November 6 2006

Donna L. Drogos, P.E.
Local Oversight Program Manager
ALAMEDA COUNTY ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502-6577

Clayton Project No. 33106-006824.00

Subject: Environmental Summary
Broadway between 2nd and 3rd Streets
Oakland, California

Dear Ms. Drogos:

Clayton Group Services, Inc., *A Bureau Veritas Company*, (Clayton) is pleased to present our environmental summary report for the above-referenced Site. The enclosed report summarizes Site data for the purpose of obtaining a "No Further Action" letter from Alameda County Environmental Health (ACEH). Clayton will upload this report along with supporting documents to ACEH's ftp website.

We hope this summary helps you better understand environmental conditions at the Site. If you have any questions, please contact us.

Sincerely,

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JAR/jdg

Enclosure

Environmental Summary

Broadway between 2nd and 3rd Streets
Oakland, California

Clayton Project No. 33106-006824.00
November 6, 2006

Prepared by:
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BUREAU VERITAS

For the benefit of business and people

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1.0 INTRODUCTION

Clayton Group Services, Inc., *A Bureau Veritas Company*, (Clayton) is pleased to present this environmental summary (Summary) for property located on Broadway between 2nd and 3rd Streets in Oakland, Alameda County, California (Site). The objective of this Summary is to inform Alameda County Environmental Health (ACEH) about environmental conditions at the Site and request a "No Further Action Letter." Clayton prepared this Summary from the following information sources, which are assumed to be accurate[1]:

- Soil and Groundwater Sampling Report; June 1, 1998; Ceres (Appendix A)
- Phase I Environmental Site Assessment; August 9, 2000; Ceres
- Phase I Environmental Site Assessment for the Evaluation of Potentially Hazardous Materials; September 30, 2004; AquaTerra
- Subsurface Soil Sampling Final Report; April 3, 2006; Advantage (Appendix B)
- Supplemental soil data; August-October 2006; Advantage (Appendix C)
- Preliminary Geotechnical Investigation; August 15, 2005; LGC (Appendix D)

2.0 SITE DESCRIPTION

2.1 LOCATION

The approximately 0.8-acre Site consists of five Alameda County Assessor's Parcel Numbers (APNs): Book 001; Page 0141; Parcels 011, 002-01, 005-01, 003, and 006. Site boundaries are: Broadway to the northwest; 3rd Street to the northeast; 2nd Street to the southwest; and Parcels 007, 008, and 009 to the southeast. The Site location is depicted on Figure 1. A Site parcel map is included as Figure 2.

2.2 HISTORY

The Site has been developed since at least 1889. Site uses have included a boarding house, cold storage, Empire Foundry (with an earthen floor, a machine shop, a pattern shop, and flask storage), a livery, a wholesale meat stores, other commercial stores, restaurants, offices, and automobile parking. The foundry appears to have operated for about 50 years during the early-to-mid 1900s on the southern portions of the Site.

1 Clayton makes no warranty, express or implied, regarding the quality of information from these sources.

2.3 PRESENT AND PLANNED USE

Former structures were razed and the Site has been prepared for construction. The Site is being redeveloped with a multi-family residential, high-rise, zero lot line building. Construction plans for the new building show numerous (over 300) subsurface pile foundations throughout the Site, a reinforced concrete mat foundation covering the entire Site, and residential units over five levels of aboveground parking. Site preparation involves removing the top foot of soil across the Site as well as excavating pile foundations to depths ranging from 3.0 to 10 feet bgs. To date, approximately 2,300 tons of soil have been removed, and additional soil removal is needed.

2.4 PHYSICAL SETTING

The Site is situated in an urban setting. Site elevation ranges from about 10 to 15 feet above mean sea level (amsl). The Site surface is relatively flat with a gentle downward slope to the southwest. The nearest surface water body is Oakland Inner Harbor located approximately 750 feet to the southwest.

Data from 10 geotechnical borings advanced to depths ranging from about 30 to 100 feet below ground surface (bgs) shows the presence of non-native fill material across much of the Site at depths ranging from 2 to 10 feet bgs. Sands and silts comprise most of the upper 50 feet. Silty clays comprise most of the lower 50 feet.

The depth to first encountered groundwater beneath the Site has ranged from 5 to 30 feet bgs with stabilization at about 8 feet bgs. Based on local topography, the groundwater flow direction is inferred to be southwesterly towards Oakland Inner Harbor, which connects to San Francisco Bay. However, groundwater flow under the subject property may be influenced by zones of higher or lower permeability, or by nearby pumping or recharge.

3.0 FINDINGS

Reportedly, 38 soil (21 composite and 17 discrete) samples and 4 grab groundwater samples from the Site have been analyzed. These samples were collected from 21 borings and from eight soil stockpiles originating from Site redevelopment. Sampled areas include the former foundry. Boring locations are depicted on Figure 3.

3.1 SOIL

The 38 soil samples were collected at depths ranging from 1.0 to 7.0 feet bgs. Soil samples were analyzed for one or more of the following constituents:

- Total volatile hydrocarbons (TVH) – gasoline, benzene, toluene, ethylbenzene, and xylenes – (7 tests)
- Total extractable hydrocarbons (TEH) – diesel and oil – (9 tests)
- California Assessment Manual 17 total metals (15 tests with 21 additional tests for lead only)
- Extractable metals via state Waste Extraction Test (WET) or federal Toxic Characteristic Leaching Procedure (TCLP) (29 tests between the two methods)

Review of the gathered data shows no detections of TVH in soil. Detected concentrations of TEH ranged from 4.2 to 23 milligrams per kilogram (mg/kg) or parts per million (ppm) for diesel and from 1.3 to 160 ppm for oil; these concentrations are below the most stringent Environmental Screening Levels[2] (ESLs) established by the California Regional Water Quality Control Board (RWQCB). Soil data for TVH and TEH are summarized in Table 1.

With three exceptions, total metals concentrations are also below the ESLs. Antimony was detected at 16 ppm in only one of the 15 tested samples (sample 14); the ESL for antimony is 6.1 ppm. Arsenic was detected at concentrations ranging from 5.9 to 15 ppm in six of 15 tested samples (samples SB-1 through -4, 14, and 15); the ESL for arsenic is 5.5 ppm. Lead was detected at concentrations ranging from 150 to 970 ppm in eight of the 37 tested samples (samples 7, 9, 13, 14, 15, 16, 28, and 29); the ESL for lead is 150 ppm.

As part of the ongoing soil disposal process, extractable lead has been detected at concentrations ranging from 5.5 to 35 milligrams per liter (mg/L) or ppm in one soil and six stockpile samples (samples 14, 15, 16, 21, 22, 28, and 39) analyzed using the WET. In addition, one stockpile sample (sample 29) analyzed using the TCLP contained 9.8 ppm of lead. Concentrations of extractable lead at 5.0 ppm or greater exceed state (WET) or federal (TCLP) hazardous waste criteria. Soil data for metals are summarized in Table 2.

2 ESLs for shallow soil (≤ 3 meters bgs) in a residential land use scenario where potentially impacted groundwater is a current or potential drinking water resource

3.2 GROUNDWATER

The four grab groundwater samples were collected from direct-push borings located within the former foundry. These samples were analyzed for halogenated volatile organic compounds (HVOCs). No HVOCs were detected in groundwater beneath the Site. Groundwater data for HVOCs are summarized in Table 3.

4.0 CONCLUSION

Environmentally suspect Site uses include the former foundry. Soil and grab groundwater data has been gathered throughout the Site as well as from this historical use area. These data demonstrate that historical uses have not significantly contaminated the Site. No HVOCs were found in groundwater, and no TVHs were found in soil. In addition, TEH concentrations in soil are below ESLs, and most total metals concentrations are also below ESLs.

Site soil has contained concentrations of total antimony, arsenic, and lead that exceed ESLs. The levels of antimony and arsenic are also within typical background ranges for the Site location. The levels of lead are outside background ranges, and are probably related to anthropogenic processes. The potential for lead in excavated soil will necessitate testing to determine appropriate disposal methods.

The extent of metals in soil at the Site appears limited. Consider that elevated concentrations were found in only eight of the 21 boring locations and in six of the excavated stockpiles. In addition, Site uses appear disassociated with the metals data since some data points are within the former foundry (a potential source), but other data points are not. Moreover, sample depths ranged from 1.0 to 7.0 feet bgs, which is within the zone of non-native fill material – material that frequently contains elevated concentrations of metals. The non-uniform distribution of metals within an identified non-native fill zone strongly suggests that metals in Site soil are related to the fill, which is ubiquitous around Oakland and San Francisco Bay.

Regardless of the source, the presence of elevated concentrations of some metals in soil should not present a significant risk to human health and the environment for the following reasons:

- Ongoing redevelopment activities will result in the removal of substantial volumes of Site soil within the upper 10 feet bgs. Construction plans require excavating the top foot of soil across the Site as well as installing over 300 pile foundations and associated subgrade connecting beams – this work is currently underway. Such activities will result in less metals remaining on the Site after construction. To illustrate, sampled stockpiles contained six of the 10 samples with elevated concentrations of lead.

- Future residents will have no contact with Site soil since the entire ground surface will be completely covered with reinforced concrete.

- Metals are relatively stable in soil, which minimizes risks associated with contaminant migration.

- Shallow groundwater beneath the Site has little to no beneficial use particularly given the urban setting, the ready availability of municipal water sources, and the likelihood of brackish tidal influx.

- Subsurface conditions in conjunction with the zero lot line construction and with the location of residential units over five levels of aboveground parking largely eliminate vapor intrusion concerns.

Based on the environmental work summarized in this report and the ongoing redevelopment activities, additional Site assessment is not warranted (beyond characterizing excavated soil for disposal purposes). Clayton requests that ACEH formally determine that "No Further Action" is required at the Site.

This report prepared by: _____

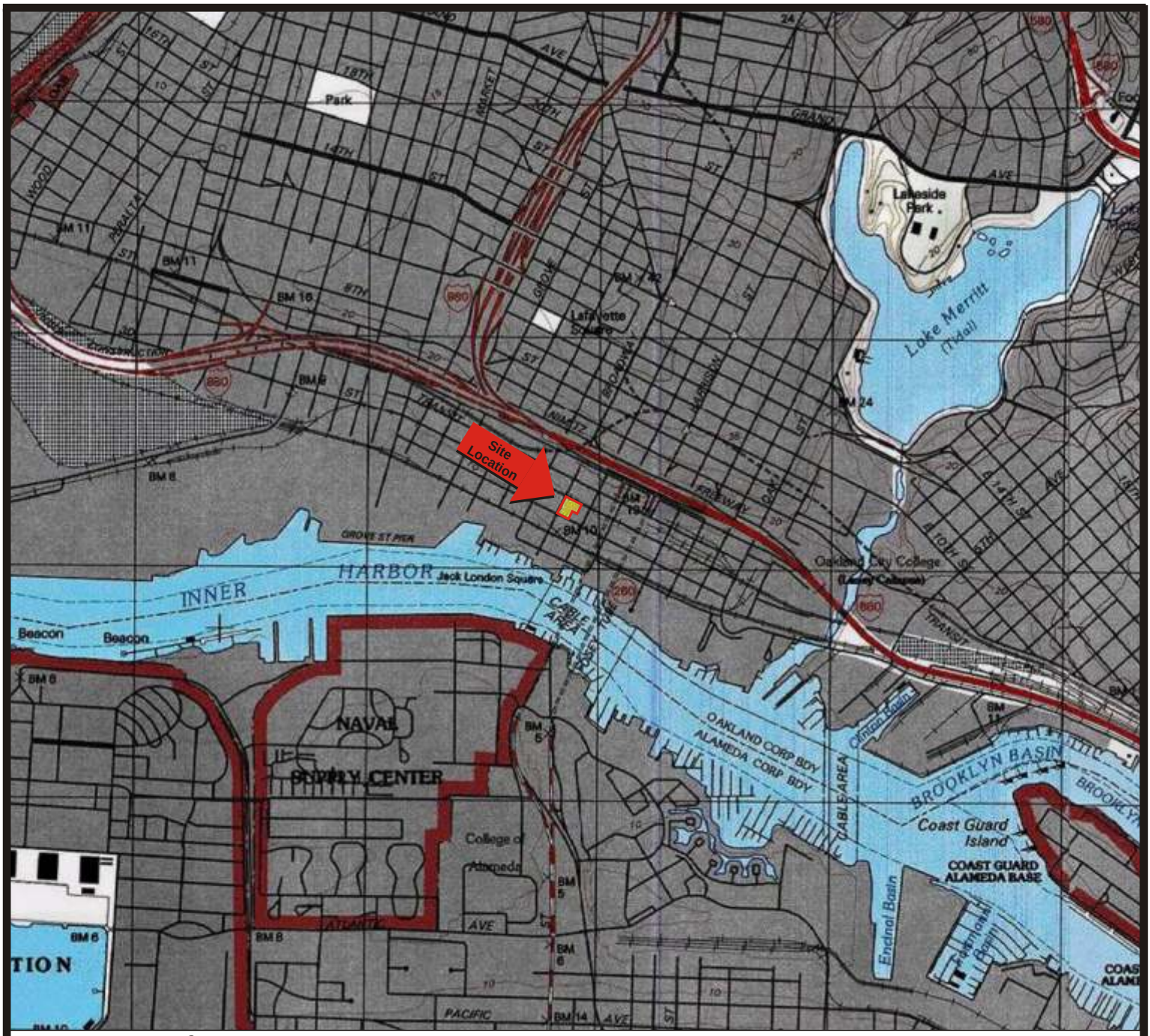
John D. Glover, P.E.
Project Engineer
Environmental Services

This report reviewed by: _____

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

November 6, 2006
Clayton Project No. 33106-006824.00

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 Photorevised from 1993

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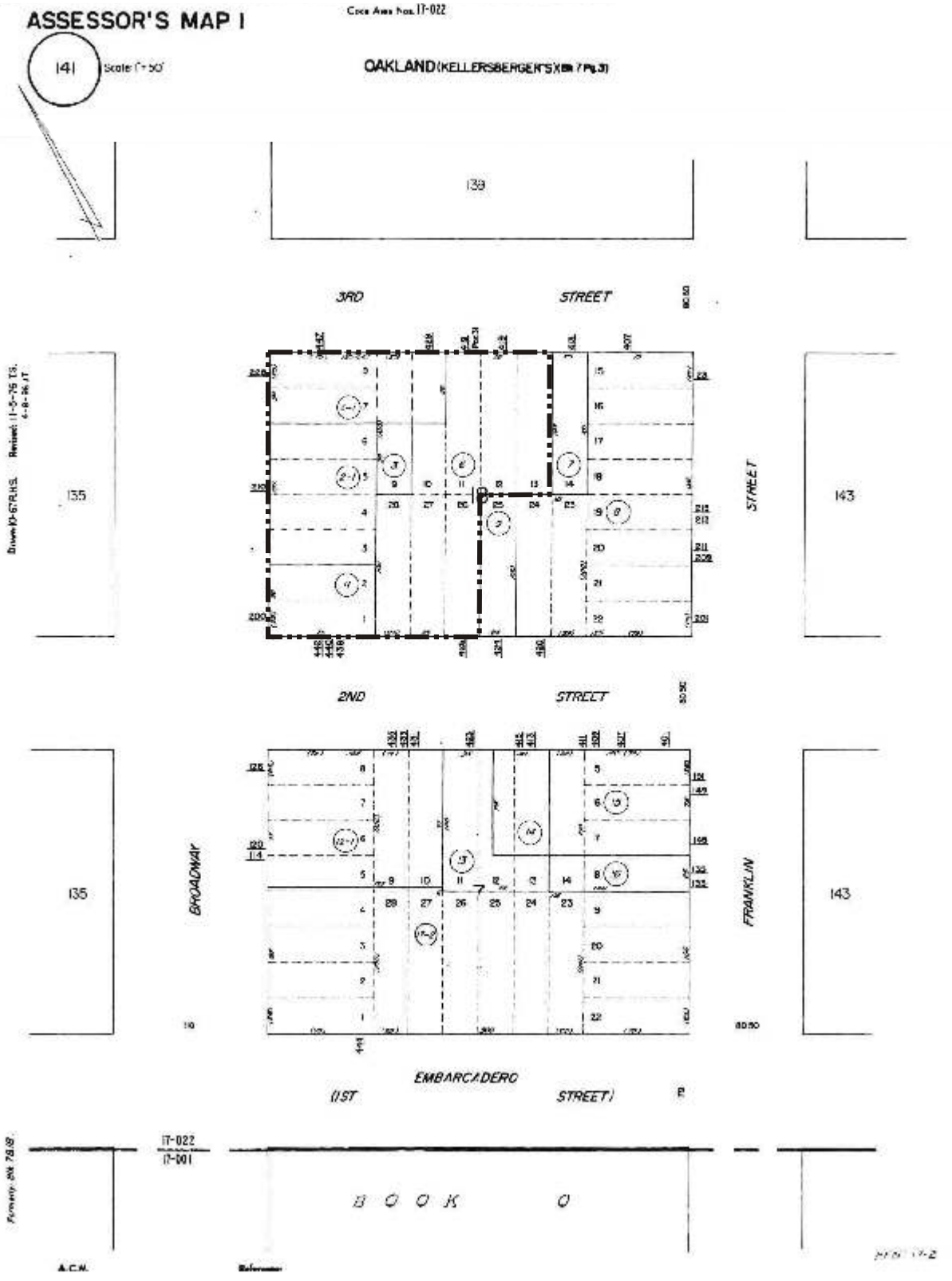
QUADRANGLE LOCATION

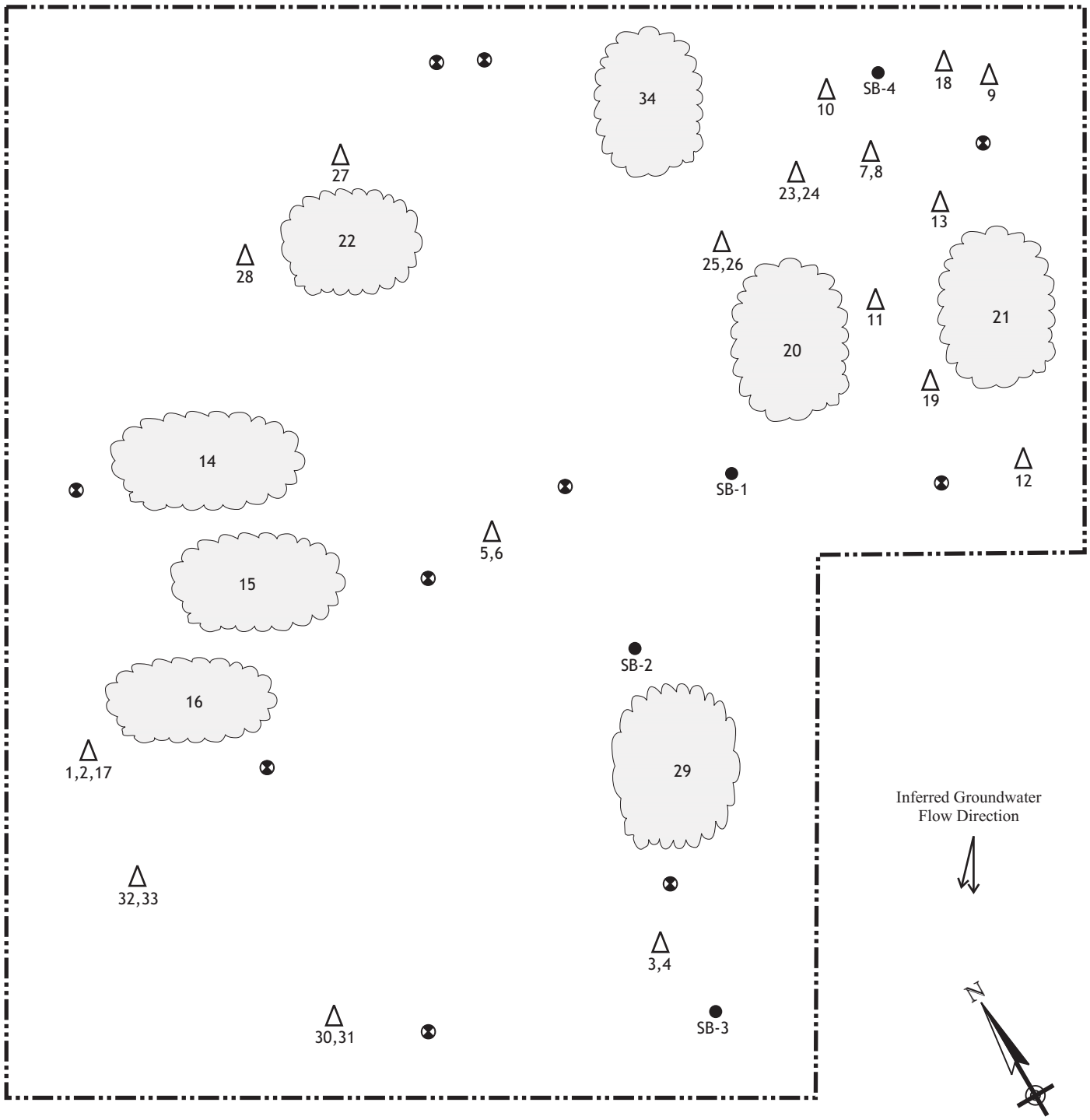
SITE LOCATION MAP	FIGURE
Broadway between 2nd and 3rd Streets Oakland, California Clayton Project No. 33106-006824.00	1

BUREAU VERITAS



LEGEND	SITE PARCEL MAP	FIGURE
Site Boundary	Broadway between 2nd and 3rd Streets Oakland, California	2
Source: Alameda County Assessor's Office	Clayton Project No. 33106-006824.00	

BUREAU VERITAS



Boring Locations are Approximate
Stockpile Locations are Representative
Scale: 1 inch ≅ 28 feet

LEGEND

- Site Boundary
- 1998 Soil and Groundwater Boring
- 2006 Soil Boring
- 2001 & 2005 Geotechnical Boring
- 2006 Soil Stockpile Samples

BORING LOCATIONS

Broadway between 2nd and 3rd Streets
Oakland, California

Clayton Project No. 33106-006824.00

FIGURE

3

BUREAU VERITAS

TABLES

TABLE 1
Soil Data -- Petroleum Hydrocarbons
Broadway between 2nd and 3rd Streets, Oakland, California

Sample ID	Date (m/d/y)	Depth (ft bgs)	TVH-g (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	TEH-d (ppm)	TEH-mo (ppm)
1	3/10/2006	2.5	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	<1.0
2	3/10/2006	6.0	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	<1.0
3	3/10/2006	2.5	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	<1.0
4	3/10/2006	6.0	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	6.7
5	3/10/2006	2.5	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	1.3
6	3/10/2006	6.0	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	6.0
7	3/10/2006	2.5	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	160
8	3/10/2006	6.0	<1.0	<0.005	<0.005	<0.005	<0.01	<1.0	<1.0
14	9/5/2006	Pile	—	—	—	—	—	23	140
15	9/5/2006	Pile	—	—	—	—	—	4.2	27
Tier 1: ESL_s			100	0.044	2.9	3.3	2.3	100	500

Notes:

m/d/y = month/day year; ft bgs = feet below ground surface; ppm = parts per million or milligrams per kilogram

TVH-g = Total volatile hydrocarbons as gasoline; BTEX = TVH as benzene, toluene, ethylbenzene, xylenes

TEH-d = Total extractable hydrocarbons as diesel; TEH-mo = TEH as motor oil

Pile = Sample collected from soil stockpile

Tier 1: ESLs = California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels for shallow soil (≤ 3 meters bgs) residential land use where potentially impacted groundwater is a current or potential drinking water resource

TABLE 2
Soil Data -- Metals
Broadway between 2nd and 3rd Streets, Oakland, California

Sample ID	Date (m/d/y)	Depth (ft bgs)	Antimony (ppm)	Arsenic (ppm)	Barium (ppm)	Beryllium (ppm)	Cadmium (ppm)	Chromium (ppm)	Cobalt (ppm)	Copper (ppm)	Lead (ppm)	Mercury (ppm)	Molybdenum (ppm)	Nickel (ppm)	Selenium (ppm)	Silver (ppm)	Thallium (ppm)	Vanadium (ppm)	Zinc (ppm)
SB-1	5/13/1998	1.0	<2.5	15	67	<0.5	<0.5	47	8.7	30	17	0.17	<2.0	74	<2.5	<1.0	<0.5	36	44
SB-2	5/13/1998	1.0	<2.5	13	510	0.77	<0.5	24	5.9	49	110	1.5	<2.0	17	<2.5	<1.0	<0.5	37	44
		STLC	—	—	6.9	—	—	—	—	—	4.7	<0.06	—	—	—	—	—	—	—
SB-3	5/13/1998	1.0	<2.5	9.0	43	<0.5	<0.5	29	3.5	5.4	4.1	<0.06	<2.0	15	<2.5	<1.0	<0.5	20	17
SB-4	5/13/1998	1.0	<2.5	8.5	47	<0.5	<0.5	35	3.5	8.5	30	<0.06	<2.0	26	<2.5	<1.0	<0.5	23	33
1	3/10/2006	2.5	<2.5	1.0	56	<0.5	<0.5	33	4.0	8.6	45	0.72	<1.0	17	<1.0	<0.5	<1.0	22	42
17	9/7/2006	STLC	—	—	—	—	—	—	—	—	2.3	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
2	3/10/2006	6.0	<2.5	1.2	36	<0.5	<0.5	38	5.4	5.2	<2.5	<0.1	<1.0	27	<1.0	<0.5	<1.0	27	17
3	3/10/2006	2.5	<2.5	<1.0	43	<0.5	<0.5	30	3.1	3.8	<2.5	<0.1	<1.0	16	<1.0	<0.5	<1.0	21	13
4	3/10/2006	6.0	<2.5	<1.0	53	<0.5	<0.5	51	4.5	4.7	<2.5	<0.1	<1.0	27	<1.0	<0.5	<1.0	32	17
5	3/10/2006	2.5	<2.5	1.0	55	<0.5	<0.5	33	3.9	4.7	<2.5	<0.1	<1.0	17	<1.0	<0.5	<1.0	22	15
6	3/10/2006	6.0	<2.5	<1.0	27	<0.5	<0.5	33	1.7	2.4	<2.5	<0.1	<1.0	13	<1.0	<0.5	<1.0	23	9.2
7	3/10/2006	2.5	<2.5	3.8	280	<0.5	0.96	19	3.5	57	660	0.21	1.7	24	<1.0	<0.5	<1.0	15	420
8	3/10/2006	6.0	<2.5	<1.0	33	<0.5	<0.5	38	3.0	4.3	<2.5	<0.1	<1.0	19	<1.0	<0.5	<1.0	23	13
9	8/22/2006	3.0	—	—	—	—	—	—	—	—	970	—	—	—	—	—	—	—	—
10	8/22/2006	3.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
11	8/22/2006	3.0	—	—	—	—	—	—	—	—	5.3	—	—	—	—	—	—	—	—
12	8/22/2006	3.0	—	—	—	—	—	—	—	—	84	—	—	—	—	—	—	—	—
13	8/22/2006	3.0	—	—	—	—	—	—	—	—	380	—	—	—	—	—	—	—	—
14	9/5/2006	**Pile**	16	5.9	190	<0.5	1.2	43	6.9	110	520	2.4	2.0	39	<0.5	<0.5	<0.5	36	310
		STLC	0.13	<0.1	4.7	<0.1	0.055	0.21	0.21	2.3	19	<0.01	0.13	0.37	<0.1	<0.1	<0.1	0.28	8.3
		TCLP	<0.1	<0.1	<1.0	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
15	9/5/2006	**Pile**	5.6	9.1	160	<0.5	1.1	83	6.8	98	480	1.0	1.7	47	<0.5	<0.5	<0.5	33	510
		STLC	0.24	<0.1	4.6	<0.1	<0.05	0.53	0.17	1.7	16	<0.01	<0.1	0.41	<0.1	<0.1	<0.1	0.25	6.1
		TCLP	<0.1	<0.1	<1.0	<0.1	<0.05	<0.1	<0.1	<0.1	0.47	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.3
16	9/7/2006	**Pile**	1.3	3.8	250	<0.5	0.43	37	5.2	33	240	1.6	0.54	27	<0.5	<0.5	<0.5	28	140
		STLC	0.19	<0.1	4.4	<0.1	<0.05	0.13	0.19	0.68	10	<0.01	<0.1	0.18	<0.1	<0.1	<0.1	0.22	4.1
		TCLP	<0.1	<0.1	<1.0	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
18	8/26/2006	7.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
19	8/26/2006	7.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
20	8/26/2006	**Pile**	—	—	—	—	—	—	—	—	44	—	—	—	—	—	—	—	—
		STLC	0.18	<0.1	3.3	<0.1	<0.05	<0.1	0.1	0.6	2.5	<0.01	<0.1	0.21	<0.1	<0.1	<0.1	0.17	4.3
		TCLP	<0.1	<0.1	<1.0	<0.1	<0.05	<0.1	<0.1	<0.1	1.6	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
21	8/26/2006	**Pile**	—	—	—	—	—	—	—	—	70	—	—	—	—	—	—	—	—
		STLC	0.11	0.5	7.1	<0.1	<0.05	0.57	0.34	1.2	5.5	<0.01	<0.1	1.0	<0.1	<0.1	<0.1	1.3	6.6
		TCLP	<0.1	<0.1	<1.0	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0
22	9/27/2006	**Pile**	—	—	—	—	—	—	—	—	110	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	6.8	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.5	—	—	—	—	—	—	—	—

TABLE 2
Soil Data -- Metals
Broadway between 2nd and 3rd Streets, Oakland, California

Sample ID	Date (m/d/y)	Depth (ft bgs)	Antimony (ppm)	Arsenic (ppm)	Barium (ppm)	Beryllium (ppm)	Cadmium (ppm)	Chromium (ppm)	Cobalt (ppm)	Copper (ppm)	Lead (ppm)	Mercury (ppm)	Molybdenum (ppm)	Nickel (ppm)	Selenium (ppm)	Silver (ppm)	Thallium (ppm)	Vanadium (ppm)	Zinc (ppm)
23	10/2/2006	3.0	—	—	—	—	—	—	—	—	13	—	—	—	—	—	—	—	—
24	10/2/2006	6.5	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
25	10/2/2006	3.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
26	10/2/2006	6.5	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
27	10/2/2006	7.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
28	10/2/2006	7.0	—	—	—	—	—	—	—	—	150	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	5.9	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
29	10/2/2006	**Pile**	—	—	—	—	—	—	—	—	610	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	35	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	9.8	—	—	—	—	—	—	—	—
30	10/12/2006	3.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
31	10/12/2006	6.5	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
32	10/12/2006	3.0	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
33	10/12/2006	6.5	—	—	—	—	—	—	—	—	6.6	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
34	10/14/2006	**Pile**	—	—	—	—	—	—	—	—	84.0	—	—	—	—	—	—	—	—
		STLC	—	—	—	—	—	—	—	—	3.5	—	—	—	—	—	—	—	—
		TCLP	—	—	—	—	—	—	—	—	<0.2	—	—	—	—	—	—	—	—
Tier 1: ESL_s			6.1	5.5	750	4.0	1.7	58	10	230	150	3.7	4.0	150	10	20	1.0	110	600
CA Haz. Waste (TTLC)			500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
CA Haz. Waste (STLC)			15	5.0	100	0.75	1.0	5.0	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
Federal Haz. Waste (TCLP)			NE	5.0	100	NE	1.0	5.0	NE	NE	5.0	0.2	NE	NE	1.0	5.0	NE	NE	NE

Notes:

m/d/y = month/day year; ft bgs = feet below ground surface; ppm = parts per million, or milligrams per kilogram, or milligrams per liter (for STLC and TCLP data only)

TVH-g = Total volatile hydrocarbons as gasoline; BTEX = TVH as benzene, toluene, ethylbenzene, xylenes; TEH-d = Total extractable hydrocarbons as diesel; TEH-mo = TEH as motor oil

Pile = Sample collected from soil stockpile

STLC = Analysis using California Waste Extraction Test for comparison with Soluble Threshold Limit Concentration; TCLP = Analysis using federal Toxicity Characteristic Leaching Procedure

Tier 1: ESLs = California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels for shallow soil (≤ 3 meters bgs) residential land use where potentially impacted groundwater is a current or potential drinking water resource

CA Haz. Waste TTLC = Total Threshold Limit Concentration for state hazardous waste determination; STLC for same; TCLP for federal hazardous waste determination; NE = Not established

TABLE 3
Groundwater Data -- Halogenated Volatile Organic Compounds (HVOCs)
Broadway between 2nd and 3rd Streets, Oakland, California

Sample ID	Date (m/d/y)	Depth (ft bgs)	Chloro methanes (ppb)	Bromo form (ppb)	Bromo methane (ppb)	Carbon tetra chloride (ppb)	Chloro benzenes (ppb)	Chloro ethanes (ppb)	Ethenes (ppb)	Chloro form (ppb)	Fluoro methanes (ppb)	1,2-dichloro propane (ppb)	Chloro propenes (ppb)	Vinyl chloride (ppb)
SB-1	5/13/1998	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-2	5/13/1998	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-3	5/13/1998	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-4	5/13/1998	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tier 1: ESL_s			NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Note:

m/d/y = month/day year; ft bgs = feet below ground surface; ppb = parts per billion or micrograms per liter

Chloromethanes = bromodichloromethane, chloromethane, dibromochloromethane, methylene chloride (dichloromethane)

Chlorobenzenes = chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene

Chloroethanes = chloroethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,2,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane

Ethenes = 2-chloroethyl vinyl ether, 1,1-dichloroethene, c1,2-dichloroethene, t1,2-dichloroethene, tetrachloroethene, trichloroethene

Fluoromethanes = dichlorodifluoromethane, trichlorofluoromethane

Chloropropenes = c1,3-dichloropropene, t1,3-dichloropropene

Tier 1: ESLs = California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels for shallow soil (≤ 3 meters bgs) residential land use where potentially impacted groundwater is a current or potential drinking water resource

NR = Not relevant because compounds not detected

APPENDIX A

EXCERPTS FROM 1998 SOIL AND GROUNDWATER REPORT

CERES Associates

5040 Commercial Circle, Suite F
Concord, CA 94520
(510) 825-4466 / fax (510) 825-4441

June 1, 1998
Project CA260-1

CWR Associates LLC
% Ms. Judith Barrall
CONSTRUCTA, INC
49 Stevenson
San Francisco, CA 94105

Soil and Groundwater Sampling Report
Commercial Property
210 Broadway
Oakland, California

Dear Ms. Barrall:

On May 13, 1998, CERES Associates (CERES) conducted soil and groundwater sampling at the commercial property located at 210 Broadway in Oakland, California (Property)(see Figure 1 in Appendix A). The sampling was conducted to assess whether or not subsurface soil and groundwater beneath the Property has been affected by the operations of the former Empire Foundry facility which was located on the Property for about 50 years.

SCOPE OF WORK

CERES conducted the following scope of work on May 13, 1998, to assess soil and groundwater quality conditions beneath the Property:

- Obtain drilling permit from the Alameda County Department of Public Works and outline the proposed sample areas for underground services alert (USA);
- Install four (4) Geoprobe borings and collect soil and grab groundwater samples for laboratory analysis; and
- Prepare Soil and Groundwater Sampling Report.

ASSESSMENT ACTIVITIES

Mobilization for field investigation activities included: notification of Underground Services Alert (USA) regarding field operations at the Property; soil boring permit acquisition from the Alameda County Public Works Agency; preparation of a site specific health and safety plan; and scheduling the field activities with the appropriate subcontractors and Alameda Public Works Agency officials. A copy of the drilling permit is provided in Appendix B.

SAMPLE METHODOLO

Soil and groundwater samples were collected using Geoprobe sampling equipment provided by Vironex, Inc. The Geoprobe sampler utilizes direct push technology to collect soil and groundwater samples from specific subsurface depths without generating unnecessary soil cuttings. The Geoprobe sampling system consists of a series of 1.5-inch diameter hollow stainless steel rods which are hydraulically driven into the ground using stainless steel drive rods and a truck-mounted pneumatic hammer. Soil samples are collected by driving a 2-foot long stainless steel sample sleeve attached to the end of the steel rods into soil at a specified sample depth. Soil samples are then collected in a Teflon sample tube installed inside the sample sleeve. After the rod assembly has been hydraulically extended to the target sample depth, the sample sleeve is retrieved to ground surface and the sample tube containing soil from the appropriate sample interval is capped with Teflon-lined plastic end caps, placed in a ziploc bag and stored in a chest cooled with ice. Excess soil from each sample interval was used for lithologic description and field screening purposes.

Excess soil from each sample interval was field screened for the presence of volatile organic compounds (VOCs) using a Mini Rae photoionization detector (PID). Field screening was conducted by placing soil in a plastic ziploc bag and monitoring the atmosphere inside the bag with the PID. The PID readings were digitally displayed on the PID in parts per million (ppm) and recorded on the soil boring logs provided in Appendix C.

Groundwater samples were collected using Hydropunch sampling equipment or else a temporary ¾-inch diameter PVC well screen and ¼-inch diameter polyethylene tubing fitted with a check valve at the bottom of the hose. The Hydropunch sampler and temporary well casing were used to create a conduit between ground surface and the first water bearing zone, and the ¼-inch tubing and check valve assembly was used to manually retrieve groundwater samples to ground surface.

After the soil borings had been completed each borehole was backfilled to ground surface with Portland cement.

SAMPLE LOCATIONS

Soil borings SB-1 through SB-4 were placed within the parking lot area of the Property. As Figure 2 shows, the present parking lot area covers most of the operations area once occupied by the former Empire Foundry plant. Soil borings SB-1 through SB-4 were spatially placed throughout the parking lot area to provide a representative profile of subsurface soil and groundwater quality conditions beneath the area of the Property most likely to have been affected by operations conducted at the former foundry. SB-1 and SB-2 were placed within an area identified on a 1912 Sanborn Map (see Appendix B) as consisting of an earth floor, and SB-3 and SB-4 were placed along the north and south portions of the Property to assess soil and groundwater quality conditions across the width of the Property, as well as beneath different areas of the former foundry plant.

Soil samples were collected from each soil boring at sample depths between ground surface and 2 feet below ground surface (bgs), and 4 to 6 feet bgs. Soil samples were collected at 1-foot bgs for the purpose of assessing whether or not near surface soils have been impacted by heavy metals derived from the operations of the former foundry. This potential problem was of primary concern within the former foundry building identified as having an earth floor. The soil samples collected between 4 and

6 feet bgs at each sample location were obtained for the purpose of profiling the vertical extent of heavy metals in soil if the near surface soil samples indicated that elevated metals concentrations were present in shallower depth soils.

Once the 4 to 6-foot bgs sample interval was collected from each boring the boreholes were extended down to groundwater for the purpose of assessing whether or not groundwater beneath the Property has been adversely affected by chlorinated solvents and metals (if need be). Chlorinated solvents were not analyzed from the overlying soil samples because these compounds would have likely volatilized in near surficial soils over the past 30 years, and if these compounds were present in soils overlying groundwater, then groundwater quality would be the primary concern. Extra groundwater samples were collected from soil borings SB-1, SB-2 and SB-4 for archiving purposes (low groundwater yield at SB-3 prevented the collection of an additional groundwater sample at this location). The archived samples were obtained for potential dissolved metals analyses should soil samples collected from each boring location indicate that significant metals concentrations were present in overlying soils.

SAMPLE ANALYSIS

Soil and groundwater samples collected for laboratory analysis from SB-1 through SB-4 were submitted under chain-of-custody protocol to McCambell Analytical Laboratory, a State of California-certified laboratory located in Pacheco, California. The 1-foot soil samples were analyzed for California assessment manual metals (known as CAM metals) using United States Environmental Protection Agency (U.S. EPA) 6010 and 7000 Series, and the 5-foot soil samples were submitted for archiving. The groundwater samples from SB-1 through SB-4 were analyzed for halogenated volatile organic compounds (HVOCs) using U.S. EPA Method 601, and the additional groundwater samples submitted from SB-1, SB-2 and SB-4 were archived pending the analytical results of CAM metals in overlying soils.

LITHOLOGIC CONDITIONS

Soil sample intervals were from 0 to 2 feet bgs and 4 to 6 feet bgs. Soil below 6 feet bgs was not collected for laboratory analysis, visual inspection or field screening purposes during this investigation. Each soil boring was extended beyond 6 feet bgs to depths ranging from 16 to 30 feet bgs for groundwater sampling purposes only.

Soil between ground surface and 6 feet bgs consisted of sandy fill soil and silty sand. The sandy fill was observed in the 0 to 2-foot sample intervals in all four soil borings, however debris such as sheetmetal and brick fragments, as well as charred wood and discolored (black) soil was observed in the near surface soil samples collected from SB-1 and SB-2 which were situated in the earth floor area of the former foundry building. Yellowish brown silty sand was encountered in the 4 to 6-foot sample intervals in all four soil borings. Distinguishable contaminant odors were not observed in soil cuttings generated during sample collection during this investigation.

Groundwater was encountered between 14 and 30 feet bgs in soil borings SB-1 through SB-4, and it rose to within 8 feet of ground surface in SB-4 and 11 feet bgs in the SB-3, suggesting that confined groundwater conditions exist beneath the Property.

A copy of the soil boring logs for SB-1 through SB-4 are provided in Appendix C.

ANALYTICAL LABORATORY RESULTS

Grab groundwater sample results for soil borings SB-1 through SB-4 were reported as below laboratory method detection limit concentrations for HVOCs. The 1-foot soil samples analyzed from SB-1, SB-3 and SB-4 were reported to contain various metals concentrations, however CAM 17 metals from these three soil borings were not reported at concentrations which exceeded anticipated background concentrations (i.e., naturally occurring concentrations). Additionally, CAM 17 metals concentrations reported in the 1-foot soil samples collected from SB-1, SB-3 and SB-4 were well below Title 22 total threshold limit concentrations (TTLCs), as well as within 5 times the soluble threshold limit concentrations (STLCs) often used to differentiate between Class I hazardous and Class II non-hazardous wastes.

CAM 17 metals concentrations reported in the 1-foot soil sample analyzed from SB-2 were reported as below TTLCs for all 17 metals. However, mercury (Hg), lead (Pb) and Barium (Ba) concentrations from this sample were reported at concentrations which exceeded their respective STLCs by more than a factor of 5. As a result, CERES requested the laboratory to run a STLC analysis for Ba, Pb, and Hg on the SB-2 soil sample. The results indicated that these three elements were not present at concentrations which exceeded Title 22 STLCs.

Analytical laboratory results of the 1-foot soil samples analyzed from SB-1 through SB-4, as well as the corresponding Title 22 TTLCs and STLCs are tabulated in Table 1 below, and copies of the analytical laboratory data sheets are provided in Appendix D.

Table 1

CAM 17 Analytical Laboratory Results

Sample Location	Analytical Laboratory Results for CAM 17 Metals (ppm)																
	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
SB-1	ND	15	67	ND	ND	47	8.7	30	17	0.17	ND	74	ND	ND	ND	36	44
SB-2	ND	13	510	0.77	ND	24	5.9	49	110	1.5	ND	17	ND	ND	ND	37	44
SB-2*	NA	NA	6.9	NA	NA	NA	NA	NA	4.7	ND	NA	NA	NA	NA	NA	NA	NA
SB-3	ND	9.0	43	ND	ND	29	3.5	5.4	4.1	ND	ND	15	ND	ND	ND	20	17
SB-4	ND	8.5	47	ND	ND	35	3.5	8.5	30	ND	ND	26	ND	ND	ND	23	33
TTLC	500	500	10,000	75	100	2,500	800	2,500	1,000	20	3,500	2,000	100	100	700	2,400	5,000
STLC	15	5.0	100	0.75	1.0	560	80	25	5.0	0.2	350	20	1.0	5	7.0	24	250

* STLC concentration

Bold type indicates metal concentration was reported at a concentration which exceeded the Title 22 STLC by more than a factor of 5.

CONCLUSIONS AND RECOMMENDATIONS

Four soil borings were installed at the Property in areas which appeared likely to detect subsurface contamination based on the past site use of the Property. Field observations and analytical laboratory results indicated that VOCs were not present at detectable concentrations in soil or groundwater beneath the Property, and CAM metals concentrations were within Title 22 hazardous waste

guidelines. Therefore, based on the results of this investigation CERES does not recommend further work at this time.

LIMITATIONS

The conclusions and recommendations presented in this report are limited by the scope of work conducted for this assessment. Much of the information on which the conclusions and recommendations of this report are based, comes from data provided by others. CERES is not responsible for the accuracy or completeness of this information. Inaccurate data provided by others, as well as information that was not found or made available to CERES, may result in a modification of the conclusions presented in this report.

It is possible unpermitted, undocumented or concealed improvements or alterations to the Property could exist beyond what was found during assessment activities. Variations in Property specific soil and groundwater conditions are probable beyond what field characterization can record. Changes in the conditions found on the Property could occur at some time in the future due to variations in environmental and physical conditions.

In today's technology, no amount of assessment can ascertain that the Property is completely free of environmental concern.

Any geologic and hydrogeologic data are for drawing conclusions, by CERES, within the context and timing of this report only.

This report was prepared for the sole use and benefit of CWR Associates LLC and CONSTRUCTA, INC. This report is not a legal opinion and does not offer warranties or guarantees.

If you have any questions regarding this report, please give me a call at (925) 825-4466.

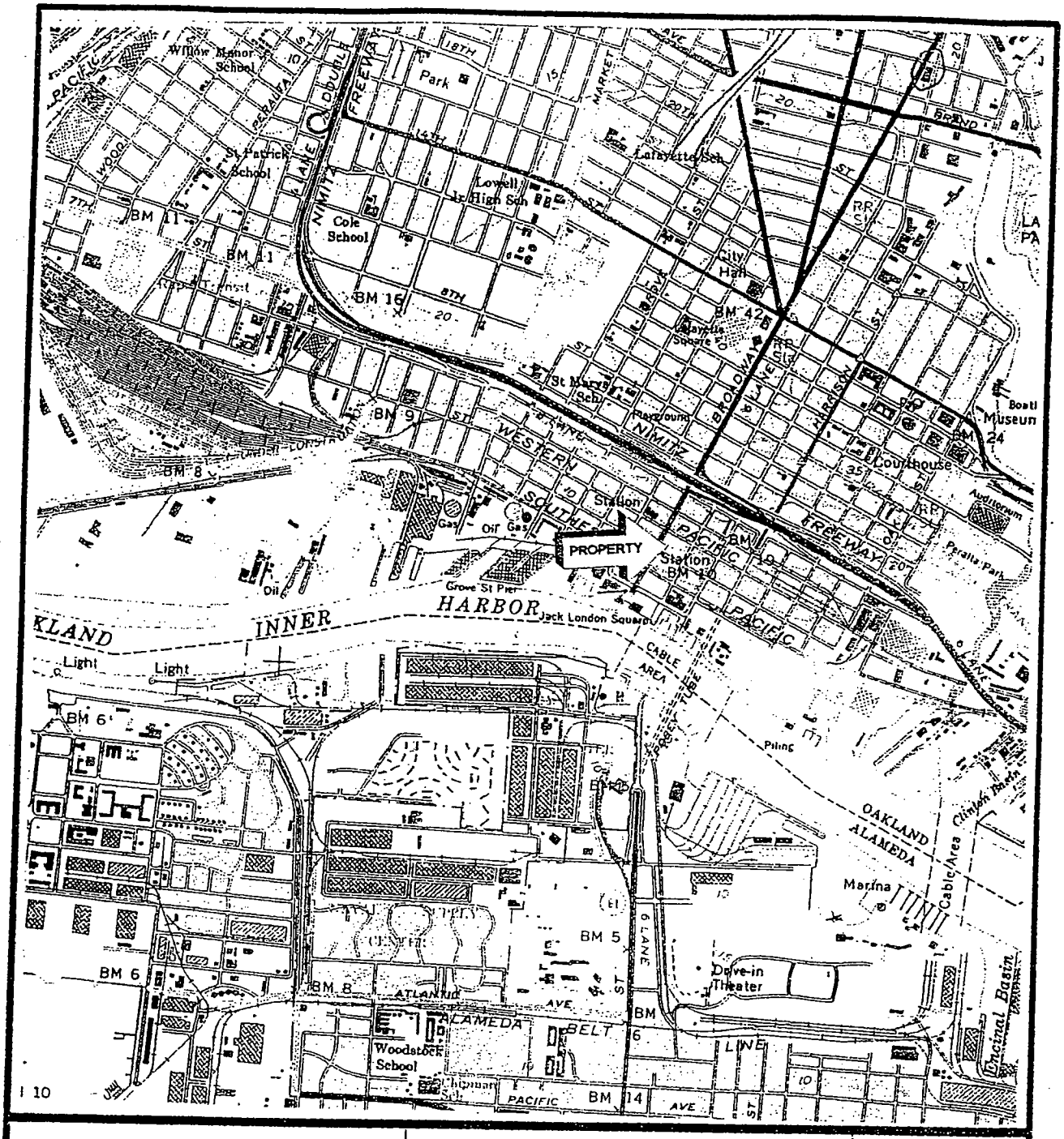
Sincerely,

CERES

Exp. 11-30-98

John Love, RG 6315
Project Geologist

Appendix A
Figures and Property Photographs



Commercial Property
210 Broadway
Oakland, California

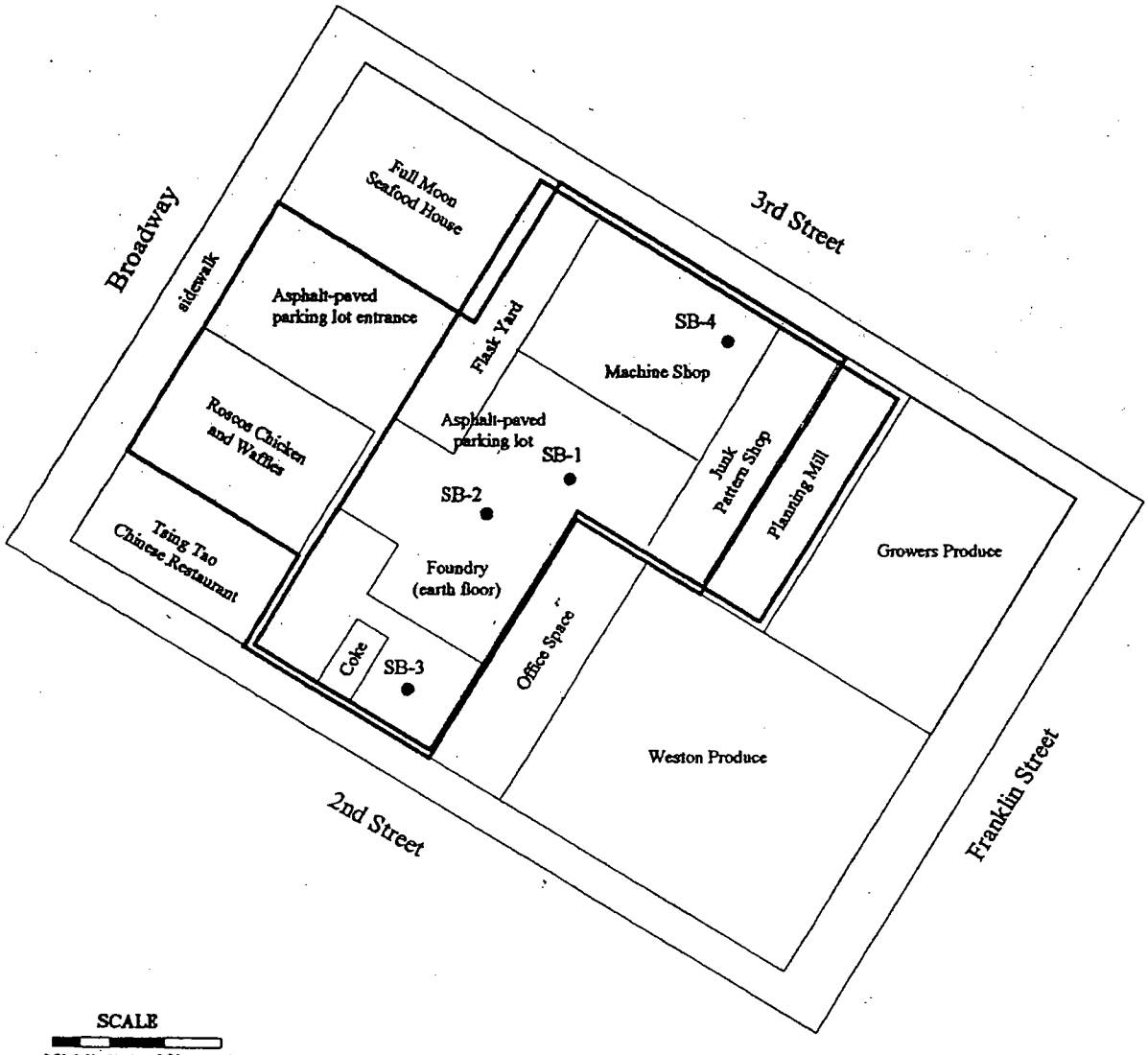
Project CA260-1

CERES Associates

United States Geological Survey
7.5 Minute Series, Topographic Map
Oakland West, California
Quadrangle 1959, photorevised 1980

N

FIGURE 1 - PROPERTY LOCATION MAP



Commercial Property
210 Broadway
Oakland, California

Project CA260-1

CERES Associates

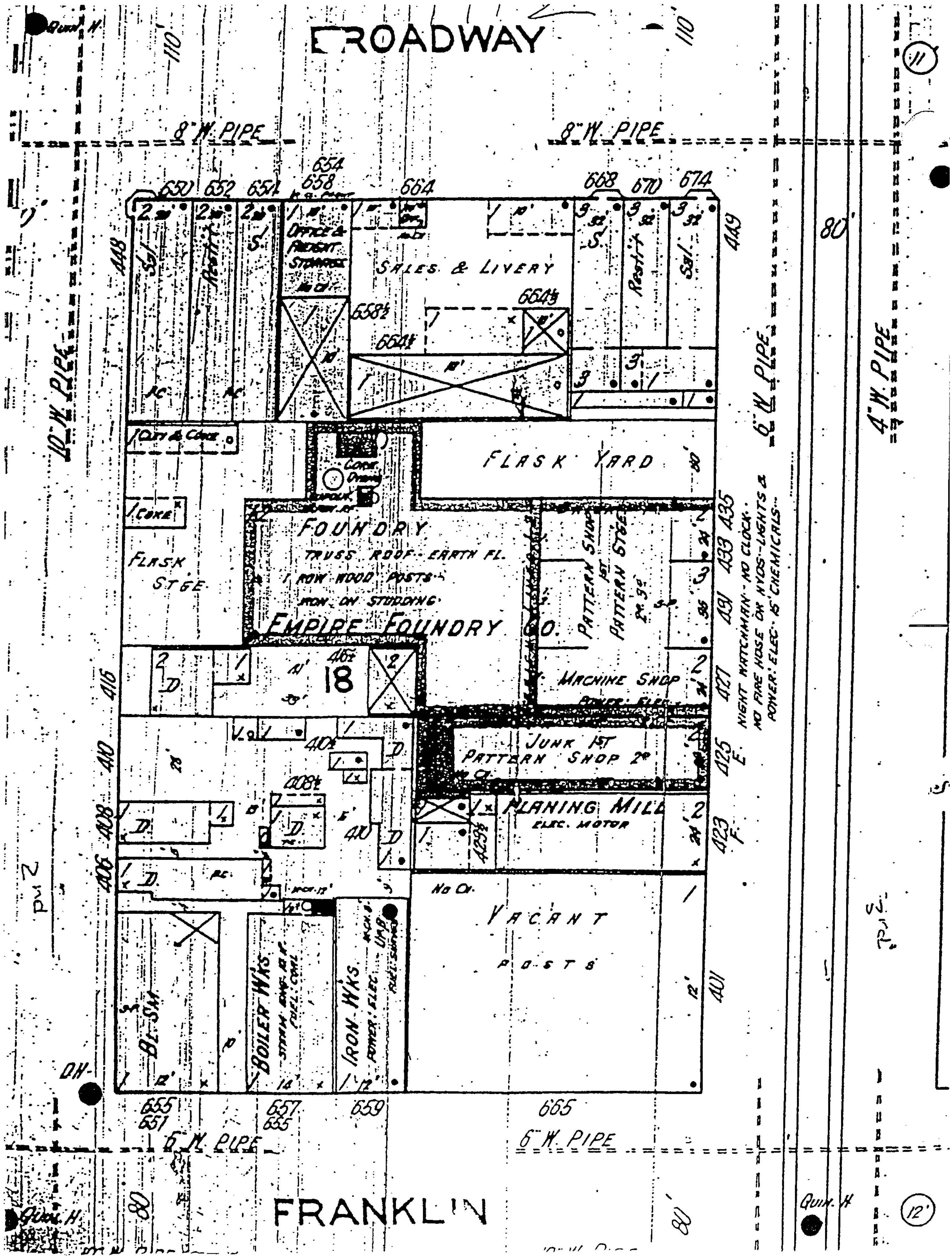
Property border outline

SB-3 Soil boring location

Location of former Empire Foundry

N

FIGURE 2 - SITE PLAN and SAMPLE LOCATION MAP

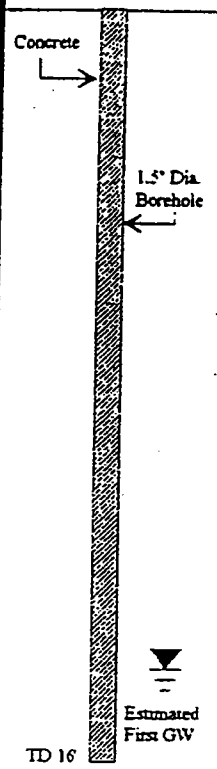

BROADWAY
FRANKLIN
8" W. PIPE
8" W. PIPE
10" W. PIPE
6" W. PIPE
4" W. PIPE
6" W. PIPE
6" W. PIPE
110
110
80'
80
80'
650
652
654
654
658
664
668
670
674
448
449
OFFICE & FREIGHT STORAGE
SALES & LIVERY
658½
664½
664½
FLASK YARD
FOUNDRY
TRUSS ROOF - EARTH FL.
1 ROW WOOD POSTS
IRON ON STUDDING
EMPIRE FOUNDRY CO.
FLASK STGE
COKE
PATTERN SHOP
PATTERN STGE
MACHINE SHOP
JUNK 1ST
PATTERN SHOP 2D
PLANING MILL
ELEC. MOTOR
18
416½
410½
408½
423½
416
410
408
406
435
433
431
427
425
423
401
VACANT
POSTS
BL. SM.
BOILER WKS
IRON WKS
NIGHT WATCHMAN - NO CLOCK.
NO FIRE HOSE OR HYDS - LIGHTS & POWER: ELEC - 15 CHEMICALS.
655
651
657
655
659
665
11
12

Appendix C
Soil Boring Logs

CERES ASSOCIATES

Logged by: John Love RG 6315

HOLE NO.	PROJECT NAME:	PROJECT ADDRESS:	DATE:	SHEET 1 OF 1
SB–1	Commercial Property	210 Broadway, Oakland, CA	May 13, 1998	



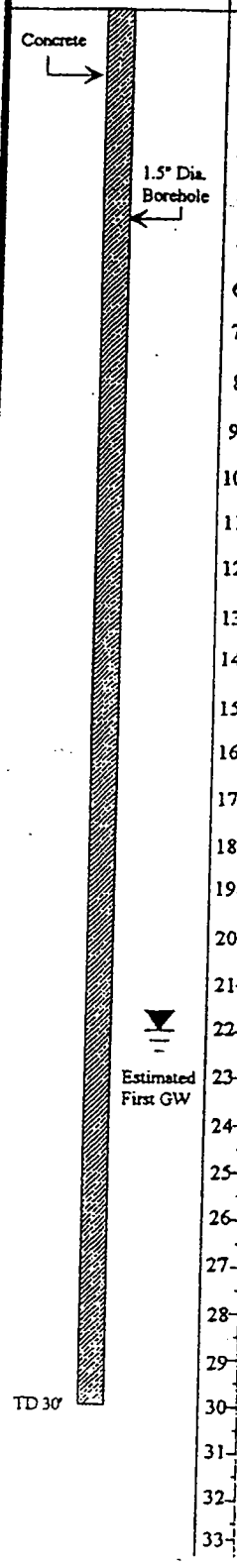
DEPTH	Sampler Interval	PID Reading	USCS	LOG OF MATERIAL
1–2	0' to 2'	0		(0' -1') Asphalt and base material. (1'-2') Silty Sand fill, dark brown; some gravel, brick fragments and sheetmetal debris; some black soil and wood ; no odor; moist.
4–6	4' to 6'	0.8	SM	(4'-6') Silty Sand: Yellowish brown (10YR 5/6); firm; poorly graded, fine sand; moist; no odor.
10–16	Hydropunch well screen 12' to 16'			

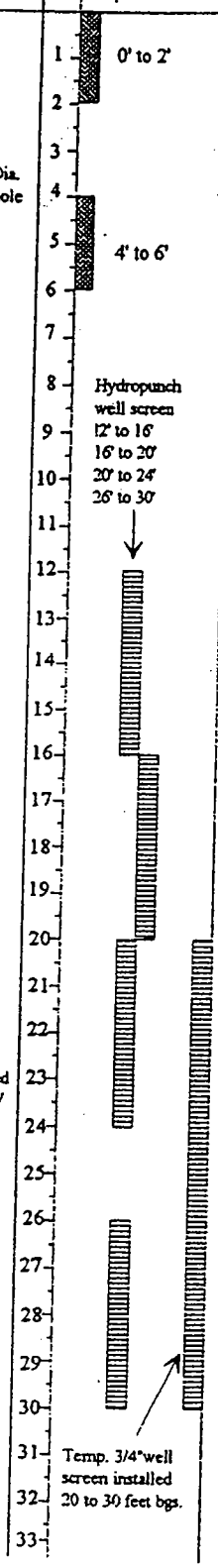
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

CERES ASSOCIATES

Logged by: John Love RG 6315

HOLE NO.	PROJECT NAME:	PROJECT ADDRESS:	DATE:	SHEET
SB–2	Commercial Property	210 Broadway, Oakland, CA	May 13, 1998	1 OF 1



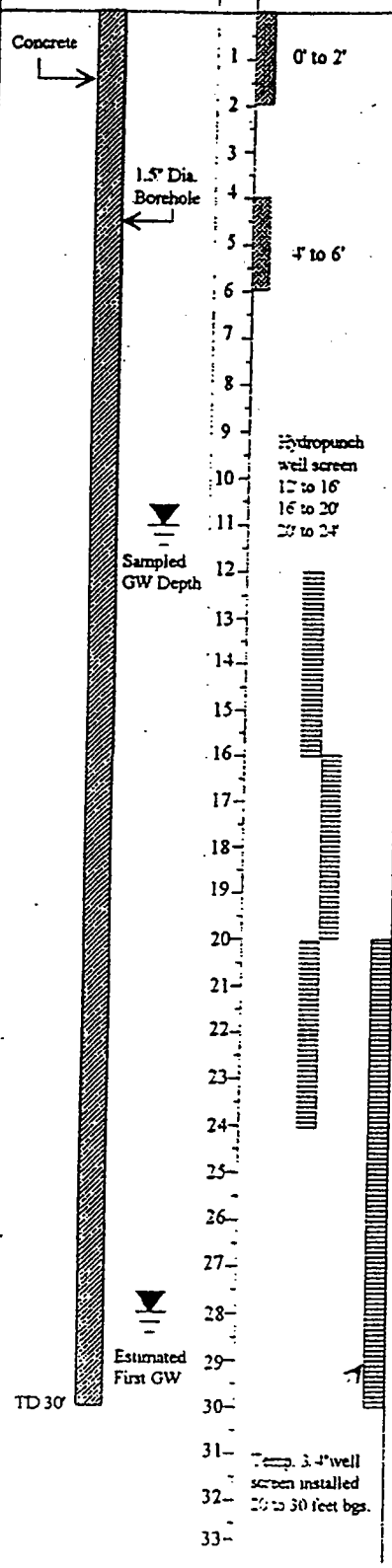


PID Reading	USCS	LOG OF MATERIAL
0		(0' -1') Asphalt and base material.
		(1'-2') Silty Sand fill dark brown; some gravel and brick fragments: some black soil and wood ; no odor; moist.
0	SM	(4'-6') Silty Sand: Yellowish brown (10YR 5/6); firm; poorly graded, fine sand; moist; no odor.

CERES ASSOCIATES

Logged by: John Love RG 6315

HOLE NO. SB-3	PROJECT NAME: Commercial Property	PROJECT ADDRESS: 210 Broadway, Oakland., CA	DATE: May 13, 1998	SHEET 1 OF 1



DEPTH	Sampler Interval	PID Reading	USCS	LOG OF MATERIAL
0	0' to 2'	0		(0'-1') Asphalt and base material. (1'-2') Silty Sand fill, dark brown; some gravel; no odor; moist.
4	4' to 6'	0	SM	(4'-6') Silty Sand: Yellowish brown (10YR 5/6); firm; poorly graded, fine sand; moist; no odor.

CERES ASSOCIATES

Logged by: John Love RG 6315

HOLE NO.	PROJECT NAME:	PROJECT ADDRESS:	DATE:	SHEET
SB–4	Commercial Property	210 Broadway, Oakland . CA	May 13. 1998	1 OF 1

Soil Boring Completion Details	DEPTH	Sampler Interval	PID Reading	USCS	LOG OF MATERIAL
Concrete	1	0' to 2'	0		(0' -1')Asphalt and base material.
	2				(1'-2') Silty Sand fill. dark brown: some gravel: no odor; moist.
1.5" Dia. Borehole	3				
	4				
	5	4' to 6'	0	SM	(4'-6') Silty Sand: Yellowish brown (10YR 5/6); firm; poorly graded. fine sand: moist: no odor.
	6				
	7				
Sampled GW Depth	8				
	9				
	10				
	11	Hydropunch well screen 12' to 16'			
	12				
	13				
	14				
Estimated First GW	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
TD 30'	30				
	31	Temp. 3/4" well screen installed 20 to 30 feet bgs.			
	32				
	33				

Appendix D
Analytical Laboratory Data Sheets

McCAMPBELL ANALYTICAL INC.
110 Second Avenue S., #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Ceres Associates 5040 Commercial Circle, Ste F Concord, CA 94520	Client Project ID: #CA260-1	Date Sampled: 05/13/98 Date Received: 05/14/98
	Client Contact: John Love	Date Extracted: 05/15/98
	Client P.O:	Date Analyzed: 05/15/98

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	89236	89239	89242	89245
Client ID	SB-1	SB-2	SB-3	SB-4
Matrix	W	W	W	W
Compound	Concentration			
Bromodichloromethane	ND	ND	ND	ND
Bromoform[b]	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride[c]	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether[d]	ND	ND	ND	ND
Chloroform[e]	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride[f]	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride[g]	ND	ND	ND	ND
% Recovery Surrogate	101	100	103	103
Comments	i	i	i	i

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 Second Avenue S , #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Ceres Associates 5040 Commercial Circle, Ste F Concord, CA 94520	Client Project ID: #CA260-1	Date Sampled: 05/13/98
		Date Received: 05/14/98
	Client Contact: John Love	Date Extracted: 05/14/98
	Client P.O:	Date Analyzed: 05/14-05/15/98

CAM / CCR 17 Metals*

EPA methods 6010/200.7; 7470/7471/245.1/245.5 (Hg); 7060/206.2 (As); 7740/270.2 (Se); 7841/279.2 (Tl); 239.2 (Pb, water matrix)

Lab ID	89234	89237	89240	89243	Reporting Limit		
Client ID	SB-1	SB-2	SB-3	SB-4			
Matrix	S	S	S	S	S	W	STLC, TCLP
Extraction°	TTLC	TTLC	TTLC	TTLC	TTLC	TTLC	
Compound	Concentration*				mg/kg	mg/L	mg/L
Antimony (Sb)	ND	ND	ND	ND	2.5	0.05	0.05
Arsenic (As)	15	13	9.0	8.5	2.5	0.005	0.25
Barium (Ba)	67	510	43	47	1.0	0.05	0.05
Beryllium (Be)	ND	0.77	ND	ND	0.5	0.004	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.5	0.005	0.01
Chromium (Cr)	47	24	29	35	0.5	0.005	0.05
Cobalt (Co)	8.7	5.9	3.5	3.5	2.0	0.05	0.05
Copper (Cu)	30	49	5.4	8.5	2.0	0.05	0.05
Lead (Pb)	17	110	4.1	30	3.0	0.005	0.2
Mercury (Hg)	0.17	1.5	ND	ND	0.06	0.0008	0.0008
Molybdenum (Mo)	ND	ND	ND	ND	2.0	0.05	0.05
Nickel (Ni)	74	17	15	26	2.0	0.05	0.05
Selenium (Se)	ND	ND	ND	ND	2.5	0.005	0.25
Silver (Ag)	ND	ND	ND	ND	1.0	0.01	0.05
Thallium (Tl)	ND	ND	ND	ND	0.5	0.001	0.5
Vanadium (V)	36	37	20	23	2.0	0.05	0.05
Zinc (Zn)	44	44	17	33	1.0	0.05	0.05
% Recovery Surrogate	103	106	108	105			
Comments							

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Ceres Associates	Client Project ID: #CA260-1	Date Sampled: 05/13/98
5040 Commercial Circle, Ste F		Date Received: 05/14/98
Concord, CA 94520	Client Contact: John Love	Date Extracted: 05/26-05/28/98
	Client P.O:	Date Analyzed: 05/28/98

CAM / CCR 17 Metals*

EPA methods 6010/200.7; 7470/7471/245.1/245.5 (Hg); 7060/206.2 (As); 7740/270.2 (Se); 7841/279.2 (Tl); 239.2 (Pb, water matrix)

Lab ID	89237				Reporting Limit		
Client ID	SB-2 @ 1'						
Matrix	S				S	W	STLC, TCLP
Extraction°	STLC				TTLC	TTLC	
Compound	Concentration*				mg/kg	mg/L	mg/L
Antimony (Sb)	—				2.5	0.05	0.05
Arsenic (As)	—				2.5	0.005	0.25
Barium (Ba)	6.9				1.0	0.05	0.05
Beryllium (Be)	—				0.5	0.004	0.01
Cadmium (Cd)	—				0.5	0.005	0.01
Chromium (Cr)	—				0.5	0.005	0.05
Cobalt (Co)	—				2.0	0.05	0.05
Copper (Cu)	—				2.0	0.05	0.05
Lead (Pb)	4.7				3.0	0.005	0.2
Mercury (Hg)	ND				0.06	0.0008	0.0008
Molybdenum (Mo)	—				2.0	0.05	0.05
Nickel (Ni)	—				2.0	0.05	0.05
Selenium (Se)	—				2.5	0.005	0.25
Silver (Ag)	—				1.0	0.01	0.05
Thallium (Tl)	—				0.5	0.001	0.5
Vanadium (V)	—				2.0	0.05	0.05
Zinc (Zn)	—				1.0	0.05	0.05
% Recovery Surrogate							
Comments							

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

Edward Hamilton, Lab Director

APPENDIX B

EXCERPTS FROM 2006 SUBSURFACE SOIL REPORT

ADVANTAGE

environmental and safety services, inc.

SUBSURFACE SOIL SAMPLING FINAL REPORT

PPD 222 Broadway-LLC

210 Broadway Street
Oakland, CA 94601

Date of Sampling/Inspection
March 10, 2006

PREPARED FOR:

PPD 222 Broadway-LLC

3993 Howard Hughes Parkway
Las Vegas, NV 89109

35621 Beeching Lane ● Fremont ● CA ● 94536 ● (510) 507-6946
Consulting ● Safety ● Asbestos/Lead Inspections ● Microbial ● Sample Analysis ● Air Monitoring

EXECUTIVE SUMMARY

At the request of the PPD 222 Broadway-LLC, Advantage Environmental and Safety Services, Inc. has prepared this Report of Findings (ROF). The purpose of this ROF is to characterize the soil and to provide recommendations as to the disposition of any contaminants found as a result of that sampling. The results of soil sampling activities performed on March 10, 2006 indicate that the lead content in the soil at the northeast corner of the property exceed the limits set by the Regional Water Quality Control Board (RWQCB). This may be caused by someone burying construction materials in this area of the site.

BACKGROUND

The sampling site is located at 210 Broadway (between 2nd Street, Broadway, 3rd Street, & Franklin Street) in Oakland, California. Currently, this site has two buildings on it that are vacant. The building at the corner of 2nd and Broadway, vacant Chinese restaurant, is a two-story wood structure with a brick and wood façade. The other building, 220 Broadway, is a two-story brick building and was at one time a restaurant. The rest of the site was a pay and park lot.

Advantage Environmental and Safety Services, Inc. was contracted to collect sub-surface soil samples at 210 Broadway Street in the pay-and-park lot in Oakland. As part of our contract we were to collect samples to a depth of six feet at four locations at the site.

To my knowledge there are no previous soils investigations or reports available for this property.

FINDINGS

This soil investigation was conducted on March 10, 2006. A total of eight samples were collected from four sample locations. The subsurface soil samples were collected at two feet and at six feet.

The sub surface soil samples were collected using a hydraulic truck that pushes the sampling core into the ground. The trucks sampling probe is a steel tube, two inches in diameter by four feet long. As each sampling section was made available, a six to eight inch section of the sampling core was cut off, Teflon taped, capped, and labeled. The tool used to cut the sample tubes was cleaned after each cutting.

The soil samples were submitted under chain of custody to California Laboratory Services (CLS Labs), a California state-certified laboratory. Analysis of soil samples included CAM-17 EPA Method 6000/7000, TPG (Gasoline/BTEX) using GC PID/FID, and TPH Extractables (Diesel/Oil) EPA Method 8015M.

SOIL SAMPLING ANALYTICAL RESULTS

Table 1 (Appendix A) contains RWQCB soil remediation levels as well as the laboratory's analytical results. Lead was detected in concentrations above the allowable limits set by the RWQCB in the northeast corner of the property. Our hypothesis is that the lead is from a previous structure or construction that was buried in that corner of the site. Based on this sampling data this corner of the site is considered to be lead contaminated. At this point there are two options: 1). Perform additional sampling to determine exact scope/size of the contamination; or 2) Once the excavation has begun we can visually determine the size and scope of the debris.

The analytical results indicated the presence of several other heavy metals, however, none of the results exceed the limits set by the RWQCB (except lead). The Laboratory Data Reports are included in Appendix B.

Table 2 (Appendix A) represents the RWQCB soil remediation levels for TPH-Gasoline/BTEX. Within that method the laboratory analyzes for Benzene, Toluene, Xylene, Ethylbenzene, and Gasoline. The analytical reports indicate none detected for these analytes. The Laboratory Data Reports are included in Appendix B.

Table 3 (Appendix A) represents the RWQCB soil remediation levels for TPH extractables for diesel and motor oil. The laboratory detected oil in two of the samples. The concentration of the oil in the samples is less than the limits set by RWQCB for these analytes. The Laboratory Data Reports are included in Appendix B.

CONCLUSIONS/RECOMMENDATIONS

Based on analytical results from this soil investigation the following recommendations are made:

- The exact extent of the lead in soil contamination should be determined before the contractor starts the soil excavation. This will provide a boundry from the soil remediation.
- Once the asphalt on the parking lot has been scraped and the structures have been demolished additional soil samples may be necessary should contamination become apparent.

All other heavy metals, TPG for Gasoline/BTEX, and TPH Extractables Diesel/Oil are all below the limits established by RWQCB.

WARRANTY

This inspection was limited to specific areas and items tested. Every attempt was made to discover all materials that may be affected. Materials hidden within subsurface, in areas not included as part of this inspection or in areas that are not readily accessible to the inspector were not inspected or sampled. This report is limited to the materials analyzed.

_____ _____

Kristofer McGlothlin Date
Certified Asbestos Consultant: 92-0324
Department Of Health Services: 1141

Appendix A

Analytical Data Tables

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

CHEMICAL PARAMETER	Final ESL	#1 NW Side - 2.5'	#2 NW Side - 6'	#3 NE Side - 2.5'	#4 NE Side - 6'	#5 Middle - 2.5'	#6 Middle - 6'	#7 N Side - 2.5'	#8 N Side - 6'
Arsenic	5.50	1	1.2	ND	ND	1	ND	3.8	ND
Selenium	10.00	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Antimony	6.09	ND	ND	ND	ND	ND	ND	ND	ND
Barium	750.00	56	36	43	53	55	27	280	33
Beryllium	4.00	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	1.67	ND	ND	ND	ND	ND	ND	ND	ND
Chromium III	58.00	33	38	30	51	33	33	3.5	38
Copper	225.00	8.6	5.2	3.8	4.7	4.7	2.4	57	4.3
Lead	150.00	45	ND	ND	ND	ND	ND	**660**	ND
Molybdenum	40.00	ND	ND	ND	ND	ND	ND	1.7	ND
Nickel	150.00	17	27	16	27	17	13	24	19
Silver	20.00	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	200.00	22	27	21	32	22	23	15	23
Zinc	600.00	42	17	13	17	15	9.2	420	13
Mercury	3.67	0.72	ND	ND	ND	ND	ND	0.21	ND

The lab detected lead concentrations above the allowable limits in the northeast corner of the property. This area warrants further investigation and proper handling for the soil.

All sample results are reports in mg/kg.

Table 2
TPH Gasoline/BTEX

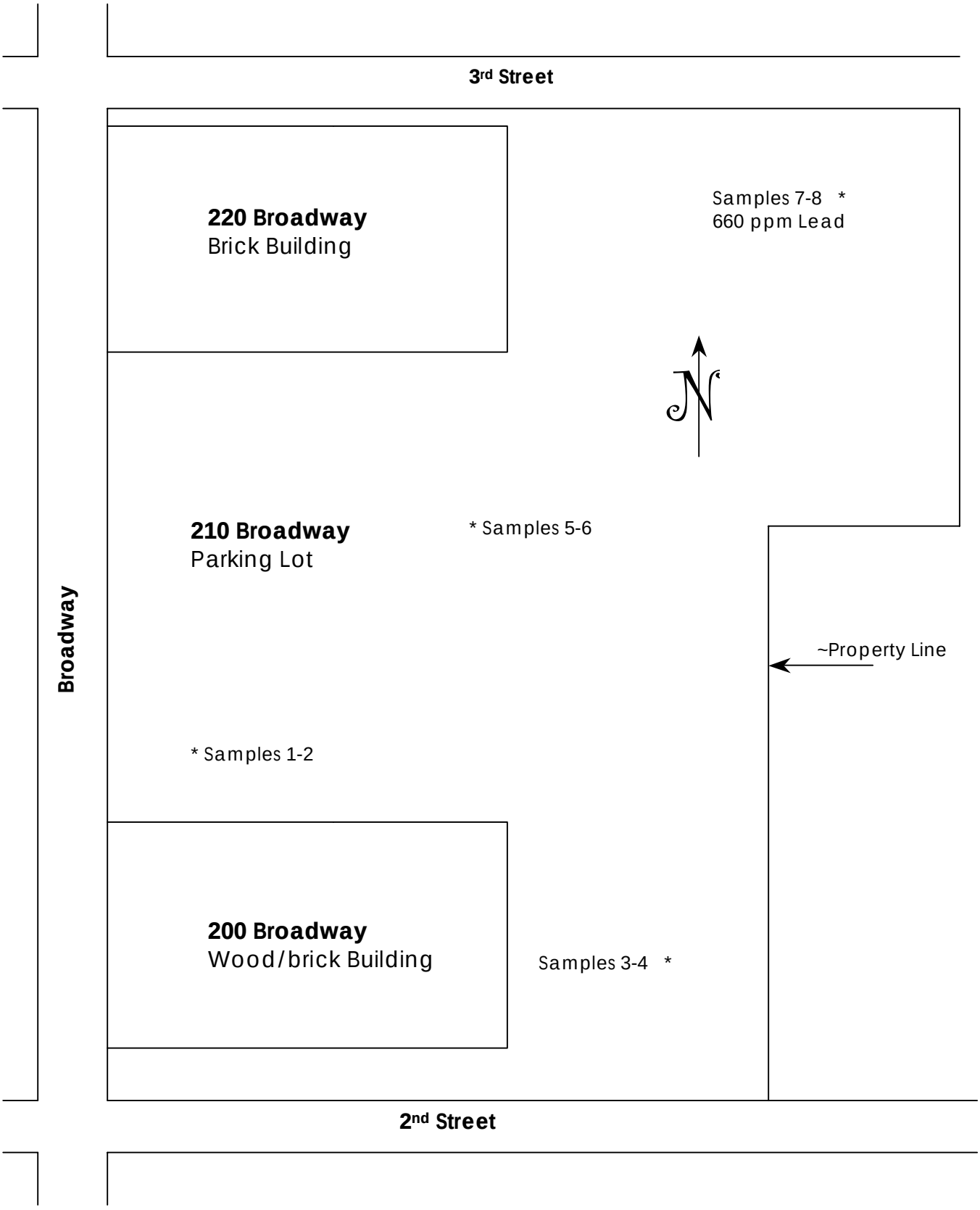
CHEMICAL PARAMETER	Final ESL	#1 NW Side - 2.5'	#2 NW Side - 6'	#3 NE Side - 2.5'	#4 NE Side - 6'	#5 Middle - 2.5'	#6 Middle - 6'	#7 N Side - 2.5'	#8 N Side - 6'
Benzene	.044	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	2.857	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	3.275	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	2.262	ND	ND	ND	ND	ND	ND	ND	ND
Gasoline	100	ND	ND	ND	ND	ND	ND	ND	ND

Table 3
TPH Extractables (Diesel/Oil)

CHEMICAL PARAMETER	Final ESL	#1 NW Side - 2.5'	#2 NW Side - 6'	#3 NE Side - 2.5'	#4 NE Side - 6'	#5 Middle - 2.5'	#6 Middle - 6'	#7 N Side - 2.5'	#8 N Side - 6'
Diesel	100	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil	500	ND	ND	ND	6.7	1.3	6	160	ND

Appendix B

Sample Location Map


3rd Street
220 Broadway
Brick Building
Samples 7-8 *
660 ppm Lead
N
210 Broadway
Parking Lot
* Samples 5-6
Broadway
~Property Line
* Samples 1-2
200 Broadway
Wood/brick Building
Samples 3-4 *
2nd Street

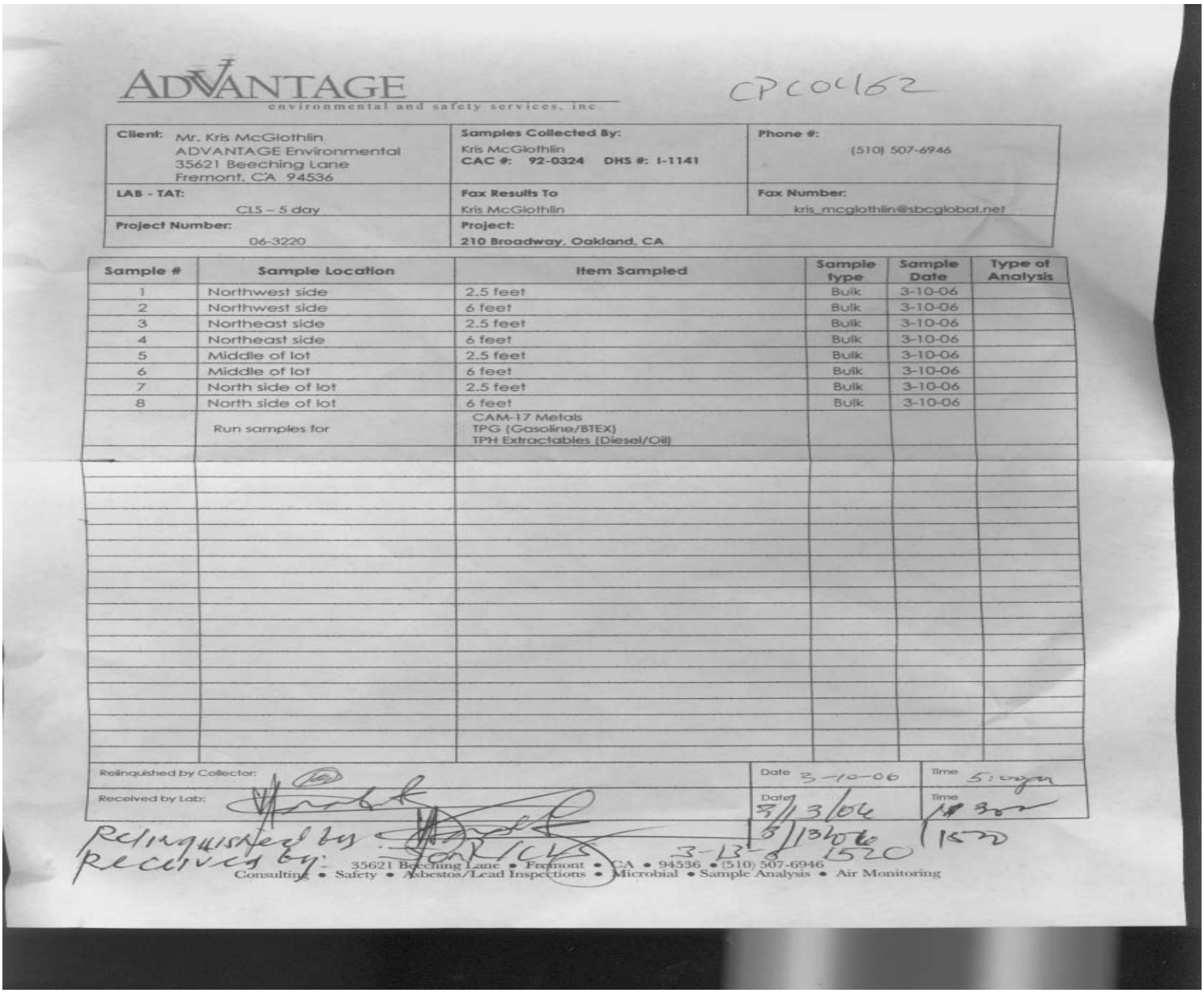
Appendix C

Laboratory Reports

CALIFORNIA LABORATORY SERVICES

03/22/06 07:17

ADVANTAGE Environmental and Safety Services,	Project: 210 Broadway, Oakland, CA	
35621 Beeching Lane	Project Number: 06-3220	**CLS Work Order #: CPC0462**
Fremont, CA 94536	Project Manager: Mr. Kris McGlothlin	COC #:



ADVANTAGE
environmental and safety services, inc.

CPC04162

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT: CLS – 5 day	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3220	**Project:** 210 Broadway, Oakland, CA	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
1	Northwest side	2.5 feet	Bulk	3-10-06	
2	Northwest side	6 feet	Bulk	3-10-06	
3	Northeast side	2.5 feet	Bulk	3-10-06	
4	Northeast side	6 feet	Bulk	3-10-06	
5	Middle of lot	2.5 feet	Bulk	3-10-06	
6	Middle of lot	6 feet	Bulk	3-10-06	
7	North side of lot	2.5 feet	Bulk	3-10-06	
8	North side of lot	6 feet	Bulk	3-10-06	
	Run samples for	CAM-17 Metals TPG (Gasoline/BTEX) TPH Extractables (Diesel/Oil)			

Relinquished by Collector:		Date 3-10-06	Time 5:00pm
Received by Lab:		Date 3/13/06	Time 1430

Relinquished by: 3-13-06 1520
Received by:

35621 Beeching Lane • Fremont • CA • 94536 • (510) 507-6946
Consulting • Safety • Asbestos/Lead Inspections • Microbial • Sample Analysis • Air Monitoring

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPC0462
COC #:

CAM 17 Metals

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#2 Northwest Side (6 ft) (CPC0462-02) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Mercury	ND	0.10	mg/kg	1	CP01942	03/15/06	03/15/06	EPA 7471A	
#3 Northeast Side (2.5 ft) (CPC0462-03) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	ND	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**43**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**3.1**	1.0	"	"	"	"	"	"	
Chromium	**30**	1.0	"	"	"	"	"	"	
Copper	**3.8**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**16**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**21**	1.0	"	"	"	"	"	"	
Zinc	**13**	1.0	"	"	"	"	"	"	
Mercury	ND	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	
#4 Northeast Side (6 ft) (CPC0462-04) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	ND	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**53**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**4.5**	1.0	"	"	"	"	"	"	
Chromium	**51**	1.0	"	"	"	"	"	"	
Copper	**4.7**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**27**	1.0	"	"	"	"	"	"	

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPC0462
COC #:

CAM 17 Metals

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#4 Northeast Side (6 ft) (CPC0462-04) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Silver	ND	0.50	mg/kg	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Vanadium	**32**	1.0	"	"	"	"	"	"	
Zinc	**17**	1.0	"	"	"	"	"	"	
Mercury	ND	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	
#5 Middle of Lot (2.5 ft) (CPC0462-05) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	**1.0**	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**55**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**3.9**	1.0	"	"	"	"	"	"	
Chromium	**33**	1.0	"	"	"	"	"	"	
Copper	**4.7**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**17**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**22**	1.0	"	"	"	"	"	"	
Zinc	**15**	1.0	"	"	"	"	"	"	
Mercury	ND	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	
#6 Middle of Lot (6 ft) (CPC0462-06) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	ND	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**27**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**1.7**	1.0	"	"	"	"	"	"	
Chromium	**33**	1.0	"	"	"	"	"	"	
Copper	**2.4**	1.0	"	"	"	"	"	"	

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPC0462
COC #:

CAM 17 Metals

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#6 Middle of Lot (6 ft) (CPC0462-06) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Lead	ND	2.5	mg/kg	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**13**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**23**	1.0	"	"	"	"	"	"	
Zinc	**9.2**	1.0	"	"	"	"	"	"	
Mercury	ND	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	
#7 North Side of Lot (2.5 ft) (CPC0462-07) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	**3.8**	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**280**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	**0.96**	0.50	"	"	"	"	"	"	
Cobalt	**3.5**	1.0	"	"	"	"	"	"	
Chromium	**19**	1.0	"	"	"	"	"	"	
Copper	**57**	1.0	"	"	"	"	"	"	
Lead	**660**	2.5	"	"	"	"	"	"	
Molybdenum	**1.7**	1.0	"	"	"	"	"	"	
Nickel	**24**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**15**	1.0	"	"	"	"	"	"	
Zinc	**420**	1.0	"	"	"	"	"	"	
Mercury	**0.21**	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPC0462
COC #:

CAM 17 Metals

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#8 North Side of Lot (6 ft) (CPC0462-08) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	ND	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**33**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**3.0**	1.0	"	"	"	"	"	"	
Chromium	**38**	1.0	"	"	"	"	"	"	
Copper	**4.3**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**19**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**23**	1.0	"	"	"	"	"	"	
Zinc	**13**	1.0	"	"	"	"	"	"	
Mercury	ND	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPC0462
COC #:

CAM 17 Metals

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Northwest Side (2.5 ft) (CPC0462-01) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	**1.0**	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**56**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**4.0**	1.0	"	"	"	"	"	"	
Chromium	**33**	1.0	"	"	"	"	"	"	
Copper	**8.6**	1.0	"	"	"	"	"	"	
Lead	**45**	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**17**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**22**	1.0	"	"	"	"	"	"	
Zinc	**42**	1.0	"	"	"	"	"	"	
Mercury	**0.72**	0.10	"	"	CP01942	03/15/06	03/15/06	EPA 7471A	
#2 Northwest Side (6 ft) (CPC0462-02) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Arsenic	**1.2**	1.0	mg/kg	4	CP02018	03/17/06	03/20/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Antimony	ND	2.5	"	1	CP02019	03/17/06	03/17/06	EPA 6010B	
Barium	**36**	1.0	"	"	"	"	"	"	
Beryllium	ND	0.50	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Cobalt	**5.4**	1.0	"	"	"	"	"	"	
Chromium	**38**	1.0	"	"	"	"	"	"	
Copper	**5.2**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Molybdenum	ND	1.0	"	"	"	"	"	"	
Nickel	**27**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Vanadium	**27**	1.0	"	"	"	"	"	"	
Zinc	**17**	1.0	"	"	"	"	"	"	

ADVANTAGE Environmental and Safety Services, Project: 210 Broadway, Oakland, CA
35621 Beeching Lane Project Number: 06-3220 **CLS Work Order #: CPC0462**
Fremont, CA 94536 Project Manager: Mr. Kris McGlothlin COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Northwest Side (2.5 ft) (CPC0462-01) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP01912	03/14/06	03/15/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
#2 Northwest Side (6 ft) (CPC0462-02) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP01912	03/14/06	03/15/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
#3 Northeast Side (2.5 ft) (CPC0462-03) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
#4 Northeast Side (6 ft) (CPC0462-04) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	**6.7**	1.0	"	"	"	"	"	"	D-MOT
#5 Middle of Lot (2.5 ft) (CPC0462-05) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	**1.3**	1.0	"	"	"	"	"	"	D-MOT
#6 Middle of Lot (6 ft) (CPC0462-06) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	**6.0**	1.0	"	"	"	"	"	"	D-MOT
#7 North Side of Lot (2.5 ft) (CPC0462-07) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	**160**	5.0	"	5	"	"	"	"	

ADVANTAGE Environmental and Safety Services, Project: 210 Broadway, Oakland, CA
35621 Beeching Lane Project Number: 06-3220 **CLS Work Order #: CPC0462**
Fremont, CA 94536 Project Manager: Mr. Kris McGlothlin COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#8 North Side of Lot (6 ft) (CPC0462-08) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Diesel	ND	1.0	mg/kg	1	CP02027	03/17/06	03/21/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	

ADVANTAGE Environmental and Safety Services, Project: 210 Broadway, Oakland, CA
35621 Beeching Lane Project Number: 06-3220 **CLS Work Order #: CPC0462**
Fremont, CA 94536 Project Manager: Mr. Kris McGlothlin COC #:

Gas/BTEX by GC PID/FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Northwest Side (2.5 ft) (CPC0462-01) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Gasoline	ND	1000	µg/kg	1	CP01976	03/14/06	03/16/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.7 %*		*65-135*	"	"	"	"	
#2 Northwest Side (6 ft) (CPC0462-02) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Gasoline	ND	1000	µg/kg	1	CP01976	03/14/06	03/16/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.6 %*		*65-135*	"	"	"	"	
#3 Northeast Side (2.5 ft) (CPC0462-03) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Gasoline	ND	1000	µg/kg	1	CP01976	03/14/06	03/16/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.8 %*		*65-135*	"	"	"	"	
#4 Northeast Side (6 ft) (CPC0462-04) Soil	**Sampled: 03/10/06 00:00**		**Received: 03/13/06 15:20**						
Gasoline	ND	1000	µg/kg	1	CP02046	03/15/06	03/15/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*91.1 %*		*65-135*	"	"	"	"	

ADVANTAGE Environmental and Safety Services,
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3220
Project Manager: Mr. Kris McGlothlin

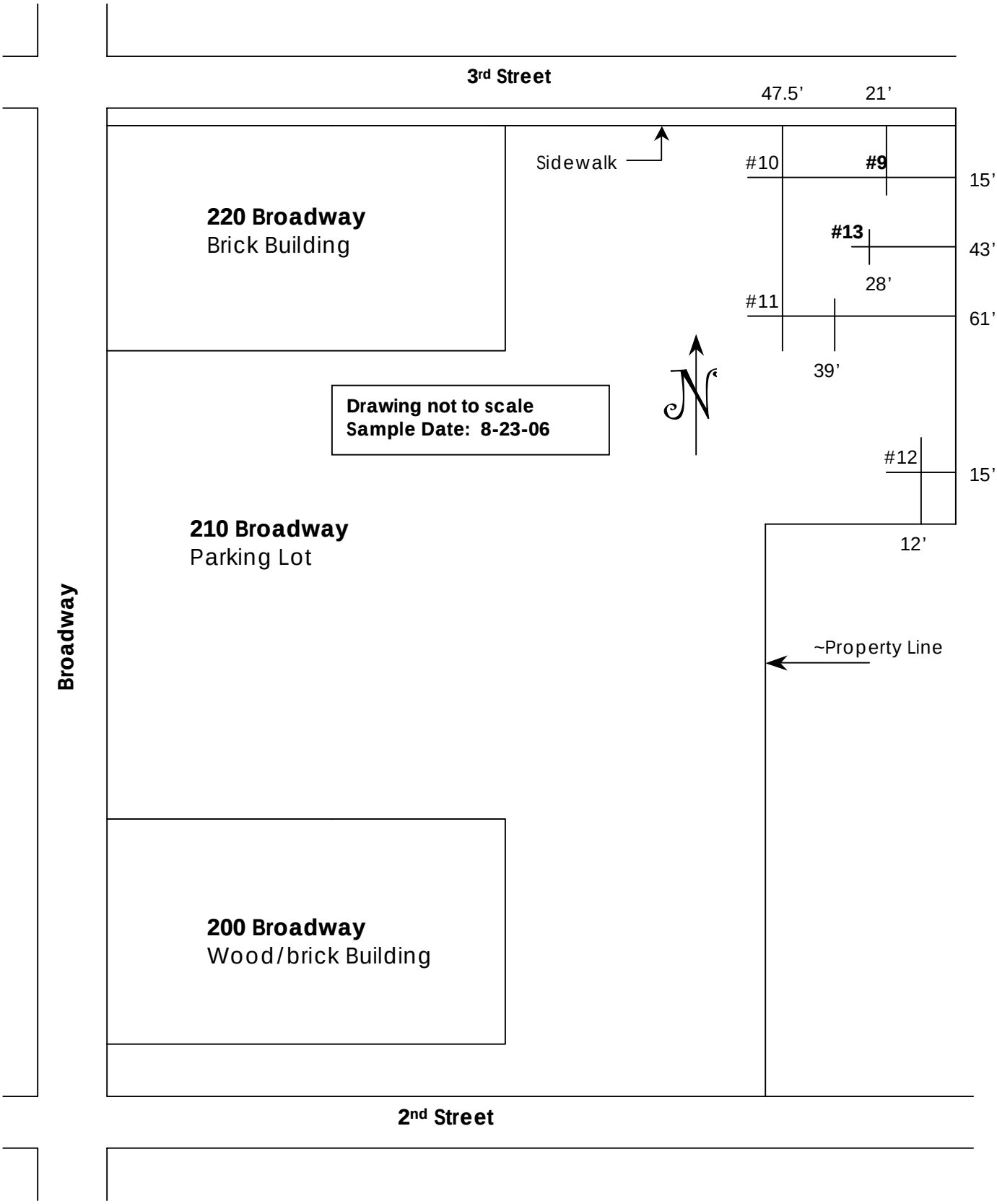
CLS Work Order #: CPC0462
COC #:

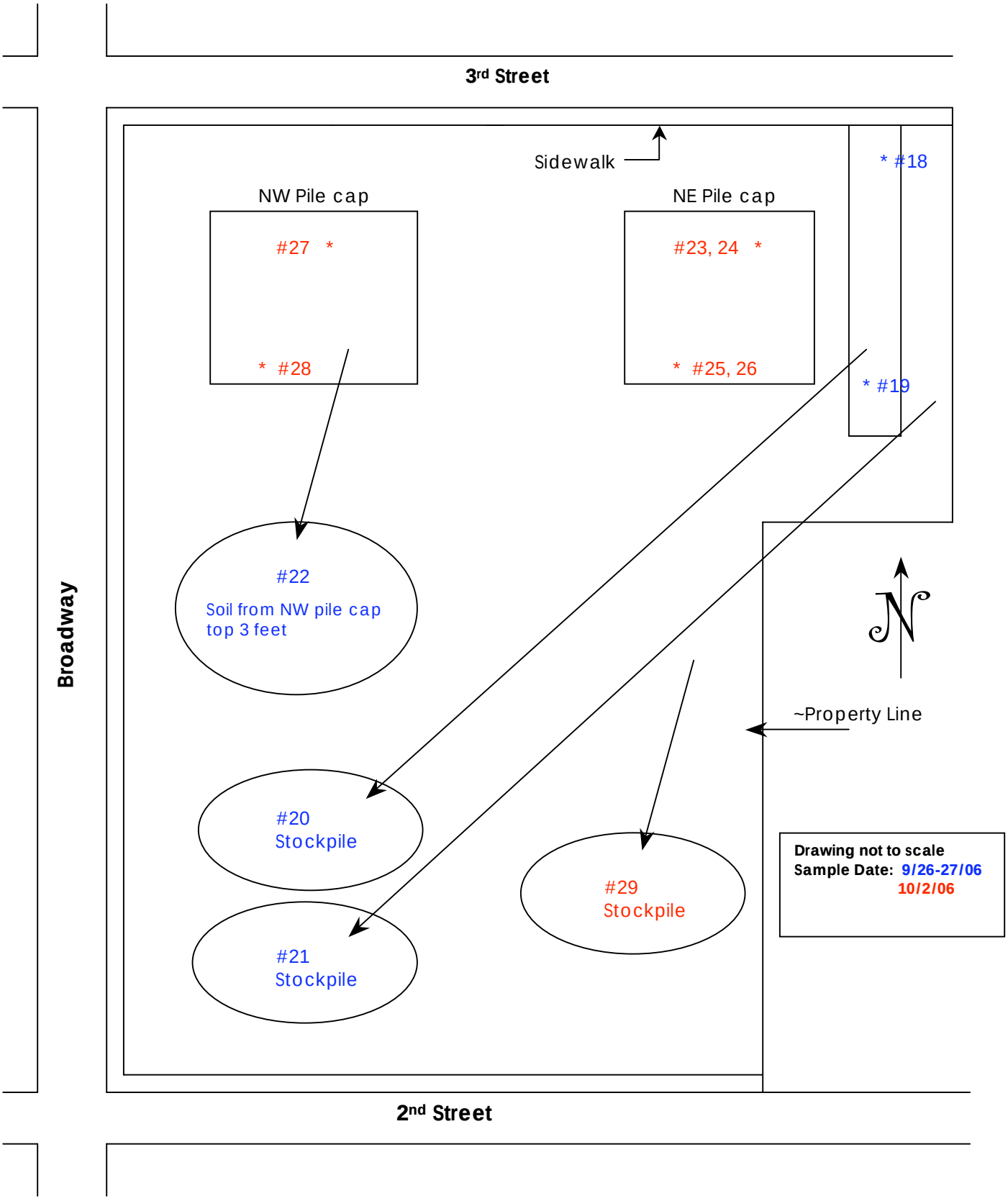
Gas/BTEX by GC PID/FID

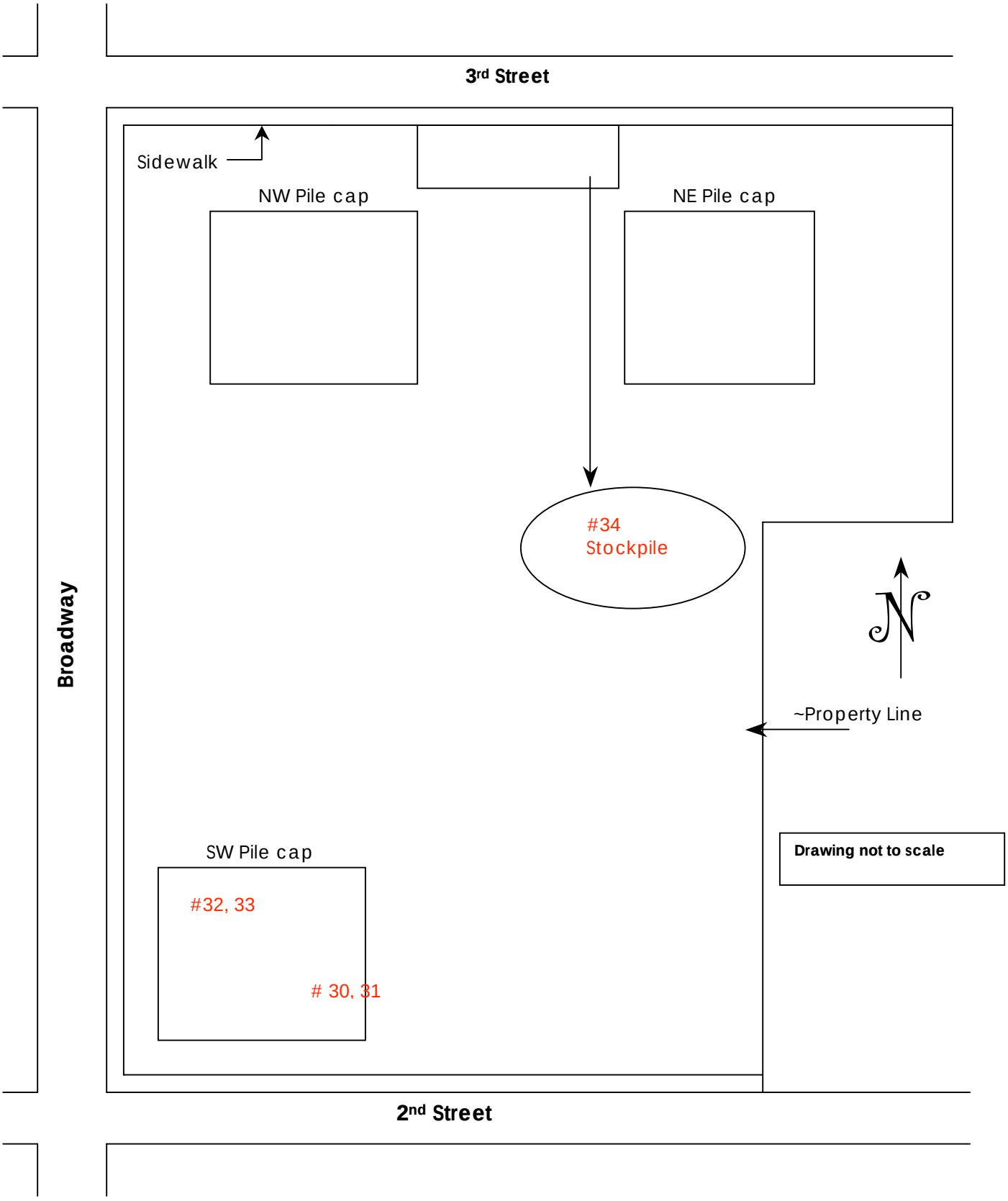
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#5 Middle of Lot (2.5 ft) (CPC0462-05) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Gasoline	ND	1000	µg/kg	1	CP02046	03/15/06	03/15/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*90.5 %*		*65-135*		"	"	"	
#6 Middle of Lot (6 ft) (CPC0462-06) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Gasoline	ND	1000	µg/kg	1	CP02046	03/15/06	03/15/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.8 %*		*65-135*		"	"	"	
#7 North Side of Lot (2.5 ft) (CPC0462-07) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Gasoline	ND	1000	µg/kg	1	CP02046	03/15/06	03/15/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.4 %*		*65-135*		"	"	"	
#8 North Side of Lot (6 ft) (CPC0462-08) Soil Sampled: 03/10/06 00:00 Received: 03/13/06 15:20									
Gasoline	ND	1000	µg/kg	1	CP02046	03/15/06	03/15/06	8015M/8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.8 %*		*65-135*		"	"	"	

APPENDIX C

EXCERPTS FROM 2006 SUPPLEMENTAL SOIL DATA


3rd Street
47.5'
21'
Sidewalk
#10
#9
15'
#13
43'
28'
#11
61'
39'
220 Broadway
Brick Building
Drawing not to scale
Sample Date: 8-23-06
N
#12
15'
12'
210 Broadway
Parking Lot
~Property Line
Broadway
200 Broadway
Wood/brick Building
2nd Street


3rd Street
Broadway
2nd Street
Sidewalk
* #18
NW Pile cap
#27 *
* #28
NE Pile cap
#23, 24 *
* #25, 26
* #19
#22
Soil from NW pile cap
top 3 feet
N
~Property Line
#20
Stockpile
#29
Stockpile
#21
Stockpile
Drawing not to scale
Sample Date: 9/26-27/06
10/2/06


3rd Street
Sidewalk
NW Pile cap
NE Pile cap
#34
Stockpile
Broadway
N
~Property Line
Drawing not to scale
SW Pile cap
#32, 33
30, 31
2nd Street

ADVANTAGE
environmental and safety services, inc.

0608475

RUSH

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT: [redacted]	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3220	**Project:** **210 Broadway, Oakland, CA**	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
9	Northeast side of lot	Soil – 3' deep	Soil	8-22-06	See below
10	Northeast side of lot	Soil – 3' deep	Soil	8-22-06	See below
11	Northeast side of lot	Soil – 3' deep	Soil	8-22-06	See below
12	Northeast side of lot	Soil – 3' deep	Soil	8-22-06	See below
13	Northeast side of lot	Soil – 3' deep	Soil	8-22-06	See below
		TTLC-Lead			

ICE/4° ✓
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ~~_____~~ CONTAINERS ~~_____~~
DECHLORINATED IN LAB _____ PRESERVED IN LAB _____

PRESERVATION	VOAS	O&G	METALS	OTHER

Relinquished by Collector:	Date 8/22/06	Time 3:00pm
Received by Lab:	Date 8/22/06	Time ~~7:00~~ 7:15

8/22/06 7:15
8/22/06 7:15pm

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3220; 210 Broadway, Oakland, CA	Date Sampled: 08/22/06
		Date Received: 08/22/06
	Client Contact: Kris McGlothlin	Date Extracted: 08/22/06
	Client P.O.:	Date Analyzed: 08/23/06

Lead by ICP*

Extraction method: SW3050B Analytical methods: 6010C Work Order: 0608475

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0608475-001A	9	S	TTLC	970	1	113
0608475-002A	10	S	TTLC	ND	1	119
0608475-003A	11	S	TTLC	5.3	1	127
0608475-004A	12	S	TTLC	84	1	116
0608475-005A	13	S	TTLC	380	1	115

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TTLC	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

AESS

0609062.

RUSH

ADVANTAGE
environmental and safety services, inc.

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT: McCampbell – 24 hour	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3220	**Project:** **210 Broadway, Oakland, CA**	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
14	Top 2" stock pile	Soil	Soil	9-5-06	See below
	TTLC – CAM 17 STLC – CAM 17 TCLP – CAM 17 TPH – Diesel/Oil extractables				
15	Debris pile	Soil	Soil	9-5-06	See below
	TTLC – CAM 17 STLC – CAM 17 TCLP – CAM 17 TPH – Diesel/Oil extractables				
		72 hour TAT			

ICE/t°
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER

Relinquished by Collector:	Date 9/5/06	Time Noon
Received by Lab:	Date 9/5/06	Time 345
	9/5/06	515

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/05/06
		Date Received: 09/05/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/05/06
Fremont, CA 94536	Client P.O.:	Date Analyzed: 09/07/06

CAM / CCR 17 Metals*

Lab ID	0609062-001A	0609062-002A			Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	14	15				
Matrix	S	S			S	W
Extraction Type	TTLC	TTLC			mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 0609062

Dilution Factor	1	1			1	1
Antimony	16	5.6			0.5	NA
Arsenic	5.9	9.1			0.5	NA
Barium	190	160			5.0	NA
Beryllium	ND	ND			0.5	NA
Cadmium	1.2	1.1			0.25	NA
Chromium	43	83			0.5	NA
Cobalt	6.9	6.8			0.5	NA
Copper	110	98			0.5	NA
Lead	520	480			0.5	NA
Mercury	2.4	1.0			0.05	NA
Molybdenum	2.0	1.7			0.5	NA
Nickel	39	47			0.5	NA
Selenium	ND	ND			0.5	NA
Silver	ND	ND			0.5	NA
Thallium	ND	ND			0.5	NA
Vanadium	36	33			0.5	NA
Zinc	310	510			5.0	NA
%SS:	101	100				

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/05/06
		Date Received: 09/05/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/05/06-09/07/06
Fremont, CA 94536	Client P.O.:	Date Analyzed: 09/07/06

CAM / CCR 17 Metals*

Lab ID	0609062-001A	0609062-002A			Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	14	15				
Matrix	S	S			S	W
Extraction Type	STLC	STLC			mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: CA Title 22 Work Order: 0609062

Dilution Factor	1	1			1	1
Antimony	0.13	0.24			0.1	NA
Arsenic	ND	ND			0.1	NA
Barium	4.7	4.6			1.0	NA
Beryllium	ND	ND			0.1	NA
Cadmium	0.055	ND			0.05	NA
Chromium	0.21	0.53			0.1	NA
Cobalt	0.21	0.17			0.1	NA
Copper	2.3	1.7			0.1	NA
Lead	19	16			0.1	NA
Mercury	ND	ND			0.01	NA
Molybdenum	0.13	ND			0.1	NA
Nickel	0.37	0.41			0.1	NA
Selenium	ND	ND			0.1	NA
Silver	ND	ND			0.1	NA
Thallium	ND	ND			0.1	NA
Vanadium	0.28	0.25			0.1	NA
Zinc	8.3	6.1			1.0	NA
%SS:	N/A	N/A				

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/05/06
		Date Received: 09/05/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/05/06-09/06/06
Fremont, CA 94536	Client P.O.:	Date Analyzed: 09/07/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609062-001A	0609062-002A				
Client ID	14	15				
Matrix	S	S			S	W
Extraction Type	TCLP	TCLP			mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW1311 Work Order: 0609062

Dilution Factor	1	1			1	1
Antimony	ND	ND			0.1	NA
Arsenic	ND	ND			0.1	NA
Barium	ND	ND			1.0	NA
Beryllium	ND	ND			0.1	NA
Cadmium	ND	ND			0.05	NA
Chromium	ND	ND			0.1	NA
Cobalt	ND	ND			0.1	NA
Copper	ND	ND			0.1	NA
Lead	ND	0.47			0.1	NA
Mercury	ND	ND			0.01	NA
Molybdenum	ND	ND			0.1	NA
Nickel	ND	ND			0.1	NA
Selenium	ND	ND			0.1	NA
Silver	ND	ND			0.1	NA
Thallium	ND	ND			0.1	NA
Vanadium	ND	ND			0.1	NA
Zinc	ND	2.3			1.0	NA
%SS:	N/A	N/A				

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/05/06
35621 Beeching Lane		Date Received: 09/05/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 09/05/06
	Client P.O.:	Date Analyzed: 09/07/06

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0609062

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0609062-001A	14	S	23,g,b	140	5	93
0609062-002A	15	S	4.2,g,b	27	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

aess 0609131

RUSH!

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Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #:** 92-0324 **DHS #:** I-1141	**Phone #:** (510) 507-6946
LAB - TAT: McCampbell – 24 hour	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3220	**Project:** 210 Broadway, Oakland, CA	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
16	Clean fill stock pile	5 point composite	Soil	9-7-06	See below
	TTLC – CAM 17 STLC – CAM 17 TCLP – CAM 17				
17	Re-sample #1 (3/10/06)	4 point composite	Soil	9-7-06	See below
	STLC – Lead TCLP – Lead				
		72 hour TAT			

ICE/t° N
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ____ CONTAINERS ____
DECHLORINATED IN LAB ____ PRESERVED IN LAB ____

PRESERVATION	VOAS	O&G	METALS	OTHER

Relinquished by Collector:		Date 9/7/06	Time 2:30pm
Received by Lab: Mike Vall		Date 9/7/06	Time 5:40pm

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/07/06
		Date Received: 09/07/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/07/06
Fremont, CA 94536	Client P.O.:	Date Analyzed: 09/08/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609131-001A					
Client ID	16					
Matrix	S				S	W
Extraction Type	TTLC				mg/Kg	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW3050B Work Order: 0609131

Dilution Factor	1				1	1
Antimony	1.3				0.5	NA
Arsenic	3.8				0.5	NA
Barium	250				5.0	NA
Beryllium	ND				0.5	NA
Cadmium	0.43				0.25	NA
Chromium	37				0.5	NA
Cobalt	5.2				0.5	NA
Copper	33				0.5	NA
Lead	240				0.5	NA
Mercury	1.6				0.05	NA
Molybdenum	0.54				0.5	NA
Nickel	27				0.5	NA
Selenium	ND				0.5	NA
Silver	ND				0.5	NA
Thallium	ND				0.5	NA
Vanadium	28				0.5	NA
Zinc	140				5.0	NA
%SS:	98					

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/07/06
		Date Received: 09/07/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/07/06-09/09/06
Fremont, CA 94536	Client P.O.:	Date Analyzed 09/11/06-09/12/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609131-001A					
Client ID	16					
Matrix	S				S	W
Extraction Type	STLC				mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: CA Title 22 Work Order: 0609131

Dilution Factor	1				1	1
Antimony	0.19				0.1	NA
Arsenic	ND				0.1	NA
Barium	4.4				1.0	NA
Beryllium	ND				0.1	NA
Cadmium	ND				0.05	NA
Chromium	0.13				0.1	NA
Cobalt	0.19				0.1	NA
Copper	0.68				0.1	NA
Lead	10				0.1	NA
Mercury	ND				0.01	NA
Molybdenum	ND				0.1	NA
Nickel	0.18				0.1	NA
Selenium	ND				0.1	NA
Silver	ND				0.1	NA
Thallium	ND				0.1	NA
Vanadium	0.22				0.1	NA
Zinc	4.1				1.0	NA
%SS:	N/A					

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/07/06
		Date Received: 09/07/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/07/06-09/08/06
Fremont, CA 94536	Client P.O.:	Date Analyzed 09/09/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609131-001A					
Client ID	16					
Matrix	S				S	W
Extraction Type	TCLP				mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW1311 Work Order: 0609131

Dilution Factor	1				1	1
Antimony	ND				0.1	NA
Arsenic	ND				0.1	NA
Barium	ND				1.0	NA
Beryllium	ND				0.1	NA
Cadmium	ND				0.05	NA
Chromium	ND				0.1	NA
Cobalt	ND				0.1	NA
Copper	ND				0.1	NA
Lead	ND				0.1	NA
Mercury	ND				0.01	NA
Molybdenum	ND				0.1	NA
Nickel	ND				0.1	NA
Selenium	ND				0.1	NA
Silver	ND				0.1	NA
Thallium	ND				0.1	NA
Vanadium	ND				0.1	NA
Zinc	ND				1.0	NA
%SS:	N/A					

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/07/06
35621 Beeching Lane		Date Received: 09/07/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 09/07/06-09/09/06
	Client P.O.:	Date Analyzed: 09/11/06

Lead by ICP*

Extraction method: CA Title 22 Analytical methods: SW6010C Work Order: 0609131

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0609131-002A	17	S	STLC	2.3	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	STLC	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

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DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Advantage Environmental	Client Project ID: #06-3220	Date Sampled: 09/07/06
35621 Beeching Lane		Date Received: 09/07/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 09/07/06-09/08/06
	Client P.O.:	Date Analyzed: 09/08/06

Lead by ICP*

Extraction method: SW1311 Analytical methods: SW6010C Work Order: 0609131

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0609131-002A	17	S	TCLP	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TCLP	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

ADVANTAGE
environmental and safety services, inc.

RUSH!

Client: Mr. Kris McGlothlin ADVANTAGE Environmento 35621 Beeching Lane Fremont, CA 94536	Samples Collected By: Kris McGlothlin CAC #: 92-0324 DHS #: I-1141	Phone #: (510) 507-6946
LAB - TAT: McCampbell	Fax Results To Kris McGlothlin	Fax Number: kris_mcglothlin@sbcglobal.net
Project Number: 06-3296	Project: 210 Broadway, Oakland, CA	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
18	Bottom of excavation (#9)	4 point composite	Soil	9-26-06	See below
	TTLC – Lead	**Same Day**			
19	Bottom of Excavation (#13)	4 point composite	Soil	9-26-06	See below
	TTLC – Lead	**Same Day**			
20	Stockpile from 30'x80 Excavation	4 point composite	Soil	9-26-06	See below
	TTLC – Lead – Same Day STLC – CAM 17 TCLP – CAM 17	**72 hour TAT**			
21	Top fill around excavation	4 point composite	Soil	9-26-06	See below
	TTLC – Lead – Same Day STLC – CAM 17 TCLP – CAM 17	**72 hour TAT**			

Relinquished by Collector: Kris McGlothlin		Date 9-26-06	Time 9:10 am
Received by Lab:		Date 9-26-06	Time 8:06

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Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 09/26/06
35621 Beeching Lane		Date Received: 09/26/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 09/26/06
	Client P.O.:	Date Analyzed 09/27/06

Lead by ICP*

Extraction method SW3050B Analytical methods 6010C Work Order: 0609538

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0609538-001A	18	S	TTLC	ND	1	105
0609538-002A	19	S	TTLC	ND	1	104
0609538-003A	20	S	TTLC	44	1	102
0609538-004A	21	S	TTLC	70	1	103

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TTLC	5.0	mg/Kg

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Angela Rydelius, Lab Manager

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Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 09/26/06
		Date Received: 09/26/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/26/06-09/28/06
Fremont, CA 94536	Client P.O.:	Date Analyzed 09/28/06-09/30/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609538-003A	0609538-004A				
Client ID	20	21				
Matrix	S	S			S	W
Extraction Type	STLC	STLC			mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: CA Title 22 Work Order: 0609538

Dilution Factor	1	1			1	1
Antimony	0.18	0.11			0.1	NA
Arsenic	ND	0.50			0.1	NA
Barium	3.3	7.1			1.0	NA
Beryllium	ND	ND			0.1	NA
Cadmium	ND	ND			0.05	NA
Chromium	ND	0.57			0.1	NA
Cobalt	0.10	0.34			0.1	NA
Copper	0.60	1.2			0.1	NA
Lead	2.5	5.5			0.1	NA
Mercury	ND	ND			0.01	NA
Molybdenum	ND	ND			0.1	NA
Nickel	0.21	1.0			0.1	NA
Selenium	ND	ND			0.1	NA
Silver	ND	ND			0.1	NA
Thallium	ND	ND			0.1	NA
Vanadium	0.17	1.3			0.1	NA
Zinc	4.3	6.6			1.0	NA
%SS:	N/A	N/A				

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 09/26/06
		Date Received: 09/26/06
35621 Beeching Lane	Client Contact: Kris McGlothlin	Date Extracted: 09/26/06-09/27/06
Fremont, CA 94536	Client P.O.:	Date Analyzed: 09/28/06

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0609538-003A	0609538-004A				
Client ID	20	21				
Matrix	S	S			S	W
Extraction Type	TCLP	TCLP			mg/L	mg/L

ICP-MS Metals, Concentration*

Analytical Method: 6020A Extraction Method: SW1311 Work Order: 0609538

Dilution Factor	1	1			1	1
Antimony	ND	ND			0.1	NA
Arsenic	ND	ND			0.1	NA
Barium	ND	ND			1.0	NA
Beryllium	ND	ND			0.1	NA
Cadmium	ND	ND			0.05	NA
Chromium	ND	ND			0.1	NA
Cobalt	ND	ND			0.1	NA
Copper	ND	ND			0.1	NA
Lead	1.6	ND			0.1	NA
Mercury	ND	ND			0.01	NA
Molybdenum	ND	ND			0.1	NA
Nickel	ND	ND			0.1	NA
Selenium	ND	ND			0.1	NA
Silver	ND	ND			0.1	NA
Thallium	ND	ND			0.1	NA
Vanadium	ND	ND			0.1	NA
Zinc	ND	ND			1.0	NA
%SS:	N/A	N/A				

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

ADVANTAGE Environmental and Safety Services	Project: 210 Broadway, Oakland, CA	
35621 Beeching Lane	Project Number: 06-3296	**CLS Work Order#: CPI0883**
Fremont, CA 94536	Project Manager: Mr. Kris McGlothli	COC #: None

DRAFT: Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DRAFT: Clean Fill From Footing #22 (CPI0883-01) Soil	**Sampled: 09/27/06 00:00**	**Received: 09/28/06 09:05**							
Lead	**110**	2.5	mg/kg	1	CP07482	09/28/06	09/28/06	EPA 6010B	

CALIFORNIA LABORATORY SERVICES

10/03/06 16:21

ADVANTAGE Environmental and Safety Services	Project: 210 Broadway, Oakland, CA	
35621 Beeching Lane	Project Number: 06-3296	**CLS Work Order #: CPI0922**
Fremont, CA 94536	Project Manager: Mr. Kris McGlothlin	COC #: None

STLC (WET) Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Clean Fill From Footing #22 (CPI0922-01) Soil	**Sampled: 09/27/06 00:00**			**Received: 09/29/06 10:34**					
Lead	**6.8**	0.50	mg/L	1	CP07599	10/03/06	10/03/06	EPA 6010B	

ADVANTAGE Environmental and Safety Services
35621 Beeching Lane
Fremont, CA 94536

Project: 210 Broadway, Oakland, CA
Project Number: 06-3296
Project Manager: Mr. Kris McGlothlin

CLS Work Order #: CPI0922
COC #: None

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Clean Fill From Footing #22 (CPI0922-01) Soil	**Sampled: 09/27/06 00:00**			**Received: 09/29/06 10:34**					
Lead	ND	0.50	mg/L	1	CP07567	10/02/06	10/02/06	EPA 6010B	

AESS 0610090 **RUSH**

ADVANTAGE
environmental and safety services, inc.

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT:	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3296	**Project:** **222 Broadway, Oakland, CA**	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
23	Footing – G9.2 – 3'	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
24	Footing – G9.2 – 6.5'	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
25	Footing – E9 – 3'	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
26	Footing – E9 – 6.5	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
27	Footing – F2 – 7'	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
28	Footing – H4 – 7'	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			
29	Stockpile SE side of site	4 point composite	Soil	10-2-06	See below
	TTLC – Lead – Same Day STLC – Lead TCLP – Lead	**72 hour TAT**			

Relinquished by Collector:	Date 10/2/06	Time 6:30pm
Received by Lab:	Date 10/3/06	Time 7:55

* Sample says 30

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Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland, CA	Date Sampled: 10/02/06
		Date Received: 10/04/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/04/06
	Client P.O.:	Date Analyzed 10/05/06

Lead by ICP*

Extraction method SW3050B Analytical methods 6010C Work Order: 0610090

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610090-001A	23	S	TTLC	13	1	106
0610090-002A	24	S	TTLC	ND	1	105
0610090-003A	25	S	TTLC	ND	1	103
0610090-004A	26	S	TTLC	ND	1	104
0610090-005A	27	S	TTLC	ND	1	105
0610090-006A	28	S	TTLC	150	1	103
0610090-007A	29	S	TTLC	610	1	100

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TTLC	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland, CA	Date Sampled: 10/02/06
		Date Received: 10/04/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/04/06-10/06/06
	Client P.O.:	Date Analyzed: 10/09/06

Lead by ICP*

Extraction method: CA Title 22 Analytical methods: SW6010C Work Order: 0610090

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610090-006A	28	S	STLC	5.9	1	N/A
0610090-007A	29	S	STLC	35	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	STLC	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland, CA	Date Sampled: 10/02/06
		Date Received: 10/04/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/04/06-10/05/06
	Client P.O.:	Date Analyzed: 10/05/06

Lead by ICP*

Extraction method: SW1311 Analytical methods: SW6010C Work Order: 0610090

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610090-006A	28	S	TCLP	ND	1	N/A
0610090-007A	29	S	TCLP	9.8	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TCLP	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

ICE? C
GOOD CONDITION ✓ APPROPRIATE CONTAINERS ✓
HEAD SPACE ABSENT ____ PRESERVED IN LAB ____
DECHLORINATED IN LAB ____

PRESERVATION | VOAS | O&G | METALS | OTHER

RUSH

ADVANTAGE
environmental and safety services, inc.

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT: See Below	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3296	**Project:** **222 Broadway, Oakland, CA**	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
30	Footing – B.5/3.5 – 3' SE Corner	4 point composite	Soil	10-12-06	See below
	TTLC – Lead – 24 Hour STLC – Lead TCLP – Lead	**72 hour TAT**			
31	Footing – B.5/3.5 – 6.5' SE Corner	4 point composite	Soil	10-12-06	See below
	TTLC – Lead – 24 Hour STLC – Lead TCLP – Lead	**72 hour TAT**			
32	Footing – C/2.5 – 3' SE Corner	4 point composite	Soil	10-12-06	See below
	TTLC – Lead – 24 Hour STLC – Lead TCLP – Lead	**72 hour TAT**			
33	Footing – C/2.5 – 6.5' SE Corner	4 point composite	Soil	10-12-06	See below
	TTLC – Lead – 24 Hour STLC – Lead TCLP – Lead	**72 hour TAT**			

Relinquished by Collector:	Date 10/12/06	Time 3:30 pm
Received by Lab:	Date 10/12	Time 15:30

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Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland Ca	Date Sampled: 10/12/06
		Date Received: 10/12/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/12/06
	Client P.O.:	Date Analyzed 10/13/06

Lead by ICP*

Extraction method SW3050B Analytical methods 6010C Work Order: 0610279

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610279-001A	#30	S	TTLC	ND	1	106
0610279-002A	#31	S	TTLC	ND	1	108
0610279-003A	#32	S	TTLC	ND	1	109
0610279-004A	#33	S	TTLC	6.6	1	106

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TTLC	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland Ca	Date Sampled: 10/12/06
		Date Received: 10/12/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/12/06-10/14/06
	Client P.O.:	Date Analyzed: 10/16/06

Lead by ICP*

Extraction method: CA Title 22 Analytical methods: SW6010C Work Order: 0610279

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610279-001A	#30	S	STLC	ND	1	N/A
0610279-002A	#31	S	STLC	ND	1	N/A
0610279-003A	#32	S	STLC	ND	1	N/A
0610279-004A	#33	S	STLC	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	STLC	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Advantage Environmental 35621 Beeching Lane Fremont, CA 94536	Client Project ID: #06-3296; 222 Broadway, Oakland Ca	Date Sampled: 10/12/06
		Date Received: 10/12/06
	Client Contact: Kris McGlothlin	Date Extracted: 10/12/06-10/13/06
	Client P.O.:	Date Analyzed 10/16/06

Lead by ICP*

Extraction method SW1311 Analytical methods SW6010C Work Order: 0610279

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610279-001A	#30	S	TCLP	ND	1	N/A
0610279-002A	#31	S	TCLP	ND	1	N/A
0610279-003A	#32	S	TCLP	ND	1	N/A
0610279-004A	#33	S	TCLP	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TCLP	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

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DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

Aess 0610356

ADVANTAGE
environmental and safety services, inc.

RUSH

Client: Mr. Kris McGlothlin ADVANTAGE Environmental 35621 Beeching Lane Fremont, CA 94536	**Samples Collected By:** Kris McGlothlin **CAC #: 92-0324 DHS #: I-1141**	**Phone #:** (510) 507-6946
LAB - TAT: See Below	**Fax Results To** Kris McGlothlin	**Fax Number:** kris_mcglothlin@sbcglobal.net
Project Number: 06-3296	**Project:** 222 Broadway, Oakland, CA	

Sample #	Sample Location	Item Sampled	Sample type	Sample Date	Type of Analysis
34	Pile cap – N Middle stock pile	4 point composite	Soil	10-14-06	See below
	TTLC – Lead – 24 Hour STLC – Lead TCLP – Lead	72 hour TAT			

ICE/t° 8.2°C
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ___ CONTAINERS ✓
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___

PRESERVATION	VOAS	O&G	METALS	OTHER

Relinquished by Collector: (Kris)	Date 10/14/06	Time Noon
Received by Lab: Myle Vall	Date 10/17/06	Time 8:00pm

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Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 10/14/06
35621 Beeching Lane		Date Received: 10/17/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 10/17/06
	Client P.O.:	Date Analyzed 10/18/06

Lead by ICP*

Extraction method SW3050B Analytical methods 6010C Work Order: 0610356

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610356-001A	34	S	TTLC	84	1	104

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TTLC	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

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Angela Rydelius, Lab Manager

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Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 10/14/06
35621 Beeching Lane		Date Received: 10/17/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 10/17/06-10/19/06
	Client P.O.:	Date Analyzed 10/19/06

Lead by ICP*

Extraction method CA Title 22 Analytical methods SW6010C Work Order: 0610356

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610356-001A	34	S	STLC	3.5	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	STLC	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

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Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

Advantage Environmental	Client Project ID: #06-3296	Date Sampled: 10/14/06
35621 Beeching Lane		Date Received: 10/17/06
Fremont, CA 94536	Client Contact: Kris McGlothlin	Date Extracted: 10/17/06-10/18/06
	Client P.O.:	Date Analyzed: 10/18/06

Lead by ICP*

Extraction method: SW1311 Analytical methods: SW6010C Work Order: 0610356

Lab ID	Client ID	Matrix	Extraction	Lead	DF	% SS
0610356-001A	34	S	TCLP	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	µg/L
	S	TCLP	0.2	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

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Angela Rydelius, Lab Manager

APPENDIX D

EXCERPTS FROM 2005 GEOTECHNICAL REPORT

Preliminary Geotechnical Foundation Investigation for 222 Broadway, City Block Bounded By 2nd and 3rd Streets, Broadway and Franklin Street, Oakland, California

Dated: August 15, 2005

Project No. 041084-01

Prepared For:

MOLASKY PACIFIC, LLC
3993 Howard Hughes Parkway
Las Vegas, NV 89109

LGC Lawson & Associates Geotechnical Consulting, Inc.

August 15, 2005

Project No. 041084-01

Mr. Kenn Wynn
Molasky Pacific, LLC
3993 Howard Hughes Parkway
Las Vegas, NV 89109

Subject: ***Preliminary Geotechnical Foundation Investigation for 222 Broadway, City Block Bounded By 2nd and 3rd Streets, Broadway and Franklin Street, Oakland, California***

In accordance with your request, Lawson & Associates Geotechnical Consulting, Inc. (LGC) has performed a preliminary geotechnical foundation investigation for the proposed 222 Broadway project located in Oakland, California. The purpose of our investigation was to evaluate the existing onsite geotechnical conditions and review the readily available geotechnical and geologic reports and maps pertinent to the site. This report presents the results of our subsurface investigation and geotechnical analysis and provides a summary of our conclusions and preliminary recommendations relative to the proposed redevelopment of the site.

If you should have any questions regarding this report, please do not hesitate to contact our office. We appreciate this opportunity to be of service.

Sincerely,

LAWSON & ASSOCIATES GEOTECHNICAL CONSULTING, INC.

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

This report presents the results of our preliminary geotechnical investigation for the proposed development of 222 Broadway in Oakland, California (see Site Location Map, Figure 1). The purpose of our investigation was to evaluate the pertinent geotechnical conditions at the site and to provide preliminary geotechnical recommendations and foundation design criteria relative to the proposed redevelopment of the site. Our recommendations included herein are based on the proposed structure depicted on the preliminary plan provided by the project architect, Perkins and Will Architects, Inc. (2005).

Our scope of services included:

- Review of pertinent readily available geotechnical reports and geologic maps (Appendix A);
- Reconnaissance level geologic mapping of the site;
- Excavation, sampling, and logging of two small-diameter hollow stem borings (LGC-1 and LGC-2), two small-diameter mud-rotary borings (LGC-2B and LGC-3) and three CPT soundings (CPT-1 through CPT-3). The excavations were sampled and logged under the supervision of an experienced geologist from our firm. The borings were excavated to evaluate the general characteristics of the subsurface geologic conditions including estimated depth to ground water, and to obtain representative soil samples. Logs of the borings and the CPT soundings are presented in Appendix B and their approximate locations are depicted on the Boring Location Map, Figure 2;
- Laboratory testing of representative samples obtained during our subsurface investigation (Appendix C);
- Preparation of a geotechnical map depicting the interpreted geologic conditions on the site;
- Geotechnical analysis of the data reviewed/obtained;
- Preparation of this report presenting our findings, conclusions and preliminary recommendations with respect to the proposed site development.

1.2 Project Description

The site is located within the city block bounded by 3rd Street to the north, 2nd Street to the south, Broadway on the west and Franklin Street on the east. Based on our review of the preliminary project plans prepared by the project architect (Perkins and Will, 2005), the proposed redevelopment will be located along Broadway and will be adjacent to an existing building located along Franklin Street that will remain in place. The proposed redevelopment is an approximately 175 feet high "L" shaped building tower located above a 5-level parking podium from grade. The proposed redevelopment is anticipated to include approximately 134 residential units, 11,000 square feet of retail, and 268 parking spaces (Perkins and Will, 2005). It is our understanding that the two existing structures located along Broadway Street at the corners of 3rd and 2nd Street, respectively, will be removed prior to construction.

At least in the case of the structure in the northwest corner of the site, we understand an existing basement will need to be removed and appropriately abandoned as well. It is not known by this office if the other structure to be removed or the structure on the eastern portion of the block that is to remain in-place have existing basements.

1.3 Site Conditions

The site of the proposed structure is currently occupied by a parking lot and two existing structures located along Broadway Street at the corners of 3rd and 2nd Street, respectively. Topographically, the site is essentially flat at an elevation of approximately 10 feet above mean sea level (MSL).

1.4 Background

A previous preliminary geotechnical evaluation was performed for conceptual development of the site by Lowney (2001). The evaluation was based on a review of geotechnical reports for similar sites in the vicinity of the subject site. Lowney performed three Cone Penetration Test (CPT) soundings to depths of approximately 33 to 43 feet below existing ground surface. The CPTs were advanced until refusal, likely due to a layer of very dense sand.

Based on available regional geotechnical information, a subsequent due diligence review was performed by LGC (2004). The referenced reports concluded that the subject site was suitable for development.

The city block is currently occupied by existing structures on the north and south ends of the block. The majority of the site of the proposed development is occupied by an asphalt parking lot with structures in the southwestern and northwestern corners. We understand both commercial and retail structures have occupied the site in the past. It should be anticipated that remnants (buried foundations, utilities, basements, storage tanks, etc.) may be encountered during site development.

We understand the existing structure in the eastern portion of the block along Franklin Street is to remain in place. The proposed structure will be located adjacent to the building and will need to be protected in place during construction.

1.5 Subsurface Investigation

Our subsurface investigation consisted of the excavation of four small-diameter hollow stem auger borings, ranging in depth from approximately 55 to 101.5 feet below existing ground surface and three CPT soundings. Hollow stem borings LGC-1 and LGC-2 were terminated at approximate depths of 55 feet below existing ground surface due to plugging of the auger. Mud-rotary borings LGC-2B and LGC-3 were drilled to approximate depths of 100 feet below existing ground surface. The CPTs were terminated (practical refusal) at depths ranging from approximately 40 to 45 feet below existing ground surface due to a very dense sand layer. During excavation, the borings were sampled and logged from the surface under the supervision of an experienced geologist from our firm to evaluate the general characteristics of the onsite soils. The hollow stem borings were geotechnically logged and sampled

using California Ring Samples (Ring) and Standard Penetration Test (SPT) samplers at selected intervals. The SPT and ring samples were driven using a 140-pound hammer freely falling for 30 inches with a total penetration of 18 inches, and blow counts were noted for each 6 inches of penetration. In addition, bulk samples were collected at various depths from each of the borings.

CPT soundings have the advantage of providing a near continuous interpretation of subsurface conditions compared to exploratory small-diameter borings where samples are typically obtained at intervals of 5 feet. For analytical review, CPTs allow for easy correlation of layers across a site, which can be instrumental in estimating potential liquefaction. CPT data is also useful for liquefaction analysis when the data is compared to laboratory test results of samples obtained from a site. The disadvantage of CPTs compared to small-diameter borings is that samples are generally not obtained for visual classification or laboratory testing. CPTs also have the disadvantage of not being able to penetrate through gravels or bedrock as compared to auger borings.

In general, our boring and CPT logs indicated that the upper approximately 25 to 30 feet below existing ground surface consists primarily of loose to medium dense sands and silty sands with isolated layers of sandy silt, silt, and clayey silt. From a depth of approximately 30 to 55 feet below existing ground surface a layer of dense to very dense sands and silty sands were encountered followed by medium stiff to very stiff fine-grained silty clays to the maximum drilled depth of approximately 101.5 feet below existing ground surface. Soil descriptions are presented in the boring logs in Appendix B. CPT sounding logs are also presented in Appendix B. The approximate locations of the borings and soundings are shown on our Boring Location Map, Figure 2. In accordance with requirements of Alameda County, the borings were completely backfilled with slurry, capped with approximately 2 feet of concrete, and asphalt cold patch placed at the surface. The CPT soundings were completely grouted to the surface. Please note that some settlement of the grout may occur over time and they should be topped off if needed.

1.6 Laboratory Testing

Representative bulk and driven (relatively undisturbed) samples were retained for laboratory testing. Laboratory testing included in-situ moisture content and in-situ density, maximum dry density and optimum moisture content, expansion potential, gradation, Atterberg Limits, direct shear, and corrosion potential.

Dry density values ranged from approximately 70.1 pounds per cubic foot (pcf) to 117.9 pcf, with an average of 109.9 pcf. Field moisture contents ranged from approximately 7.1 percent to 50.3 percent, with an average of 18.2 percent. Total (moist) density values ranged from approximately 105.4 pcf to 134.8 pcf, with an average of 129.2 pcf. The degree of saturation ranged from approximately 34 percent to 100 percent, with an average of 88 percent.

Seven sieves and four percent passing the No. 200 sieve tests were performed from various selected samples. Results were percents passing the No. 200 sieve (fines content) ranging from approximately 13 to 63 percent. Results indicated that nine of the 11 tested samples would be classified as "coarse-grained" according to the Unified Soils Classification System (USCS). A hydrometer analysis was performed on two of the samples and indicated approximately 30 to 42 percent clay (defined as 0.005 mm) for the tested samples.

Three Atterberg Limit tests were performed from various selected samples. Plasticity Index results ranged from approximately "Non Plastic" to 18. This corresponds to a USCS classification for the fines of low-plasticity clay (CL) for the plastic sample.

The results of expansion potential testing indicated expansion indices of zero, "Very Low" (1997 Uniform Building Code (U.B.C.)/2001 California Building Code (C.B.C.) EI less than 20).

A laboratory compaction (maximum dry density and optimum moisture content) test was performed from a bulk sample obtained from LGC-2. The result was a maximum dry density of 114.0 pcf with an optimum moisture content of 9.0 percent.

Three consolidation tests were performed on driven samples from various depths. Plots are provided in Appendix C.

Four direct shear tests were performed on samples obtained from various depths. The plots are provided in Appendix C.

A discussion of the tests performed and a summary of the results are presented in Appendix C. The moisture and density test results are presented on the boring logs in Appendix B. Results of corrosion suite are reported in Section 2.9**.**

2.0 GEOTECHNICAL CONDITIONS

2.1 Regional Geology

The subject site is located along the eastern margin of San Francisco Bay within the Coast Ranges Geomorphologic Province of California. The north- to northwest-trending Coast Ranges, which defines the Province, is traversed by numerous faults of the San Andreas Fault system. The dominant geologic processes that have shaped the San Francisco Bay Area region are the active faulting along the San Andreas, Hayward, and other faults: uplift and erosion of the East Bay and peninsular hills; and subsidence of the San Francisco Bay basin. The San Francisco Bay is thought to have formed as a pull-apart basin in response to local crustal subsidence between the San Andreas and Hayward faults that has been continuously subsiding since late Quaternary time (the past 700,000 years).

Based on our review of the State of California Seismic Hazard Zones Oakland West Quadrangle (CDMG, 2003) and City of Oakland Safety Element (2004), a zone of potential liquefaction is depicted south of the site. The depicted zone of potential liquefaction is as close as approximately 350 feet to the south side of the site. Based on our review of the City of Oakland Safety Element (2004), the site is not located within any designated Flooding Hazard Zones.

2.2 Site-Specific Geology

Based on the results of our subsurface investigation and research, the site is underlain by undocumented fill material underlain by a relatively young (less than approximately 1 million years old) sedimentary sequence above Franciscan Formation basement. The sedimentary units extend a total of approximately 500 feet below the site and include: the Temescal Formation, San Antonio Formation, and the Alameda Formation. A brief description of these geologic units is presented below (from youngest to oldest). Based on the regional geology, the approximate depths that these units are expected to underlie the site are provided below, the units are not, however, differentiated on the boring logs (Appendix B). Formational types and differences are only approximated based on our limited sampling of the subsurface soils and review of regional geologic maps, therefore, the underlying formations are not differentiated from the Temescal Formation on the boring logs. When reviewing the data presented herein, one should focus on actual material types encountered rather than formation names, as many of the materials encountered within each of the formations can be varied.

2.2.1 Artificial Fill – Undocumented

Below the asphalt and base of the existing parking lot, up to approximately 5 to 10 vertical feet of undocumented artificial fill was encountered in borings LGC-1 through LGC-3. These materials are considered unsuitable for the support of structures not supported on a deep foundation system or additional compacted fill and should be removed as part of the planned grading. Due to the lack of data between borings, the lateral and vertical limits of the fill cannot accurately be determined at this time, but it would appear that an approximately 10 foot thickness of loose material believed to be undocumented fill may extend across a third or more of the site and in areas could be deeper.

2.2.2 Temescal Formation

The Temescal Formation was deposited as alluvial terrace deposits in incised alluvial channels. The alluvial material consists of silt and clay and is generally finer grained than the underlying San Antonio Formation, however it can have intermittent sandy and gravelly lenses.

2.2.3 San Antonio Formation

The San Antonio Formation stratigraphically underlies the Temescal Formation and is approximated to underlie the site a depth of approximately 30 feet below site grades. The San Antonio Formation consists of a sequence of estuarine and alluvial sediments. These materials typically consist of dense silty sand and sandy silt lenses. Intermittent dense gravel layers are also encountered within this material.

2.2.4 Alameda Formation

The Alameda Formation stratigraphically underlies the San Antonio Formation and is expected to underlie the site at a depth of approximately 60 feet below the surface. The Alameda Formation extends to depths on the order of 500 feet in the area where it overlies Franciscan Formation basement material. The Alameda Formation is a complex mixture of lower non-marine alluvial fan, fluvial (streams and floodplains) and lacustrine (lake) deposits, and an upper marine green-gray clay unit.

2.3 Geologic Structure

Locally, the geologic units below the site typically dip at low angles to the west. The units within the formations are typically moderately to thinly bedded, lenticular and interfinger with the other.

No faults have been mapped on the site.

2.4 Landslides

No landslides have been identified on the site.

2.5 Ground Water

Ground water was encountered during our investigation at depths ranging from approximately 10 to 15 feet below existing ground surface. Lowney's preliminary investigation encountered ground water at depths on the order of 15 to 18 feet below existing ground surface and reported previous environmental borings encountering ground water at depths ranging from approximately 8 to 14 feet below ground

surface (Lowney, 2001). The historic high ground water table for the site is approximately 5 feet below existing grade (CDMG, 2003).

Local zones of perched ground water may be encountered during or develop after site construction, within the near-surface deposits, due to localized water conditions potentially influenced by landscaping water and rainfall volume.

2.6 Faulting

California is located on the boundary between the Pacific and North American Lithospheric Plates. The average motion along this boundary is on the order of 50-mm/yr in a right-lateral sense. The majority of the motion is expressed at the surface along the northwest trending San Andreas Fault Zone, the major faults of which in the area include the San Andreas, Hayward, Calaveras, and Concord faults.

Prompted by damaging earthquakes in Northern and Southern California, State legislation and policies concerning the classification and land-use criteria associated with faults have been developed. Their purpose was to prevent the construction of urban developments across the trace of active faults. The result is the Alquist-Priolo Earthquake Fault Zoning Act, which was most recently revised in 1997 (Hart, 1997). According to the State Geologist, an active fault is defined as one, which has had surface displacement within the Holocene Epoch (roughly the last 11,000 years). A potentially active fault is defined as any fault, which has had surface displacement during Quaternary time (last 1,600,000 years), but not within the Holocene. Earthquake Fault Zones have been delineated along the traces of active faults within California. Where developments for human occupation are proposed within these zones, the state requires detailed fault investigations be performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of active faults and allowing for a setback from the zone of previous ground rupture.

While the subject site is not located within an Alquist-Priolo Earthquake Fault Zone and there are no known active or potentially active faults onsite, the site is, however, located approximately 6.6 kilometers from the Hayward Fault. The possibility of damage due to ground rupture is considered low since active faults are not known to cross the site.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Northern California region, which may affect the site include ground lurching and shallow ground rupture, soil liquefaction, dynamic settlement, seiches and tsunamis. These secondary effects of seismic shaking are a possibility throughout the Northern California region and are dependant on the distance between the site and causative fault and the onsite geology. The major active faults that could produce these secondary effects include the San Andreas, Hayward, Calaveras, and Concord faults. A discussion of these secondary effects is provided in the following sections.

2.6.1 Lurching and Shallow Ground Rupture

Soil lurching refers to the rolling motion on the ground surface by the passage of seismic surface waves. Effects of this nature are not likely to be significant where the thickness of soft sediments does not vary appreciably under structures.

Ground rupture due to active faulting is not likely to occur on site due to the absence of known active fault traces. Minor cracking of near-surface soils due to shaking from distant seismic events is not considered a significant hazard, although it is a possibility at any site, and is often associated with ridgelines.

2.6.2 Liquefaction and Dynamic Settlement

Liquefaction and liquefaction-induced dynamic settlement of soils can be caused by strong vibratory motion due to earthquakes. Liquefaction is typified by a buildup of pore-water pressure in the affected soil layer to a point where a total loss of shear strength occurs, causing the soil to behave as a liquid. Liquefaction primarily occurs in loose, saturated, granular soils while cohesive soils such as silty clays and clays are generally not considered susceptible to soil liquefaction. The effect of liquefaction may be manifested at the ground surface by rapid settlement and/or sand boils.

While the site is not located in a California Seismic Hazard zone for liquefaction nor is it located within a Potential Liquefaction Area of the City of Oakland Safety Element, it is located within approximately 350 feet of both (CDMG, 2003, City of Oakland, 2004). However, based on the design earthquake some sand layers in the upper approximately 30 feet are susceptible to liquefaction-induced settlement (dynamic settlement). Analyses based on the design earthquake Peak Ground Horizontal Acceleration (PGHA - 10 percent probability of exceedance in 50 years) was performed for the site based on our subsurface investigation and the historically high ground water level of 5 feet below existing ground surface. Seismically induced settlements were estimated by the procedure outlined by Tokimatsu and Seed (1987). The results of the analysis for the upper 50 feet indicate total seismic settlements below the site on the order of approximately 2 ½ inches occurring in the upper approximately 30 feet. Differential seismic settlement can be estimated as ½ of the total estimated settlement.

2.6.3 Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures. A procedure outlined by Youd, et al. requiring the design earthquake magnitude and corresponding fault distance is typically used to estimate lateral displacements.

Based on the relatively level nature of the site and the absence of a free face (slope embankment), the potential for lateral spreading is considered low.

2.6.4 Tsunamis and Seiches

Based on the distance of the site from the San Francisco Bay and the Pacific Ocean, the possibility of tsunamis and/or seiches affecting the site is considered to be low. The site is not located within a Tsunami RunUp Zone as designated in the City of Oakland Safety Element (2004).

2.7 Seismicity

The principal seismic hazard, which could impact the site, is strong ground shaking resulting from an earthquake occurring along any of the several active and potentially active faults in Northern California. We have performed a site-specific probabilistic ground motion analysis using FRISKSP (Blake, 2000) computer program. The probabilistic analysis was performed using attenuation equations published by Boore et al., 1997; Bozorgnia et al, 1999; Sadigh et al., 1997; and Campbell and Bozorgnia, 1997. The probabilistic analysis indicates that the average peak horizontal ground acceleration (PHGA) corresponding to 10 percent probability of exceedance in 50 and 100 years are 0.53g and 0.63g, respectively. These values were obtained by averaging the results of the above-referenced attenuation equations. The magnitude weighted PHGA (used for liquefaction analyses) is calculated to be 0.38g for a moment magnitude of 7.5 using Idriss' magnitude-weighting factor (1998).

Site seismic horizontal response spectrums based on attenuation relationship of Sadigh were prepared for average return periods of 475 years (10 percent probability of exceedance in 50 years) and 949 years (10 percent probability of exceedance in 100 years) and at damping ratios of 5, 7, and 10 percent. The response spectra from the 1997 U.B.C./2001 C.B.C. is also provided.

The seismic horizontal response spectrums and the results of our analysis are presented in Appendix D.

2.8 U.B.C. Seismic Parameters

The following are the seismic soil parameters per the 1997 U.B.C., and the 2001 C.B.C. (Section 1636):

Soil Profile Type = S_D
Seismic Zone = 4
Seismic Source Type = A
Near Source Factor, Na = 1.14
Near Source Factor, Nv = 1.47

Refer to Appendix D.

2.9 Corrosion Potential

A corrosion suite (pH, resistivity, soluble sulfate, and chloride content) was performed on a sample obtained from LGC-1 to estimate the corrosion potential of onsite soils. The resistivity tests resulted in a minimum resistivity value of 13,480, pH value of 5.8, and chloride content of 43 ppm. The result of the soluble sulfate content test was less than 0.10 percent ("negligible" per 1997 U.B.C/2001 C.B.C. Table 19-A-4). Caltrans defines a corrosive area where any of the following conditions exist: the soil contains more than 500 ppm of chlorides, more than 2,000 ppm (0.2 percent) of sulfates, or a pH of 5.5 or less.

3.0 CONCLUSIONS

Based on the results of our subsurface investigation and our understanding of the proposed development, it is our opinion that the proposed development is feasible from a geotechnical standpoint, provided the recommendations contained in the following sections are incorporated during site construction and earthwork. A summary of our geotechnical conclusions follows:

- Based on our investigation and review of pertinent geologic maps and reports, the majority of the site is underlain by undocumented artificial fill materials, which are in-turn underlain by Temescal Formation materials.
- Ground water was encountered during our recent investigation at depths between approximately 10 and 15 feet below existing grades. The historic high ground water level is approximately 5 feet below existing ground surface.
- Active or potentially active faults are not known to exist on the site. The nearest known active fault to the site is the Hayward fault located approximately 6.6 kilometers from the site.
- The proposed development will likely be subjected to strong seismic ground shaking during its design life. The estimated peak horizontal ground acceleration with a 10 percent of probability of exceedance in 50 and 100 years is 0.53g and 0.63, respectively.
- The site is not located within a Seismic Hazard Zone for liquefaction. However, based on the results of our analysis, sand layers located in upper approximately 30 feet below existing ground surface have the potential for liquefaction during the design earthquake. Liquefaction analysis was performed for the historic high ground-water depth of approximately 5 feet below existing grades. Total seismic settlements are estimated to be on the order of 2 ½ inches.
- Based on laboratory test results, the onsite soils are anticipated to have very low to low potential for expansion. However, this should be confirmed at the completion of site earthwork.
- Based on laboratory test results, the onsite soils have a negligible potential for sulfate attack on normal concrete. However, this should be confirmed at the completion of site excavation.

4.0 RECOMMENDATIONS

The following recommendations are to be considered preliminary, and should be confirmed upon completion of site plans, grading, and earthwork operations. In addition, they should be considered minimal from a geotechnical viewpoint, as there may be more restrictive requirements from the architect, structural engineer, building codes, governing agencies, or the owner.

It should be noted that the following geotechnical recommendations are intended to provide the owner with sufficient information to develop the site in general accordance with the 2001 C.B.C. requirements. With regard to the potential occurrence of potentially catastrophic geotechnical hazards such as fault rupture, earthquake-induced landslides, liquefaction, etc., the following geotechnical recommendations should provide adequate protection for the proposed development to the extent required to reduce seismic risk to an "acceptable level". The "acceptable level" of risk is defined by the California Code of Regulations as "that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project" [Section 3721(a)]. Therefore, repair and remedial work of the proposed structures may be required after a significant seismic event. With regards to the potential for less significant geologic hazards to the proposed development, the recommendations contained herein are intended as a reasonable mitigation against the potential damaging effects of these phenomena such as expansive soils, fill settlement, ground water seepage, etc. It should be understood, however, that our recommendations are intended to maintain the structural integrity of the proposed development and structures given the site geotechnical conditions, but cannot preclude the potential for some cosmetic distress or nuisance issues to develop as a result of the site geotechnical conditions.

4.1 Site Earthwork

We anticipate that earthwork at the site will consist of demolition of the existing structures on the site, pile driving, foundation construction, utility construction, and paving of the entrance drives. We recommend that earthwork onsite be performed in accordance with the following recommendations and the City of Oakland Requirements. In case of conflict, the following recommendations shall supersede all previous recommendations. The following recommendations should be considered preliminary and may be revised based on the actual conditions exposed during construction. If necessary, revisions will be provided based on encountered conditions.

4.1.1 Site Preparation

During preparation for the building footprint of the proposed structure, debris should be removed and properly disposed of offsite. Holes resulting from the removal of buried obstructions should be replaced with suitable compacted fill material (also see section 4.1.2).

4.1.2 Removal and Recompaction

Based on our review of the preliminary site plan, the proposed building footprint will include the entire site with the exception of a perimeter sidewalk and associated driveway approaches.

Building (Non-Structural) Slab on Grade: Undocumented fill soils should be completely removed to competent formational material and replaced with fill compacted to a minimum of 90 percent relative compaction (based on American Society for Testing and Materials [ASTM] Test Method D1557). The envelope for removals should extend a minimum distance of 5 horizontal feet beyond the edges of proposed improvement footprint. Based on our preliminary investigation, it is anticipated that removal depths ranging from approximately 5 to 10 feet across the site will be required. In lieu of performing removals for the proposed building slab, a structural slab designed to completely span between pile caps and grade beams may be constructed. Refer to Section 4.2.5.

Sidewalk and Driveway Approaches: The subgrade for the proposed sidewalk and driveway approaches should be overexcavated a minimum depth of 1 foot and recompacted to a minimum of 90 percent relative compaction.

Local conditions may be encountered which could require additional overexcavation. The actual depths and lateral extents of grading should be determined by the geotechnical consultant, based on the subsurface conditions encountered during grading. It should be noted that removal excavations may encounter ground water and placement of an approximately 8-inch thick layer of ¾-inch gravel (or alternative acceptable procedure) may be required in order to obtain an adequate subgrade prior to fill placement.

From a geotechnical perspective, the onsite soils are generally suitable for use as compacted fill, provided they are screened of organic materials, construction debris, and have a maximum diameter of 8 inches. Areas prepared to receive structural fill and/or other surface improvements should be scarified, brought to at least optimum-moisture content, and recompacted to at least 90 percent relative compaction (based on ASTM Test Method D1557). The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, granular fill should be placed in uniform lifts not exceeding 8 inches in compacted thickness. Generally, placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant. Oversized material (material larger than 8 inches in maximum dimension) should not be used.

4.1.3 Trench Backfill and Compaction

The onsite soils may generally be suitable as trench backfill provided the soils are screened of rocks and other material greater than 6 inches in diameter and organic matter. If trenches are shallow or the use of conventional equipment may result in damage to the utilities, a clean sand having a sand equivalent (SE) of 30 or greater (per Caltrans Test Method 217) or pea gravel may be used to bed and shade the pipes. Subsequent trench backfill should be compacted in uniform lifts (generally not exceeding 12 inches) to at least 90 percent relative compaction (per ASTM Test Method D1557). A representative from LGC should observe and test the backfill to verify compliance with the project specifications.

4.2 Preliminary Foundation Recommendations

Based on our field investigation, laboratory testing, and analyses, we recommend that the proposed tower be placed on a deep foundation system. The deep foundation may consist of 14-inch square precast concrete driven piles. Driven piles would be preferable to drilled piers due to the shallow ground water present at the site which may necessitate utilization of drilling polymers or casing during construction to reduce the potential for caving.

4.2.1 Driven Pile Foundations

An allowable axial compressive capacity of 200 kips may be used for 14-inch square concrete piles driven a minimum of 5 feet into the dense sand layer located approximately 30 to 35 feet below existing ground surface. For preliminary planning purposes, pile lengths on the order of 40 feet may be assumed. This allowable compressive capacity is primarily based on end-bearing and has been reduced due to potential downdrag (estimated at approximately 70 kips) due to site liquefaction potential. An allowable uplift axial capacity of 75 kips may be used in the design. These allowable pile capacities values are based on a factor of safety of 2.0.

It should be noted that the provided pile capacities are based on soil strengths alone. The actual capacities may be limited to lesser values by the strength of the pile materials and connections. For seismic or other short-term loading, the provided capacities may be increased by one-third. Piles should be spaced at a minimum on-center spacing of three times the pile width.

Lateral load analysis was conducted for a pile top deflection of ¼ inch for both fixed and free head conditions for a 14-inch square driven pile. The profiles of deflection, shear force, and maximum induced bending moment along the length of the piles are presented in Figure 3A (Fixed Head) and Figure 3B (Free Head). It should be noted that the provided curves are ultimate values and therefore do not include a factor of safety.

The total and differential static settlement of the piles is estimated to be on the order of ½ and ¼ inch, respectively. The foundation plan should be reviewed to confirm anticipated differential settlements.

4.2.2 Driven Piles – Construction

Due to the dense to very dense nature of the sand layer, the contractor should anticipate difficult driving conditions below a depth of approximately 30 feet below grade, isolated dense cobble and/or sand lenses may also occur above this depth. Predrilling to within 1 to 2 feet of the required embedment depth may be required for installation of the driven piles. Caving may be encountered during predrilling within the upper 30 feet of the subsurface materials. The depth of the very dense sand layer is anticipated to vary across the site resulting in varying pile lengths.

Any pre-drilling should be performed with an auger that has a cross-sectional area not exceeding 80 percent of the cross-section area of the pile. Pile driving should not be terminated until blow counts are greater than the minimum required in order to achieve the required allowable pile loads. Refusal is typically defined as the driving resistance corresponding to three times the required blow counts. Final driving criteria should be developed using wave equation analysis incorporating the results of the pile indicator program outlined below. A representative from LGC should be onsite full-time during pile driving operations.

4.2.3 Pile Indicator Program

Prior to production of foundation piles, we recommend that an indicator pile-driving program be performed to verify pile lengths and to evaluate the efficiency of the pile driving system. The program should be determined and coordinated through cooperation between LGC and a qualified local contractor. The exact locations and number of the indicator piles should be determined after the final layout and design loads have been established. Dynamic measurements during the indicator pile program using a Pile Driving Analyzer (PDA) is recommended for all indicator piles in order to evaluate blowcounts and refusal criteria required to obtain design capacities. The indicator pile-driving program should be observed and monitored by LGC. Prior to implementation, the geotechnical consultant should be provided with information on pile size and pile-driving equipment to develop pile-driving criteria. A vibration specialist should review the proposed pile-driving program and provide recommendations regarding potential vibration and its impact on adjacent structures.

4.2.4 Alternative Pile Systems

It is our understanding that "screwed-in" steel pipe piles filled with structural concrete typically referred to as full displacement piles (FDPs) are being considered as an alternative to driven piles. If FDPs are selected as an acceptable alternative, load testing in compression and tension should be performed prior to construction to establish pile capacities. The program should be determined and coordinated through cooperation between LGC and an experienced specialty contractor. LGC should perform full time observation during load testing operations. At the completion of load testing, LGC will provide axial and lateral capacities for the FDPs in a supplemental report.

4.2.5 Building Slab on Grade

The building slab may either be structural slab or a slab on grade provided that earthwork removals outlined in Section 4.1.2 are properly implemented. A structural slab should be designed to completely span between pile caps and grade beams assuming no support of underlying subgrade soils. In addition to not requiring earthwork removals within the building slab footprint, consideration should be given to providing a structural slab in order to minimize the potential for cracking following a moderate to large earthquake due to site liquefaction potential. Cracking and differential settlement of slabs on grade (non-structural slabs) and subsequent required repairs should be anticipated following a moderate to large earthquake.

Interior floor slabs with moisture sensitive floor coverings should be underlain by a moisture/vapor retarder to help reduce the upward migration of moisture from the underlying subgrade soils. The moisture/vapor retarder product used should meet the performance standards of an ASTM E 1745 Class A material, and be properly installed in accordance with ACI publication 302. It is the responsibility of the contractor to ensure that the moisture/vapor retarder systems are properly placed in accordance with the project plans and specifications, and that the moisture/vapor retarder materials are free of tears and punctures prior to concrete placement. Additional moisture reduction and/or prevention measures may be needed, depending on the performance requirements of future interior floor coverings.

Recommendations are traditionally included with geotechnical foundation recommendations for sand layers placed below slabs and above/below vapor retarders for the purpose of protecting the retarder and to assist in concrete curing. Sand layer requirements are the purview of the foundation engineer/structural engineer. We have provided recommendations that we consider to be a minimum from a geotechnical perspective

4.3 Soil Bearing

At-grade minor improvements on compacted fill material after recommended removals, such as small lightweight structures, retaining walls, trash enclosures, etc. may be supported on spread footings. An allowable soil bearing pressure of 2,000 pounds per square foot (psf) may be used for the design of footings having a minimum width 12 inches and minimum embedment of 24 inches into compacted fill (measured from the lowest adjacent ground surface). This value may be increased by 300 psf for each additional foot of embedment and 100 psf for each additional foot of foundation width to a maximum value of 3,000 psf. Footings should be a minimum of 2 feet below lowest adjacent grade. These allowable bearing pressures are applicable for level (ground slope equal to or flatter than 5H:1V) conditions only.

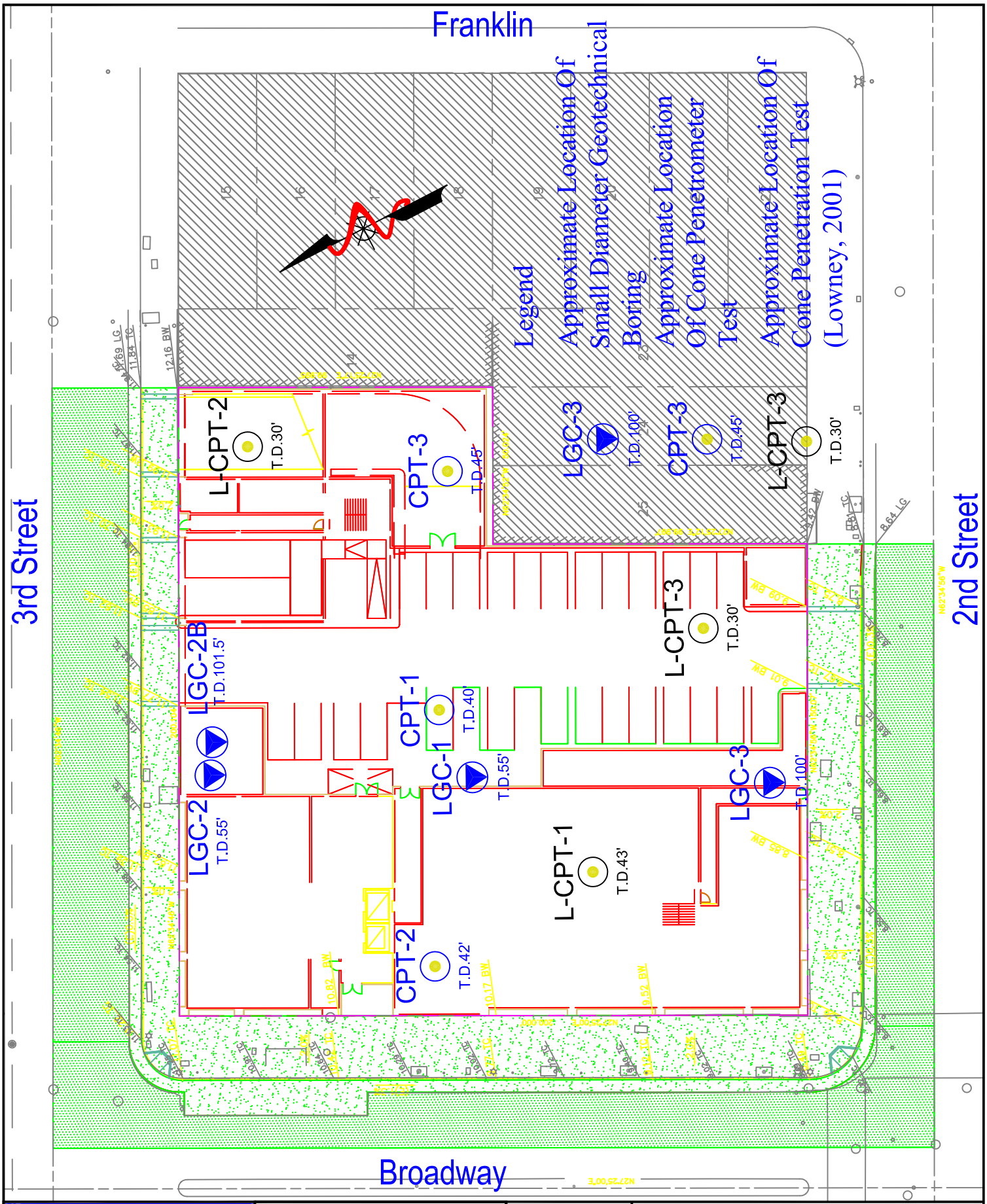
Bearing values indicated above are for total dead loads and frequently applied live loads. The above vertical bearing may be increased by one-third for short durations of loading which will include the effect of wind or seismic forces.

4.4 Lateral Earth Pressures

At this time, no subterranean structures or retaining walls are planned for the proposed development. However, the following preliminary recommendations are provided in the event retaining walls are chosen for the project.

Lateral earth pressures are provided as equivalent fluid unit weights, in psf/ft of depth or pcf. These values do not contain an appreciable factor of safety, so the civil and/or structural engineer should apply the applicable factors of safety and/or load factors during design. A soil unit weight of 125 pcf may be assumed for calculating the actual weight of soil over the wall footing.

Retaining wall structures should be provided with adequate backfill drainage and waterproofing to reduce the potential for ground water seepage below the ground-water table as well as nuisance water issues that may develop above the ground water table. Backfill drainage typically consists of vertical



PROJECT NAME	- 222 Broadway
PROJECT NO.	- 041084-01
ENG. / GEOL.	- BTZ / KBC
SCALE	- NTS
DATE	- August 2005

FIGURE 2
Boring Location Map

Geotechnical Boring Log LGC-1

Date: 02/28/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Hollow Stem**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 10' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 1 of 2**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
10	0							**Undocumented Fill**	
								@0' - Asphalt Concrete	
			B-1				SP-SM	@2'- Fine Sand: brown, moist, slightly silty	EI CR
5	5		R-1	1 3 6	107.8	7.1		@5'- Fine Sand: brown, moist, loose	CN
								Temescal Formation	
0	10		SPT-2	6 10 12				@10'- Fine Sand: brown, wet, medium dense; slightly silty.	
-5	15	▼	R-3	4 7 6	114.9	15.0	SM	@15'- Silty Fine Sand: brown to gray brown, very moist to wet, loose Ground water encountered at approximately 15 feet	
-10	20		SPT-4	5 7 9				@20'- Silty Fine Sand: gray brown, with orange mottling, wet, medium dense	SA
-15	25		R-5	5 7 9	114.6	16.9		@25'- Silty Fine Sand: gray brown and orange brown, very moist to wet, slightly to medium dense.	DS
-20	30								

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THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE

Geotechnical Boring Log LGC-1

Date: 02/28/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Hollow Stem**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 10' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 2 of 2**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-20	30		SPT-6	8 21 27			SM	@30'- Silty Fine Sand: gray brown, wet, dense	SA
-25	35		R-7B	23 44 50/5"	112.0	16.3		@35'- Silty Fine to Medium Sand: gray brown, wet, very dense	
-30	40		SPT-8	11 30 32				@40'- Fine Sand: brownish gray, wet, very dense	
-35	45		R-9	38 50/3"	113.7	18.6		@45'- Fine Sand slightly silty: gray brown, wet, very dense	
-40	50		SPT-10	16 38 50/4"				@50'- Fine to Medium Sand: gray, wet, very dense; slightly silty	
-45	55		R-11	50/4"				@55'- No recovery: auger plugged.	
								Total depth: 55.3' **Ground Water encountered at approximately 15'** **Backfilled with grout**	
-50	60								

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CR	CORROSION
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CO	COLLAPSE/SWELL
RV	R-VALUE

Geotechnical Boring Log Borehole LGC-2

Date: 02/28/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Hollow Stem Auger**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location	**Page: 1 of 2**

Logged By: RM
Sampled By: RM

Map Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
12	0		B-1					**Undocumented Fill** @0' - Asphalt Concrete	EI MAX
7	5		SPT-1	1 2 2			SM	@5' Silty Fine Sand: light brown, very moist, loose	
2	10	▼	R-2	9 18 20	117.9	11.5		**Temescal Formation** @10' Silty Fine Sand: mottled gray with brown,very moist to wet, medium dense Ground water encountered at 12'	
-3	15		SPT-3	4 5 5				@15' Silty Fine Sand: mottled gray with orange brown, loose; slightly clayey	
-8	20		R-4	10 13 10	113.0	18.7		@20' Silty Fine Sand: brown with some gray mottling, very moist, medium dense	DS
-13	25		SPT-5	2 5 7				@25' Silty Fine Sand: gray brown, wet, medium dense; slightly clayey	
-18	30								

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CO	COLLAPSE/SWELL
RV	R-VALUE

Geotechnical Boring Log Borehole LGC-2

Date: 02/28/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Hollow Stem Auger**
Project Number: 04184-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Geotechnical Map	**Page: 2 of 2**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-18	30		R-6	15 35 50/ 5"	114.7	15.9	SM	@30' Silty Fine Sand: gray brown, wet, very dense	
-23	35		R-7	17 28 28	113.0	16.1		@35' Silty Fine Sand: gray brown, wet, dense	DS
-28	40		R-8	16 22 33				@40' Silty Fine Sand: gray,with orange brown mottling, very moist to wet, dense	
-33	45		SPT-9	10 16 27				@45' Silty Fine Sand: gray, wet, dense	
-38	50		R-10	17 50/5"				@50' Silty Fine Sand: gray, moist, very dense	
-43	55		SPT-11	26 25 17				@55 No recovery; auger plugged	
								Total depth: 55' **Ground Water @ approximately 15' - 20'** **Backfilled with grout.**	
	60								

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RV	R-VALUE

Geotechnical Boring Log LGC-2B

Date: 03/02/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 1 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
12'	0							**Undocumented Fill** @0' - Asphalt Concrete	
7'	5								
2'	10							**Temescal Formation**	
		▼						Ground water encountered at approximately 12 feet	
-3'	15		R-1	9 13 13	115.3	15.0	SM	@ 15'- Silty Fine Sand: brown, wet, medium dense	CN 27% Fines
-8'	20		SPT-2	5 9 9				@ 20'- Silty Fine Sand: brown, wet, medium dense	27% Fines
-13'	25		SPT-3	2 2 3				@ 25'- Silty Fine Sand: brown with gray mottling, wet, loose	SA
-18'	30								

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Geotechnical Boring Log LGC-2B

Date: 03/02/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 2 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-18'	30		SPT-4	5 12 19			SM	@ 30'- Silty Fine Sand: gray brown to orange brown, wet, dense	SA
-23'	35		SPT-5	13 20 25				@ 35'- Silty Fine Sand: gray to brown gray, wet, dense	
-28'	40		SPT-6	11 15 16				@ 40'- Silty Fine Sand: gray brown, wet, dense	SA
-33'	45		SPT-7	18 24 29				@ 45'- Silty Fine to Medium Sand: gray brown to brown, wet, very dense	
-38'	50		SPT-8	5 8 9			CL	@ 50'- Fine Sand to Lean Clay: gray with some brown mottling, wet, medium dense	S&H AL
-43'	55		R-9	6 7 7	108.7	17.2	SM	@ 55'- Silty Fine Sand: gray brown, wet, loose; possibly disturbed	
-48'	60								

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Geotechnical Boring Log LGC-2B

Date: 03/02/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 3 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-48'	60		SPT-10	12 11 9			SM	@ 60'- Silty Fine Sand: medium to dark gray, wet, medium dense; with trace clay	
-53'	65		R-11	6 10 13	110.3	18.1	SC	@ 65'- Silty Clayey Fine Sand: fine, gray brown, wet, medium dense to stiff	CN
-58'	70		SPT-12	4 5 7			CL	@ 70'- Silty Clay to Clayey Silt: gray with minor brown mottling, very moist, firm; slightly sandy. Top has more clay, stiff.	S&H AL
-63'	75		SPT-13	5 8 10				@ 75'- Silty Clay: gray to blue gray with brown mottling, moist, very stiff	
-68'	80		R-14	9 12 14	107.3	20.0		@ 80'- Sandy Clay to Clay: mottled light to medium green gray, moist, very stiff	
-73'	85		SPT-15	2 4 6				@ 85'- Silty Clay: greenish gray with minor brown mottling, moist, stiff.	
-78'	90								

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Geotechnical Boring Log LGC-2B

Date: 03/02/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 12' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 4 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-78'	90		R-16	4 6 8	70.1	50.3	CL	@ 90'- Silty Clay to Clay: gray green, moist, stiff.	
-83'	95		SPT-17	2 3 4				@ 95'- Clay to Silty Clay: medium to dark gray, moist, medium stiff	
-88'	100		R-18	10 17 24	113.9	16.7		@ 100'- Silty Clay to Clayey Silt: gray green, moist, very stiff; with fine sand	
								Total depth: 101.5' **Ground Water encountered at approximately 12'** **Backfilled with grout**	

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CO	COLLAPSE/SWELL
RV	R-VALUE

Geotechnical Boring Log LGC-3

Date: 03/01/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 9' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 1 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
9'	0							**Undocumented Fill** @0' - Asphalt Concrete	
4'	5		R-1	2 6 7	114.5	15.4	SM	@ 5'- Silty Fine Sand: gray with orange brown, moist, loose	
-1'	10	▼	SPT-2	7 8 9				**Temescal Formation** @ 10'- Silty Fine Sand: orange to gray brown, wet, medium dense Ground water was encontered at approximately 10'	17% Fines
-6'	15		R-3	15 13 10	118.7	14.7		@ 15'- Silty Fine Sand: orange brown to gray, wet, medium dense	DS
-11'	20		SPT-4	4 7 10				@ 20'- Silty Fine Sand: gray brown, wet, medium dense	16% Fines
-16'	25		R-5	4 5 5				@ 25'- No Recovery	
-21'	30								

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Geotechnical Boring Log LGC-3

Date: 03/01/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 9' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location	**Page: 2 of 4**

Logged By: RM
Sampled By: RM

Map Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-21'	30		SPT-6	7 12 18			SM	@ 30'- Silty Fine Sand: gray with orange brown, wet, medium dense to dense	
-26'	35		R-7	19 33 34				@ 35'- Silty Fine to Medium Sand: gray brown, wet, dense	
-31'	40		SPT-8	10 21 33				@ 40'- Silty Fine to Medium Sand: gray brown, wet, very dense	
-36'	45		R-9	31 49 42	113.3	18.1		@ 45'- Silty Fine to Medium Sand: brownish gray, moist to wet, very dense	
-41'	50		SPT-10	13 26 39				@ 50'- Silty Fine Sand: gray, wet, very dense	
-46'	55		R-11	24 45 50/5"	113.7	18.1		@ 55'- Silty Fine to Medium Sand: gray, wet, very dense	
-51'	60								

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SA	SIEVE ANALYSIS
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EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE

Geotechnical Boring Log LGC-3

Date: 03/01/05	**Drilling Company: Gregg**
Project Name: 222 Broadway	**Type of Rig: Mud Rotary**
Project Number: 041084-01	**Drop: 30"** **Hole Diameter: 8"**
Elevation of Top of Hole: 9' MSL	**Drive Weight: 140 pounds**
Hole Location: See Boring Location Map	**Page: 3 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-51'	60		SPT-12	5 9 11			CL	@ 60'- Silty Clay with trace of Sand: medium gray, very moist, very stiff	
-56'	65		R-13	7 16 24	111.7	17.6		@ 65'- Silty Clay: medium to dark gray with minor brown mottling, moist, very stiff	
-61'	70		SPT-14	6 8 11				@ 70'- No Recovery	
-66'	75		R-15	8 12 13	109.1	20.4		@ 75'- Silty Clay: medium to dark gray, moist, stiff	
-71'	80		SPT-16	8 9 10			SC/CL	@ 80'- Clayey Fine Sand to Sandy Clay: gray, very moist to wet, medium dense to stiff	
-76'	85		R-17	5 6 9			CL	@ 85'- Silty Clay: medium to dark gray with greenish gray mottling, moist, stiff; minor orange brown mottling	
-81'	90								

LAWSON AND ASSOCIATES
GEOTECHNICAL CONSULTING, INC.

LGC

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
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Hole Location: See Boring Location Map	**Page: 4 of 4**

Logged By: RM
Sampled By: RM

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
-81'	90		SPT-18	1 3 2			CL	@ 90'- Silty Clay to Clay: medium to dark gray, moist, medim stiff	
-86'	95		R-19	3 6 6				@ 95'- Clay to Silty Clay: medium to dark gray, moist, medium stiff; occasional shell fragment	
-91'	100		SPT-20	6 9 12				@ 100'- No Recovery	
								Total depth: 101.5' **Ground water encoutered at approximately 10 feet** **Backfilled with grout**	

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GEOTECHNICAL CONSULTING, INC.

LGC

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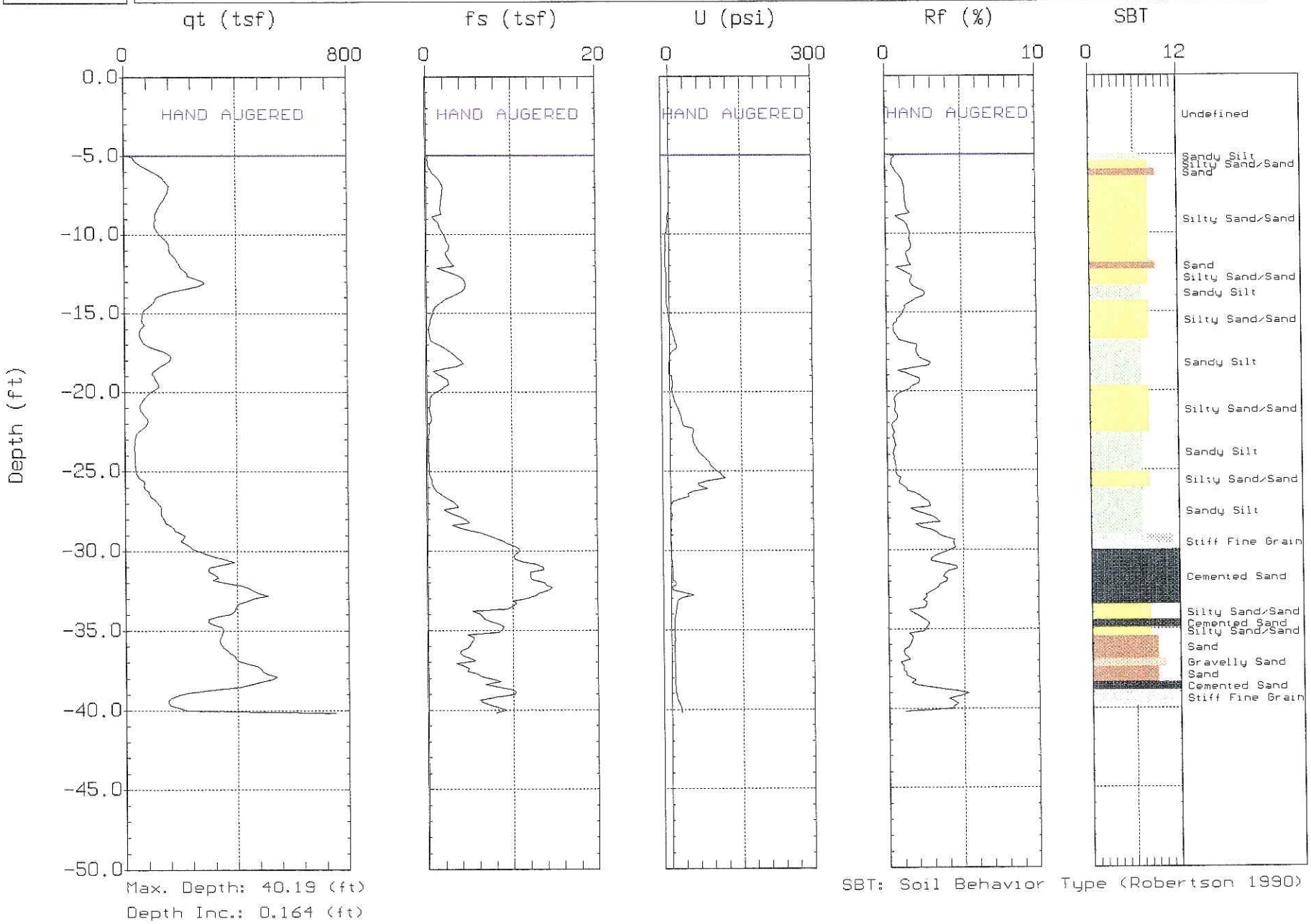
CO	COLLAPSE/SWELL
RV	R-VALUE

GREGG

LGC

Site: 222 BROADWAY ST.
Location: CPT-01A

Engineer: R. MUNRO
Date: 02:22:05 08:42



Max. Depth: 40.19 (ft)
Depth Inc.: 0.164 (ft)

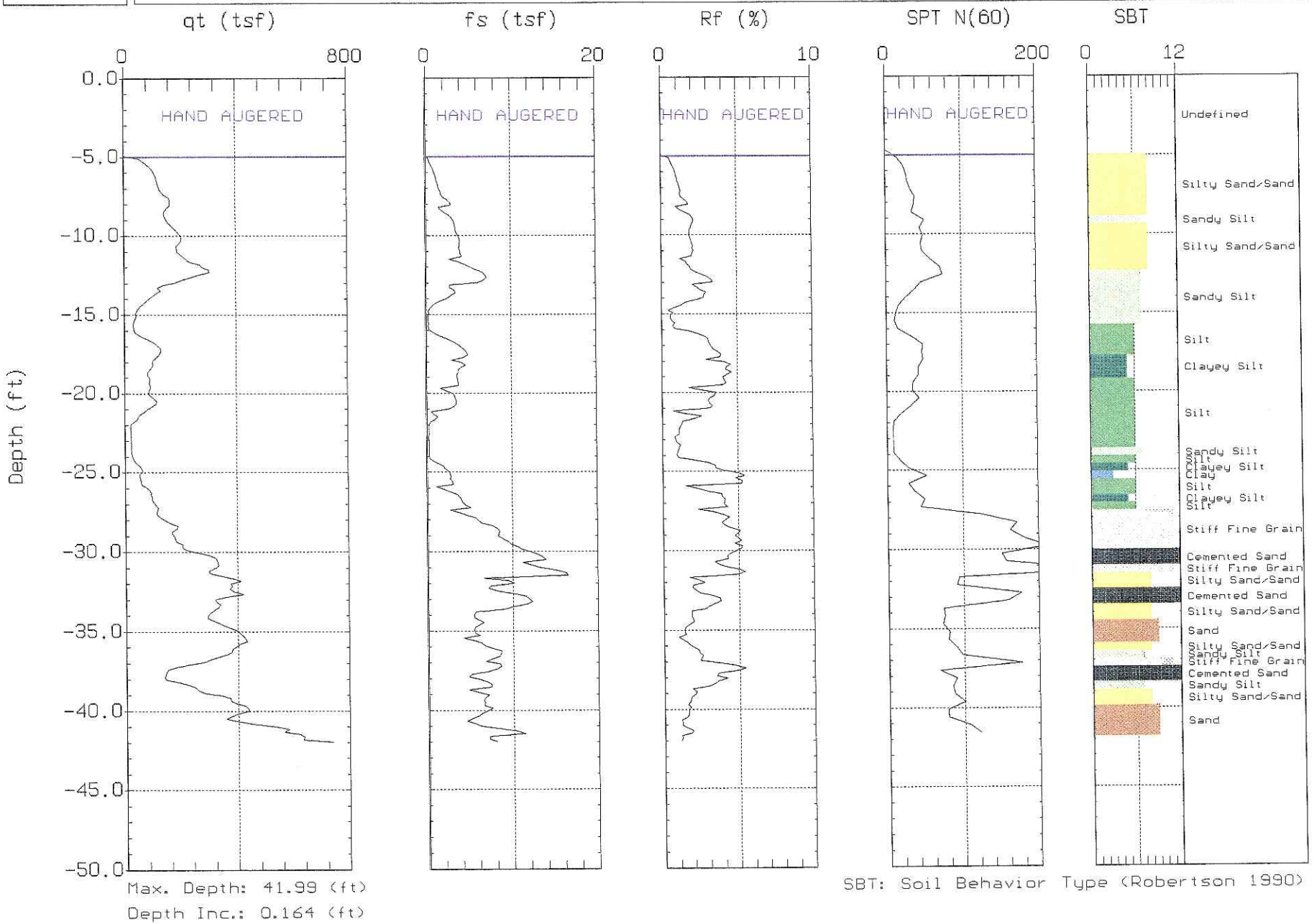
SBT: Soil Behavior Type (Robertson 1990)

GREGG

LGC

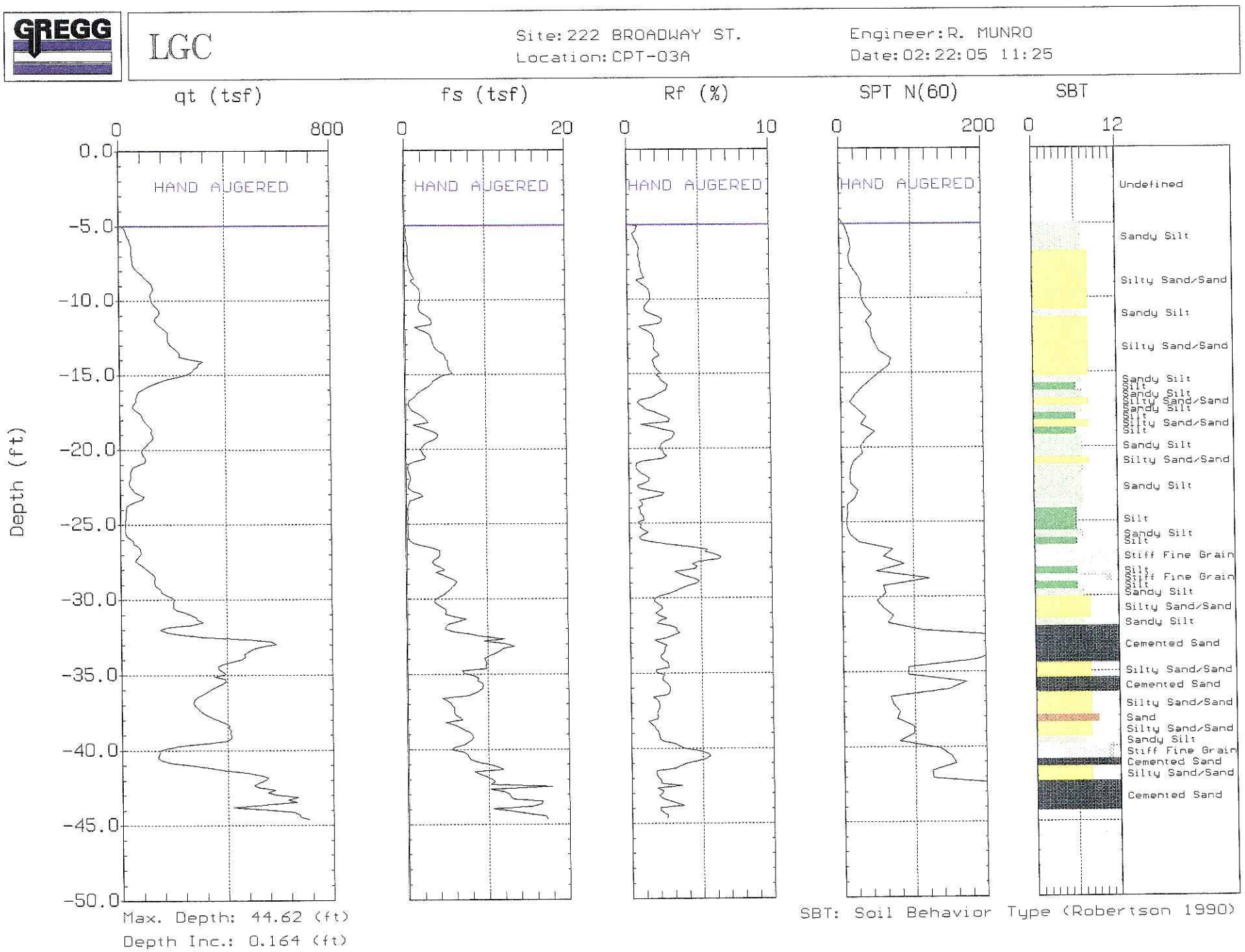
Site: 222 BROADWAY ST.
Location: CPT-02A

Engineer: R. MUNRO
Date: 02:22:05 10:15



Max. Depth: 41.99 (ft)
Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)


GREGG
LGC
Site: 222 BROADWAY ST.
Location: CPT-03A
Engineer: R. MUNRO
Date: 02:22:05 11:25
qt (tsf)
fs (tsf)
Rf (%)
SPT N(60)
SBT
0
800
20
10
200
12
0.0
-5.0
-10.0
-15.0
-20.0
-25.0
-30.0
-35.0
-40.0
-45.0
-50.0
Depth (ft)
HAND AUGERED
Undefined
Sandy Silt
Silty Sand/Sand
Silt
Stiff Fine Grain
Cemented Sand
Sand
Max. Depth: 44.62 (ft)
Depth Inc.: 0.164 (ft)
SBT: Soil Behavior Type (Robertson 1990)

From Lowney, 2001

APPENDIX A
FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using a truck-mounted, Cone Penetration Test (CPT) equipment. Three CPTs were performed on February 15, 2001, to a maximum depth of 43 feet. The approximate locations of the exploratory CPTs are shown on the Site Plan, Figure 2. The CPTs were performed in accordance with method ASTM D3441-86, by hydraulically pushing an instrumented probe into the ground. The probe utilized was an electronic friction-cone penetrometer that consisted of a 1.40-inch-diameter shaft with a conical tip that projects an area of 1.55 square inches. The cone is pushed continuously with a rate of penetration of 2 to 4 feet per minute.

The CPT cone measures tip resistance, sleeve friction, pore water pressure, and probe inclination at approximately 2-inch intervals. The data from the CPT probe was interpreted and a graphically representation of tip resistances, friction ratio (sleeve friction/tip resistance), equivalent penetration resistance, and estimated soil type is presented on the logs. The logs of the CPTs, as well as a key to the classification of the soil, are included as part of this appendix.

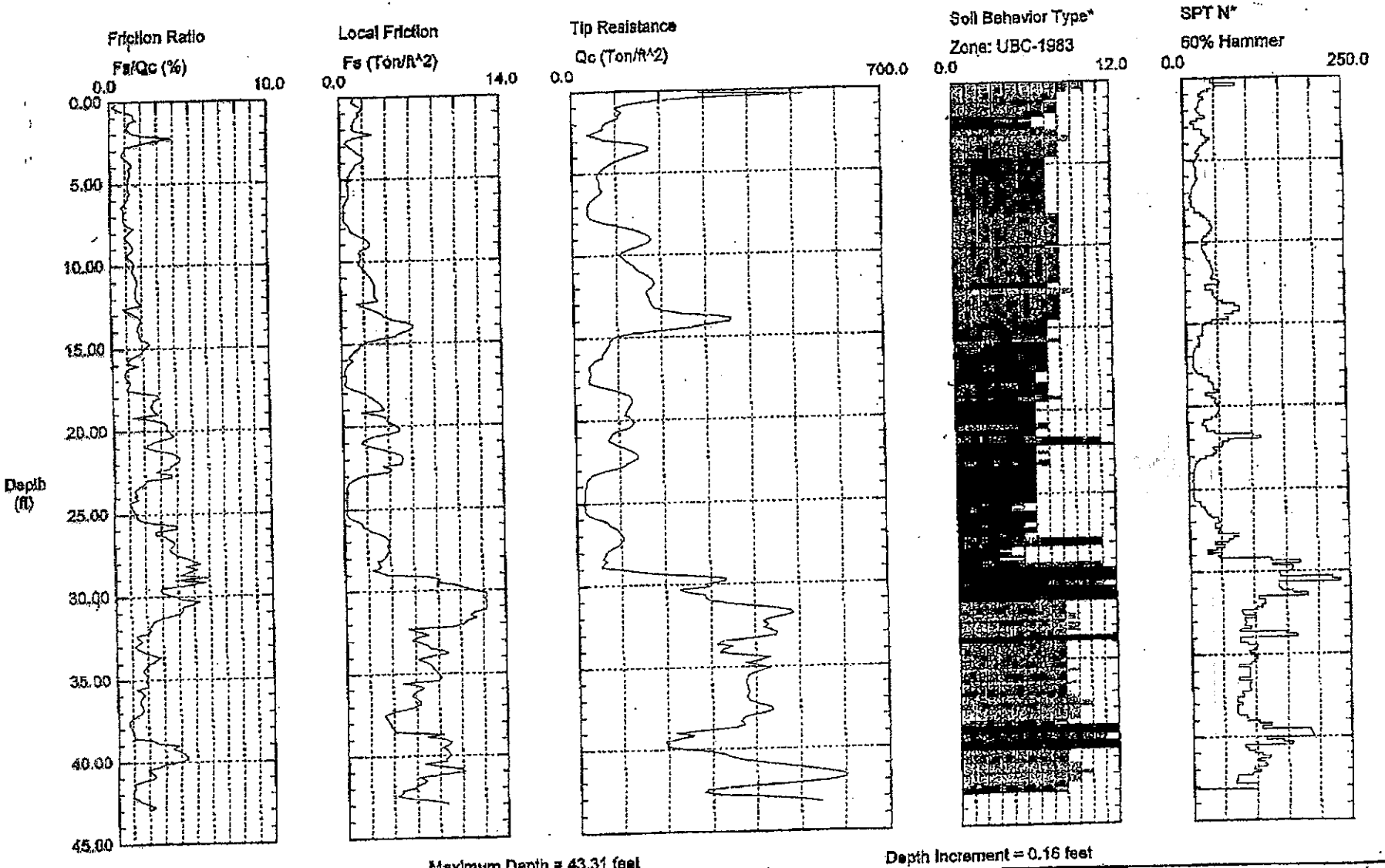
The locations of CPTs were approximately determined by tape measurement from existing site boundaries. Elevations of the CPTs were not determined. The locations of the CPTs should be considered accurate only to the degree implied by the method used.

The attached CPT logs and related information depict subsurface conditions only at the locations indicated and at the particular date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these CPT locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

* * * * * * * * * * * *

Operator: TIM d'ARCY
Sounding: 01W070
Cone Used: HO247TCU2

CPT Date/Time: 02-15-01 09:17
Location: CPT-1
Job Number: P10564



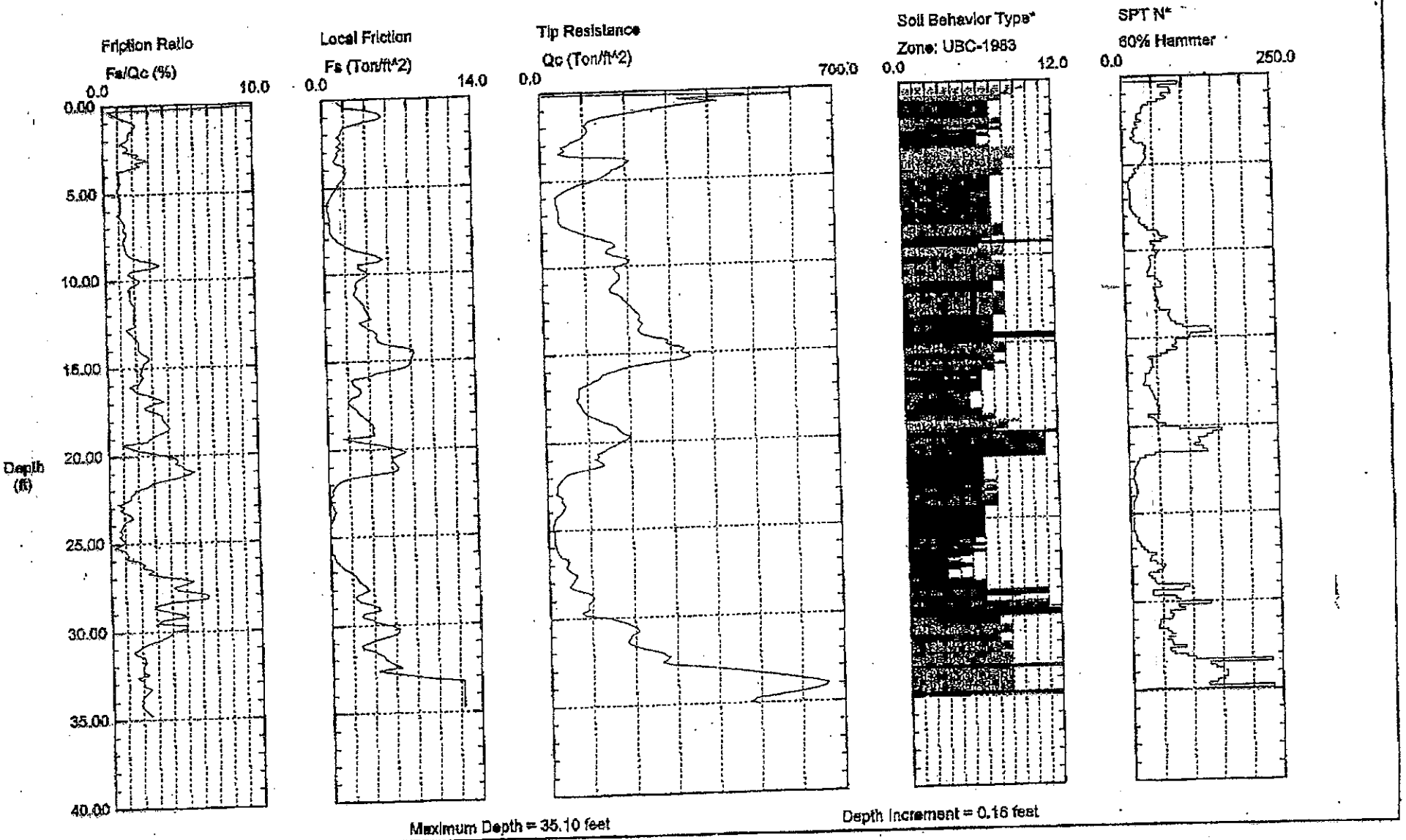
CONE PENETRATION TEST CPT-1

BROADWAY & 3RD STREET

Oakland, California

Operator: TIM d'ARCY
Sounding: 01W072
Cone Used: HO247TCU2

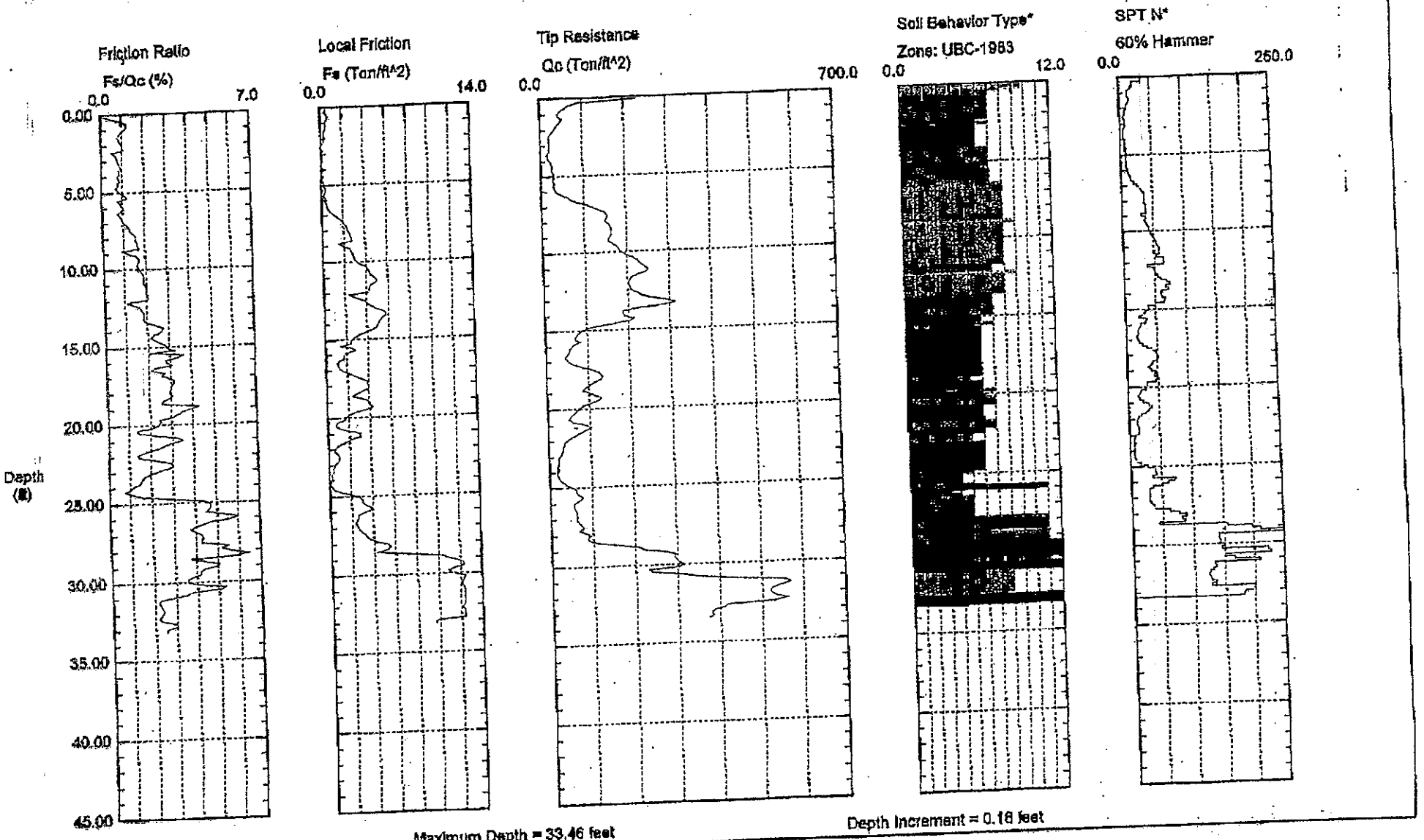
CPT Date/Time: 02-16-01 10:39
Location: CPT-2
Job Number: P10564



CONE PENETRATION TEST CPT-2
BROADWAY & 3RD STREET
Oakland, California

Operator: TIM d'ARCY
Sounding: 01W076
Cone Used: HO247TCU2

CPT Date/Time: 02-15-01 12:06
Location: CPT-3
Job Number: P10564



CONE PENETRATION TEST CPT-3

BROADWAY & 3RD STREET

Oakland, California