

**RECEIVED**

9:01 am, Apr 07, 2010

Alameda County  
Environmental Health

April 5, 2010

Ms. Barbara Jakub  
Hazardous Material Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: Work Plan – Supplementary Site Characterization

Dear Ms. Jakub:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jimmy Koo', with a large, stylized initial 'J'.

Jimmy Koo

Enclosure: Work Plan – Supplementary Site Characterization

April 2, 2010

ICES 7016

Ms. Barbara Jakub  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: Work Plan  
Supplementary Site Characterization  
Sunny Piedmont Cleaners  
Oakland, California

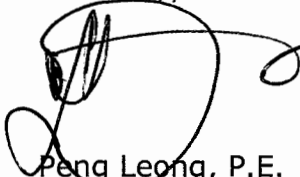
Dear Barbara:

Enclosed is the Work Plan for the proposed supplementary site characterization activities at the Sunny Piedmont Cleaners located at 4364 Piedmont Avenue in Oakland, California ("the Site").

The purpose of the supplementary site characterization activities is to characterize the lateral and vertical extent of volatile organic compounds (VOCs) encountered in the surficial soil at the Site. The presence of VOCs was identified in a previous site investigation.

If you have any questions or comments concerning this Work Plan, please do not hesitate to contact Derek Wong or me.

Sincerely,

  
Peng Leong, P.E.  
Principal Engineer



Enclosure

cc: Mr. Jimmy Koo, Sunny Piedmont Cleaners

Tel (510) 652-3222

Fax (510) 652-3555

3300 Powell Street  
Suite #109  
Emeryville, CA  
94608

**WORK PLAN**  
**SUPPLEMENTARY SITE CHARACTERIZATION**  
**SUNNY PIEDMONT CLEANERS**  
**OAKLAND, CALIFORNIA**

April 2, 2010

ICES 7016

Prepared for

Mr. Jimmy Koo  
Sunny Piedmont Cleaners  
4364 Piedmont Avenue  
Oakland, California 94611



Innovative & Creative Environmental Solutions

3300 Powell Street, Suite #109 Emeryville CA 94608  
... (510) 652-3222 ...

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF FIGURES .....	ii
1.0 INTRODUCTION .....	1
2.0 SITE DESCRIPTION .....	1
3.0 BACKGROUND .....	1
4.0 PREFERENTIAL PATHWAY ASSESSMENT .....	2
5.0 SUPPLEMENTARY SITE CHARACTERIZATION .....	2
6.0 LABORATORY ANALYSIS .....	3
7.0 REPORT DOCUMENTATION .....	4

FIGURES

## LIST OF FIGURES

Number	Title
<hr/>	
1	Site Location
2	Proposed Boring Locations

April 2, 2010

ICES 7016

## SUPPLEMENTARY SITE CHARACTERIZATION

### SUNNY PIEDMONT CLEANERS OAKLAND, CALIFORNIA

#### 1.0 INTRODUCTION

At the request of Mr. Jimmy Koo of Sunny Piedmont Cleaners ("the Client"), Innovative and Creative Environmental Solutions (ICES) has prepared this Work Plan for the proposed supplementary site characterization activities at the Sunny Piedmont Cleaners located at 4364 Piedmont Avenue in Oakland, California ("the Site"; Figure 1). The purpose of the supplementary site characterization activities is to characterize the lateral and vertical extent of volatile organic compounds (VOCs) encountered in the surficial soil at the Site. The presence of VOCs was identified in a previous site investigation.

#### 2.0 SITE DESCRIPTION

The Site is located on the west side of Piedmont Avenue, between Brandon Street and Gleneden Avenue, within the city limits of Oakland in a residential and commercial/industrial area of Alameda County, California. The Site is sandwiched between a movie rental business to the west and Honey Baked Ham and a shipping store to the east within a rectangular building. An asphalt-paved parking area adjoins the Site to the south. Sunny Piedmont Cleaners, a dry cleaner, is the current tenant at the Site.

#### 3.0 BACKGROUND

Nova Consulting Group, Inc. (Nova) of San Francisco, California completed a Phase I Environmental Site Assessment (ESA) at the Site in April 2009. The ESA reported that dry cleaning operations using tetrachloroethene (PCE) and petroleum based cleaners had been conducted at the Site since 1984, a period of approximately 26 years.

A Phase II Site Investigation was conducted by Nova in June 2009. The objective of the investigation activities was to evaluate the shallow soil at the Site for the potential presence of contamination associated with the on-site dry cleaning operations. Five soil samples were collected from five soil boring locations at depths ranging from 4 to 20 feet below the existing ground surface (bgs) using a hand auger and geoprobe. The soil samples were analyzed for total petroleum hydrocarbons (TPH) as mineral spirits (TPHms) and VOCs. Analysis of the soil samples indicated TPHms and VOC concentrations were generally below the Regional Water Quality Control Board's Environmental Screening Levels (ESLs, where groundwater is a current or potential source of drinking water) for commercial/industrial landuse with the exception of PCE. The PCE concentration contained in sample HAB-2 collected at a depth of approximately 4 feet bgs (located adjacent to the dry cleaning machine at the northern portion of the Site) of 11 mg/kg exceeded the commercial/industrial ESL of 0.70 mg/kg. The four remaining soil samples contained PCE concentrations below the commercial/industrial ESL. Based on the findings of the investigation, it appeared that a very localized dry cleaning solvent release to the subsurface sediments beneath the northern portion of the Site had occurred.

#### 4.0 PREFERENTIAL PATHWAY ASSESSMENT

ICES conducted a visual inspection of the Site on April 1, 2010. The purpose of the inspection was to identify locations of former and current dry cleaning equipment, chemical storage areas, and floor drains within the Site. Additionally, Underground Services Alert and Cruz Brothers of Scotts Valley, California were contacted to assist in identifying and locating subsurface utilities within the Site, the building, and the asphalt paved parking area (south of the Site). The subsurface utilities, dry cleaning machines, chemical storage areas, and floor drains within the Site are shown in Figure 2.

#### 5.0 SUPPLEMENTARY SITE CHARACTERIZATION

Soil and grab groundwater samples will be collected from two borings (B-1 and B-2). Boring B-1 will be located adjacent to the dry cleaning machine at the northern portion of the Site (in the immediate vicinity of boring HAB-2). Boring B-2 will be located adjacent to the sanitary sewer line and floor drain at the northern portion of the building, west of the dry cleaning machine. The approximate boring locations are shown in Figure 2.

Soil samples will be collected from borings B-1 and B-2 at 5-foot intervals, starting at a depth of approximately 5 feet bgs and will extend to the soil/groundwater interface. Soil samples will be collected at lithologic changes and at areas of soil contamination from the two borings. The soil samples will be screened using a portable

photoionization detector. A limited access direct push drill rig will be used to collect the soil samples from the borings. Grab groundwater samples will also be collected from each of the two borings using a hydropunch. Hollow diameter PVC casing containing a perforated PVC screen at the bottom of the casing will be advanced to approximately 3 feet below the first permeable zone. The casing will then be retracted approximately 4 feet to allow infiltration of groundwater. The groundwater sample will be collected by lowering a Teflon bailer through the hollow casing. The sample will be transferred into 40-mL VOA vials.

In the event the limited access rig used for borings B-1 and B-2 is unable to advance to the soil/groundwater interface, two additional borings B-3 and B-4 (Figure 2) will be installed within the southern portion of the asphalt-paved parking area (downgradient from the identified source of contaminants). The local topography suggests that the Site slopes gently to the south. A hollow-stem auger rig will be used to collect soil and groundwater samples from the borings. Soil samples will be collected at 5-foot intervals, starting at a depth of approximately 5 feet bgs and extend to the soil/groundwater interface. A grab groundwater sample will be collected from the borings using a hydropunch.

The soil and grab groundwater samples will be stored in a chilled cooler containing crushed ice for delivery to the laboratory. Strict chain-of-custody protocols will be followed in all phases of sample handling. All equipment used during this investigation which comes into contact with affected material will be thoroughly decontaminated before and after each use. This will be accomplished by washing with Alconox (a laboratory-grade detergent) and rinsing with deionized, distilled, or fresh water.

The boreholes will be backfilled with neat cement grout upon completion of the soil and groundwater sampling activities. The neat cement will be tremied from the bottom of the borehole to the top of the borehole.

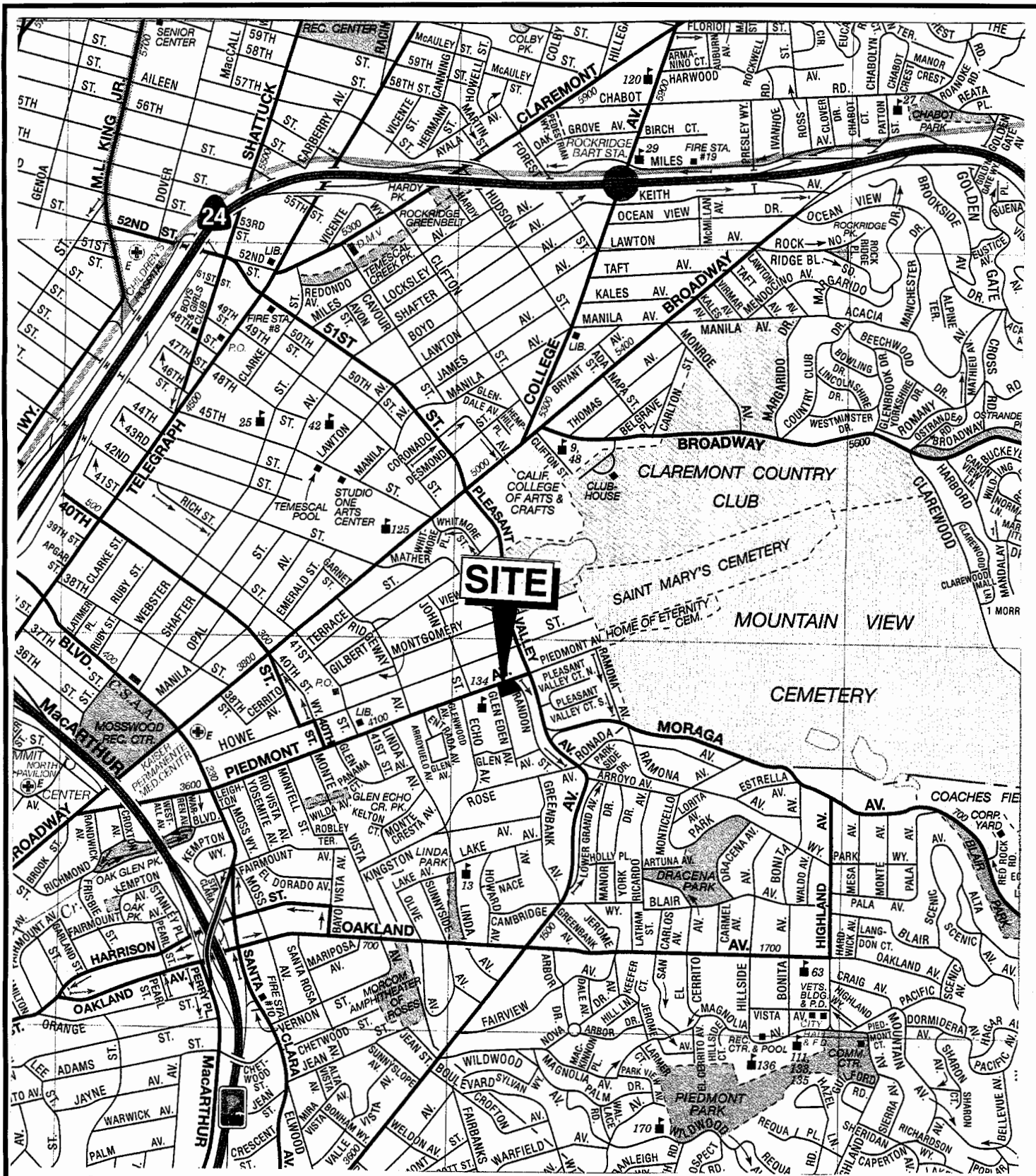
## 6.0 LABORATORY ANALYSIS

The soil and groundwater samples will be sent to a state-certified laboratory and selectively analyzed for VOCs using EPA Method 8260B on a normal one-week turnaround basis. At a minimum, soil samples collected from borings B-1 and B-2 at a depth of approximately 5 feet bgs, at areas from obvious contamination zones, and at the soil/groundwater interface will be analyzed for VOCs. Additionally, soil samples collected from the soil/groundwater interface from borings B-3 and B-4 (if needed) will be analyzed for VOCs. In the event the soil samples collected at 5 feet bgs from borings B-1 and B-2 contain detectable VOC compounds, the corresponding deeper samples will be analyzed. The remaining soil samples that are not analyzed will be put on hold at the laboratory.



## 7.0 REPORT DOCUMENTATION

A written report will be prepared following receipt of laboratory analytical results. The report will describe our field observations, sample collection, laboratory analytical results, and conclusions regarding the supplementary site characterization activities. The report will be submitted to Alameda County Environmental Health within three weeks regarding the completion of field activities and receipt of laboratory analytical results.



MAP SOURCE :  
CSAA

Scale: 1" : 1100'

April 2009



# SITE LOCATION

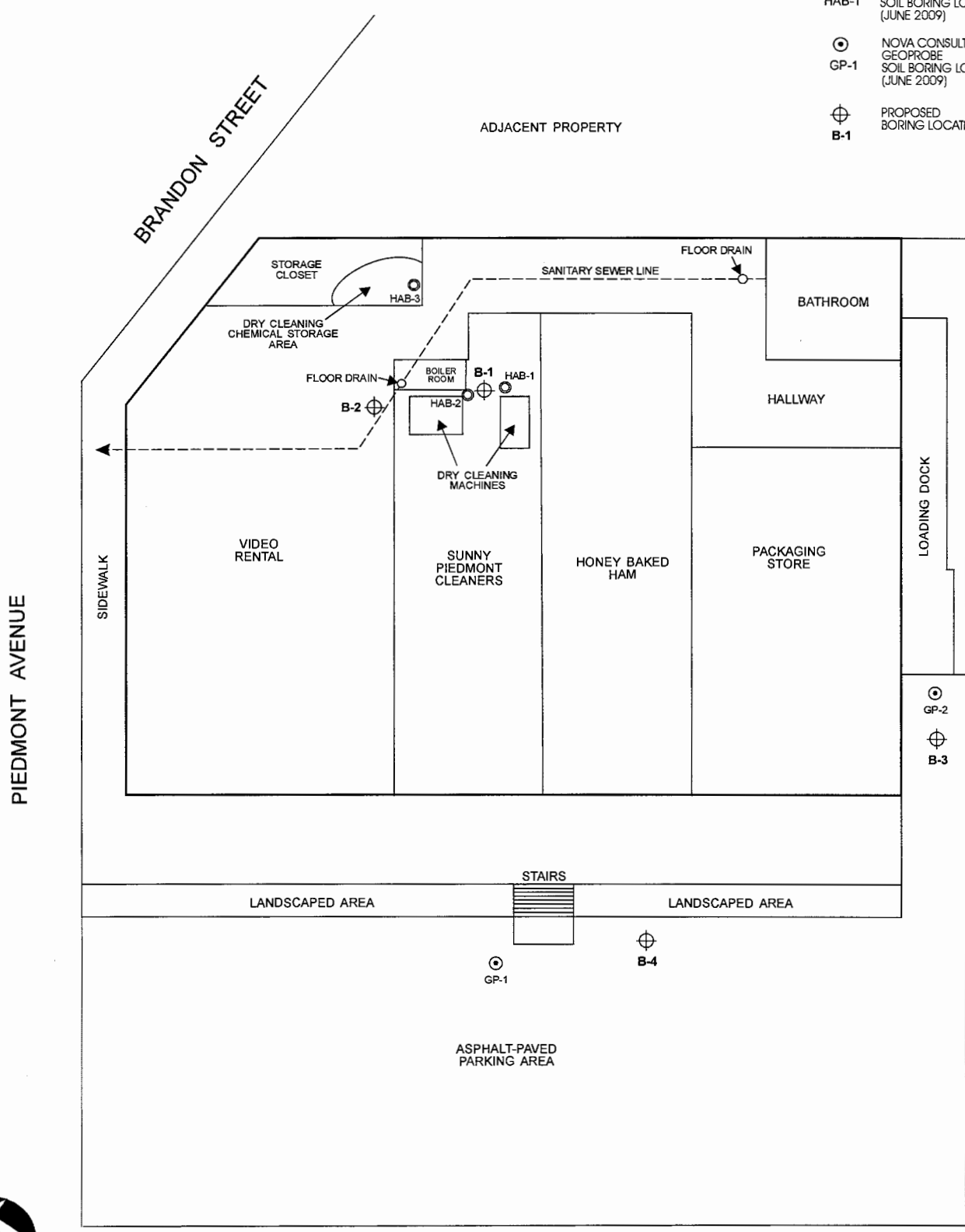
Sunny Piedmont Cleaners  
Oakland, California

Figure **1**

Project 7016

EXPLANATION:

- HAB-1 NOVA CONSULTING HAND AUGER SOIL BORING LOCATION (JUNE 2009)
- GP-1 NOVA CONSULTING GEOPROBE SOIL BORING LOCATION (JUNE 2009)
- B-1 PROPOSED BORING LOCATION



Scale: 1" : ± 25'

April 2009

## PROPOSED BORING LOCATIONS

Sunny Piedmont Cleaners  
Oakland, California

Figure **2**

Project 7016

