



Subsurface Consultants, Inc.

JUL 16 2002

LETTER OF TRANSMITTAL

TO: Barney Chan
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

DATE: July 12, 2002

FROM: Jeriann Alexander
PROJECT: 1137-1167 65th Street, Oakland
SCI JOB NUMBER: 855.003
OFFICE SENT FROM: Oakland

Handwritten initials 'RO' circled

WE ARE SENDING YOU: 1 copy(ies)

- final report
draft report
Service Agreement
proposed scope of services
specifications
grading/foundation plans
soil samples/groundwater samples
executed contract

- if you have any questions, please call
for your review and comment
please return an executed copy
with our comments
for your use
as requested

REMARKS:

Barney -

Enclosed is the Work Plan for a Soil and Groundwater Investigation for the 1167 65th Street site.

If you have any questions please call myself or Emily Silverman.

Handwritten signature of Jeriann Alexander

cc: Hernan Gomez, Oakland Fire Department
Fred Schrag, Nady Systems



Subsurface Consultants, Inc.

FAX TRANSMITTAL

Date: July 12, 2002

Number of pages (including cover sheet):

To: Barney Chan
Alameda County
Environmental Health Services

Phone:

Fax: 337-9335

cc:

From: Jeriam Alexander

Sent From: Oakland

SCI Job #: 855.003

Re: 1167 65th Street, Oakland

REMARKS: Urgent For your review Reply ASAP Please comment
 For your use Original in mail As requested

Attached please find a copy of the Work Plan for the Soil and Groundwater Investigation which you requested in your letter dated June 10, 2002.

If you have any questions, please call myself or Emily Silverman.

Jeriam Alexander



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Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Work Plan - Soil and Groundwater Investigation
Fuel Leak Case No. RO0000082
1137-1167 65th Street
Oakland, California

Dear Mr. Chan:

Subsurface Consultants, Inc. (SCI) is pleased to present this Work Plan to perform the next phase of investigation at the referenced Site. In a letter dated June 10, 2002, the Alameda County Health Care Services Agency (ACHCSA) indicated that they had reviewed SCI's May 17, 2002 UST Removal Report and is requiring that the lateral and vertical extent of soil and groundwater impacts be investigated due to the presence of elevated concentrations of petroleum hydrocarbons in soil and grab groundwater samples following UST removal.

PROJECT BACKGROUND

The Site consists of a group of buildings occupying 1137, 1147 and 1167 65th Street in Oakland, California (Plates 1 and 2). The buildings, mostly composed of concrete blocks and metal, are separated by narrow walkways. Building spaces are currently leased out to individual tenants.

Prior to 1979, various dry cleaning businesses occupied part or all of the building units at the Site. Building department and fire department records, business directories and title information suggest that from about 1935 to 1978 various dry cleaning businesses operated at the Site.

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Studies by SCI and others revealed the following regarding the presence of UST's at the Site:

- In 1998, a 750-gallon heating oil tank was removed from the sidewalk area in front of 1167 65th Street. (Location shown on the attached Plate 2). Following tank removal approximately 18 cubic yards of impacted soil was removed and transported to Forward Inc. landfill for disposal, and the area was backfilled and resurfaced. One confirmation soil sample obtained at a depth of 12 feet was analyzed for TPHd (within the diesel range) and BTEX as required by the Oakland Fire Department. The sample contained 14 micrograms per kilogram of TPHd and no detectable concentrations of BTEX.
- Two UST's associated with previous dry cleaning businesses were situated in the area below Tenant Unit R (See Plate 2 - Interior Tank Area). Product within these tanks consisted of a TPH mixture with BTEX, 1,2 Dichloroethene and various other halogenated volatile organic compounds. The product was removed in November 2001, and transported for disposal as a hazardous waste at the Demenon/Kerdoon (DK Environmental) facility in Compton, California. In February 2002, the UST's were triple rinsed and the western-most tank (Tank 5) was filled with cement slurry and closed in-place, and the eastern-most tank (Tank 6) was cut up in place and scraped. Analytical data from the Interior Tank area indicated that soil and/or groundwater had been impacted by elevated concentrations of TPH as gasoline, naphtha, Stoddard solvent and diesel range materials, and various VOCs including acetone, benzene, toluene, ethylbenzene, xylenes (BTEX), isopropylbenzene, propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, para-isopropyl toluene, and n-butylbenzene.
- Four USTs associated with the previous dry cleaning businesses were situated within an exterior area along the south property line (See Plate 2 - Exterior Tank Area). Product within these tanks consisted of a TPH mixture with BTEX, Tetrachloroethene, 1,2 Dichloroethene, Trichloroethene and various other halogenated volatile organic compounds. The product was removed in November 2001, and transported for disposal as a hazardous waste at the Demenon/Kerdoon (DK Environmental) facility in Compton, California. In February 2002, the UST's were rinsed and removed from the Site, and transported to Ecology Control Industries in Richmond, California, for disposal. Analytical data from the Exterior Tank area indicated that soil and/or groundwater had been impacted by elevated concentrations of TPH as gasoline,

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naphtha, Stoddard solvent and diesel range materials, Tetrachloroethene, 1,2-dichloroethene and various other VOCs including benzene, toluene, ethylbenzene, xylenes (BTEX), isopropylbenzene, propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, para-isopropyl toluene, and n-butylbenzene.

- Soil removed from the UST areas was subsequently removed from the Site. Due to the presence of elevated concentrations of soluble lead, the stockpiled soil from the exterior UST area (4-18 cubic yard truck loads) was transported to and disposed of as Non-RCRA Hazardous Waste at the Chemical Waste Management Kettleman City Facility. Stockpiled soil from the interior UST area (2-18 cubic yard truck loads) did not contain elevated concentrations of lead, and was approved for local disposal as Non-hazardous waste. The interior stockpiled soil was transported to and disposed of at the Republic Services Vasco Road Landfill facility.

SCOPE OF SERVICES

The scope of services provided herein will preliminarily assess the lateral and vertical extent of impact to both soil and groundwater due to releases from the USTs'. SCI's scope of services will comprise the following tasks:

| | |
|--------|--------------------------------|
| Task 1 | Soil and Groundwater Sampling |
| Task 2 | Chemical Testing Program |
| Task 3 | Data Evaluation and Tabulation |
| Task 4 | Report Preparation |

These tasks are further described below.

Task 1 – Soil and Groundwater Sampling

It is proposed to collect soil and grab groundwater samples from 9 borings drilled at the locations shown on Plate 2. Following the approval of the Work Plan by the ACHCSA, we will prepare and submit drilling/excavation permit applications for each of the boring locations. Boring locations will be marked in the field and clearance by Underground Service Alert will be requested.

Each boring location will be re-checked for access limitations by Vironex, the drilling company, and further screened for the presence of underground utilities by a private utility locator. Boring locations will be relocated as necessary. In addition, suspected pipeline alignments will be further defined, as possible, by back-tracing pipeline penetrations which

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are observed in interior locations using line locating techniques. Borings specific to accessing impacts resulting from pipelines, may be relocated as practical to areas where pipeline joints may be present as determined by the line tracing techniques.

Vironex, will utilize limited access Geo-Probe equipment to collect soil samples and to install temporary well points at each boring location. Drilling and sampling equipment will be decontaminated prior to each use by Vironex. Vironex or a licensed subcontractor will be retained to core through the concrete slabs as necessary to expose the underlying soil surface. Holes will be patched upon completion of site activities.

Vironex will collect continuous soil samples to a depth of approximately ten feet below the existing grade. The field geologist will log samples in accordance with the Unified Soil Classification System (USCS). Soil from each three-foot interval will be screened in the field for organic vapor content using an Organic Vapor Meter. The readings will be recorded on the respective boring logs.

We will collect and preserve at least two soil samples from the apparent groundwater fluctuation zone (capillary fringe), above the current groundwater level, and one soil sample from below the groundwater depth. Samples will be collected using clean, stainless steel tubes or acetate liners, capped with Teflon sheeting and plastic end caps. At the completion of drilling, Vironex will install temporary new 1-inch diameter PVC well casings to facilitate groundwater sample collection at each of the boring locations. The sample will be collected using a new disposable bailer, and decanted into laboratory prepared containers for testing. Soil and groundwater samples will be stored in a chilled cooler and delivered to Curtis & Tompkins, the State-certified chemical testing laboratory that performed the analytical testing program following UST removal. The samples will be accompanied with completed Chain-of-Custody forms.

A level survey will be conducted to determine the relative top of casing elevations for each of the temporary wells. Groundwater depth readings will be periodically taken within each of the temporary wells, so that the gradient and flow direction can be approximated. Once the gradient and flow direction are determined, the temporary well casings/borings will be backfilled with neat cement grout.

Fieldwork will be conducted using standard industry practices regarding worker safety, equipment decontamination, and sample handling. We will collect field blank water samples (one per day) by decanting deionized water into laboratory prepared containers in the field. The scope of work outlined herein is proposed to be conducted over a two-day period given site limitation constraints. The field blanks will be transported from the Site to the laboratory with the site samples.

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Soil cuttings, unused samples, cleaning water and purge water will be placed in labeled 55-gallon DOT drums and stored temporary onsite pending the results of the analysis.

Task 2: *Chemical Testing Program*

Selected soil and groundwater samples will be analyzed for the chemicals of known site concern, and lead scavengers. We are proposing to submit one soil sample and one groundwater sample for analysis from each boring location. The other samples will be archived.

The testing program will include the following analyses conducted on each sample:

- Total petroleum hydrocarbons (TPH) as gasoline, naphtha and Stoddard solvent by EPA Method 8015m/8020,
- TPH as diesel and motor oil by EPA Method 8015m using silica gel cleanup, and
- Volatile Organic Compounds (VOCs) by EPA Method 8260, (including trip blanks).

In addition, the soil samples will be tested for Total Lead using EPA Method 7421.

Task 3: *Data Evaluation and Tabulation*

We will compile, validate, and evaluate the field and laboratory data. In this task, we will validate the laboratory data by checking the compliance with laboratory holding times, evaluate the surrogate recoveries, and coordinate with the chemical laboratory to identify and resolve any suspect data deviations. We will tabulate the soil and groundwater data, and evaluate the data for the presence and extent of impacts to soil and groundwater, as well as for data gaps.

We will further compare the test results with the RWQCB Tier 1 screening levels presented in December 2001. SCI will evaluate the data and comment with respect to the comparison. If additional study is required, we will present a scope of services to further evaluate the distribution of contaminants in soil and/or water.

Task 4: *Report Preparation*

We will compile a report summarizing the field investigation, sampling methodology and laboratory data. The report will include our findings and conclusions regarding the extent of soil and groundwater impacts due to releases from the previous tank areas, laboratory analysis

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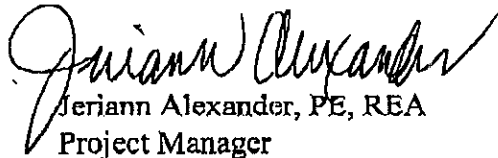
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reports, chain-of-custody documents, data summary tables, and plates that show sampling locations.

SCI is ready to implement this work plan pending your favorable review. If you have any questions, please call the undersigned.

Very truly yours,

Subsurface Consultants, Inc.


Jeriann Alexander, PE, REA
Project Manager

JNA:jna:es: 855.003\workplan.doc

2 copies submitted

Attachments: Plate 1 - Vicinity Map
Plate 2 - Site Plan

cc:

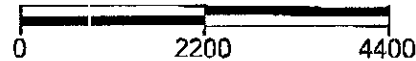
Mr. John Nady
Nady Systems, Inc.
6701 Shellmound Street
Emeryville, California 94608

Mr. Hernan Gomez
Oakland Fire Department
1605 Martin Luther King, Jr. Way
Oakland, California 94612

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APPROXIMATE SCALE IN FEET



NOTE:

THIS VICINITY MAP IS BASED ON A THOMAS BROTHERS MAP FOR SAN FRANCISCO, ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA, MAP 629, YEAR 2000

VICINITY MAP

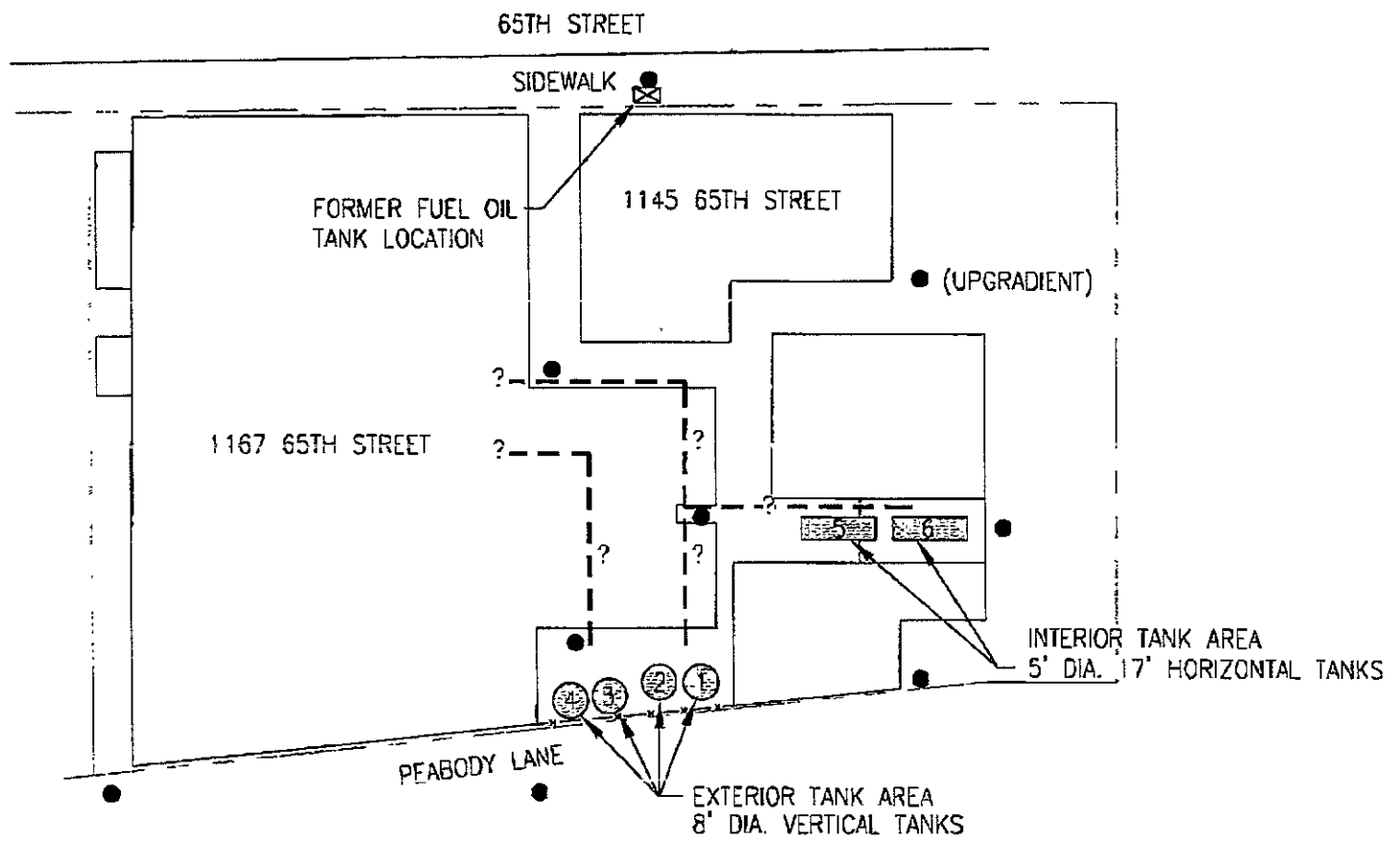
1137-1167 65TH STREET
OAKLAND, CALIFORNIA

| | | |
|-----------------------|-----------------------------|-------------------|
| DRAWN BY: CFY | DATE 7/9/02 | PLATE 1 |
| JOB NUMBER 855.004 | FILE NUMBER: A885.004.01 | |




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Geotechnical & Environmental Engineers

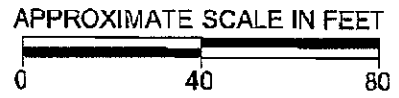
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LEGEND:

- SAMPLE LOCATION
- - ? - - SUSPECTED PIPELINE LOCATIONS


 INFERRED VARIATION IN
 GROUNDWATER FLOW DIRECTION



SAMPLING LOCATION PLAN

1137-1167 65TH STREET
OAKLAND, CALIFORNIA

| | | |
|-----------------------|-----------------------------|-------------------|
| DRAWN BY: CFY | DATE 7/9/02 | PLATE 2 |
| JOB NUMBER 855.004 | FILE NUMBER: A855.004.02 | |



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Geotechnical & Environmental Engineers