4/10/93

Quarterly Monitoring Well
Sampling and Analysis
U.S. Coast Guard Support Center
Swimming Pool Location
Coast Guard Island
Alameda, California
PSI Project # 582-34006

Professional Service Industries, Inc.

August 10, 1993

U.S. Coast Guard Support Center
Civil Engineering Unit
2000 Embarcadero, Suite 200
Oakland, CA. 94606-5337

Attention: Mr. Louis Rivero

Subject: QUARTERLY MONITORING WELL SAMPLING & ANALYSIS

Project: Swimming Pool Location
Coast Guard Island
Alameda, CA 94606
Project No. 582-34006

Dear Mr. Rivero:

Professional Service Industries, Inc. (PSI), San Francisco Field Services Division is pleased to present the results of groundwater sampling for the second quarter of 1993. A description of the sampling and laboratory analysis for the one monitoring well located at the Swimming Pool location (see Figure 1, Vicinity Map, Figure 2, Site Plan, and Figure 3, Monitoring Well Location Map) are contained herein.

Field activities were conducted on July 8, 1993. The purpose of this program is to monitor hydrocarbon concentrations in the groundwater below the area where two 2,000 gallon underground storage tanks (UST's) previously containing diesel and gasoline, were located.

SAMPLING METHOD

The groundwater elevations were measured prior to and after well development. The one monitoring well (MW-1SP)was redeveloped in order to establish a flow of groundwater into the well and to remove any longstanding water. Well redevelopment was accomplished by means of a stainless steel bailer. Approximately 8 to 10 gallons of water (3 to 4 casing volumes) were removed from the well prior to sampling. The purged groundwater from the well was contained in labelled 55-gallon drums and left on-site for future storage during additional sampling. After allowing the well to recharge, a groundwater sample was collected.

Prior to redevelopment and sampling from the well, the bailer was cleaned using trisodium phosphate solution and triple-rinsed with potable water. A water sample was drained from the bailer into certified clean, 40 ml vials, with care being taken to eliminate headspace. The vials were labelled and placed into cold storage until delivery to a state certified laboratory for analysis. Additionally, hydrochloric acid was used to preserve samples. Proper chain-of-custody procedures were observed. A Chain-of-custody is included with the attached analytical results.

OBSERVATIONS

Monitoring Well No. 1 (MW-1SP): No petroleum odor was evident when initially uncapped. Water sample was clear in color.

Note: See Appendix B Table I for Groundwater Elevation Data.

LABORATORY ANALYSES

The groundwater samples were submitted to PSI's Analytical Laboratory in Lawrence, Kansas and analyzed for Aromatic Volatile Organics by EPA Method 8020 and Total Petroleum Hydrocarbons for gasoline (TPHG), Method 8015, using gas chromatography with photoionization detection. The analytical results are summarized below. The complete laboratory report, including analytical results, QA/QC data, and chain-of-custody is attached.

SUMMARY OF ANALYTICAL RESULTS
SECOND QUARTER GROUNDWATER MONITORING (1993) *

Well Number	Date of Sample	Benzene	Toluene	Ethylbenzene	Xylenes	Purgeable Hydrocarbons
MW-1SP	4/8/93	7.4	1.2	29	20	720
	7/8/93	ND	ND	ND	ND	610

* All concentrations are in parts per billion (micrograms per liter, ug/L).
N.D. Analytes reported as not detected above the stated reporting limit.

DISCUSSION OF RESULTS

Based on the analytical results, it appears that purgeable hydrocarbons, and benzene, toluene, ethylbenzene, and xylenes (BTEX) in the groundwater beneath the site are not above the stated reporting limit which shows a decrease from the initial sampling event. Total Purgeable Hydrocarbons for gasoline (TPHG) however, are reported at 610 ug/L. This decrease in purgeable hydrocarbons will be monitored throughout the remaining two quarters of 1993. Should analytical results continue to remain at this low level, PSI will request to the Alameda County Department of Environmental Health, that groundwater monitoring be changed to a semi annual basis.

LIMITATIONS OF INVESTIGATION

Our investigation was performed using the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental consultants practicing in this or similar localities. The samples collected and used for testing and observations made are believed representative of site conditions. No other warranty, expressed or implied, is made to conclusions and professional advise included in this report.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the proper authorities and/or regulating agencies.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties.

In addition, changes in applicable or appropriate standards may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should be updated as changes may occur.

The opportunity to be of service is appreciated. Should you have any questions regarding the content of this report, or we can be of further assistance, please do not hesitate to contact us.

Sincerely,

Professional Service Industries, Inc.
San Francisco Field Services

Mark A. Casterson, REA 04993
Professional Senior

Steven N. Bradley, CEG 1625
Manager - Environmental Services

Thomas J. Kent, P.E.
Senior Project Manager

APPENDICES

APPENDIX A
FIGURES

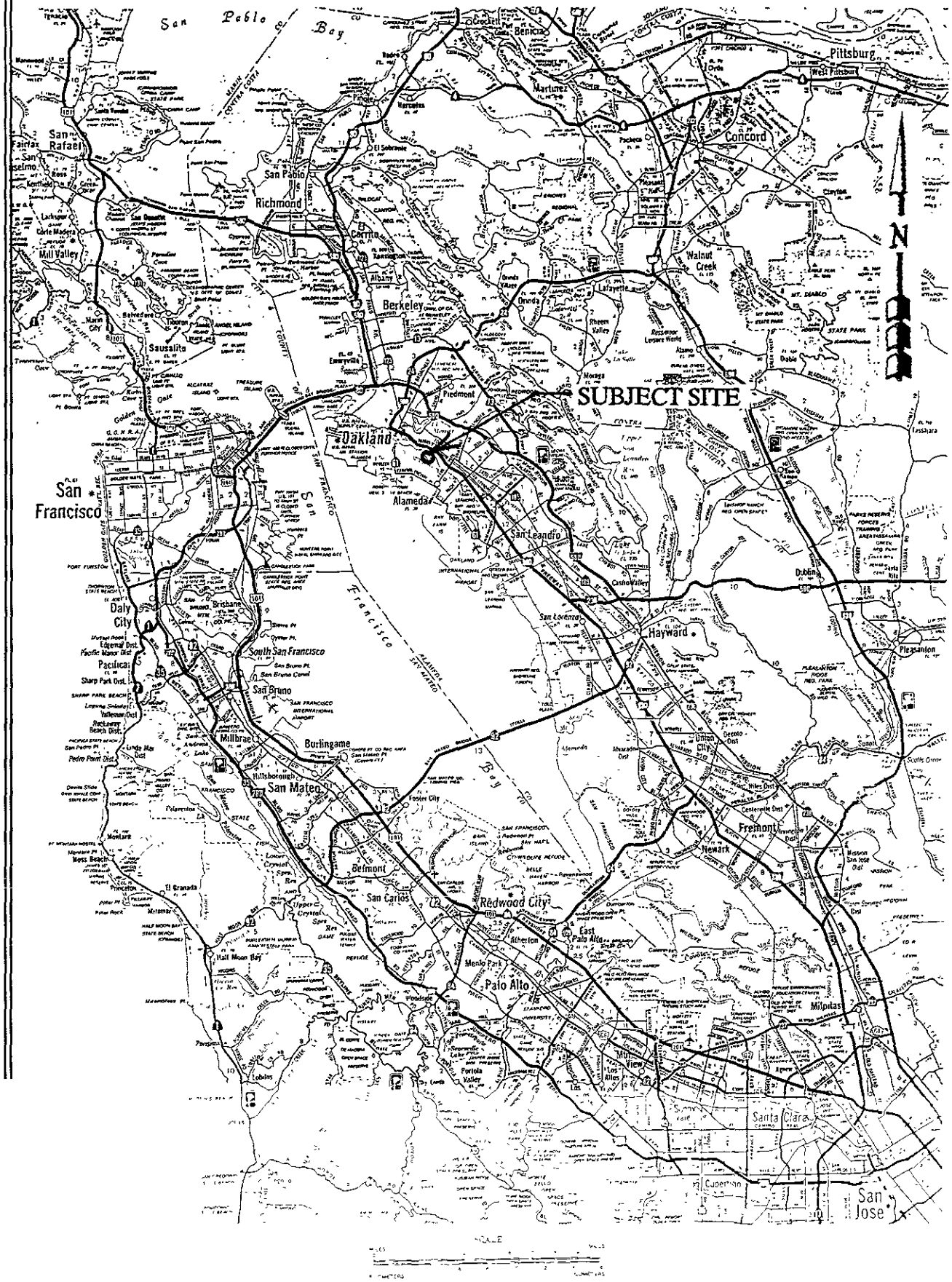


Figure 1, Vicinity Map

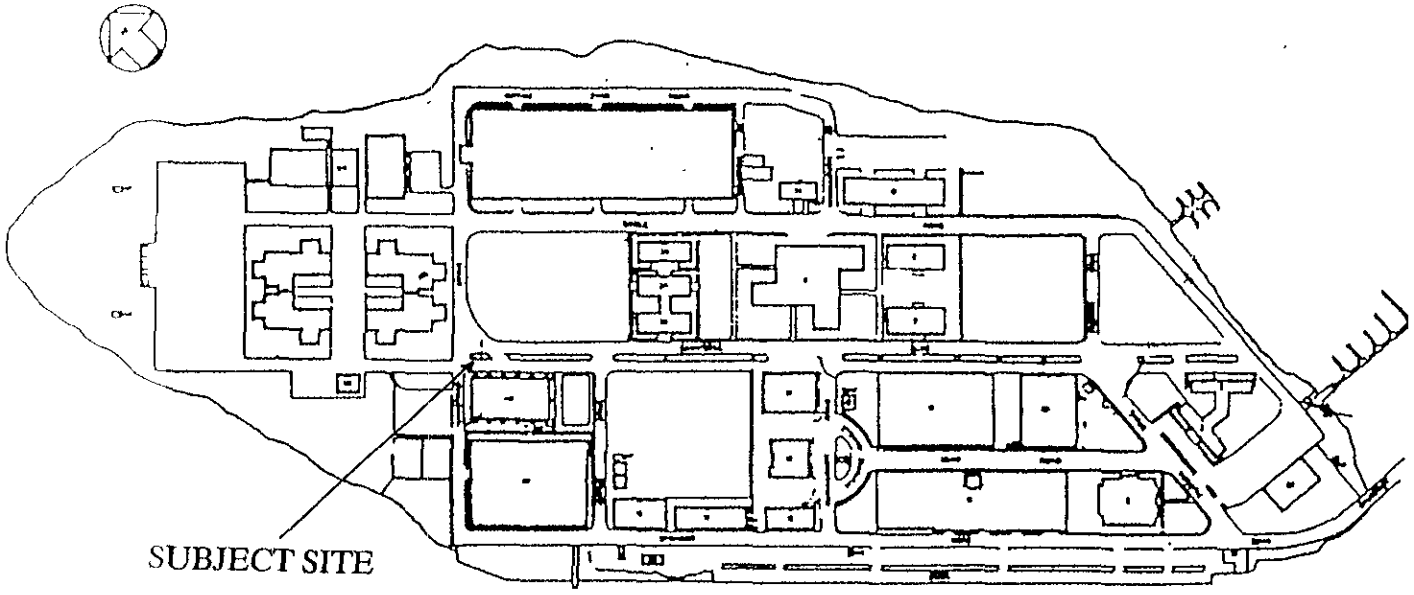
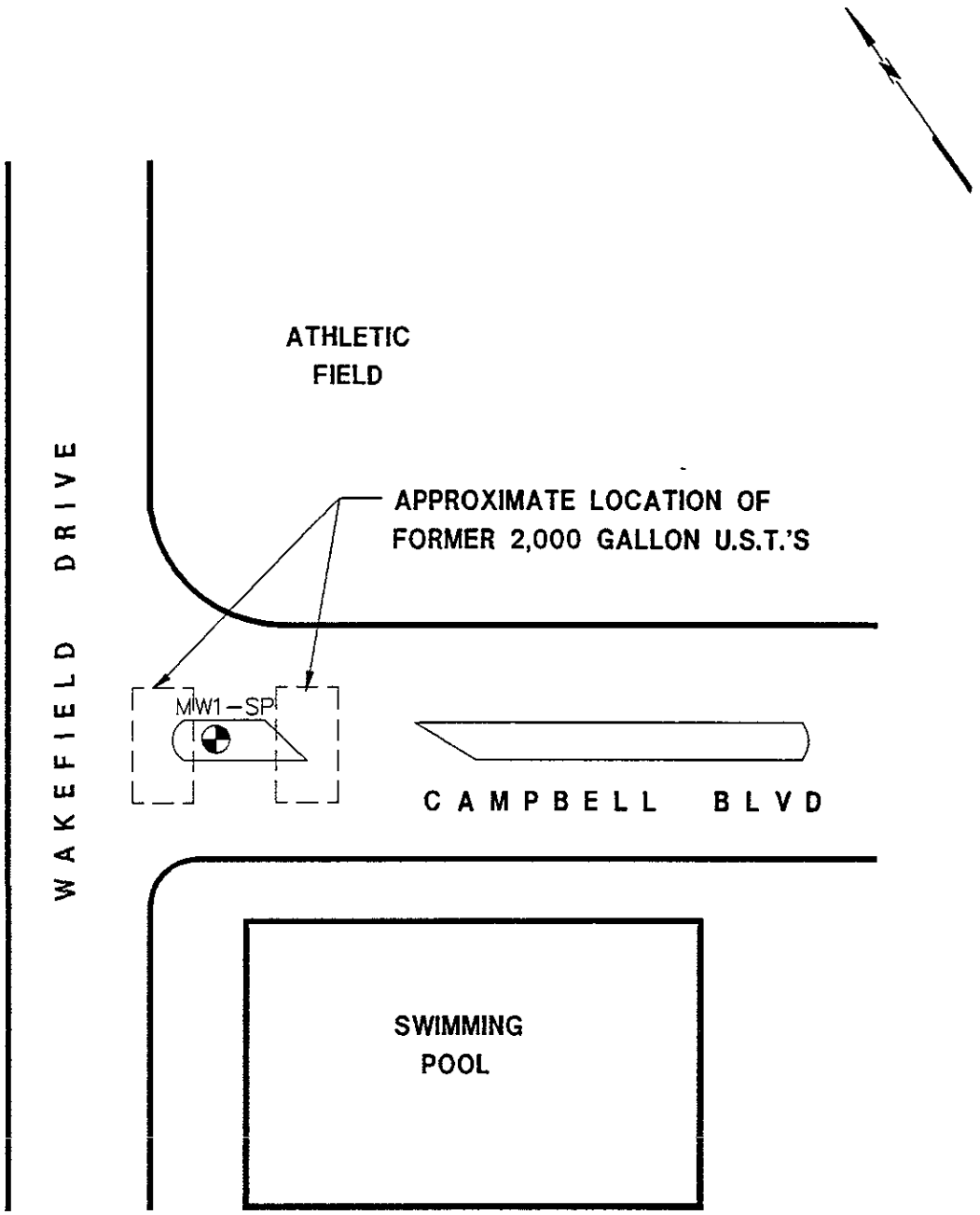


FIGURE 2, SITE PLAN



LEGEND

◒ MONITORING WELL LOCATION

PROFESSIONAL SERVICE INDUSTRIES, INC.
3730 MT. DIABLO BLVD., SUITE 345 LAFAYETTE, CA 94549
(510) 284-3070

PROJECT NAME: U.S. COAST GUARD ALAMEDA, CA	DATE: 08/10/93
	DWG NO.: 34006-3C
	PROJ NO.: 582-34006
TITLE: MONITORING WELL LOCATION MAP FIGURE NO. 3	DRAWN BY: N TOOR
	APP'D BY: K. OLIVER
	SCALE: NOT TO SCALE

C:\DWG\34006-3A

APPENDIX B
GROUNDWATER ELEVATION DATA

TABLE I

GROUNDWATER ELEVATION DATA*

Well Number	Suface Casing Elevations	Date/Time of Measurement	Depth to Water Meas. in ft.	Water Level Elev. (MSL)
MW-1SP	14.30	4/8/93/14:30	4.5	9.85
		7/8/93/15:30	4.9	9.40

* MSL, Mean Sea Level

APPENDIX C

LABORATORY RESULTS AND CHAIN OF CUSTODY

Professional Service Industries, Inc.

ANALYTICAL REPORT

PSI-Lafayette
Project: U.S.C.G.
Project number: 582-34006

59400582-32047
July 26, 1993

Respectfully Submitted

Lawrence Environmental Chemistry
Department Manager

7/26/93
Date

4820 W 15th Street • Lawrence KS 66049 • 913/749-2381 • Fax 913/865-9587

PROFESSIONAL SERVICE INDUSTRIES, INC.
4820 West 15th St., Lawrence, KS 66049

PSI-Lafayette
Project: U.S.C.G.
Project number: 582-34006

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
MW-1SP	Benzene	<2.0	2.0	ug/L	8020
810704	Toluene	<2.0	2.0	ug/L	8020
	Ethylbenzene	<2.0	2.0	ug/L	8020
	Xylenes	<2.0	2.0	ug/L	8020
	Surrogate Recovery = 84%				

CHAIN OF CUSTODY RECORD

PSI Professional Service Industries, Inc.

PROJECT NAME	REPORT TO	INVOICE TO
U.S.C.G	MARK CASTERSON	P.S.I - S.F.
PROJECT NUMBER: 582-34006	PROJECT MANAGER: KEVIN OLIVER	ADDRESS: 3730 MT DIABLO BLV. STE 345
P.O. NUMBER: —	ADDRESS: 3730 MT. DIABLO BL. STE 345	CITY / STATE / ZIP: LAFAYETTE, CA 94549
REQUIRED DUE DATE: 7/30/93	CITY / STATE / ZIP: LAFAYETTE, CA, 94549	ATTENTION: MARK CASTERSON
SAMPLES TO LAB VIA: 6	TELEPHONE (510) 284-3070	TELEPHONE: (510) 284-3070
NUMBER OF COOLERS: 1	FAX (510) 284-3154	
	REPORT VIA: AIRBORNE; VERBAL FAX; U.S. MAIL / OVERNIGHT (circled)	

LABORATORY SUBMITTED TO:

- ☐ 6913 Hwy. 225, Deer Park, TX 77536, (713) 479-8307
- ☒ 4020 W. 15th Street, Lawrence, KS 66049, (800) 548-7901
- ☐ 6056 Ulmerton Road, Clearwater, FL 34620, (813) 531-1446
- ☐ 850 Poplar Street, Pittsburgh, PA 15220, (412) 922-4000

LABORATORY USE ONLY

ANALYTICAL DUE DATE	7-23-93
REPORT DUE DATE	7-27-93
INORGANIC	20
Sect ___ Row ___	ORGANIC Sect ___ Row ___
PSI PROJECT NAME	PSI - Lafayette
PSI PROJECT #	59400582
PSI BATCH #	32047

TRANSFER NUMBER	RELINQUISHED BY DATE / TIME	ACCEPTED BY DATE / TIME	SEAL NUMBER
	[signature] MARK CASTERSON 7/8/93	Chris Korb 7/14/93 12:54 — it took so long	

LABORATORY USE ONLY: FIELD SERVICES Y/N $; SHIPPING Y/N $

LABORATORY USE ONLY — SAMPLE CUSTODIAN: Chris Korb; DATE / TIME: 7-14-93 12:54

PARAMETER LIST: [crossed out] 8015/8020; 2 vv per sample

SAMPLE IDENTIFICATION	DATE / TIME	COMP-C GRAB-G	SOIL-S WATER-W WASTE-X	LAB USE ONLY LAB NUMBER	NUMBER OF CONTAINERS
MW-1 SP	7/8/93		W	810704	2
MW-1 EX	↓		↓	705	2
MW-2 Ex	↓		↓	706	2
MW-3 Ex	↓		↓	707	2
MW-4 Ex	↓		↓	708	2
MW-5 Ex	↓		↓	810709	2

ADDITIONAL REMARKS: ANALYZE FOR GASOLINE [signature]

MJ 7/14/93 S