



**Workplan to Conduct Additional  
Off-site Investigation/Remediation  
At 5815 Peladeau Street  
Emeryville, California**

**INTRODUCTION**

This document has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of CBS Corporation (CBS), successor by corporate name change to Westinghouse Electric Corporation. This report has been prepared based on the Alameda County Department of Environmental Health (ACDEH) and Regional Water Quality Control Board (RWQCB) request dated August 25, 1999. As specified in this letter by ACDEH and RWQCB, upon completion of the work proposed in this workplan, both agencies (ACDEH and RWQCB) will issue the site final closure letter. This workplan summarizes the procedure for further site characterization for delineation and remediation of polychlorinated biphenyls (PCB) impacted soils at the Heritage Square property located immediately north of the former Westinghouse Property at 5815 Peladeau Street, Emeryville, California, (the "Property"), see Figure 1.

The scope of this investigation is to drill shallow soil borings (up to four feet), and collect soil samples in order to delineate polychlorinated biphenyls (PCBs) impacted soils, if any. If the result of our investigation reveals the presence of PCBs impacted hot spots, they will be excavated and disposed off-site. The cleanup levels for PCB impacted soils will be based on the recommendations of the Risk Assessment report prepared by SOMA (SOMA, 1996).

**Background**

In 1996, SOMA conducted a baseline human health risk assessment (HHRA) to address the adverse health effects of residual chemicals found in soil and groundwater on current and future site workers (SOMA, 1996). Based on the

results of the risk assessment study, PCB impacted soils at the northern part of the property (now known as Parcel 4) adjacent to the Heritage Square property were above acceptable levels for the proposed use of the subject Property. Based on the recommendation of the human health risk assessment, CBS retained the services of Westinghouse Remediation Services, Inc. and ALTA Geosciences to remove PCB impacted soils in the summer of 1996.

Remediation criteria for the August, 1996 Soil Remediation were determined from the HHRA report as:

1. 0.5 ppm PCBs from the ground surface to a depth of 2 feet (residential criteria).
2. 59.3 ppm PCBs from a depth of 2 feet to a depth of 4 feet (site utility worker criteria).

Below a depth of 4 feet, the adverse risks to human health were not considered significant and no remediation was required. At the direction of CBS, the remediation goal of 50.0 ppm was set for the soils between a depth of 2 to 4 feet bgs to ensure that all soils in the upper 4 feet, which exceeded remediation criteria, were excavated and disposed of.

The soil remediation was performed in August and September 1996. As described in the Completion Report by ALTA Geosciences, remediation goals were met throughout the excavation bottom, either by excavation until confirmation sampling indicated that the excavation bottom was less than the remediation criteria, or by excavation to at least 4 feet bgs.

In the summer of 1998, SOMA conducted an extensive off-site investigation at the U.S. Postal Office and Heritage Square properties to evaluate the potential impact of the former Westinghouse facility operation on these areas located immediately north of the Property. The result of SOMA investigation indicated that the PCB levels at the U.S. Postal property soil is below 0.5 mg/kg, the

cleanup criterion for residential purposes, see Figure-1. However, some of the samples collected at the Heritage Square property showed the PCB concentration above the recommended cleanup levels.

## **SCOPE OF WORK**

Scope of work is summarized into the following tasks:

- Task-1: Drilling shallow soil borings and collecting soil samples**
- Task-2: Laboratory analysis and delineation of PCB impacted areas**
- Task-3: Soil remediation**
- Task-4: Report preparation**

The following is a brief description of each task:

### **Task-1: Drilling shallow soil borings and collecting soil samples**

The results of the laboratory analysis on some of the soil samples collected at Heritage Square property showed the PCB concentration above the risk-based levels. One of the soil samples, which was a discrete soil sample collected from SB-5 at 0.5-foot depth, showed the PCB concentration at 3.8 mg/kg, see Figure-2. At the time of the sampling event, a portion of the parking lot of Heritage Square property adjacent to the former Westinghouse site had been subsided/collapsed, which looked like an open pit with visible groundwater. Composite soil samples were collected around the subsided/collapsed portion of the pavement. Two composite soil samples were collected from the side-walls of the open pit. The first composite sample was collected by combing four discrete samples just below the pavement (S-1 Shallow), while the second composite sample was collected at a four foot depth at the peripheral of the open pit. The results of the laboratory analysis on composite soil samples collected around the open pit showed elevated levels of PCB concentration in the shallow composite soil sample (up to 136 mg/kg). (What was the result of the deep?) Currently, the parking lot at the Heritage Square property has been repaired by filling the open

pit with clean fill material. Therefore, the exact location of the soil samples where the composite sample was made is not possible.

In order to better define/confirm the presence of PCB around SB-5 and S-1 Shallow in the off-site area within the Heritage Square property, CBS proposes to drill six additional soil borings. Three soil borings will be drilled in the vicinity of the SB-5, while the other three borings will be drilled around S-1 Shallow. The borings will be drilled by the hollow stem auger to a total depth of 4-feet below the ground surface (bgs). Two soil samples will be collected from each soil boring. One sample will be collected immediately below the asphalt pavement while the other will be collected at 3.5-4 feet bgs. The drilling and sampling operation will be conducted under the supervision of SOMA's Senior Field Engineer. Figure 2 shows the location of proposed soil borings.

**Task-2: Laboratory analysis and delineation of PCB impacted areas**

The soil samples will be sent to DELTA Environmental Laboratories immediately for analysis. The soil samples will be analyzed for PCBs using U.S. EPA Method 8080. The results of the laboratory analysis will be used to delineate the extent of PCB impacted areas, if any. Delineation of PCB-impacted areas will be based on recommended cleanup levels for residential area given by the SOMA's risk assessment document.

**Task-3: Soil remediation**

Upon delineation of the PCB hot spots, they will be excavated. The PCB impacted soils will be disposed off-site. Confirmation samples will be collected beneath the excavated areas in order to document the remaining PCB concentration in soils. The remaining residual PCB concentration after hot spot removal should not exceed 0.5 mg/kg for surficial (between 0-2 feet depth) and 59 mg/kg for subsurface soils (between 2 and 4 feet bgs) according to the risk

assessment document for the residential scenario as prepared by SOMA (SOMA, 1996).

**Task-4: Report preparation**

Upon completion of the field work and possible soil remediation activities, SOMA will prepare a written report and submit to ACDEH and RWQCB for review. The report will include description of field activities, results of laboratory analysis, figures and tables showing the extent of possible PCBs impacted areas and remediation activities. The report will include the results of additional soil sampling activities following the soil removal/remediation process showing the remaining concentration levels of PCBs in the remediated areas.

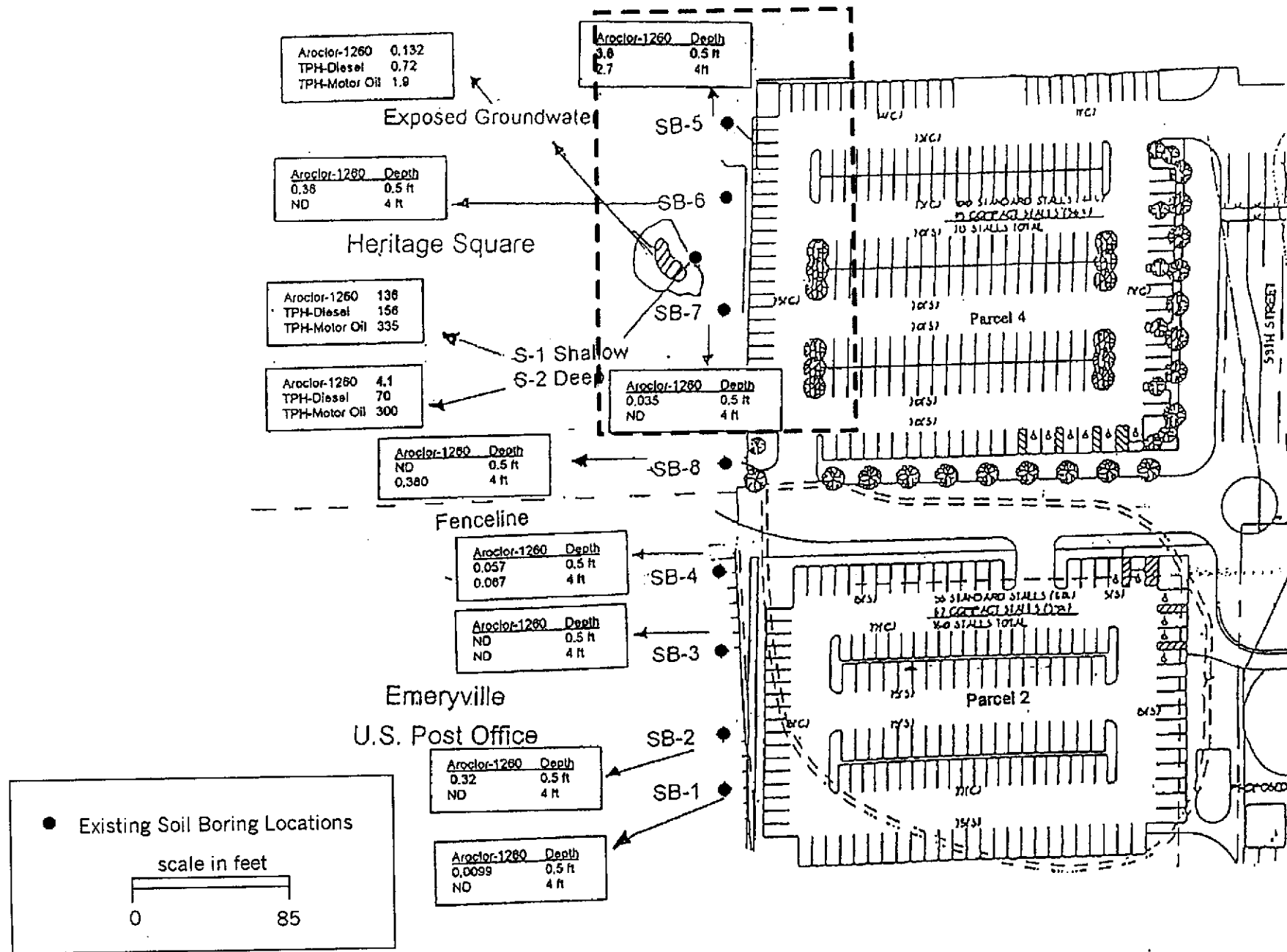


Figure 1: Existing Soil Boring Locations

Aroclor-1260	Depth
3.8	0.5 ft.
2.7	4.0 ft.

Aroclor-1260	Depth
0.36	0.5 ft.
ND	4.0 ft.

Aroclor-1260	136
Aroclor-1260	136

Aroclor-1260	Depth
0.035	0.5 ft.
ND	4.0 ft.

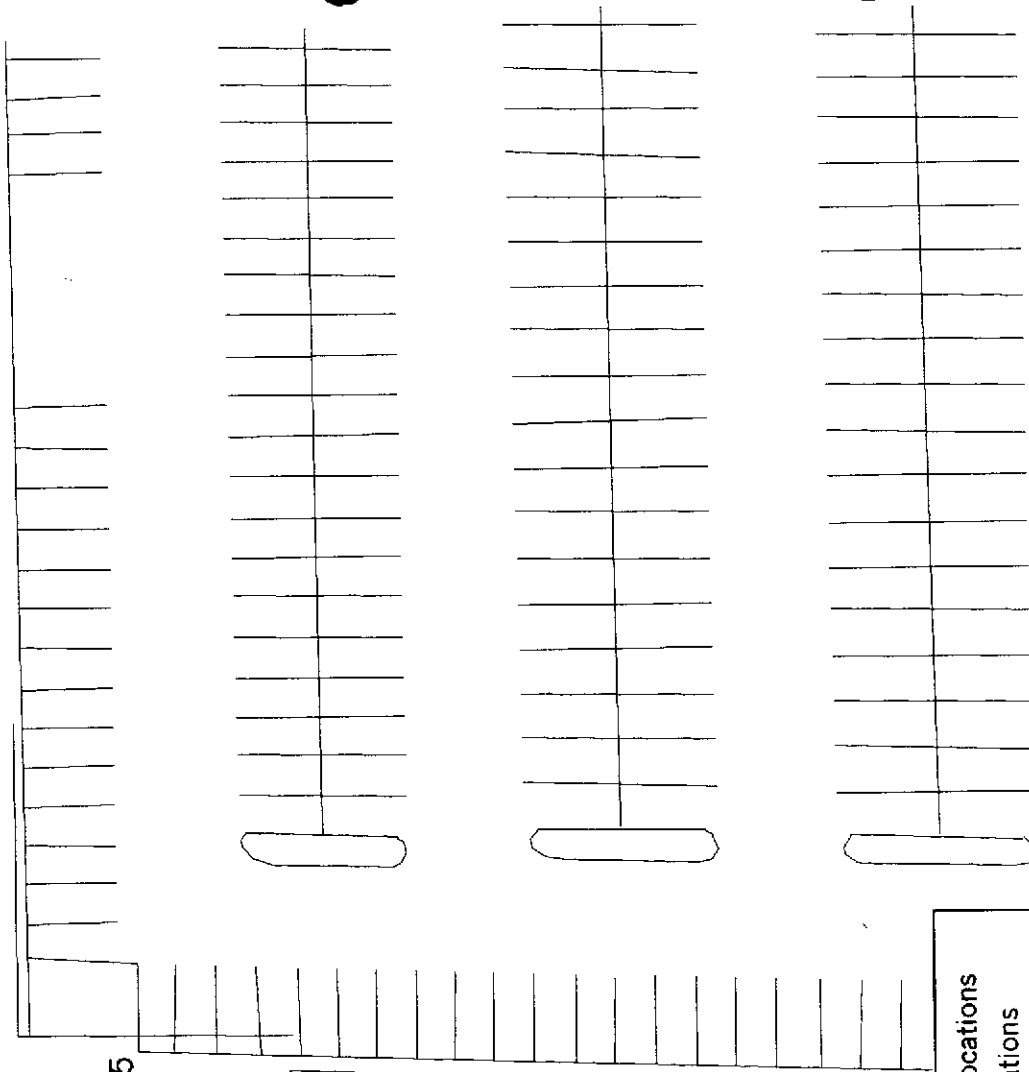


Figure 2: Proposed Soil Boring Locations

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