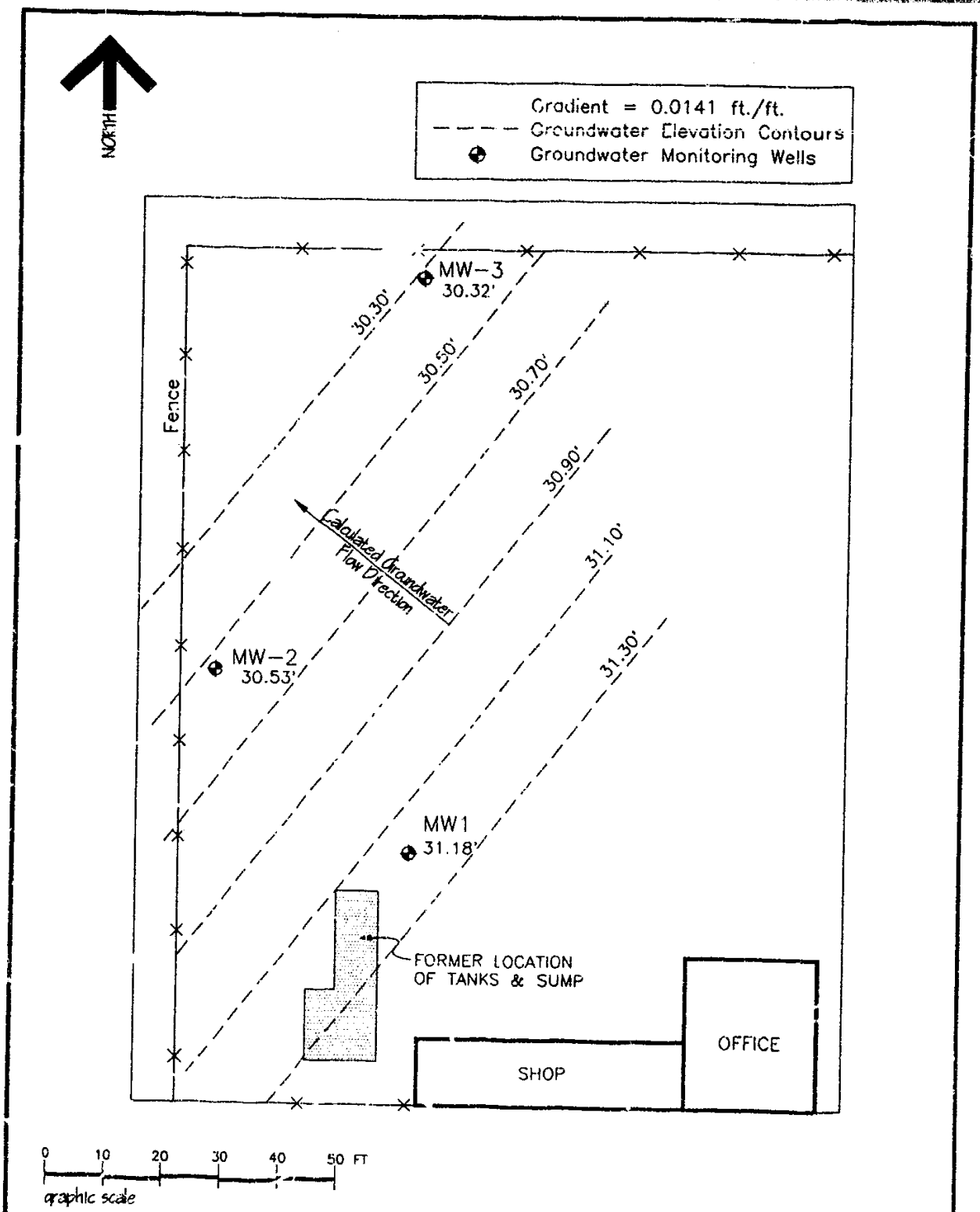


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Environmental/Engineering Consultants
Civic Center Tower
675 North First Street, Suite 500
San Jose, CA 95112

RESULTS OF GROUNDWATER SAMPLE ANALYSES
11/14/95
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE 2
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	December 1995



Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	GROUNDWATER ELEVATION CONTOUR MAP 11/14/95 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 3 December 1995

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
November 14, 1995

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY u/cm	TEMPERATURE (Fahrenheit)	PRE-PURGING		% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
					TOTAL DEPTH	DEPTH TO WATER		
MW-1	2.0	5.59	8.9×10^2	84	17'	7.71'	80%	80%
	4.0	5.54	8.9×10^2	84				
	6.0	5.54	8.9×10^2	84				
MW-2	1.0	5.50	8.4×10^2	82	17'	8.75'	100%	100%
	3.0	5.50	8.4×10^2	86				
	5.0	5.60	8.6×10^2	86				
MW-3	1.0	5.60	7.9×10^2	89	17'	9.03'	80%	80%
	3.0	5.61	7.9×10^2	89				
	5.0	5.60	8.1×10^2	89				

TABLE 2
GROUNDWATER SAMPLE RESULTS

Sample No.	TPH mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994																
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.9	<0.5	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	88	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.68	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,300	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	2.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	8.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 2 - CONTINUED

Sample No.	TPHd mg/kg	TRPH mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethyl-benzene ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	Chloro form ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	23	740	180	850	1,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5	8.7	730	99	550	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	26	66	4,100	1,500	<0.5	4,400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	7.5	38	2,000	510	1,200	630	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5	6.9	450	23	95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)			
WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER	GROUNDWATER ELEVATIONS (MSL)
		11/14/95	11/14/95
MW-1	38.89	7.71	31.18
MW-2	39.28	8.75	30.53
MW-3	39.35	9.03	30.32

MSL = Mean Sea Level

GROUNDWATER WELL SAMPLING DATA LOG

JOB NO: 5950100 **DATE:** 11/14/95

SAMPLER: Kip Porter **PURGE AND SAMPLING METHOD:**

CONVERSION FACTORS: (2") = .17 4" = .66 6" = 1.5

FIELD OBSERVATIONS: Sheen & Odor noted in all wells
Strongest odor in MW-1

MATERIALS: Bailers # 3 Drums # _____ Health & Safety Equipment _____

WELL PARAMETERS

WELL NO.	WELL DIAM.	PURGE VOLUME	pH	ELECT/CONDT	TEMP (F)	TOTAL DEPTH	DEPTH TO WATER	CASING VOLUME	RECHARGE (%/15 min.)
MW1	2"	2	5.59	.89x1	84°	17'	7.71'	1.58 x 4 = 6.32	
		4	5.54	.89x1	84°				
		6	5.54	.89x1	84°				
		Total Volume Purged: 12 gallons							
MW2	2"	1	5.50	.84x1	82°	17'	8.75	1.4 x 4 = 5.61	
		3	5.50	.84x1	86°				
		5	5.6	.86x1	86°				
		Total Volume Purged: 7 gallons							
MW3	2"	1	5.6	.79x1	89°	17'	9.03'	1.35 x 4 = 5.42	
		3	5.61	.79x1	89°				
		5	5.6	.81x1	89°				
		Total Volume Purged: 9 gallons							
		Total Volume Purged:							
		Total Volume Purged:							

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E_2C, Inc.
675 N. 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date:	11/22/95
Date Received:	11/15/95
Date Analyzed:	11/21/95
Project:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*Units*	*MDL*	*EPA Method #*
Sample Matrix	Water	Water	Water			
Sample Date	11/14/95	11/14/95	11/14/95			
Sample Time						
Lab #	B12130	B12131	B12132			
TRPH	**25**	**7.5**	**ND**	mg/liter	5.0 mg/l	418.1
DF-Diesel	12.5	12.5	1			
TPH-Diesel	**4,100[3]**	**1,900[3]**	**660[3]**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	500	500	10			
TPH-Gas	**66,000**	**38,000**	**6,900**	µg/liter	50.0 µg/l	8015M
Benzene	**4,100**	**2,000**	**460**	µg/liter	0.5 µg/l	8020
Toluene	**1,500**	**510**	**23**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**ND**	**1,200**	**95**	µg/liter	0.5 µg/l	8020
Xylenes	**4,400**	**630**	**ND**	µg/liter	0.5 µg/l	8020
Volatile Organics	**ND[4]**	**ND[4]**	**ND[4]**	µg/liter	See Worksheet	8010

1. PQL=Dilution Factor x MDL
2. See Organic Analysis Worksheet for individual compounds, detection limits, and analysis date
3. TPH-Diesel chromatogram for Lab #B12130, B12131 & B12132 although within the reporting range, does not match the typical Diesel pattern
4. Samples were diluted due to high concentration of TPH-Gas
5. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	E2C
Sample Matrix:	Water
Lab #:	B12130
Sample ID:	MW-1

Date:	11/22/95
Date Received:	11/15/95
Date Analyzed	11/21/95
Dilution Factor	500

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	60

1. PQL= Detection Limit x Dilution Factor
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #B12130 and should not be reproduced except in full without the written consent of Entech Analytical Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

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Organic Analysis Worksheet: EPA Method #8010

Client:	E2C
Sample Matrix:	Water
Lab #:	B12131
Sample ID:	MW-2

Date:	11/22/95
Date Received:	11/15/95
Date Analyzed	11/21/95
Dilution Factor	500

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	60

1. PQL= Detection Limit x Dilution Factor
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #B12131 and should not be reproduced except in full without the written consent of Entech Analytical Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 1369

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Organic Analysis Worksheet: EPA Method #8010

Client:	E2C
Sample Matrix:	Water
Lab #:	B12132
Sample ID:	MW-3

Date:	11/22/95
Date Received:	11/15/95
Date Analyzed	11/21/95
Dilution Factor	10

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	60

1. PQL= Detection Limit x Dilution Factor
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #B12132 and should not be reproduced except in full without the written consent of Entech Analytical Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: SM5520F/EPA 418.1

QC Batch : 95111
Matrix: Water
Units: mg/l

Date Analyzed: 11/7/95

PARAMETER	SA mg/l	SR mg/l	MS mg/l	MS PR	MSD mg/l	MSD PR	RPD	QC LIMITS RPD	PR
TRPH	80	0	73	91	67	84	9%	25	50-150

Definition of Terms:

SA: Spike Added
SR: Sample Result
MS: Matrix Spike Result
MSD (PR): Matrix Spike % Recovery
MSD: Matrix Spike Duplicate Result
MSD (PR): Matrix Spike Duplicate % Recovery
RPD: Matrix Spike Recovery % Variance

LAB DIRECTOR: M. Gulden

HULL DEVELOPMENT LABS INC.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY FOR DIESEL ANALYSIS

DIESEL

QC Sample No.: BLANK SPIKE & DUP

Date analyzed: 11-08-95
Date extracted: 11-06-95
QC batch: DW119502

Matrix: WATER

Units: ug/L

Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
DIESEL	950	0	710	75	752	79	5	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

ENTECH ANALYTICAL LABS INC. 525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY FOR GASOLINE ANALYSIS

GASOLINE
QC sample No.: BLANK SPIKE & DUP Date analyzed: 11-14-95

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	PR
GASOLINE	235	0	180	77	185	79	3	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

ENTECH ANALYTICAL LABS INC. 525 Del Rey Avenue suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY
BTEX

QC sample No.. BLANK SPIKE & DUP Date analyzed: 11-14-95

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	PR
BENZENE	20	0	15	75	15	75	0	25	50-150
TOLUENE	20	0	16	80	15	75	7	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

ENTECH ANALYTICAL LABS, INC. 525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY
VOLATILE ORGANICS ANALYSIS

QC sample No.: BLANK SPIKE & DUP Date analyzed: 11-15-95

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
BENZENE	20	0	19	95	21	105	10	25	50-150
CHLOROBENZENE	20	0	20	100	20	100	0	25	50-150
1,1-DCA	20	0	19	95	23	115	19	25	50-150
TOLUENE	20	0	21	105	22	110	5	25	50-150
TCE	20	0	19	95	20	100	5	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

CHAIN-OF-CUSTODY RECORD

E$_2$C, Inc.
Environmental/Engineering Consultants
Chiu Center Tower, 675 North First Street, Suite 500
San Jose, CA 95112-5111

Phone: (408) 286-8300
Fax: (408) 286-8333

LABORATORY: Entech

Site Name and Address: 390 Martin Ave. Santa Clara

Project #: 5850100

Sampler: Kip Hoto

Company: E2C

ANALYSIS REQUESTED

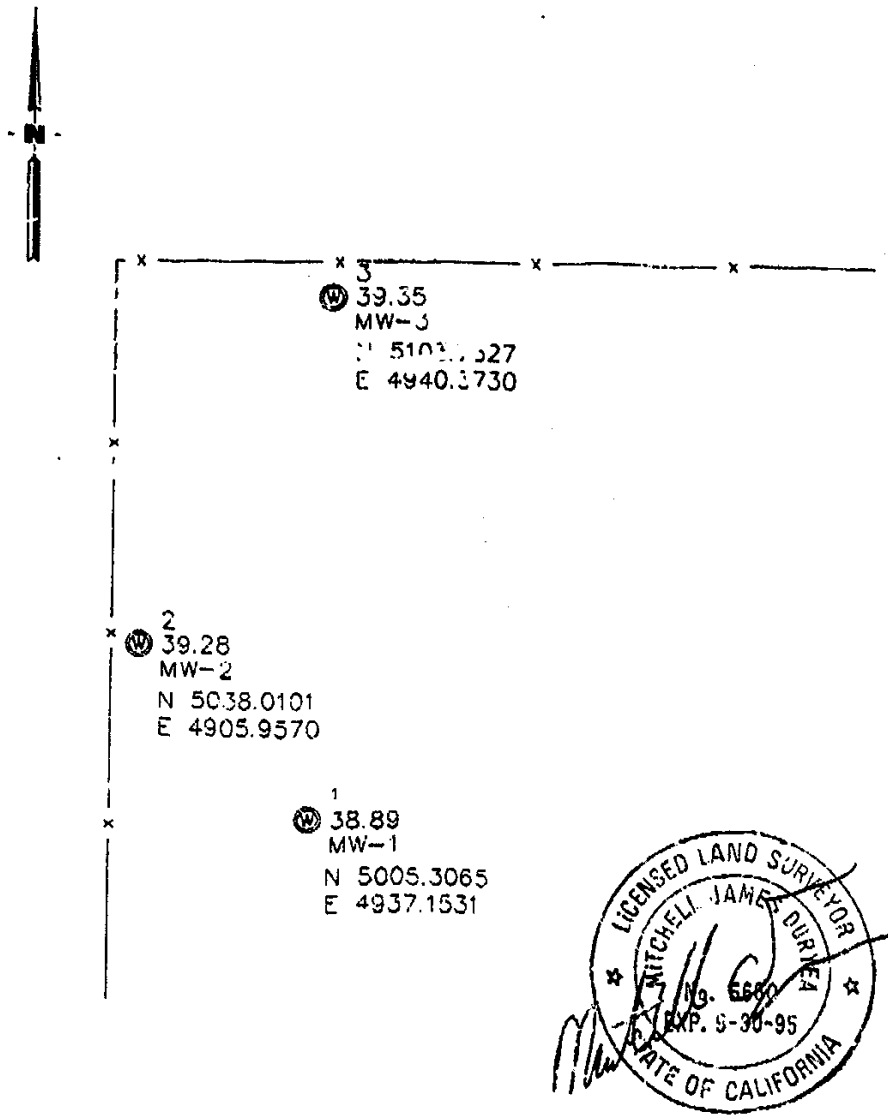
Sample I.D.	# Containers	Matrix: Soil	Matrix: Water	Matrix: Bldg. Material	Preservation: None	Preservation:	Time	Date	Location of Sample	8015 Modified (Gas)	BTEX	8015 Modified (Diesel)	418.1 (TPH)	8010/601	8020/602	8240/8260			Asbestos	Comments
MW1	5		X		X			11-14-95	B 12130	X	X	X	X	X						
MW-2	5		X		X			11-14-95	B 12131	X	X	X	X	X						
MW3	5		X		X			11-14-95	B 12132	X	X	X	X	X						

TURN-AROUND TIME REQUESTED:
☐ 24 HOURS ☐ 7-day
☐ 48 HOURS ☒ NORMAL
☐ OTHER

SPECIAL INSTRUCTIONS:
Fax Results to Brenda.

The following MUST be completed by the laboratory accepting samples for analyses:
1) Have all samples received been stored on ice? _____
2) Did any VOA samples received have any head space? _____
3) Were samples in appropriate containers and packaged properly? _____

Relinquished by sampler: Kip Hoto	Date: 11-14-95	Time: 5:00	Received by: Brenda DAO Entech	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	



MOINTORING WELL SURVEY
390 MARTIN AVE.
SANTA CLARA

Design By: MJD	**Duryea & Associates**	Scale: 1"=30'
Drawn By: MJD	Surveying & Civil Engineering	Date: MARCH 1994
Check By: MJD	2863 Armstead Court San Jose, CA. 95121 (408)274-6051	Job No. 94-208A

07/18 orig CT Tulloch w/
Attachments

RICHARD WEHNER COMPANY
1760 The Alameda
San Jose, California 95126
(408) 287-2123

July 7, 1994

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

ATTN: Ms. Christine Tulloch
SUBJECT: **SUBMITTAL OF PRELIMINARY SITE ASSESSMENT REPORT AND SECOND QUARTER GROUNDWATER MONITORING REPORT**
390 Martin Avenue
Santa Clara, California

Dear Ms. Tulloch:

Pursuant to the request of the Santa Clara Valley Water District in letters dated July 14, 1993, and December 16, 1993, I am herein submitting the attached technical reports.

To the best of my knowledge, the information presented within these reports is true and correct.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Richard H. Wehner

Attachments

SANTA CLARA
VALLEY WATER DISTRICT

94 JUL 18 A 9:58

JUL 1

E2C INC.

Environmental/Engineering Consultants

July 6, 1994
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **SECOND QUARTER 1994**
QUARTERLY GROUNDWATER SAMPLING REPORT
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the second quarter groundwater sampling for 1994, conducted at the abovementioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2A-C). The scope of work also included the monthly collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction. Wells MW-2 and MW-3 were installed at the request of the Santa Clara Valley Water District (SCVWD). A discussion of the installation of these wells and their initial quarterly sampling is presented in the E_2C, Inc. Preliminary Site Assessment report for 390 Martin Avenue, Santa Clara, California, dated July 5, 1994

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on June 10, 1994. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately four well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters including turbidity, electrical conductivity, temperature, and pH were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Total depth and depth-to-groundwater readings were then taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. The recharge rates and well measurements and physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from walls MW-1, MW-2, and MW-3.

1220 Crossman Avenue Suite 200 • Sunnyvale, California 94089 • (408) 747-1414 • FAX (408) 745-1089

Once the wells had stabilized and post-purging well measurements were obtained, samples were collected from the wells using a disposable bailer. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to AMER Laboratory of Sunnyvale, California, a state-certified analytical laboratory. The samples were analyzed for TPHd, O & G, TPHg, BTEX, and VOCs using Environmental Protection Agency test methods 8015 modified, 5520F, 3015, 8020, and 8010 respectively.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses indicate that TPHd, O & G, TPHg, and BTEX are present in samples drawn from wells MW-1, MW-2, and MW-3 at moderate-to-high levels. TPHd and O & G concentrations continue to be present at higher levels in well MW-2, located at the western property line of the subject site, while the highest levels of TPHg and BTEX are found in well MW-1, located immediately adjacent to the former USTs. During this sampling event, VOCs were not detected in the samples drawn from wells MW-1 and MW-2, but were present in well MW-3, which is located furthest away (or most upgradient) from the former USTs and sump. First and second quarter 1994 results for 1994 are shown in Table 2. Copies of the laboratory-issued analytical report and the corresponding chain-of-custody form are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevation measurements have been acquired on a monthly basis since February 1994. The elevations for the wells correspond to nearby mean sea-level benchmark datum. Elevations for the wells are shown in Table 3. These measurements indicate that the depth-to-groundwater has remained essentially the same over the past three months. Figures 2A-C illustrate the monthly groundwater gradient and flow direction for the past quarter, which indicates that groundwater beneath the site is flowing northwest at a gradient ranging between 0.004 and 0.013 feet per foot over the past four months.

CONCLUSIONS AND RECOMMENDATIONS

Hydrocarbons are present in the groundwater beneath, and downgradient from, the former UST excavation at moderate to high concentrations. The highest levels of TPHg and BTEX are found immediately downgradient from the former USTs on the subject site. The concentration and location of TPHd and O & G suggest a possible off-site source of these contaminants to the south and/or west of the subject site.

VOCs detected during the February 25, 1994 sampling of the wells were not detected in samples drawn from wells MW-1 and MW-2 during this sampling event. Moreover, the concentrations detected in well MW-3 have diminished since February 1994.

Based on the distribution of VOCs during the past two consecutive sampling events, it appears that these contaminants are migrating onto the subject site from a currently unknown upgradient source.

Based on the requirements of the SCVWD, E_2C, Inc. recommends that the wells continue to be monitored on a quarterly basis with the next sampling event occurring in August of 1994. Monthly groundwater-level measurements should also be taken.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

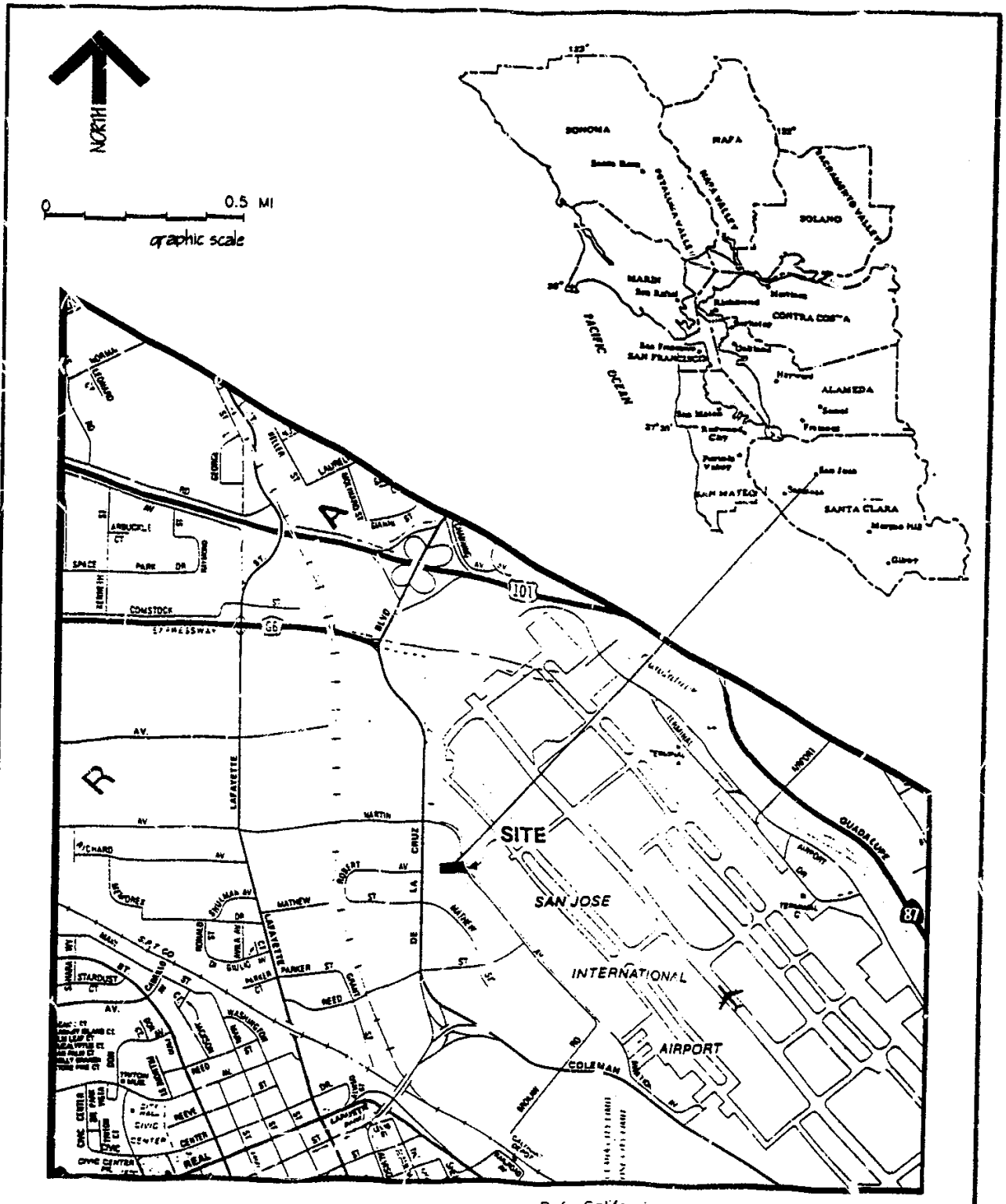
Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

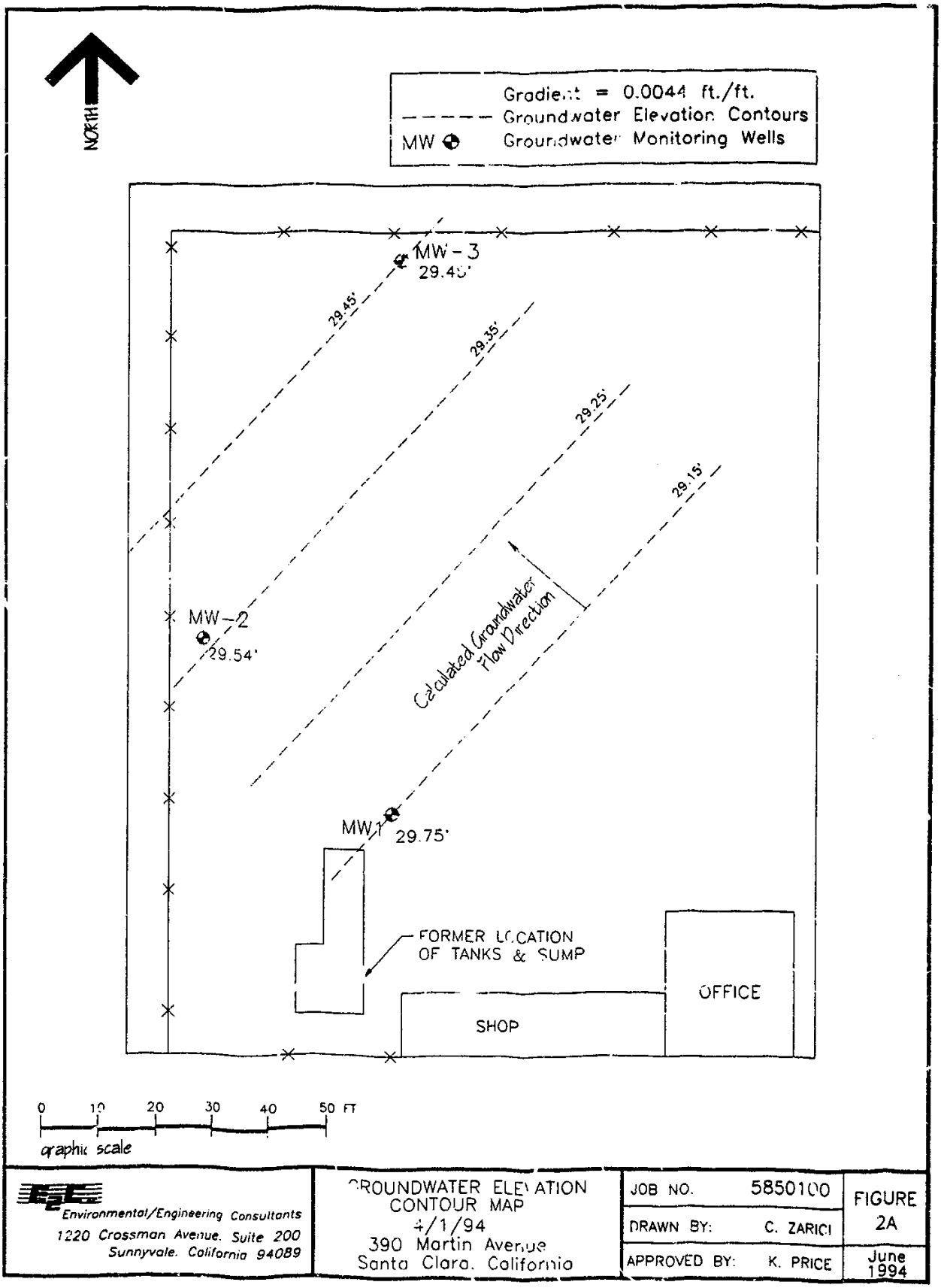
Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

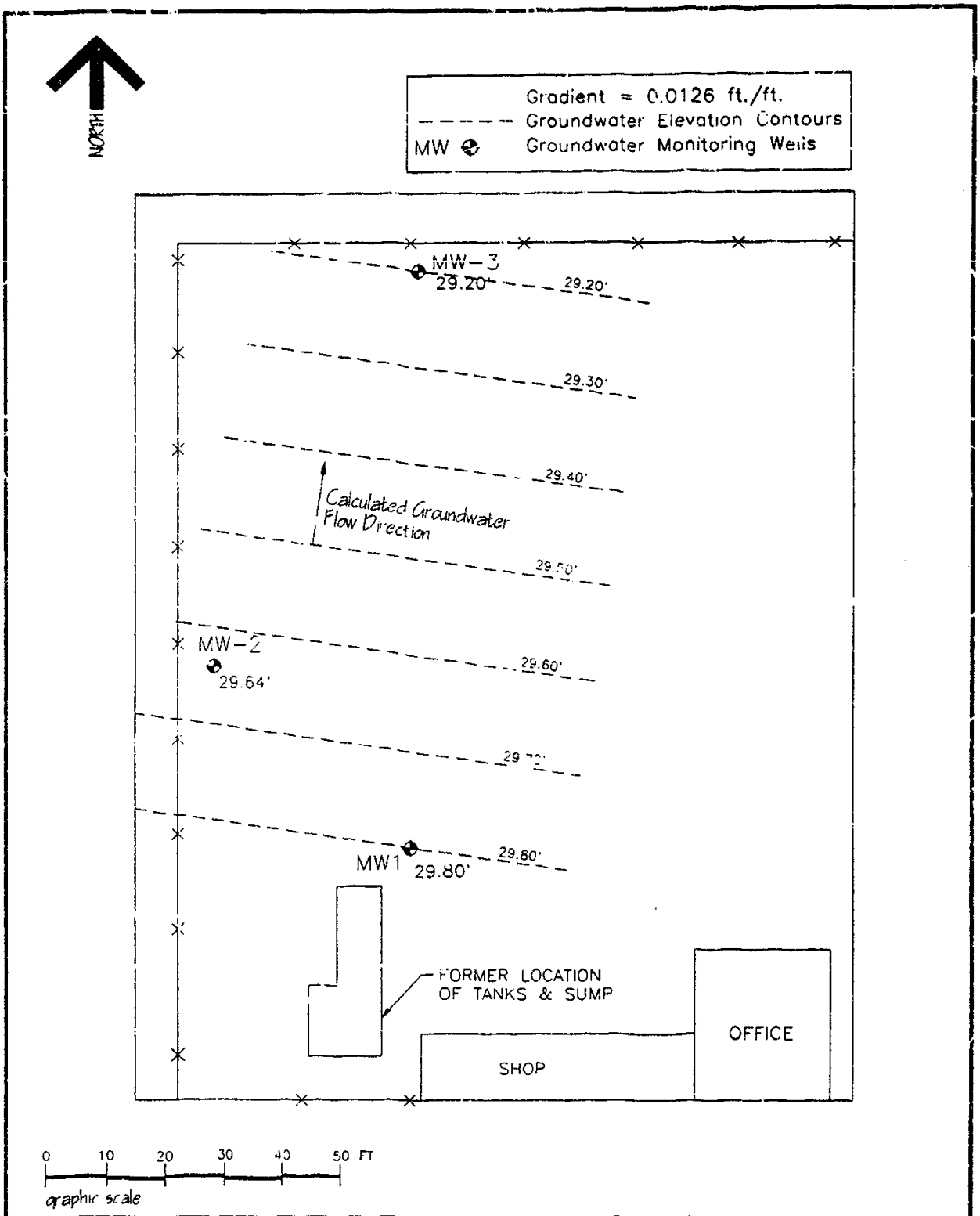


Ref: California AAA Map – Northern San Jose

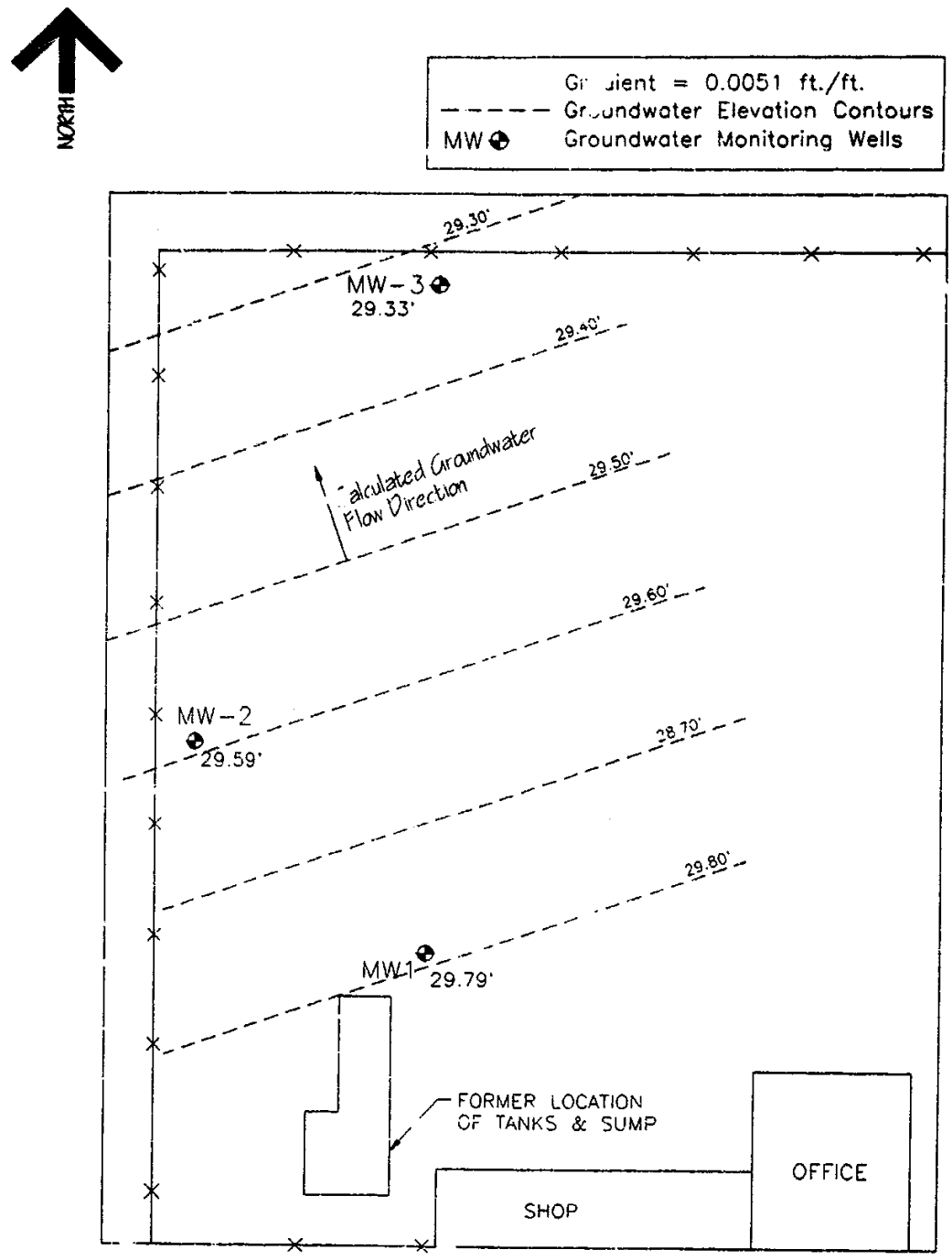
Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO. 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	March 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 4/1/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2A June 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 5/2/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. LARICI APPROVED BY: K. PRICE	FIGURE 2B June 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 6/10/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2C June 1994

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
June 10, 1994

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY µ/cm	TEMPERATURE (Fahrenheit)	TURBIDITY (NTU)	PRE-PURGING		POST-PURGING	% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
						TOTAL DEPTH	DEPTH TO WATER	DEPTH TO WATER		
MW-1	1.0	6.59	1.73 x 10^3	83.1	190	14.98'	9.10'	9.10'	100%	100%
	2.0	6.60	1.62 x 10^3	82.8	225					
	3.0	6.62	1.63 x 10^3	89.2	350					
MW-2	1.25	6.53	1.55 x 10^3	93.6	110	16.50'	9.99'	9.72'	100%	100%
	2.5	6.57	1.57 x 10^3	75.4	150					
	3.75	6.61	1.61 x 10^3	76.8	200					
	5.0	6.63	1.51 x 10^3	76.1	200					
MW-3	1.25	6.34	1.89 x 10^3	109.9	100	17.50'	10.02'	11.45'	100%	50%
	2.5	6.65	1.74 x 10^3	80.4	190					
	3.75	6.66	1.76 x 10^3	84.0	220					
	5.0	6.69	1.79 x 10^3	92.2	250					

NTU = Nephelometric Turbidity Units (concentration of particles in suspension).

TABLE 2

GROUNDWATER SAMPLE RESULTS

Smp. No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbn ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
	First Quarter - February 25, 1994														
MW-1	0.08	22	81	6,000	4,700	2,900	6,800	3.8	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,900	<0.4	6.9	2.0	0.8	<0.5	<0.4	2.1	1.0
	Second Quarter - June 10, 1994														
MW-1	0.47	14	160	6,600	6,700	11,000	19,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	770	2,900	12,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	6.6	2.3	<0.4	7.5	0.5	2.8	<0.8
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Ethylbn = Ethylbenzene
Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)

WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER				GROUNDWATER ELEVATIONS (MSL)			
		2/25/94	4/1/94	5/2/94	6/10/94	2/25/94	4/1/94	5/2/94	6/10/94
MW-1	38.89	8.44	9.14	9.09	9.10	30.45	29.75	29.80	29.79
MW-2	39.28	8.99	9.74	9.64	9.69	30.29	29.54	29.64	29.59
MW-3	39.35	9.31	9.90	10.15	10.02	30.04	29.45	29.20	29.33

MSL = Mean Sea Level

APPENDIX A
FIELD DATA LOGS

FIELD LOG BOOK ENTRY

SITE	#5850100	Date	6/10/94
WELL I.D.	MW-1	TOTAL DEPTH	14.98
SAMPLE I.D.	MW-1	WATER DEPTH	9.10' TIME: 10:30
EQUIPMENT NO.	Disp. Bailer	WELL DIAMETER	2"
SAMPLER	BT McNabb	PURGE VOLUME	(3x) 1.0
LABORATORY	ARMER	PUMPING RATE	
WELL YIELD	4 gallons	PUMPING TIME	.5 hrs.
SAMPLE TIME	11:30	BAILER CAPACITY	.25 gal.
		NO. OF BAILS	12

Post-Purging H2O level 9.10' (15 min)

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
11:00	1.0	140	6.59	1.73	83.1
11:10	2.0	22[illegible]	6.60	1.62	82.8
11:20	3.0	350	6.62	1.63	89.2

PURGE PROCEDURE Disposable Bailer (1 x 4) PUMP PLACEMENT N/A

SAMPLE PROCEDURE

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHd / TOG	2 Amber Liters	None
TPHg / BTEX / 8010	3 40 ml VOAs	"

FIELD OBSERVATIONS: Odor & Sheen noted.

RECOVERY RATE 100% RECOVERY PERCENTAGE 100 % AT .25 HRS

CLIMATIC CONDITIONS: 80's, Sunny

FIELD LOG BOOK ENTRY

Date 6/10/94

SITE	#5850100	TOTAL DEPTH	16.50'
WELL I.D.	MW-2	WATER DEPTH	9.69' TIME: 10:30
SAMPLE I.D.	MW-2	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	(4 x) 1.20
SAMPLER	Brenda McNabb	PUMPING RATE	
LABORATORY	AMEER	PUMPING TIME	.75 hrs.
WELL YIELD	5.0	BAILER CAPACITY	.25 gal
SAMPLE TIME	11:45	NO. OF BAILS	20

Post-Purging H2O Level 9.72' (15 min)

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
11:05	1.25	110	6.53	1.55	93.6
11:25	2.5	150	6.57	1.57	75.4
11:35	3.75	200	6.61	1.61	76.8
11:42	5.0	200	6.63	1.51	76.1

PURGE PROCEDURE Disposable Bailer

PUMP PLACEMENT N/A

SAMPLE PROCEDURE "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHd/TOG	2 Amber Liters	None
TPHg/BTEX/8010	3 40 ml VOAs	"

FIELD OBSERVATIONS: Odor & Sheen noted.

RECOVERY RATE 100%

RECOVERY PERCENTAGE 100 % AT .25 HRS

CLIMATIC CONDITIONS 80's, Sunny

FIELD LOG BOOK ENTRY

SITE	#5850100	Date	6/12/94
WELL I.D.	MW-3	TOTAL DEPTH	15.50
SAMPLE I.D.	MW-3	WATER DEPTH	10.02 TIME: 16:30
EQUIPMENT NO.	Disp Bailer	WELL DIAMETER	2"
SAMPLER	B. McNabb	PURGE VOLUME	(4x) 1.25
LABORATORY	AMER	PUMPING RATE	
WELL YIELD	5 gallons	PUMPING TIME	1.25 hrs.
SAMPLE TIME	12:00	BAILER CAPACITY	.25 gal.
		NO. OF BAILS	20

Post-Purging H2O Level 11.45' (25 min)

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
10:40	1.25	100	6.54	1.89	109.9
10:55	2.5	190	6.65	1.74	80.1
11:15	3.75	220	6.66	1.76	84.0
11:50	5.0	250	6.69	1.79	92.2

PURGE PROCEDURE Disposable Bailer

PUMP PLACEMENT N/A

SAMPLE PROCEDURE "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHd / TOG	2 Amber Liter	None
TPHd / BTEX / 8010	3 40 ml VOAs	

FIELD OBSERVATIONS: 80's, Sunny, odor noted

RECOVERY RATE 80% in 25 min. RECOVERY PERCENTAGE 50 % AT .25 HRS

CLIMATIC CONDITIONS: 80's, Sunny

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Avenue, # 5850100

DATE SAMPLED: 06-10-94
DATE RECEIVED: 06-10-94
DATE REPORTED: 06-14-94
AMER ID: E253

Client I.D.	AMER I.D.	8015M/ TPH-DIESEL	DF
MW-1	E4061033	**470**	1
MW-2	E4061034	**26,000**	1
MW-3	E4061035	**12,000**	1
Units		ug/l	
Detection Limits (DL)		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 5520F (TOG)

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Avenue, # 5850100

DATE SAMPLED: 06-10-94
DATE RECEIVED: 06-10-94
DATE REPORTED: 06-21-94
AMER ID: E253

Client I.D.	AMER I.D.	5520F TOG	DF
MW-1	E4061033	**14**	1
MW-2	E4061034	**869**	1
MW-3	E4061035	**15**	1
Units		mg/l	
Detection Limits (DL)		5.0mg/l	

Reported by:

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Avenue, # 5850100

DATE SAMPLED: 06-10-94
DATE RECEIVED: 06-10-94
DATE REPORTED: 06-15-94
AMER ID: E253

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW-1	E4061033	**150,000**	1
MW-2	E4061034	**130,000**	1
MW-3	E4061035	**41,000**	1
Units		ug/l	
Detection Limits (DL)		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Avenue, # 5850100

DATE SAMPLED: 06-10-94
DATE RECEIVED: 06-10-94
DATE REPORTED: 06-15-94
AMER ID: E253

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
MW-1	E4061033	**6,600**	**6,500**	**11,000**	**19,000**	1
MW-2	E4061034	**7,600**	**770**	**2,900**	**12,000**	1
MW-3	E4061035	**2,100**	**180**	**5,400**	**7,300**	1
Units		ug/l	ug/l	ug/l	ug/l	
Detection Limits (DL)		0.5ug/l	0.5ug/l	0.5ug/l	1.0ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

Client: E2C, INC.
Proj. Manager: Brenda McNabb
Matrix: WATER
Sample Name: MW-1 (E4061033)
PROJECT: 390 Martin Avenue, # 5850100

Date Sampled: 06-10-94
Date Received: 06-10-94
Date Reported: 06-21-94
Lab. Report #: E253

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	ND	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	ND	5.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	tetrachloroethene	ND	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	ND	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	ND	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	NJ	1.2	Benzene	NR	0.5
1,1-Dichloroethane	ND	0.4	Toluene	NR	0.5
1,2-Dichloroethane	ND	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	ND	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters; ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

Client: E2C, INC.
Proj. Manager: Brenda McNabb
Matrix: WATER
Sample Name: MW-2 (E4061034)
PROJECT: 390 Martin Avenue, # 5850100

Date Sampled: 06-10-94
Date Received: 06-10-94
Date Reported: 06-21-94
Lab. Report #: E253

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	ND	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	ND	5.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	tetrachloroethene	ND	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	ND	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	ND	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	ND	1.2	Benzene	NR	0.5
1,1-Dichloroethane	ND	0.4	Toluene	NR	0.5
1,2-Dichloroethane	ND	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	ND	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
COC Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

Client: E2C, INC.
Proj. Manager: Brenda McNabb
Matrix: WATER
Sample Name: MW-3 (E4061035)
PROJECT: 390 Martin Avenue, # 5850100

Date Sampled: 06-10-94
Date Received: 06-10-94
Date Reported: 06-21-94
Lab. Report #: E253

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	ND	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	**7.5**	5.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	tetrachloroethene	**0.5**	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	**2.8**	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	ND	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	ND	1.2	Benzene	NR	0.5
1,1-Dichloroethane	**6.5**	0.4	Toluene	NR	0.5
1,2-Dichloroethane	**2.3**	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	ND	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E253

AMER I.D. Number: E4061033-MSP
On-Site Technologies,Inc. Project# 114-2.2
Ext/Prep. Method: EPA 5030, DHS TPH
Date: 06/14/94
Analyst: JL/LC

Analytical Method: EPA M. 8015/8020
Analysis date: 06/14/94
Analyst: JL/LC
Matrix: Water
Unit: ug/l

Analyte	Sample Result	Spike Level	Matrix Spike Result	Ms Recovery %	Matrix Spike Dul. Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	20.00	22.01	110	23.08	115	113	76	127	5	11
Toluene	0.00	20.00	21.92	110	23.60	118	114	76	125	7	13
Chlorobenzene	0.00	20.00	21.28	106	22.75	114	110	75	130	7	13
TPH-Gasoline	0.00	500.00	433.00	87	376.00	75	81	70	130	14	30
TPH-Diesel	0.00	1000.00	763.00	76	750.00	75	76	70	130	2	30

Notes:
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Duplicate Percent Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

E2C, Inc.
environmental/engineering consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089

Phone: (408) 747-1414
Fax: (408) 745-1089

LABORATORY: AMER

CHAIN-OF-CUSTODY RECORD

Site Name and Address: 390 Martin Ave, Santa Clara, Project #: 5950100

Sampler: Brenda D. McNabb Company: E2C, Inc

Sample I.D.	# Containers	Matrix: SOIL	WATER	SLUDGE	Preservation: NONE	HCL	TIME	DATE	Location of Sample
MW-1	5		X		X		11:30	6/10/94	Well MW-1
MW-2	5		X		X		11:45	"	MW-2
MW-3	5		X		X		12:00	"	MW-3

ANALYSIS REQUESTED

Sample I.D.	BTEX	EPA 8015 modified (Gas)	EPA 8015 modified (Diesel)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240	EPA 625/8270	5520 E&F SM#503 (FOG)	Metals (Specify)
MW-1	X	X	X	X					X	
MW-2	X	X	X	X					X	
MW-3	X	X	X	X					X	

TURN AROUND REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-DAY
- ☒ NORMAL

SPECIAL INSTRUCTIONS: Please Filter Samples

The following MUST be completed by the laboratory accepting samples for analysis:
1) Have all samples received been stored on ice? YES
2) Did any VOA samples received have any head space? No
3) Were samples in appropriate containers and packaged properly? Yes

	Date	Time		
Relinquished by sampler: B D McNabb	6/10/94	5:05	Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

SANTA CLARA
VALLEY WATER DISTRICT

94 JUL 18 A9:59

PRELIMINARY SITE ASSESSMENT
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FOR

HOPKINS & CARLEY
A LAW CORPORATION
July 5, 1994

E2C INC.

Environmental/Engineering Consultants

July 5, 1994
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **PRELIMINARY SITE ASSESSMENT REPORT**
390 Martin Avenue, Santa Clara, California

Dear Mr. Klein:

Pursuant to your authorization, we have completed our Preliminary Site Assessment (PSA) as outlined in our proposal dated February 1, 1994. The accompanying report presents a description of the work performed by us to complete the investigation. The results of our study indicate that the soil and groundwater in the area of the former Underground Storage Tanks (USTs) have been impacted by petroleum hydrocarbons. The results also indicate that groundwater impact extends onto the adjacent properties to the west and north. Details of our conclusions and recommendations based on these findings can be found on Page 13 of this report.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Cristine Tulloch

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

1220 Crossman Avenue, Suite 200 • Sunnyvale, California 94089 • (408) 747-1414 • FAX (408) 745-1089

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1.0 INTRODUCTION

E_2C, Inc. has completed a Preliminary Site Assessment (PSA) at 390 Martin Avenue in Santa Clara, California. This investigation, which consisted of the installation of two groundwater monitoring wells and the subsequent sampling of the two new wells and one previously existing well, was performed in accordance with the E_2C, Inc. proposal dated February 1, 1994.

The investigation was conducted at the request of the Santa Clara Valley Water District (SCVWD) to characterize hydrocarbon impacted soil and groundwater in the area to the west and north of four former Underground Storage Tanks (USTs) and a waste-water sump, which were removed in May and June of 1991. The results of chemical analyses conducted on soil and groundwater samples collected at the time of tank and sump removal are presented within the Environmental Construction Company Underground Storage Tank Removal report, dated June 1991 (see Appendix A). The methodologies employed by E_2C, Inc. during the performance of this PSA and the results of our study are presented within this report.

2.0 SCOPE OF SERVICES

The scope of services for the performance of this PSA included the following:

- Research and review of available geologic and hydrologic information on the site vicinity.

- Research and review of agency lists identifying fuel leak sites located within 1/4-mile of the subject site and toxic leak sites located within 1/2-mile of the subject site.

- Advancement of two soil borings and collection of soil samples at 5-foot intervals within each boring for subsequent chemical analysis. Analysis of all soil samples for the presence of Total Petroleum Hydrocarbons as diesel (TPHd), Oil & Grease (O & G), Total Petroleum Hydrocarbons as gasoline (TPHg), the hydrocarbon constituents Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Volatile Organic Compounds (VOCs).

- Conversion of the two borings into 2-inch diameter groundwater monitoring wells in accordance with Santa Clara Valley Water District guidelines and specifications.

- Development of the two newly installed groundwater monitoring wells designated as MW-2 and MW-3, and the subsequent collection of samples from all three on-site wells. Analysis of groundwater samples for the presence of TPHd, O & G, TPHg, BTEX, and VOCs.

- Preparation of this formal report presenting the results of this PSA, including conclusions and recommendations.

3.0 LOCATION AND DESCRIPTION

The subject site is located at 390 Martin Avenue in Santa Clara, California (see Figure 1). According to the United States Geological Survey Map, San Jose West Quadrangle, the site is at an approximate elevation of 40 feet above mean sea level, and is located in Section 35 of Township 6 south, Range 1, west of the Mount Diablo Base and Meridian.

The subject property, which consists of approximately .75 acres of land, is currently operated as the office, shop, and equipment yard for a concrete construction company (see Figure 2). The site is located approximately 4,000 feet south of Highway 101 and 5,000 feet west of the Guadalupe River. The site consists of an office building with an attached shop area, a parking area, and a heavy equipment storage yard.

The site is located in an area zoned Light Industrial (M1). Light industrial buildings are located to the north, west, and south of the site, and San Jose International Airport is located across Martin Avenue to the east.

To evaluate the possibility of off-site sources of contamination impacting the subject site, a review of the public agency lists was conducted to identify known fuel leak sites located within a 1/4-mile radius of the subject site and known toxic leak sites located within a 1/2-mile radius of the subject site. During this research, the following agency lists were reviewed:

Federal Agency Publications:

- United States Environmental Protection Agency, Region 9; Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Listing: Site/Event Listing; May 21, 1993.

- United States Environmental Protection Agency, Region 9; Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)-National Priority List (NPL); May 21, 1993.

State Agency Publications:

- State of California, Governor's Office, Office of Planning and Research, Office of Permit Assistance; Hazardous Waste and Substances Sites List (CORTESE List); July 1992.
- State of California, Regional Water Quality Control Board (RWQCB) -San Francisco Bay Region (2); Fuel Leak List; May 9, 1994.
- State of California, RWQCB - San Francisco Bay Region (2); South/North Bay Site Management System Quarterly Reports; July 1, 1993.
- State of California, RWQCB - San Francisco Bay Region (2); South Bay Site Management System Quarterly Reports; January 10, 1994.
- State of California Environmental Protection Agency (CalEPA), Department of Toxic Substances Control; CALSITES; February 10, 1994.
- CalEPA, Department of Toxic Substances Control; Expenditure Plan for the Hazardous Substances Cleanup Bond Act of 1984 (BEP), Revision No. 4; January 1989; Updated 1990.
- CalEPA, Integrated Waste Management Board; Solid Waste Information System List (SWIS); May 27, 1992.
- CalEPA, Water Resources Control Board; Report on Releases of Hazardous Substances from Underground Tanks; October 1993.

This agency list review identified 11 fuel leak sites and two toxic leak sites located within 1/4- and 1/2-mile of the subject site, respectively. These identified sites and their respective addresses are shown on Table 1. Of particular interest are sites 1 and 4 from Table 1, which are located immediately west and south of the subject site, respectively. Both of these sites are listed as fuel leak sites.

3.1 Regional and Site Geology

The subject site is located in the central portion of the Santa Clara Valley, a northwest-trending structural basin that is bound on the southwest by the San Andreas fault zone and the Santa Cruz Coastal Mountains and on the northeast by the Calaveras fault zone, Hayward fault zone, and the Diablo range. During the Cenozoic Era (the last 65 million years), the region has been subject to

complex tectonic evolution as the ancestral California margin underwent transition from a convergent to a transform plate margin (Atwater, 1970). During this period, the earth's crust was divided into smaller sinking blocks that formed basins and embayments. These are interspersed with areas of uplift that formed highland areas.

Sediments that were supplied from slopewash, landslides, and gullies from upland areas were carried by shifting alluvial stream channels to the marshlands and the Bay, in time, infilling the Santa Clara Valley with alluvial material. Other sediments occupying the Valley originated from the marine environment that covered a portion of the basin. The basin generally consists of about 1,000 to 2,000 feet of these deposits that unconformably overlie bedrock formations.

The alluvial material in the Santa Clara Valley is characterized by weakly consolidated, irregularly-bedded gravels, sands, silts, and clays that grade progressively from coarse-grained stream deposits on abandoned terraces and at the heads of alluvial fans into fine-grained alluvial fan and fresh water marsh deposits closer to the Bay. These bedded deposits vary from being moderately or highly permeable (sands and gravels) to relatively low permeable (clays) that may exist as aquitards (Helley & Lajoie, 1979).

The soil encountered during drilling consisted of slightly silty clays to an approximate depth of 12 feet, where a very fine sand with some silt and clay was encountered and was found to extend to a depth of approximately 18 feet, where the borings were terminated (see Boring Logs - Figures 3 & 4).

3.2 Hydrologic Conditions

Groundwater was first encountered at an approximate depth of 13 feet bgs during drilling. Depth to groundwater after stabilization was measured at approximately 9 feet on February 17, 1994. Depth to groundwater measurements were used in conjunction with well survey data to calculate the site-specific groundwater flow direction and gradient, which was determined

to be north-northwest at a gradient of 0.0045 feet per linear foot. This gradient information is presented on Figure 5 and the Well Survey Report is presented in Appendix B.

4.0 SITE BACKGROUND

The subject site has been leased and occupied by R. H. Wehner Concrete Construction Company, Inc. II, which has been owned and operated by Mr. Andy Bardakos since September 1, 1991 (post-UST removal). Prior to September 1, 1991, the site was occupied by R. H. Wehner Concrete Construction Company, Inc., which was owned and operated by Mr. Richard Wehner, the current property owner and operator of the former on-site USTs and waste-water sump. R. H. Wehner Concrete Construction Company, Inc., occupied the site for approximately 25 years. During the time that the property has been occupied by concrete construction operations, the unpaved portion of the site has been used for the storage of construction related vehicles and equipment. The remaining portions of the site are occupied by an office and shop building. Four USTs containing diesel, leaded and unleaded gasoline, waste-oil, and a waste-water sump were installed at the site prior to 1978. Sometime during the mid-1980's, two groundwater monitoring wells were installed adjacent to the USTs as monitoring devices. One of the wells was destroyed under a SCVWD permit during tank removal operations and the other well remains on the site and is designated as MW-1. This previously existing well was sampled as part of this investigation. Sometime during 1989, operation of the tanks ceased and they were not used again.

The four USTs and the sump were removed from the site in May and June of 1991. Upon removal, the tanks and associated product lines were noted to be in poor condition and the soil surrounding the tanks exhibited hydrocarbon staining and odor. Soil samples collected from the UST excavation were found to contain TPHg as high as 1,500 parts per million (ppm), TPHd as high as 480 ppm, and elevated levels of BTEX. In addition, a groundwater sample collected from the tank excavation at an approximate depth of 16 feet was found to contained TPHg at 14,000 parts per billion (ppb), TPHd at 38,000 ppb, O & G at 18,000 ppb, and elevated levels of BTEX. One of the two soil samples collected beneath the sump was found to contain 35 ppb Tetrachloroethene. There were no other contaminants detected in the sump samples.

Documentation of tank and sump removal sampling is presented in the June 1991 Environmental Construction Company Underground Storage Tank Removal report presented in Appendix A. Based on information presented within this report and conversations with representative of Wehner Concrete Construction Company, Inc., the soil removed during tank removal operations was returned to the excavation.

In response to the findings of tank and sump removal sampling, the SCVWD requested the performance of a PSA in letters dated July 14, 1993, and December 16, 1993. The objective of the PSA was to determine the lateral extent of soil and groundwater impact associated with the former USTs and sump.

5.0 E_2C, INC. SOIL AND GROUNDWATER INVESTIGATION

5.1 Drilling Program

In response to the SCVWD request, E_2C, Inc. was retained to perform a soil and groundwater investigation, which consisted of the installation of two additional groundwater monitoring wells, designated as MW-2 and MW-3, and the subsequent sampling of wells MW-1, MW-2, and MW-3. Prior to drilling, permits for the installation of two groundwater monitoring wells were obtained through the SCVWD. Copies of these permits are presented in Appendix C.

Drilling and well-installation procedures were conducted on February 12, 1994. Alpha Geo Services of Santa Clara was contracted to drill the borings and install the shallow groundwater wells under the direct supervision of E_2C, Inc. personnel. The borings were drilled using a truck-mounted Mobile CME-55 drill rig fitted with 8-inch diameter hollow-stem augers. The locations of the wells are shown on Figure 2. Both wells were installed in an assumed downgradient position from the former USTs to assist in determining the westerly and northerly extent of soil and groundwater impact.

Samples collected from the borings were obtained using a California modified, split-spoon sampler equipped with 2-inch diameter brass sample tubes. Upon retrieval from the sampler, the ends of the sample tubes containing soil selected for laboratory analyses were covered with aluminum foil, sealed with plastic caps, and stored on ice. Two soil samples were collected from each boring at depths of 5 and 10 feet. Soils encountered during drilling operations were logged continuously by examination of the soil cuttings and soil contained within the brass liners. This information was noted on the Boring Logs presented as Figures 3 and 4 of this report. Both borings were extended to an approximate depth of 18 feet.

Groundwater was first encountered within the borings during drilling at an approximate depth of 13 feet. There was a noticeable hydrocarbon odor in borings MW-2 and MW-3 at depths below 2 and 5 feet, respectively.

5.2 Monitoring Well Installation

Monitoring wells MW-2 and MW-3 were constructed by inserting a 2-inch diameter flush-threaded, schedule 40-PVC well casing into the open borehole. After installation of the casing, the borehole annulus was backfilled with washed, kiln-dried sand to a point approximately 2-feet above the top of the casing slots. A 2-foot layer of bentonite pellets was placed on top of the sand, then concrete grout was placed on top of the bentonite and brought to the ground surface. Grouting of the wells was observed by a representative of the SCVWD. The casings were capped using locking, water-tight plugs; and the wells were covered with bolted manhole-type steel covers. Well construction details are presented on Figures 3 & 4. For a more detailed description of well drilling and installation procedures, please refer to Appendix D.

5.3 Well Development and Water Sampling

Monitoring wells MW-2 and MW-3 were developed on February 22, 1994, by bailing. The purpose of development is to stabilize the filter material surrounding the slotted interval of the well casing and remove turbid water caused by drilling operations. Approximately 15 gallons of water, or an amount in excess of ten well-casing volumes, were removed from the wells during development. The purge-water removed during development exhibited a hydrocarbon odor. All purge-water was placed within 55-gallon drums and stored on site pending appropriate disposal.

Initial sampling of wells MW-1, MW-2, and MW-3 was conducted on February 25, 1994. Prior to purging and sampling, total depth and depth-to-groundwater measurements were obtained from the three wells. An amount of groundwater in excess of four well-casing volumes was then purged from the wells using a

disposable bailer. Physical groundwater parameters including turbidity, electrical conductivity, temperature, and pH were taken after each well-casing volume was purged from each well. Purging continued until physical parameter readings indicated that the well had stabilized. Well measurements and parameter readings are presented in Table 2 and on the Field Data Logs contained in Appendix E. After stabilization, total depth and depth-to-groundwater readings were taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. Hydrocarbon odor was noted in the purge-water from all three wells.

Once the wells had stabilized and post-purging well measurements were obtained, a sample was collected from each well using a disposable bailer. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to a state-certified analytical laboratory for subsequent analyses. For a more detailed description of well development and sampling procedures, please refer to Appendix D.

5.4 Laboratory Analysis and Sample Results

All soil and groundwater samples were analyzed for TPHd, O & G, TPHg, BTEX, and VOCs, using EPA test methods 8015 modified, 5520F, 8015, 8020, and 8010, respectively. The results of chemical analyses conducted on soil samples are shown in Table 3 and groundwater results are presented in Table 4.

5.4.1 Results of Soil Sample Analyses

In summary, low concentrations of TPHd, TPHg, and BTEX were detected in the 5-foot samples collected from borings MW-2 and MW-3 as well as the 10-foot sample collected from boring MW-3. High concentrations of TPHd, TPHg, and BTEX were detected in the 10-foot

sample from boring MW-2. O & G and VOCs were not found at levels above the laboratory's detection limit in any of the soil samples.

5.4.2 Results of Initial Groundwater Sample Analyses

Groundwater samples collected from all three wells on February 25, 1994, contained high concentrations of TPHd (0.08 - 120 ppm), TPHg (32 - 81 ppm), and O & G (20 - 317 ppm), as wells as BTEX. The highest levels of TPHg and Benzene were found in well MW-1 with concentrations diminishing in wells MW-2 and MW-3. TPHd and O & G were detected at the highest levels in well MW-2, located along the western property line. TPHd and O & G were detected at significantly lower levels in well MW-1, located immediately downgradient of the former UST excavation on the subject site. Several VOCs including Carbon Tetrachloride, 1,1-Dichloroethane (1,1-DCA), 1,2-Dichloroethane (1,2-DCA), 1,1-Dichloroethene (1,1-DCE), Trichloroethene (TCE), and Trichlorofluoromethane (freon) were also found in the groundwater samples collected from all three wells. The highest levels of VOCs were detected in the sample collected from well MW-3, the well furthest away from the former waste-oil UST and waste-water sump on the subject site. As shown in Table 4, some of the VOCs are present at concentrations exceeding Maximum Contaminant Levels (MCLs) established by the State of California Department of Health Services for the evaluation of safe drinking-water.

The results of analyses conducted on samples collected during the initial sampling of the wells has been used to develop contaminant concentration contour lines, which are presented on Figures 6 through 9. The laboratory-issued analytical reports and corresponding chain-of-custody forms are presented in Appendix F.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The results of this PSA indicate that the soil and groundwater in the vicinity of the former USTs, and in areas to the west and north, have been impacted by low-to-high levels of hydrocarbons and related constituents. TPHd levels within the soil samples collected ranged from 2-to-270 ppm and TPHg levels ranged from 26-to-1,100 ppm. The highest concentrations of TPHd and TPHg were detected in soil samples collected from the 10-foot depth in each of the borings. No O & G was detected in the four soil samples collected.

TPHd levels within the groundwater samples ranged from 0.08-to-120 ppm and TPHg levels ranged from 32-to-81 ppm. O & G was also detected in the groundwater samples at levels ranging from 20-to-317 ppm. Significantly higher levels of TPHd and O & G were detected in the sample collected from well MW-2, located adjacent to the western property line of the subject site. Groundwater samples were also found to contain very low levels of VOCs including carbon tetrachloride, 1-DCA, 1,2-DCA, 1,1-DCE, TCE, and freon. Some of these VOCs are present at concentrations above MCLs. None of the VOCs detected in groundwater samples collected from the three on-site wells during this PSA were detected in soil or groundwater samples collected at the time of UST and sump removal, or during the drilling of wells MW-2 and MW-3.

Based on the locations of wells MW-2 and MW-3, the calculated north-northwesterly flow of groundwater, and the elevated levels of hydrocarbons detected within the soil and groundwater samples, it appears that hydrocarbon-impacted soil and hydrocarbon/VOC-impacted groundwater exists on the adjacent properties to the west and north of the subject site (see Figures 5 through 8). Based on the results of chemical analyses conducted on the groundwater sample collected from well MW-3, the downgradient extent of the hydrocarbon plume is at least 110 feet from the former USTs.

The distribution of TPHd and O & G in groundwater samples collected during this study suggest that former USTs and/or activities on adjacent properties to

the south and west have resulted in groundwater impact, although the former USTs and waste-water sump on the subject site have apparently contributed to the detected soil and groundwater impact at the subject site, in particular TPHg impact to groundwater. Both of these adjacent sites to the south and west are listed fuel leak sites. Moreover, the distribution of VOCs in the groundwater in relation to the former waste-oil UST and sump on the subject site (highest levels furthest from the former USTs and sump), the absence of these VOCs in all soil and groundwater samples collected from the site previously, and identification of two toxic-leak sites located upgradient to the subject site, similarly suggest a possible off-site source of VOC contamination.

Based on the results of this study, E_2C, Inc. recommends the following actions:

- To eliminate the continued migration of contaminants from the soil to the groundwater, it is recommended that continued source removal occur via the removal of hydrocarbon-impacted soil from the immediate area of the former USTs. In performing these actions, monitoring well MW-1 may need to be destroyed in accordance with Santa Clara Valley Water District guidelines. Prior to excavation operations, procedures and site safety protocol for proper soil remediation will be formulated.

- To assist in reducing the impact to groundwater in the immediate area of the former USTs, groundwater that accumulates within the former tank pit during excavation operations should be evacuated and properly disposed of using a vacuum truck.

- The lateral extent of soil and groundwater impact should be further defined via the performance of a Soil/HydroPunch survey. The placement of HydroPunch sampling points along the upgradient property line will assist in determining if the site is being impacted by contaminants originating off-site. The results of this survey will also assist in determining the most appropriate location(s) for additional monitoring wells.

In accordance with the directives of the SCVWD, the property owner must forward a copy of this and future reports, as well as any correspondence regarding the site, to Ms. Christine Tulloch of the Santa Clara Valley Water District at 5750 Almaden Expressway, San Jose, California, 95118.

7.0 PROFESSIONAL CERTIFICATION AND LIMITATIONS

This report has been prepared by E_2C, Inc., under the professional supervision of the Principal whose seal and signature appears herein.

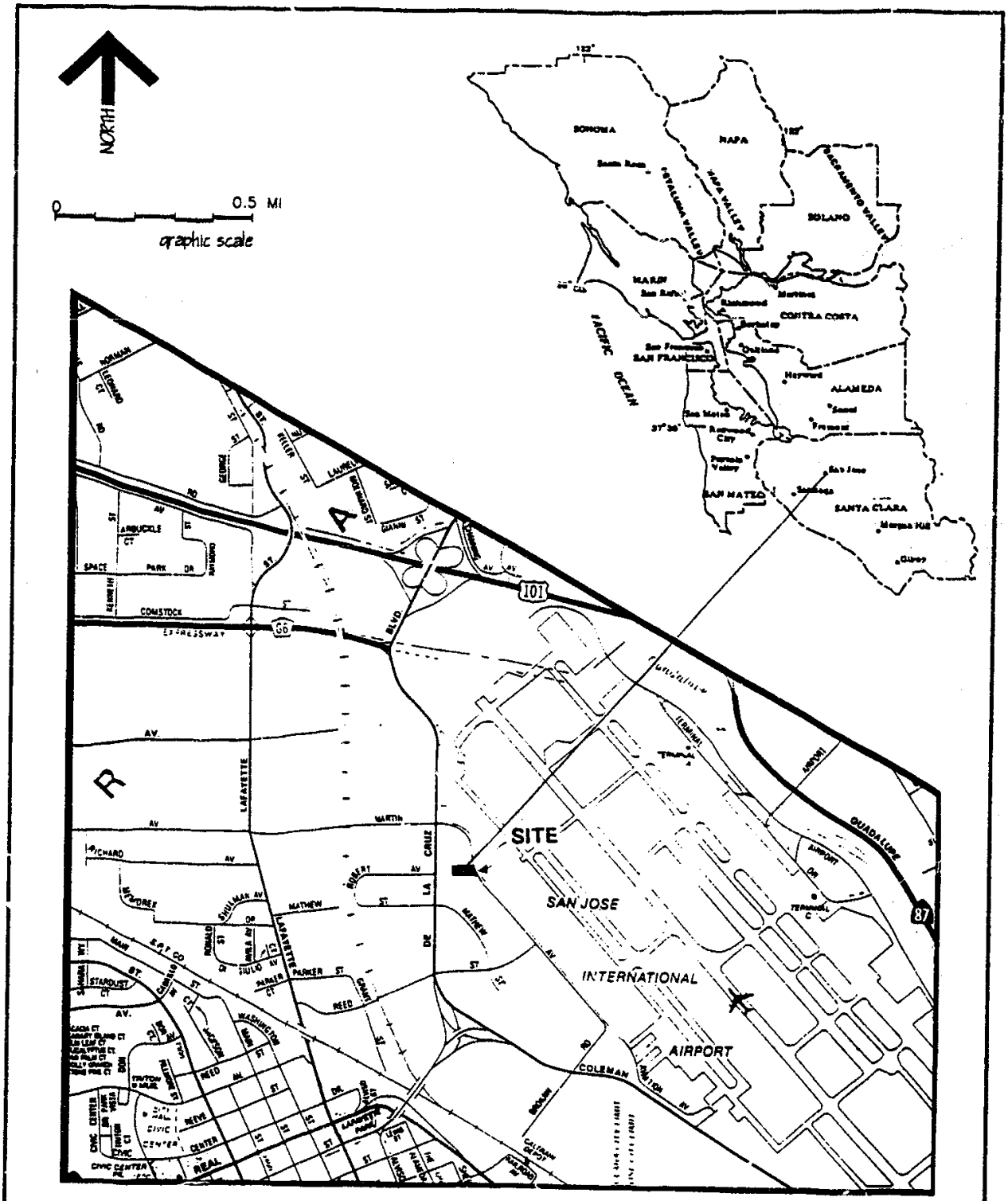
The conclusions of this report are based solely on the Scope of Services outlined and the sources of information referenced in this report. Any additional information that becomes available concerning this site should be submitted to E_2C, Inc. so that our conclusions may be reviewed and modified, if necessary. This report was prepared for the sole use of Hopkins & Carley, A Law Corporation, and their agents.

8.0 REFERENCES

Atwater, T. 1970. Implications of Plate Tectonics for Cenozoic Tectonic Evolution of Western North America. Geologic Society of America Bulletin 1981, pp. 3513-3535.

Helley, E.J. and Lajoie, K.R. 1979. Flatland Deposits of the San Francisco Bay Region, California USGS Professional Paper 943.

United States Geological Survey. 7.5 Minute Topographical Map, San Jose West Quadrangle.

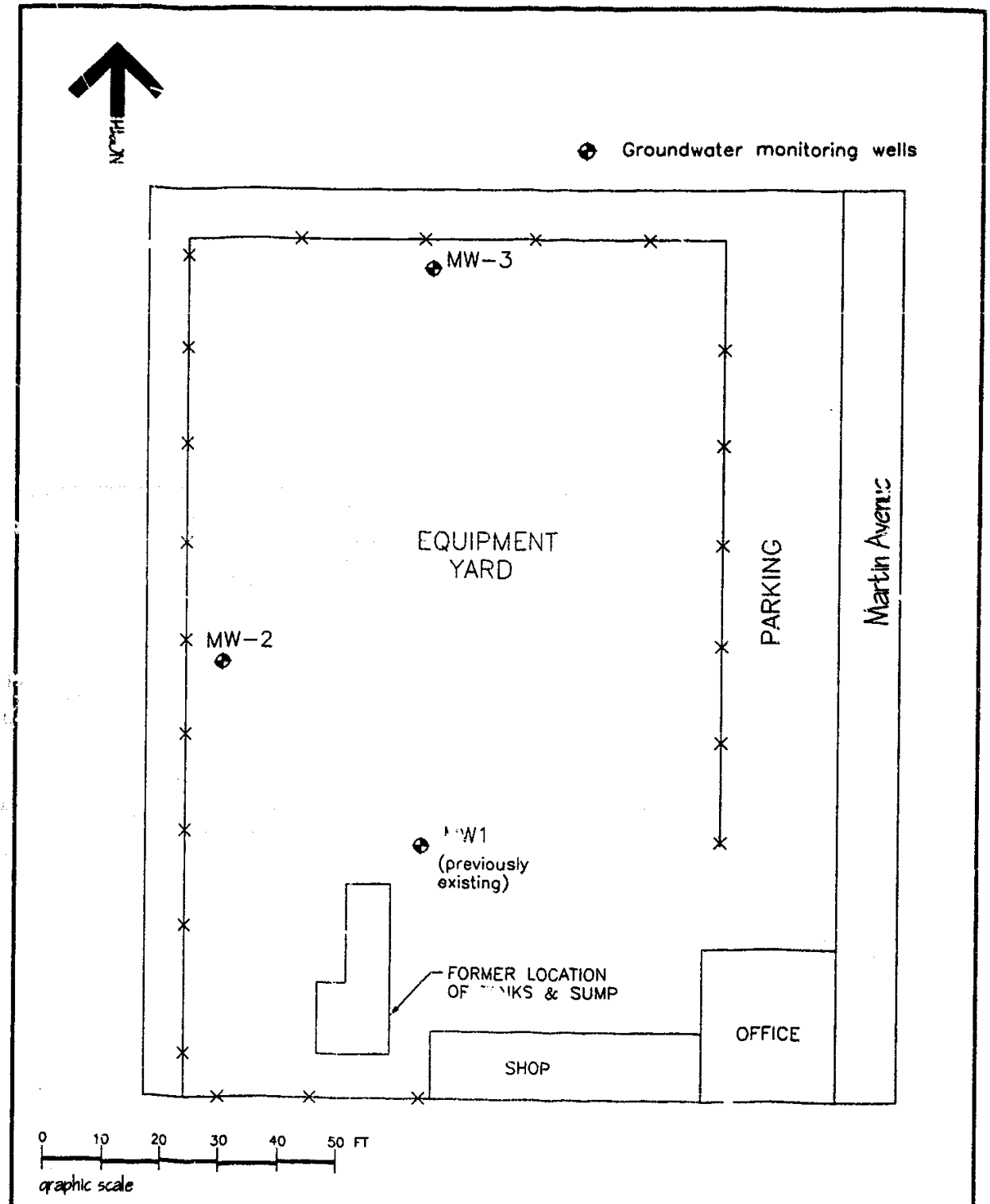


Ref: California AAA Map – Northern San Jose

Environmental/Engineering Consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, California 94089

SITE LOCATION MAP
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE
DRAWN BY:	C. ZARICI	1
APPROVED BY:	K. PRICE	March 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	SITE DIAGRAM 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2 March 1994

Project Name: Wehner Construction			Project Number: 5850100	Boring Number: MW2	Page 1 of 1
Site Location: 390 Martin Avenue Santa Clara, California			Client: Wehner Construction		
Logged By: Robb Welch	Checked By: Kendall W. Price		Drilling Contractor: Alpha Geoservices, Inc.		
Drilling Method: Mobil Drill Rig with 8" hollow stem auger			Driller: Richard Morely	Weather: rain	
Start Date: 2/17/94	Finish Date: 2/17/94	First Groundwater: 13 feet	Total Depth: 18 feet bgs	Slotted: 18 to 8	Sand: 18 to 6	Sanitary Seal: 6 to 0

Penetration	Sample I.D.	Depth (ft)	Material Description	USCS I.D.	Lithography	Well Details	Comments
11	MW2-5	5	Black (7.5 YR N21), moist, stiff, low plasticity, silty CLAY (CL)	CL			Extremely strong hydrocarbon odor starting @ 2 feet.
15	MW2-10	10					
		15	Dark brown (7.5 YR 3/4) Medium dense, wet, sand (SP), trace of silt, sand is fine to very course.	SP			Groundwater encountered @ 13 feet
		20	Bottom of boring @ 18 feet.				
		25					

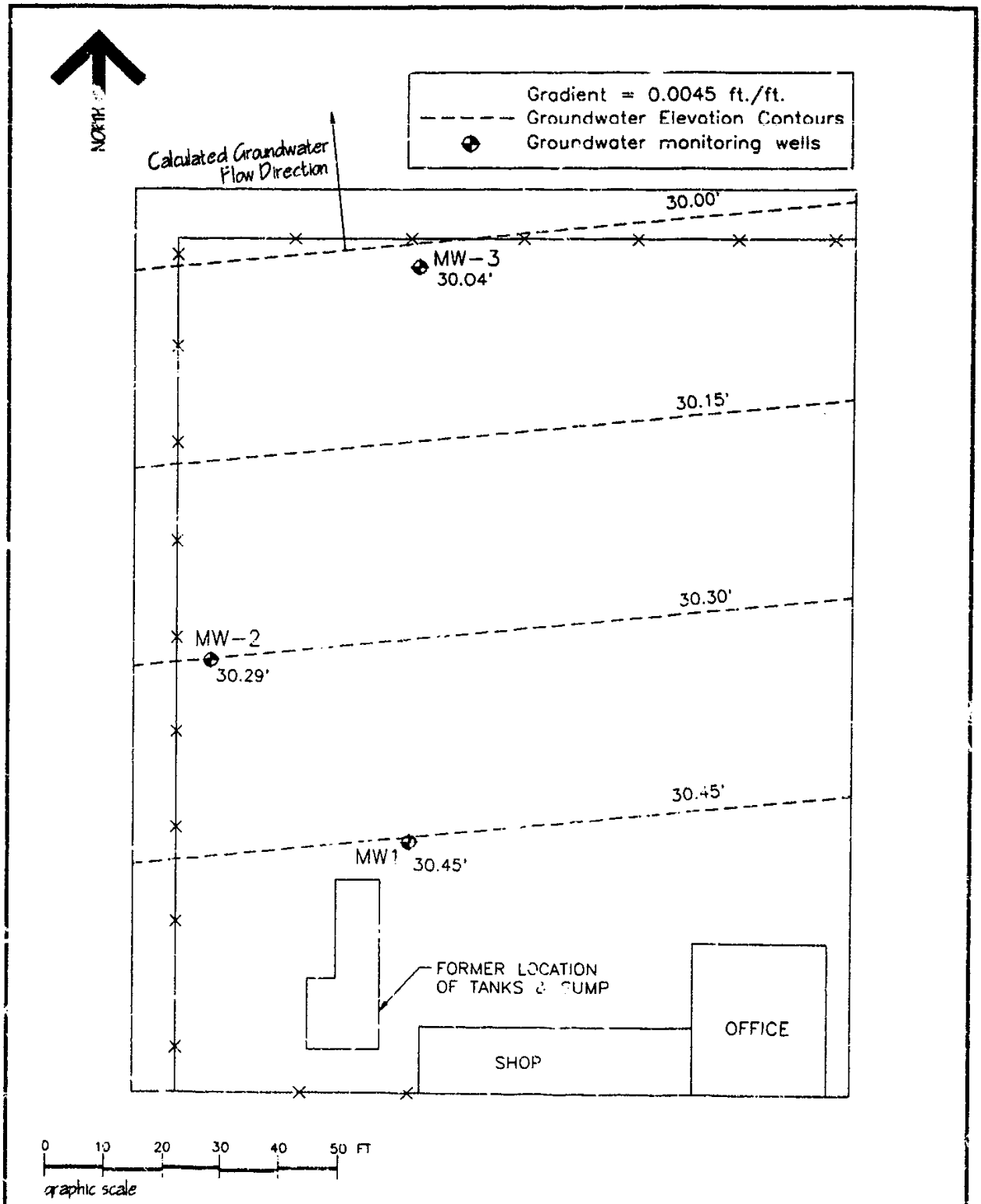
Environmental/Engineering Consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, California 94089

PROJECT	LOG OF BORING	PROJECT NO.	FIGURE
390 Martin Avenue Santa Clara, California	MW2	5850100	3

Project Name: Wehner Construction	Project Number: 5850100	Boring Number: MW 3	Page 1 of 1
Site Location: 390 Martin Avenue, Santa Clara, California	Client: Wehner Construction		
Logged By: Robb Welch	Checked by: Kendall W. Price	Drilling Contractor: Alpha Geoservices, Inc.	
Drilling Method: Mobil Drill Rig with 8" hollow stem auger	Driller: Richard Morely	Weather: heavy rain	
Start Date: 2/17/94	Finish Date: 2/17/94	First Groundwater: 13 feet	Total Depth: 18 feet bgs
Slotted: to 8	Sand: 18 to 6	Sanitary Seal: 6 to 0	

Penetration	Sample I.D.	Depth (ft)	Material Description	USCS I.D.	Lithography	Well Details	Comments
13	MW3-5	5	Very dark gray (7.5 YR N21), moist, stiff, low plasticity, CLAY (CL); slightly silty	CL			Extremely strong hydrocarbon odor starting @ 2 feet.
20	MW3-10	10					
		15	Strong brown (7.5 YR 5/6), moist, stiff, sand (SW); some silt, very fine to course sand	SW			Groundwater encountered @ 13 feet
		20	Bottom of boring @ 18 feet.				
		25					

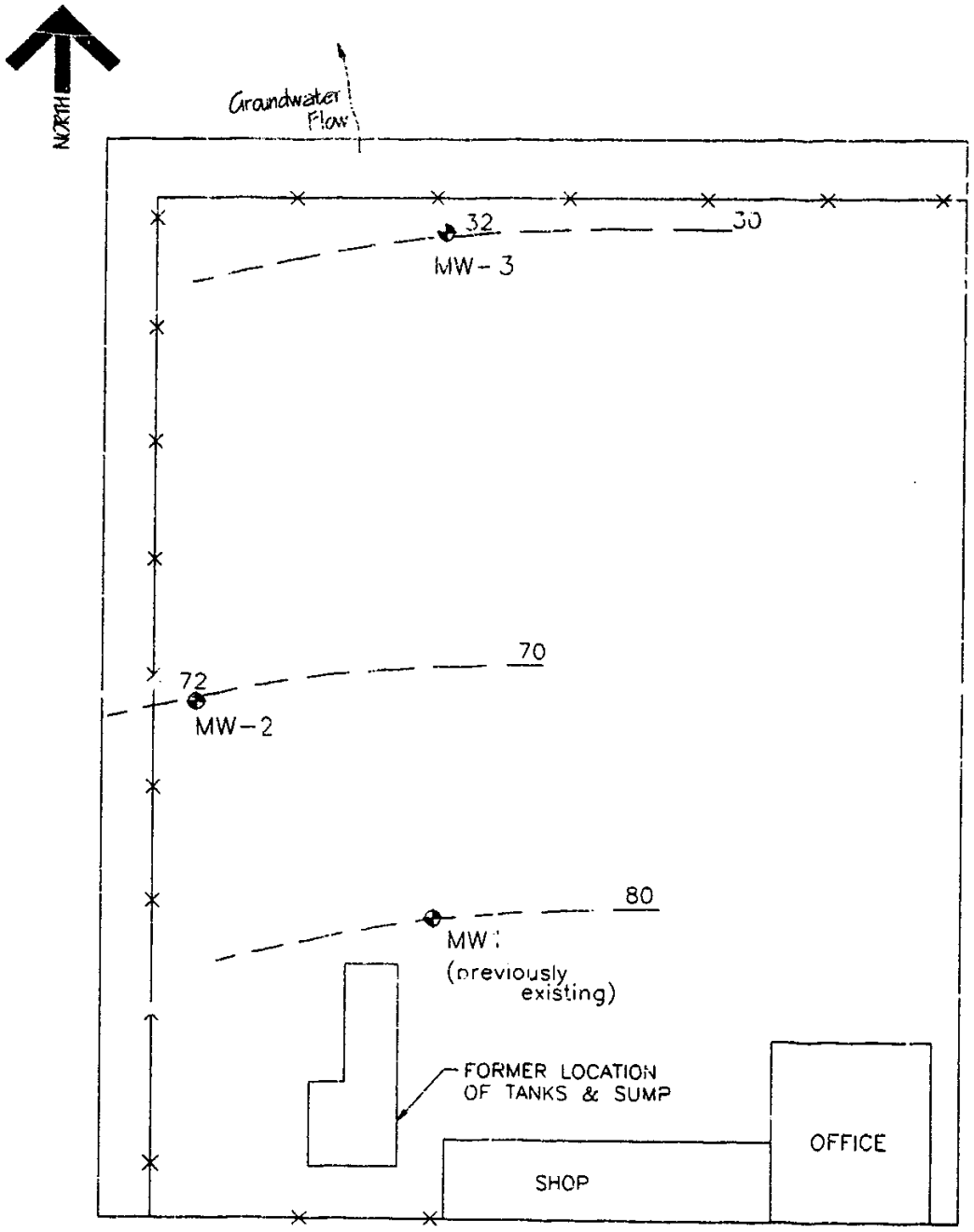
Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	PROJECT 390 Martin Avenue Santa Clara, California	LOG OF BORING MW 3	PROJECT NO. 5850100	FIGURE 4



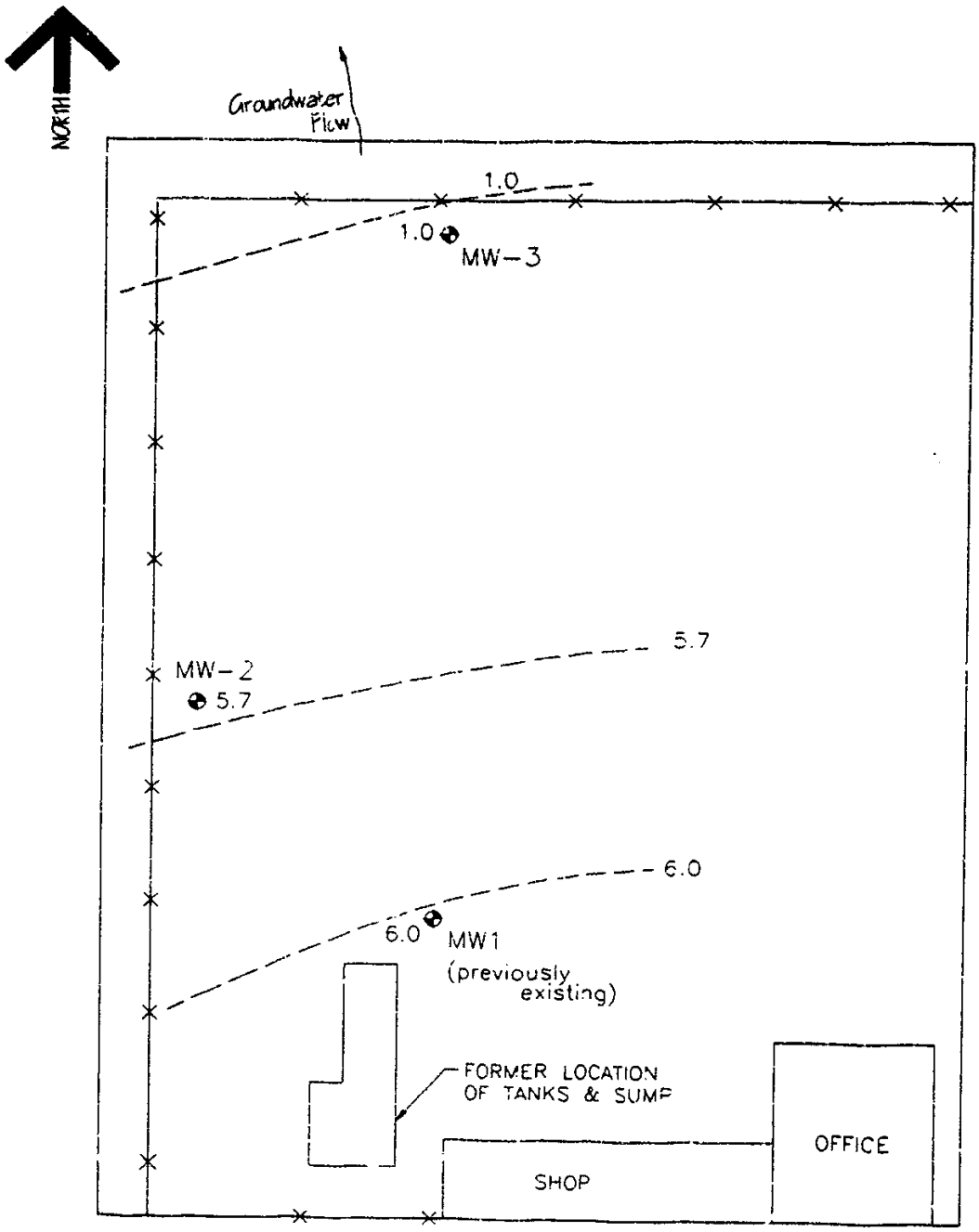
Environmental/Engineering Consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, California 94089

GROUNDWATER ELEVATION CONTOUR MAP
390 Martin Avenue
Santa Clara, California

JOB NO.	5850100	FIGURE 5
DRAWN BY:	C. ZARICI	
APPROVED BY:	K. PRICE	March 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 210 Sunnyvale, California 94089	TPHg CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARCI APPROVED BY: K. PRICE	FIGURE 6 March 1984



NOTE: Results in parts per million.

LEGEND:

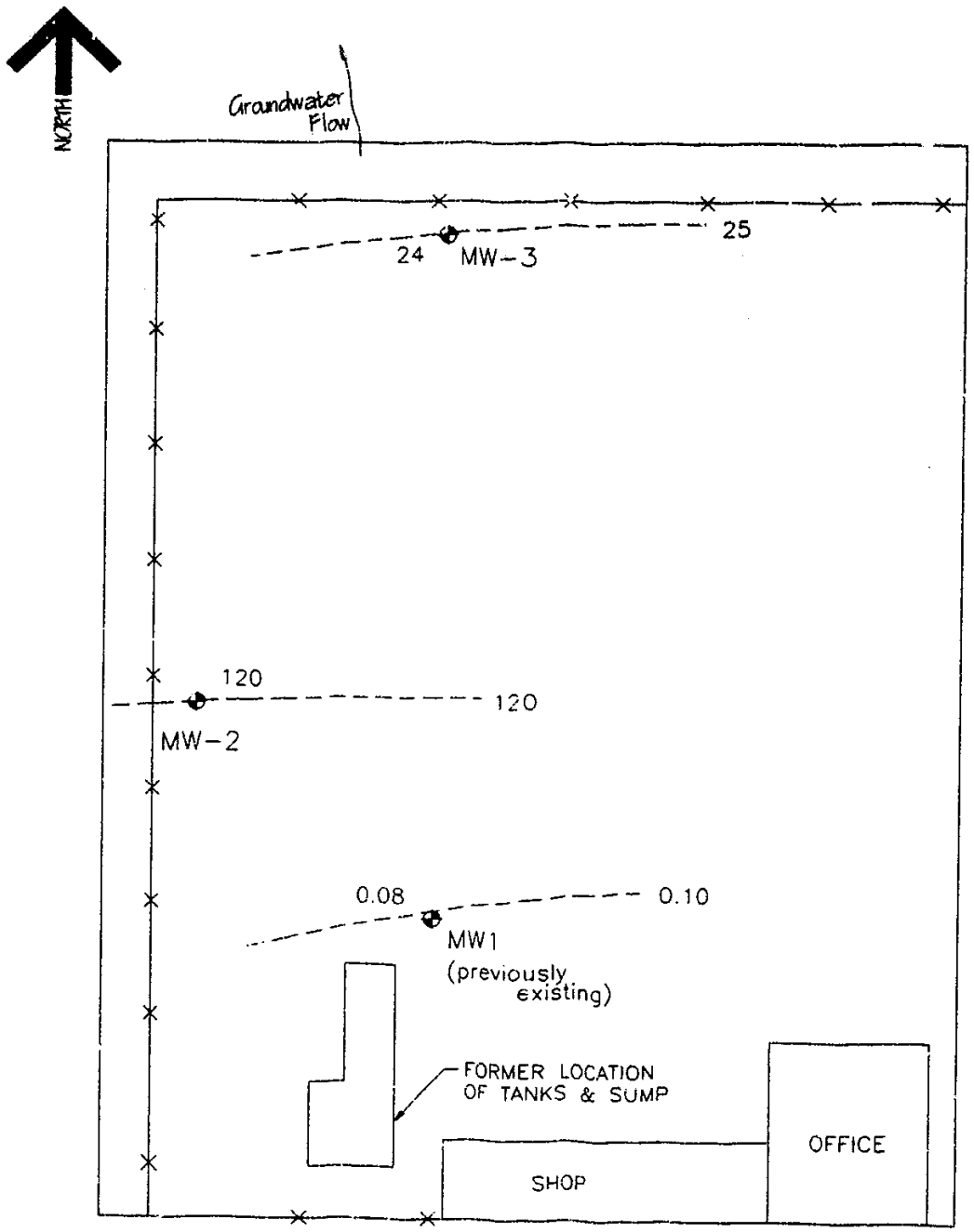
Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	BENZENE CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 7 March 1994



NOTE: Results in parts per million.

LEGEND:

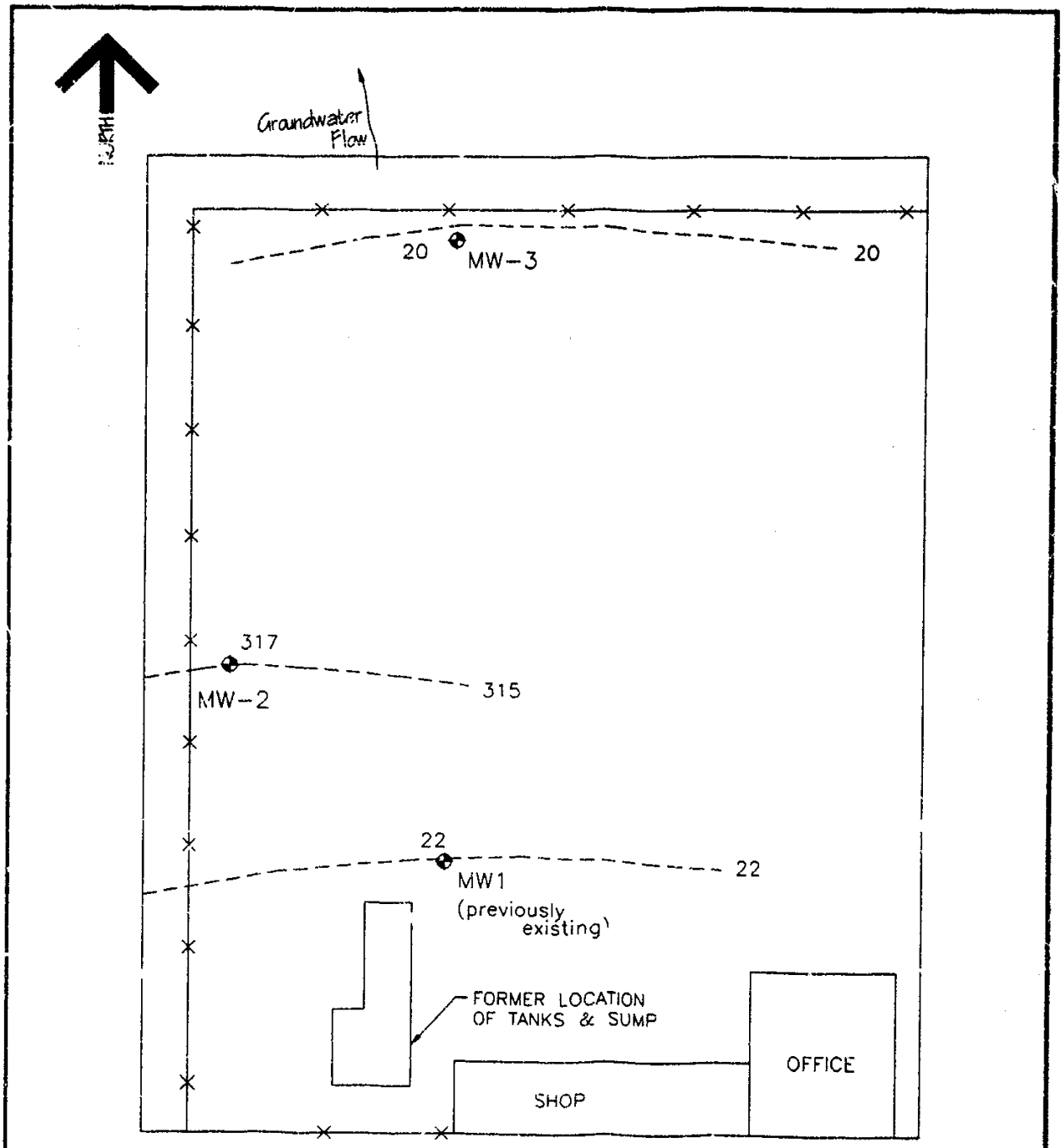
Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	TPHd CONCENTRATIONS IN GROUNDWATER 590 Martin Avenue Santa Clara, California	JOB NO. 5850100	FIGURE 8
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	March 1994



NOTE: Results in parts per million.

LEGEND:

Contaminant Contour Lines

Groundwater monitoring wells

0 10 20 30 40 50 FT

Graphic scale

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	O & G CONCENTRATIONS IN GROUNDWATER 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 9 March 1994

TABLE 1 LIST OF FUEL AND TOXIC LEAK SITES

NO	FACILITY/LOCATION	SUBSTANCE	CASE TYPE	STATUS	REMEDIAL ACTION	SOURCE LIST
1	Chioni Property 2433 De La Cruz Boulevard	Gasoline	U	O	NT	CORTESE RWQCB SCVWD SWRCB
2	Lombardo Diamond Core Drilling 2225 De La Cruz Boulevard	Diesel	U	O	NT	CORTESE RWQCB SWRCB
3	Quality Forklift 2375 De La Cruz Boulevard	Unknown	U	U	UK	SCVWD
4	Giulio Chioni 382 Martin Avenue	Gasoline	U	O	NT	CORTESE RWQCB SCVWD SWRCB
5	Carbonic Service 1920 De La Cruz Boulevard	Gasoline	U	O	NT	CORTESE RWQCB SCVWD SWRCB
6	Thrifty Car Rental 2362 De La Crua Boulevard	Unknown	U	U	UK	SCVWD
7	Drug Service, Inc. 376 Reed Street	Gasoline	U	O	NT	CORTESE RWQCB SCVWD SWRCB
8	Roto-Rooter 356 Mathew Street	Gasoline	G	3B	NT	CORTESE RWQCB SCVWD SWRCB
9	B.T. Mancini Company 305 Mathew Street	Gasoline	U	O	NT	CORTESE RWQCB SCVWD SWRCB
10	Sigma Circuits 393 Mathew Street	Gasoline	G	O	NT	CORTESE RWQCB SCVWD SWRCB
11	Stanford Applied Engineering 340 Martin Avenue	Unknown	U	U	UK	SCVWD
12	FMC Corp., Plant 22 Area 333 West Brokaw Road	TCE, 1,1-DCE, Lead	G/S	7	GT	TOXICS
13	FMC Corp., Plant 12 Area 328 West Brokaw Road	TCE, Mercury, Oil & Grease	G/S	7	GT	TOXICS

CODES

SUBSTANCES ABBREVIATIONS

DCE	=	trans-1,2-Dichloroethylene
TCE	=	Trichloroethylene

CASE TYPE

G	=	Groundwater has been affected
S	=	Soil only has been affected
U	=	Resources affected unknown

STATUS CODES

0	=	No action taken after initial report of leak
3B	=	Preliminary site assessment under way
7	=	Remedial action (cleanup) in progress
U	=	Unknown

REMEDIAL ACTION CODES

GT	=	Pump and treat groundwater - generally employed to remove dissolved contaminants
NT	=	No action taken - no indication that action was taken
UK	=	Unknown - action not known

SOURCE LIST

CORTESE	=	Hazardous Waste and Substances Sites List, July 1992; Governor's Office, Office of Planning and Research, Office of Permit Assistance
RWQCB	=	Regional Water Quality Control Board, San Francisco Bay Region (2), January 03, 1994.
SCVWD	=	Fuel Leak Site Activity Report, Fourth Quarter 1993; Santa Clara Valley Water District.
SWRCB	=	Report on Releases of Hazardous Substances from Underground Tanks, October 1993; State Water Resources Control Board.
TOXICS	=	South Bay Site Management System Quarterly Reports, January 27, 1994; Regional Water Quality Control Board, San Francisco Bay Region.

TABLE 2
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
February 25, 1994

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY u/cm	TEMPERATURE (Fahrenheit)	TURBIDITY (NTU)	PRE-PURGING		POST-PURGING	% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
						TOTAL DEPTH	DEPTH TO WATER	DEPTH TO WATER		
MW-1	1.25	7.0	1.26×10^3	66.4	190	15.00'	8.44'	8.60'	100%	100%
	2.5	6.85	1.22×10^3	65.9	380					
	3.75	6.80	1.47×10^3	66.9	350					
	5.0	6.70	1.41×10^3	66.3	320					
MW-2	1.25	7.04	1.40×10^3	66.9	210	16.55'	8.99'	16.95'	100%	100%
	2.5	6.88	1.39×10^3	65.8	300					
	3.75	6.88	1.25×10^3	66.4	300					
	5.0	6.92	1.12×10^3	66.1	300					
MW-3	1.5	6.74	1.75×10^3	68.9	180	17.5'	9.31'	8.35'	90%	25%
	3.0	6.65	1.55×10^3	67.2	290					
	4.5	7.05	1.69×10^3	66.1	350					
	6.0	7.28	1.68×10^3	67.9	350					

NTU = Nephelometric Turbidity Units (concentration of particles in suspension).

TABLE 3

SOIL SAMPLE RESULTS

Borehole No.	Sample No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes ug/kg
MW-2	MW2-5'	11	<5.0	70	240	160	530	1,600
	MW2-10'	270	<5.0	1,100	990	<5.0	9,000	26,000
MW-3	MW3-5'	2	<5.0	26	<5.0	<5.0	<5.0	<5.0
	MW3-10'	24	<5.0	130	63	63	300	197

TABLE 4

GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylben ug/kg	Xylenes ug/kg	Carbon Tetra ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	TCE ug/kg	Freon ug/kg
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	6.6	<0.8	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.9	2.0	0.9	2.1	1.0
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*5.0*	*1,200*

Ethylben = Ethylbenzene
Carbon Tetra = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

REPORT OF FINDINGS

UNDERGROUND STORAGE TANK REMOVAL

R.H WEHNER CONSTRUCTION COMPANY

390 MARTIN AVENUE

SANTA CLARA, CALIFORNIA

EPA #CAC000593080

PREPARED FOR:

Mr. R.H. Wehner

390 Martin Avenue

Santa Clara, CA 95050

PREPARED BY:

THE ENVIRONMENTAL CONSTRUCTION COMPANY

775 Montague Expressway

Milpitas, Californ' /5035

JUNE 1991

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Executive Summary	2
Risks	3
Tank History and Site Background	4
Excavation of Soils	4-5
Tank and Product Line Removal	5-6
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Analytical Results	8-9
Findings and Recommendations	10-11
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Figure 2 - Site Characterization Map
Figure 3 - Soil Sampling Location Map

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Table 2 - Analytical Results (Soil-Organics)
Table 3 - Analytical Results (Soil-Metals)
Table 4 - Analytical Results (Water-Organics)
Table 5 - Analytical Results (Water-Misc.)
Table 6 - Analytical Results (Soil-Organics)
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Table 8 - Analytical Results (Soil-Metals)

Appendices

Appendix A - Tank Removal Permits
Appendix B - Hazardous Waste Manifest Certificate of Disposal
Appendix C - Laboratory Report Chains of Custody

Underground Storage Tank Removal
R.H. Wehner Construction Company
390 Martin Avenue
Santa Clara, California
EPA #CAC000593080

Mr. R.H. Wehner
R.H. Wehner Construction Company
390 Martin Avenue
Santa Clara, CA 95050

June 20, 1991

Dear Mr. Wehner

On May 21, 1991, **THE ENVIRONMENTAL CONSTRUCTION COMPANY** (TECC) removed four underground storage tanks from the subject property located at 390 Martin Avenue, Santa Clara, California. In addition, a waste water sump was removed from the property on June 7, 1991. The scope of our work included: completing and submitting the tank closure permits as required by the City of Santa Clara and the State of California; removing the tanks and sump and associated product lines; collecting appropriate soil samples from the tank and sump excavation pits; and properly disposing of the tanks and sump. Other work conducted that does not pertain to this Report of Findings is not included in this text.

This Report of Findings summarizes the history of the tanks, the results of the inspection of the tanks and product lines, subsurface sampling methods, analytical results from the soil samples, and our findings and recommendations.

Please feel free to contact us at (408) 957-7700. **THE ENVIRONMENTAL CONSTRUCTION COMPANY** is very pleased to be of service to you on this project.

Respectfully,

Brian Reddig
Associate Geologist

EXECUTIVE SUMMARY

On May 21, 1991, THE ENVIRONMENTAL CONSTRUCTION COMPANY removed four underground storage tanks from the subject property located at 390 Martin Avenue, Santa Clara, California. On June 7, 1991, TECC personnel removed a waste water sump. The tank excavation pit was approximately 45 feet long by 15 feet wide and between 7 feet and 10 feet in depth. The pit was apparently back-filled with sand during tank installation. The native soils encountered in the subsurface were predominantly dark grayish brown silty clays and clays with local lenses and layers of sands.

Visual inspection indicated signs of rusting and pitting in all of the removed tanks. Through-going punctures were noted in two of the underground storage tanks. The removed product line was observed to be highly corroded, with dime-sized holes noted in numerous locations along the pipe. A strong to moderate product odor was noted in the excavated soils and from the pit.

Seven soil samples were collected from the tank excavation pit. Four of these samples contained TPHg (410 ppm to 1500 ppm) in excess of the 100 ppm guideline used by the Santa Clara Valley Water District to prioritize site clean-up. One sample contained TPHd at a concentration of 480 ppm. All seven samples contained elevated concentrations of Benzene, Toluene, Ethylbenzene, and Total Xylenes, with concentrations ranging between 290 ppb to 5500 ppb, 18 ppb to 23000 ppb, 300 ppb to 16000 ppb, and 430 ppb to 64000 ppb, respectively.

Two soil samples were collected from the waste water sump excavation pit. These samples did not contain TPHg, TPHd, BTEX, or Oil and Grease above detection limits. The chlorinated halocarbon Tetrachloroethene was detected at a concentration of 35 ppb.

Groundwater was encountered during exploratory excavation at a depth of 15-1/2 feet and a groundwater sample was collected. Analytical results indicated concentrations of TPHg and TPHd of 14000 ppb and 38000 ppb, respectively. Oil and Grease was also detected at a concentration of 18 ppm. Benzene and Toluene were detected at concentrations of 2000 ppb and 110 ppb, respectively, which exceed the Department of Health Services Action Levels of 0.7 ppb for Benzene and 100 ppb for Toluene. Ethylbenzene and Total Xylenes were detected at concentrations of 22 ppb and 440 ppb, respectively.

It is recommended that interim remediation to control the migration of contaminated groundwater be initiated as soon as possible. A Remedial Investigation to assess the vertical and horizontal extent and severity of soil and groundwater contamination should also be conducted in order to determine the best possible remedial actions that apply to the site.

RISKS

This site presents a moderate to high risk to the environment based on the following characteristics:

- Soils in the vicinity of the removed underground storage tanks have been adversely impacted by petroleum hydrocarbon contamination
  - TPHg is present at concentrations as high as 1500 ppm
  - TPHd is present at concentrations as high as 480 ppm
  - Benzene is present at concentrations as high as 5500 ppb
  - Toluene is present at concentrations as high as 23000 ppb
  - Ethylbenzene is present at concentrations as high as 16000 ppb
  - Total Xylenes are present at concentrations as high as 64000 ppb

- Groundwater, which occurs at approximately 15-1/2 feet below surface grade, was found to be impacted by petroleum hydrocarbon contamination
  - TPHg is present at a concentration of 14000 ppb
  - TPHd is present at a concentration of 38000 ppb
  - Benzene is present at a concentration of 2000 ppb
  - Toluene is present at a concentration of 110 ppb
  - Ethylbenzene is present at a concentration of 22 ppb
  - Total Xylenes are present at a concentration of 440 ppb
  - Oil and Grease is present at a concentration of 18 ppm

- Soils in the vicinity of the removed waste water sump contained Tetrachloroethene at a concentration of 35 ppb.

TANK HISTORY AND SITE BACKGROUND

The site is presently an active construction yard located at 390 Martin Avenue in the eastern portion of the City of Santa Clara, California. The location of the site is shown on Figure 1, Site Location Map. Activities at the site include storage and repair of the construction equipment. The site is bound to the east by Martin Avenue and to the north, south, and west by other commercial facilities. The general layout of the site is indicated in Figure 2, Site Characterization Map.

A total of four underground storage tanks and one waste water sump were removed from the property. The following list summarizes the capacities and contents of the removed storage tanks.

- One 8000-gallon unleaded gasoline tank
- One 1000-gallon leaded gasoline tank
- One 550-gallon diesel tank
- One 300-gallon waste oil tank
- One 200-gallon (approx.) waste water sump

The 8000-gallon unleaded gasoline tank was installed in 1975. The remaining tanks were estimated to be over 20 years old. The waste water sump is estimated to be approximately 15 years old. It is unknown to the operator of the property when the tanks were last used.

EXCAVATION OF SOILS

Prior to the excavation of soils from above the underground storage tanks, TECC personnel removed an asphalt and concrete slab from above the tank locations. Soils were excavated from above the underground storage tanks and along their sides to expose the top and walls of the tanks in preparation for removal.

The material encountered in the excavated pit during tank removal was a clean, well sorted sand, which apparently was used as back-fill material during tank installation. Soil excavated from along the walls of the tank pit were typically dark grayish-brown silty clays and clays.

The top of the tanks were encountered at approximately four feet below surface grade. The excavated pit was enlarged to approximately 45 feet long by 15 feet wide. Upon removal of the tanks, the excavation had a depth of 8 feet in the vicinity of the waste oil, diesel, and leaded gasoline tanks and a depth of 10 feet in the vicinity of the unleaded gasoline tank. A total of approximately 55 cubic yards of soil was excavated from the pit during the tank removal procedure.

Groundwater was not encountered in the original tank removal pit; however, water was encountered at a depth of approximately 15-1/2 feet during exploratory excavation. Moderate to strong product odor was noted in the excavated soils. Product odor and sheen were also noted on a groundwater sample.

TANK AND PRODUCT LINE REMOVAL

Underground Storage Tank Removal

On May 21, 1991 TRC personnel exposed the tops and sides of the underground storage tanks in preparation for removal. Inspector Joe Valenti of the City of Santa Clara was on site to witness the devolatilization of the tanks, removal of the tanks, and soil sampling.

Approximately 100 pounds of dry ice per 1000 gallons of capacity for each of the underground storage tanks was inserted into the tanks to devolatilize the tanks for removal and transport. A GasTech Model 1314 Explosimeter was placed inside the tank to measure the lower explosive limit (LEL) and oxygen levels inside the tanks. According to safety guidelines, the LEL and oxygen levels must be below 10%. Readings below these levels were measured and the tanks were prepared for removal from the pit. This removal was accomplished by attaching heavy duty chains to each end of the tanks and lifting the tanks from the pit with a crane. The tanks and associated product lines were then moved to a staging area where they were inspected.

Upon visual inspection of the tanks, all were noted to be heavily rusted and pitted. The waste oil and diesel tanks both contained small pin-holes near their bottoms. There were no apparent through-going holes in either the unleaded or leaded gasoline tanks. The majority of the product line was rusted and corroded, with some dime-sized holes found locally. Moderate to strong product odor and some free product was noted in the sandy material along the walls and at the base of the excavated pit.

After inspection, the tanks and product lines were loaded onto an H&H Ship Service transport truck (USEPA #CAD004771168) and taken to their recycling facility at 220 China Basin Street, San Francisco, California. Copies of the Hazardous Waste Manifests and Certificates of Disposal are included in Appendix B.

Sump Removal

On June 7, 1991, TECC personnel removed a 200-galion (est.), cement contained waste water sump. The sump was removed by breaking the surrounding concrete containment and lifting the sump from the ground using a crane. The sump was then staged on-site and was examined by Inspector Joe Valenti on June 10, 1991.

The native soils in the vicinity of the waste water sump were predominantly dark brown silty clays and clays. Slight to moderate product odor was noted in some of the excavated soils.

After inspection of the sump was completed, it was destroyed using a jack-hammer and staged to be disposed of with the soils as hazardous waste.

SAMPLING PROTOCOL

Underground Storage Tanks

On May 21, 1991, under the supervision of Inspector Joe Valenti, TECC personnel recovered 7 soil samples. Soil sample WO1 was collected in native soils at a depth of 2 feet below the base of the waste oil tank (9 feet total depth). Samples D1M and D1F were collected at a depth of 2 feet below (9 feet total depth) the middle and fill port ends of the diesel tank, respectively. Soil samples U1M and U1T were collected from a depth of 2 feet below (9 feet total depth) middle and tail end of the leaded gasoline tank, respectively. Samples L1T and L1F were collected from a depth of 2 feet below the fill port and tail end of the unleaded gasoline tank (12 feet total depth), respectively. The locations from where the soil samples were collected are indicated on Figure 3, Sampling Location Map.

All samples collected were noted as having a moderate to strong product odor. Product odor was also noted in the stockpiled soils.

The "grab sample" method was used to collect each soil sample. With this technique, a clean 2-inch outside diameter, 6-inch long brass sampling tube was hand driven into the excavated soils in the bucket of the backhoe. Samples obtain from the bucket of the backhoe were collected at locations away from the walls of the bucket in order to minimize the possibility of contamination from the bucket. Upon recovery of the sample, the ends of the brass tube were sealed with aluminum foil, capped with plastic end caps, secured with aluminized tape, and properly labelled. Label information included the date and time of sampling, identification number, project number, and analyses requested. Under proper Chain of Custody procedure, the samples were placed on dry ice inside a thermal insulated cooler for subsequent transport to a State-certified analytical laboratory. A copy of the Chains of Custody is included in Appendix C.

Groundwater Sample

In addition, on May 21, 1991, the excavated pit was extended to a depth of approximately 15-1/2 feet in the vicinity of the removed waste oil and diesel tanks, and a "grab" groundwater sample was collected. Groundwater sample WS-WO was collected by lowering a teflon bailer into the groundwater using disposable nylon string and filling the bailer with groundwater from the pit. The groundwater was then slowly poured into the appropriate containers in order to minimize volatilization, labelled, and placed on dry ice for subsequent transport to an analytical laboratory.

Waste Water Sump

On June 10, 1991, under the supervision of Inspector Joe Valenti, TECC personnel recovered two soil samples from the waste water sump excavation. Soil sample SS-1 was collected from a depth of two feet below the south end of the sump floor (7 feet total depth). Soil sample SS-2 was collected from a similar depth from the north end of the sump pit. Each sample was collected using the "grab sample method" described above.

Product odor and staining were not noted in the soil samples, although there was product odor noted in the excavated pit.

As per the instructions in the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Storage Tank Sites, 1990," the soil samples were analyzed for the following constituents.

- WO-1, SS-1 & SS-2 Total Petroleum Hydrocarbons as gasoline (TPHg) (EPA Method 5030/8015), Total Petroleum Hydrocarbons as diesel (TPHd) (EPA Method 3550/8015), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) (EPA Method 8020), Total Oil and Grease (EPA Method 5520 E&F), Cadmium (EPA Method 7130), Chromium (EPA Method 7190), Lead (EPA Method 7420), Nickel (EPA Method 7590), Zinc (EPA Method 7950), and Chlorinated Halocarbons (EPA Method 8010).
- D1M & D1F TPHd and BTEX.
- L1F & L1T TPHg and BTEX
- U1M & U1T TPHg, BTEX, and Lead

Chemical analyses performed on the groundwater sample were as follows:

- WS-WO TPHg, TPHd (EPA Method 3510/8015), BTEX (EPA Method 602), Lead, and Chlorinated Halocarbons (EPA Method 601).

ANALYTICAL RESULTS

All soil and groundwater samples were analyzed at Chromalab, Inc. of San Ramon, California. The results of the laboratory analyses are shown in Tables 1 through 8. A copy of the laboratory reports are included in Appendix C.

Underground Storage Tank Samples

Laboratory results from the soil samples collected during the tank removal and shown on Table 1 (TPHg & BTEX), Table 2 (Oil and Grease & TPHd), and Table 3 (Metals).

Sample W01 contained TPHg at a concentration of 29 parts per million (ppm). BTEX was also present at concentrations of 390 parts per billion (ppb) for Benzene, 18 ppb for Toluene, 760 ppb for Ethylbenzene, and 1100 ppb for Total Xylenes. Oil and Grease, TPHd, and Chlorinated Halocarbons were not present at concentrations above their detection limits. The five heavy metals were present at concentrations below ten times their respective Soluble Threshold Limit Concentrations: Cadmium was detected at a concentration of 0.409 ppm, Chromium at 7.67 ppm, Lead at 0.66 ppm, Nickel at 7.52 ppm, and Zinc at 14.1 ppm.

Samples U1M and U1T both contained TPHg in excess of the 100 ppm guideline used by the Santa Clara Valley Water District to prioritize site clean-up. TPHg was detected at a concentration of 1500 ppm in sample U1M and 410 ppm in sample U1T. Benzene, Toluene, Ethylbenzene, and Xylenes were also detected at concentrations of 1400 ppm, 19000 ppm, 16000 ppm, and 64000 ppm, respectively, for sample U1M and at concentrations of 2400 ppm, 23000 ppm, 8000 ppm, and 23000 ppm, respectively, for sample U1T. Lead was present at a concentration of 11.5 ppm in sample U1M and at a concentration of 7.39 ppm in sample U1T.

Samples L1F and L1T also contained TPHg in excess of the 100 ppm guideline. L1F contained TPHg at a concentration of 880 ppm and L1T contained TPHg at a concentration of 560 ppm. BTEX was also detected at elevated concentrations with sample L1F containing Benzene at 550 ppb, Toluene at 21000 ppb, Ethylbenzene at 8200 ppb, and Xylenes at 29000 ppb. Sample L1T contained these constituents at concentrations of 1500 ppb, 11000 ppb, 4200 ppb, and 23000 ppb, respectively.

TPHd was detected in samples D1M and D1F at elevated concentrations. D1M contained TPHd at a concentration of 480 ppm, which is in excess of the 100 ppm guideline. D1F contained TPHd at a concentration of 33 ppm. Benzene, Toluene, Ethylbenzene, and Xylenes were detected at concentrations of 1600 ppb, 150 ppb, 300 ppb, and 590 ppb, respectively, for sample D1M and at concentrations of 1600 ppb, 73 ppb, 490 ppb, and 430 ppb, respectively, for sample D1F.

Groundwater Sample

Analytical results for the groundwater sample are shown in Table 4 (TPHg & BTEX) and Table 5 (Oil and Grease, TPHd, and Lead).

Groundwater sample WS-WO contained TPHg and TPHd at concentrations of 14000 ppb and 38000 ppb, respectively. Oil and Grease was detected at a concentration of 18 ppm. Benzene and Toluene were detected at concentrations of 2000 ppb and 110 ppb, respectively, which are in excess of the Department of Health Services Action Levels of 0.7 ppb for Benzene and 100 ppb for Toluene. Ethylbenzene and Xylenes were detected at concentrations of 22 ppb and 440 ppb, respectively. Lead and Chlorinated Halocarbons were not detected in the groundwater sample.

Waste Water Sump Samples

Analytical results from samples collected for the June 10, 1991, waste water sump removal are presented in Table 6 (TPHg & BTEX), Table 7 (Oil and Grease & TPHd), and Table 8 (Metals).

Soil samples SS-1 and SS-2 did not contain concentrations of TPHg, TPHd, BTEX, or Oil and Grease above detection limits. Both samples contained heavy metals at concentrations below ten times their respective STLCs. Cadmium was detected at a concentration of 0.221 ppm in sample SS-1 and at a concentration of 0.204 in sample SS-2. Chromium was present at a concentration of 8.06 ppm in SS-1 and at a concentration of 7.14 in SS-2. Concentrations of Lead of 8.32 ppm and 5.75 ppm were reported in samples SS-1 and SS-2, respectively. Nickel was detected at a concentration of 10.3 ppm in sample SS-1 and at a concentration of 8.96 ppm in sample SS-2. Concentrations of Zinc of 17.3 ppm and 17.1 ppm were reported in samples SS-1 and SS-2, respectively. The chlorinated halocarbon tetrachloroethene was the only chlorinated halocarbon detected and was detected in sample SS-2 at a concentration of 35 ppb.

FINDINGS AND RECOMMENDATIONS

Based on the data collected during our tank removal procedures, the following findings have been determined:

- Soils in the vicinity of the removed underground storage tanks have been adversely impacted by petroleum hydrocarbon contamination
- TPHg is present at concentrations ranging from 29 ppm to 1500 ppm
- TPHd is present at concentrations ranging from non-detectable to 480 ppm
- Benzene is present at concentrations ranging from 290 ppb to 5500 ppb
- Toluene is present at concentrations ranging from 18 ppb to 23000 ppb
- Ethylbenzene is present at concentrations ranging from 300 ppb to 16000 ppb
- Total Xylenes are present at concentrations ranging from 420 ppb to 64000 ppb
- Soils in the vicinity of the removed waste water sump contained Tetrachloroethene at a concentration of 35 ppb
- Groundwater, which occurs at approximately 15-1/2 feet below surface grade, was found to be impacted by petroleum hydrocarbon contamination
- TPHg is present in the groundwater at a concentration of 14000 ppb
- TPHd is present in the groundwater at a concentration of 38000 ppb
- Benzene is present in the groundwater at a concentration of 2000 ppb
- Toluene is present in the groundwater at a concentration of 110 ppb
- Ethylbenzene is present in the groundwater at a concentration of 22 ppb
- Total Xylenes are present in the groundwater at a concentration of 440 ppb

- Oil and Grease is present in the groundwater at a concentration of 18 ppm
- Sand was used as back-fill material during the initial tank installation
- Subsurface materials encountered in the tank excavation pit were typically low permeability clays and silty clays with local lenses and layers of moderately permeable sands

RECOMMENDATIONS

Based on the above findings, the following recommendations may be made:

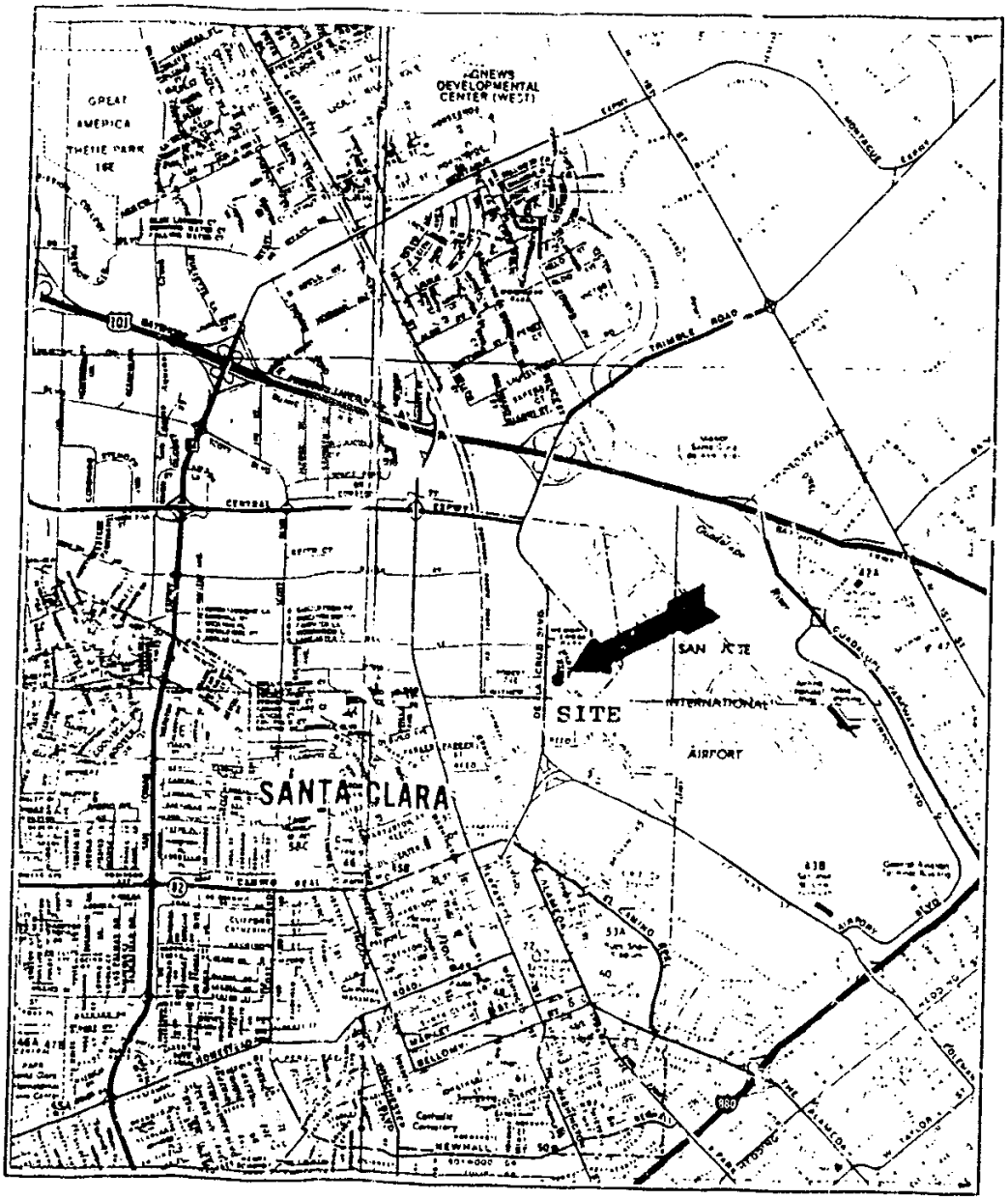
- Interim remediation of the groundwater is required by the Santa Clara Valley Water District whenever floating product is present in the groundwater
  - Interim groundwater remediation may include extraction, treatment and/or disposal
- Conduct a Remedial Investigation with the following objectives:
  - Define the horizontal and vertical extent and severity of soil and groundwater pollution at the site. This will entail the installation of soil borings and groundwater monitoring wells.
  - Identify current and potential impacts on present and future beneficial uses of water.
  - Determine direction of groundwater flow and gradients.
  - Conduct a well survey.
- Evaluate remediation options and propose a final remediation plan.

Copies of this report should be sent to:

- Inspector Joe Valenti, Santa Clara Fire Department, 777 Benton Street, Santa Clara, CA 95050
- Santa Clara Valley Water District, UST Section, 5750 Almaden Expressway, San Jose, CA 95118
- Regional Water Quality Control Board, 2101 Webster Street, Room 500, Oakland, CA 94612

LIMITATIONS

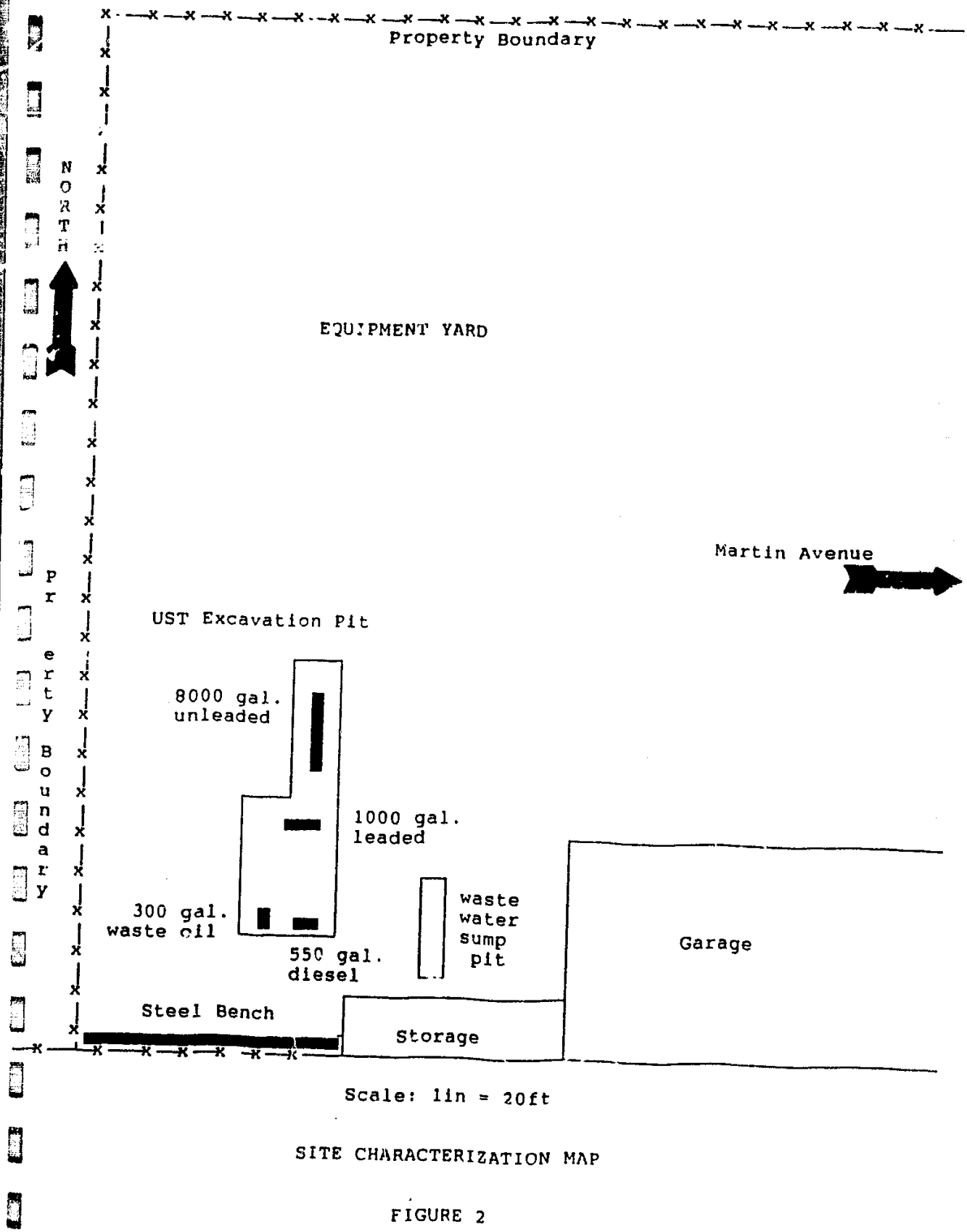
The conclusions and professional guidelines presented herein were developed in accordance with generally accepted practice for addressing fuel leaks from underground storage tanks as outlined in the guidelines from the Santa Clara Valley Water District and the California Water Quality Control Board. Because the analytical results are based on data collected from the sampling locations only, TECC cannot have full knowledge of the underlying conditions at the site. Conditions at the project site may change with time due to the works of man and/or acts of nature. Accordingly, the findings of this report may be subject to change in light of new information.



Scale: 1" = 0.67 miles

Site Location Map

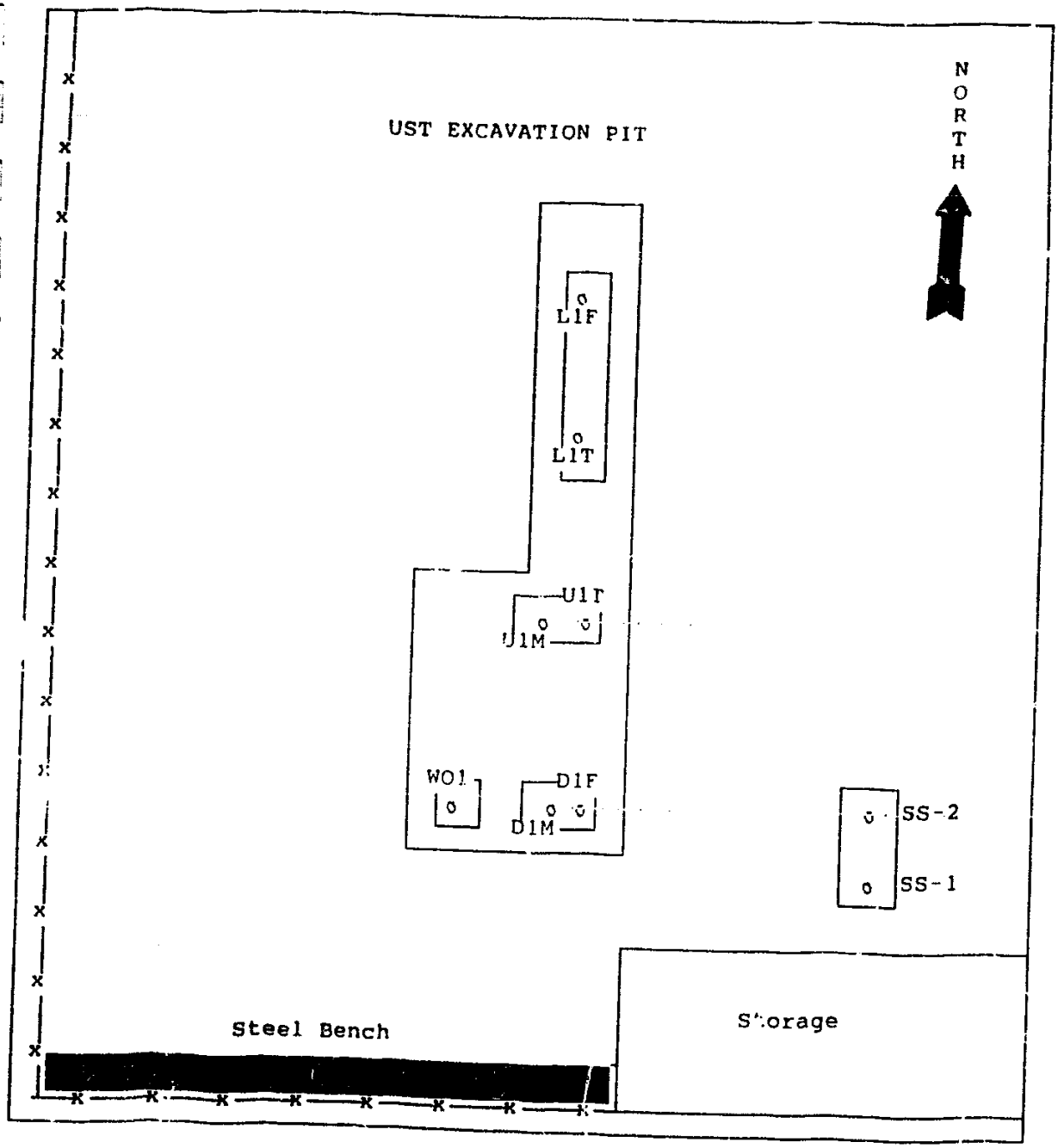
FIGURE 1



Scale: 1in = 20ft

SITE CHARACTERIZATION MAP

FIGURE 2



Scale: 1 in = 10 ft

SAMPLING LOCATION MAP

FIGURE 3

Table 1 Analytical Results (Soil Organics)

Sample Number	TPHg (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
D1M	NA	1500	150	300	590
D1F	NA	1600	73	490	430
L1F	880	5500	21000	8200	29000
L1T	560	1500	11000	4200	23000
U1M	1500	1400	19000	16000	84000
U1T	410	2400	23000	8000	23000
WO1	29	290	18	760	1100
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

NA = Not Analyzed

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
D1M	480	NA
D1F	33	NA
L1F	NA	NA
L1T	NA	NA
U1M	NA	NA
U1T	NA	NA
WC1	ND	ND
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

NA = Not Analyzed

N.D. = Not Detected

Table 2 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
U1M	NA	NA	11.5	NA	NA
U1T	NA	NA	7.39	NA	NA
WO1	0.409	7.67	0.66	7.52	14.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

NA = Not Analyzed

Table 3 Analytical Results (Soil Metals)

Sample Number	TPHq (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
WS-WO	14000	2000	110	22	440
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

Table 4 Analytical Results (Water Organics)

Sample Number	TPHd (ppb)	Oil and Grease (ppm)	Lead (ppm)
WS-WO	38000	18	N.D.
DETECTION LIMIT	50	0.5	0.05
METHOD OF ANALYSIS	3550/ 8015	5520 E&F	7420

N.D. = Not Detected

Table 5 Analytical Results (Water Misc.)

Sample Number	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)
SS-1	N.D.	N.D.	N.D.	N.D.	N.D.
SS-2	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020

N.D. = Not Detected

Table 6 Analytical Results (Soil Organics)

Sample Number	TPHd (ppm)	Oil and Grease (ppm)
SS-1	N.D.	N.D.
SS-2	N.D.	N.D.
DETECTION LIMIT	1.0	10
METHOD OF ANALYSIS	3550/ 8015	5520 E&F

N.D. = Not Detected

Table 7 Analytical Results (Soil Organics)

Sample Number	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
SS-1	0.221	8.06	8.32	10.3	17.3
SS-2	0.204	7.14	5.75	8.96	17.1
DETECTION LIMIT	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	7130	7190	7420	7590	7950

Table 8 Analytical Results (Soil Metals)

APPENDIX A

TANK REMOVAL PERMIT

CITY OF SANTA CLARA

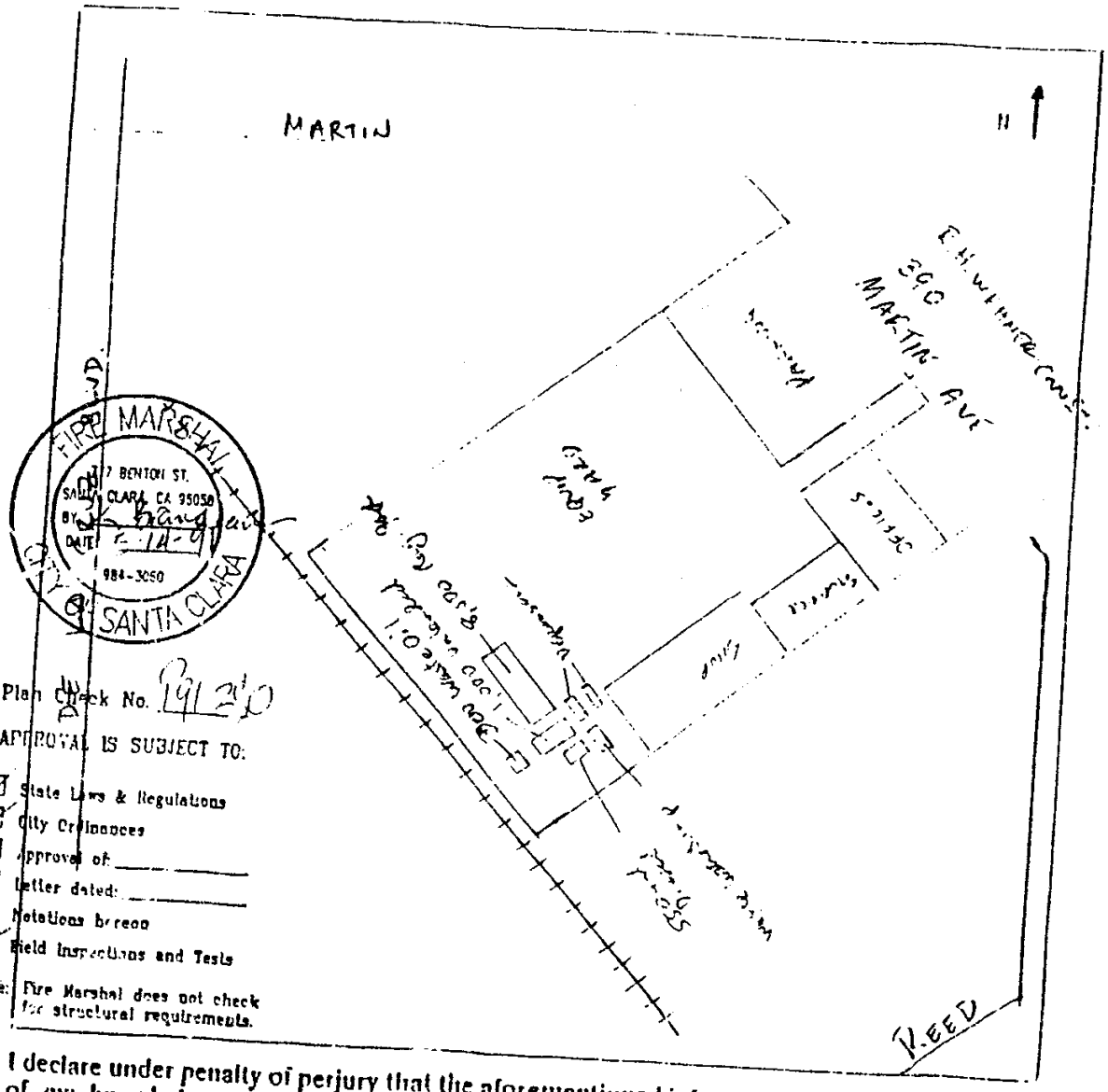
CLOSURE PLAN FOR HAZARDOUS MATERIALS STORAGE TANKS

RECEIVED
MAY 7 1991
S.C.F.D.

1. Facility Name: R.H. WEHNER CONCRETE CONSTRUCTION COMPANY
   Address: 390 MARTIN AVE, SANTA CLARA, CA. 95050
   Contact Person: ROBERT HAZELTON
   Phone Number: (408) 727-6607
2. Tank Closure Contractor: THE ENVIRONMENTAL CONSTRUCTION COMPANY
   Street: 775 MONTAGUE EXPRESSWAY
   City: MILPITAS, CA. 95035
   Contact Person: LORI GAUS
   Phone Number: (408) 957-7700
3. Name and phone number of firm who will take soil samples:
   THE ENVIRONMENTAL CONSTRUCTION COMPANY
4. Name and phone number of laboratory that will analyze samples (must be certified by State of California, Department of Health Services):
   CHROMALAB (415) 831-1788
5. The Tank Closure Permit expires 180 days from the date of closure plan approval.
6. Name of tank hauler: H&H SHIP SERVICE
   Destination of tanks: 220 CHINA BASIN SAN FRANCISCO, CA. 94107
   Intended reuse or method of disposal: RECYCLING
7. Tanks to be removed:

	Size	Tank Contents
Tank 1:	8000 GALLON	REGULAR GASOLINE
Tank 2:	1000 GALLON	UNLEADED GASOLINE
Tank 3:	550 GALLON	DIESEL
Tank 4:	300 GALLON	WASTE OIL
Tank 5:		

8. Provide a plot plan of the tank, to be closed. Indicate the nearest cross streets to the facility, the buildings immediately adjacent to the tanks, and the location of the tanks to be closed.



FIRE MARSHAL
777 BENTON ST.
SANTA CLARA, CA 95050
BY
DATE 2-11-97
984-3250
CITY OF SANTA CLARA

Plan Check No. 9L250

APPROVAL IS SUBJECT TO:

- [x] State Laws & Regulations
- [x] City Ordinances
- [ ] Approval of: _____
- [ ] Letter dated: _____
- [x] Notations hereon
- [x] Field Inspections and Tests

Note: Fire Marshal does not check for structural requirements.

I declare under penalty of perjury that the aforementioned information is correct to the best of my knowledge. If there is any change which would materially affect the above information, I will notify the S.C.F.D., Fire Prevention Bureau.

Date

Applicant's Signature

APPENDIX B

HAZARDOUS WASTE MANIFEST/CERTIFICATE OF DISPOSAL

Please print or type. Form designed for use on elite (12 pitch typewriter). and Front of Page 1 Sacramento

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: CAC000159308 | Manifest Document No: 000011 | 2 Page 1 of 1 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
R. H. WEHNER CONCRETE CONSTRUCTION
390 Martin Avenue, Santa Clara, Ca. 95050
4 Generator's Phone (408) 727-6607

A. State Manifest Document Number: 90538064
B. State Generator's ID:

5 Transporter 1 Company Name: H & H Ship Service Company | 6 US EPA ID Number: CAD000417711618
C. State Transporter's ID: 200559
D. Transporter's Phone: (415) 543-4835

7 Transporter 2 Company Name | 8 US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9 Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107
10 US EPA ID Number: CAD000417711618
G. State Facility's ID: CAD000417711618
H. Facility's Phone: (415) 543-4835

11. US DOT Description (Including Props. Shipping Name, Hazard Class, and ID Number)	12 Containers No.	Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a. RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	011	TP	018000	P	State 512 / EPA/Other
b. RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	011	TP	011000	P	State 512 / EPA/Other
c. RESIDUE DIESEL TANK NON-RCRA HAZARDOUS WASTE SOLID	011	TP	010550	P	State 512 / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
PUMPED OUT 8,000, 1,000 and 550 gallon tanks last containing gasoline and diesel. Tanks inerted with dry ice for transport.
PROFILE #A0

K. Handling Codes for Wastes Listed Above
a. 01 b. 01 c. 01 d.

15 Special Handling Instructions and Additional Information
JOB #7624
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: TIM WHALEN (TEEC) FOR R.H. WEHNER CONCRETE CONST. | Signature: (T.E.C.C.) | Month Day Year: 10 15 12 11 91

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: NORMAN L. BERG | Signature | Month Day Year: 10 15 12 11 91

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Month Day Year: 05 17 91

Do Not Write Below This Line

US 8022 A
EPA 8700-22
(Rev. 89) Previous editions are obsolete

White - TOP SHEET RETURNS THIS COPY TO DHS WITHIN 30 DAYS
To: P.O. Box 7320, Sacramento, CA 95813

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

IN CASE OF AN EMERGENCY INVOLVING SPILL CALL THE NATIONAL RESPONSE CENT 1-800-424-8802; WITHIN CALIFORN. CALL 1-800-852-7550

H&H
ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 · DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

MAY 24, 1991

H & H Ship Service Company hereby certifies to THE ENVIRONMENTAL CONSTRUCTION COMPANY that:

1. The storage tank(s), size(s) 1-8,000 GALS., 1-1,000 GALS. AND 1-550 GALS.

removed from the R. H. WEHNER CONCRETE CONSTRUCTION

facility at 390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number 7624

have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: SCHNITZER STEEL, OAKLAND, CALIFORNIA.

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) — Continued from Front of Page 1 — Toxic Substances Control Div., Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone

A. State Manifest Document Number: 90538067

B. State Generator's ID

5. Transporter 1 Company Name | US EPA ID Number | C. State Transporter's ID: 1200559

6. Transporter's Phone: (415) 543-4010

7. Transporter 2 Company Name | US EPA ID Number | D. State Transporter's ID

E. State Transporter's Phone

8. Designated Facility Name and Site Address | US EPA ID Number | F. State Facility's ID

G. Facility's Phone

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					State / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above | K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: HARMAN L. DENG | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month Day Year

DHS 8022 A
EPA 8700-22
(Rev. 6-80) Previous editions are obsolete

Do Not Write Below This Line

GREEN: HAULER RETAINS

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

MAY 23, 1991

H & H Ship Service Company hereby certifies to THE ENVIRONMENTAL CONSTRUCTION COMPANY that:

1. The storage tank(s), size(s) ONE (1) 300 GALS.

removed from the R. H. WEHNER CONCRETE CONSTRUCTION

facility at 390 MARTIN AVENUE

SANTA CLARA, CALIFORNIA

were transported to H & H Ship Service Company, 220 China Basin St. San Francisco, California 94107.

2. The following tank(s), H & H Job Number 7619

have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: LEVIN METALS COMPANY, RICHMOND, CALIFORNIA.

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

APPENDIX C

LABORATORY REPORT AND CHAINS OF CUSTODY

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991 ChromaLab File No.: 0591145

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: Seven rush soil samples for Gasoline/BTEX, and Diesel, analyses

Project Name: R H WEHNER
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 23-24, 1991 Date Analyzed: May 23-24, 1991

RESULTS:

Sample No.	Gasoline (mg/kg)	Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl Benzene (µg/kg)	Total Xylenes (µg/kg)
D1M	----	480	1600	150	300	590
D1F	----	33	1600	73	490	430
L1F	880	----	5500	21000	8200	29000
L1T	560	----	1500	11000	4200	23000
U1M	1500	----	1400	19000	16000	64000
U1T	410	----	2400	23000	8000	23000
WO1	29	N.D.	290	18	760	1100
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	94.8%	87.3%	91.4%	85.4%	86.9%	85.7%
DUP SPIKE REC	97.4%	81.8%	92.5%	96.2%	102.1%	106.8%
DET. LIMIT	1.0	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991 ChromaLab File No.: 0591145

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: Seven rush soil samples for Oil & Grease, Cadmium, Chromium, Lead, Nickel, and Zinc analyses

Project Name: R H WEHNER
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 23-24, 1991 Date Analyzed: May 23-24, 1991

RESULTS:

Sample No.	Oil & Grease (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
D1M	----	----	----	----	----	----
D1F	----	----	----	----	----	----
L1F	----	----	----	----	----	----
L1T	----	----	----	----	----	----
U1M	----	----	----	11.5	----	----
U1T	----	----	----	7.39	----	----
WO1	N.D.	0.409	7.67	0.66	7.52	14.1
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	----	100.3%	97.7%	101.4%	90.2%	89.6%
DET. LIMIT	10	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	5520 E&F	7130	7190	7420	7590	7950

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 24, 1991

ChromaLab File # 0591145

Client: The Env. Construction Co.
Attn: Tim Whalen
Date Sampled: May 21, 1991
Date Submitted: May 22, 1991
Date of Analysis: May 24, 1991

Project Name: R H Wehner
Project No.: 290
Sample I.D.: WO 1
Method of Analysis: EPA 8010
Detection Limit: 5.0 ug/kg

COMPOUND NAME	ug/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	89.5% 90.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	90.4% 89.2%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	88.7% 85.7%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	87.2% 86.8%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

THE ENVIRONMENTAL CONSTRUCTION COMPANY (TECC)
2151 KINNEY DRIVE
SAN JOSE, CA. 95133-1405

Chromalab

CHAIN-OF-CUSTODY RECO CHROMALAB FILE # 5[illegible]

2376

Project Manager: Tim Whalen
Phone #: (408) 997-1505
Address: (Site) 390 Martin Ave
FAX #: (408) 292-1430
Project Number: 290
Project Name: RH Wehner
Project Location: (City) Santa Clara
Sampler Signature: Brian Keddie

ANALYSIS REQUEST

Sample ID	Lab # (Lab use only)	# CONTAINERS / Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	H2SO4	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX 8 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD	OTHER: Cd, Cr, Pb, Zn, Ni	5 day TAT	48 hr TAT	PRIORITY OIL SERVICE (24 hr)	EXPEDITED SERVICE (2 4 Days)	VERBAL S/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL TURNAROUND REQUIREMENTS
W01		1		X						X			5/21	10:30	X	X		X			X												X		X					
D1M		1		X						X			5/21	10:50	X	X																			X						
D1F		1		X						X			5/21	11:00	X	X																			X						
W1M		2		X						X			5/21	11:10	X																				X						
W1T		1		X						X			5/21	11:10	X																X				X						
L1T		1		X						X			5/21	11:15	X																X				X						
L1F		1		X						X			5/21	11:20	X																				X						

Relinquished by:	Date	Time	Received by:
Cindy Sales	5-22-91	11:25	T Donovan
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	5-22	4:00	

1. Have all samples received for analysis been stored in ice? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? If so, give estimate of amount. N
4. Were samples in appropriate containers and properly packaged? Y

Signature / Title / Date

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 30, 1991 ChromaLab File No.: 0591146

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Tim Whalen

RE: One water sample for Gasoline/BTEX, Diesel, Oil & Grease, and Lead analyses

Project Name: R H Wehner
Project Number: 290
Date Sampled: May 21, 1991 Date Submitted: May 22, 1991
Date Extracted: May 29, 1991 Date Analyzed: May 29, 1991

RESULTS:

Sample No.	Gasoline (ug/l)	Diesel (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	Oil & Grease (mg/l)	Lead (mg/l)
WS-WO	14000	38000	2000	110	22	440	18	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	95.9%	89.7%	82.3%	95.1%	90.8%	92.0%	-----	101.4%
DET. LIMIT	50	50	0.5	0.5	0.5	0.5	0.5	0.05
METHOD OF ANALYSIS	5030/ 8015	3510/ 8015	602	602	602	602	5520 B&F	7420

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

May 30, 1991

ChromaLab File # 0591146

Client: The Env. Construction Co.
Attn: Tim Whalen
Date Sampled: May 21, 1991
Date Submitted: May 22, 1991
Date of Analysis: May 30, 1991

Project No.: 290
Project Name: R H Wehner
Sample I.D.: WS-WO
Method of Analysis: EPA 601
Detection Limit: 5.0 ug/l*

COMPOUND NAME	ug/l	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	87.2% 91.5%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	88.4% 89.6%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	91.3% 92.5%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	87.7% 90.1%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

*High detection limit due to presence of high gasoline in sample.

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

THE ENVIRONMENTAL CONSTRUCTION COMPANY (TECC)
2151 KIRKEY DRIVE
SAN JOSE CA. 95[illegible]

Chromalab

CHAIN-OF-CUSTODY RECO CHROMALAB FILE # 59[illegible]

2371

Project Manager: Tim Whalen
Phone #: (408) 997-1505
Address: (Site) 390 Martin Av.
FAX #: (408) 292-1430 -TECC-
Project Number: 290
Project Name: R+ Wehner
Project Location: (City) Santa Clara
Sampler Signature: Brian Redding

ANALYSIS REQUEST

OTHER: 5 day T.A.T.

SPECIAL HANDLING: PRIORITY OHZ SERVICE (24 hr) / EXPEDITED SERVICE (2 4 days) / VERBAL S/FAX / SPECIAL DETECTION LIMITS (SPECIFY) / SPECIAL REPORTING REQUIREMENTS

Sample ID	Lab # (Lab use only)	# Containers	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	HOTHE	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jotinol (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608 8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX 8 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD
WS-WD		2	1L	X					X					5/21	3:00		X															
WS-WD		2	1 vial	X					X					5/21	3:00	X																
WS-WD		1	1L	X					X					5/21	3:00					X												
WS-WD		1	1 vial	X					X					5/21	3:00								X								X	

Relinquished by:	Date	Time	Received by:
Candy Soles	5-23-91	11:2[illegible]	T Donovan
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	5-23-91	4:05	T Donovan

1. Have all samples received for analysis been stored in ice? y
2. Will samples remain refrigerated until analyzed? y
3. Did any samples received for analysis have head space? n
   If so, give estimate of amount.
4. Were samples in appropriate containers and properly packaged? y

T Donovan
Signature
Title
Date 5-23-91

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File No.: 069107

THE ENVIRONMENTAL CONSTRUCTION COMPANY

Attn: Ron Legue

RE: Two soil samples for Gasoline/BTEX Diesel, Oil & Grease, Cadmium, Chromium, Lead, Nickel, and Zinc analyses

Project Name: R. H. WEHNER
Date Sampled: June 10, 1991
Date Extracted: June 12-14,1991

Project Number: 290
Date Submitted: June 10, 1991
Date Analyzed: June 12-14,1991

RESULTS:

Sample No.	Gasoline (mg/kg)	Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl Benzene (µg/kg)	Total Xylenes (µg/kg)
SS-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SS-2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	94.8%	91.8%	91.4%	85.4%	86.9%	85.7%
DET. LIMIT	1.0	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020

Sample No.	Oil & Grease (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
SS-1	N.D.	0.221	8.06	8.32	10.3	17.3
SS-2	N.D.	0.204	7.14	5.75	8.96	17.1
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE REC.	----	90.9%	109.0%	95.6%	106.8%	93.4%
DET. LIMIT	10	0.005	0.05	0.05	0.04	0.005
METHOD OF ANALYSIS	5520 E&F	7130	7190	7420	7590	7950

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File # 0631071 A

Client: The Env. Construction Co.
Attn: Ron LeGue
Date Sampled: June 10, 1991
Date Submitted: June 10, 1991
Date of Analysis: June 17, 1991

Project No.: 290
Project Name: R. H. Wehner
Sample I.D.: SS-1
Method of Analysis: EPA 8010
Detection Limit: 5.0 µg/kg

COMPOUND NAME	µg/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	82.8% 90.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	91.3% 88.7%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	89.8% 85.4%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	86.7% 88.2%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

June 17, 1991

ChromaLab File # 0691071 B

Client: The Env. Construction Co.
Attn: Ron LeGue
Date Sampled: June 10, 1991
Date Submitted: June 10, 1991
Date of Analysis: June 17, 1991

Project No.: 290
Project Name: R. H. Wehner
Sample I.D.: SS-2
Method of Analysis: EPA 8010
Detection Limit: 5.0 ug/kg

COMPOUND NAME	ug/kg	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	---
METHYLENE CHLORIDE	N.D.	82.8% 90.1%
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	91.3% 88.7%
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	35	89.8% 85.4%
CHLOROBENZENE	N.D.	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	86.7% 88.2%
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

Project Manager: Ron LeGue
Phone #: (408) 957-1505
Address: (Site)
FAX #: (408) 287-1430
Project Number: 290
Project Name: R.F. Wehner
Project Location: (City) Santa Clara
Sampler Signature: Brian Keddie

Sample ID	Lab # (Lab use only)	# Containers	Volume/Amount	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	Hcl	Hno3	Other	Sampling: Date	Time
SS-1		6		X					X					
SS-2		6		X					X					

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet Fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2) *	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM 17 Metals	EPTOX 8 Metals	EPA Priority Pollutant Metals	LEAD (7420/7421/239.2)	Organic LEAD	Cd, Cr, Pb, Zn, Ni	5 day T.A.L.
X	X	X			X		X											X	X
X	X	X			X		X											X	X

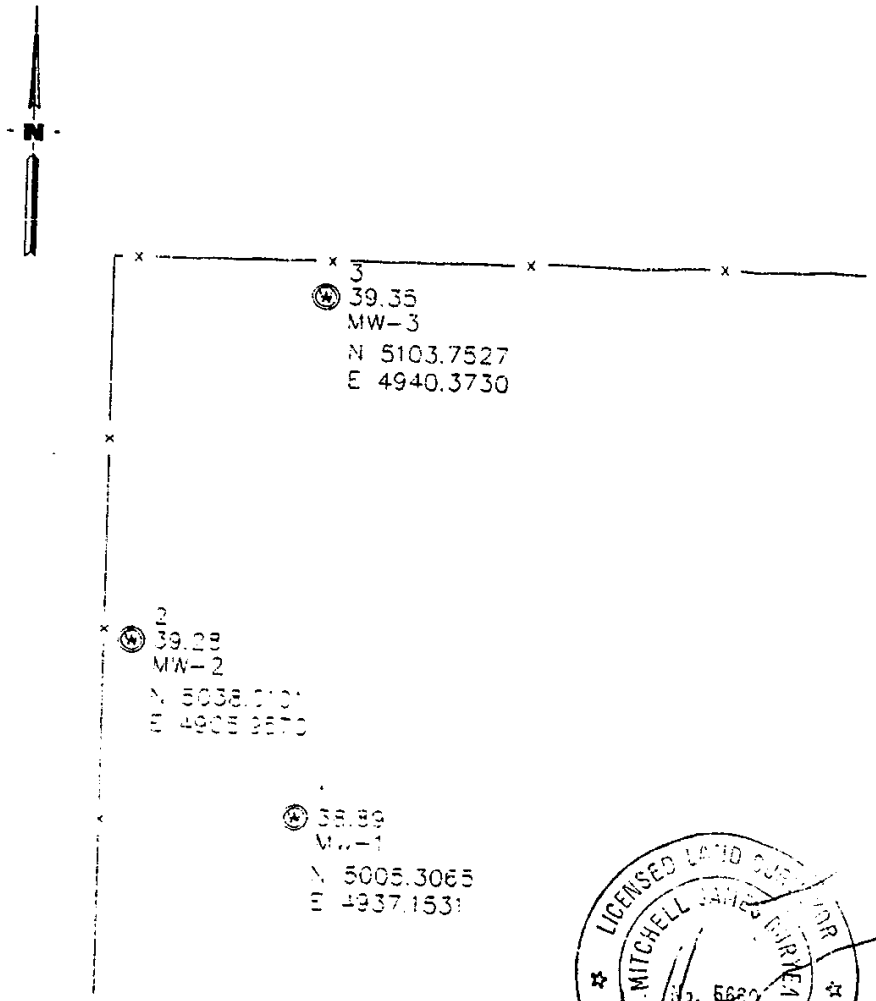
OTHER

SPECIAL HANDLING
- Priority Due Service (24 hr)
- Expedited Service (48 hours)
- Verbal & Fax
- Special Detection Limits (Specify)
- Special Reporting Requirements

Relinquished by:	Date	Time	Received by:
M Heinrichs	6/10	12:35	T. J.
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

1. Have all samples received for analysis been stored in ice? u
2. Will samples remain refrigerated until analyzed? y
3. Did any samples received for analysis have head space? n
   If so, give estimate of amount.
4. Were samples in appropriate containers and properly preserved? y

Signature: T. J. Title: Date: 6-10-91



MONITORING WELL SURVEY
390 MARTIN AVE.
SANTA CLARA

Design By: MJD	Duryea & Associates Surveying & Civil Engineering	Scale: 1"=30'
Drawn By: MJD	2363 Armstead Court San Jose, CA. 95121 (408)274-6051	Date: MARCH 1994
Check By: MJD		Job No. 94-208A

Santa Clara Valley Water District

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

WELL CONSTRUCTION APPLICATION

FC 158 (10-25-90) (DP 4-901)

TO BE COMPLETED BY DISTRICT

District Permit No.: 94W0210	Date Issued: 2-9-94	Well Registration No.:
Geologic Setting: 1	Expiration Date: 8-9-94	Driller's Log No.: 582010

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner: Jehnee Constr. Co.	Well Owner (if different): —	Drilling Co.: Alpha Geo Services
Address: 760 The Alameda	Address of Well Site: 390 Martin Ave	Driller's Contractors License Number (if Req'd): #507520
City, State, Zip: San Jose, CA 95126	City, State, Zip: Santa Clara	Address: 295 Bronco Rd.
Phone No.: (408) 287-2123	Telephone No.: None	City, State, Zip: Santa Clara, CA 95050
Assessor's Parcel No. of Well site: 230 Page 47 Parcel 108	Owner's/Consultant's Well No.: MW-2	Telephone No.: (408) 988-1032

Estimated depth of completed well: ☒ Less than 50 ft. ☐ 50 to 300 ft. ☐ Over 300 ft.

Purpose of Well: ☐ Domestic ☐ Municipal/Industrial ☐ Agricultural ☒ *Monitoring ☐ Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. This includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: ☐ To comply with City or County Hazardous Materials Storage Permit Ordinance ☒ Exploration studies ☐ Other (specify) _____ ☐ Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: _____

Is proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? ☐ Yes ☐ No

If yes give name of City or County: _____

Consultant's Name (Company): EZC, Inc

Address: 1220 Crossman Ave. #200

City, State, Zip: Sunnyvale, CA 94089

Telephone No.: (408) 747-1414

Type of monitoring device: ☒ Groundwater ☐ Vadose

Type of extraction device: ☐ Groundwater ☐ Vadose

Monitoring well use: ☐ Depth ☐ Quality ☐ Chloride

Vadose device installation: ☐ Vapor ☐ Interface ☐ Suction Lysimeter

Signature of Responsible Professional (No substitution of signature will be accepted)

Registration No. Civil Engineer: _____ OR Certificate No. Engineering Geologist: 1057

TOPOGRAPHIC FEATURES

Well is to be constructed: ☐ In a public sidewalk ☐ In a public road ☐ On public property ☒ On private property ☐ On SCVWD property

Within 50 ft of the top of a creek bank	☐ Yes	☒ No	Within 50 ft. of any existing well	☒ Yes	☒ No
Within 50 ft of a sanitary sewer	☐ Yes	☒ No	Within 150 ft of a cesspool or seepage pit	☐ Yes	☒ No
Within 100 ft of a pit privy, septic tank, leachfield	☐ Yes	☒ No	Other wells exist on this property	☒ Yes	☐ No

Status: ☒ Active ☐ Inactive ☐ Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which is indicated on this application form.

Signature of Well Owner/Agent _____ Date 1/25/94

Signature of Driller/Agent _____ Date _____

MONITORING WELL PLAN APPROVAL

City/County: _____

Approved by: _____

Date: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 927-0710 Ext. 660. For weekends, holidays, after hours call (408) 395-8121 or (408) 927-0714.

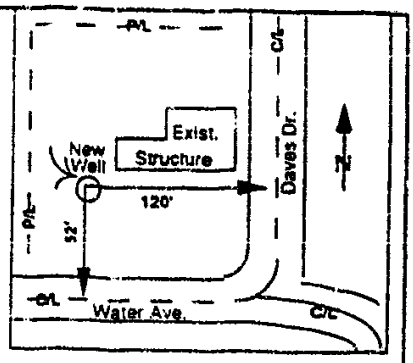
STRICT WELL PERMIT NO.: 44C210 WELL CONSTRUCTION APPLICATION

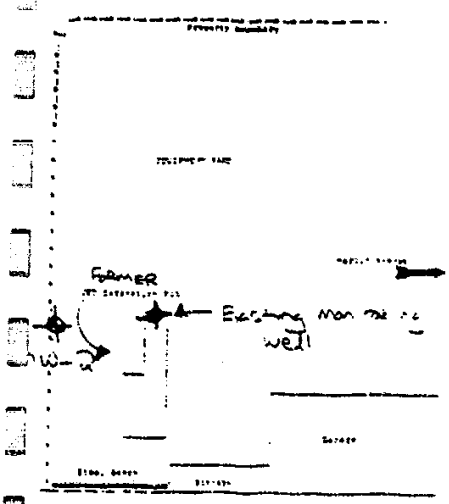
Based on information on the application and attachment(s) hereto (if any) and subject to approval noted below, permission is hereby granted to construct (drill) the described well. Permission to start may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

SITE PLAN

WELL LOCATION (DRAW ACCURATELY)
(RECOMMEND USING ASSESSOR'S MAP)

1. SKETCH WELL LOCATION TO SCALE. SHOW DIMENSION TO NEAREST FOOT.
2. SHOW A MINIMUM OF TWO DIMENSIONS AT RIGHT ANGLES. DIMENSIONS SHALL BE FROM THE CENTERLINE OF THE CLOSEST NAMED STREETS, ROADS OR HIGHWAYS.
3. SHOW LOCATION OF EXISTING WELLS





⊕ - Proposed Well Location

N

GENERAL CONDITIONS

S.C.V.W.D. Well Inspection Department (Telephone 408-927-0710, ext. 660) must be notified a minimum of one working day prior to starting work.

Construction under this Permit is subject to any instructions by District representative relative to the "Standards for the Construction of Wells in Santa Clara County". A District Inspector must be on site to witness all annular sanitary seals.

Permit may be voided before work begins if field check reveals any misrepresentation under "well location" or "Topographic Features" on application.

This Permit is valid only for the purpose specified herein. No change in construction procedure as prescribed in District Standards and in Special Conditions below will be allowed except upon written permission of the District.

Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents and employees free and harmless from any and all expense, cost or liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

Compliance with "CAL/OSHA", California Labor Code Section 6300 (and following) is required.

Water quality and production from all wells to be used for public water supply must be approved by the County Environmental Health Services.

Permit will be automatically canceled if not exercised or if extension is not requested by Permittee within 180 calendar days.

Driller is to complete State DWR Form 188 and mail original to Santa Clara Valley Water District within 30 days of completion of well construction.

For the construction of all types of wells, a Permittee must be a licensed C-57 water well drilling contractor.

Dry holes shall be backfilled within one week of drilling. Backfilling shall be done in accordance with District Standards

Each well requires a separate Well Construction Application and Permit.

Permittee shall seal all abandoned wells on the property.

All drilling fluid and materials will be safely handled and properly disposed of in the appropriate method.

Permittee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

S.C.V.W.D. APPROVED: Brent C. Fitzgerald DATE: [illegible]

RECEIVED
JAN - 1 1994
FC 158 (10-25-90)
SANTA CLARA VALLEY WATER DISTRICT

Santa Clara Valley Water District

50 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

WELL CONSTRUCTION APPLICATION

FC 158 (10-25-90) (DP 4-901)

TO BE COMPLETED BY DISTRICT

Project Permit No.:	Date Issued:	Well Registration No.:
94W0211	2-9-94	
Geologic Setting	**Expiration Date:**	**Driller's Log No.:**
1	8-9-94	582011

TO BE COMPLETED BY OWNER AND DRILLER

Property Owner:	Well Owner (if different):	Drilling Co.
Lehner Constr. Co.	—	Alpha Geo Services
Address	**Address of Well Site:**	**Driller's Contractors License Number (C-57 Req'd):**
760 The Alameda	390 Martin Ave	# 507520
State, Zip:	**City, State, Zip:**	**Address:**
San Jose, CA 95126	Santa Clara	298 Broken Rd.
Phone No.	**Telephone No.:**	**City, State, Zip:**
(408) 297-2123	None	Santa Clara, CA 95050
Assessor's Parcel No. of Well site:	**Owner's/Consultant's Well No.**	**Telephone No.**
220 Page 47 Parcel 108	MW-3	(408) 988-1632

Estimated depth of completed well: ☒ Less than 50 ft. ☐ 50 to 300 ft. ☐ Over 300 ft.

Purpose of Well: ☐ Domestic ☐ Municipal/Industrial ☐ Agricultural ☒ *Monitoring ☐ Cathodic Protection

*Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. Includes wells constructed for general exploration and investigation purposes as well as those to be constructed in conformance with the Hazardous Materials Storage Permit Ordinance for site-specific groundwater monitoring of existing underground hazardous materials storage tanks.

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

Purpose of Monitoring Well: ☐ To comply with City or County Hazardous Materials Storage Permit Ordinance ☒ Exploration studies

☐ Other (specify) _____ ☐ Extraction/Recovery

NAME OF BUSINESS AT WELL SITE: _____

If proposed well is to meet compliance with a Hazardous Materials Storage Permit Ordinance has the City or County been contacted? ☐ Yes ☐ No

If Yes give name of City or County _____

Consultant's Name (Company) EZC, Inc

Address 1220 Crossman Ave. #200

City, State, Zip Sunnyvale, CA 94089

Telephone No. (408) 747-1414

Type of monitoring device: ☒ Groundwater ☐ Vadose

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Monitoring well use: ☐ Depth ☐ Quality ☐ Chloride

Vadose device installation: ☐ Vapor ☐ Interface ☐ Suction Lysimeter

Signature of Responsible Professional (No substitution of signature will be accepted)

Registration No. Civil Engineer _____ OR Certificate No. Engineering Geologist 1123

TOPOGRAPHIC FEATURES

Well is to be constructed: ☐ In a public sidewalk ☐ In a public road ☐ On public property ☒ On private property ☐ On SCVWD property

Within 50 ft. of the top of a creek bank: ☐ Yes ☒ No

Within 50 ft. of any existing well: ☒ Yes ☒ No

Within 50 ft. of a sanitary sewer: ☐ Yes ☒ No

Within 150 ft. of a cesspool or seepage pit: ☐ Yes ☒ No

Within 100 ft. of a pit privy, septic tank, leachfield: ☐ Yes ☒ No

Other wells exist on this property: ☒ Yes ☐ No

Status: ☒ Active ☐ Inactive ☐ Abandoned

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT:

I certify that the information given above is correct to the best of my knowledge. I certify that the well will be constructed in compliance with the conditions of this permit, the Santa Clara Valley Water District's Ordinance 90-1 and, if applicable, the Hazardous Materials Storage Permit Ordinance of the County or City, as appropriate. It is my responsibility as the well owner to notify this District of any changes in the purpose of this well from that which is indicated on this application form.

Signature of Well Owner/Agent _____ Date 1/28/94

Signature of Driller/Agent _____ Date _____

MONITORING WELL PLAN APPROVAL

City/County: _____

Approved by: _____

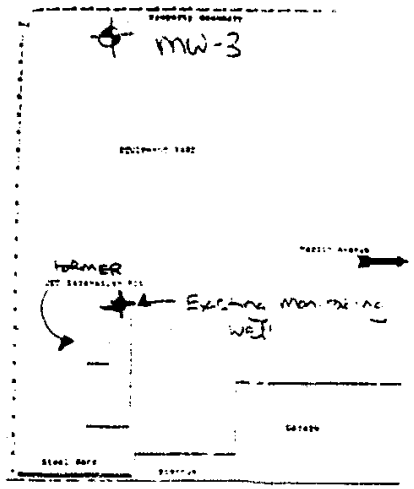
Date: _____

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DISTRICT WELL PERMIT NO.: [illegible] WELL CONSTRUCTION APPLICATION

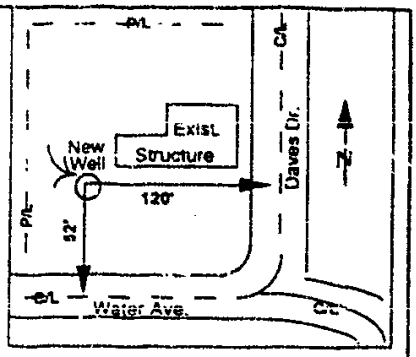
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(RECOMMEND USING ASSESSOR'S MAP)

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3. SHOW LOCATION OF EXISTING WELLS



◆ - Proposed Well Location

N

GENERAL CONDITIONS

S.C.V.W.D. Well Inspection Department (Telephone 408-927-0710, ext. 660) must be notified a minimum of one working day prior to starting work.

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All drilling fluid and materials will be safely handled and properly disposed of in the appropriate method.

Permittee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

APPROVED: [signature] DATE: [illegible]

RECEIVED
JAN 2 [illegible]
FC 158 (10-75-90)
SANTA CLARA VALLEY WATER DISTRICT

WELL DRILLING, INSTALLATION, DEVELOPMENT AND SAMPLING PROTOCOLS FOR SHALLOW GROUNDWATER WELLS

DRILLING PROTOCOL

1. E_2C, Inc. submitted a Well Installation Permit Application to the Santa Clara Valley Water District, and subsequently received approval and a permit number for the monitoring well.

2. The boring for the monitoring well was drilled dry using hollow-stem, continuous flight augers. All augers, drill rods, subs, collars, and parts of the chassis located near the borehole were steam-cleaned prior to use at the site. The adequacy of cleaning operations was verified by a representative of E_2C, Inc.

3. Soils brought up to the surface during drilling and sampling were observed to establish stratigraphy and aquifer characteristics. A detailed boring log was maintained using the Unified Soil Classification System that describes soil texture, color, moisture content, consistency, and plasticity. The perception of unusual characteristics (if any), such as chemical odor or discoloration, were also noted.

4. Soil samples were collected at 5-foot depth intervals within the boring using a California Modified split-spoon sampler, equipped with 2-inch diameter brass sampling tubes. The sampler was driven 18 inches into the undisturbed soil at approximate 5-foot intervals. The number of blows necessary to drive the sampler 18 inches was used to help evaluate the consistency of the materials encountered. The sampler and brass sample tubes were cleaned with a tri-sodium phosphate cleanser and rinsed with clean tap water prior to each sampling.

   Soil removed from the top two brass sampling tubes and the end cone of the sampler was used for logging purposes and disposed of with cuttings removed during drilling operations. Drill cuttings were placed in approved 55-gallon drums for storage on site pending disposal. The bottom sample tube was saved for laboratory analysis.

   The soil sample retrieved for laboratory analyses was immediately sealed by placing aluminum foil and then snug fitting plastic caps over each end of the tube. The sealed sample was immediately placed on ice in a cooler for transportation under chain of custody documentation to a laboratory certified by the State of California to perform the required analyses.

WELL INSTALLATION PROTOCOL

1. The well was constructed with factory threaded 2-inch diameter PVC casing. Blank casing was extended from the ground surface to a point approximately two feet above the water- bearing zone, and factory-slotted casing was extended from that point to the total depth of the well (an interval of approximately ten feet). The well screen was set within the aquifer according to the proposed function of the well and the chemistry of the potential contaminants. The screen slot size is 0.02. The annular space of the borehole surrounding the slotted interval was filled with sand as a filter pack to a point of approximately 2 feet above the top of the slotted interval. A

2-foot seal was installed in the annulus immediately above the filter pack using bentonite pellets. A Class-A neat cement grout was installed in the annulus that extended from the bentonite plug to the ground surface.

2. A water-tight locking plug was placed on top of the well, and a locking Christy box was installed at the ground surface to prevent unauthorized entry or the infiltration of surface contamination.

WELL DEVELOPMENT PROTOCOL

1. The monitoring well was developed to remove turbid water and stabilize the natural formation soils and sand filter pack surrounding the slotted PVC casing interval. A bailer was used to create a plunging affect and purge at least 10 well casing volumes from the well. Changes in turbidity of the groundwater during development were noted.

2. Development water was contained in a 55-gallon drum and stored on-site pending appropriate disposal.

GROUNDWATER SAMPLING PROTOCOL

1. In accordance with pertinent regulatory guidelines, a representative sample of the groundwater was collected from the well. Prior to purging and sampling, total depth and depth to groundwater measurements were taken from the well. The well was then purged of a minimum of four well casing volumes, during which time groundwater parameter readings including turbidity, temperature, pH, and electrical conductivity were collected. The purge water was stored in labeled 55-gallon drums on-site pending appropriate disposal.

2. Once groundwater parameter readings indicated that the well had stabilized, total depth and depth to groundwater readings were again recorded. A groundwater sample was then collected from the well using a bailer. Groundwater was transferred from the bailer into laboratory prepared bottles appropriate for the required analyses. The bottles and preservatives utilized were in accordance with accepted practices. All sample containers were labeled in the field with the sample date, sample number, sample location, the time that the sample was obtained, and the name of the individual collecting the sample. In order to diminish the possibility of volatilization, bottles specific to analysis for volatile contaminants were filled first.

3. Immediately after collection, groundwater samples were placed in zip-lock bags and stored on ice in a cooler for transport to the designated laboratory under chain of custody documentation. All laboratory chemical testing was conducted at a laboratory approved by the State of California to perform the required analyses. Sample handling, storage, and analyses was conducted under the direction of our consulting Analytical Chemist.

FIELD LOG BOOK ENTRY

Date 2/25/94

SITE	± Site Side	TOTAL DEPTH	15 c
WELL I.D.	MW-1	WATER DEPTH	± 4.4' TIME: 10 3.
SAMPLE I.D.	MW-1	WELL DIAMETER	2"
EQUIPMENT NO.	Disposable Bailer	PURGE VOLUME	14 x 1.25 gallons
SAMPLER	B McNeth	PUMPING RATE	.10 gal/minute
LABORATORY	ANER	PUMPING TIME	5 minutes
WELL YIELD	5 gallons	BAILER CAPACITY	.75 gallons
SAMPLE TIME	12 00	NO. OF BAILS	20

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
10 40	1 25	19C	6.84	1 26	66.4
10 50	2.5	35C	6.55	1 22	65 9
11 15	3 75	35C	6.59	1 47	66.9
11 30	5 0	32C	6.70	1 41	66.2

PURGE PROCEDURE Disposible Bailer PUMP PLACEMENT N/A

SAMPLE PROCEDURE

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg / BTEX	2 40 ml VOA's	None
TPH d	1 Amber Liter	
VOCs (SOIC)	1 40 ml VOA	
O & G	1 Amber Liter	

FIELD OBSERVATIONS: Hydrocarbon odor noted.

RECOVERY RATE 100 % RECOVERY PERCENTAGE 100 % AT .25 HRS

CLIMATIC CONDITIONS 60° sunny slight breeze

FIELD LOG BOOK ENTRY

Date 2/25/94

SITE	#5850100	TOTAL DEPTH	16.55'
WELL I.D.	MW-2	WATER DEPTH	8.41' TIME: 16:4
SAMPLE I.D.	MW-2	WELL DIAMETER	2"
EQUIPMENT NO.	Disposable Bailer	PURGE VOLUME	(4x) 1.25 gallons
SAMPLER	B. McNabb	PUMPING RATE	.5 gpd / minute
LABORATORY	AMER	PUMPING TIME	15 minutes
WELL YIELD	5.0 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	12:15	NO. OF BAILS	20

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
11:25	1.25	210	7.04	1.40	66.9
11:35	2.5	300	6.96	1.39	65.8
11:40	3.75	300	6.96	1.25	66.4
50	5.0	300	6.92	1.12	66.1

PURGE PROCEDURE Disposable Bailer

PUMP PLACEMENT N/A

SAMPLE PROCEDURE

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg / BTEX	2 40 ml VOA's	None
TPHd	1 Amber Liter	"
VOC's (8010)	1 40 ml VOA	"
O & G	1 Amber Liter	"

FIELD OBSERVATIONS: ~~[illegible]~~ Hydrocarbon odor noted.

RECOVERY RATE 100% RECOVERY PERCENTAGE 100 % AT 25 HRS

CLIMATIC CONDITIONS 60's, sunny, slight breeze

FIELD LOG BOOK ENTRY

Date 2/25/94

SITE	#5850100	TOTAL DEPTH	17.5
WELL I.D.	MW-3	WATER DEPTH	9.31 TIME: 10 35
SAMPLE I.D.	MW-3	WELL DIAMETER	2"
EQUIPMENT NO.	Disposable Bailer	PURGE VOLUME	(4 X) 1.5 gallons
SAMPLER	B. McNabb	PUMPING RATE	.16 gal/min
LABORATORY	AMER	PUMPING TIME	1 hour
WELL YIELD	6 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	12 Hr	NO. OF BAILS	24

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
10 55	1.5	1cc	6.74	1.75	66.9
11 10	3.0	25c	6.65	1.55	67.2
11.25	4.5	35	7.05	1.69	66.1
11 55	6.0	350	7.26	1.63	67.4

PURGE PROCEDURE Disposable Bailer PUMP PLACEMENT N/A

SAMPLE PROCEDURE "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg / BTEX	2 40 ml VOA's	None
TPHd	1 Amber Liter	"
VOC's (8010	1 40 ml VOA	"
O & G	1 Amber Liter	"

FIELD OBSERVATIONS: Hydrocarbon odor noted.

RECOVERY RATE 90 % RECOVERY PERCENTAGE 25 % AT .25 HRS

CLIMATIC CONDITIONS 60's Sunny Slight breeze

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
E2C, Inc.
1220 Crossman Avenue, Ste. 200
Sunnyvale, CA 94089
MATRIX: SOIL
PROJECT MANAGER: Robb Welch
PROJECT: 390 Martin, #5850100

DATE SAMPLED: 02-17-94
DATE RECEIVED: 02-17-94
DATE REPORTED: 02-23-94
AMER ID: E094

Client I.D.	AMER I.D.	8015M/ TPH-DIESEL	DF
MW2-5	E40217.01	11	1
MW2-10	E40217.02	270	1
MW3-5	E40217.03	2.0	1
MW3-10	E40217.04	24	1
Units		mg/kg	
Detection Limits (DL)		1.0 mg/kg	

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 5520F (TOG)

Client:
E2C, Inc.
1220 Crossman Avenue, Ste. 200
Sunnyvale, CA 94089
MATRIX: SOIL
PROJECT MANAGER: Robb Welch
PROJECT: 390 Martin, #5850100

DATE SAMPLED: 02-17-94
DATE RECEIVED: 02-17-94
DATE REPORTED: 02-23-94
AMER ID: E094

Client I.D.	AMER I.D.	5520F TOG	DF
MW2-5	E40217.01	ND	1
MW2-10	E40217.02	ND	1
MW3-5	E40217.03	ND	1
MW3-10	E40217.04	ND	1
Units		mg/kg	
Detection Limits (DL)		5.0mg/kg	

Reported by:

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
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DATE REPORTED: 02-23-94
AMER ID: E094

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW2-5	E40217.01	70	1
MW2-10	E40217.02	1100	1
MW3-5	E40217.03	26	1
MW3-10	E40217.04	130	1
Units		mg/kg	
Detection Limits (DL)		1.0 mg/kg	

Reviewed By

Lei Chen, Laboratory Manager

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020

CLIENT:
E2C, Inc.
1220 Crossman Avenue, Ste. 200
Sunnyvale, CA 94089
MATRIX: SOIL
PROJECT MANAGER: Robb Welch
PROJECT: 390 Martin, #5850100

DATE SAMPLED: 02-17-94
DATE RECEIVED: 02-17-94
DATE REPORTED: 02-23-94
AMER ID: E094

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
MW2-5	E40217.01	240	160	530	1600	1
MW2-10	E40217.02	990	ND	9000	26000	1
MW3-5	E40217.03	ND	ND	ND	ND	1
MW3-10	E40217.04	63	63	300	197	1
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Detection Limits (DL)		5.0ug/kg	5.0ug/kg	5.0ug/kg	10ug/kg	

Reviewed By

L. Chen

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 8010

Client: E2C, INC
Proj. Manager: Robb Welch
Matrix: SOIL
Sample Name: MW2-5 (E40217.01)
PROJECT: 390 Martin, #5850100

Date Sampled: 02-17-94
Date Received: 02-17-94
Date Reported: 02-23-94
Lab. Report #: E094

ANALYTES	RESULTS ug/kg	MDL ug/kg	ANALYTES	RESULTS ug/kg	MDL ug/kg
Bromodichloromethane	ND	2.0	trans-1,2-Dichloroethene	ND	1.0
Bromoform	ND	2.0	1,2-Dichloropropane	ND	1.0
Bromomethane	ND	3.0	cis-1,3-Dichloropropene	ND	2.0
Carbon tetrachloride	ND	1.0	trans-1,3-Dichloropropene	ND	2.0
Chlorobenzene	ND	1.0	Methylene Chloride	ND	1.0
Chloroethane	ND	1.3	1,1,2,2-Tetrachloroethane	ND	1.0
2-Chloroethyl vinyl ether	ND	1.0	Tetrachloroethene	ND	1.0
Chloroform	ND	1.0	1,1,1-Trichloroethane	ND	1.0
Chloromethane	ND	3.0	1,1,2-Trichloroethane	ND	1.3
Dibromochloromethane	ND	2.0	Trichloroethene	ND	1.0
1,2-Dichlorobenzene	ND	2.0	Trichlorofluoromethane	ND	2.0
1,3-Dichlorobenzene	ND	1.0	Vinyl Chloride	ND	1.3
1,4-Dichlorobenzene	ND	1.0			
Dichlorodifluoromethane	ND	1.3	Benzene	NR	1.3
1,1-Dichloroethane	ND	1.0	Toluene	NR	1.3
1,2-Dichloroethane	ND	2.0	Ethyl benzene	NR	1.3
1,1-Dichloroethene	ND	1.0	Total Xylene	NR	1.3

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters; ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 8010

Client: E2C, INC
Proj. Manager: Robb Welch
Matrix: SOIL
Sample Name: MW2-10 (E40217.02)
PROJECT: 390 Martin, #5853100

Date Sampled: 02-17-94
Date Received: 02-17-94
Date Reported: 02-23-94
Lab. Report #: E094

ANALYTES	RESULTS ug/kg	MDL ug/kg	ANALYTES	RESULTS ug/kg	MDL ug/kg
Bromodichloromethane	ND	2.0	trans-1,2-Dichloroethene	ND	1.0
Bromoform	ND	2.0	1,2-Dichloropropane	ND	1.0
Bromomethane	ND	3.0	cis-1,3-Dichloropropene	ND	2.0
Carbon tetrachloride	ND	1.0	trans-1,3-Dichloropropene	ND	2.0
Chlorobenzene	ND	1.0	Methylene Chloride	ND	1.0
Chloroethane	ND	1.3	1,1,2,2-Tetrachloroethane	ND	1.0
2-Chloroethyl vinyl ether	ND	1.0	Tetrachloroethene	ND	1.0
Chloroform	ND	1.0	1,1,1-Trichloroethane	ND	1.0
Chloromethane	ND	3.0	1,1,2-Trichloroethane	ND	1.3
Dibromochloromethane	ND	2.0	Trichloroethene	ND	1.0
1,2-Dichlorobenzene	ND	2.0	Trichlorofluoromethane	ND	2.0
1,3-Dichlorobenzene	ND	1.0	Vinyl Chloride	ND	1.3
1,4-Dichlorobenzene	ND	1.0			
Dichlorodifluoromethane	ND	1.3	Benzene	NR	1.3
1,1-Dichloroethane	ND	1.0	Toluene	NR	1.3
1,2-Dichloroethane	ND	2.0	Ethyl benzene	NR	1.3
1,1-Dichloroethene	ND	1.0	Total Xylene	NR	1.3

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soil
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research. Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 8010

Client: E2C, INC
Proj. Manager: Robb Welch
Matrix: SOIL
Sample Name: MW3-5 (E40217.03)
PROJECT: 390 Martin, #5850100

Date Sampled: 02-17-94
Date Received: 02-17-94
Date Reported: 02-23-94
Lab. Report #: E094

ANALYTES	RESULTS ug/kg	MDL ug/kg	ANALYTES	RESULTS ug/kg	MDL ug/kg
Bromodichloromethane	ND	2.0	trans-1,2-Dichloroethene	ND	1.0
Bromoform	ND	2.0	1,2-Dichloropropane	ND	1.0
Bromomethane	ND	3.0	cis-1,3-Dichloropropene	ND	2.0
Carbon tetrachloride	ND	1.0	trans-1,3-Dichloropropene	ND	2.0
Chlorobenzene	ND	1.0	Methylene Chloride	ND	1.0
Chloroethane	ND	1.3	1,1,2,2-Tetrachloroethane	ND	1.0
2-Chloroethyl vinyl ether	ND	1.0	Tetrachloroethene	ND	1.0
Chloroform	ND	1.0	1,1,1-Trichloroethane	ND	1.0
Chloromethane	ND	3.0	1,1,2-Trichloroethane	ND	1.3
Dibromochloromethane	ND	2.0	Trichloroethene	ND	1.0
1,2-Dichlorobenzene	ND	2.0	Trichlorofluoromethane	ND	2.0
1,3-Dichlorobenzene	ND	1.0	Vinyl Chloride	ND	1.3
1,4-Dichlorobenzene	ND	1.0			
Dichlorodifluoromethane	ND	1.3	Benzene	NR	1.3
1,1-Dichloroethane	ND	1.0	Toluene	NR	1.3
1,2-Dichloroethane	ND	2.0	Ethyl benzene	NR	1.3
1,1-Dichloroethene	ND	1.0	Total Xylene	NR	1.3

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 8010

Client: E2C, INC
Proj. Manager: Robb Welch
Matrix: SOIL
Sample Name: MW3-10 (E40217.04)
PROJECT: 390 Martin, #5850100

Date Sampled: 02-17-94
Date Received: 02-17-94
Date Reported: 02-23-94
Lab. Report #: E094

ANALYTES	RESULTS ug/kg	MDL ug/kg	ANALYTES	RESULTS ug/kg	MDL ug/kg
Bromodichloromethane	ND	2.0	trans-1,2-Dichloroethene	ND	1.0
Bromoform	ND	2.0	1,2-Dichloropropane	ND	1.0
Bromomethane	ND	3.0	cis-1,3-Dichloropropene	ND	2.0
Carbon tetrachloride	ND	1.0	trans-1,3-Dichloropropene	ND	2.0
Chlorobenzene	ND	1.0	Methylene Chloride	ND	1.0
Chloroethane	ND	1.3	1,1,2,2-Tetrachloroethane	ND	1.0
2-Chloroethyl vinyl ether	ND	1.0	Tetrachloroethene	ND	1.0
Chloroform	ND	1.0	1,1,1-Trichloroethane	ND	1.0
Chloromethane	ND	3.0	1,1,2-Trichloroethane	ND	1.3
Dibromochloromethane	ND	2.0	Trichloroethene	ND	1.0
1,2-Dichlorobenzene	ND	2.0	Trichlorofluoromethane	ND	2.0
1,3-Dichlorobenzene	ND	1.0	Vinyl Chloride	ND	1.3
1,4-Dichlorobenzene	ND	1.0			
Dichlorodifluoromethane	ND	1.3	Benzene	NR	1.3
1,1-Dichloroethane	ND	1.0	Toluene	NR	1.3
1,2-Dichloroethane	ND	2.0	Ethyl benzene	NR	1.3
1,1-Dichloroethene	ND	1.0	Total Xylene	NR	1.3

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soils
DL - Detection Limit Factor
SDL - Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 3010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

QC DATA REPORT

Analysis: 5520F (TOG)
Date of Analysis: 02-21-94
Laboratory Sample No.: E40217.01SP & E40217.01 SPD

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 (ppm)	PR2 (ppm)	RPD (ppm)
5520F (TOC)	0	25	26	26	104	104	0

Definition of Terms:

R1	Results of First Analysis	
SP	Spike Concentration Added to Sample	
MS	Matrix Spike Results	
MSD	Matrix Spike Duplicate Results	
PR1	Percent Recovery of MS:	{ (MS - R1) / SP } X 100
PR2	Percent Recovery of MSD:	{ (MSD - R1) / SP } X 100
RPD	Relative Percent Difference:	{ (MS - MSD) / (MS + MSD) } X 100 X 2

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EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E094

AMER I.D. Number: E4021703-SP & E40217-MSP&E4021703-SP
E2C Project: 390 mARTIN,#5850100
Ext/Prep. Method: EPA 5030, DHS TPH
Date: 02/18/94
Analyst: LC

Analytical Method: EPA M. 8015/8020
Analysis date: 2/18/94
Analyst: LC
Matrix: Soil
Unit: ug/kg

Analyte	Sample Result	Spike Level	Matrix Spike Result	Ms Recovery %	Matrix Spike Dup Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	50.00	41.51	83	40.16	80	82	66	142	3	21
Toluene	0.00	50.00	44.49	89	42.78	86	87	59	139	4	21
Chlorobenzene	0.00	50.00	44.98	90	40.97	82	86	60	133	9	21
TPH - g	0.00	1250.00	1222	98	1077	86	92	70	130	13	20
TPH - d	1970.00	20000.00	16100	71	13340	57	64	60	130	22	25

Notes:
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Dublicate Percent Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

EPA M. 8010 TEST QA/QC TABLE

AMER WORKORDER: E094

AMER I.D. Numbe.: E4021701-SP
E2C Project#: 390 Martin,#5850100
Ext/Prep. Method: EPA 5030, DHS TPH
Date: 02/18/94
Analyst: LC

Analytical Method: EPA 8010
Analysis date: 02/18/94
Analyst: LC
Matrix: Soil
Unit: ug/kg

Analyte	Sample Result	Spike Level	MS Result	MS %R	MSD Result	MSD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
1,1-dichloroehthene	0.00	50.00	40.97	82	42.72	85	84	59	172	4	22
Trichloroethene	0.00	50.00	40.66	81	42.47	85	83	62	137	4	24
Chlorobenzene	0.00	50.00	32.35	65	34.27	69	67	60	133	6	21

Notes.
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Dublicate Percent Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Differenc

E2C, Inc. environmental/engineering consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, CA 94089	Phone: (408) 747-1414 Fax: (408) 745-1083	LABORATORY: AMEC

CHAIN-OF-CUSTODY RECORD

Site Name and Address: 555 Martin — Project #: 3555.102

Sampler: Robb Welch — Company:

Sample I.D.	# Containers	Matrix: SOIL	WATER	SLUDGE	Preservation: NONE	HCL	ICE	TIME	DATE	Location of Sample	BTEX	EPA 8015 modified (Gas)	EPA 8015 modified (Diesel)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240	EPA 625/8270	SMWW 503 (TOG)	Metals (Specify)
MW-5	1	✓					✓			MW5	✓	✓	✓	✓						
MW-10	1	✓					✓			"	✓	✓	✓	✓					✓	
MW-5	1	✓					✓			MW3	✓	✓	✓	✓					✓	
MW-10	1	✓					✓			"	✓	✓	✓	✓					✓	

ANALYSIS REQUESTED

TURN AROUND REQUESTED:

- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-DAY
- ☒ NORMAL

SPECIAL INSTRUCTIONS: NO TRIP BLANK

The following MUST be completed by the laboratory accepting samples for analysis:

1) Have all samples received been stored on Ice? Yes
2) Did any VOA samples received have any head space? —
3) Were samples in appropriate containers and packaged properly? Yes

	Date	Time	Received by:	
Relinquished by sampler: Robb Welch	5/3	2:45	Received by: [illegible] AMEC	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

AMER

Advanced Materials Engineering Research. Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1969)
EPA METHOD 8015M

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94086
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Ave., #5850100

DATE SAMPLED: 02-25-94
DATE RECEIVED: 02-25-94
DATE REPORTED: 03-04-94
AMER ID: E102

Client I.D.	AMER I.D.	8015M/ TPH-DIESEL	DF
MW-1	E40225.02	0.08	1
MW-2	E40225.03	120	1
MW-3	E40225.04	24	1
Units		mg/l	
Detection Limits (DL)		0.05mg/l	

ND. Not Detected. Analytes reported as ND were not present above the stated limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 5520F (TOG)

CLIENT:
E2C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94086
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Ave., #5859100

DATE SAMPLED: 02-25-94
DATE RECEIVED: 02-25-94
DATE REPORTED: 03-04-94
AMER ID: E102

Client I.D.	AMER I.D.	5520F TOG	DF
MW-1	E40225.02	22	1
MW-2	E40225.03	317	1
MW-3	E40225.04	20	1
Units		mg/l	
Detection Limits (DL)		5.0mg/l	

ND. Not Detected. Analytes reported as ND were not present above the stated limit of detection.

Reported by:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research. Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
E2C, INC.
1220 Crossman Avenue. Suite 200
Sunnyvale, CA 94086
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Ave., #5850100

DATE SAMPLED: 02-25-94
DATE RECEIVED: 02-25-94
DATE REPORTED: 03-04-94
AMER ID: E102

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW-1	E40225.02	81000	1
MW-2	E40225.03	72000	1
MW-3	E40225.04	32000	1
Units		ug/l	
Detection Limits (DL)		50ug/l	

ND. Not Detected. Analytes reported as ND were not present above the stated limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020

CLIENT:
E?C, INC.
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94086
MATRIX: WATER
PROJECT MANAGER: Brenda McNabb
PROJECT: 390 Martin Ave., #5850100

DATE SAMPLED: 02-25-94
DATE RECEIVED: 02-25-94
DATE REPORTED: 03-04-94
AMER ID: E102

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
MW-1	E40225.02	6000	4700	2900	8600	1
MW-2	E40225.03	5700	1100	2200	8200	1
MW-3	E40225.04	1200	89	790	1800	1
Units		ug/l	ug/l	ug/l	ug/l	
Detection Limits (DL)		0.5ug/l	0.5ug/l	0.5ug/l	1.0ug/l	

ND. Not Detected. Analytes reported as ND were not present above the stated limit of detection.

Reviewed By

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

Client: E2C, Inc.
Proj. Manager: Brenda McNabb
Matrix: WATER
Sample Name: MW-1 (E40225.02)
PROJECT: 3[illegible] Martin Ave., #5850100

Date Sampled: 02-25-94
Date Received: 02-25-94
Date Reported: 03-03-94
Lab. Report #: E102

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	3.8	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	ND	2.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	tetrachloroethene	ND	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	ND	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	ND	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	ND	1.2	Benzene	NR	0.5
1,1-Dichloroethane	6.6	0.4	Toluene	NR	0.5
1,2-Dichloroethane	ND	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	ND	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
C[illegible]C-Chain of Custody
ND- Analyte not detected at, or above the stated detection limit
ppb- ug/l for waters; ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

Date

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

T2C, Inc.
Manager: Brenda McNabb
WATER
Sample Name: MW-2 (E40225.03)
PROJECT: 390 Martin Ave., #5850100

Date Sampled: 02-25-94
Date Received: 02-25-94
Date Reported: 03-03-94
Lab. Report #: E102

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	ND	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	ND	2.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	Tetrachloroethene	ND	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	ND	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	ND	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	ND	1.2	Benzene	NR	0.5
1,1-Dichloroethane	3.2	0.4	Toluene	NR	0.5
1,2-Dichloroethane	12	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	ND	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters; ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for the specific analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030.
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

Lei Chen, Laboratory Manager

03-03-94
Date

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel. (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHODS 601

Client: E2C, Inc.
Proj. Manager: Brenda McNabb
Matrix: WATER
Sample Name: MW-3 (E40225.04)
PROJECT: 390 Martin Ave., #5850100

Date Sampled: 02-25-94
Date Received: 02-25-94
Date Reported: 03-03-94
Lab. Report #: E102

ANALYTES	RESULTS ug/l	MDL ug/l	ANALYTES	RESULTS ug/l	MDL ug/l
Bromodichloromethane	ND	0.8	trans-1,2-Dichloroethene	ND	0.4
Bromoform	ND	0.8	1,2-Dichloropropane	ND	0.4
Bromomethane	ND	1.2	cis-1,3-Dichloropropene	ND	0.8
Carbon tetrachloride	ND	0.4	trans-1,3-Dichloropropene	ND	0.8
Chlorobenzene	ND	0.4	Methylene Chloride	ND	2.0
Chloroethane	ND	0.5	1,1,2,2-Tetrachloroethane	ND	0.4
2-Chloroethylvinyl ether	ND	0.4	tetrachloroethene	ND	0.4
Chloroform	ND	0.4	1,1,1-Trichloroethane	ND	0.4
Chloromethane	ND	1.2	1,1,2-Trichloroethane	ND	0.5
Dibromochloromethane	ND	0.8	Trichloroethene	2.1	0.4
1,2-Dichlorobenzene	ND	0.8	Trichlorofluoromethane	1.0	0.8
1,3-Dichlorobenzene	ND	0.4	Vinyl Chloride	ND	0.5
1,4-Dichlorobenzene	ND	0.4			
Dichlorobenzene	ND	1.2	Benzene	NR	0.5
1,1-Dichloroethane	6.9	0.4	Toluene	NR	0.5
1,2-Dichloroethane	2.0	0.8	Ethyl benzene	NR	0.5
1,1-Dichloroethene	0.9	0.4	Total Xylene	NR	0.5

NOTES
NR-Analysis not requested
COC-Chain of Custody
ND- Analytes not detected at, or above the stated detection limit
ppb- ug/l for waters, ug/kg for soils
DL- Detection Limit Factor
SDL- Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specif : analyte
MDL- Method Detection Limit
PROCEDURES:
This analysis was performed in using EPA Method 8010, EPA Method 8020, and EPA Method 5030
CERTIFICATION:
California Department of Health Services ELAP Certificate #1909

Reported by:

L. Chen — 3-4-94

Lei Chen, Laboratory Manager — Date

783 East Evelyn Ave., Sunnyvale, CA 94086 Tel (408) 738-3033 Fax. (408) 738-3035

AMER

Advanced Materials Engineering Research. Inc.

QC DATA REPORT

Analysis: 5520F (TOG)
Date of Analysis: 02/28/94
Laboratory Sample No.: E40225.02SP & E40225.02 SPD

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 (ppm)	PR2 (ppm)	RPD (ppm)
Selenium	0	25	25	29	100	116	15

Definition of Terms:

R1	Results of First Analysis	
SP	Spike Concentration Added to Sample	
MS	Matrix Spike Results	
MSD	Matrix Spike Duplicate Results	
PR1	Percent Recovery of MS:	{ (MS - R1) / SP } X 100
PR2	Percent Recovery of MSD:	{ (MSD - R1) / SP } X 100
RPD	Relative Percent Difference:	{ (MS - MSD) / (MS + MSD) } X 100 X 2

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EPA 601/8010 TEST QA/QC TABLE

AMER WORKORDER: E102

AMER I.D. Number: E4022312-MSP
E2C Project:390 Martin Ave., #5850100
Ext/Prep. Method: EPA 5030, DHS TPH
Date: 03/03/94
Analyst: LC

Analytical Method: EPA M. 601/8010
Analysis date: 03/03/94
Analyst: LC
Matrix: Water
Unit: ug/l

Analyte	Sample Result	Spike Level	MS Result	MS %R	MSD Result	MSD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
1,1-dichloroethene	0.00	20.00	13.782	69	12.21	61	65	61	145	12	14
Trichloroethene	0.00	20.00	21.12	106	20.17	101	103	71	120	5	14
Chlorobenzene	0.00	20.00	20.40	102	20.34	102	102	75	130	0	13

Notes:
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Dublicate Percent Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E102

AMER I.D. Number: E4022502-MSP,E4022505-SP,&E40225-MSP
Project: 390 Martin Ave.,5850100
Ext/Prep. Method: EPA 5030, DHS TPH
Date: 03/02/94
Analyst: KK/LC

Analytical Method: EPA M. 8015/8020
Analysis date: 03/02/94
Analyst: LC
Matrix: Water
Unit: ug/L

Analyte	Sample Result	Spike Level	Matrix Spike Result	Ms Recovery %	Matrix Spike Dul. Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	20.00	17.48	87	17.41	87	87	76	127	0	11
Toluene	0.00	20.00	17.51	88	17.5	88	88	76	125	0	13
Chlorobenzene	0.00	20.00	17.91	90	17.73	89	89	75	130	1	13
TPH - g	472.00	500.00	881	82	893	84	83	75	125	3	15
TPH - d	0.00	1000.00	823	82	768	77	80	75	125	7	20

Notes:
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Dublicate Percent Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

CHAIN-OF-CUSTODY RECORD

E$_2$C, Inc.
environmental/engineering consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089

Phone: (408) 747-1414
Fax: (408) 745-1089

LABORATORY: AMTEK

Site Name and Address: 390 Martin Ave, Santa Clara CA

Project #: 5050100

Sampler: Brenda McNabb

Company: E2C, Inc

Sample I.D.	# Containers	Matrix: SOIL	Matrix: WATER	Matrix: SLUDGE	Preservation: NONE	Preservation: HCL	TIME	DATE	Location of Sample
MW-1	5		X		X		12:40	7/21/94	MW-1
MW-2	5		X		X		12:15	"	MW-2
MW-3	5		X		X		12:40	"	MW-3

ANALYSIS REQUESTED

BTEX	EPA 8015 modified (Gas)	EPA 8015 modified (Diesel)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240	EPA 625/8270	SMWW 503 (TOG)	Metals (Specify)
X	X	X	X					X	
X	X	X	X					X	
X	X	X	X					X	

TURN AROUND REQUESTED:

- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-DAY
- ☒ NORMAL

SPECIAL INSTRUCTIONS: No Temp Blank

The following MUST be completed by the laboratory accepting samples for analysis:

1) Have all samples received been stored on ice? Yes
2) Did any VOA samples received have any head space? No
3) Were samples in appropriate containers and packaged properly? Yes

	Date	Time		
Relinquished by sampler:	7/21/94	1:15	Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

SANTA CLARA
VALLEY WATER DISTRICT

94 JUL 18 A 9:59

11/18 orig OA Tullock w/a TP Hemmeter

E2C INC.

Environmental/Engineering Consultants

November 16, 1994
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **THIRD QUARTER 1994 GROUNDWATER SAMPLING REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the third quarterly groundwater sampling for 1994, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2A-C). The scope of work also included the monthly collection of groundwater level readings from the three on-site wells for the purpose of determining groundwater gradient and flow-direction. Wells MW-2 and MW-3 were installed at the request of the Santa Clara Valley Water District (SCVWD). A discussion of the installation of these wells and their initial quarterly sampling is presented in the E_2C, Inc. Preliminary Site Assessment report for 390 Martin Avenue, Santa Clara, California, dated July 5, 1994.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on August 31, 1994. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately four well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters including turbidity, electrical conductivity, temperature, and pH were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Total depth and depth-to-groundwater readings were then taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. The recharge rates and well measurements and physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

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Once the wells had stabilized and post-purging well measurements were obtained, samples were collected from the wells using a disposable bailer. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Hull Development Labs of San Jose, California, a State-certified analytical laboratory. The samples were analyzed for O & G, TPHd, TPHg, BTEX, and VOCs using Environmental Protection Agency test methods 5520F, 8015 modified (for TPHd and TPHg), 8020, and 8010 respectively.

RESULTS OF SAMPLE ANALYSES

The results of sample analyses indicate that TPHg is present in the samples drawn from wells MW-1, MW-2, and MW-3 at levels ranging from 61 to 83 ppm. BTEX was also detected within samples from wells MW-1 and MW-2. Sample MW-3 was found to contain levels of Benzene and Xylenes. O & G was detected in samples MW-1 and MW-2 at concentrations of 5.88 and 7.01 ppm, respectively. TPHd and VOCs were not detected during this sampling event.

First, second, and third quarter analytical results for 1994 are shown in Table 2 of this report and copies of the laboratory-issued analytical report and the corresponding chain-of-custody form are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevation measurements have been acquired on a monthly basis since February 1994. The elevations for the wells correspond to nearby mean sea-level benchmark datum. Elevations for the wells are shown in Table 3. These measurements indicate that the depth-to-groundwater has remained essentially the same over the past three months. Figures 2A-C illustrate the monthly groundwater gradient and flow direction for the past quarter, which indicates that groundwater beneath the site appears to flow northwest at a gradient ranging between 0.007 and 0.010 feet per foot.

CONCLUSIONS AND RECOMMENDATIONS

TPHd and VOCs were not detected during the third quarterly sampling event. TPHg and BTEX were found to be present from 61 to 83 ppm in the groundwater beneath, and downgradient from, the former UST excavation. Moderate levels of O & G were also found to be present at the locations of wells MW-1 and MW-2; however, no O & G was found at the location of monitoring well MW-3.

Based on the requirements of the SCVWD, E_2C, Inc. recommends that the wells continue to be monitored on a quarterly basis with the next sampling event scheduled for November of 1994. Monthly groundwater-level measurements should also be taken.

Should you have any questions or require supplemental information please do not hesitate to contact us.

Sincerely,

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

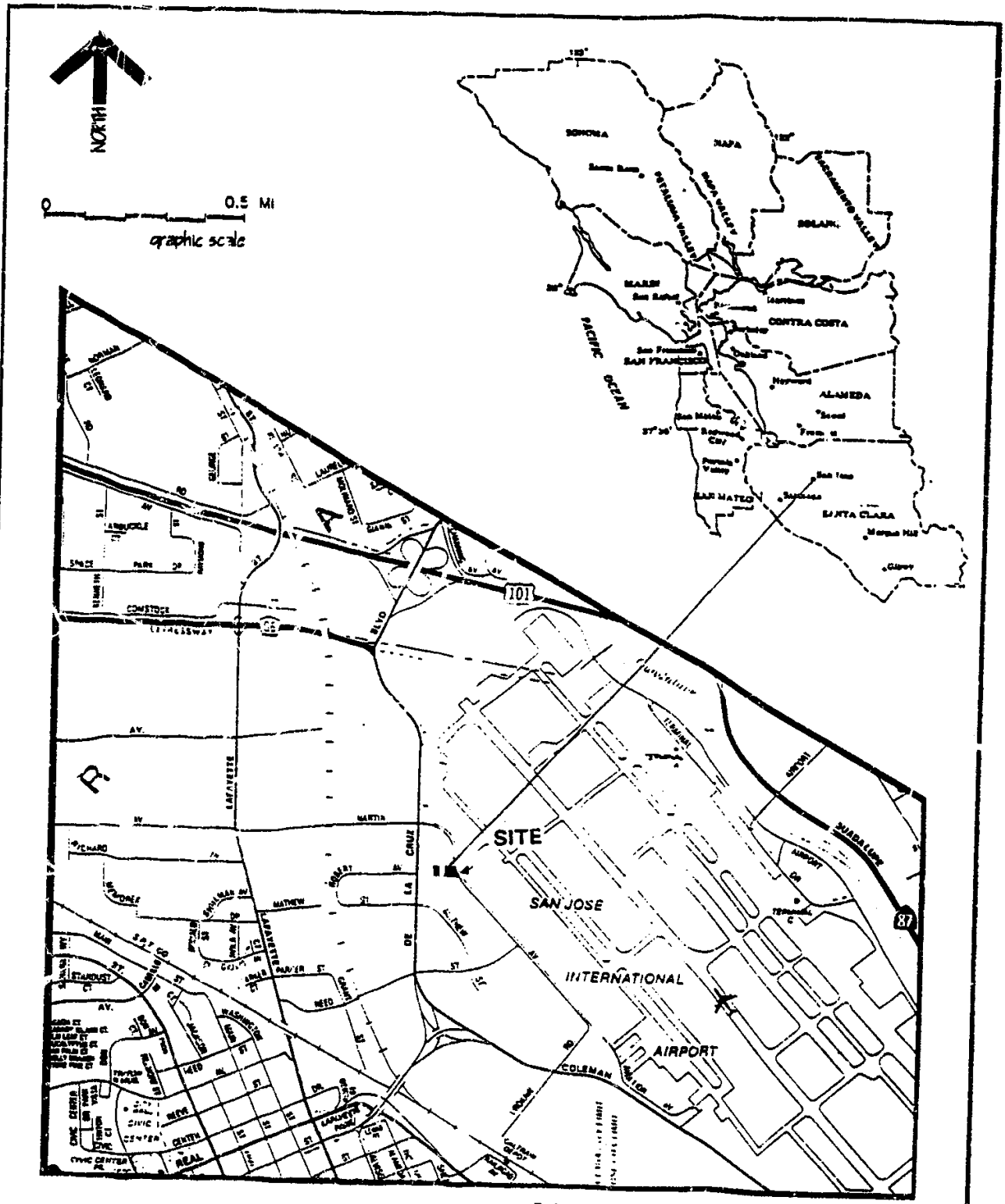
cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

VALLEY
AUTHORITY

CINOV 18 P3:26

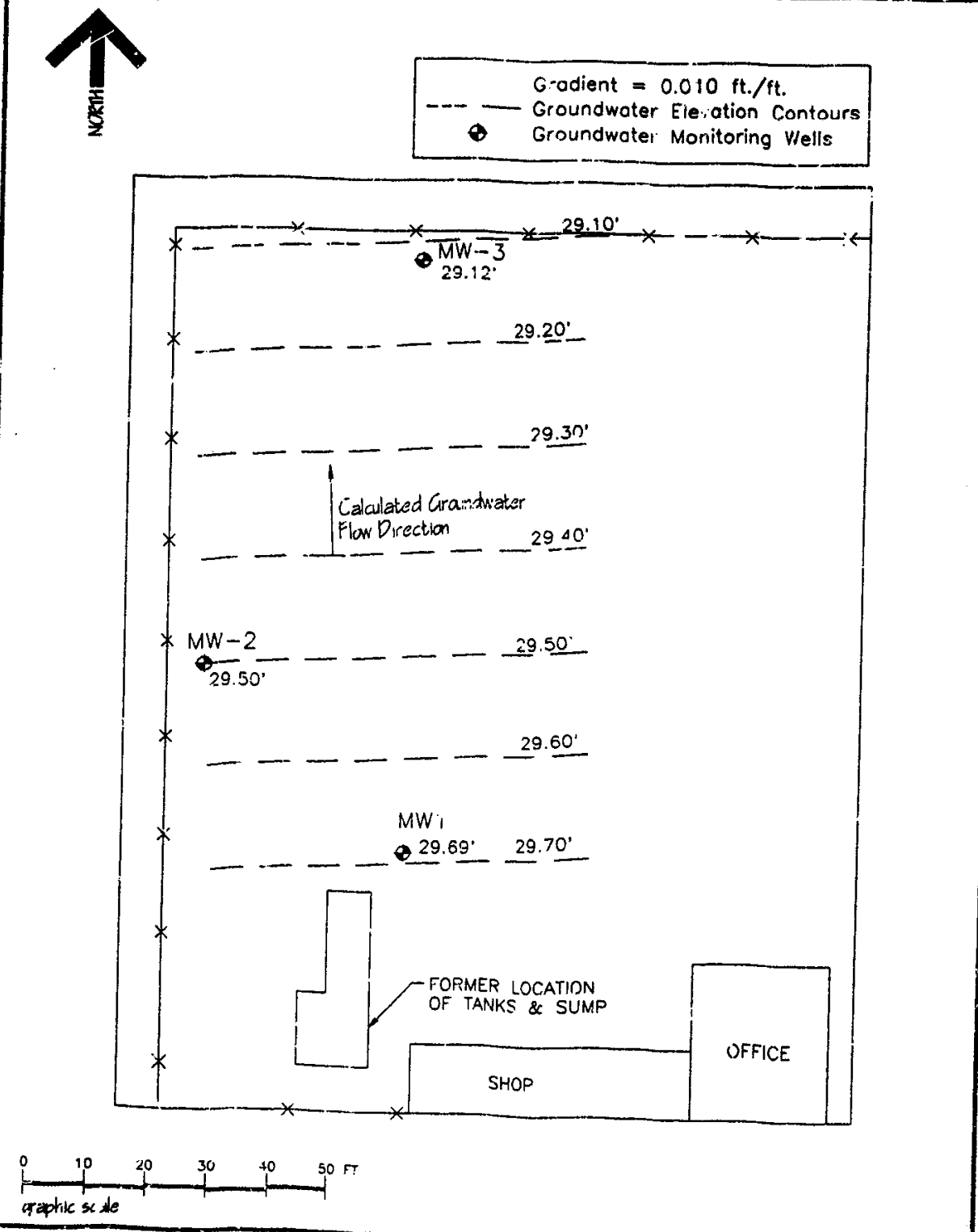


Ref: California AAA Map – Northern San Jose

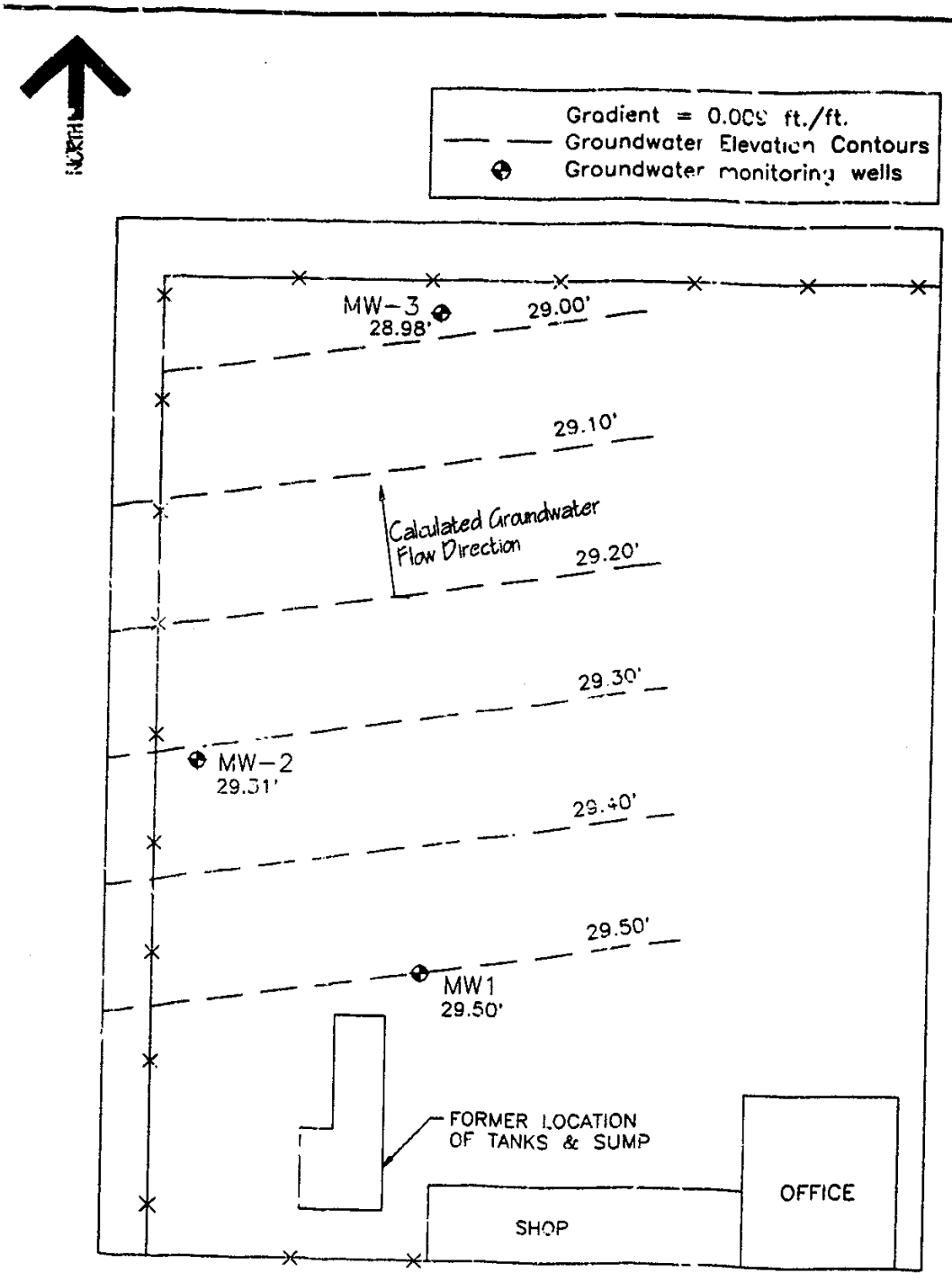
Environmental/Engineering Consultants
1220 Crossman Avenue, Suite 200
Sunnyvale California 94089

SITE LOCATION MAP
390 Martin Avenue
Santa Clara, California

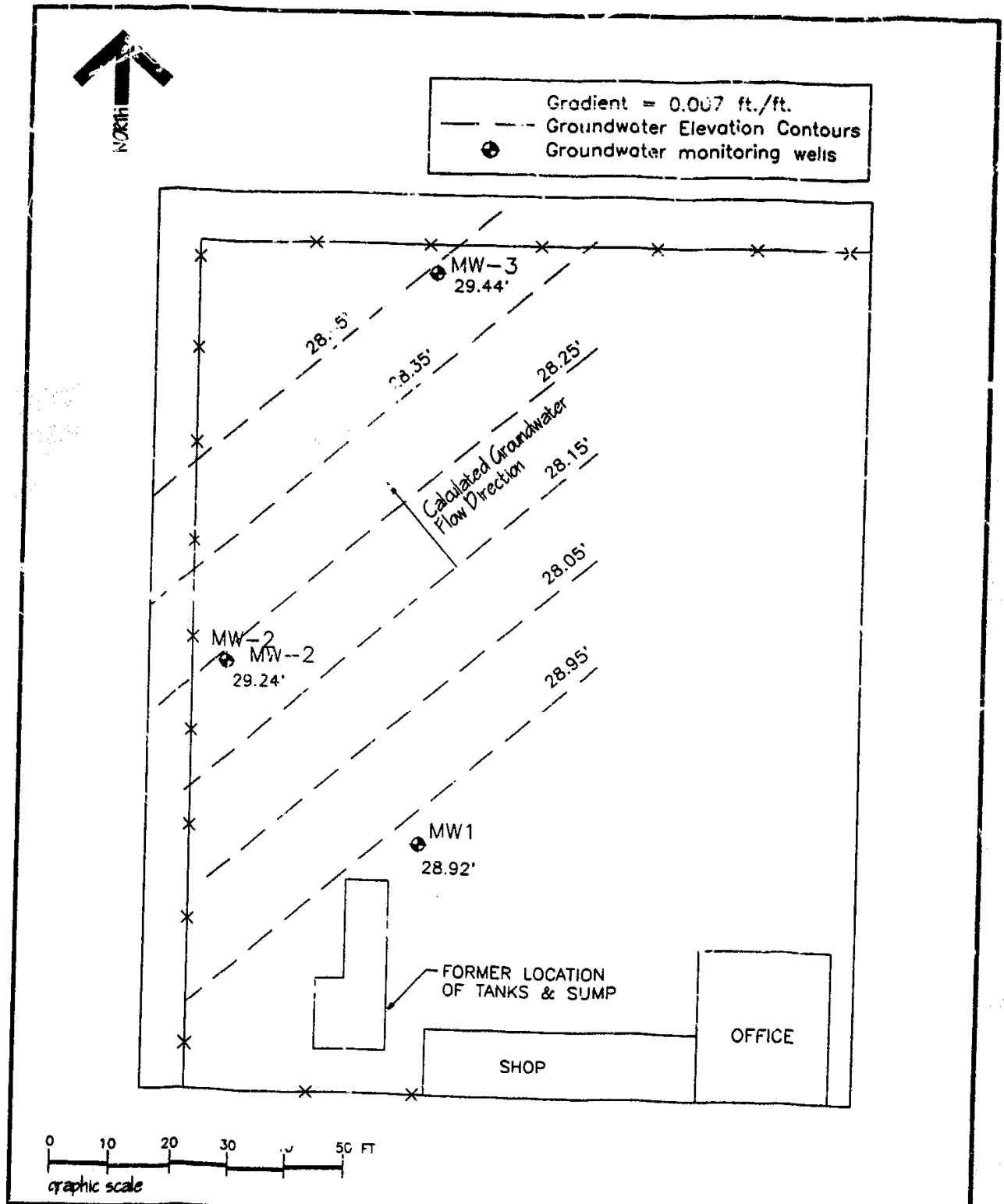
JOB NO.	5830100	FIGURE
DRAWN BY:	C. ZARICI	1
APPROVED BY:	K. PRICE	November 1994



Environmental Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 6/24/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2A November 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 7/29/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2B November 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 8/31/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2C November 1994

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
August 31, 1994

WELL NO	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY u/cm	TEMPERATURE (Fahrenheit)	TURBIDITY (NTU)	PRE-PURGING		POST-PURGING	% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
						TOTAL DEPTH	DEPTH TO WATER	DEPTH TO WATER		
MW-1	1.5	7.18	1.08×10^3	71.0	160	15.0'	9.45'	10.60'	100%	80%
	3.0	6.83	1.05×10^3	69.5	350					
	4.0	7.13	1.01×10^3	67.5	340					
MW-2	1.5	7.00	1.12×10^3	78.0	190	18.0'	10.04'	10.58'	100%	100%
	3.0	7.10	1.08×10^3	74.7	290					
	4.5	7.25	1.11×10^3	73.0	320					
MW-3	1.25	7.18	1.23×10^3	91.0	120	17.5'	10.43'	10.78'	100%	100%
	2.5	6.93	1.17×10^3	80.3	290					
	3.75	7.13	1.18×10^3	80.8	310					

NTU = Nephelometric Turbidity Units (concentration of particles in suspension).

TABLE 2

GROUNDWATER SAMPLE RESULTS

Smp. No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbn ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994															
MW-1	0.08	22	81	6,000	4,700	2,900	8,600	3.8	6.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	72	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994															
MW-1	0.47	14	150	6,800	6,500	11,000	19,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	889	130	7,600	770	2,900	12,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	16	41	2,100	180	5,400	7,300	<0.4	6.6	2.3	<0.4	7.5	0.6	2.8	<0.8
Third Quarter - August 31, 1994															
MW-1	<0.05	6.88	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Ethylbn = Ethylbenzene
Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)							
WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER			GROUNDWATER ELEVATIONS (MSL)		
		6/24/94	7/29/94	8/31/94	6/24/94	7/29/94	8/31/94
MW-1	38.89	9.20	9.39	9.45	29.69	29.50	29.44
MW-2	39.28	9.78	9.97	10.04	29.50	29.31	29.24
MW-3	39.35	10.23	10.37	10.43	29.12	28.98	28.92

MSL = Mean Sea Level

FIELD LOG BOOK ENTRY

		Date	8/31/94
SITE	#585010C	TOTAL DEPTH	15.0'
WELL I.D.	MW-1	WATER DEPTH	7.45' TIME: 15:30
SAMPLE I.D.	MW-1	WELL DIAMETER	2"
EQUIPMENT NO.	Disposable Bailer	PURGE VOLUME	(3 X) 1.5
SAMPLER	B McNabb	PUMPING RATE	.5 gallons/minute
LABORATORY	Hull Devel.	PUMPING TIME	15 minutes
WELL YIELD	4.5	BAILER CAPACITY	.25 gallons
SAMPLE TIME	17:00	NO. OF BAILS	18 gallons

Post-Purging #2 Level 18.60

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
16 39	1.5	160	7.18	1.08	71.0
16 42	3.0	350	6.93	1.05	69.5
16 50	4.5	340	7.13	.01	67.5

PURGE PROCEDURE Disposable Bailer

PUMP PLACEMENT N/A

SAMPLE PROCEDURE

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPH(g) / TOC	2 Amber Liters	None
TPH(g) / BTEX / 8010	3 40 ml VOAs	

FIELD OBSERVATIONS: Very strong mylike odor & sheen.

RECOVERY RATE

RECOVERY PERCENTAGE 80 % AT .25 HRS

CLIMATIC CONDITIONS Sunny, 70's Slight Breeze

FIELD LOG BOOK ENTRY

Date 8/31/94

SITE	#5050100	TOTAL DEPTH	18.0'
WELL I.D.	MW-2	WATER DEPTH	10.04' TIME: 15:30
SAMPLE I.D.	MW-2	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	(3 x) 1.5
SAMPLER	B. McNabb	PUMPING RATE	.3 gallons/minute
LABORATORY	Hall Envel.	PUMPING TIME	15 minutes
WELL YIELD	4.5 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	16:30	NO. OF BAILS	18

Post-Purging Hydr. Level 10.53'

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
16:15	1.5	190	7.00	1.12	73 C
16:20	3.0	290	7.10	1.08	74.7
16:25	4.5	320	7.25	1.11	73 C

PURGE PROCEDURE Disposable Bailer

PUMP PLACEMENT N/A

SAMPLE PROCEDURE " "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHd / TOG	2 Amber Liters	None
TPHg / BTEX / EDB	3 40 ml VOA's	"

FIELD OBSERVATIONS: Very Strong hydrocarbon odor.

RECOVERY RATE _____ RECOVERY PERCENTAGE 100 % AT 25 HRS

CLIMATIC CONDITIONS Sunny 70's Slight Breeze

FIELD LOG BOOK ENTRY

Date: 8/31/94

SITE	#58501.00	TOTAL DEPTH	17.51'
WELL I.D.	MW-3	WATER DEPTH	10.43' TIME: 15:30
SAMPLE I.D.	MW-3	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	1" = 1.25
SAMPLER	B. McNabb	PUMPING RATE	.3 gallons/minute
LABORATORY	Hall Denver	PUMPING TIME	15 minutes
WELL YIELD	3.75 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	16:00	NO. OF BAILS	15

Post-Purging Water Level 10.78'

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. x 1,000	T°F
15:40	1.25	1.20	7.18	1.23	91.0
15:45	2.5	2.16	6.93	1.17	80.3
15:55	3.75	3.16	7.13	1.19	80.8

PURGE PROCEDURE: Disposable Bailer

PUMP PLACEMENT: N/A

SAMPLE PROCEDURE:

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHd / TOG	2 Amber Liters	None
TPHg / BTEX / EDB	3 40 ml VOA's	"

FIELD OBSERVATIONS: moderate hydrocarbon odor noted.

RECOVERY RATE:

RECOVERY PERCENTAGE: 100 % AT 2SHRS

CLIMATIC CONDITIONS: Sunny, 70's, slight Breeze

Hull Development Labs, Inc.

E2C, Inc.
1220 Crossman Ave.
Sunnyvale, CA 94089
Attn: Brenda McNabb

Date:	9/8/94
Date Received:	9/1/94
Date Analyzed:	9/8/94
Lab #:	See Table
P.O #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*Units*	*Detection Limit*	*EPA Method =*
Sample Matrix	Water			
Sample Date	8/31/94			
Sample Time	17:00			
Lab #	A5195			
TPH-Gas	**76,000**	µg/liter	5000.0 µg/l	8015M
TPH-Diesel	**ND**	µg/liter	50.0 µg/l	8015M
Purgeable Halocarbons	**ND**	µg/liter	See Work Sheet	8010
Benzene	**3,400**	µg/liter	30.0 µg/l	8020
Toluene	**3,000**	µg/liter	30.0 µg/l	8020
Ethyl Benzene	**2,000**	µg/liter	30.0 µg/l	3020
Xylenes	**6,000**	µg/liter	30.0 µg/l	8020
Oil & Grease (Hydrocarbons)	**5.88**	mg/liter	5.0 mg/l	Std method 5520F

1. ND: None detected at specified detection limit
2. Detection Limits for Gas/BTEX 100X higher than normal due to high contaminant levels.
3. See Method 8010 Work Sheet for individual compounds and detection limits.
4. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

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Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	EBC, Inc.
Sample Matrix:	Water
Lab #:	A5195
Client ID:	MW-1

Date:	9/8/94
Date Received:	8/31/94
Date Analyzed	9/8/94
Dilution Factor	10

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1,2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1,2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	50

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #A5195 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

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Hull Development Labs, Inc.

E2C, Inc.
1220 Crossman Ave.
Sunnyvale, CA 94089
Attn: Brenda McNabb

Date:	9/8/94
Date Received:	9/1/94
Date Analyzed:	9/8/94
Lab #:	See Table
P.O #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-2*	*Units*	*Detection Limit*	*EPA Method #*
Sample Matrix	Water			
Sample Date	8/31/94			
Sample Time	16:30			
Lab #	A5196			
TPH-Gas	**61,000**	µg/liter	5000.0 µg/l	8015M
TPH-Diesel	**ND**	µg/liter	50.0 µg/l	8015M
Purgeable Halocarbons	**ND**	µg/liter	See Work Sheet	8010
Benzene	**3,600**	µg/liter	30.0 µg/l	8020
Toluene	**600**	µg/liter	30.0 µg/l	8020
Ethyl Benzene	**1,800**	µg/liter	30.0 µg/l	8020
Xylenes	**6,100**	µg/liter	30.0 µg/l	8020
Oil & Grease (Hydrocarbons)	**7.01**	mg/liter	5.0 mg/l	Std method 5520F

1. ND: None detected at specified detection limit
2. Detection Limits for Gas/BTEX 100X higher than normal due to high contaminant levels.
3. See Method 8010 Work Sheet for individual compounds and detection limits.
4. Analysis performed by Hull Development Labs Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	E2C, Inc.
Sample Matrix:	Water
Lab #:	A5196
Client ID:	MW-2

Date:	9/8/94
Date Received:	8/31/94
Date Analyzed	9/8/94
Dilution Factor	10

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1,2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1,2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	**Recovery (%)**
4-Bromofluorobenzene	61

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #A5196 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

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Hull Development Labs, Inc.

E2C, Inc.
1220 Crossman Ave.
Sunnyvale, CA 94089
Attn: Brenda McNabb

Date:	9/8/94
Date Received:	9/1/94
Date Analyzed:	9/8/94
Lab #:	See Table
P.O #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-3*	*Units*	*Detection Limit*	*EPA Method #*
Sample Matrix	Water			
Sample Date	8/31/94			
Sample Time	16:00			
Lab #	A5197			
TPH-Gas	**8,300**	µg/liter	5000.0 µg/l	8015M
TPH-Diesel	**ND**	µg/liter	50.0 µg/l	8015M
Purgeable Halocarbons	**ND**	µg/liter	See Work Sheet	8010
Benzene	**270.0**	µg/liter	30.0 µg/l	8020
Toluene	**ND**	µg/liter	30.0 µg/l	8020
Ethyl Benzene	**ND**	µg/liter	30.0 µg/l	8020
Xylenes	**130.0**	µg/liter	30.0 µg/l	8020
Oil & Grease (Hydrocarbons)	**ND**	mg/liter	5.0 mg/l	Std method 5520F

1. ND: None detected at specified detection limit
2. Detection Limits for Gas/BTEX 100X higher than normal due to high contaminant levels.
3. See Method 8010 Work Sheet for individual compounds and detection limits.
4. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	E2C, Inc.
Sample Matrix:	Water
Lab #:	A5197
Client ID:	MW-3

Date:	9/8/94
Date Received:	8/31/94
Date Analyzed	9/8/94
Dilution Factor	10

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1,2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1,2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	54

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #A5197 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

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HULL DEVELOPMENT LABS INC.

1149 Minnesota ave
San Jose. Ca 95125

QUALITY CONTROL RESULTS SUMMARY
FOR DIESEL ANALYSIS

DIESEL
QC sample No.: BLANK SPIKE & DUP Date analyzed: 09-01-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
DIESEL	420	0	340	81	350	83	2	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

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San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY FOR GASOLINE ANALYSIS

GASOLINE
QC sample No.: BLANK SPIKE & DUP Date analyzed: 09-07-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
GASOLINE	420	0	332	79	407	97	21	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

HULL DEVELOPMENT LABS INC.

1149 Minnesota ave
San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY
VOLATILE ORGANICS ANALYSIS

QC sample No.: BLANK SPIKE & DUP Date analyzed: 08-25-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	PR
BENZENE	20	0	19	95	19	95	0	25	50-150
CHLOROBENZENE	20	0	20	100	21	105	5	25	50-150
1,1-DCA	20	0	22	110	19	95	15	25	50-150
TOLUENE	20	0	18	90	19	95	5	25	50-150
TCE	20	0	19	95	15	75	24	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

HULL DEVELOPMENT LABS INC.

1149 Minnesota ave
San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY
BTEX

QC sample No.: BLANK SPIKE & DUP Date analyzed: 09-07-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS %R	MSD ug/L	MSD %R	RPD	QC LIMITS (ADVISORY) RPD	%R
BENZENE	20	0	19	95	22	110	15	25	50-150
TOLUENE	20	0	20	100	23	115	14	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

Hull Development Labs, Inc.

11409 Minnesota Ave.
San Jose, CA 95125

QUALITY CONTROL RESULTS SUMMARY

METHOD: Std. method 5520F

QC Sample No.: A5195
Matrix: Water
Units: mg/l

Date Analyzed: 9/8/94

PARAMETER	SA mg/l	SR mg/l	MS mg/l	MSD PR	MSD mg/l	MSD PR	RPD	QC LIMITS RPD	PR
TRPH	50	5.88	52.71	105	54.49	108.98	3%	25	70-130

LAB DIRECTOR: M. Golden

CHAIN-OF-CUSTODY RECORD

E$_2$C, Inc.
environmental/engineering consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089
Phone: (408) 747-1414
Fax: (408) 745-1089

LABORATORY: Hull Lab.

Site Name and Address: Martin Ave., Santa Clara, CA

Project #: 5850100

Sampler: Brad D. McNabb

Company: E2C, Inc.

Sample I.D.	# Containers	Matrix: SOIL	Matrix: WATER	Matrix: SLUDGE	Preservation: NONE	Preservation: HCL	TIME	DATE	Location of Sample
MW-1	5		X		X		1700	8/31/94	
MW-2	5		X		X		1630	"	
MW-3	5		X		X		1600	"	

ANALYSIS REQUESTED

BTEX	EPA 8015 modified (Gas)	EPA 8015 modified (Diesel)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240	EPA 625/8270	SMWW-505 (TOG)	Metals (Specify)	LAB #
X	X	X	X					X		A57195
X	X	X	X					X		A57196
X	X	X	X					X		A57197

TURN AROUND REQUESTED:
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-DAY
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analysis:
1) Have all samples received been stored on ice? Yes
2) Did any VOA samples received have any head space? No
3) Were samples in appropriate containers and packaged properly? Yes

	Date	Time		
Relinquished by sampler:	8/31/94		Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	

RECEIVED
NOV 18 1994
SANTA CLARA VALLEY
WATER DISTRICT

E2C INC.

Environmental/Engineering Consultants

December 23, 1994
Job No. 5850100

Hopkins & Carley
A Law Corporation
150 Almaden Boulevard, 15th Floor
San Jose, CA 95113-2089

ATTN: Mr. William S. Klein
SUBJECT: **FOURTH QUARTER 1994 GROUNDWATER SAMPLING REPORT**
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of the fourth quarterly groundwater sampling for 1994, conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, and MW-3 (see Figures 2A and 2B). The scope of work also included the collection of groundwater level readings from the three on-site wells during the months of October and November for the purpose of determining groundwater gradient and flow-direction.

CURRENT GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1, MW-2, and MW-3 on November 30, 1994. Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately four well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters including electrical conductivity, temperature, and pH were taken after each well-casing volume was purged. Purging continued until physical parameter readings indicated that the wells had stabilized (please refer to the Field Data Logs presented in Appendix A). Total depth and depth-to-groundwater readings were then taken to determine post-purging well measurements, which were subsequently used to calculate well-recharge rates. The recharge rates and well measurements and physical-parameter readings are presented in Table 1 of this report. Hydrocarbon odor was noted in the purge water from wells MW-1, MW-2, and MW-3.

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Once the wells had stabilized and post-purging well measurements were obtained, samples were collected from the wells using a disposable bailer. Sample material was dispensed into bottles appropriate for the required analyses. The bottles were then secured, labeled, and placed on ice in a cooler for transport to Hull Development Labs of San Jose, California, a State-certified analytical laboratory. The samples were analyzed for O & G, TPHd, TPHg, BTEX, and VOCs using Environmental Protection Agency test methods 5520F, 8015 modified (for TPHd and TPHg), 8020, and 8010, respectively.

RESULTS OF SAMPLE ANALYSES

The results of this quarterly sampling event and previous quarterly sampling events are presented in Table 2 of this report. These results indicate that TPHg and BTEX compounds were detected in the samples drawn from all three wells. O & G was only detected in well MW-2 and TPHd and VOCs were not detected in any of the wells during this quarterly sampling event.

Copies of the laboratory-issued analytical report and the corresponding chain-of-custody form for the November 30, 1994 sampling event are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations in each of the wells, which correspond to nearby mean sea-level benchmark datum, were acquired in October and November. These elevations, which are shown in Table 3, indicate that groundwater flow beneath the subject site is essentially to the north. Figures 2A and 2B illustrate the monthly groundwater gradient and flow direction for the past quarter.

CONCLUSIONS AND RECOMMENDATIONS

TPHd and VOCs have not been detected over the past two quarterly sampling events. TPHg and BTEX were found to be present in all three wells during the fourth quarterly sampling event. O & G was only detected in the groundwater sample obtained from monitoring well MW-2.

Based on the requirements of the SCVWD, E_2C, Inc. recommends that the wells continue to be monitored on a quarterly basis with the next sampling event scheduled for February of 1995. Based on the consistent groundwater flow data for the past four quarters, E_2C, Inc. recommends that groundwater-level measurements be collected on a quarterly basis rather than monthly.

In accordance with SCVWD guidelines, a copy of this report should be forwarded to Ms. Christine Tulloch of the SCVWD.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

Brenda D. McNab , REA
Senior Project Manager

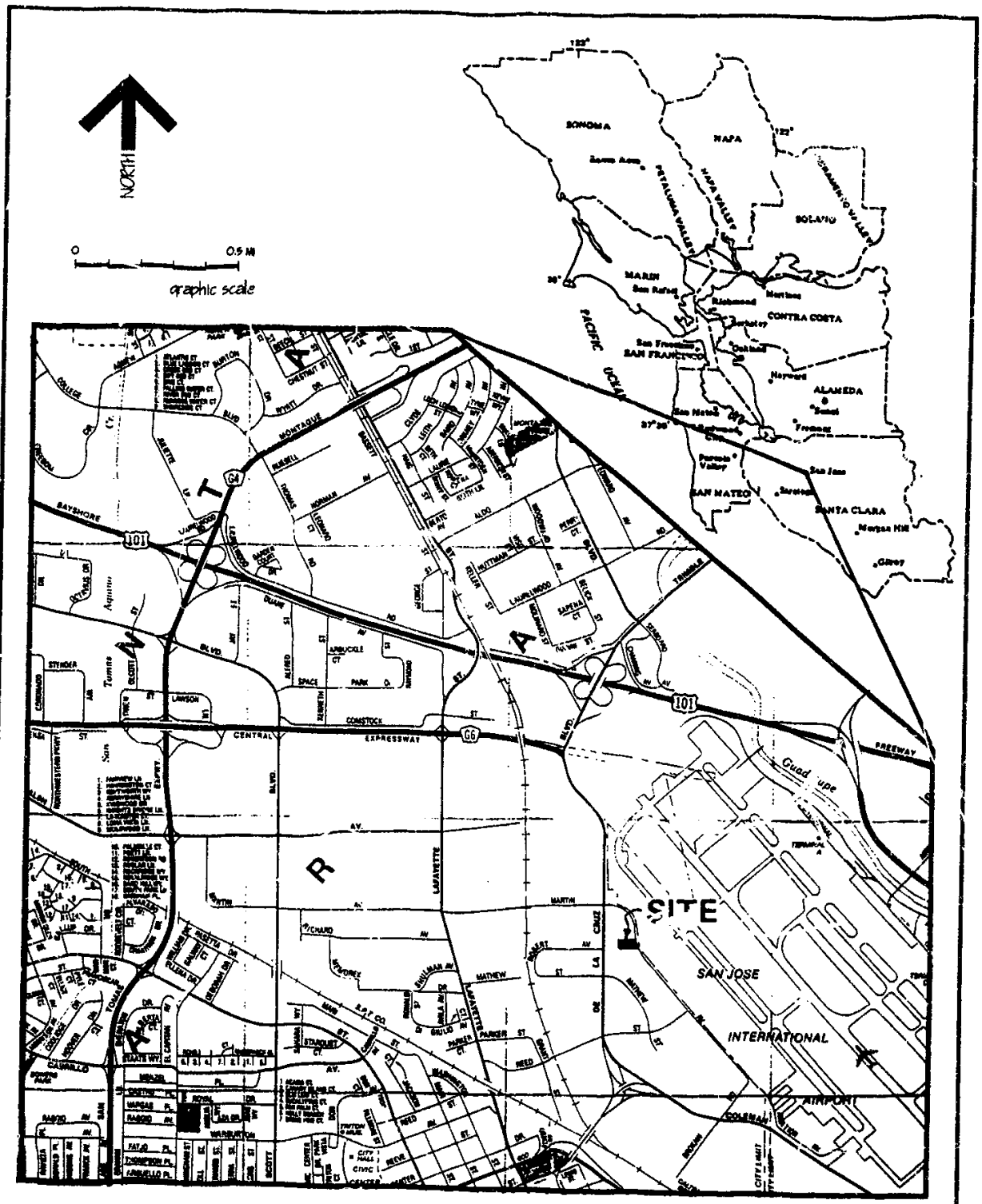
Kendall W. Price, CEG/REA
President

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

R. H. Wehner Concrete Construction Company, Inc. II.
390 Martin Avenue
Santa Clara, 95050
ATTN: Mr. Andy Bardakos

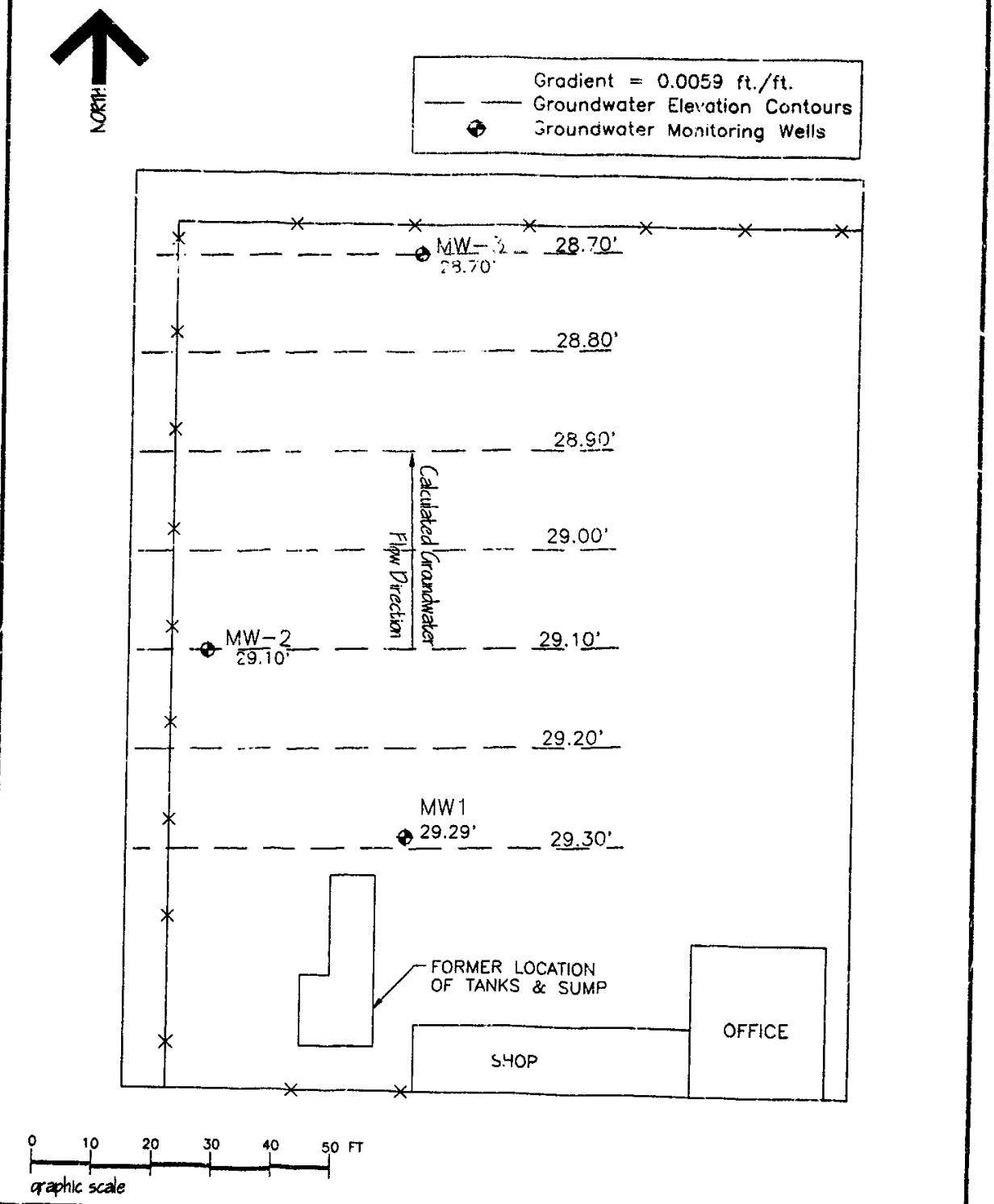
Richard Wehner Company
1760 The Alameda
San Jose, CA 95126
ATTN: Mr. Richard Wehner

SANTA CLARA
VALLEY WATER DISTRICT
95 FEB 2 A9:13

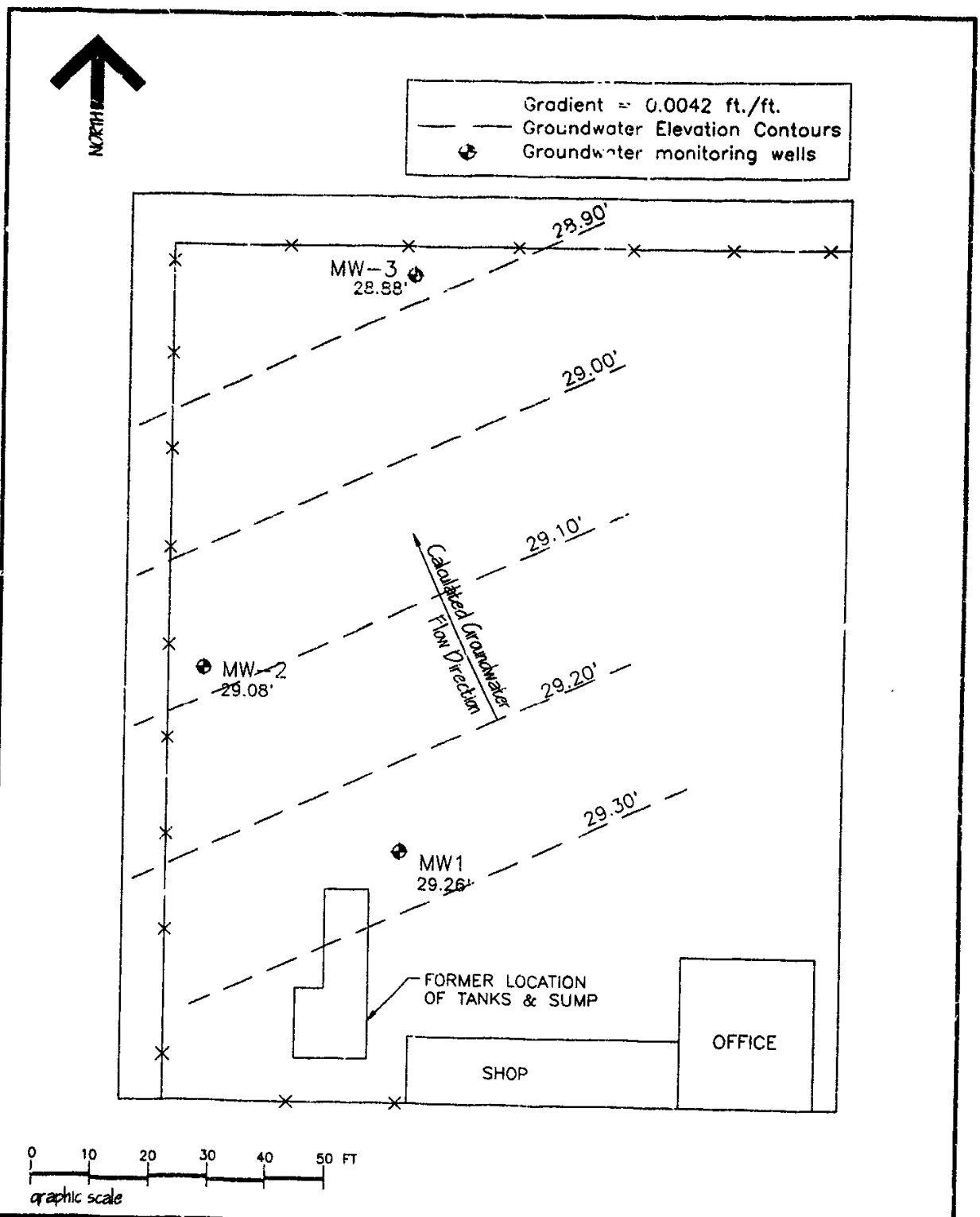


Source: California AAA Map, 1993 – Northern San Jose

Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100	FIGURE 1
		DRAWN BY: C. ZARICI	
		APPROVED BY: K. PRICE	December 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 10/24/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2A December 1994



Environmental/Engineering Consultants 1220 Crossman Avenue, Suite 200 Sunnyvale, California 94089	GROUNDWATER ELEVATION CONTOUR MAP 11/30/94 390 Martin Avenue Santa Clara, California	JOB NO. 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 2B December 1994

TABLE 1
WELL MEASUREMENTS AND PHYSICAL GROUNDWATER PARAMETERS
November 30, 1994

WELL NO.	CUMULATIVE CASING VOLUMES PURGED	pH	ELECTRICAL CONDUCTIVITY u/cm	TEMPERATURE (Fahrenheit)	PRE-PURGING		POST-PURGING	% RECHARGE AT TIME OF SAMPLING	RECHARGE RATE (% per 15 min.)
					TOTAL DEPTH	DEPTH TO WATER	DEPTH TO WATER		
MW-1	1.0	7.18	1.18×10^3	52.3	15.25'	9.63'	9.82'	100%	98%
	2.0	7.00	1.16×10^3	51.8					
	3.0	6.96	1.18×10^3	51.6					
	4.0	7.02	1.18×10^3	52.0					
MW-2	1.25	7.06	1.12×10^3	49.8	17.10'	10.20'	10.25'	100%	100%
	2.5	7.06	1.15×10^3	50.0					
	3.75	7.12	1.20×10^3	51.0					
	5.0	7.15	1.21×10^3	50.8					
MW-3	1.25	6.94	1.21×10^3	51.0	17.50'	10.47'	11.11'	100%	90%
	2.5	6.99	1.21×10^3	49.2					
	3.75	6.98	1.21×10^3	49.8					
	5.0	6.98	1.21×10^3	52.0					

NTU = Nephelometric Turbidity Units (concentration of particles in suspension).

TABLE 2

GROUNDWATER SAMPLE RESULTS

Smp. No.	TPHd mg/kg	O & G mg/kg	TPHg mg/kg	Benzene ug/kg	Toluene ug/kg	Ethylbn ug/kg	Xylenes ug/kg	Carbon Tet ug/kg	1,1-DCA ug/kg	1,2-DCA ug/kg	1,1-DCE ug/kg	Meth ug/kg	PCE ug/kg	TCE ug/kg	Freon ug/kg
First Quarter - February 25, 1994															
MW-1	0.08	22	81	5,000	4,700	2,900	8,600	3.8	6.8	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	73	5,700	1,100	2,200	8,200	<0.4	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	6.5	2.0	0.8	<0.5	<0.4	2.1	1.0
Second Quarter - June 10, 1994															
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	28	869	130	7,600	770	2,900	12,000	<0.4	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	16	41	2,100	180	5,400	7,300	<0.4	6.6	2.3	<0.4	7.5	0.6	2.8	<0.8
Third Quarter - August 31, 1994															
MW-1	<0.5	6.38	76	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	61	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994															
MW-1	<0.05	<5.0	101	5,900	2,600	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*0.5*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

Ethylbn = Ethylbenzene
Carbon Tet = Carbon Tetrachloride
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride

PCE = Tetrachloroethene
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for Drinking Water.
NE = MCLs have not been established for these compounds.

TABLE 3

GROUNDWATER ELEVATIONS (In Feet)					
WELL NO.	CASING ELEVATION (MSL)	DEPTH TO GROUNDWATER (In Feet)		GROUNDWATER ELEVATIONS (MSL)	
		10/24/94	11/30/94	10/24/94	11/30/94
MW-1	38.89	9.60	9.63	29.29	29.26
MW-2	39.28	10.18	10.20	29.10	29.08
MW-3	39.35	10.65	10.47	28.70	28.88

MSL = Mean Sea Level

FIELD LOG BOOK ENTRY

Date 11/30/94

SITE	#5850100	TOTAL DEPTH	15.25'
WELL I.D.	MW-1	WATER DEPTH	9.63' TIME: 10:10
SAMPLE I.D.	MW-1	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	4 x 1.0 gallons
SAMPLER	B. McAdoo	PUMPING RATE	.25 gal/minute
LABORATORY	Hall Development	PUMPING TIME	30 minutes
WELL YIELD	4 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	12:00	NO. OF BAILS	

3.3' → 9.82
3.4 → 11:50

Post-Purge H2O Level 9.82'

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. X 1,000	T°F
11:30	1.0	—	7.08	1.18	52.3
11:40	2.0	—	7.00	1.16	51.8
11:50	3.0	—	6.96	1.18	51.6
11:55	4.0	—	7.02	1.18	52.0

PURGE PROCEDURE Disposable Bailer PUMP PLACEMENT N/A

SAMPLE PROCEDURE " "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg/BTEX 8010	2- 40 ml VOA's	None
TPH d	2 Amber Liters	"
TRPH	" " "	"

FIELD OBSERVATIONS: Strong Hydrocarbon odor & sheen noted.

RECOVERY RATE 100% RECOVERY PERCENTAGE 98 % AT .25 HRS

CLIMATIC CONDITIONS 60's, Sunny, Slight Breeze

FIELD LOG BOOK ENTRY

Date: 11/30/94

SITE	#5850100	TOTAL DEPTH	17.10
WELL I.D.	MW-2	WATER DEPTH	10.20' TIME: 10:05
SAMPLE I.D.	MW-2	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	(4x) 1.25
SAMPLER	B. McNabb	PUMPING RATE	0.10 gal/minute
LABORATORY	Hull Development	PUMPING TIME	60 minutes
WELL YIELD	5 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	12:15	NO. OF BAILS	20

Post-Purge H2O Level 10.25'

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. X 1,000	T°F
10:20	1.25	—	7.06	1.12	49.8
10:30	2.5	—	7.06	1.15	50.0
10:50	3.75	—	7.12	1.20	51.0
11:20	5.0	—	7.15	1.21	50.8

PURGE PROCEDURE: Disposable Bailer

PUMP PLACEMENT: X | H

SAMPLE PROCEDURE: " "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg, TRTEX 8010	2 - 40 ml VOA's	None
TPHd	2 Amber Liters	"
TRPH	" "	"

FIELD OBSERVATIONS: Strong Hydrocarbon odor & sheen noted.

RECOVERY RATE: 100 %

RECOVERY PERCENTAGE: 100 % AT 25 HRS

CLIMATIC CONDITIONS: 60's, Sunny, Slight Breeze

FIELD LOG BOOK ENTRY

Date: 11/30/94

SITE	#5850100	TOTAL DEPTH	17.50
WELL I.D.	MW-3	WATER DEPTH	10:47 TIME: 10:00
SAMPLE I.D.	MW-3	WELL DIAMETER	2"
EQUIPMENT NO.	Disp. Bailer	PURGE VOLUME	(4x) 1.25 gallons
SAMPLER	B. McNabb	PUMPING RATE	.004 gal/minute
LABORATORY	Hall Devel.	PUMPING TIME	120 minutes
WELL YIELD	5 gallons	BAILER CAPACITY	.25 gallons
SAMPLE TIME	12:50	NO. OF BAILS	20

5:05 → 12:27
4:11 → 12:42

Post-Purge Hdo Level 11.11'

TIME	CUMULATIVE GALLONS PURGED	TURBIDITY	pH	E.C. X 1000	T°F
10:35	1.25	—	6.94	1.21	51.0
11:15	2.5	—	6.99	1.21	49.2
12:07	3.75	—	6.98	1.21	49.8
12:30	5.6	—	6.98	1.21	52.0

PURGE PROCEDURE: Disposable Bailer
PUMP PLACEMENT: N/A
SAMPLE PROCEDURE: " "

PARAMETER	CONTAINER (TYPE/NUMBER)	PRESERVATIVE
TPHg/BTEX	2- 40 ml VOA's	None
8310	" " " "	"
TPHd	2 Amber Liters	"
TRPH	" " "	"

FIELD OBSERVATIONS: Hydrocarbon odor noted

RECOVERY RATE: 100% RECOVERY PERCENTAGE: 10 % AT 25 HRS

CLIMATIC CONDITIONS: 60's, Sunny, Slight Breeze

Hull Development Labs, Inc.

E2C, Inc.
1220 Crossman Ave.
Sunnyvale, CA 94089
Attn: Brenda McNabb

Date:	12/7/94
Date Received:	11/30/94
Date Analyzed:	12/6/94
Lab #:	See Table
Project #:	5850100
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*MW-3*	*Units*	*Detection Limit*	*EPA Method #*
Sample Matrix	Water	Water	Water			
Sample Date	11/30/94	11/30/94	11/30/94			
Sample Time	12:00	12:15	12:50			
Lab #	A7384	A7385	A7386			
TPH-Gas	**101,000**	**73,000**	**26,000**	µg/liter	50.0 µg/l	8015M
TPH-Diesel	**ND**	**ND**	**ND**	µg/liter	50.0 µg/l	8015M
Purgeable Halocarbons	**ND**	**ND**	**ND**	µg/liter	See Work Sheet	8010
Benzene	**5,900**	**2,200**	**ND**	µg/liter	0.3 µg/l	8020
Toluene	**2,500**	**ND**	**ND**	µg/liter	0.3 µg/l	8020
Ethyl Benzene	**2,200**	**560**	**1,000**	µg/liter	0.3 µg/l	8020
Xylenes	**7,800**	**4,800**	**ND**	µg/liter	0.3 µg/l	8020
Total Recoverable Petroleum Hydrocarbons	**ND**	**7.7**	**ND**	mg/liter	5.0 mg/l	Std method 5520F

1. ND: None detected at specified detection limit
2. Reporting limit for TPH-Diesel is 15X listed DL due to significant TPH-Gas contamination.
3. Reporting limit for BTEX and Purgeable Halocarbons is 400X listed DL for lab #A7384 and A7385 and 1000X listed DL for lab #A7365 due to significant TPH-Gas contamination.
4. See Method 8010 Work Sheet for individual compounds, detection limits and analysis dates.
5. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

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Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	E2C
Sample Matrix:	Water
Lab #:	A7384
Client ID:	MW-1

Date:	12/7/94
Date Received:	11/30/94
Date Analyzed	12/6/94
Dilution Factor	400

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1.2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1 2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	**Recovery (%)**
4-Bromofluorobenzene	50

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs. Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #A7384 and should not be reproduced except in full without the written consent of Hull Development Labs. Inc.

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Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	E2C
Sample Matrix:	Water
Lab #:	A7385
Client ID:	MW-2

Date:	12/7/94
Date Received:	11/30/94
Date Analyzed	12/6/94
Dilution Factor	1000

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1,2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1,2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	**Recovery (%)**
4-Bromofluorobenzene	74

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
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Organic Analysis Worksheet: EPA Method #8010

Sample ID:	E2C
Sample Matrix:	Water
Lab #:	A7386
Client ID:	MW-3

Date:	12/7/94
Date Received:	11/30/94
Date Analyzed	12/6/94
Dilution Factor	400

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	None detected	0.5 ppb	**trans-1,2-Dichloroethene**	None detected	0.5 ppb
Bromoform	None detected	1.0 ppb	**1,2-Dichloropropane**	None detected	0.5 ppb
Bromomethane	None detected	1.0 ppb	**cis-1,3-Dichloropropene**	None detected	0.5 ppb
Carbon Tetrachloride	None detected	0.5 ppb	**trans-1,3-Dichloropropene**	None detected	0.5 ppb
Chlorobenzene	None detected	0.5 ppb	**Methylene Chloride**	None detected	0.5 ppb
Chloroethane	None detected	1.0 ppb	**1,1,2,2-Tetrachloroethane**	None detected	0.5 ppb
2-Chloroethyl Vinyl Ether	None detected	0.5 ppb	**Tetrachloroethene**	None detected	0.5 ppb
Chloroform	None detected	0.5 ppb	**1,1,1-Trichloroethane**	None detected	0.5 ppb
Chloromethane	None detected	1.0 ppb	**1,1,2-Trichloroethane**	None detected	0.5 ppb
Dibromochloromethane	None detected	0.5 ppb	**Trichloroethene**	None detected	0.5 ppb
Dichlorodifluoromethane	None detected	0.5 ppb	**Trichlorofluoromethane**	None detected	0.5 ppb
1:2 Dichlorobenzene	None detected	0.5 ppb	**Vinyl Chloride**	None detected	1.0 ppb
1:3 Dichlorobenzene	None detected	0.5 ppb			
1:4 Dichlorobenzene	None detected	0.5 ppb			
1,1-Dichloroethane	None detected	0.5 ppb			
1,2-Dichloroethane	None detected	0.5 ppb			
1,1-Dichloroethene (cis)	None detected	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	76

1. None detected= None detected at specified detection limit
2. DLR= Detection Limit x Dilution Factor
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
4. This worksheet is an integral part of the Certified Analytical Report for Lab #A7386 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

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Hull Development Labs, Inc.

11409 Minnesota Ave.
San Jose, CA 95125

QUALITY CONTROL RESULTS SUMMARY

METHOD: EPA 418.1/SM 5520F

QC Sample No.: A7169
Matrix: Water
Units: mg/l

Date Analyzed: 11/23/94

PARAMETER	SA mg/l	SR mg/l	MS mg/l	MSD PR	MSD mg/l	MSD PR	RPD	QC LIMITS RPD	QC LIMITS PR
TRPH	20	6.4	25.2	94	25.7	96.5	2%	25	70-130

Definition of Terms:

SA: Spike Added
SR: Sample Result
MS: Matrix Spike Result
MSD (PR): Matrix Spike % Recovery
MSD: Matrix Spike Duplicate Result
MSD (PR): Matrix Spike Duplicate % Recovery

LAB DIRECTOR: M. Golden

HULL DEVELOPMENT LABS INC.

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San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY
FOR GASOLINE ANALYSIS

GASOLINE
QC sample No.: BLANK&SPIKE & DUP **Date analyzed:** 12-06-94

Matrix: WATER

Units: ug/L **Dilution factor:** 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
GASOLINE	540	0	470	87	420	78	11	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = [illegible] (MS-MSD)/((MS+MSD)/2)

PR = [illegible] x ((MS or MSD) - SR)/SA

FORM III VOL

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QUALITY CONTROL RESULTS SUMMARY
VOLATILE ORGANICS ANALYSIS

QC sample No.: BLANK SPIKE & DUP Date analyzed: 12-06-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	PR
BENZENE	20	0	21	105	22	110	5	25	50-150
CHLOROBENZENE	20	0	18	90	22	110	20	25	50-150
1,1-DCA	20	0	19	95	19	95	0	25	50-150
TOLUENE	20	0	21	105	21	105	0	25	50-150
TCE	20	0	22	110	21	105	5	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

HULL DEVELOPMENT LABS INC.

1149 Minnesota ave
San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY
BTEX

QC sample No.: BLANK SPIKE & DUP Date analyzed: 12-06-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
BENZENE	20	0	22	110	25	125	13	25	50-150
TOLUENE	20	0	22	110	25	125	13	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

HULL DEVELOPMENT LABS INC.
1149 Minnesota ave
San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY FOR DIESEL ANALYSIS

DIESEL
QC sample No.: BLANK SPIKE & DUP Date analyzed: 11-23-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS PR	MSD ug/L	MSD PR	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) PR
DIESEL	833	0	447	54	480	58	7	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated
** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

P% = 100 x ((MS or MSD) - SR)/SA

FORM III VOL

E2C, Inc.
environmental/engineering consultants
1220 Crossman Avenue, Suite 200
Sunnyvale, CA 94089

Phone: (408) 747-1414
Fax: (408) 745-1089

LABORATORY: Hall Devel. Labs

CHAIN-OF-CUSTODY RECORD

Site Name and Address: 390 Martin Ave., Santa Clara, CA

Project #: 5850100

Sampler: Brenda D McNabb

Company: E2C, Inc.

ANALYSIS REQUESTED

Sample I.D.	# Containers	Matrix: SOIL	WATER	SLUDGE		Preservation: NONE	HCL		TIME	DATE	Location of Sample	BTEX	EPA 8015 modified (Gas)	EPA 8015 modified (Diesel)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240	EPA 625/8270	SMWW 5520F	Metals (Specify)				
MW-1	8		X			X			12:00	11/30/14	Dodell MW-1	X	X	X	X					X		A 73784			
MW-2	8		X			X			12:15	"	" MW-2	X	X	X	X					X		A 73785			
MW-3	8		X			X			12:50	"	" MW-3	X	X	X	X					X		A 73786			

TURN AROUND REQUESTED:

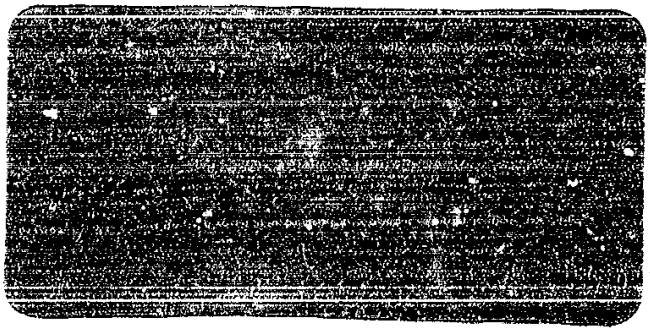
- ☐ 24 HOURS
- ☐ 48 HOURS
- ☐ OTHER
- ☐ 7-DAY
- ☒ NORMAL

SPECIAL INSTRUCTIONS:

The following MUST be completed by the laboratory accepting samples for analysis:

1) Have all samples received been stored on ice? YES
2) Did any VOA samples received have any head space? NO
3) Were samples in appropriate containers and packaged properly? YES

	Date	Time		
Relinquished by sampler:	11/30/14	13:30	Received by:	COOLER TEMPERATURE:
Relinquished by:	Date	Time	Received by:	For Lab Use Only
Relinquished by:	Date	Time	Received for LABORATORY by:	



E2C INC.

Environmental/Engineering
Consultants

Richard Wehner Const. Co

QUARTERLY GROUNDWATER MONITORING
FIRST QUARTER 1999
390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA
FOR
MR. RICHARD H. WEHNER
March 24, 1999

PREPARED BY:

E_2C, INC.
CIVIC CENTER TOWER
675 NORTH FIRST STREET, FIFTH FLOOR
SAN JOSE, CALIFORNIA, 95112

E2C INC.

Environmental/Engineering Consultants

March 24, 1999
Job Number 5850100

Mr. Richard H. Wehner
18876 Masson Terrace Court
Saratoga, CA 95070

SUBJECT: GROUNDWATER MONITORING REPORT – FIRST QUARTER 1999
390 Martin Avenue
Santa Clara, California

Dear Mr. Klein:

E_2C, Inc. presents herein the results of groundwater sampling conducted at the above-mentioned site (see Figure 1). The scope of work performed consisted of the purging and subsequent sampling of groundwater monitoring wells MW-1, MW-2, MW-4, MW-5, and MW-6 (see Figures 2 and 3). MW-3 was inaccessible and was not sampled this quarter. The scope of work also included the collection of groundwater level readings from the wells for the purpose of determining groundwater gradient and flow-direction.

GROUNDWATER MONITORING

Groundwater samples were obtained from monitoring wells MW-1 and MW-2 on, February 10, 1999 and MW-4, MW-5, and MW-6 on February 4, 1999. Prior to the sampling of wells MW-1 and MW-2, these wells were redeveloped to remove any accumulation of contamination from the well screens. The redevelopment also introduced groundwater into the wells from a larger radius than that which usually occurs during normal sampling operations. During redevelopment operations, approximately 46 and 17 gallons of groundwater were purged from wells MW-1 and MW-2, respectively. Please refer to Well Development Data Sheets presented in Appendix A.

Prior to purging, total depth and depth-to-groundwater measurements were collected from each well. During purging procedures, approximately three well-casing volumes were evacuated from the wells using disposable bailers. Physical groundwater parameters (including electrical conductivity, turbidity, temperature, and pH) were taken until the readings indicated that the wells had stabilized (refer to the Well Monitoring Data Sheets presented in Appendix A).

Once the wells had stabilized, samples were collected using disposable bailers. Sample material was dispensed into bottles appropriate for the required analyses.

Civic Center Tower • 675 North First Street, Fifth Floor • San Jose, CA 95112-5111 • (408) 286-5300 • FAX (408) 286-5333

The bottles were then secured, labeled, and placed on ice in a cooler for transport to Entech Analytical Labs, Inc. of Sunnyvale, California, a State-certified analytical laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), TPH as diesel (TPHd), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and MTBE using EPA Test Methods 8015 and 8020, respectively

RESULTS OF SAMPLE ANALYSES

The results of sample analyses are presented in Table 1 and on Figure 2. Laboratory reports are presented in Appendix B.

GROUNDWATER ELEVATIONS

Groundwater elevations for wells MW-1, MW-2, MW4, and MW-5, which correspond to mean sea level benchmark datum, were acquired on both sampling dates. These elevations are shown in Table 2 and groundwater gradient and flow direction is presented on Figure 3.

Should you have any questions or require supplemental information, please do not hesitate to contact us.

Sincerely,

E_2C, Inc.

Brenda D. McNabb, REA
Senior Project Manager

Kendall W. Price, CEG/REA
President

BDM/dlm

c:\gwmrpts\58501001stqtr99.doc

cc: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Ms. Christine Tulloch

TABLE 1
GROUNDWATER SAMPLE RESULTS

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	Carbon Tet ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - February 25, 1994																
MW-1	0.08	22	81	1,000	4,700	2,900	8,600	3.8	<0.5	5.6	<0.8	<0.4	<5.0	<0.4	<0.4	<0.8
MW-2	120	317	725	700	1,100	2,200	8,200	<0.4	<0.5	3.2	12	<0.4	<5.0	<0.4	<0.4	<0.8
MW-3	24	20	32	1,200	89	790	1,800	<0.4	<0.5	6.9	2.0	0.9	<0.5	<0.4	2.1	1.0
Second Quarter - June 15, 1994																
MW-1	0.47	14	150	6,600	6,500	11,000	19,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-2	26	869	130	7,600	77	2,900	12,000	<0.4	<0.5	<0.4	<0.8	<0.4	<0.5	<0.4	<0.4	<0.8
MW-3	12	15	41	2,100	180	5,400	7,300	<0.4	<0.5	6.5	2.3	<0.4	7.5	0.5	2.8	<0.8
Third Quarter - August 31, 1994																
MW-1	<0.5	5.88	78	3,400	3,000	2,000	6,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	7.01	161	3,600	600	1,800	6,100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<5.0	83	270	<30.0	<30.0	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 30, 1994																
MW-1	<0.05	<5.0	101	5,900	2,500	2,200	7,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.05	7.7	73	2,200	<0.3	560	4,800	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.05	<5.0	26	<0.3	<0.3	1,000	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 27, 1995																
MW-1	11	31	70	4,200	1,200	2,100	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	14	74	170	3,600	1,100	2,800	6,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	3.5	8	24	750	<0.3	1,200	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Second Quarter - May 30, 1995																
MW-1	10	15	45	3,500	1,800	1,200	5,600	<0.5	1.2	<0.5	3.2	<0.5	<0.5	<0.5	1.2	<0.5
MW-2	14	8.5	63	1,100	150	560	2,300	<0.5	3.4	<0.5	2.1	<0.5	<0.5	<0.5	3.4	<0.5
MW-3	0.37	<5.0	5.8	527	7.2	82	28	<0.5	5.0	<0.5	3.0	<0.5	<0.5	<0.5	<0.5	<0.5
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*750*	*0.5*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
Third Quarter - August 10, 1995																
MW-1	9.1	12	57	4,300	1,400	2,400	5,100	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7.4	10	123	740	180	680	1,900	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2.6	<5.0	8.7	730	99	550	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fourth Quarter - November 14, 1995																
MW-1	4.1	25	86	4,100	1,500	<0.5	4,400	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	1.9	27.6	33	2,000	510	1,200	630	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	660	<5.0	6.9	480	23	95	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
First Quarter - February 29, 1996																
MW-1	5.5	14	31	2,300	900	2,500	4,800	---	---	---	---	---	---	---	---	---
MW-2	3.7	14	190	1,500	220	1,700	4,200	-	---	---	---	---	---	---	---	---
MW-3	0.5	<5.0	8.6	320	6.9	46	<0.5	-	---	---	---	---	---	---	---	---
Second Quarter - May 31, 1996																
MW-1	5.6	<5.0	17	1,500	250	1,300	3,200	---	---	---	---	---	---	---	---	---
MW-2	<0.05	<5.0	30	1,300	48	2,000	2,200	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	6.8	620	<0.5	680	<0.5	---	---	---	---	---	---	---	---	---
Third Quarter - August 7, 1996																
MW-1	0.69	27	51	1,300	280	2,200	1,700	---	---	---	---	---	---	---	---	---
MW-2	0.95	<5.0	29	500	<0.5	94	1100	---	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	3.1	510	<0.5	37	9.4	---	---	---	---	---	---	---	---	---
Fourth Quarter - November 27, 1996																
MW-1	1.1	9.0	48	2700	440	2,900	3,200	<5.0	---	---	---	---	---	---	---	---
MW-2	4.6	21	120	2,000	<0.5	3,500	6,100	530	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	11	390	<0.5	640	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	16	160	36	360	<0.5	590	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter – February 14, 1997																
MW-1	0.560	19	<10	190	42	200	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	2.6	64	32	650	<0.5	90	2,000	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	9.0	230	<0.5	190	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	8.7	110	15	190	<0.5	250	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.30	<0.5	<0.5	<0.5	<0.5	15	---	---	---	---	---	---	---	---
Second Quarter - May 6, 1997																
MW-1	1.8	24	7.2	110	35	100	140	<5.0	---	---	---	---	---	---	---	---
MW-2	2.2	80	20	880	<0.5	1300	1,600	<5.0	---	---	---	---	---	---	---	---
MW-3	<0.05	<5.0	0.94	210	<0.5	320	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	2.9	60	16	260	<0.5	240	19	<5.0	---	---	---	---	---	---	---	---
MW-5	<0.05	<5.0	0.21	0.58	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---
Third Quarter - August 8, 1997																
MW-1	0.22	---	3.9	61	<0.5	8.5	6.1	<5.0	---	---	---	---	---	---	---	---
MW-2	0.57	---	15	530	<0.5	990	1,100	<5.0	---	---	---	---	---	---	---	---
MW-3	0.068	---	10	650	<0.5	360	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-4	0.66	---	9.0	370	<0.5	300	<0.5	170	---	---	---	---	---	---	---	---
MW-5	<0.05	---	0.34	<0.5	<0.5	<0.5	<0.5	5.5	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	1.2	0.86	<0.5	<0.5	29	---	---	---	---	---	---	---	---
Fourth Quarter - November 18, 1997																
MW-1	8.1	---	5.0	77	10	29	16	42	---	---	---	---	---	---	---	---
MW-2	17	---	43	1,400	58	1,400	2,100	<300	---	---	---	---	---	---	---	---
MW-3	1.9	---	3.5	200	<5	90	8	75	---	---	---	---	---	---	---	---
MW-4	11	---	7.3	360	<10	300	<10	67	---	---	---	---	---	---	---	---
MW-5	<0.05	---	60	<0.5	<0.5	<0.5	<0.5	8	---	---	---	---	---	---	---	---
MW-6	13	---	<0.05	<0.5	<0.5	<0.5	<0.5	13	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*NE*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

TABLE 1 - CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
First Quarter - April 7, 1998																
MW-1	<.05	---	3.2	44	<0.5	15	3.2	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-2	7.2	---	30.0	1,200	30	2,200	3,000	(<5.0)	---	---	<0.5	---	---	---	---	---
MW-3	<.05	---	2.4	70	<0.5	105	<.05	(9.8)	---	---	<0.5	---	---	---	---	---
MW-4	0.62	---	5.9	220	<0.5	140	<0.5	(28)	---	---	<0.5	---	---	---	---	---
MW-5	<.05	---	1.5	<0.5	<0.5	<.05	1.6	(6.4)	---	---	<0.5	---	---	---	---	---
MW-6	<.05	---	<0.05	1.3	0.71	<0.5	<0.5	(6.2)	---	---	<0.5	---	---	---	---	---
Second Quarter - June 29, 1998																
MW-1	<0.05	---	5.0	97	4.8	15	7.3	200	---	---	---	---	---	---	---	---
MW-2	<0.05	---	420	2,000	98	2,000	3,600	1,200	---	---	---	---	---	---	---	---
MW-3	<0.05	---	5.9	360	<0.5	230	10	160	---	---	---	---	---	---	---	---
MW-4	<0.05	---	6.4	160	<0.5	87	6.6	270	---	---	---	---	---	---	---	---
MW-5	<0.05	---	.053	<0.5	<0.5	<0.5	<0.5	10	---	---	---	---	---	---	---	---
MW-6	<0.05	---	<0.05	<0.5	<0.5	<0.5	<0.5	26	---	---	---	---	---	---	---	---
Third Quarter - September 16, 1998																
MW-1	<50	---	6.9	100	<0.5	15	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-2	1,000	---	150	300	340	2,000	3,700	640 (<100)	---	---	---	---	---	---	---	---
MW-3	<50	---	5.3	670	<0.5	280	8.6	73 (<50)	---	---	---	---	---	---	---	---
MW-4	<50	---	7.4	280	14	130	29	130 (<50)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	40 (61)	---	---	---	---	---	---	---	---
Fourth Quarter - November 4, 1998																
MW-1	<50	---	6.6	20	2.9	7.4	5.8	24 (<5.0)	---	---	---	---	---	---	---	---
MW-2	<50	---	62	3,700	140	2,400	6,700	<300	---	---	---	---	---	---	---	---
MW-3	<50	---	8.8	610	2.6	400	52	31 (<2.5)	---	---	---	---	---	---	---	---
MW-4	<50	---	9.7	230	<2.5	100	5.8	64 (<25)	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	9.3	---	---	---	---	---	---	---	---

TABLE 1 – CONTINUED

Sample No.	TPHd mg/l	TRPH mg/l	TPHg mg/l	Benzene ug/l	Toluene ug/l	Ethyl-benzene ug/l	Xylenes ug/l	MTBE ug/l	Chloro Form ug/l	1,1-DCA ug/l	1,2-DCA ug/l	1,1-DCE ug/l	Meth ug/l	PCE ug/l	TCE ug/l	Freon ug/l
November 30, 1998																
MW-1	350	---	90	76	3.8	16	4.0	<5.0	---	---	---	---	---	---	---	---
MW-2	<50	---	150	7,800	710	2,700	1,900	1,000 (1,090)	---	---	---	---	---	---	---	---
MW-3	<50	---	0.06	0.9	0.7	0.50	2.5	2.4	---	---	---	---	---	---	---	---
MW-4	320	---	2.4	2.0	0.49	0.90	2.4	6.0	---	---	---	---	---	---	---	---
MW-5	<50	---	<0.05	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<0.05	0.57	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
First Quarter - February 4 and 10, 1999																
MW-1	<50	---	0.9	1.2	0.8	2.10	2.6	3.2	---	---	---	---	---	---	---	---
MW-2	<50	---	16	4500	220	3,100	6,500	1,000	---	---	---	---	---	---	---	---
MW-3	NS	---	NS	NS	NS	NS	NS	NS	---	---	---	---	---	---	---	---
MW-4	<50	---	2.3	0.9	0.83	2.37	5.1	2.8	---	---	---	---	---	---	---	---
MW-5	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MW-6	<50	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	---	---	---	---	---	---
MCLs	*NE*	*NE*	*NE*	*1.0*	*100*	*680*	*1,750*	*NE*	*NE*	*5.0*	*0.5*	*6.0*	*NE*	*5.0*	*5.0*	*1,200*

PCE = Tetrachloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
Meth = Methylene Chloride
MTBE = Methyl Tertiary Butyl Ether
NE = Not Sampled – Inaccessible

--- = Samples not analyzed for these analytes.
TCE = Trichloroethene
Freon = Trichlorofluoromethane
MCLs = Maximum Contaminant Levels for drinking water.
NE = MCLs have not been established for these compounds.
( ) = Results of verification analyses for MTBE using EPA Test Method 8240 or 8260.

TABLE 2
WELL MEASUREMENTS

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/14/95	MW-1	'Jnknown	Unknown	17.0'	38.89'	7.71'	31.18'	Northwest	0.014
	MW-2	18'	8'-18'	17.0'	39.28'	8.75'	30.53'		
	MW-3	18'	8'-18'	17.0'	39.35'	9.03'	30.32'		
2/29/96	MW-1	Unknown	Unknown	17.0'	38.89'	7.45'	31.44'	Northwest	0.009
	MW-2	18'	8'-18'	17.0'	39.28'	8.27'	31.01'		
	MW-3	18'	8'-18'	17.0'	39.35'	8.62'	30.73'		
5/31/96	MW-1	Unknown	Unknown	18.20'	38.89'	7.78'	31.11'	North	0.009
	MW-2	18'	8'-18'	17.24'	39.28'	8.46'	30.82'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.15'	30.20'		
8/7/96	MW-1	Unknown	Unknown	18.20'	38.89'	8.19'	30.70'	North	0.005
	MW-2	18'	8'-18'	17.24'	39.28'	8.79'	30.49'		
	MW-3	18'	8'-18'	17.65'	39.35'	9.18'	30.17'		
11/27/96	MW-1	Unknown	Unknown	18.14'	38.89'	8.27'	30.62'	West-NW	0.008
	MW-2	18'	8'-18'	17.25'	39.28'	8.94'	30.34'		
	MW-3	18'	8'-18'	17.63'	39.35'	8.93'	30.42'		
	MW-4	20'	7'-20'	19.84'	---	7.48'	---		
5/6/97	MW-1	Unknown	Unknown	20.35'	38.89'	6.40'	32.49'	North-NW	0.008
	MW-2	18'	8'-18'	16.73'	39.28'	8.04'	31.24'		
	MW-3	18'	8'-18'	17.37'	39.35'	8.70'	30.65'		
	MW-4	20'	7'-20'	18.91'	37.37'	6.88'	30.49'		
	MW-5	20'	5'-20'	18.97'	36.98'	7.99'	28.99'		

TABLE 2 WELL MEASUREMENTS Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
8/8/97	MW-1	Unknown	Unknown	20.60'	38.89'	7.15'	31.74'	Northeast	0.012
	MW-2	18'	8'-18'	16.90'	39.28'	8.18'	31.11'		
	MW-3	18'	8'-18'	17.84'	39.35'	8.99'	30.36'		
	MW-4	20'	7'-20'	18.79'	37.37'	6.66'	30.71'		
	MW-5	20'	5'-20'	18.92'	36.98'	8.24'	28.74'		
	MW-6	20'	5'-20'	19.79'	---	10.09'	---		
11/18/97	MW-1	Unknown	Unknown	20.54'	38.89'	6.95'	31.94'	Northeast	0.008
	MW-2	18'	8'-18'	16.90'	39.28'	8.02'	31.26'		
	MW-3	18'	8'-18'	17.86'	39.35'	8.75'	30.60'		
	MW-4	20'	7'-20'	18.70'	37.37'	7.02'	30.35'		
	MW-5	20'	5'-20'	19.76'	36.98'	8.15'	28.83'		
	MW-6	20'	5'-20'	19.79'	---	9.80'	---		
4/7/98	MW-1	Unknown	Unknown	20.55'	38.89'	7.54'	31.35'	Northwest	0.009
	MW-2	18'	8'-18'	16.98'	39.28'	8.28'	31.00'		
	MW-3	18'	8'-18'	17.80'	39.35'	8.34'	31.01'		
	MW-4	20'	7'-20'	18.70'	37.37'	6.84'	30.53'		
	MW-5	20'	5'-20'	18.79'	36.98'	8.00'	29.98'		
	MW-6	20'	5'-20'	19.80'	---	9.37'	---		

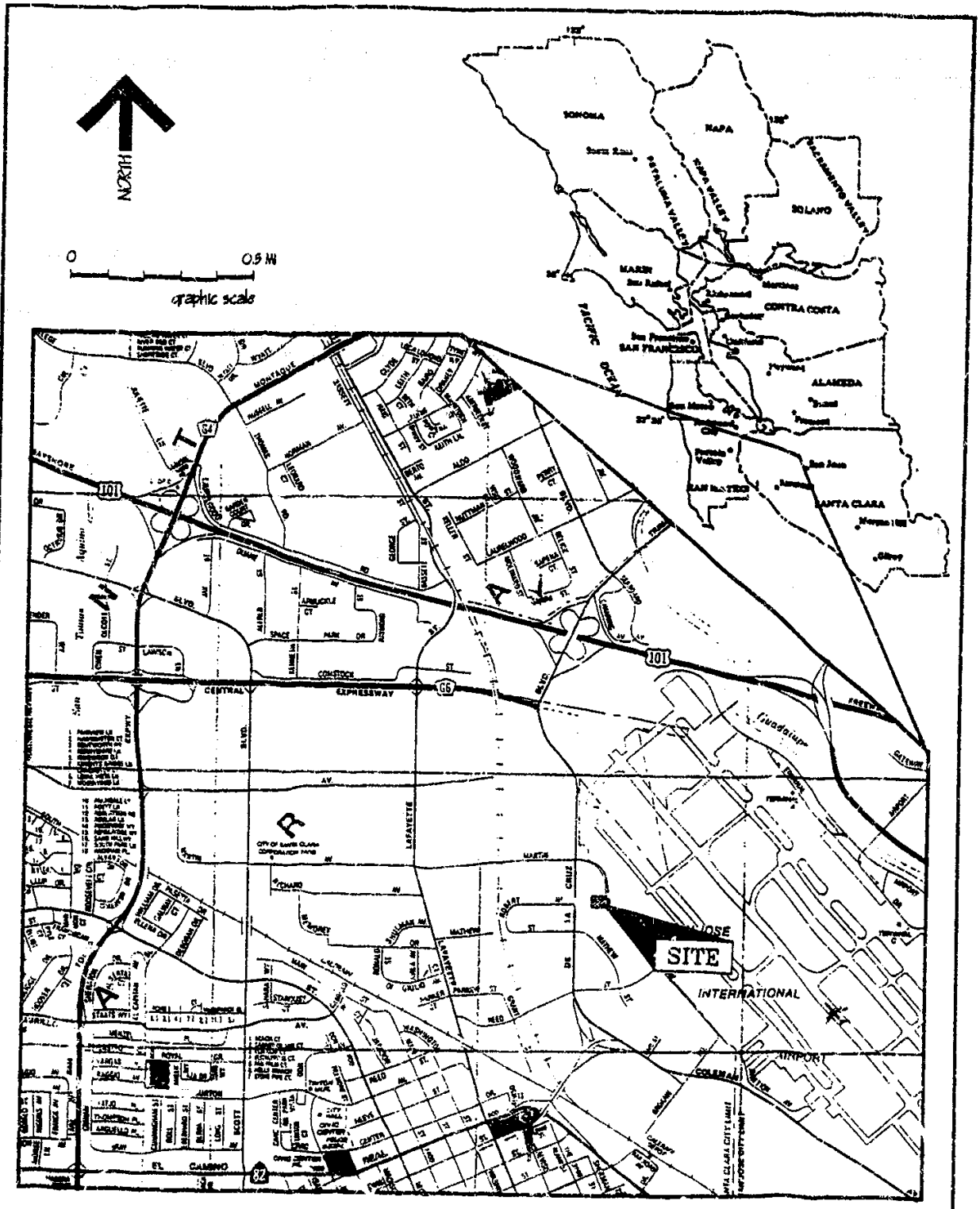
TABLE 2 WELL MEASUREMENTS - Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
6/29/98	MW-1	Unknown	Unknown	20.51'	38.89'	7.63'	31.26'	Northeast	0.011
	MW-2	18'	8'-18'	16.97'	39.28'	8.22'	31.06'		
	MW-3	18'	8'-18'	17.83'	39.35'	8.65'	30.70'		
	MW-4	20'	7'-20'	18.74'	37.37'	7.06'	30.31'		
	MW-5	20'	5'-20'	18.77'	36.98'	8.13'	28.85'		
	MW-6	20'	5'-20'	19.79'	---	9.17'	---		
9/16/98	MW-1	20'	Unknown	20.15'	38.89'	8.05'	30.84'	North - NW	0.004
	MW-2	16'	8'-18'	15.90'	39.28'	8.75'	30.53'		
	MW-3	17'	8'-18'	17.35'	39.35'	9.05'	30.30'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.28'	30.09'		
	MW-5	19'	5'-20'	18.75'	36.98'	8.50'	28.48'		
	MW-6	17'	5'-20'	17.46'	---	9.71	---		
11/4/98	MW-1	20'	Unknown	20.21	38.89'	7.93'	30.96'	North - NW	0.004
	MW-2	16'	8'-18'	15.98'	39.28'	8.60'	30.68'		
	MW-3	17'	8'-18'	17.24	39.35'	8.94'	30.41'		
	MW-4	19'	7'-20'	18.89'	37.37'	7.22'	30.15'		
	MW-5	19'	5'-20'	18.78'	36.98'	8.39'	28.59'		
	MW-6	17'	5'-20'	17.50	---	9.80'	---		

TABLE 2 WELL MEASUREMENTS - Continued

DATE	WELL NO.	WELL DEPTH	SCREEN INTERVAL	MEASURED DEPTH TO BOTTOM	CASING ELEVATION (msl)	DEPTH TO WATER	WATER ELEVATION	FLOW DIRECTION	GRADIENT (ft/ft)
11/30/98	MW-1	20'	Unknown	20.15'	38.89'	7.69	31.20'	North - NW	0.004
	MW-2	16'	8'-18'	16.89'	39.28'	8.29'	30.99'		
	MW-3	17'	8'-18'	17.36'	39.35'	8.75'	30.60'		
	MW-4	19'	7'-20'	18.80'	37.37'	7.00'	30.37'		
	MW-5	19'	5'-20'	18.76'	36.98'	8.00'	28.98'		
	MW-6	17'	5'-20'	17.47'	---	9.28'	---		
2/4/99	MW-1	20'	Unknown	20.38'	38.89'	7.40'	31.49'	North - NW	0.008
	MW-2	16'	8'-18'	15.89'	39.28'	8.00'	31.28'		
	MW-3	17'	8'-18'	WI	39.35'	WI	WI		
	MW-4	19'	7'-20'	18.87'	37.37'	6.93'	30.44'		
	MW-5	19'	5'-20'	18.78'	36.98'	7.98'	29.00'		
	MW-6	17'	5'-20'	17.50'	---	9.35'	---		

FIGURES



Source: California AAA Map, 1993 - Northern San Jose

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	SITE LOCATION MAP 390 Martin Avenue Santa Clara, California	JOB NO: 5850100 DRAWN BY: C. ZARICI APPROVED BY: K. PRICE	FIGURE 1

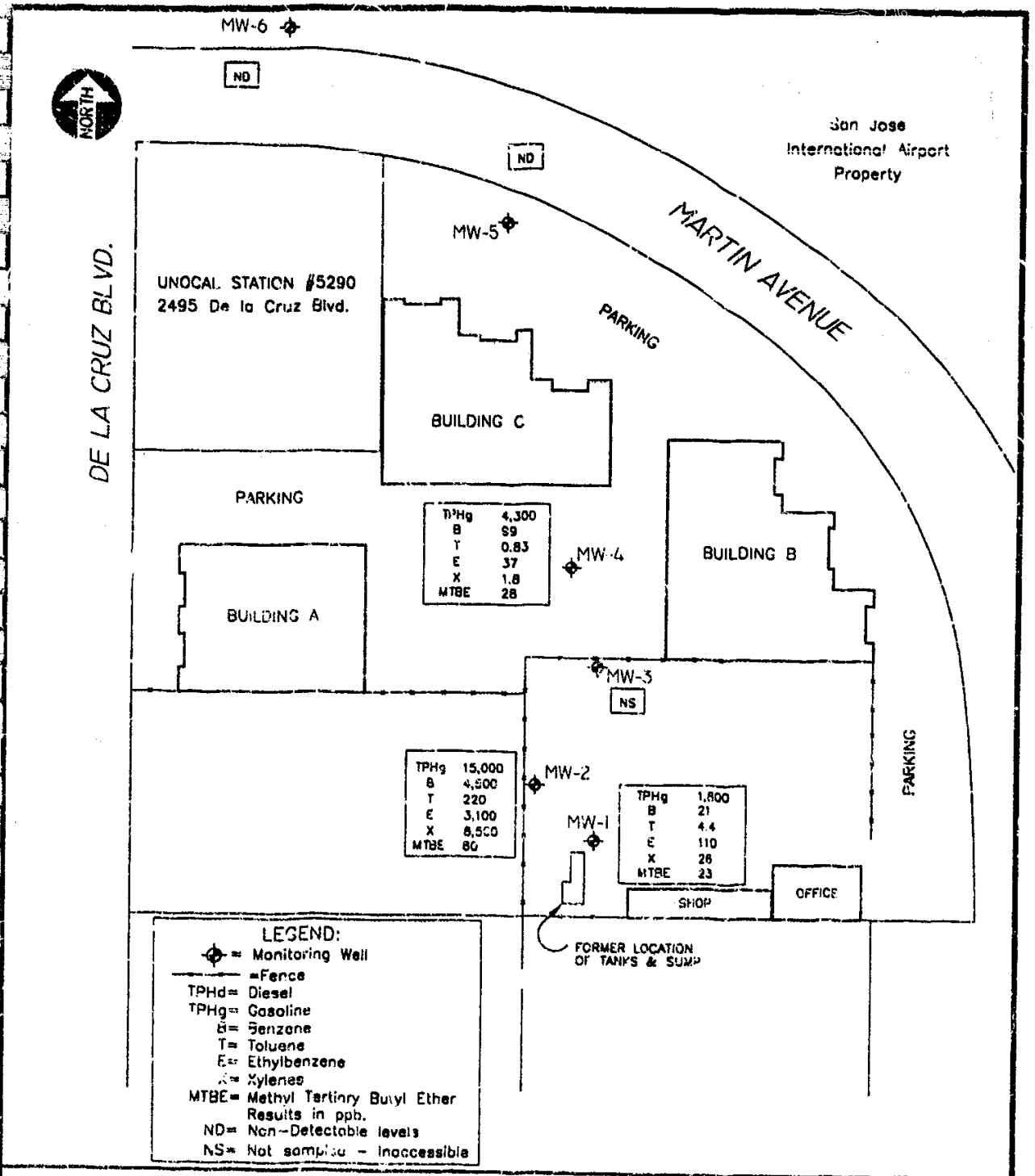


FIGURE 2 - SITE PLAN

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	2/4 and 2/10/99 390 MARTIN AVENUE Santa Clara, California	Project Number E 350100	Feb 1999

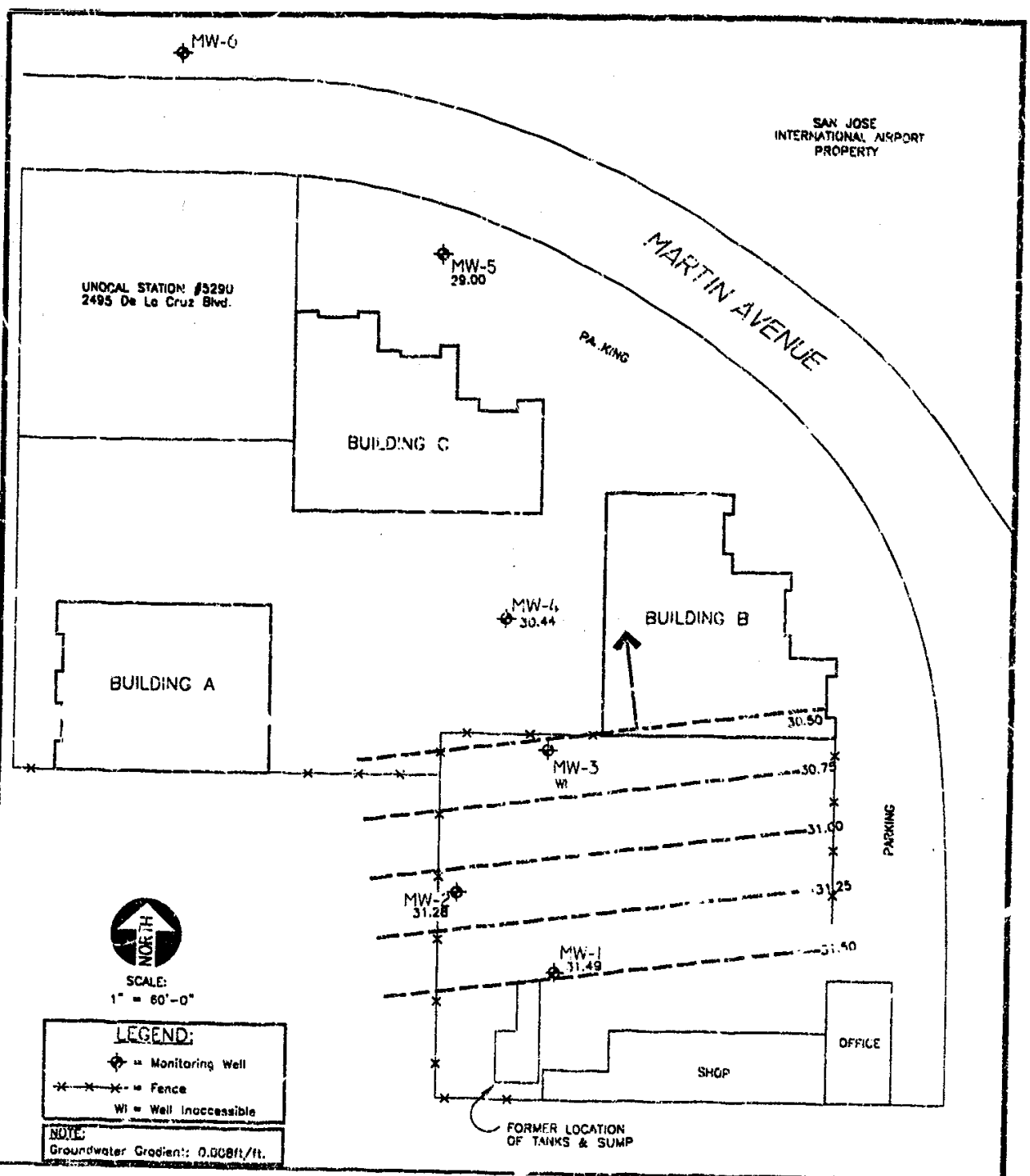


FIGURE 3 - GROUNDWATER GRADIENT CONTOUR MAP

Environmental/Engineering Consultants Civic Center Tower 675 North First Street, Suite 500 San Jose, CA 95112	Project Location 390 MARTIN AVENUE Santa Clara, California	Project Number 850100	Feb 1999

APPENDIX A
WELL MONITORING DATA SHEETS

WELL DEVELOPMENT DATA SHEET

Project #: 990210-C 3	Client: E2C
Developer: CM	Date Developed: 2-10-99
Well I.D.: MW 1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 20.38 After	Depth to Water: Before 7.40 After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):

$(12 \times (d^2/4) \times \pi)/231$

Where
12 = in/ft
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 5.87

1 Case Volume	x	Specified Volumes	=	gallons
2.0	x	10	=	20

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☑ Suction Pump ☐

Type of Installed Pump _____ _____

Other equipment used _____

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
						surged 10 min
1318	61.0	7.2	1458	>1000	2.0	lt gray w/ fine sediment
1322	62.1	7.1	1420	>1000	4	" odor
1328	62.9	7.0	1419	>1000	6	"
1334	63.1	7.0	1416	>1000	8	"
1338	63.2	7.0	1420	>1000	10	less sediment
1340	64.4	6.9	1423	>1000	12	surged + bounced
1342	64.8	6.9	1425	>1000	14	less turbidity
1344	65.0	6.8	1426	>1000	16 ✓	light gray / odor
1346	65.0	6.8	1410	>1000	18	"
1348	65.4	6.8	1421	>1000	~0	surged + bounced
1350	64.8	6.8	1412	>1000	22	
1352	64.3	6.8	1410	>1000	24	heavy gray w/ odor
1354	65.0	6.8	1411	>1000	26	"
1356	65.0	6.8	1410	>1000	28	"
1358	65.1	6.8	1410	>1000	30	"
1400	64.1	6.8	1412	>1000	32	"
1402	64.8	6.8	1411	>1000	34	— less turbidity

Did Well Dewater? N If yes, note above. Gallons Actually Evacuated: 40

WELL MONITORING DATA SHEET

Project #: 990210-C-3	Client: E-2C
Sampler: CM	Start Date: 2-10-99
Well I.D.: MW 1	Well Diameter: 2 3 4 6 8
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / Disposable Bailer / Middleburg X / Electric Submersible / Extraction Pump / Other:

Sampling Method: Bailer / Disposable Bailer X / Extraction Port / Other:

2 (Gals.) X	3	=	6.0 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1412	65.0	6.8	1413	>200	2	
1414	65.6	6.8	1413	>200	4	
1416	64.8	6.8	1411	>200	6	

Did well dewater? Yes (N)

Gallons actually evacuated: 6.0

Sampling Time: 1420

Sampling Date: 2-10-99

Sample I.D.: MW 1

Laboratory: Entech

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:

Equipment Blank I.D.: @ ---

Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL DEVELOPMENT DATA SHEET

Project #: 990210-C3	Client: EZC
Developer: CM	Date Developed:
Well I.D.: MW 2	Well Diameter: (circle one) (2) 3 4 6 ____
Total Well Depth: Before 15.89 After	Depth to Water: Before 8.00 After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):

(12 × (d²/4) × π)/231

Where
12 = in/foot
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.66
6"	= 1.47
10"	= 4.08
12"	= 5.87

1.3	×	10	=	13
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☑ Suction Pump ☐

Type of Installed Pump _____

Other equipment used _____

TIME	TEMP. (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS: Surged well 10 min
1237	61.3	7.5	1582	>200	1.5	Blackish grey w/odor
1241	62.3	7.6	1475	>200	3.0	" fine sands
1243	63.0	7.4	1636	>200	4.0	"
1246	63.2	7.3	1648	>200	5.0	"
1249	62.8	7.1	1601	>200	7.0	Turbidity decreasing
1254	61.8	7.0	1590	>200	8.5	surged + bailed
1259	61.3	6.8	1448	>200	10.0	"
1301	61.8	6.8	1440	112	11	No sediment
1302	61.9	6.8	1442	65	12	↓
1304	62.8	6.8	1436	59	13	

Did Well Dewater? If yes, note above. Gallons Actually Evacuated:

WELL MONITORING DATA SHEET

Project #: 990210-c3	Client: Exc
Sampler: CM	Start Date: 2-10-99
Well I.D.: mw2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 15.89	Depth to Water: 8.00
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / Disposable Bailer / Muddleburg ✓ / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / Disposable Bailer ✕ / Extraction Port / Other: ___

1 Case Volume		Specified Volumes	=	Calculated Volume	
1.3	(Gals.) X	3	=	3.9	Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1304	62.3	6.8	1415	57	1.5	odor
1308	61.8	6.7	1422	50	3.0	↓
1310	62.0	6.7	1421	50	4.0	↓

Did well dewater? Yes (No)	Gallons actually evacuated: 4.0
Sampling Time: 1312	Sampling Date: 2-10-99
Sample I.D.: mw2	Laboratory: Entech
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990204-P1	Client: EZC
Sampler: Paul	Start Date: 2-4-99
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer ✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer ✓ / Disposable Bailer / Extraction Port / Other: _____

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
(2")	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
			INACCESSIBLE			
			COVERED BY RAILROAD			

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 2-4-99

Sample I.D.: MW-3 Laboratory: Entech

Analyzed for: ~~TPH-G~~ BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990204-P1	Client: E2C
Sampler: Paul	Start Date: 2-4-99
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8
Total Well Depth: 18.87	Depth to Water: 6.93
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer ✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other:

Sampling Method: Bailer ✓ / Disposable Bailer / Extraction Port / Other:

1.9 (Gals.) X 3 = 5.7 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
(2")	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
8:36	63.2	7.1	1400	>200	2	
8:39	63.0	7.0	1375	>200	4	
8:42	62.8	7.0	1300	>200	6	

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Time: 8:47 Sampling Date: 2-4-99

Sample I.D.: MW-4 Laboratory: Entech

Analyzed for: (TPH-G BTEX MTBE TPH-D) Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990204-P1	Client: E2C
Sampler: Paul	Start Date: 2-4-99
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.78	Depth to Water: 7.98
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer ✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer ✓ / Disposable Bailer / Extraction Port / Other: ___

1.7 (Gals.) X 3 = 5.1 Gals.
1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
(2")	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
9:05	62.4	7.1	1875	>200	1.5	
9:08	62.2	7.1	1800	7200	3.0	
9:12	61.8	7.0	1775	7200	5.0	

Did well dewater? Yes (No) Gallons actually evacuated: 5.0

Sampling Time: 9:17 Sampling Date: 2-4-99

Sample I.D.: MW-5 Laboratory: Entech

Analyzed for: (TPH-G) BTEX MTBE ~~TPH-D~~ Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 990204-P1	Client: E2C
Sampler: Paul	Start Date: 2-4-99
Well I.D.: MW-6	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth: 17.50	Depth to Water: 9.35
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer ✓ / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: Pin Bailer

Sampling Method: Bailer ✓ / Disposable Bailer / Extraction Port / Other: Pin Bailer

.20 (Gals.) X	3	= .60 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
9:27	63.2	7.0	2106	>200	.20	
9:40	63.0	7.1	2000	>200	.40	
9:52	62.8	7.1	2000	>200	.60	

Did well dewater? Yes (No)	Gallons actually evacuated: .60
Sampling Time: 10:15	Sampling Date: 2-4-99
Sample I.D.: MW-6	Laboratory: Entech
Analyzed for: (TPH-G BTEX MTBE TPH-D)	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B
LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Entech Analytical Labs, Inc.

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525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 2/19/99
Date Received: 2/11/99
Project: 5850100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2							
Sample Date	2/10/99			2/10/99							
Sample Time	14:20			15:12							
Lab #	G3685			G3686							
	Result	DF	DLR	Result	DF	DLR				PQL	Method
Results in µg/Liter:											
Analysis Date	2/17/99			2/17/99							
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50				50	8015M
Analysis Date	2/12/99			2/12-2/17/99							
TPH-Gas	**1,300**	1.0	50	**15,000**	10	500				50	8015M
MTBE	**23**	1.0	5.0	**80**	10	50				5.0	8020
Benzene	**21**	1.0	0.50	**4,500**	40	20				0.50	8020
Toluene	**4.4**	1.0	0.50	**730**	40	20				0.50	8020
Ethyl Benzene	**110**	1.0	0.50	**3,100**	40	20				0.50	8020
Xylenes	**26**	1.0	0.50	**8,500**	40	20				0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs. Inc.

525 Del Rey Avenue, Suit
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG290217
Matrix: Water
Units: µg/L

Date Analyzed: 12/17/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	41	103	41	102	1.3	25	79-116
Toluene	8020	<0.50	40	ND	41	103	41	103	0.1	25	80-116
Ethyl Benzene	8020	<0.50	40	ND	42	104	41	103	0.9	25	82-115
Xylenes	8020	<0.50	120	ND	125	104	125	104	0.3	25	82-116
Gasoline	8015	<50.0	500	ND	484	97	523	105	7.9	25	76-123

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2990212
Matrix: Water
Units: µg/L

Date Analyzed: 02/12/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	44	110	40	99	10.8	25	79-116
Toluene	8020	<0.50	40	ND	44	109	39	98	10.5	25	80-116
Ethyl Benzene	8020	<0.50	40	ND	43	108	39	98	9.5	25	82-115
Xylenes	8020	<0.50	120	ND	130	108	118	98	9.8	25	82-116
Gasoline	8015	<50.0	500	ND	529	106	520	104	1.7	25	76-123

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY ETS # 990210-C3

CLIENT E2C

SITE Hopkins & Smalley
390 Martin Ave
Santa Clara CA

SAMPLE I.D.	2/10		MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-G/BTEX/MTBE	TPH-DIESEL
MW1	↓	1120	W	5		X	X
MW2	↓	1312	W	5		X	X

LAB ENTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
Invoice & Report To:
E2C
ATTN: Brenda McNabb
Proj # SB50100

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			G3685
			G3686

SAMPLING COMPLETED	DATE	TIME
	2/10	1430

SAMPLING PERFORMED BY Cassidy

RESULTS NEEDED NO LATER THAN Rush

		DATE	TIME			DATE	TIME
RELEASED BY		2/11/99	1215	RECEIVED BY	JEFF GRIMES	2/11/99	1215
RELEASED BY	JEFF GRIMES	2/11/99	1240	RECEIVED BY		2/11/99	1240 pm
RELEASED BY		DATE	TIME	RECEIVED BY		DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

E2C, Inc.
675 North 1st Street, Suite 500
San Jose, CA 95112
Attn: Brenda McNabb

Date: 2/12/99
Date Received: 2/5/99
Project: 585-100
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-4			MW-5			MW-6				
Sample Date	2/4/99			2/4/99			2/4/99				
Sample Time	8:47			9:17			10:15				
Lab #	G3272			G3273			G3274				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	2/8/99			2/8/99			2/8/99				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
Analysis Date	2/9/99			2/8/99			2/8/99				
TPH-Gas	**4,300**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
MTBE	**28**	1.0	5.0	**ND**	1.0	5.0	**ND**	1.0	5.0	5.0	8020
Benzene	**99**	1.0	0.50	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Toluene	**0.83**	1.0	0.50	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Ethyl Benzene	**37**	1.0	0.50	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020
Xylenes (total)	**1.8**	1.0	0.50	**ND**	1.0	0.50	**ND**	1.0	0.50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #I-2346)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4990208
Matrix: Water
Units: µg/L

Date Analyzed: 02/08/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	SP % R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	37	**92**	38	**94**	2.8	25	81-111
Toluene	8020	<0.50	40	ND	37	**92**	38	**96**	3.9	25	79-112
Ethyl Benzene	8020	<0.50	40	ND	37	**92**	37	**93**	1.4	25	79-112
Xylenes	8020	<0.50	120	ND	111	**93**	114	**95**	2	25	79-113
Gasoline	8015	<50.0	500	ND	404	**81**	379	**76**	6.5	25	73-114

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY: STJ # 990204-P2

CLIENT: E2C

SITE: Melino
1039 Commercial St
San Jose, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT: TPH-G (8015) / BTEX / MTBE (8020); TPH-D (8015); TBA-DIESEL

LAB: ONTECH DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION

SPECIAL INSTRUCTIONS
INVOICE & REPORT TO
E2C
ATTN: BRENDA McNABB
PROJ # 115-0700

SAMPLE I.D.		MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1R	2/4 13:14	W	5				G3268
MW-3	13:37						G3269
MW-4	14:00						G3270
MW-8	12:45						G3271

SAMPLING COMPLETED: DATE 2/4/99 TIME 13:00
SAMPLING PERFORMED BY: Paul Senna

RESULTS NEEDED NO LATER THAN: PER CLIENT

RELEASED BY		DATE 2-5-99	TIME 14:50	RECEIVED BY	DATE 2:50	TIME 2-5-99
RELEASED BY		DATE 2/5/99	TIME 3:50	RECEIVED BY	DATE	TIME
RELEASED BY		DATE	TIME	RECEIVED BY	DATE 2/5/99	TIME 4pm

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

RECEIVED
MAR 25 1999
SANTA CLARA VALLEY
WATER DISTRICT

Chevron

Chevron Products Company
6001 Bollinger Canyon Rd. Bldg. L
P. O. Box 6004
San Ramon, CA 94583-0904

Site Assessment & Remediation
Phone (925) 842-9500
Fax (925) 842-8370

December 17, 1999

Ms. Donna Drogos
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Re: Former Chevron Station #9-1538
13980 Blossom Hill Road, Los Gatos

Dear Ms. Drogos:

Please find enclosed the report prepared for Chevron by RRM, Inc. dated November 29, 1999 presenting the results of well destruction activities performed as part of case closure. Three of the on-site wells were destroyed by pressure grouting, one by drilling. If you have any questions regarding this site, please feel free to call me at (925) 842-8953.

Sincerely,

Mark R. Lafferty
Project Manager

Attachment

cc: Mr. Bernard Mirkin & Mr. Ahron Bogomilsky,
542 Lakeside Dr., Suite 2A, Sunnyvale, CA 94086
Ms. Bette Owen, Chevron (w/o attachment)
Mr. Joe Muzzio, RRM (w/o attachment)
File (91538R32.DOC)

CLOSED CASES

RRM

engineering contracting firm

November 29, 1999
Project: AA63-9-1538

Mr. Mark Lafferty
Chevron Products Company
P.O. Box 6004
San Ramon, California 94583-0804

Re: Well Destruction Documentation
Former Chevron Station 9-1538
13980 Blossom Hill Road
Los Gatos, California

Dear Mr. Lafferty.

This letter, prepared on behalf of Chevron Products Company (Chevron), documents the destruction of four groundwater monitoring wells, by RRM, Inc. (RRM), at the referenced site. The wells were destroyed according to the requirements of the State of California Well Standards Bulletin 74-81, Chapter II, Part III, and Section 23, and the local requirements of the Santa Clara Valley Water District (SCVWD).

Well Destruction Activities

Prefield: Well destruction permits were obtained from the SCVWD, and are included as Attachment A. Due to the location of existing structures on the site which would prohibit drilling out the wells, permission was given from the SCVWD to pressure grout three of the four wells. Prior to field activities, the property owner was contacted for permission to enter to the property.

Field Activities: Field activities were completed on October 27, and November 13, 1999, and included destroying three wells by pressure grouting and one well by drilling. The well destruction activities were supervised by a RRM staff geologist under the supervision of Joseph Muzzio of RRM, a certified engineering geologist. The well destructions were performed by Exploration Geoservices, Inc., of San Jose, California, a state-licensed drilling contractor. Well and destruction specifications are presented in Table 1.

3912 Portola Drive / Suite B / Santa Cruz CA 95062-5267 / TEL. 831.475.8141 / FAX. 831.475.8249

Pressure Grouting Procedure: Prior to well destruction, each monitoring well was sounded, and determined to be free of obstructions to its full depth. Each well was then sealed by injecting cement grout into the well casing through a tremie pipe. A cap was then placed on top of the casing with an opening for a small diameter tremie pipe. Cement grout was then pumped under an approximate pressure of 25 pounds per square inch, until refusal of the sealing material.

Drill Out Procedure: Prior to well destruction, the monitoring well was sounded, and determined to be free of obstructions to its full depth. The well casing and seal for the well was then removed using 8-inch diameter hollow-stem augers. Following removal of these materials, the hole was sealed to the surface with cement grout.

Inspection: The well destructions were observed by a SCVWD well inspector.

Drill Spoils: Less than one cubic yard of drill cuttings were generated by the well destructions. The drill spoils were stockpiled on site pending consideration of disposal options. A four part composite sample was collected from the stockpile and submitted for chemical analyses to Sequoia Analytical Laboratories in Morgan Hill, California. Certified analytical reports are presented in Attachment B. On November 29, 1999 the stockpile was transported by IWM, Inc., of Milpitas, California, to the Vasco Road disposal facility in Livermore, California.

Completion: RRM has submitted a Department of Water Resources Form 188 (Water Well Drillers Report) for each of the destroyed wells.

Closing

RRM appreciates this opportunity to provide our services to Chevron. Should you have any questions regarding this letter please do not hesitate to call me at (831) 475-8141.

Sincerely,

RRM, Inc.

REGISTERED GEOLOGIST
JOSEPH J. MUZZIO
No. 1672
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Joseph Muzzio, CEG
Project Manager

Attachments: Table 1 - Well Destruction Summary
Attachment A - Well Destruction Permits
Attachment B - Certified Analytical Reports

Table 1

Well Destruction Summary
Former Chevron Service Station 9-1538
13980 Blossom Hill Road, Los Gatos, California

Well ID	Well Destruction Method	Total Well Depth	Well Diameter	Notes
C-2	Drill out to 45 feet	45 feet	3-inch	Groundwater Monitoring Well
C-3	Pressure Grout	35 feet	3-inch	Groundwater Monitoring Well
C-4	Pressure Grout	35 feet	3-inch	Groundwater Monitoring Well
C-5	Pressure Grout	35 feet	3-inch	Groundwater Monitoring Well

ATTACHMENT A
WELL DESTRUCTION PERMITS

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (10-16-96) (MP 4.00)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO: 99W0773

Property Owner: Bernard Mirkin etal	Well Owner (if different): Chevron Products Co.	Name of Business/Residence at Well Site: Commercial Property
Property Owner's Address: 542 Lakeside Dr. No 2A	Well Owner's Address: P.O. Box 5004	Address of Well Site: 13980 Blossom Hill Rd.
City, State, Zip: Sunnyvale CA 94086	City, State, Zip: San Ramon, CA 94583	City, State, Zip: Los Gatos, CA
Telephone No: 408-247-5155	Telephone No: 925-842-8953	Assessor's Parcel Number of Well Site: Book: 567 Page: 64 Parcel: 010
Consulting Company Name: KRM Inc.	Drilling Company Name: Exploration Geoservice	
Address: 3912 Portola Dr. Suite B	Address: 1535 Industrial Ave.	
City, State, Zip: Santa Cruz CA 95062	City, State, Zip: San Jose CA 95112	
Telephone No: 831-475-8141	Telephone: 408-280-6822	C-57 License No: 484288

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

08S01E18M003

WELL INFORMATION

Well Registration No: 84W0943	Owner/Consultant Well No: C-2 (WT-1)	Original Well Construction Permit No: 84W0943
Well Casing Depth: 40'	Total Boring Depth: 45'	Well Casing Diameter: 3"

Well Description:

☒ Vertical Well ☐ Dewatering Well ☐ Elevator Shaft ☐ Multiple Casing ☐ Horizontal Well ☐ Pit Well

Well Type: check all that apply

☐ Water Producing (supply or extraction): ☐ Contamination Cleanup ☐ Agricultural ☐ Domestic ☐ Municipal & Industrial

☐ Vapor Extraction

☒ Monitoring: ☐ Inclinometer ☒ Groundwater ☐ Vadose ☐ Piezometer ☐ Interface ☐ Suction Lysimeter ☐ Seismic

☐ Injection/Infiltration: ☐ Contamination Cleanup ☐ Reclaimed Water ☐ Air Sparging

☐ Cathodic Protection

ADDITIONAL QUESTIONS FOR WATER PRODUCING WELLS

Does the well have:

1. Outer conductor casing? ☐ Yes ☐ No
2. Annular cement seal outside of casing at surface? ☐ Yes ☐ No
3. A S.C.V.W.D. water meter attached: ☐ Yes ☐ No

Type of Original Drilling Method:

☐ Rotary ☐ Cable-Tool ☐ Hand Dug Pit Well ☐ Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8221.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (10-15-96) (DP 4-001)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO: 99D0774

Property Owner: Bernard Mirkin	Well Owner (if different): Chevron Products Co.	Name of Business/Residence at Well Site: Commercial Property
Property Owner's Address: 542 Lakeside Dr. No2A	Well Owner's Address: P.O. Box 5004	Address of Well Site: 13980 Blossom Hill Rd.
City, State, Zip: Sunnyvale CA 94086	City, State, Zip: San Ramon, CA 94583	City, State, Zip: Los Gatos, CA
Telephone No: 408-267-5755	Telephone No: 925-842-8953	Assessor's Parcel Number of Well Site: Book: 567 Page: 64 Parcel: 010

Consulting Company Name: RRM Inc.	Drilling Company Name: Exploration Geoservice	
Address: 3912 Portola Dr. Suite B	Address: 1535 Industrial Ave.	
City, State, Zip: Santa Cruz CA 95062	City, State, Zip: San Jose CA 95112	
Telephone No: 831-475-8141	Telephone: 408-280-6822	C-57 License No: 484288

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

WELL INFORMATION

Well Registration No: 08S01E18M006	Owner/Consultant Well No: C-3	Original Well Construction Permit No: 87W0346
Well Casing Depth: 35'	Total Boring Depth: 35'	Well Casing Diameter: 3"

Well Description:

☒ Vertical Well ☐ Dewatering Well ☐ Elevator Shaft ☐ Multiple Casing ☐ Horizontal Well ☐ Pit Well

Well Type: check all that apply.

☐ Water Producing (supply or extraction): ☐ Contamination Cleanup ☐ Agricultural ☐ Domestic ☐ Municipal & Industrial

☐ Vapor Extraction

☒ Monitoring: ☐ Inclinometer ☒ Groundwater ☐ Vadose ☐ Piezometer ☐ Interface ☐ Suction Lysimeter ☐ Seismic

☐ Injection/Infiltration: ☐ Contamination Cleanup ☐ Reclaimed Water ☐ Air Sparging

☐ Cathodic Protection

ADDITIONAL QUESTIONS FOR WATER PRODUCING WELLS

Does the well have:

1. Outer conductor casing? ☐ Yes ☐ No
2. Annular cement seal outside of casing at surface? ☐ Yes ☐ No
3. A S.C.V.W.D. water meter attached: ☐ Yes ☐ No

Type of Original Drilling Method:

☐ Rotary ☐ Cable-Tool ☐ Hand Dug Pit Well ☐ Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (7-18-86) (DP 4-98)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO: 1900775

Property Owner: Bernard Mirkin	Well Owner (if different): Chevron Products Co.	Name of Business/Residence at Well Site: Commercial Property
Property Owner's Address: 542-Lakeside Dr. No2A	Well Owner's Address: P.O. Box 5004	Address of Well Site: 13980 Blossom Hill Rd.
City, State, Zip: Sunnyvale CA 94089	City, State, Zip: San Ramon, CA 94583	City, State, Zip: Los Gatos CA
Telephone No: 408-267-5755	Telephone No: 925-842-8953	Assessor's Parcel Number of Well Site: Book: 567 Page: 64 Parcel: 010
Consulting Company Name: RRM Inc.	Drilling Company Name: Exploration Geoservice	
Address: 3912 Portola Dr. Suite B	Address: 1535 Industrial Ave.	
City, State, Zip: Santa Cruz CA 95062	City, State, Zip: San Jose CA 95112	
Telephone No: 831-475-8141	Telephone: 408-280-6822	C-57 License No: 484288

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

WELL INFORMATION

Well Registration No: 08S01E18M007	Owner/Consultant Well No: C-4	Original Well Construction Permit No: 87W0347
Well Casing Depth: 35'	Total Boring Depth: 35'	Well Casing Diameter: 3"

Well Description:

☒ Vertical Well ☐ Dewatering Well ☐ Elevator Shaft ☐ Multiple Casing ☐ Horizontal Well ☐ Pit Well

Well Type: check all that apply

☐ Water Producing (supply or extraction): ☐ Contamination Cleanup ☐ Agricultural ☐ Domestic ☐ Municipal & Industrial

☐ Vapor Extraction

☒ Monitoring: ☐ Inclinometer ☒ Groundwater ☐ Vadose ☐ Piezometer ☐ Interface ☐ Suction Lysimeter ☐ Seismic

☐ Injection/Infiltration: ☐ Contamination Cleanup ☐ Reclaimed Water ☐ Air Sparging

☐ Cathodic Protection

ADDITIONAL QUESTIONS FOR WATER PRODUCING WELLS

Does the well have:
1. Outer conductor casing? ☐ Yes ☐ No
2. Annular cement seal outside of casing at surface? ☐ Yes ☐ No
3. A S.C.V.W.D. water meter attached: ☐ Yes ☐ No

Type of Original Drilling Method:

☐ Rotary ☐ Cable-Tool ☐ Hand Dug Pit Well ☐ Other: _____

IMPORTANT: A minimum 24 hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (10-16-96) (DP 4-901)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO: 97D0786

Property Owner: Bernard Michin	Well Owner (if different): Chevron Products Co.	Name of Business/Residence at Well Site: Commercial Property
Property Owner's Address: 542-Lakeside Dr. No2A	Well Owner's Address: P.O. Box 5004	Address of Well Site: 13990 Blossom Hill Rd.
City, State, Zip: Sunnyvale CA 94089	City, State, Zip: San Ramon, CA 94583	City, State, Zip: Los Gatos CA
Telephone No: 408-267-5755	Telephone No: 925-842-8953	Assessor's Parcel Number of Well Site: Book: 567 Page: 64 Parcel: 010
Consulting Company Name: RRM Inc.	Drilling Company Name: Exploration Geoservice	
Address: 3912 Portola Dr. Suite B	Address: 1535 Industrial Ave.	
City, State, Zip: Santa Cruz CA 95062	City, State, Zip: San Jose CA 95112	
Telephone No: 831-475-8141	Telephone: 408-280-6822	C-57 License No: 484288

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

WELL INFORMATION

Well Registration No: 08S01E18M005	Owner/Consultant Well No: C-5	Original Well Construction Permit No: 93W1330
Well Casing Depth: 35'	Total Boring Depth: 35'	Well Casing Diameter: 3"

Well Description:

☒ Vertical Well ☐ Dewatering Well ☐ Elevator Shaft ☐ Multiple Casing ☐ Horizontal Well ☐ Pit Well

Well Type: check all that apply

☐ Water Producing (supply or extraction): ☐ Contamination Cleanup ☐ Agricultural ☐ Domestic ☐ Municipal & Industrial

☐ Vapor Extraction

☒ Monitoring: ☐ Inclinometer ☒ Groundwater ☐ Vadose ☐ Piezometer ☐ Interface ☐ Suction Lysimeter ☐ Seismic

☐ Injection/Infiltration: ☐ Contamination Cleanup ☐ Reclaimed Water ☐ Air Sparging

☐ Cathodic Protection

ADDITIONAL QUESTIONS FOR WATER PRODUCING WELLS

Does the well have:
1. Outer conductor casing? ☐ Yes ☐ No
2. Annular cement seal outside of casing at surface? ☐ Yes ☐ No
3. A S.C.V.W.D. water meter attached: ☐ Yes ☐ No

Type of Original Drilling Method:

☐ Rotary ☐ Cable-Tool ☐ Hand Dug Pit Well ☐ Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

ATTACHMENT B
CERTIFIED ANALYTICAL REPORTS

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-0600
FAX (408) 782-6308

November 18, 1999

RECEIVED
NOV 22 1999

Joe Muzzio
RRM, Inc. (Chev)
3912 Portola Dr., Suite 8
Santa Cruz, CA 95062

RE: Chevron 9-1538/M911551

Dear Joe Muzzio

Enclosed are the results of analyses for sample(s) received by the laboratory on November 16, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wendy Bonnes
Project Manager

CA ELAP Certificate Number 1210

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Inc. (Chev)	Project:	Chevron 9-1538 (13980 Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	AA63	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

ANALYTICAL REPORT FOR M911551

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C-2-S2-Comp	M911551-01	Soil	11/13/99
C-2-S2-Comp	M911551-01	Water	11/13/99

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Inc. (Chev)	Project:	Chevron 9-1538 (13980 Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	AA63	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
C-2-S2-Comp			**M911551-01**				**Soil**	
Lead	9110592	11/18/99	11/18/99	EPA 6010A	5.00	**5.15**	mg/kg	D

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Inc. (Chev)	Project:	Chevron 9-1538 (1398) Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	AA63	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT
Sequoia Analytical - San Carlos

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C-2-S2-Comp			**M911551-01**				**Water**	
Purgeable Hydrocarbons as Gasoline	9110112	11/16/99	11/17/99		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*60.0-140*		*101*	%	

Sequoia Analytical

835 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Ir. (Chev)	Project:	Chevron 9-1538 (13980 Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	AA63	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

Total Metals by EPA 6000/7000 Series Methods/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9110592	**Date Prepared: 11/18/99**					**Extraction Method: EPA 3050B**				
Blank	**9110592-BLK1**									
Lead	11/18/99			**ND**	mg/kg	**5.00**				D
LCS	**9110592-BS1**									
Lead	11/18/99	50.0		49.0	mg/kg	80.0-120	98.0			D
Matrix Spike	**9110592-MS1**		**M911552-01**							
Lead	11/18/99	50.0	7.45	48.5	mg/kg	80.0-120	**82.1**			D
Matrix Spike Dup	**9110592-MSD1**		**M911552-01**							
Lead	11/18/99	50.0	7.45	49.7	mg/kg	80.0-120	**84.5**	20.0	**2.68**	D

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Inc. (Chev)	Project:	Chevron 9-1538 (13980 Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	[illegible]	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9110112	**Date Prepared: 11/16/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9110112-BLK1**									
Purgeable Hydrocarbons as Gasoline	11/16/99			ND	mg/kg	1.00				
Benzene	"			ND	"	0.00500				
Toluene	"			ND	"	0.00500				
Ethylbenzene	"			ND	"	0.00500				
Xylenes (total)	"			ND	"	0.00500				
Surrogate: a,a,a-Trifluorotoluene	"	*0.200*		*0.235*	"	*60.0-140*	*117*			
LCS	**9110112-BS1**									
Benzene	11/16/99	0.200		0.202	mg/kg	70.0-130	101			
Toluene	"	0.200		0.203	"	70.0-130	101			
Ethylbenzene	"	0.200		0.202	"	70.0-130	101			
Xylenes (total)	"	0.600		0.604	"	70.0-130	101			
Surrogate: a,a,a-Trifluorotoluene	"	*0.200*		*0.220*	"	*60.0-140*	*110*			
LCS	**9110112-BS2**									
Purgeable Hydrocarbons as Gasoline	11/16/99	5.00		5.43	mg/kg	70.0-130	109			
Surrogate: a,a,a-Trifluorotoluene	"	*0.200*		*0.254*	"	*60.0-140*	*127*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

RRM, Inc. (Chev)	Project:	Chevron 9-1538 (13980 Blossom Hill Rd.)	Sampled: 11/13/99
3912 Portola Dr., Suite 8	Project Number:	AA63	Received: 11/16/99
Santa Cruz, CA 95062	Project Manager:	Joe Muzzio	Reported: 11/18/99

Notes and Definitions

#	Note
D	Data reported from a dilution.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Fax copy of Lab Report and COC to Chevron Contact: ☒ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-1538
Facility Address: 13980 Blossom Hill Rd.
Consultant Project Number: AA63
Consultant Name: RRM, Inc.
Address: 3912 Portola Dr. Ste 8.
Project Contact (Name): Joe Nuzzio
(Phone) 831-475-8141 (Fax Number) 831-475-8249

Chevron Contact (Name): Mark Lafforty
(Phone): 925-842-8159
Laboratory Name: Sequoia
Laboratory Release Number:
Samples Collected by (Name): Matt Mitchell
Collection Date: 11/13/99
Signature: Matt Mitchell

M911551

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite O = Others	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Total Lead					Remarks
C2-SP-Comp		1	S	C	1040	—	Yes	X								X					01

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	RRM	11/16/99 11:00	[signature]	TPG	
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]			TJT (MH)	SA	11.16.99 13:15
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
(24 Hrs.)
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03_01/ACH

WELL DESTRUCTION REPORT

Richard Wehner Construction Co.,
390 Martin Avenue
Santa Clara, California
March 20, 2000

Prepared For

Hopkins & Carley

Prepared By

E_2C, INC.
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

March 20, 2000
Project Number 5850100

Hopkins & Carley
P.O. Box 1469
San Jose, CA 95109-1469

ATTN: Ms. Mariellen S. Facchino
SUBJECT: **WELL DESTRUCTION REPORT Case No. 11-015**
390 Martin Avenue
Santa Clara, California

Dear Ms. Facchino:

E_2C, Inc. is pleased to present our report of the well destruction work performed at 390 Martin Avenue and adjacent properties in Santa Clara, California. The well destructions were performed to complete Case Closure. Case Closure was approved by the Santa Clara Valley Water District (SCVWD) in their letter dated July 21, 1999. All well destruction work was performed in accordance with the California Water Code and SCVWD Standards.

Should you have any questions, or need additional information, please do not hesitate to contact us.

Sincerely,

Daniel Hidalgo, RG
Senior Geologist

Kendall W. Price, CEG/REA
President

cc: Ms. Christine Tulloch
Santa Clara Valley Water District
5750 Almaden Expwy
San Jose, CA 95118-3686

E_2C INC
ENVIRONMENTAL / ENGINEERING CONSULTANTS
Since 1970
382 Martin Avenue, Santa Clara, CA 95050-3112 Tel: 408.327.5700 Fax. 408.327.5707

INTRODUCTION

This report presents the results of well destruction activities performed at 390 Martin Avenue and adjacent properties in Santa Clara, California (Figure 1).

Case Closure for the Site was tentatively approved by SCVWD in a letter dated July 21, 1999. Prior to approving Case Closure for the Site, the SCVWD reviewed their project files and concluded that no further action related to the underground tank release is required. As a condition of final Case Closure, the SCVWD requires on-site groundwater monitoring wells to be destroyed and submittal of a report of well destruction. A copy of the July 21, 1999 letter is included in Appendix A.

WELL DESTRUCTION ACTIVITIES

A total of six groundwater monitoring wells (MW-1 through MW-6) required destruction. Groundwater monitoring wells MW-1, MW-2, and MW-3 were located at 390 Martin Avenue. Groundwater monitoring wells MW-4 and MW-5 were located at 406-416 Martin Avenue. Groundwater monitoring well MW-6 was located at northeast corner of Martin Avenue and De La Cruz Boulevard on City of Santa Clara property. The relative locations of the wells are shown on Figure 2. The wells were installed to a maximum depth of 21.5 feet and were constructed of 2-inch diameter Schedule 40 PVC well riser and screen and then covered with flush-mounted well boxes except that MW-6 was constructed of ¾-inch diameter riser and screen. The boring for well MW-1 had excessive sandpack below the screen to a depth of 31.5 feet bgs.

Prior to the destruction of the six wells, permits (Nos. 00D00092 through 00D00097) were obtained from the SCVWD. Copies of the permits are contained in Appendix B. The proposed well destruction method was by pressure grouting. Well MW-1 would require the drill out method due the excessive sandpack below the screen.

A geologist from our office was at the Site on March 7, 2000 to supervise the destruction of Wells MW-2 through MW-6. The wells were gravity grouted by HEW Drilling of Palo Alto, California, as directed by Mr. Bill Cameron of the SCVWD rather than pressure grouted, as the zones to be grouted were rather transmissive. Gravity grouting consisted of pumping/pouring neat cement grout into the well until the well would accept no further grout. To complete the well destruction, the flush mounted well boxes were removed and open space then filled with concrete. Drill cuttings were not generated during the destruction of Wells MW-2 through MW-6.

A geologist from our office was at the Site on March 17, 2000 to supervise the destruction of Well MW-1. MW-1 was drilled out to 31.5 feet bgs by HEW Drilling of Palo Alto, California using 8-inch diameter hollow-stem augers driven by a CME-75 drill rig. Cuttings generated during the drill out of Well MW-1 were placed into one 55-gallon drum, pending the analysis of the cuttings. The boring was tremie grouted from the bottom up with neat cement and the top 6-inches were filled with concrete to complete the well destruction. Mr. Peter Theimann of SCVWD was on-site to observe the well destruction activities. At the time of this report, Well Destruction Certificates were not yet issued by the SCVWD. The certificates will be forwarded to you after they become available.

CONCLUSION AND RECOMMENDATIONS

E_2C, Inc. has completed well destruction activities at the Site as a condition of Case Closure as required by the SCVWD. This report documents the completion of the last tasks to be performed pursuant to Case Closure issued by the SCVWD.

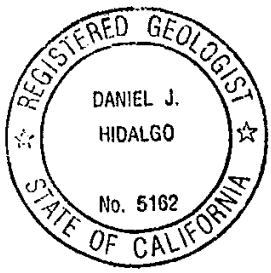
PROFESSIONAL CERTIFICATION

This well destruction report has been prepared by E_2C, Inc. for Hopkins and Carley to complete Case Closure at 390 Martin Avenue, located in Santa Clara, California. To the best of our knowledge, all statements contained herein are true and correct.

Sincerely,

Daniel Hidalgo, RG
Senior Geologist

Kendall W. Price, CEG/REA
President



FIGURES

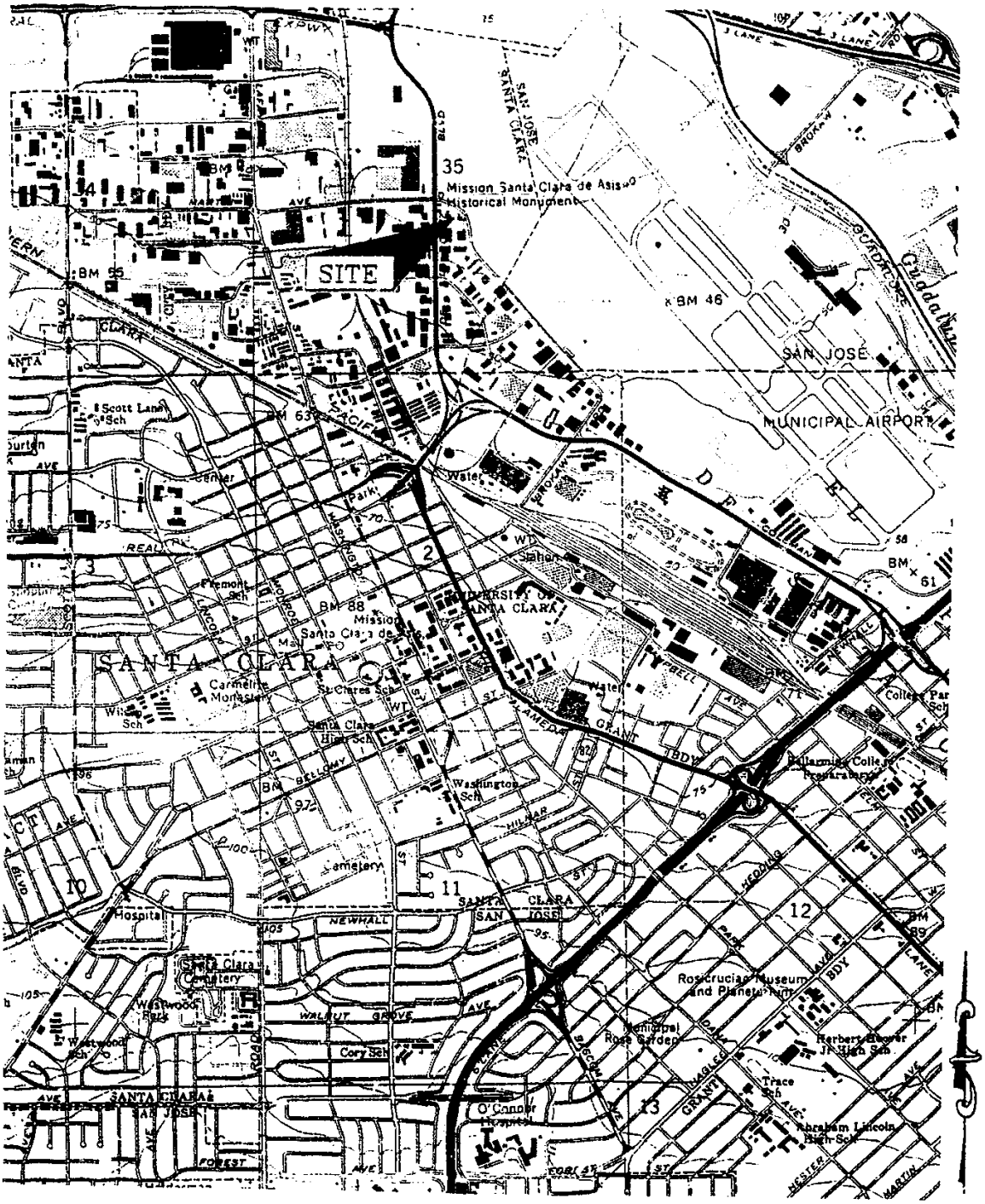


FIGURE 1 - SITE LOCATION MAP

ENVIRONMENTAL / ENGINEERING CONSULTANTS
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA 95050-3112
TEL: 408.327.5700 FAX: 408.327.5707

390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FILENAME: 5850100	JOB NUMBER:
DATE: JANUARY 2000	5850100
REVISION:	
DRAWN: JL	

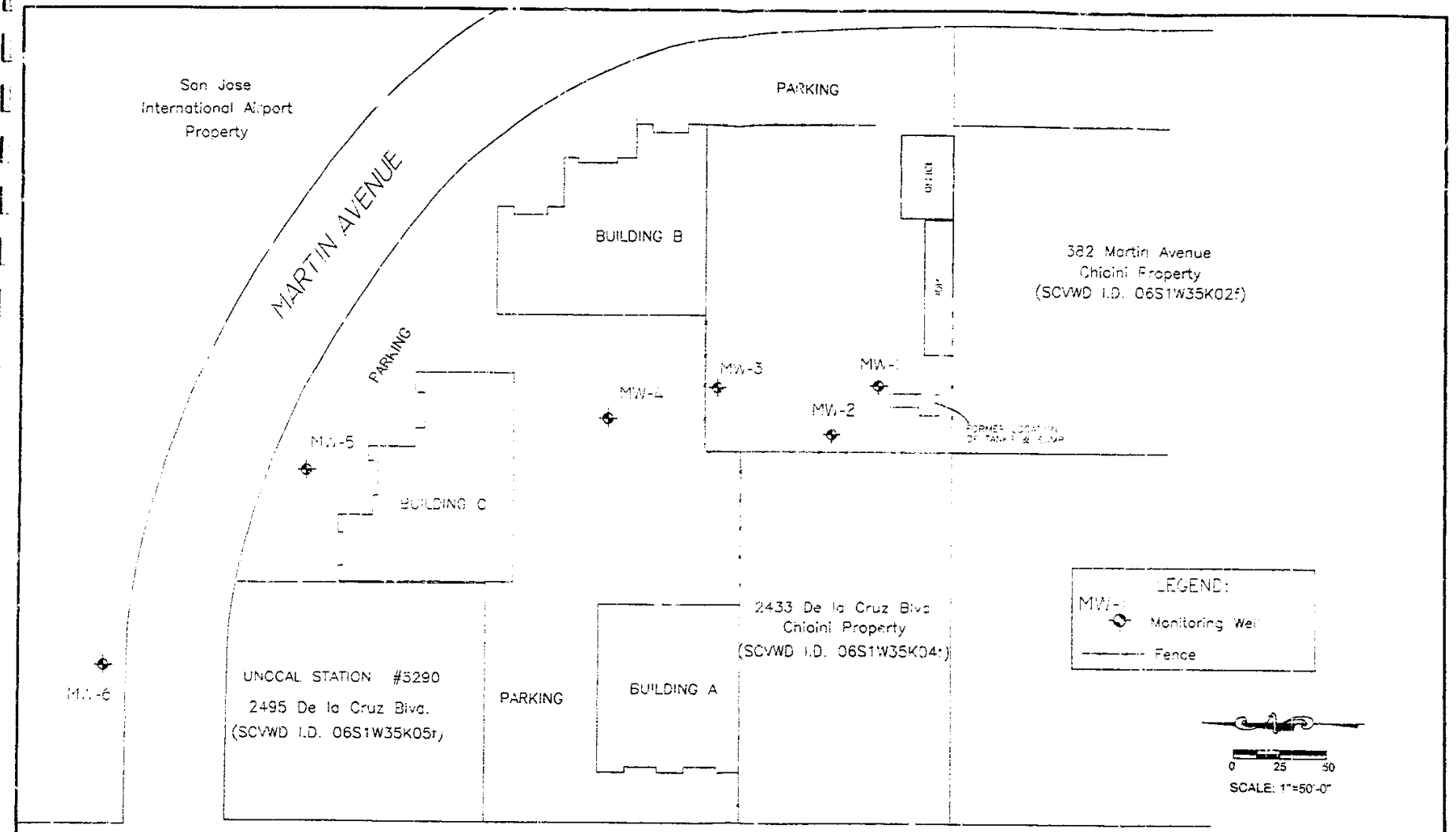


FIGURE 2 - SITE PLAN

ENVIRONMENTAL / ENGINEERING CONSULTANTS
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA 95050-3112
TEL 408.327.5700 FAX 408 327 5707

390 MARTIN AVENUE
SANTA CLARA, CALIFORNIA

FILENAME:	5850100
DATE:	FEBRUARY 2011
REVISION:	-
DRAWN:	JL

JOB NUMBER: 5850100

APPENDIX A
SCVWD JULY 21,1999 LETTER

Bill Dugan

Post-it® Fax Note 7671	Date 1/28/97	# of pages ▶ 6
To Ken Price	From Chris Tulloch	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 327-5707	Fax #	

Clara Valley Water District

[illegible] EXPRESSWAY
CA 95118-[illegible]
(408) 265-2600
(408) [illegible]
www.[illegible]

Mr. Richard Wehner
18876 Masson Terrace Court
Los Gatos, CA 95070
[illegible]
Dear Mr. Wehner:

Subject: Fuel Leak Site Case Closure—Richard Wehner Construction Company, 390 Martin Avenue, Santa Clara, CA; Case No. 11-015; Underground Storage Tank Cleanup Fund No. 1373

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Santa Clara Valley Water District is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Up to 3,300 parts per billion benzene was detected in the groundwater beneath this site during the last monitoring event. Any future property development or subsurface work may necessitate the preparation of a human health risk assessment or worker health and safety plan.

If you have any questions, please call Ms. Christine Tulloch at (408) 265-2600, extension 2636. Thank you

Sincerely,

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

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

cc: Mr. Chuck Headlee (w/enc)
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Nancy Comnoncho
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Larry Monette, Ph.D.
Santa Clara Fire Department
777 Benton Street
Santa Clara, CA 95050

Mr. Ken Price
E2C
Civic Center Plaza
675 North First Street, Suite 300
San Jose, CA 95112-5111

[illegible]

Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.scvwd.dst.ca.us

July 21, 1999

Mr. Richard Wehner
18876 Masson Terrace Court
Los Gatos, CA 95070

Dear Mr. Wehner:

Subject: Fuel Leak Site Case Closure—Richard Wehner Construction Company, 390 Martin Avenue, Santa Clara, CA; Case No. 11 015; Underground Storage Tank Cleanup Fund No. 1373

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

James S. Crowley, P.E.
Engineering Unit Manager
Leaking Underground Storage Tank Oversight Program

Jul -

Santa Clara Valley Water District

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

I. AGENCY INFORMATION

Date: July 8, 1999

Agency Name: Santa Clara Valley Water District	Address: 5750 Almaden Expressway
City/State/Zip: San Jose, CA 95118	Phone: (408) 265-2600
Responsible Staff Person: Chisune A. Tulloch	Title: Water Quality Specialist

II. CASE INFORMATION

Site Facility Name: Richard Wehner Construction Company		
Site Facility Address: 390 Martin Avenue, Santa Clara, CA		
RB LUSTIS Case No.:	Local Case No.: 06S1W35K03f	LOP Case No.: 11-015
URF Filing Date: 09/10/91	SWEEPS No.: —	APN: 230-47-108

Responsible Parties	Addresses	Phone Number
Mr. Richard Wehner	18876 Masson Terrace Court, Los Gatos, CA 95070	—

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	8,000	Gasoline	Removed	05/21/91
2	300	Waste oil	Removed	05/21/91
3	550	Diesel	Removed	05/21/91
4	1,000	Gasoline	Removed	05/21/91
5	—	Waste water sump	Removed	06/07/93
Piping			Assumed with tanks	—

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Holes in Tanks 2 and 3 and in piping.		
Site characterization complete? Yes	Date Approved By Oversight Agency: —	
Monitoring wells installed? Yes	Number: 6	Properly screened interval? Yes
Highest GW Depth Below Ground Surface: 6	Lowest Depth: 10	Flow Direction: Primarily north
Most Sensitive Current Use: Potential drinking water		
Summary of Production Wells in Vicinity: There are no known production wells within the vicinity of the site which would be considered threatened.		
Are drinking water wells affected? No	Aquifer Name: Santa Clara Valley Basin	
Is surface water affected? No	Nearest SW Name: Guadalupe River	
Off-Site Beneficial Use Impacts (Addresses/Locations): None reported.		
Reports on file? Yes	Where are reports filed? Santa Clara Valley Water District	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One at 1,000 gallons One at 300 gallons One at 550 gallons One at 8,000 gallons	Off site	05/91
Piping	Not reported	Off site	05/91
Free Product	None	—	
Soil	None		—
Groundwater	None	—	—
Barrels	None	—	

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS. BEFORE AND AFTER CLEANUP									
Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	1,500	N/A	310,000	76,000	Xylene	64	N/A	12,000	6,100
TPH (Diesel)	480	N/A	120,000	ND	Ethylbenzene	16	N/A	11,000	24,000
Benzene	5.5	N/A	6,000	3,300	TRPH	ND	N/A	869,000	80,000
Toluene	23	N/A	6,500	400	Heavy Metals	<TTCL	N/A	N/A	N/A
PCE	0.035	N/A	0.5	ND	DCA	NA	N/A	12	ND<1
TCE	ND	N/A	3.4	ND	MTBE	NA	N/A	1,200[1]	36[2]

Description of Interim Remediation Activities: Some soil was reportedly removed below the diesel and waste oil tanks to a depth of 15 feet where a pit water sample was collected. Borings with slurry-filled or oxygen-releasing compounds (ORC) were installed at two locations. The ORC remediation may have been effective on the exterior portions of the groundwater plume, but does not appear to have been effective in reducing the highest concentrations. Over pumping/redevelopment of MW-2 was conducted in an effort to reduce concentrations. Discussion of remediation effectiveness is presented in the considerations portion of this summary.

[1] Not confirmed by 8260. Based on other 8260/8020 correlations, this is considered a false positive.

[2] Some of the Methyl tert-Butyl Ether (MTBE) detections were confirmed. However, the concentrations of MTBE by 8260 were very low and cannot be directly correlated with the release at this site.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Santa Clara Valley Water District staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health. However, due to the high concentrations of Benzene in groundwater in the vicinity of MW-2, a health and safety plan should be prepared and implemented prior to any subsurface work at this location. Additionally, if subsurface structures are built in the future, a human health risk assessment must be performed.		
Site Management Requirements. See above.		
Should corrective action be reviewed if land use changes? Yes, see above.		
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 6
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Overview: Gasoline, diesel, and waste oil underground storage tanks (USTs) were operated at the site until 1989. One groundwater monitoring well was installed in the 1980s for leak detection purposes, but monitoring results were not made available. Moderate levels of soil contamination and high concentrations of petroleum hydrocarbons in groundwater were detected when the USTs were removed in 1991. There was no contamination detected beneath the waste water clarifier. Some soil was overexcavated following tank removal but was placed back in the excavation. From 1994 to 1997, five additional monitoring wells were installed, in addition to various soil boring and grab groundwater sampling locations. Quarterly monitoring has been performed since 1994. The extent of soil and groundwater contamination are considered to be adequately defined. MW-5 is considered as the well which monitors the plume boundary conditions for this site. The well is located 350 feet from the source area and generally provides nondetectable water sample results. Wells located closer to the source produce significantly higher petroleum hydrocarbon concentrations. MW-1, MW-2 and MW-4 occasionally contain a petroleum hydrocarbon sheen.

The site is underlain by predominantly silty clay to 10 to 12 feet below ground surface where a saturated sand and gravelly sand unit is located. The top of the water table fluctuates by no more than 2 feet in the site associated wells and appears to be a few feet above the permeable unit in most wells. The top of the water table appears to be in contact with residual soil contamination in the silty clay unit within the capillary fringe, particularly at MW-2.

In 1999, a Corrective Action Plan (CAP) was submitted to the Santa Clara Valley Water District which proposed natural attenuation as the most cost-effective remedial alternative to achieve water quality objectives. The CAP was tentatively approved by the Santa Clara Valley Water District pending public comment. No public comment was received by the Santa Clara Valley Water District during the open comment period.

Considerations:

Plume Trend Analysis

Petroleum hydrocarbon concentrations depict a general downward trend in most wells with MW-1 (nearest the source) exhibiting the most significant decline. Concentrations in well MW-2 have fluctuated over time and recently have exhibited increases in concentrations. However, the overall contaminant trend in MW-2 indicates slightly decreasing concentrations. Total Petroleum Hydrocarbons as Gasoline (TPHG) concentrations in MW-3 are decreasing; however, Benzene concentrations depict a slightly upward trend. (Logrithmic concentration versus time graphs with exponential trend lines are attached, Graphs 1 and 2.) The core of the plume appears stable and the plume edges may be reducing. MW-2 continues to exhibit high concentrations of TPHG and Benzene which precipitated detailed staff analysis (below) for the purpose of case closure consideration.

Analysis of MW-2 TPHG and Benzene Concentrations

MW-2 currently has the highest concentrations of TPHG and Benzene of any other site associated monitoring well. The well is located 50 feet downgradient from the source area. When groundwater monitoring began in 1994, the concentrations in MW-2 were within the same range as concentrations in MW-1, nearest the source. After a gradual decline from late 1996 to early 1998, MW-2 has recently exhibited some increases in concentrations. However, MW-1 has continued to have declining concentrations. The contaminant transport mechanism from the USTs to MW-2 appears to have been either free product or high dissolved contamination migrating with groundwater and coming into contact with the silty clay unit as groundwater elevations rose. This resulted in contamination being trapped within the capillary fringe in the vicinity of MW-2.

Hydrograph analysis of MW-2 indicates that an o[illegible]al correlation between contaminant concentration and groundwater elevation changes exist for many of the quarterly [illegible]toring events. In addition, the hydrograph in Graph 3 depicts an increasing trend of both TPHG and Benzene and an overall increase in water elevation. (For this examination, concentration data was only used where corresponding groundwater elevation data exists.) Therefore, an overall trend correlation between water elevation and concentration increases exists. At the location of MW-2, 1,100 parts per million TPHG was detected in soil (silty clay within the capillary fringe). It appears that this significant level of saturated soil contamination has resulted in the continuing high concentrations of dissolved groundwater contamination detected in MW-2. This is supported by the correlation between groundwater elevation versus contaminant concentration discussed above.

Analysis of Remediation Effectiveness

An analysis of TPHG and Benzene concentration changes relative to corrective action was performed for MW-2 (Graphs 5 and 6). TPHG concentrations were on a decreasing trend until the introduction of ORC (slurry-filled borings around MW-2 and MW-3). After ORC introduction, an increasing trend was observed which resulted in an all time high TPHG concentration in MW-2. It appears that the ORC application has had little effect on reducing concentrations overall in MW-2 [illegible] it may have been in part responsible for reductions of Benzene in MW-4. The partial ineffectiveness of the ORC application is likely due to the limited amount applied further upgradient, the short duration of use, disturbance of anaerobic [illegible] in the source area and/or the inability for the oxygen to reach the areas of residual soil contamination. At the location of MW-2, residual soil contamination is located within the capillary fringe in a silty clay and, therefore, would not have any significant groundwater flow, thereby precluding ORC effectiveness. In addition, biodegradation processes in that zone may have been anaerobic prior to ORC introduction and, therefore would not have been as effective as it would for a preexisting aerobic condition.

The increased concentration in MW-2 precipitated the redevelopment and heavy purging of wells MW-1 and MW-2. This effort appears to have been somewhat effective in reducing TPHG concentrations. Benzene concentrations were also on a decreasing trend prior to ORC introduction. A large reduction in Benzene concentrations was observed approximately ¼ year after ORC but appears to have been only temporary. The effect of redevelopment on Benzene concentrations is not as evident as the TPHG concentrations. Initially after redevelopment, an increase in Benzene concentration was observed but appears to have stabilized. The increased Benzene concentrations may have been the result of the redevelopment causing more water to come into contact with residual soil contamination and resulting in an increased Benzene dissolution.

Corrective Action Plan Considerations: As stated above, the CAP proposed natural attenuation to be the most cost-effective alternative for remedial options at this site. Santa Clara Valley Water District staff concurs based on the ineffectiveness of the referenced measures to considerably reduce contamination in addition to the costs and hindrances of other remedial techniques. However, Santa Clara Valley Water District staff expects that a longer period of time (than that proposed in the CAP) would be necessary to reduce contaminant concentrations in MW-2 to water quality objectives. Since Santa Clara Valley Water District staff concurs with the selected alternative and there does not appear to be any threat to human health and safety or the environment, the CAP is approved and further monitoring is not necessary. As discussed above, TPHG and Benzene in the shallow groundwater in immediate contact with the residual soil contamination will likely remain above water quality objectives for a significant period of time. This time period could exceed a couple of decades. Even if the requisite level of water quality has not yet been attained, a site may be closed if the level will be attained within a reasonable period (State Water Resources Control Board Resolution No. 92-49, III.A).

Conclusions: It should be noted that significant residual contamination including Benzene (a known human carcinogen) remains at this site. The Santa Clara Valley Water District does not concur with the estimated degradation time presented in the March 24, 1999, CAP. Santa Clara Valley Water District staff believes that the proposed time frame of 5 to 10 years for the MW-2 scenario would be considerably greater. However, a review of site conditions, potential receptors, and current and proposed facility use has resulted in a determination that further corrective action is not warranted at this site because the residual contamination if left undisturbed should not present a threat to human health and safety or the environment and will not adversely affect current or probable future beneficial uses of water. In addition, the contaminants are expected to meet the applicable objectives of the Basin Plan within a reasonable time frame considering the site conditions, land use, probable beneficial uses, and locations of receptors. However, Health and Safety Plans and Human Health Risk Assessments must be performed in the event that the contamination is disturbed or subsurface structures are to be built at the site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Chrisnne A. Tulloch	Title: Water Quality Specialist
Signature: Christine A. Tulloch	Date: July 19, 1999
Approved by: Jurgen S. Crowley, P.E.	Title: Engineering Unit Manager
Signature: Jurgen S. Crowley	Date: 7/20/99

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: See attached facsimile	Date:

Attachments:
1. Site Vicinity Map
2. Site Plan
3. Cross Section
4. Groundwater Analytical Tables
5. Graphs

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.

APPENDIX B
SCVWD WELL DESTRUCTION PERMIT

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-98) (DP 4-901)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 00000092

Property Owner: Giulio Chioni	Well Owner (if different): Wehner c/o Hopkins & Carley	Name of Business/Residence at Well Site: Wehner Construction
Property Owner's Address: 2994 Walsh Ave	Well Owner's Address: P.O. Box 1469	Address of Well Site: 380 Martin Ave
City, State, Zip: Santa Clara CA 95052	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: Santa Clara, CA 95050
Telephone No:	Telephone No: 408-286-9800	Assessor's Parcel Number of Well Site: Book: 230 Page: 47 Parcel: 103

Consulting Company Name: E & C, Inc	Drilling Company Name: HEW
Address: 382 Martin Ave	Address: 1045 Weeks St.
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: E. Palo Alto, CA
Telephone No: 408-327-5700	Telephone: 650-322-2851 C-57 License No: 604987

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

Well Information

Well Registration No: 06S01W35K002	Owner/Consultant Well No: MW-1	Original Well Construction Permit No: 84W0361
Well Casing Depth: 18	Total Boring Depth: 18	Well Casing Diameter: 2"

Well Description:

[X] Vertical Well [ ] Dewatering Well [ ] Elevator Shaft [ ] Multiple Casing [ ] Horizontal Well [ ] Pit Well

Well Type: check all that apply.

[ ] Water Producing (supply or extraction): [ ] Contamination Cleanup [ ] Agricultural [ ] Domestic [ ] Municipal [ ] Industrial

[ ] Vapor Extraction

[X] Monitoring: [ ] Inclinometer [ ] Groundwater [ ] Vadose [ ] Piezometer [ ] Interface [ ] Suction Lysimeter [ ] Seismic

[ ] Injection/Infiltration: [ ] Contamination Cleanup [ ] Reclaimed Water [ ] Air Sparging

[ ] Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:
1. Outer conductor casing? [ ] Yes [ ] No
2. Annular cement seal outside of casing at surface? [ ] Yes [ ] No
3. A S.C.V.W.D. water meter attached: [ ] Yes [ ] No

Type of Original Drilling Method:

[ ] Rotary [ ] Cable-Tool [ ] Hand Dug Pit Well [ ] Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8421.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-98) DP 4-9011

Please describe, in detail, the proposed destruction method: MW-1
Pressure grout well @ 25 psi until well refuses further grout. Asphalt at upper 4". Sand pack is less than 3' above perforations, Per SCVWD standards

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards, and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	**Print Name:**	**Date:**
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	**Print Name:**	**Date:**
Dan Hidalgo	Dan Hidalgo	1-28-00

Please allow 10 working days to process this

DISTRICT USE ONLY

The District has approved the follow struction methods for the well described in this permit:

☐ Pressure Grout Method (as outli in Standards). Screen interval(s): _____

☒ Drill out well to a total depth of 31 1/2 feet, with a minimum bore of 8" inches.

☐ Bail and/or drill out well to a total depth of _____ feet and back fill.
(If total depth is unknown, driller must determine total depth during clean out of well.)

☐ Well casing must be perforated at the following depths: _____

☒ Other: EXCESS SAND PACK below CASING. EJ

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
00C0092	2-[illegible]	[illegible]	T0152

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-96) (DP 4-901)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 00C0093

Property Owner: Guilio Chiodi	Well Owner (if different): Weimer C/O Hopkins + Carle	Name of Business/Residence at Well Site: Weimar Construction
Property Owner's Address: 2994 Walsh Ave	Well Owner's Address: P.O. Box 1469	Address of Well Site: 380 Martin Ave 95050
City, State, Zip: Santa Clara CA	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: Santa Clara, CA
Telephone No:	Telephone No: 408-286-9800	Assessor's Parcel Number of Well Site: Book: 230 Page: 47 Parcel: 109

Consulting Company Name: E2C, Inc	Drilling Company Name: HEW	
Address: 382 Martin Ave	Address: 1045 Weeks St.	
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: E. Palo Alto, CA	
Telephone No: 408-327-5700	Telephone: 650-322-3851	C-57 License No: 604987

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

06S01W35K008

Well Information

Well Registration No: ~~06S1W35K07A~~	Owner/Consultant Well No: MW-2	Original Well Construction Permit No: 94WC210
Well Casing Depth: 18'	Total Boring Depth: 18'	Well Casing Diameter: 2"

Well Description:

[X] Vertical Well [ ] Dewatering Well [ ] Elevator Shaft [ ] Multiple Casing [ ] Horizontal Well [ ] Pit Well

Well Type: check all that apply.

[ ] Water Producing (supply or extraction): [ ] Contamination Cleanup [ ] Agricultural [ ] Domestic [ ] Municipal & Industrial

[ ] Vapor Extraction

[X] Monitoring: [ ] Inclinometer [ ] Groundwater [ ] Vadose [ ] Piezometer [ ] Interface [ ] Suction Lysimeter [ ] Seismic

[ ] Injection/Infiltration: [ ] Contamination Cleanup [ ] Reclaimed Water [ ] Air Soarging

[ ] Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:
1. Outer conductor casing? [ ] Yes [ ] No
2. Annular cement seal outside of casing at surface? [ ] Yes [ ] No
3. A S.C.V.W.D. water meter attached: [ ] Yes [ ] No

Type of Original Drilling Method:

[ ] Rotary [ ] Cable-Tool [ ] Hand Dug Pit Well [ ] Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (01-23-98) (DP 4-901)

MW-2

Please describe, in detail, the proposed destruction method:
Pressure grout well @ 25 psi until well refuses further grout. Asphalt at upper 4'. Sandpack is less than 3' above perforations, Per SCVWD standards

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards, and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	Print Name:	Date:
Dan Hidalgo E&C	Dan Hidalgo	1-28-00

Please allow 10 working days to process this

DISTRICT USE ONLY

The District has approved the following destruction methods for the well described in this permit:

- [X] Pressure Grout Method (as outlined in Standards). Screen interval(s): 8' - 18'
- [ ] Drill out well to a total depth of _____ feet, with a minimum bore of ____ inches.
- [ ] Bail and/or drill out well to a total depth of _____ feet and back fill. (If total depth is unknown, driller must determine total depth during clean out of well.)
- [ ] Well casing must be perforated at the following depths: _____
- [ ] Other: _____

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
00C1193	2-1-00	3-1-00	23543

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-98) (DP 4-9011)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 00D0094

Property Owner: Julia Chuoni	Well Owner (if different): Weimer c/o Hopkins + Carley	Name of Business/Residence at Well Site: Weimer Construction
Property Owner's Address: 2994 Walsh Ave	Well Owner's Address: P.O. Box 1469	Address of Well Site: 380 Martin Ave
City, State, Zip: Santa Clara, CA 95051	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: 95050 Santa Clara, CA
Telephone No: -	Telephone No: 408-256-9800	Assessor's Parcel Number of Well Site: Book: 230 Page: 47 Parcel: 108

Consulting Company Name: E & C, Inc.	Drilling Company Name: HEW
Address: 382 Martin Ave	Address: 1045 Weeks St.
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: E. Palo Alto, CA
Telephone No: 408-327-5700	Telephone: 650-322-2851 C-57 License No: 604987

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

06S01W35K007

Well Information

Well Registration No:	Owner/Consultant Well No:	Original Well Construction Permit No:
06S1W35K06A	MW-3	94WC0211
Well Casing Depth:	**Total Boring Depth:**	**Well Casing Diameter:**
18'	18'	2"

Well Description:

[X] Vertical Well [ ] Dewatering Well [ ] Elevator Shaft [ ] Multiple Casing [ ] Horizontal Well [ ] Pit Well

Well Type: check all that apply.

[ ] Water Producing (supply or extraction): [ ] Contamination Cleanup [ ] Agricultural [ ] Domestic [ ] Municipal & Industrial

[ ] Vapor Extraction

[X] Monitoring: [ ] Inclinometer [ ] Groundwater [ ] Vadose [ ] Piezometer [ ] Interface [ ] Suction Lysimeter [ ] Seismic

[ ] Injection/Infiltration: [ ] Contamination Cleanup [ ] Reclaimed Water [ ] Air Sparging

[ ] Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:

1. Outer conductor casing? [ ] Yes [ ] No
2. Annular cement seal outside of casing at surface? [ ] Yes [ ] No
3. A S.C.V.W.D. water meter attached: [ ] Yes [ ] No

Type of Original Drilling Method:

[ ] Rotary [ ] Cable-Tool [ ] Hand Dug Pit Well [ ] Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

EC 198 (01-23-98) (DP 4-2011)

Please describe, in detail, the proposed destruction method: MW-3

Pressure grout well @ 25psi until well refuses further grout. Asphalt at upper 4". Sandpack is less than 3' above perforations, per SCVWD standards

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards, and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	**Print Name:**	**Date:**
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	**Print Name:**	**Date:**
Dan Hidalgo EzC	Dan Hidalgo	1-28-00

Please allow 10 working days to process this.

DISTRICT USE ONLY

The District has approved the following destruction methods for the well described in this permit:

☒ Pressure Grout Method (as outlined in Standards). Screen interval(s): 9'-19'

☐ Drill out well to a total depth of _____ feet, with a minimum bore of ____ inches.

☐ Bail and/or drill out well to a total depth of _____ feet and back fill.
(If total depth is unknown, driller must determine total depth during clean out of well.)

☐ Well casing must be perforated at the following depths: _____

☐ Other: _____

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
[illegible]	[illegible]	[illegible]	[illegible]

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-98) (DP 4-001)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 00D0097

Property Owner:	Well Owner (if different):	Name of Business/Residence at Well Site:
Delamart	Wehmeyer 30 Hopkins; Carley	Delamart Business Center
Property Owner's Address: 4370 Alpine Rd	Well Owner's Address: P.O. Box 1469	Address of Well Site: 406-416 Martin Ave
City, State, Zip: Portola Valley, CA 94028	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: Santa Clara, CA 95050
Telephone No: 650-851-8301	Telephone No: 408-286-7800	Assessor's Parcel Number of Well Site: Book 230 Page 47 Parcel 109

Consulting Company Name:	Drilling Company Name:	
E2 Consulting Inc.	Hi-Tech	
Address: 382 Martin Ave.	Address: 1045 Weeks St.	
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: East Palo Alto, CA	
Telephone No: 408-327-5700	Telephone: 650-322-2851	C-57 License No: 604987

All questions below are to be completed before permit can be issued: if unknown, applicant shall make necessary on-site investigation to determine correct answers.

Well Information

Well Registration No:	Owner/Consultant Well No:	Original Well Construction Permit No:
06S01W35J001	MW-4	96W00592
Well Casing Depth: 20'	**Total Boring Depth:** 20'	**Well Casing Diameter:** 2"

Well Description:

☒ Vertical Well ☐ Dewatering Well ☐ Elevator Shaft ☐ Multiple Casing ☐ Horizontal Well ☐ Pit Well

Well Type: check all that apply.

☐ Water Producing (supply or extraction): ☐ Contamination Cleanup ☐ Agricultural ☐ Dome ☐ Mu J & Industrial

☐ Vapor Extraction

☒ Monitoring: ☐ Inclinometer ☐ Groundwater ☐ Vadose ☐ Piezometer ☐ Interface ☐ Suction Lysimeter ☐ Seismic

☐ Injection/Infiltration: ☐ Contamination Cleanup ☐ Reclaimed Water ☐ Air Sparging

☐ Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:
1. Outer conductor casing? ☐ Yes ☐ No
2. Annular cement seal outside of casing at surface? ☐ Yes ☐ No
3. A S.C.V.W.D. water meter attached: ☐ Yes ☐ No

Type of Original Drilling Method:

☐ Rotary ☐ Cable-Tool ☐ Hand Dug Pit Well ☐ Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 996-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-27-98) (DP 4-901)

MW-4

Please describe, in detail, the proposed destruction method:

Pressure grout well @ 25 psi until well refuses further grout. Asphalt at upper 4" inches. Sandpack is less than 3' above perforations, Per SCVWD standards.

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	**Print Name:**	**Date:**
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	**Print Name:**	**Date:**
Dan Hidalgo EzC-	Dan Hidalgo	1-28-00

Please allow 10 working days to process this

DISTRICT USE ONLY

The District has approved the following destruction methods for the well described in this permit:

☑ Pressure Grout Method (as outlined in Standards). Screen interval(s): 7'-20'

☐ Drill out well to a total depth of _____ feet, with a minimum bore of ____ inches.

☐ Bail and or drill out well to a total depth of _____ feet and back fill. (If total depth is unknown, driller must determine total depth during clean out of well.)

☐ Well casing must be perforated at the following depths: _____

☐ Other: _____

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
00000097	2-16-00	8-16-00	724547

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC -98 (01-23-98) (DP 4-901)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 00D00096

Property Owner: Delamart	Well Owner (if different): Wichner SE Hopkins / Caeley	Name of Business/Residence at Well Site: Delamart Business Center
Property Owner's Address: 4370 Alpine Rd	Well Owner's Address: PO Box 1469	Address of Well Site: 406-416 Martin Ave
City, State, Zip: Portola Valley, CA 94028	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: Santa Clara, CA 95050
Telephone No: 650-851-8006	Telephone No: 408-286-9800	Assessor's Parcel Number of Well Site: Book: 230 Page: 47 Parcel: 109
Consulting Company Name: EEI, Inc		Drilling Company Name: HEW
Address: 382 Martin Ave		Address: 1045 Weeks St.
City, State, Zip: Santa Clara, CA 95050		City, State, Zip: E. Palo Alto, CA
Telephone No: 408-327-5700		Telephone: 650-322-2851 C-57 License No: 604987

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

Well Information

Well Registration No:	Owner/Consultant Well No:	Original Well Construction Permit No.
06S01W35K011	MW-5	97WC0123
Well Casing Depth:	**Total Boring Depth:**	**Well Casing Diameter:**
20'	20'	2"

Well Description:

[X] Vertical Well [ ] Dewatering Well [ ] Elevator Shaft [ ] Multiple Casing [ ] Horizontal Well [ ] Pit Well

Well Type: check all that apply.

[ ] Water Producing (supply or extraction) [ ] Contamination Cleanup [ ] Agricultural [ ] Domestic [ ] Municipal & Industrial
[ ] Vapor Extraction
[X] Monitoring: [ ] Inclinometer [ ] Groundwater [ ] Vadose [ ] Piezometer [ ] Interface [ ] Suction Lysimeter [ ] Seismic
[ ] Injection/Infiltration. [ ] Contamination Cleanup [ ] Reclaimed Water [ ] Air Sparging
[ ] Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:
1. Outer conductor casing? [ ] Yes [ ] No
2. Annular cement seal outside of casing at surface? [ ] Yes [ ] No
3. A S.C.V.W.D. water meter attached: [ ] Yes [ ] No

Type of Original Drilling Method:

[ ] Rotary [ ] Cable-Tool [ ] Hand Dug Pit Well [ ] Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (01-23-98) (DP 4-901)

MW-5

Please describe, in detail, the proposed destruction method:

Pressure grout well @ 25 psi until well refuses further grout. Asphalt upper 4'. Sandpack is less than 3' above perforations, per SCVWD standards.

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards, and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	**Print Name:**	**Date:**
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	**Print Name:**	**Date:**
Dan Hidalgo. EzC	Dan Hidalgo	1-28-00

Please allow 10 working days to process this

DISTRICT USE ONLY

The District has approved the following destruction methods for the well described in this permit:

☒ Pressure Grout Method (as outlined in Standards). Screen interval(s): 6' - 20'

☐ Drill out well to a total depth of _____ feet, with a minimum bore of ____ inches.

☐ Bail and/or drill out well to a total depth of _____ feet and back fill. (If total depth is unknown, driller must determine total depth during clean out of well.)

☐ Well casing must be perforated at the following depths: _____

☐ Other: _____

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
00096	2-4-00	2-4-01	24514

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 178 (01-23-98) (DP 4-90)

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. MDC095

Property Owner: City of Santa Clara	Well Owner (if different): Wehner c/o Hopkins & Carley	Name of Business/Residence at Well Site: Public Property
Property Owner's Address: 1500 Warburton Ave	Well Owner's Address: PO Box 1469	Address of Well Site: NE Corner Delaware, Martin
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: San Jose, CA 95109-1469	City, State, Zip: Santa Clara
Telephone No: 408-261-5236	Telephone No: 408-286-9800	Assessor's Parcel Number of Well Site: Book: 230 Page: 003 Parcel: 039
Consulting Company Name: EnC, Inc.	Drilling Company Name: AEW	
Address: 382 Martin Ave	Address: 1045 Weeks St	
City, State, Zip: Santa Clara, CA 95050	City, State, Zip: Palo Alto, CA	
Telephone No: (408) 327-5700	Telephone: 650-322-2551	C-57 License No: 604987

All questions below are to be completed before permit can be issued; if unknown, applicant shall make necessary on-site investigation to determine correct answers.

06S01W35K010

Well Information

Well Registration No:	Owner/Consultant Well No:	Original Well Construction Permit No:
	MW-6	97W00399
Well Casing Depth:	**Total Boring Depth:**	**Well Casing Diameter:**
21.5'	21.5	3/4" ID

Well Description:

[X] Vertical Well [ ] Dewatering Well [ ] Elevator Shaft [ ] Multiple Casing [ ] Horizontal Well [ ] Pit Well

Well Type: check all that apply.

[ ] Water Producing (supply or extraction): [ ] Contamination Cleanup [ ] Agricultural [ ] Domestic [ ] Municipal & Industrial

[ ] Vapor Extraction

[X] Monitoring: [ ] Inclinometer [ ] Groundwater [ ] Vadose [ ] Piezometer [ ] Interface [ ] Suction Lysimeter [ ] Seismic

[ ] Injection/Infiltration: [ ] Contamination Cleanup [ ] Reclaimed Water [ ] Air Sparging

[ ] Cathodic Protection

Additional Questions For Water Producing Wells

Does the well have:
1. Outer conductor casing? [ ] Yes [ ] No
2. Annular cement seal outside of casing at surface? [ ] Yes [ ] No
3. A S.C.V.W.D. water meter attached: [ ] Yes [ ] No

Type of Original Drilling Method:

[ ] Rotary [ ] Cable-Tool [ ] Hand Dug Pit Well [ ] Other: _____

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, after hours call (408) 395-8121.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 1wc (01-23-98) -DP 4-901)

MW-6

Please describe, in detail, the proposed destruction method:

Pressure grout well @ 25 psi until well refuses further grout. Asphalt at upper 4". Sandpack is less than 3' above perforations, Per SCVWD standards

I understand that all work is to be done in accordance with the District Well Ordinance, the District Well Standards, and the conditions of this permit. I also certify that the information given in this permit is correct to the best of my knowledge.

Signature of Well Owner/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Driller/Agent:	Print Name:	Date:
Dan Hidalgo	Dan Hidalgo	1-28-00
Signature of Consultant (if any):	Print Name:	Date:
Dan Hidalgo E2C	Dan Hidalgo	1-28-00

Please allow 10 working days to process this

DISTRICT USE ONLY

The District has approved the following destruction methods for the well described in this permit:

☒ Pressure Grout Method (as outlined in Standards). Screen interval(s): 6' - 21'

☐ Drill out well to a total depth of _____ feet, with a minimum bore of ____ inches.

☐ Ball and/or drill out well to a total depth of _____ feet and back fill.
(If total depth is unknown, driller must determine total depth during clean out of well.)

☐ Well casing must be perforated at the following depths: _____

☐ Other: _____

District Permit No:	Date Issued:	Expiration Date:	Driller's Log No:
00C0045	2-10-00	2-10-01	TC45-5