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April 28, 2003

Martin Samuels  
GREEN CITY LOFTS, LLC  
3675 Delmont Avenue  
Oakland, California 94605

Clayton Project No. 70-03365.02

Subject: Supplemental Investigation of the Former Dunne Paints Facility, 1007 41<sup>st</sup> Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California

Dear Mr. Samuels:

Clayton Group Services, Inc. (Clayton) is pleased to present this report documenting the results from a recent Supplemental Investigation conducted at the above-referenced subject property (Figure 1). Several previous site investigations have been performed at the site and their results along with a description of the site history were recently presented in the Clayton report "*Predevelopment Investigation Report of the Former Dunne Paint facility at 1007 41<sup>st</sup> Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California*" dated December 23, 2002.

Mr. Barney Chan of the Alameda County Health Care Service Agency (ACHCSA), in a letter dated March 21, 2003 listed four technical comments and stated that no further active remediation will be required at this property if the technical comments are adequately addressed. This supplemental investigation was performed in response to the ACHCSA's Technical Comment #1:

*"We concur with the proposed excavation of this site to an average depth of 10.5' and the removal of groundwater if encountered. Based upon previous results, post-excavation soil sampling is required in the west portion of the site, near the areas of borings B-11, B-12, and B-14-B-16. If post-excavation soil concentrations exceed 5000 ppm TPH in these areas, we request that additional soil excavation up to a maximum depth of 15.5' bgs be performed to remove the highly impacted soil."*

As such, the aim of this investigation was to define areas within the western portion of the planned excavation area where Total Petroleum Hydrocarbons as Mineral Spirits (TPH-ms) in soil exceeded 5,000 kilograms per kilogram (mg/kg). This report presents a

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description of field investigation procedures, a site map showing sample locations, a summary of analytical results, and conclusions and recommendations as necessary.

### **SCOPE OF WORK**

The sampling for the investigation was based on the recommendations of the ACHCSA; where vertical soil samples every 1,000-square feet throughout the western portion of the subject property would be sufficient to adequately characterize the TPH-ms concentration at and below the base of the proposed excavation. Therefore, this supplemental soil sampling prior to excavation was performed in lieu of the post-excavation soil sampling in order to avoid delays in the construction program.

The scope of work for this investigation involve the following tasks:

- Project management,
- Prefield Activities,
- Field Sampling Activities,
- Laboratory Analysis, and
- Report Preparation.

Work performed to complete the above listed tasks is described in the following discussion.

### **PRE-FIELD ACTIVITIES**

The purpose of the pre-field activities was to appropriately plan the work and to ensure that onsite personnel are prepared for potential safety hazards at the property. The pre-field activities included the following:

- Development of a workplan to conduct the investigation. The workplan dated April 7, 2003 was submitted to the ACHCSA for review and approval. The workplan was approved by ACHCSA, with comments, in a letter dated April 9, 2003.
- Prepared a Site Safety and Health Plan (SSHP) to reflect the work proposed at the subject property. The SSHP detailed the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.
- Marked the site boundaries with white paint and notifying Underground Service Alert (USA) at least 48 hours prior to performing field activities, as required by law, and employed a private utility locating service to identify onsite subsurface utilities prior to conducting subsurface field activities.

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- Obtained a drilling permit, as necessary, from the Alameda County Department of Public Works (ACDPW).

### **SAMPLING RATIONALE**

A total of 12 borings (B-17 through B-28) were advanced in the western portion of the subject property, at the locations shown in Figure 2. Each boring was located centrally within a 1,000-square foot grid across the western portion of the subject property. The target soil sampling depth for the investigation was the base of the planned excavation, which is presently set at approximately 39 feet above mean sea level (amsl) across the subject property. However, since the ground surface elevations at the subject property are variable, the soil sampling depths varied within boreholes. For example, ground surface elevations near the western end of the property near Adeline Street vary between about 46 and 48 feet amsl, while most of the building and the eastern portions of the subject property are at an elevation of about 51 feet amsl.

Therefore, the subsurface borings were advanced both inside and outside of the current buildings to depths between 7 and 16 feet below ground surface (bgs), based on ground surface elevations. In order to appropriately characterize the near surface soil that will remain following excavation, soil samples were collected at depth corresponding to 39 feet, 37 feet, and 35 feet amsl from each of the 12 borings.

The soil sampling depth in each boring is listed below, and determined from existing ground surface elevations at each borehole location and the proposed post-development elevation of 39 feet amsl:

#### **Boring ID      Sample Depth Interval (feet bgs)**

B-17-B-24	12, 14, 16
B-25	11, 13, 15
B-26	9, 11, 13
B-27	8, 10, 12
B-28	7, 9, 11

### **FIELD SAMPLING ACTIVITIES**

A Clayton geologist supervised Environmental Control Associates, Inc. of Aptos, California to advance the borings using Geoprobe® direct-push drilling equipment. Limited access drilling equipment was used to collect soil samples from within the onsite

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buildings. Del Secco Diamond Core and Saw of Hayward, California, removed concrete cores in eight locations prior to drilling

Soil cores were recovered within a 2-inch diameter macro-core lined with an acetate tube. Soil core were examined to determine subsurface soil types and physical evidence of contamination (*e.g.*, odors, discoloration, chemical sheen). An organic vapor analyzer (OVA) was used to screen soil for volatile compounds. Soil descriptions and OVA reading were recorded onto field logs, which are presented in Attachment 1.

A 6-inch long section of the acetate tube containing soil for laboratory analysis was cut at intervals corresponding to the required test depths. The soil sample tube was sealed with Teflon tape, capped, labeled, and placed in a pre-chilled ice chest. Collected soil samples were transported to a State of California-certified laboratory under formal chain-of-custody documentation.

Prior to abandoning boreholes, an electric water level meter was lowered in to each borehole to determine the static water level within the borehole. The depth to water measurements are presented on boring logs (Attachment 1). Once the fieldwork was completed, boreholes were filled to the ground surface with cement grout.

Downhole equipment was cleaned prior to advancing each boring and prior to collecting samples. Waste soil cuttings and decontamination water were containerized in a 55-gallon drum, labeled with identifying information and stored onsite pending appropriate disposal following the completion of field activities.

## **SUBSURFACE CONDITIONS**

The site is predominantly underlain by clay or silty clay soils. Sand and gravel horizons that vary from gravelly clay to clayey gravel generally occur at depths of 10 to 11 feet bgs. The depth to water below the building floor surface occurred at approximately 7 to 10 feet bgs, and at shallower depth along the Adeline Street. Free water was found in boreholes that encountered more porous sand and gravel soils; free water was not found in boreholes that encountered predominantly clay soil.

The distribution of impacted soil, as indicated from OVA reading was variable within the upper (non-saturated) portion of the site. However, a distinctive green coloration of the clayey soil corresponded to high OVA readings. The green color soil had a thickness of approximately 5-feet in most locations.

Below the green soil, the clayey soils were typical reddish to orange brown and had noticeably lower OVA readings associated with them.

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## LABORATORY ANALYSIS AND RESULTS

A total of 36 soil samples were submitted to the State of California-certified Curtis and Tompkins Ltd. of Berkeley, California for analysis. Only those soil samples corresponding to the 39-foot amsl elevation were initially tested. Also, at the request of ACHCSA, all samples from boreholes B-17, B-23, and B-28 were analyzed.

The soil samples were analyzed using the following United States Environmental Protection Agency (USEPA)-approved method:

- USEPA Method 8015M for Total Petroleum Hydrocarbons quantified for mineral spirits (TPH-ms)

The certified laboratory data sheets and chain-of-custody documentation for samples submitted for analysis are presented in Attachment 2. A summary of the analytical results is presented in Table 1.

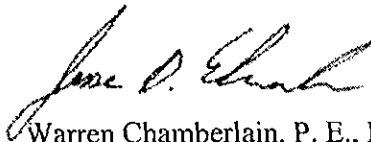
Only at one sample location, borehole B-18 at the sample depth of 12 feet bgs was TPH-ms found to be above the 5,000 mg/kg excavation target level. The subsequent sample B-18@14 contained TPH-ms at 99 mg/kg. All other soil samples collected and analyzed from within the area of investigation were below the 5,000 mg/kg excavation target level.

## CONCLUSIONS AND RECOMMENDATIONS

The results of this investigation indicate that slight over-excavation in the vicinity of Borehole B-18 will be required to meet the remedial objectives outlined by ACHCSA. The over excavation will require an additional 2-feet of soil to be removed in the 1,000 square foot area in the vicinity of borehole B-18 (see Figure 2). The analytical results from other test locations indicated that the planned soil excavation for the remaining portion of the site will meet the remedial objectives of removing soil with greater than 5,000 mg/kg TPH.

If you have any questions or need additional information, please contact us at (925) 426-2600.

Sincerely,



Warren Chamberlain, P. E., R. G.  
Project Geologist  
Environmental Services



Jon A. Rosso, P. E.  
Director  
Environmental Services



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JDE/jde

Attachments

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## TABLES

TABLE 1

Summary of Discrete Soil Sample Analytical Results - TPH as mineral spirits  
Former Dunne Paints  
Oakland/Emeryville, California

BOREHOLE	Sample Depth (feet bgs)	Sample Elevation (feet , amsl)	TPH-ms (mg/kg)
B-17	11.5	39.5	16
B-17	14	37	16
B-17	15.5	35.5	420
B-18	12	39	6,800
B-18	14	37	99
B-19-1	12	39	800
B-19-2	14	37	3
B-20	11.5	39.5	2
B-21	12	39	1,100
B-22	11.5	39.5	13
B-23	12	39	2.3
B-23	14	37	11
B-23	16	35	810
B-24	12	39	400
B-25	11	39	27
B-26	11	37	<1.0
B-27	8	40	<0.92
B-28	7	41	3,600
B-28	9	39	290
B-28	11	37	220

**Notes:**

<# = analyte not detected at or above the indicated laboratory method reporting limit  
mg/kg = milligrams per kilogram

Sampling date: March 27, 2003

TPH-ms, = Total petroleum hydrocarbons quantified as mineral spirits

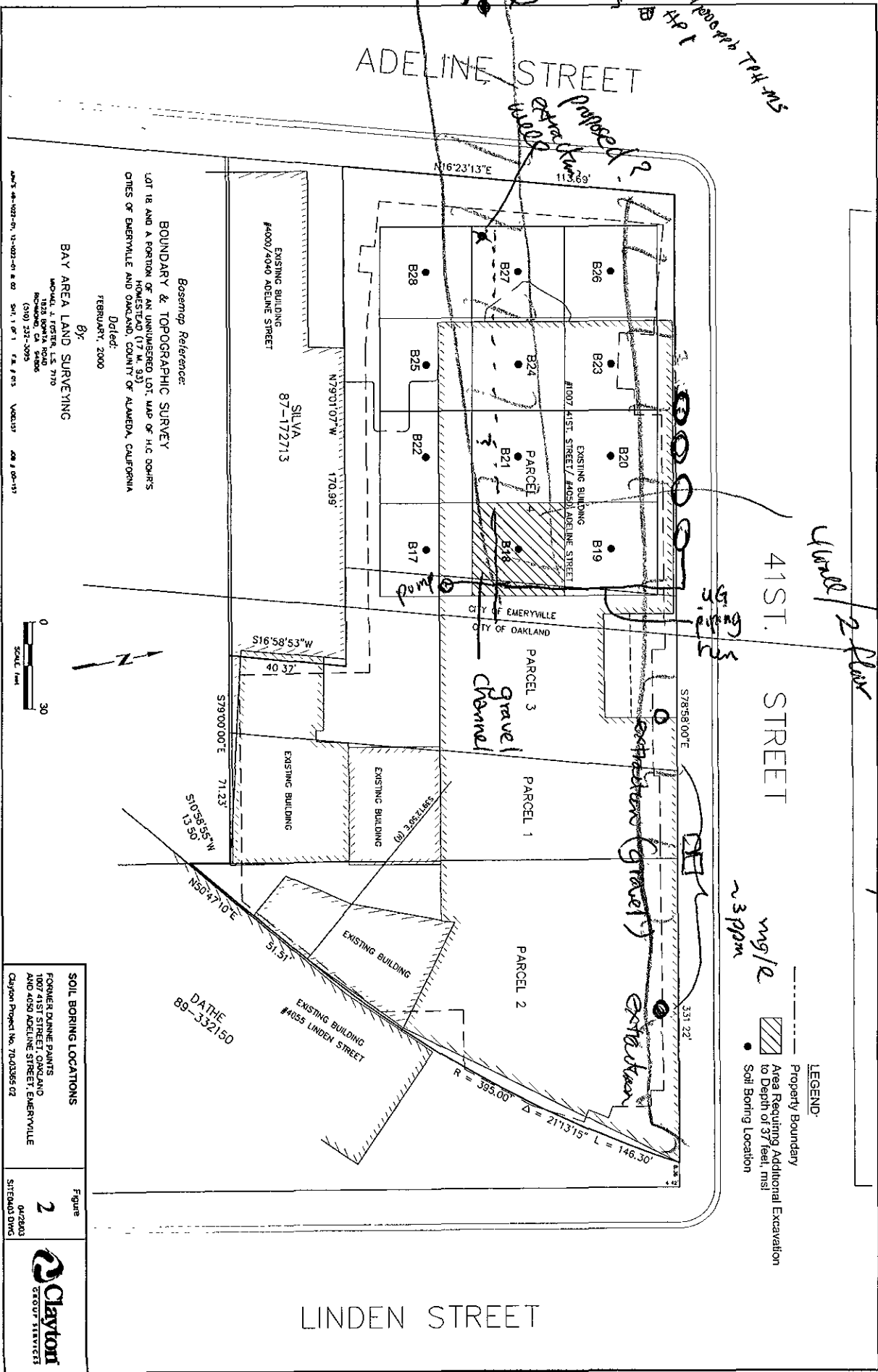


**FIGURES**

ADELINE STREET

41ST STREET

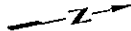
LINDEN STREET



Boremap Reference:  
BOUNDARY & TOPOGRAPHIC SURVEY  
LOT 18 AND A PORTION OF AN UNNUMBERED LOT, MAP OF H.C. BOHRF'S  
ONES OF DIERVILLE AND OAKLAND, COUNTY OF ALAMEDA, CALIFORNIA

Dated:  
FEBRUARY, 2000

By:  
BAY AREA LAND SURVEYING  
MICHAEL J. FORSTER, L.S. 7710  
1325 BOWEN ROAD  
MORNING, CA 94539  
(916) 257-9898  
S.A. 1, 1st 1, 7th & 8th Val. 1/27 208 # 604-191



LEGEND:  
--- Property Boundary  
Area Requiring Additional Excavation to Depth of 37 feet, min.  
• Soil Boring Location

SOIL BORING LOCATIONS  
FORMER DANNE PANTS  
1007 41ST STREET OAKLAND  
AND 4050 ADELINE STREET, EMERYVILLE  
Clayton Project No. 7803386 02

Figure  
2  
042803 SITE/DWG  
**Clayton GROUP SERVICES**

UG piping run

1 water B19  
2' below bottom pipe

mg/lc  
~3ppm

ADIST ST  
Well  
Proposed  
Well

Z180877b T-H-M5  
HP

N16°23'13"E  
113.69'

N79°01'07"W  
170.99'

S16°58'53"W  
40.32'

S79°00'00"E  
71.23'

S10°36'35"W  
15.99'

S36°12'50"E (6)

S78°58'00"E  
331.22'

R = 395.00'  
Δ = 2113'15"  
L = 146.30'

DATHE  
89-332150

#4000/4040 ADELINE STREET  
EXISTING BUILDING  
SILVA  
87-172713

EXISTING BUILDING  
#1007 41ST STREET / #4050 ADELINE STREET

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING  
#4055 LINDEN STREET

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**ATTACHMENT 1**  
**BORING PERMITS AND LOGS**

**ATTACHMENT 2**

**ANALYTICAL DATA SHEETS AND  
CHAIN OF CUSTODY DOCUMENTATION**