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Clayton GROUP SERVICES

R0073

May 29, 2003

Barney Chan
Hazardous Materials Specialist
ALAMEDA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Clayton Project No. 70-03365.02

Subject: Workplan for Offsite Groundwater Investigation
Former Dunne Paints Facility,
1007 41st Street in Oakland/Emeryville and 4050 Adeline Street
Emeryville, California

Dear Mr. Chan:

Clayton Group Services, Inc. (Clayton) has prepared this workplan to conduct an offsite groundwater investigation related to the above-referenced subject property, (a site vicinity map is presented as Figure 1). The workplan is presented in order to facilitate the redevelopment of the subject property and to begin to address technical comment No.2 listed in the Alameda County Environmental Health Department (ACEHD) in a letter dated March 21, 2003.

The purpose of the offsite groundwater investigation is to define the down and cross gradient extent of total petroleum hydrocarbons as mineral spirits (TPH-ms) that may be emanating from the subject property. Data from this investigation will be used to locate a permanent groundwater monitoring well network.

HISTORY

The approximately 1-acre subject property currently consists of several interconnecting warehouse-type buildings that were constructed over time. On site buildings occupy a total square footage of 35,600 square feet. Asphalt-paved parking is present in the western portion, with concrete loading docks located along the southern portion (access from Adeline Street) and in the northern portion (access from 41st Street).

From at least 1923 to around 1991, the eastern portions have been developed with paint manufacturing buildings. Additional paint manufacturing facilities were added to the west after the residential structures were removed. Paint manufacturing activities were reportedly conducted onsite by Frank W. Dunne Company/Dunne Quality Paints during

this time period. During this time, operations involved latex paint blending, varnish production, and solvent mixing, primarily within the eastern and southern portions of the subject property. The operations included the use of six paint thinner underground storage tanks (USTs) removed in 1988, multiple aboveground storage tanks (ASTs), solvent mixing, and brick ovens for varnish production.

Between 1988 and 2003, several environmental investigations that included soil and groundwater sampling have been conducted at the subject property. These investigations were initially conducted to investigate six USTs containing paint thinner located under the northern sidewalk. Two groundwater monitoring wells (MW-D1 and MW-D2) were installed in the UST backfill areas on the subject property and groundwater samples were subsequently collected from 1988 to 1999.

In the vicinity of the subject property, groundwater has been determined to flow in a westerly and southwesterly direction. Two immediately adjacent neighboring properties are known to have hydrocarbon releases and are situated upgradient of the subject property:

- The former Oakland National Engravers (ONE), located north of the subject property at 1001 41st Street, was involved in paint manufacturing (by Boysen Paint) from at least 1933 to 1990 and by ONE from around 1990 to the present. Two paint thinner USTs were located onsite and removed in 1987. The soil and groundwater quality at this property has been evaluated since 1991, including the installation and monitoring of three onsite wells as well as three wells located in 41st Street. Elevated concentrations of TPH-ms, have been detected at this property. The most recent groundwater sampling data of the well network conducted in 2000 revealed that up to 630,000 parts per billion (ppb) of TPH-ms remain in groundwater at this property. Also, methylene chloride up to 720 ppb has been detected in a grab groundwater sample, and 11 ppb have been detected in a groundwater well at this property.

- California Linen, located east of the subject property at 989 41st Street has been developed as a commercial laundry facility since at least 1924 to the present. An UST was removed in 1989 and elevated concentrations of petroleum products, including total petroleum hydrocarbons as gasoline (TPH-g) and related compounds were found in groundwater. Recent groundwater data has shown that TPH-g at 38,000 ppb, TPH-ms at 59,000 ppb, and benzene at 7,100 ppb exist at the property.

Given the immediate proximity of the three sites to each other, groundwater downgradient of the subject property is most likely co-mingled.

GROUNDWATER EVALUATION

Groundwater quality has been evaluated at several locations on the subject property as follows: two groundwater monitoring wells (MW-D1 and MW-D2) were installed in two of the UST backfills (northern sidewalk area). The monitoring wells were sampled between 9 and 10 times, respectively, from 1988 to 1999, with the maximum concentration of analytes being total purgeable petroleum hydrocarbons (TPPH)-non gasoline at 6,200 ppb and TPH-ms found at 1,600 ppb discovered in MW-D2. These wells were also analyzed for chlorinated VOCs between two and three times and was found not to be present.

A grab groundwater sample was collected from a temporary well HP-4 installed in the southern portion of the subject property, near the former ASTs, and analyzed for TPH-ms. The HP-4 sample contained TPH-ms at 570 parts per billion (ppb).

During Clayton's 2002 and 2003 investigation, four grab groundwater samples where collected from the western portion of the subject property. The samples were analyses for TPH as gasoline and TPH as diesel, the carbon analytical range of these analyses spans TPH-ms. All four grab groundwater contained TPH-g and TPH-d, with a maximum combined TPH-g/TPH-d concentration of 1,350 parts per million (ppm) being detected.

SCOPE OF WORK

The following scope of work will be performed for the offsite groundwater investigation. The ten (10) planned offsite test locations are shown in Figure 2. The grab groundwater collected from test locations should provide a snapshot of up, cross, and down gradient water quality. Water quality data from this investigation will be used to locate permanent groundwater monitoring wells in the vicinity of the subject property.

TASK 1: PRE-FIELD ACTIVITIES

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

- Preparing a Site Safety and Health Plan (SSHP) to reflect the work proposed at the subject property. The SSHP would detail the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.
- Marking the site boundaries with white paint and notifying Underground Service Alert (USA) at least 48 hours prior to performing field activities drilling, as required by law.

- Utilizing a private utility locating service prior to conducting field activities.
- Assessment of traffic control needs.
- Encroachment permits to work in the City of Emeryville streets.
- Obtaining drilling permits from the Alameda County Department of Public Works (ACDPW).

TASK 2: FIELD ACTIVITIES

To install boreholes and collect grab groundwater samples, Clayton will subcontract a licensed C-57 drilling contractor. Either a Geoprobe® direct-push or hollow stem auger drill rig equipped with soil coring and sampling equipment will be employed. This same equipment will be used to penetrate surface asphalt in city streets.

Clayton will observe soil cores for lithology and screen for physical evidence of contamination (*e.g.*, odors, discoloration, chemical sheen). An organic vapor analyzer (OVA) or photo-ionization detector (PID) will also be used to test for the presence of volatile chemicals in soil. Soil samples may be collected for analytical purposes if a high presence of volatile compounds is indicated by OVA readings (that is, >100 ppm). However, it is not the expressed intention of this investigation to test offsite soil. Any soil retained for analysis will be collected in a 6.0-inch long soil sample tube, sealed with Teflon tape, capped, labeled, and placed in a pre-chilled ice chest. Soil samples will be transported to a State of California-certified laboratory under formal chain-of-custody documentation.

Downhole equipment will be cleaned prior to advancing each boring and prior to collecting samples. The rinseate will be containerized and removed from the property after the field activities are complete.

For the purpose of collecting grab groundwater samples, boreholes will be pushed or drilled approximately 10 feet below first encountered water, to an anticipated maximum depth of between 20 to 25 feet bgs. Grab groundwater samples will be collected from temporary well points constructed inside boreholes. The 10-foot penetration into groundwater is to assist soil characterization (assess coarse grained material) for the planned groundwater monitoring wells.

The temporary well points will be constructed of up to 15 feet of one-inch outer diameter blank PVC casing threaded to a lower 10-foot section of slotted screen. The grab groundwater samples will be collected using a stainless steel/disposable bailer or a peristaltic pump, and transferred into appropriate laboratory supplied containers. The sample containers will be capped/sealed, labeled with identifying information and placed in a pre-chilled ice chest for transportation to the analytical laboratory under formal chain-of-custody documentation.

Once the fieldwork is complete, borings will be filled to the ground surface with cement grout. Investigation derived waste (IDW) generated during the fieldwork will be containerized in 55-gallon drum and later disposed of offsite pending analytical results.

TASK 3: LABORATORY ANALYSES

Samples will be submitted for analysis to a State of California-certified analytical laboratory. The laboratory analyses will be conducted on a standard 5 to 10-day turn-around-time (TAT). The groundwater samples will be analyzed by one or more of the following United States Environmental Protection Agency (USEPA)-approved methods:

- USEPA Method 8015M for total petroleum hydrocarbons quantified as mineral spirits (TPH-ms).
- USEPA Method 8260 for Volatile Organic Compounds.

TASK 4: PROJECT MANAGEMENT AND REPORT PREPARATION

Upon project completion of field work and laboratory analyses, Clayton will prepare a written report summarizing the findings of field investigation. The report will include a description of the subsurface conditions (soil types, depth to groundwater), a summary of investigative methods, figures depicting sample locations, summation tables of analytical results, and a discussion of findings. The report will also make recommendations for the location of the permanent monitoring wells and present a workplan to install groundwater monitoring wells.

If you have any questions, please feel free to contact us at 925.426.2600.

Sincerely,

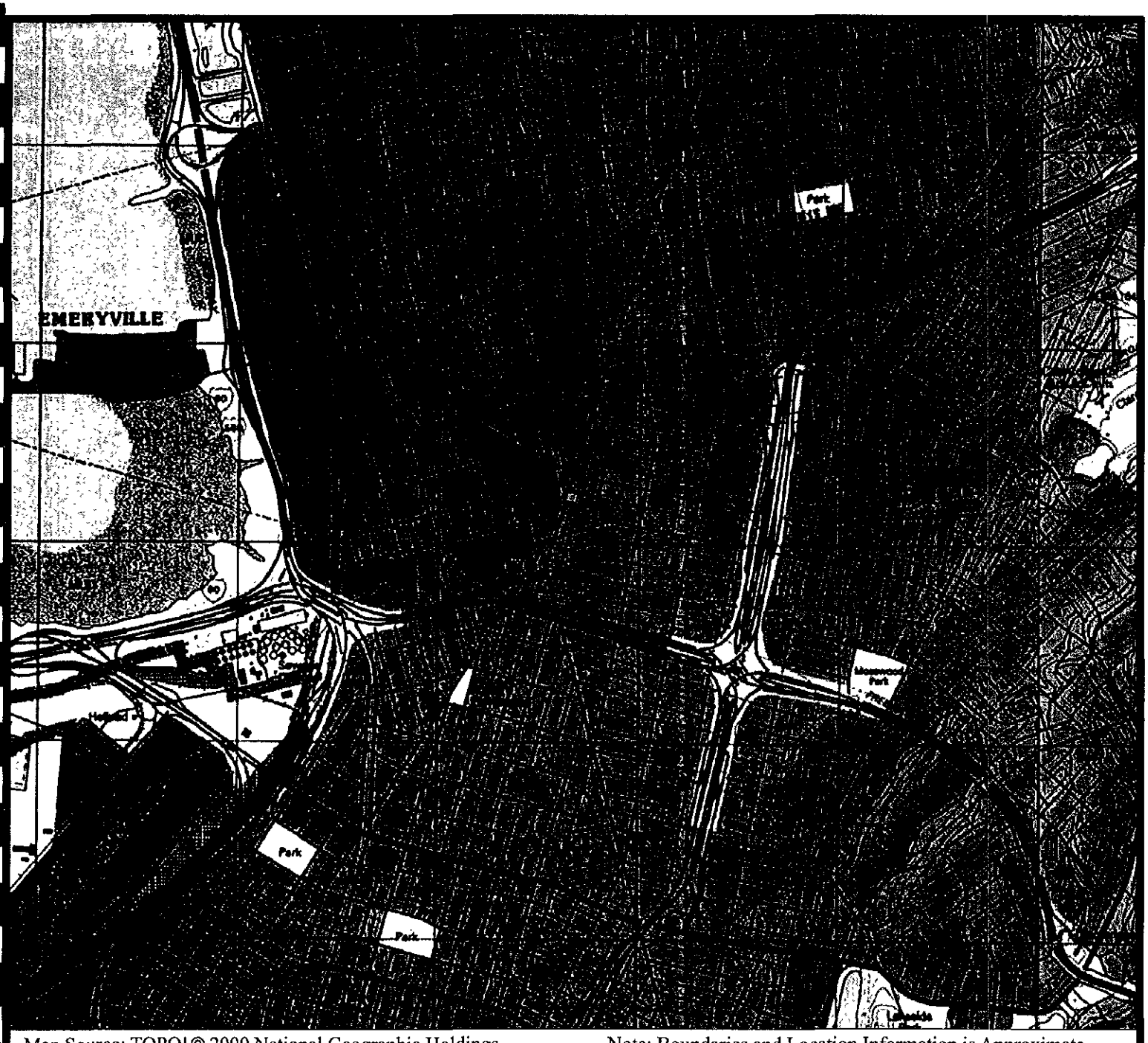
Warren B. Chamberlain, R.G., C.HG., P.E.
Project Manager
Environmental Services

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

WBC/wbc

cc: Martin Samuels – Green City Lofts, LLC
DT Brock – Green City Lofts, LLC

FIGURES



Map Source: TOPO!© 2000 National Geographic Holdings

Note: Boundaries and Location Information is Approximate

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Portion of the 7.5-Minute Series Oakland West, California
Quadrangle Topographic Map (Datum: NAD 27)
United States Department of the Interior
Geological Survey
1997

N

CALIF

QUADRANGLE LOCATION

PROPERTY LOCATION MAP
1007 41st Street
Emeryville/Oakland, California and
4050 Adeline Street
Emeryville, California
Clayton Project No. 70-03365.00

Figure
1

Clayton GROUP SERVICES

B O O K 13

N

W

SW

1" = 200'
approximate scale

venue. St.

53 RD

MESCAL CR.

Creek.

1176 Pg.2

1176 Pg.1

St.

48TH

(Lulu Av) Street

1175

1177

Salem

1175 Pg.3

1175 Pg.2

1175 Pg.1

Street.

1178

1174 pg.3

1174 pg.2

1174 pg.1

1173

45TH

Street.

46TH

St.

1172

13

St.

Avenue.

1079

St.

1080

St.

1081

45TH

Street.

1082

Street.

44TH

1083

43RD

St.

St.

43RD

1084

BK.

N 140° 30' W

1026 pg.2

1026 pg.1

Adeline

42ND

1023

12

41ST

St.

St.

Linden

St.

618 pg.4

618 pg.5

1025 pg.1

41st

Subject property

San Pablo

40TH St.

1025 pg.2

EMERYVILLE OAKLAND

St.

954

BK.

40TH

Avenue

YERBA BEUNA AVE.

St.

1024

BK. 12

39TH St

Street.

LEGEND

XS — Proposed Borehole

FIGURE 2: PROPOSED BOREHOLE LOCATION MAP