



Environmental
Science &
Engineering, Inc.

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November 4, 1993

Mr. Scott O. Seery
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
80 Swan, Room 350
Oakland, California 94621

**SUBJECT: WORKPLAN FOR SOIL STOCKPILE SAMPLING
4TH AND MADIGAN SITE
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, ALAMEDA COUNTY, CALIFORNIA
ESE PROJECT NO. 6-93-5077**

Dear Mr. Seery,

Environmental Science & Engineering, Inc. (ESE) presents the following workplan on behalf of the Alameda County General Services Agency (GSA). The workplan addresses characterization of stockpiled soil excavated during the removal of three underground storage tanks (USTs) at the subject site (Figure 1 - Location Map). Data collected during this site work will assist the GSA in determining the proper method of disposal, recycling, or remediation of the stockpiled soil.

BACKGROUND

In May 1992, ESE directed the excavation and removal of three USTs at the subject site (Figure 2 - Site Plan) under permit from the Alameda County Health Care Services Agency (HCSA). The GSA owned and operated one 10,000-gallon capacity UST and one 8,000-gallon capacity UST for the storage of Bunker C fuel oil. This fuel oil was used to operate a series of boilers formerly located at the site. During the removal of the USTs described above, one 3,500-gallon capacity diesel fuel UST was discovered and removed. All USTs were of single-wall carbon steel construction. The installation dates for the tanks are unknown.

During removal of the USTs, the HCSA witnessed the collection of five soil samples from the base of the excavation. All samples were analyzed for total petroleum hydrocarbons as diesel fuel (TPH-D) using EPA analytical method 8015 (modified per CA LUFT); total oil and grease (TOG) using Standard Method for Water and Wastewater (SMWW) 5520; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA analytical method 8020. Three samples (4W, 4AE, and 4BW) were reported to contain detectable concentrations of TPH-D and TOG. No detectable concentrations of BTEX constituents were reported in any of the samples collected. All findings were documented in an UST closure report prepared by ESE and submitted to the HCSA on July 20, 1992. To date, all soil overexcavated during the UST removal remains stockpiled at the site and the UST excavation has not been backfilled.

* up to 15,000 ppm TPH-D (4W) and 5300 ppm TOG (4E)

On November 3, 1993, ESE measured and mapped the stockpiled soil at the subject site. ESE estimated the total volume of stockpiled soil at the site to be approximately 500 cubic yards.

In order to characterize this stockpiled soil, ESE will perform the following three tasks:

TASK 1 - STOCKPILE SOIL SAMPLING

ESE will collect samples at a frequency of one discrete soil sample per 50 cubic yards of stockpiled soil. Since approximately 500 cubic yards of soil are stockpiled at the property, ESE will collect a total of 10 samples.

Prior to work start, all onsite personnel will attend a brief health and safety tailgate meeting. The purpose of the meeting is to summarize the health and safety plan and describe the potential hazards. It is assumed that work will be performed in level D personal protective gear; however, air purifying respirators will be worn if necessary.

Soil stockpile sample locations will be marked on the pile using stakes or other temporary marking methods as shown on Figure 3 - Soil Stockpile Sample Locations. Each location will delineate approximately 50 cubic yards of soil.

One soil sample will be collected at each location at a random depth ranging between one-half foot to four feet (maximum stockpile height). A sample will be collected by augering to the specified depth at each location within the stockpile using a hand auger and, subsequently, driving a six-inch long sampler lined with a new, thin-wall brass sleeve. The sampler will be advanced into the soil by manually dropping a weighted handle onto a rod attached to the sampler. Shredded plastic, concrete fragments, and other inert debris will not be included in the sample. Upon retrieval, the sample will be immediately capped with teflon-lined plastic caps, sealed with tape, labeled and documented on a chain of custody form. The sample will then be placed under ice in a cooler. Upon completion of the sampling, the samples will be transported under chain of custody documentation to McCampbell Analytical of Pacheco, California (a State-certified laboratory). All sample locations will be noted in field notes prepared at the site. All sampling equipment will be cleaned between each sample location using a soap and water solution followed by a clean water rinse.

TASK 2 - SAMPLE ANALYSES

Each of the 10 samples collected will be analyzed for the following:

- TPH-D using EPA Method 8015 (modified per CA LUFT), and
- BTEX using EPA Method 8020.

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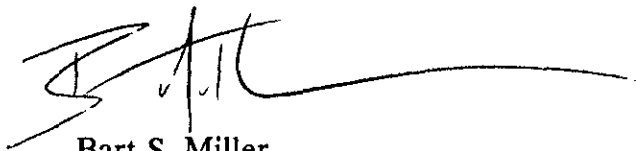
TASK 3 - REPORT PREPARATION

Upon receipt of the laboratory analytical results for the stockpile samples, ESE will evaluate the data and prepare a brief report of the work. This report will describe sampling methodology and locations and present the analytical results in tabular form. Based on findings, ESE will present recommendations regarding soil treatment or offsite disposal.

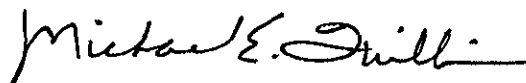
Please contact Bart Miller at (510) 685-4053 with any questions or comments regarding this work.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

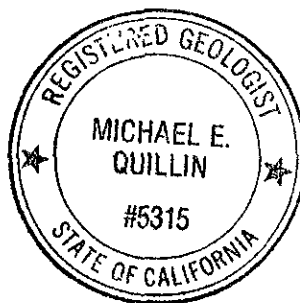


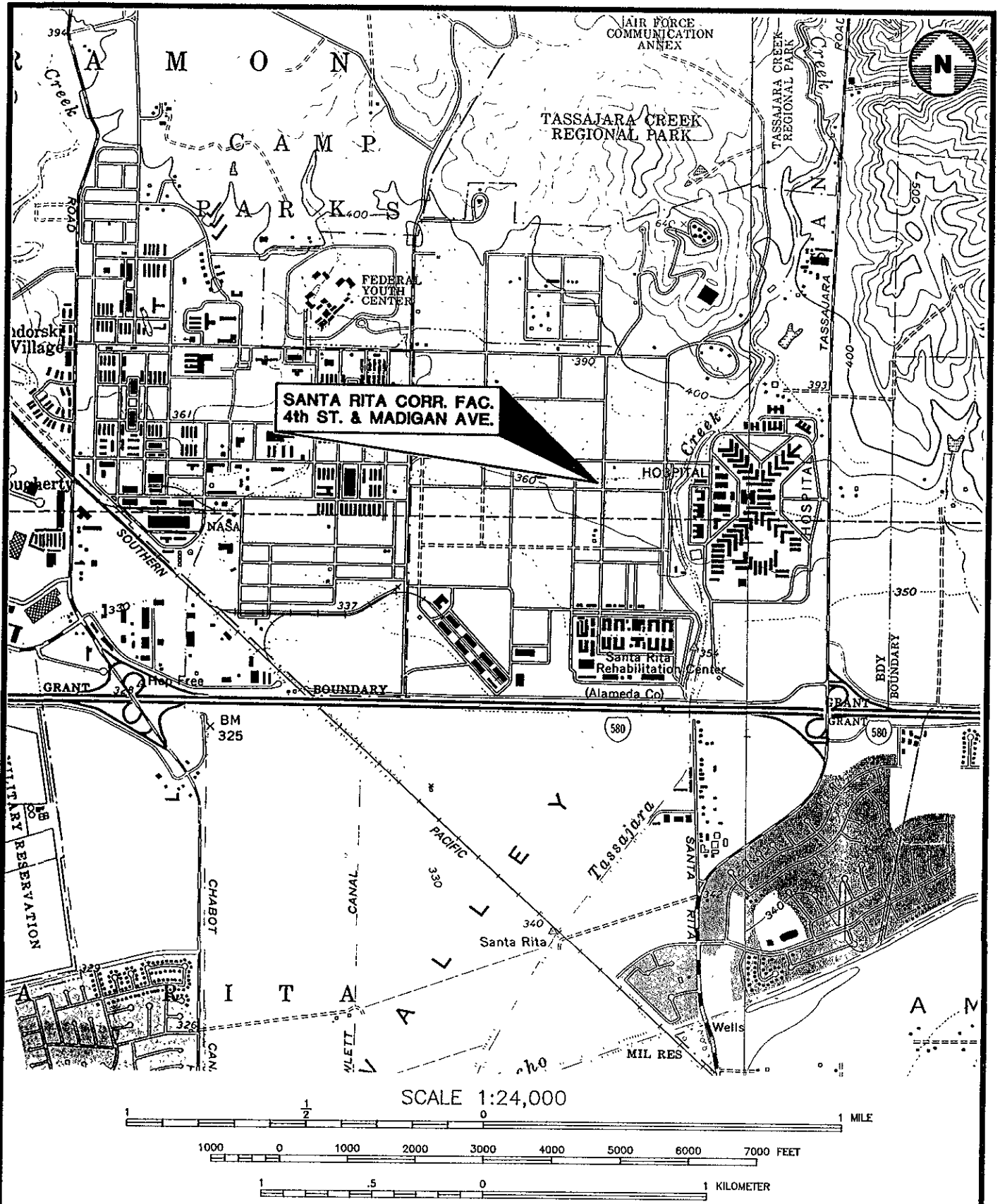
Bart S. Miller
Project Geologist



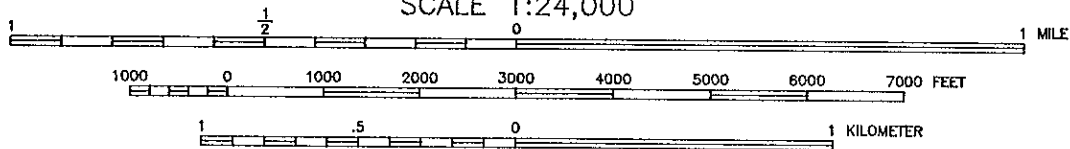
Michael Quillin, RG 5315
Senior Hydrogeologist

Attachment - Figures (x3)





SCALE 1:24,000



ADAPTED FROM U.S.G.S. DUBLIN AND LIVERMORE, CALIFORNIA 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAPS, 1980.



**Environmental
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4090 NELSON AVENUE, SUITE J
CONCORD, CA 94520

DATE

11/93

REVISED

CAD FILE

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LOCATION MAP

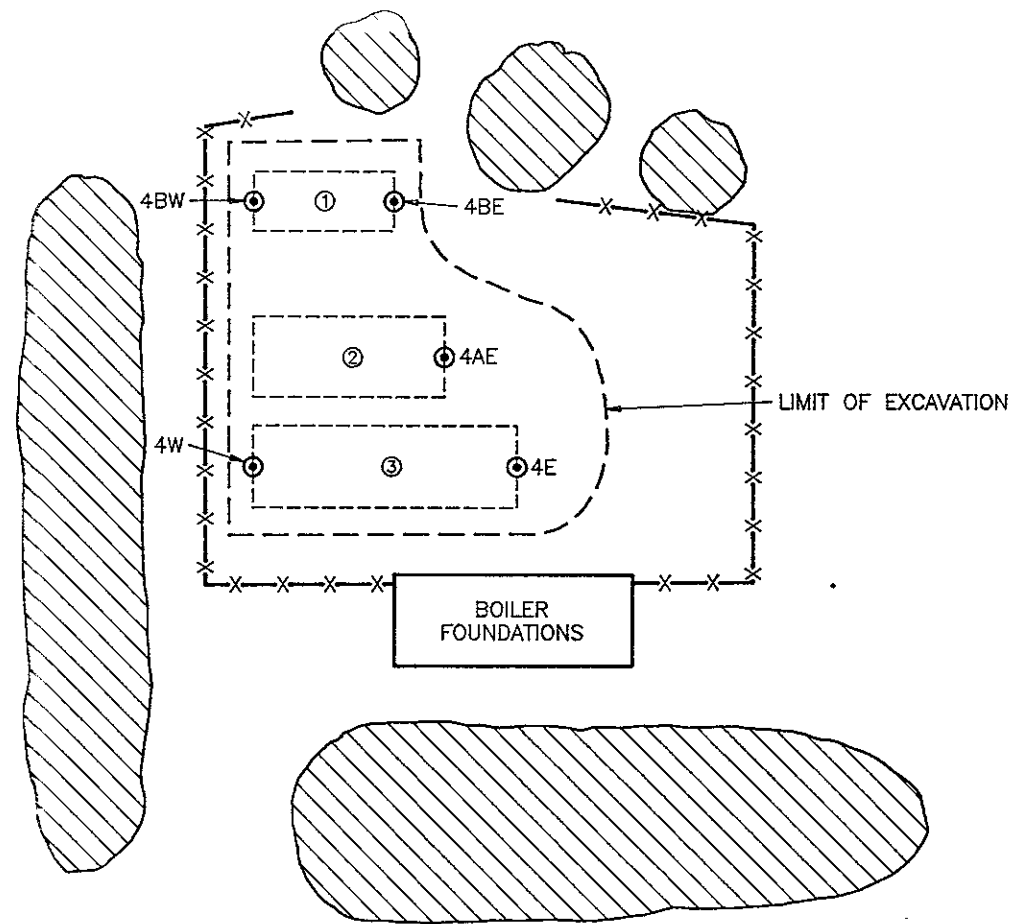
ALAMEDA COUNTY GSA
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA

FIGURE NO.

1

PROJ. NO.

6-93-5077




LEGEND

- ① FORMER 3,500 GALLON DIESEL FUEL UST
- ② FORMER 8,000 GALLON BUNKER C FUEL OIL UST
- ③ FORMER 10,000 GALLON BUNKER C FUEL OIL UST
- X- PORTABLE FENCING
- ▨ STOCKPILED SOIL
- ④ FORMER SOIL SAMPLE LOCATION WITH SAMPLE NUMBER

4th STREET

MADIGAN AVENUE



	DATE 11/93	SITE PLAN	FIGURE NO. 2
	REVISED		
4090 NELSON AVENUE, SUITE J CONCORD, CA 94520	CAD FILE 50771008	ALAMEDA COUNTY GSA SANTA RITA CORRECTIONAL FACILITY DUBLIN, CALIFORNIA	PROJ. NO. 6-93-5077