Environmental
Science &
Engineering, Inc.

April 15, 1993

Project No. 6-93-5062

Mr. Scott O. Seery
Senior Hazardous Material Specialist
Alameda County Health Services
Department of Environmental Health
80 Swan Way, Room 350
Oakland, California , 94621

SUBJECT: **Santa Rita Jail, Old Graystone Facility, Dublin, California** 11, 12, 12A

Dear Mr. Seery:

Environmental Science & Engineering, Inc. (ESE) presents the following workplan on behalf of Alameda County General Services Agency (GSA). The workplan is for characterization of stockpiled soil impacted with gasoline. GSA plans to aerate impacted soil in accordance with Bay Area Air Quality Management District (BAAQMD) regulations. This site work will provide the data required to plan and conduct this soil aeration.

Background

In February, 1993, ESE excavated approximately 6,500 cubic yards of soil from the former vehicle fueling facility in the Old Graystone area of Santa Rita Jail. ESE estimates that approximately 5,000 cubic yards of this soil has been impacted by gasoline. Approximately 1,500 cubic yards of stockpiled soil is anticipated to be unimpacted by the petroleum release at this site (see Figure 1 - Excavated Soil Stockpiles for stockpile location and volume). It is our understanding that GSA wishes to remediate this impacted soil by uncontrolled aeration. Prior to initiating uncontrolled aeration of the soil, stockpiles must be sampled and analyzed to determine concentrations of gasoline in the soil. This letter presents ESE's proposed work plan for soil sampling, analyses, and report preparation. The following tasks are proposed:

Task 1 -Soil Sampling

Soil sampling will take place in accordance with BAAQM District regulations (Regulation 8 Rule 40, Aeration of Contaminated Soil). These regulations require that one discrete soil sample be analyzed per 50 cubic yards of soil. ESE will sample stockpiles 1, 3, and 5 as shown on Figure 1.

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 hazards and mitigation measures. It is assumed that work will be performed in a level D personal protective gear, however, if necessary respirators will be worn. A photoionization meter will be used to periodically measure total volatile in the breathing zone of the workers.

The existing stockpiled soil will be measured and mapped. Measurements will be made by placing a tape over the length and width of each pile. The height of each pile will be determine by hand leveling and/or taping. Sample locations will be marked on the piles using stakes and string, or other temporary marking methods. Each location will delineate 100 cubic yards of soil (For 5,000 cubic yards of soil is present at the site, 50 locations will be delineated).

A backhoe will be used to dig into each stockpile at each sampling location. Two soil samples will be collected systematically at each location: one sample at a shallow depth and one sample at a deep depth. For example, if the stockpile is 12 feet high at the sampling location, one sample will be collected from a 9 foot depth and one sample will be collected from a 3 foot depth.

Sampling will be performed by digging to the specified depth and at each location within with the stockpile. A pre-cleaned 6-inch brass liner will be inserted into the soil contained in the backhoe bucket. Concrete and other inert debris will not be sampled. Upon retrieval, the sample will be immediately capped with teflon lined plastic caps, sealed with duct tape, labeled and entered onto a chain of custody. 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 to Mc Campbell Analytical, a California certified laboratory. All sample locations will be noted in field notes prepared at the site.

Samples Analyses

Each of the 100 samples collected (one sample for approximate every 50 cubic yards) will be analyzed discretely for the following :

- Total Petroleum Hydrocarbons (TPH) as gasoline using Method 5030/8015 modified, and
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) using Method 5030/8020.

Four soil samples per stockpile with the highest TPH-gasoline concentrations will be analyzed for total lead.

Task 2 - 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. ESE will make recommendations regarding onsite soil treatment and/or offsite disposal.

The work is described herein is scheduled for April 19 and 20, 1993. Please contact Pat Galvin or Sue Wickham at (510) 685-4053 with any questions or comments regarding this work.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

Susan S. Wickham

Susan S. Wickham, RG 3851
Senior Geologist

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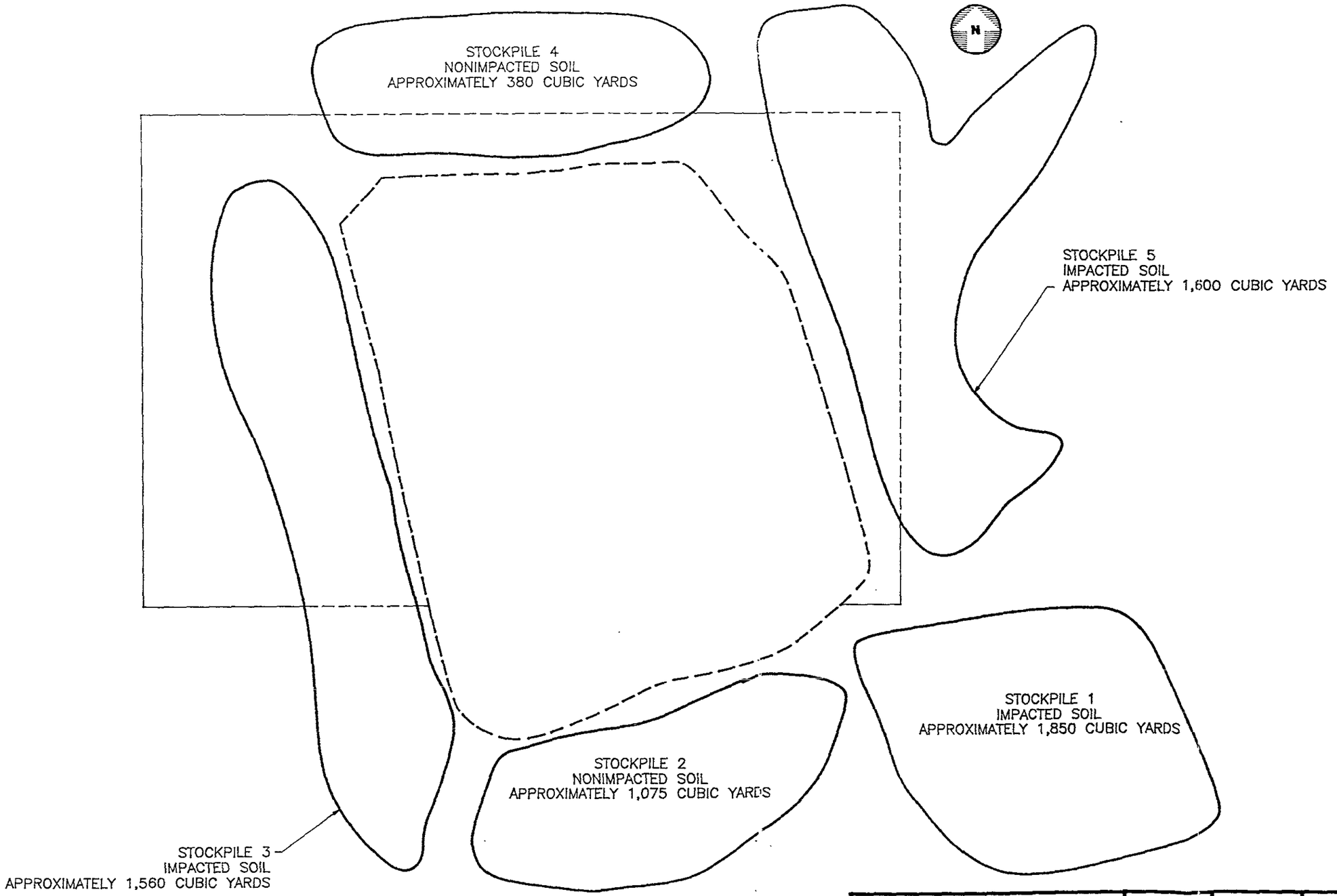
Attachment - Figure 1



ESE A CalCORP Company — Environmental Science & Engineering, Inc. 4090 NELSON AVENUE, SUITE J CONCORD, CA 94520	DATE 3/93	PROJ. NO. 6-93-5036	ALAMEDA COUNTY GSA SANTA RITA JAIL FACILITY DUBLIN, CALIFORNIA
	DRAWN BY DWR	CAD FILE 50362011	FIGURE 1 EXCAVATED SOIL STOCKPILES (MARCH, 1993)
	APPROVED BY	REVISED xx/92	