CET Environmental Services, Inc.

5845 Doyle Street, Suite 104
Emeryville, California 94608
Telephone (510) 652-7001
Fax (510) 652-7002

May 26, 1994

Juliet Shin
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Subject: **First Quarter Report, 1994**
Quarterly Groundwater Sampling and Monitoring
1150 Ballena Blvd., Alameda, California
Project No. 3571

Dear Ms. Shin:

This report presents the results of quarterly groundwater sampling and monitoring conducted by CET Environmental Services, Inc. (CET) at the subject property during the first Quarter 1994. Quarterly activities included groundwater elevation measurements, groundwater flow direction and gradient determination, and the collection and analysis of groundwater samples. Activities at the subject property were conducted in accordance with the Alameda County Health Care Services Agency's (ACHCSA) August 4, 1993 letter.

BACKGROUND

During the October 17, 1989 Loma Prieta earthquake, two, single-walled, 12,000-gallon underground storage tanks (USTs) (one containing diesel fuel and the other containing gasoline) rose upward through the backfill in response to the liquefaction of soils which surrounded the tanks at the time of the earthquake. After the earthquake, the USTs were removed from service.

In September 1990, the two tanks were replaced with two, double-walled, 12,000-gallon USTs (one containing diesel fuel and the other containing gasoline) equipped with leak detection systems. These tanks remain in service to date. In December 1992, three groundwater monitoring wells (MW1, MW2, and MW3) were installed near the USTs by Law/Crandell, Inc. of San Rafael. California. These wells are the focus of the groundwater sampling and monitoring activities currently being conducted at the subject property.

In 1991, one, single-walled, 250-gallon waste oil underground storage tank (UST) was removed from the subject property. The waste oil tank pit has been vertically excavated to groundwater, and horizontally excavated to the bounds of utility lines and a building. To

date, the waste oil tank pit has not been back-filled, but remains open and covered. Groundwater samples were collected from the open pit by CET, as requested by the ACHCSA; the results are presented in the Third Quarter 1993 Report (CET).

Two site location maps are included on Plates 1 and 2 (Attachment A). Locations of existing site groundwater monitoring wells (MW1, MW2, and MW3) are shown on Plate 3 (Attachment A).

QUARTERLY GROUNDWATER MONITORING

Groundwater Elevation Data and Flow Direction

On March 30, 1994, the depth to groundwater was measured in all site monitoring wells. The depth to groundwater ranged from 4.23 to 4.74 feet below the top of the well casing (btoc). A summary of groundwater elevation data is presented in Table 1 (Attachment B).

Plate 4 (Attachment A) shows calculated groundwater elevation contours, and groundwater flow direction based on water levels measurements collected on March 30, 1994. The groundwater flow direction for March 30, 1994 was northwesterly (N30°W). The groundwater gradient calculated for March 30, 1994 is approximately 0.002 ft/ft.

Groundwater Sample Collection, & Analytical Methods

On March 30, 1994, groundwater samples (MW1, MW2 and MW3) were collected from all site monitoring wells. Groundwater samples were collected and handled in accordance with the protocol presented in Attachment C. Samples were transported and submitted in accordance with CET chain-of-custody protocol to Chromalab of San Ramon, California. Chromalab is accredited under the Environmental Laboratory Accreditation Program (ELAP) by the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substance Control (DTSC). Copies of the sample collection records and chain-of-custody documents, for the groundwater samples, are presented in Attachment C.

All samples were analyzed for total petroleum hydrocarbons as gasoline and as diesel (TPH/g and TPH/d, respectively), and for benzene, toluene, ethylbenzene, and total xylenes (BTEX). U.S. Environmental Protection Agency (EPA) Methods 5030/8015, 3510/8015, and 602, were utilized for the TPH/g, TPH/d, and BTEX analyses, respectively.

Groundwater Sample Analytical Results

Analytical results for groundwater samples are presented in Table 2 (Attachment B). Concentrations of TPH/g, TPH/d and BTEX were below the method detection limits in groundwater samples collected from the monitoring wells.

CONCLUSIONS

Groundwater was encountered at depths ranging from 4.23 to 4.74 feet btoc. The groundwater flow direction was determined to be northeasterly with a gradient of 0.002 feet/foot at the time of the sampling event. The gradient has consistently been approximately 0.002 ft/ft, but the direction of groundwater flow has varied slightly from about north 45° east in September 1993 to about north 30° west in December 1993 and March 1994. Due to the close proximity of the site to the Bay, a shift in groundwater flow direction is probably caused by tidal influence. No petroleum hydrocarbons were detected in any of the monitoring wells this quarter. In the last 3 quarters a low concentration of diesel was detected only once in monitoring well MW1 (September 1993 sampling event). Other sampling events showed concentrations of petroleum hydrocarbons below method detection limits.

PLANNED ACTIVITIES

CET will collect groundwater elevation measurements, will determine groundwater flow direction and gradient, and will collect groundwater samples for chemical analysis on a quarterly basis. Quarterly groundwater samples will be submitted to a California DHS accredited laboratory for analysis for TPH/d, TPH/g, and BTEX.

Quarterly reports summarizing these activities at the subject property will be submitted to the ACHCSA. Activities at the subject property will be conducted in accordance with the ACHCSA's August 4, 1993 letter.

Limitations and uncertainty to this report are in Attachment E.

Please contact us if you have any questions or comments.

Sincerely,

CET ENVIRONMENTAL SERVICES, INC.

Terrance E. Carter
Senior Environmental Engineer
Project Manager

Voytek Bajsarowicz, R.E.A.
Regional Manager

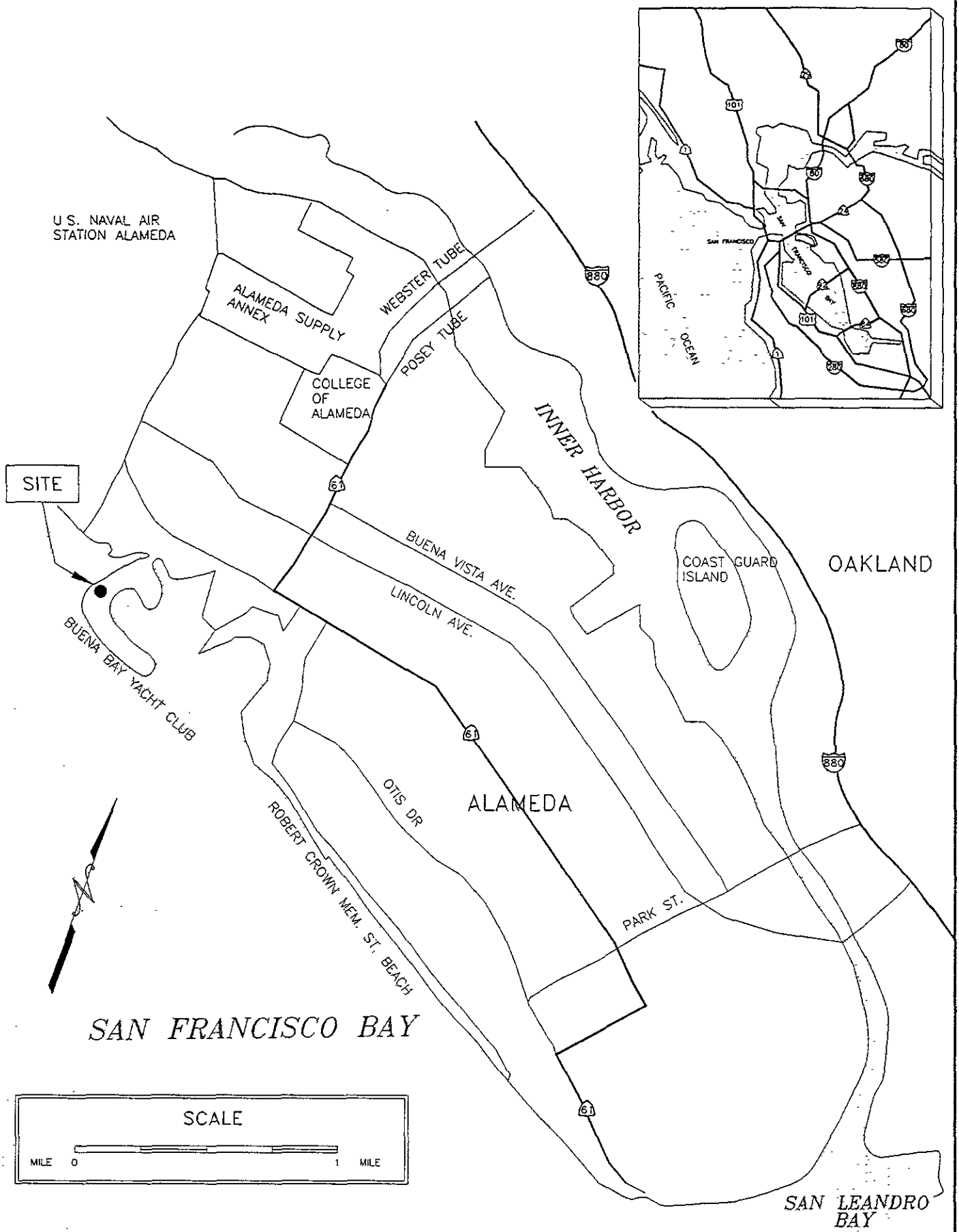
TEC/VB:kaa

Attachments

cc: Don Anderson, Ballena Isle Marina

ATTACHMENT A

Plates

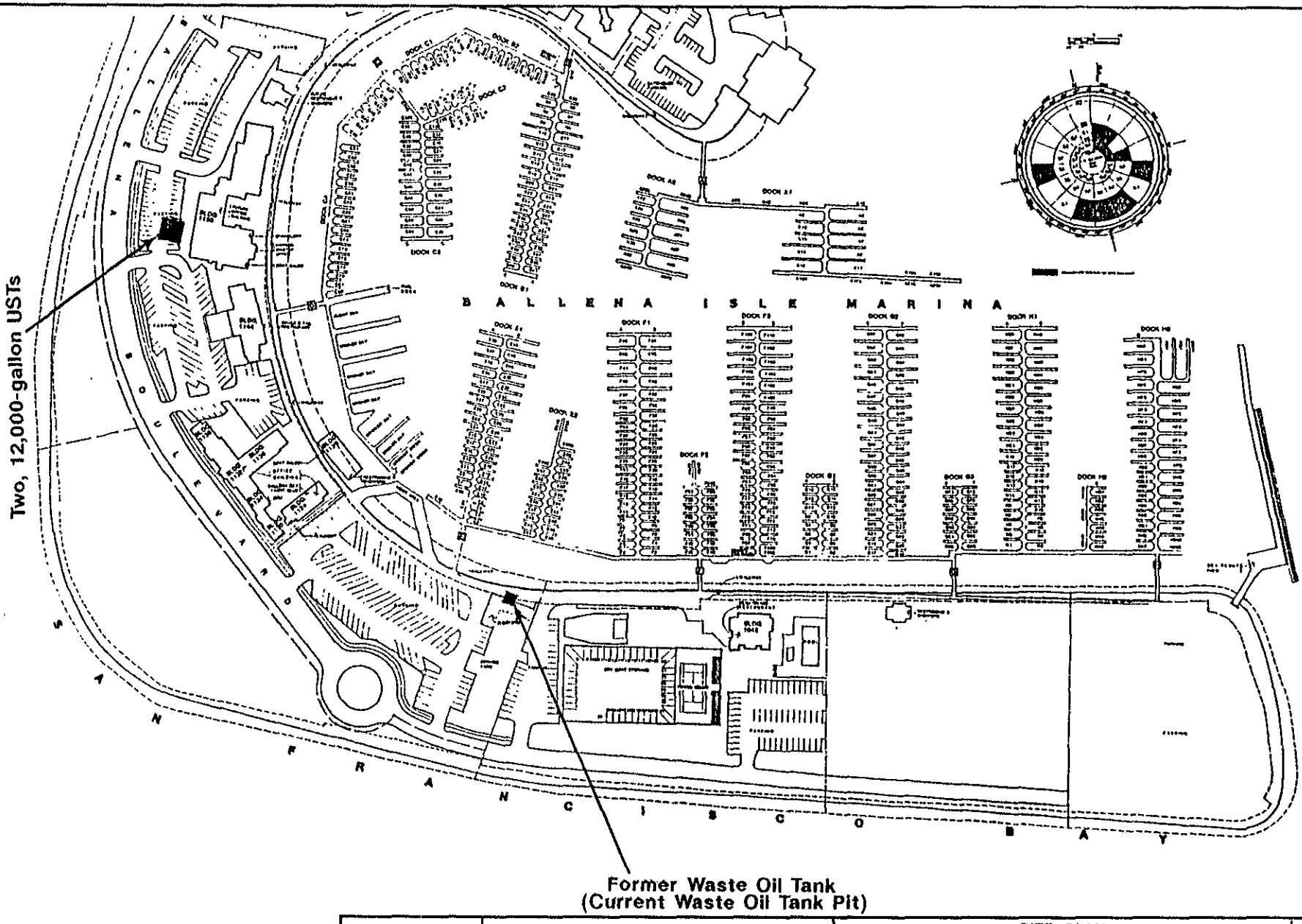


CET Environmental Services, Inc.

SITE LOCATION MAP
BALLENA BAY MARINA
BALLENA BAY YACHT HARBOR
1150 BALLENA BLVD., ALAMEDA, CA

PLATE 1

JOB NUMBER	DATE	DRAWING	BY	REVISED
3571	04/94	LOC	A WONG	04/28

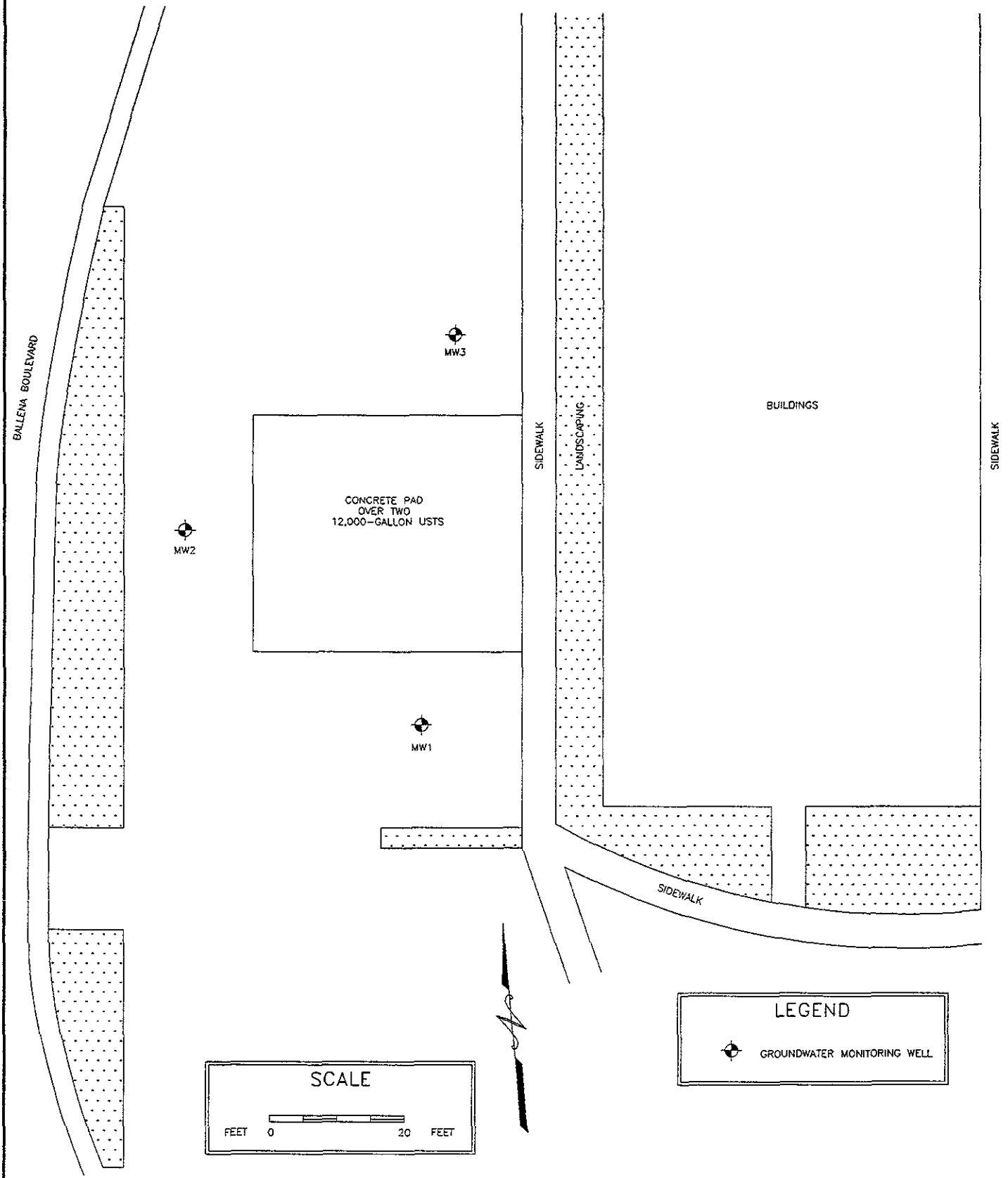


CET Environmental Services, Inc.

SITE PLAN
BALLENA BAY MARINA
BALLENA BAY YACHT HARBOR
1150 BALLENA BLVD., ALAMEDA, CA

JOB NUMBER	DATE	DRAWING	BY	REVISED
3571	4/94	SITE	A WONG	4/28

PLATE 2

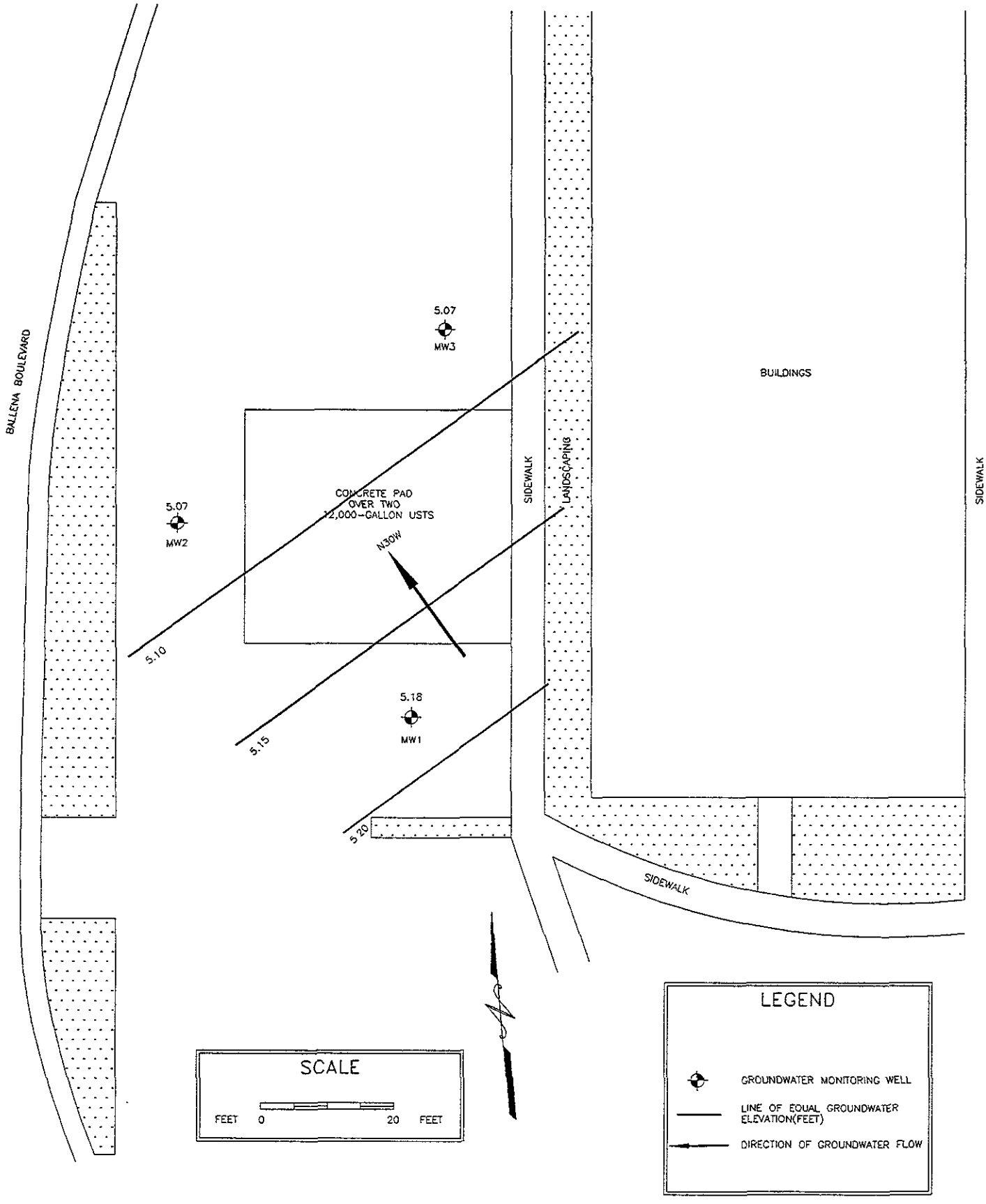


CET Environmental Services, Inc.

SITE PLAN
BALLENA BAY MARINA
BALLENA BAY YACHT HARBOR
1150 BALLENA BLVD., ALAMEDA, CA

JOB NUMBER	DATE	DRAWING	BY	REVISED
3571	04/94	PLAN	A WONG	04/28

PLATE 3



CET Environmental Services, Inc.

GROUNDWATER ELEVATIONS AND CONTOURS
BALLENA BAY MARINA
BALLENA BAY YACHT HARBOR
1150 BALLENA BLVD., ALAMEDA, CA

PLATE 4

JOB NUMBER	DATE	DRAWING	BY	REVISED
3571	04/94	PLAN	A WONG	04/28

ATTACHMENT B

Tables

Table 1

Groundwater Elevation Summary
1150 Ballena Blvd., Alameda, California

Well No.	TOC Elevation[a]	Date Measured	Depth to Groundwater[b]	Groundwater Elevation[c]
MW1	9.41	09/02/93	4.50	4.91
		12/14/93	3.92	5.49
		03/30/94	4.23	5.18
MW2	9.81	09/02/93	5.00	4.81
		12/14/93	4.45	5.36
		03/30/94	4.74	5.07
MW3	9.74	09/02/93	5.90	3.84
		12/14/93	4.33	5.41
		03/30/94	4.67	5.07

a. TOC Elevation = top of well casing elevation; measured in feet above a benchmark with an assumed elevation of 10.00 feet. (Data provided by Law/Crandell, Inc.)
b. Depth to Groundwater = measured in feet below top of well casing.
c. Groundwater Elevation = depth to groundwater subtracted from TOC elevation.

Table 2

Groundwater Analytical Data Summary-Petroleum Hydrocarbon Constituents
1150 Ballena Blvd., Alameda, California

Well No.	Date Sampled	TPH/d[a] (µg/L)[g]	TPH/g[b] (µg/L)[g]	B[c] (µg/L)[g]	T[c] (µg/L)[g]	E[c] (µg/L)[g]	X[c] (µg/L)[g]	SVOCs[d] (µg/L)[g]	TOG[e] (µg/L)[g]	PCBs[f] (µg/L)[g]
MW1	09/02/93	98	<50[h]	<0.5	<0.5	<0.5	<0.5	NA[i]	NA	NA
	12/14/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA[i]	NA	NA
	03/30/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
MW2	09/02/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	12/14/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	03/30/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
MW3	09/02/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	12/14/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	03/30/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
OP1	09/02/93	9,100	580	<0.5	<0.5	19	0.5	ND[j]	43,000	<0.5

a. TPH/d = total petroleum hydrocarbons as diesel
b. TPH/g = total petroleum hydrocarbons as gasoline
c. B = benzene; T = toluene; E = ethylbenzene; x = total xylenes
d. SVOCs = semi volatile organic compounds
e. TOG = total oil and grease
f. PCBs = polychlorinated biphenols
g. µg/L = micrograms per liter, equal to parts per billion (ppb)
h. <50 = less than method detection limit of 50 µg/L
i. NA = analysis not requested
j. ND = no analytes detected above respective method detection limits (see analytical test reports for individual analyte detection limits)

ATTACHMENT C

Soil & Groundwater Sample Collection & Handling Protocol

SOIL & GROUNDWATER SAMPLE COLLECTION & HANDLING PROTOCOL

INTRODUCTION & PURPOSE

Because reliable and representative test results must be generated from soil and groundwater samples, it is essential to establish a sampling procedure which assures that all samples are:

- Collected by approved and repeatable methods
- Representative of the materials(s) at the desired location and depth
- Uncontaminated by container and sampling equipment

The following sampling protocol is designed to be a guide to the sampling and handling procedures for soil and groundwater samples to be collected. Based on conditions which may be encountered in the field, some modifications to this protocol may be required to fit the needs of an individual site.

SAMPLING PROCEDURES

Groundwater Sampling

Prior to collecting groundwater samples, monitoring wells will be purged by bailing until pH, conductivity, and temperature levels stabilize. A minimum of four well casing volumes will be purged from each well. Wells will be purged and groundwater samples will be obtained using a teflon bailer or disposable polyethelene bailer, and nylon rope. New nylon rope will be used for each well.

The appropriate number and type of sample containers will be used for each sample collected, in accordance with the analytical laboratory requirements and EPA protocol. The bottles will be filled using the bailer. All sample bottles will be pre-cleaned by the supplier according to EPA protocols.

To prevent cross contamination of groundwater samples by the sampling equipment, all reusable equipment used in sampling will be washed with a trisodium phosphate solution (TSP), triple rinsed with purified water, and allowed to air dry prior to each use. A sample of the purified water will be retained for analysis as part of sample quality assurance.

Soil Sampling

After the soil sampler is driven to the desired depth and the samples are retrieved, each end of the tube containing the soil sample to be retained for laboratory analysis, will be sealed with teflon sheeting, covered with plastic end caps, and sealed with PVC tape. All sample containers (tubes) will be steam cleaned (or washed with TSP, as above) and air dried prior to use. The soil sample recovered in the tube just above the sample retained for chemical analysis will be examined in the field for visual and olfactory indications of chemical contamination and used for lithologic description.

The Unified Soil Classification System (USCS) will be used to log and describe the soil by the on-site geologist. These logs will also include details of the sampling process such as depth, apparent odors, discoloration, and any other factors which may be required to evaluate the presence of contamination at the site.

POST SAMPLING PROCEDURES

One field/travel blank consisting of one sample bottle filled with purified water will accompany soil and groundwater sample containers at all times, including during transport to and from the site. Purified water field/travel blanks will be analyzed according to the appropriate EPA Methods corresponding to the soil/groundwater sample analyses.

Sample containers will be labeled with sample number, project number, date, and the initials of the person collecting the sample. A separate sample collection record will be maintained for each groundwater sample collected.

Soil and groundwater samples collected and selected for analysis will be analyzed by an analytical laboratory certified by the California Department of Health Services (DHS). Quality assurance documentation will accompany all analytical reports generated by the laboratory.

The samples will be placed in a cooler with dry ice (for soil samples) or bagged ice (for water samples) immediately following collection, and will remain in the iced cooler until refrigerated at the analytical laboratory. The samples will be delivered to the laboratory direct by courier or overnight freight within 48 hours of time of collection. Appropriate chain of custody forms will be used for all samples.

ATTACHMENT D

Chain-of-Custody Records
Sample Collection Records
Laboratory Analytical Reports

CHROMALAB, INC.

DOHS 1094

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798

Chain of Custody

DATE 3/30/94 PAGE 1 OF 1

PROJ MGR Terry Carter
COMPANY CET Environmental
ADDRESS Emeryville, CA

SAMPLERS (SIGNATURE) J Long
(PHONE NO) 652-7001

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
MW1	3/30/94	16:40	H_2O	HCl		X	X																		4
MW2	3/30/94	15:25	H_2O	HCl		X	X																		4
MW3	3/30/94	16:05	H_2O	HCl		X	X																		4

PROJECT INFORMATION

PROJECT NAME
PROJECT NUMBER 3571
P.O. #

TAT: STANDARD 5-DAY | 24 | 48 | 72 | OTHER

SAMPLE RECEIPT

TOTAL NO OF CONTAINERS	12
HEAD SPACE	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	

SPECIAL INSTRUCTIONS/COMMENTS:

10-day TAT

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3
(SIGNATURE) Jaysen Long (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) Jaysen Long (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY) CET Environmental	(COMPANY)	(COMPANY)
RECEIVED BY 1	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3**
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) 1021 (TIME)
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) K. Morrow 4/1/94 (DATE)
(COMPANY)	(COMPANY)	(LAB) Chromalab

RECORD OF GROUNDWATER LEVEL MEASUREMENTS

Page 1 of 1

Date Measured: 3-30-94 Job No.: 3571-239

Site Location: Ballena Bay, Alameda

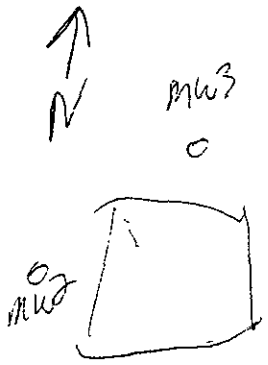
Well location map attached? Yes X No ___

Method of Measurement: X Electric well sounder,

___ Other: ___

Weather/Visibility: Clear, Sunny, breezy

Notes: ___



Well I.D.	Time (24 hr)	G.W.L. (1/100 ft)	G.W.L. 3x's?	B.O.W. (1/2ft)	Remarks
MW1	14:40	4.23	X	13.5	
MW2	14:50	4.74	X	14.5	
MW3	14:55	4.67	X	14.5	

Measured by (Signature): Jayson Long

rev.2/13/90

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 3-30-94 Sample I.D.: MW1 Job No.: 3571-259

Site Location: Ballena Bay, Alameda

No. of Containers: 4 / (check one): X Well Samples;

___ Duplicates from well _____; ___ Travel Blanks;

___ Field Blanks; ___ Other (explain)/ _____

W.L.(1/100'): 4.23 Time: ~~14:23~~ 14:40 B.O.W.(1/2'): 13.5

Method: X Electric Well Sounder; ___ Other/ _____

Meters calibrated: (Y) / N Well Loc. Map: (Y) / N

Calculated Purge Volume (4 casing volumes): 7 gallons

Purging Method: X Disposable Bailer; ___ Teflon Bailer;

___ Other/ _____

Time Start Purging (24 hr): 16:15, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor: ___ ppm / %LEL
Turbidity: 660 NTU, Color: gray, light

Time Stop Purging (24 hr): 16:30, Product: Y / N
Sheen: Y / N, Odor: Y / N, Vapor: ___ ppm / %LEL
Turbidity: _____, Color: _____

Time (24 hr)	Temp. (C)	pH	Cond. (uS)	H2O (Gal)	Turbid. (NTU)
16:20	16.7	8.41	577	2.5	988
16:25	16.5	8.41	618	5	>1000
16:30	16.5	8.42	627	7	>1000
:					
:					

Sample Collection Time (24 hr): 16:40

Notes: _____

Collected By (signature): Jayson Lang

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 3-30-94 Sample I.D.: MW2 Job No.: 3571-259

Site Location: Ballena Bay

No. of Containers: 4 / (check one): ✓ Well Samples;

___ Duplicates from well _____; ___ Travel Blanks;

___ Field Blanks; ___ Other (explain)/ _____

W.L. (1/100'): 4.74 Time: 14:50 B.O.W. (1/2'): 14.5

Method: ✓ Electric Well Sounder; ___ Other/ _____

Meters calibrated: (Y) / N Well Loc. Map: (Y) / N

Calculated Purge Volume (4 casing volumes): 7 gallons

Purging Method: X Disposable Bailer; ___ Teflon Bailer;

___ Other/ _____

Time Start Purging (24 hr): 15:00, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor: ___ ppm / %LEL
Turbidity: 39.6 NTU, Color: clear

Time Stop Purging (24 hr): 15:20, Product: Y / N
Sheen: Y / N, Odor: Y / N, Vapor: ___ ppm / %LEL
Turbidity: _____, Color: gray, dark

Time (24 hr)	Temp. (C)	pH	Cond. (uS)	H2O (Gal)	Turbid. (NTU)
15:10	17.2	8.15	574	2.5	664
15:15	17.0	8.05	580	5	547
15:20	17.1	7.98	578	7	744
:					
:					

Sample Collection Time (24 hr): 15:25

Notes: _____

Collected By (signature): Daysen Lam

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 3-30-94 Sample I.D.: MW3 Job No.: 357-239

Site Location: Ballena Bay, Alameda

No. of Containers: 4 / (check one): X Well Samples;

___Duplicates from well_____; ___Travel Blanks;

___Field Blanks; ___Other (explain)/_____

W.L.(1/100'): 4.67 Time: 14:55 B.O.W.(1/2'): 14.5

Method: X Electric Well Sounder; ___Other/_____

Meters calibrated: (Y) / N Well Loc. Map: (Y) / N

Calculated Purge Volume (4 casing volumes): 7 gallons

Purging Method: X Disposable Bailer; ___Teflon Bailer;

___Other/_____

Time Start Purging (24 hr): 15:45, Product: Y / N
Sheen: Y / N, Odor: Y / N, Vapor:___ ppm / %LEL
Turbidity: 48.7 NTU, Color: Clear

Time Stop Purging (24 hr): 16:00, Product: Y / N
Sheen: Y / N, Odor: Y / N, Vapor:___ ppm / %LEL
Turbidity:_____, Color: dark gray

Time (24 hr)	Temp. (C)	pH	Cond. (uS)	H2O (Gal)	Turbid. (NTU)
15:50	16.2	8.35	1042	2.5	>1000
15:55	16.3	8.02	1257	5	>1000
16:00	16.3	8.15	1256	7	>1000
:					
:					

Sample Collection Time (24 hr): 16:05

Notes:_____

_____

_____

Collected By (signature): Jaysen Long / B.A.

CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1994 ChromaLab File#: 9404013

CET ENVIRONMENTAL SERVICES, INC

Atten: Terry Carter

Project: 3571
Received: April 1, 1994

re: 3 samples for Gasoline and BTEX analysis.

Matrix: WATER
Sampled on: March 30, 1994 *Analyzed on:* April 5, 1994
Method: EPA 5030/8015/602 *Run#:* 2596

Lab #	SAMPLE ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
47993	MW1	N.D.	N.D.	N.D.	N.D.	N.D.
47994	MW2	N.D.	N.D.	N.D.	N.D.	N.D.
47995	MW3	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMITS		50	0.5	0.5	0.5	0.5
BLANK		N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY(%)		84	103	119	111	113

ChromaLab, Inc.

Jack Kelly
Chemist

Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1994 ChromaLab File No.: 9404013

CET ENVIRONMENTAL SERVICES, INC

Attn: Terry Carter

RE: Three water samples for Diesel analysis

Project Number: 3571

Date Sampled: March 30, 1994 Date Submitted: April 1, 1994
Date Extracted: April 5, 1994 Date Analyzed: April 5, 1994

RESULTS:

Sample I.D.	Diesel (µg/L)
MW1	N.D.
MW2	N.D.
MW3	N.D.
BLANK	N.D.
SPIKE RECOVERY	95%
DUP SPIKE RECOVERY	101%
DETECTION LIMIT	50
METHOD OF ANALYSIS	3510/8015

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

ATTACHMENT E

Limitations and Uncertainty

LIMITATIONS AND UNCERTAINTY

This report was prepared in general accordance with the accepted standard of practice which exists in northern California at the time the investigation was conducted and within the scope of services outlined in our proposal. It should be recognized that the definition and evaluation of surface and subsurface environmental conditions is a difficult and inexact science. Judgements leading to conclusions and recommendations generally are made with an incomplete knowledge of the conditions present. It is possible that variations in the soil and/or groundwater conditions could exist beyond the points explored for this investigation. Also changes in groundwater conditions could exist beyond the points explored for this investigation. Also changes in groundwater conditions could occur sometime in the future due to variations in tides, rainfall, temperature, local or regional water use or other factors. If the client wishes to reduce the uncertainty beyond the level associated with this study, CET Environmental Services, Inc. should be notified for additional consultation.

The discussion and recommendations presented in this report are based on: 1) information and data provided by third party consultants, 2) the exploratory test borings drilled at the site, 3) the observations of field personnel, 4) the results of laboratory analysis by a California Department of Health Services (DHS) accredited laboratory, and 5) interpretations of federal, state, and local regulations and/or ordinances.

Chemical analytical data included in this report have been obtained from state certified laboratories. The analytical methods employed by the laboratories were in accordance with procedures suggested by the U. S. Environmental Protection Agency and State of California. CET Environmental Services, Inc. is not responsible for laboratory errors in procedures or reporting.

CET has conducted this investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the environmental consulting profession currently practicing under similar conditions in northern California. CET has prepared this report for the client's (and assigned parties) exclusive use for this particular project. No other warranties, expressed or implied, as to the professional advice provided are made.