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Alameda County
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March 6, 2012

Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Attention: Mark Detterman

Subject: Amended Workplan to Conduct Additional Investigative Activities
3800 San Pablo Avenue, Emeryville, California
ACDEH Fuel Leak Case: RO00002520; Global ID: T06019788682

Ladies and Gentlemen:

Attached please find a copy of the *Amended Workplan to Conduct Additional Investigative Activities* prepared by Gribi Associates. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Very truly yours,



William H. Banker, Jr.
San Pablo Avenue Venture
c/o Banker, Marks & Kirk
1720 Broadway, Suite 202
Oakland, CA 94612



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Ladies and Gentlemen:

Gribi Associates is pleased to submit this amended workplan on behalf of San Pablo Avenue Venture for the former Maz Glass underground storage tank (UST) site located at 3800 San Pablo Avenue in Emeryville, California (Site) (see Figure 1 and Figure 2). This workplan provides results of preliminary Phase I environmental site assessment activities and proposes additional investigative activities for the Site. The goal of these activities will be to provide the additional site characterization necessary to develop a Conceptual Site Model (CSM) and Corrective Action Plan (CAP) for the Site. All activities will be conducted in accordance with the approved workplan and with applicable State and Federal guidelines and statutes.

1.0 SITE BACKGROUND

1.1 General Site Description

The Site is located in a mixed commercial, light industrial, and residential area of southeast Emeryville near the Oakland/Emeryville city border. The Site is bordered to the south by Apgar Street, followed by the West MacArther Boulevard underpass. East from the Site is an auto repair facility, followed by residential properties. The Site is bordered on the west by the Adeline Street and San Pablo Avenue intersection, which extends approximately 100 feet west from the Site. North from the Site are commercial and residential properties. The Site is currently used by the owners for office space and storage.

1.2 General Site Topography and Geologic Setting

According to the USGS Oakland, West, California 7.5-Minute Quadrangle Map, the Site lies on a gently southwest-sloping plain approximately one mile east from San Francisco Bay. The

elevation at the Site is approximately 40 feet above mean sea level. Based on site topography and location, we would expect groundwater flow in the site area to generally be to the west towards San Francisco Bay.

Subsurface soils at the site and in the site area generally consist of clays, with occasional thin, discontinuous silts, sands, and gravels. Groundwater at the site is generally encountered below ten feet in depth.

1.3 Summary of Previous Environmental Investigation Activities

The following sections describe previous underground storage tank (UST) removal activities and environmental investigation activities conducted at the Site.

1.3.1 UST Removal Activities

According to previous reports and records, there were previously two separate UST fueling systems on the Site. One system included two 1,000-gallon gasoline USTs and, while the exact location of these USTs is not known, these USTs were most likely located in the parking lot on the northeast side of the Site. The second system included one 1,000-gallon heating oil UST and one 550-gallon heating oil UST, both located in, and adjacent to, the Adeline Street sidewalk on the northwest property boundary.

The gasoline UST system was apparently removed in 1981, and there is no record of environmental sampling during the removal. The two waste oil USTs were removed in May 2002. One soil sample was collected beneath each of the removed USTs at a depth of approximately seven feet in depth. These soil samples showed up to 440 milligrams per kilogram (mg/kg) of Total Petroleum Hydrocarbons as Gasoline (TPH-G). The UST excavation cavities were subsequently overexcavated, and subsequent soil samples collected at approximately ten feet in depth showed relatively low levels of hydrocarbons.

1.3.2 Site Investigation Activities

In May 2007, Enviro Soil Tech Consultants (ESTC) drilled and sampled seven soil borings, B-1 through B-7, in the small parking lot on the northwest (Adeline Street) side of the Site (see Figure 3 and Figure 4). Soil samples collected at five-foot intervals down to 20 feet in depth showed no significant hydrocarbon detections. Grab groundwater samples from borings B-2, B-4, and B-7, located on the extreme north and south sides of the parking lot, showed no significant hydrocarbon detections. Grab groundwater samples from borings B-1, B-3, B-5, and B-6, located on the middle of the parking lot from the extreme east (building) edge to the southwest (Adeline Street) edge of the lot, showed TPH-G concentrations ranging from 4,500 micrograms per liter (ug/l) to 780,000 ug/l, and Benzene concentrations ranging from 7.5 ug/l to 6,400 ug/l.

The configuration of these groundwater hydrocarbon detections seems to point to a southwest aligned groundwater hydrocarbon plume that originated northeast of the small Adeline Street parking lot itself. This conclusion of a northeasterly source is bolstered by the lack of soil hydrocarbon detections or field evidence of shallow soil impacts in the seven soil borings.

On December 27 and 28, 2011, Gribi Associates drilled and sampled seven investigative borings, B-8 through B-14, on the Site. Boring B-8 was sited on the expected upgradient (northeast) side of the Site, immediately adjacent to the offsite east auto repair facility. Borings B-9, B-10, and B-11 were sited north-to-south on the downgradient side of the 39th Street Site parking lot, immediately northeast from the Site building. Borings B-12, B-13, and B-14 were sited in the Site building immediately northeast from the Adeline Street parking lot.

Soils encountered in the borings generally consisted of clays, with relatively thin discontinuous silty and clayey gravels and sands present in some of the borings. Both field and laboratory analytical results from the seven investigative borings indicated that the previously-identified groundwater hydrocarbon plume beneath the Adeline Street parking lot is localized and did not originate from elsewhere on the Site. Results from borings B-8 through B-11 and B-14, located in an expected upgradient groundwater flow direction from the Adeline Street parking lot, showed no evidence of significant hydrocarbon impacts. Also, the moderate hydrocarbon levels in groundwater samples from borings B-12 and B-13 are lower than most of the hydrocarbon detections in previous borings in the Adeline Street parking lot itself. Thus, it appears that the source, or sources, of the groundwater hydrocarbon impacts in the Adeline Street parking lot are either the former USTs in the Adeline Street sidewalk (removed in 2002) or perhaps fuel dispensers associated with these former USTs.

The report for this investigation (*Soil and Groundwater Investigation Report and Workplan to Conduct Additional Investigative Activities*, Gribi Associates, January 26, 2012) included a workplan that proposed the installation and monitoring of four groundwater monitoring wells in the Adeline Street parking lot and the drilling and sampling of three soil borings on the west side of San Pablo Avenue, approximately 120 feet southwest from the Adeline Street parking lot. Preliminary informal responses from ACEH have indicated that, in addition to the data gaps addressed in the workplan, the following additional questions/data gaps require answers: (1) What is the source, or sources, of gasoline-range hydrocarbons identified in groundwater in the Adeline Street parking lot; and (2) Are there other unidentified hydrocarbon impacts on other areas of the site (given the apparent presence of fuel USTs in the 39th Street parking lot behind the Site building which were removed in 1981).

The following historical records review attempts to assess potential historical sources for the groundwater hydrocarbon impacts beneath the Adeline Street parking lot and for other potential un-identified contaminant impacts beneath the Site. In addition, the amended workplan, which follows the historical records review, attempts to address all relevant data gaps identified for the Site.

2.0 REVIEW OF HISTORICAL RECORDS

In order to assess historical sources for identified and unidentified Site contaminant impacts, Gribi Associates reviewed historical Sanborn Maps, a city directories abstract, aerial photos, and City of Emeryville records for the Site and site vicinity. Results of these activities are summarized in the following sections.

2.1 Historical Sanborn Maps Review

Gribi Associates obtained copies of Sanborn Fire Insurance Maps for the project site from Environmental Data Resources (EDR) for years 1902, 1911, 1951, 1967, and 1969. Copies of key maps are included in Attachment A. Information obtained from the Sanborn maps review is summarized below.

Onsite Features

- On the 1902 map, the Site is shown with two small adjoining buildings facing Adeline Street; the north building is labeled as “Hay Barn” and the south is labeled as “Blksm”.
- On the 1911 map, two small adjoining buildings facing Adeline Street are shown. These buildings are labeled, north-to-south, as “Hardware” and “Ware Ho.”/“Feed & Fuel”.
- On the 1951, 1967, and 1969 maps, the current site building is shown in its current configuration. The south wing of the building is labeled, from west to east, as “Off. & Sales Rm.”, “Stge. and “Parts Dept”, and “Truck Body Wks & Body Shop”. The north wing is labeled as “Truck Rep’g.”.
- On the 1951, 1967, and 1969 maps, a small kiosk is show at the front of the north wing of the building, in the Adeline Street parking lot (where the front door is currently located). This kiosk is labeled as “Oil & Gas”, the standard designation on Sanborn Maps for a gas station or gasoline fueling facility.
- On the 1967 and 1969 maps, the Site appears to extend further northeast along 39th Street (formerly Sumner Street) to include the current auto repair building and yard immediately northeast from the Site. This building is labeled as “Auto Spray Paint’g” and “Auto Frame Shop”. The yard is labeled as “Truck Yard”.
- On the 1967 and 1969 maps, the rear Site yard adjacent to Apgar Street is labeled as “Truck Stge”.

Offsite Features

- On the 1951, 1967, and 1969 maps, a building labeled as “Overall Laundry” is shown at 1033 39th Street, approximately 150 feet northeast from the Site.

2.2 City Directories Abstract Review

Information obtained from the City Directories Abstract review is summarized below.

Onsite Listings

- **3800 San Pablo Avenue:** This Site address is listed as Learner GMC from 1950 to 1975, as GMC Oakland Truck Center in 1980, as J C Paper Co. in 1986 and 1991, and as Maz Auto Glass in 1992, 1996, and 2006.
- **3806 San Pablo Avenue:** This apparent Site address is listed as Discount Fabrics in 2006.
- **3840 San Pablo Avenue:** This apparent Site address is listed as East Bay Sunroof, Inc. from 1986 to 1996, and as Safe Shields in 2006.
- **3840 Adeline Street:** This apparent Site is listed as Key Garage and Interstate Fast Freight Lines in 1938.
- **1040 Apgar Street:** This apparent Site address is listed as Beck BMW Service & Repair and Elegant Auto Detail from 1986 to 1996.

Offsite Listings

- **3900 Adeline Street:** This address, apparently located immediately northeast across 39th Street, is listed as Nebel Garage in 1928.
- **1033 39th Street:** This address is listed as National French Laundry in directories from 1920 to 1938, as Industrial Coat & Apron Supply in directories from 1945 to 1962, as Red Star Industrial Service Laundry in 1967, as Berkeley Craftsmen Iron Works in directories from 1975 to 1986, and as Gammon Reed, Inc. in 1991 and 1992 directories.
- **1047 39th Street:** This address, located immediately northeast from the Site, is listed as a residence in directories from 1925 to 1955, and as Shigs Auto Service in directories from 1986 to 2006.
- **3823 San Pablo Avenue:** General Cleaners is listed at this address, located west across San Pablo Avenue, from 1955 to 1986.

2.3 Historical Aerial Photos Review

Historical aerial photos from 1939, 1946, 1958, 1965, 1974, 1982, 1993, 1998, and 2006 were obtained from EDR. Copies of selected aerial photos are contained in Attachment B. Information obtained from the aerial photos review is summarized below.

AERIAL PHOTOS REVIEW		
<i>Date and Scale of Photo</i>	<i>Feature Noted in Photo</i>	
	<i>Property</i>	<i>Site Vicinity</i>
1939 (1" = 555')	<ul style="list-style-type: none"> • Current site building is present. • Yard on east side of Site is small (doesn't extend as far east as currently; possible residences to east). 	<ul style="list-style-type: none"> • All current streets (San Pablo Ave, Adeline St., 39th St., Apgar St., MacArthur Blvd. underpass) present. • Primarily residential to east and commercial to north, south, and west of Site.
1946 (1" = 655')	<ul style="list-style-type: none"> • Generally same as previous. • Northeast yard area, adjacent to 39th St., is developed, but southeast yard, adjacent to Apgar Street, still apparently residential 	<ul style="list-style-type: none"> • Generally same as previous.
1958 (1" =555')	<ul style="list-style-type: none"> • Generally same as previous. 	<ul style="list-style-type: none"> • Generally same as previous. • More commercial/industrial development north, south, and west from the Site.
1965 (1" = 333')	<ul style="list-style-type: none"> • Generally same as previous. • Southeast yard area, adjacent to Apgar Street, now present and apparently used for truck parking only (trucks parked parallel over the entire area). • Northeast yard area, adjacent to 39th Street, extends further northeast (includes current adjacent auto repair building • Possible fuel dispenser kiosk visible adjacent to the Site building in the Adeline Street parking lot on the west side of Site. 	<ul style="list-style-type: none"> • Generally same as previous.
1974 (1" = 533')	<ul style="list-style-type: none"> • Generally same as previous. • Poor image quality. 	<ul style="list-style-type: none"> • Generally same as previous and current conditions. • Poor image quality.
1982 (1" = 690')	<ul style="list-style-type: none"> • Generally same as previous. • Poor image quality. 	<ul style="list-style-type: none"> • Generally same as previous and current conditions. • Poor image quality.
1993 (1" = 666')	<ul style="list-style-type: none"> • Generally same as previous and current conditions. 	<ul style="list-style-type: none"> • Generally same as previous and current conditions.
1998 (1" = 666')	<ul style="list-style-type: none"> • Generally same as previous and current conditions. 	<ul style="list-style-type: none"> • Generally same as previous and current conditions.
2006 (1" = 604')	<ul style="list-style-type: none"> • Generally same as previous and current conditions. 	<ul style="list-style-type: none"> • Generally same as previous and current conditions.

2.4 City of Emeryville Building Department Records Review

We reviewed the site file at the City of Emeryville Planning and Building Department. Historical building records for the Site only go back to 1982 and reference the site redevelopment by the current Site owners. Site plans and records included no reference to USTs on the Site.

We also contacted the City of Emeryville Fire Department and they indicated that they do not have historical records for the Site.

2.5 Interviews with Knowledgeable Persons

We were unable to locate past employees of the former Site GMC truck repair facility; however, we did discuss the Site with longtime area businessman, Mr. Monte Upshaw of Fidelity Roof Company, located approximately two blocks away from the Site at 1075 40th Street. Mr. Upshaw's family has owned and operated the Fidelity Roof Company facility since the 1950s, and Mr. Upshaw remembers the Learner GMC truck facility being present from at least the 1950s to the 1970s. Mr. Upshaw remembers one or more fuel dispensers being present at the Adeline Street entrance to the truck repair building.

2.6 Evaluation of Historical Records Results

Results of the historical records review indicate the following relative to Site history and environmental conditions.

- The current Site building was constructed between 1911 and 1939, and was occupied by a GMC truck sales and repair facility from at least 1950 to 1980.
- A former gasoline dispenser kiosk, labeled as "Gas & Oil" was present in the small Adeline Street parking lot directly adjacent to the site building (where the current front door to the building is located). The "Gas & Oil" label is the standard designation on Sanborn Maps for a gas station or gasoline fueling facility. Note that it is possible that the fuel dispenser island extended inside the Site building, immediately adjacent to the outside kiosk.
- The south wing of the GMC truck facility was apparently not used for truck repair activities, but rather was used for offices, parts department, and body shop.
- While the GMC truck facility was present, the southeast yard, adjacent to Apgar Street, was either not part of the facility (residences) or was used for truck parking. The northeast yard area, adjacent to 39th Street, extended further east to include the current adjacent auto repair facility and was apparently used for storage and auto painting.

- A possible dry cleaners (National French Laundry, Industrial Coat & Apron Supply, and Red Star Industrial Service Laundry) was apparently present at 1033 39th Street, approximately 150 feet northeast from the Site, from the 1920s to the 1960s.

Historical features most relevant to the currently environmental conditions on the Site include the following.

- (1) The former dispenser kiosk, located adjacent to the site building in the Adeline Street parking lot, was undoubtedly the main source for the groundwater hydrocarbon plume identified in the parking lot;
- (2) The southeast yard in the back of the building, adjacent to Apgar Street, was used either for residential housing or for truck parking, and does not appear to have been a suspect area relative to hydrocarbon releases on the Site; and
- (3) The northeast yard in the back of the building, adjacent to 39th Street, was used as part of the truck repair operation, and, based on review of historical aerial photos and Sanborn Maps and on recollections from the site owners, it is likely that the former 1,000-gallon gasoline USTs removed in 1981 were located in the northeast yard area.

3.0 PROPOSED WORKPLAN ACTIVITIES

In order to address investigative data gaps, the following workplan proposes the installation and sampling of four groundwater monitoring wells and the drilling and sampling of approximately eight onsite and offsite soil borings. This workplan amends and replaces the workplan included in the January 26, 2012 soil boring investigation report. The goal of these activities will be to complete site investigative activities as necessary to develop a Site Conceptual Model and Corrective Action Plan for the Site.

3.1 Project Approach

In order to move this site towards cleanup and closure, we recommend: (1) The drilling and sampling of approximately five borings on the Site to better define onsite hydrocarbon impacts, hence eliminating questions about onsite sources and concerns; (2) The installation and monitoring (including groundwater gradient determination) of approximately four groundwater monitoring wells in the Adeline Street parking lot to allow for representative and repeatable groundwater quality assessment in the known groundwater hydrocarbon plume area; and (3) The drilling and sampling of approximately three soil borings on the west side of San Pablo Avenue, approximately 120 feet southwest from the Adeline Street parking lot. If successful in filling data gaps, the completion of these tasks will result in development of a Conceptual Site Model (CSM) and Corrective Action Plan (CAP) for the Site.

3.2 Prefield Activities

Prior to implementing this workplan, written approval will be obtained from the Alameda County Department of Environmental Health (ACEH). Also, drilling permits for the soil boring and well installation activities will be obtained from the Alameda County Public Works. In addition, prior to initiating drilling activities, proposed boring and well locations will be marked with white paint and Underground Services Alert (USA) will be notified at least 48 hours prior to drilling. In addition, a private underground utility locator will be contracted to clear proposed boring locations. Prior to drilling, a Site Safety Plan will be prepared, and a tailgate safety meeting will be conducted with all site workers.

3.3 Location of Well, Borings, and Soil Gas Samples

The proposed well and boring locations are shown on Figure 5. Groundwater monitoring wells MW-1 through MW-4 will be sited in the identified groundwater hydrocarbon plume area in the Adeline Street parking lot. These wells will provide representative groundwater quality and groundwater gradient data for the Site.

Soil borings B-15 through B-19 will be drilled on the Site in previously un-investigated areas to assess possible hydrocarbon impacts from other known and unknown UST and other sources. Borings B-20, B-21, and B-22 will be sited on the west side of San Pablo Avenue approximately 120 feet southwest, in an expected downgradient groundwater flow direction, from the Adeline Street parking lot. Note that the locations of the three offsite borings may change based on groundwater flow direction determination using the four newly-installed groundwater monitoring wells.

3.4 Installation of Groundwater Monitoring Wells

Well installation activities will be conducted by a State-licensed drilling contractor using hollow stem auger equipment. The well borings will be drilled to a total depth of approximately 23 feet below surface grade (groundwater is expected to be encountered at approximately 15 feet in depth). Soils from the well borings will be placed in closed DOT-approved 55-gallon drums pending laboratory results.

Soil samples will be collected from the well borings at approximately five-foot intervals starting at approximately five feet below surface grade and extending down to total depth. Undisturbed soils will be sampled in advance of the auger as follows: (1) A two-inch inside diameter California-style split spoon sampler will be driven into undisturbed soil ahead of the drill bit; (2) The sampler will be raised quickly to the surface and the brass liners exposed; (3) The brass liner containing the most undisturbed soil will be quickly sealed with aluminum foil and plastic end caps, labeled, and wrapped tightly with tape; and (4) The sealed soil sample will be placed immediately in a cooler with crushed ice for transport to the analytical laboratory under formal

chain-of-custody. All sampling equipment will be thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water. All downhole drilling equipment, including auger and drill bit, will be steam cleaned before and after drilling the well boring. Steam cleaning rinseate will be contained in sealed drums pending laboratory results.

The groundwater monitoring wells will be constructed using 2-inch diameter Schedule 40 threaded PVC casing according to the following specifications: (1) 0.020-inch slotted well casing will be placed from approximately 23 feet to 13 feet in depth (exact screen depths will be determined in the field based on occurrence of first groundwater); (2) No. 3 Lonestar (or equivalent) filter sand will be placed around the casing to a depth of approximately 10 feet below grade; (3) A two-foot bentonite seal will be placed above the filter sand to approximately 8 feet below grade; and (4) The remaining annulus will be grouted using a cement/sand slurry (bentonite less than five percent) to approximate grade. The top of the well will be enclosed in a traffic-rated locking well box set in concrete slightly above surface grade.

3.5 Well Development and Sampling

After allowing the cement seal to cure for at least 48 hours, the four newly-installed wells will be developed by surging and pumping groundwater from the well until pumped groundwater is clear and free of fines. During well development, groundwater will be monitored periodically for pH, specific conductance, temperature, visible clarity, and odor. If possible, at least 10 gallons will be pumped from each well during well development.

At least 48 hours after well development, the newly-installed groundwater monitoring wells will be purged and sampled using either a clean disposable PVC bailer or a clean purge pump. Wells will be purged of at least three well volumes before sampling. During well purging, groundwater will be monitored periodically for pH, specific conductance, temperature, odor, and visible clarity. After these parameters have stabilized, groundwater will be sampled in the following manner: (1) Laboratory supplied containers will be completely filled directly from the bailer or effluent hose with a minimum of agitation; (2) After making sure that no air bubbles are present (when applicable), each container will be tightly sealed; and (3) Each container will be labeled and placed in cold storage for transport to the analytical laboratory under formal chain-of-custody.

All purged groundwater generated during well development and sampling will be stored on site in a sealed container pending groundwater analytical results. All sampling equipment will be thoroughly cleaned and decontaminated between each sample collection by triple rinsing as described above.

3.6 Determination of Groundwater Potentiometric Gradient

Following well installation, the wellhead elevations will be surveyed by a State-licensed land surveyor in accordance with State Geotracker requirements. Prior to purging and sampling, groundwater depths in all Site wells will be measured to the nearest 0.01 foot using an electronic probe. These data will then be used to calculate groundwater potentiometric gradient.

3.7 Drilling and Sampling of Investigative Borings

Boring activities will be conducted by a State-licensed drilling contractor using direct-push coring equipment. The investigative borings will be drilled to approximately 20 feet in depth using direct-push hydraulically-driven soil coring equipment. For each boring, continuous soil cores will be collected to total depth in each boring in a clear plastic acetate tube, nested inside a stainless steel core barrel. After each four-foot core barrel is brought to the surface and exposed, the core will be sliced lengthwise to expose the soil core, examined, logged, and field screened for hydrocarbons by a qualified geologist using sight, smell, and an organic vapor monitor (OVM). Following completion, the investigative borings will be grouted to match existing grade using a cement/sand slurry. Soil cuttings generated during this investigation will be stored onsite in sealed DOT-approved containers.

Each soil core will first be sliced open lengthwise along the length of the acetate tube, allowing full examination and logging of the soil core prior to sampling. Soil samples will then be collected from specific zones of interest in an acetate liner, which will be cut to the desired length (typically four to six inches), capped with teflon tape and plastic end caps, labeled and placed in cold storage pending transport to a laboratory under formal chain-of-custody. All coring and sampling equipment will be thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water. Cleaning rinseate will be contained onsite in a sealed drum pending laboratory results.

One grab groundwater sample will be collected from each boring at first encountered groundwater (expected at approximately 15 feet in depth). Each grab groundwater sample will be collected from the open boring by placing 1-1/4-inch diameter well casing in the boring. Groundwater will then be sampled using a clean small diameter bailer, and poured directly into laboratory-supplied containers. Each sample container will then be tightly sealed, labeled, and placed in cold storage for transport to the laboratory under formal chain-of-custody.

3.8 Laboratory Analysis of Soil and Water Samples

Approximately 25 soil samples (three per well boring; one to two per soil boring) and nine groundwater samples (one from each of the four monitoring wells and one each from onsite borings B-17 and B-18 and from the three downgradient offsite borings) will be analyzed for the following parameters.

USEPA 8015M Total Petroleum Hydrocarbons ad Gasoline (TPH-G)
USEPA 8020 Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and MTBE

In addition, three grab groundwater samples from the three onsite borings B-15, B-16, and B-17 will be analyzed for the following parameters:

USEPA 8260B Total Petroleum Hydrocarbons as Gasoline (TPH-G)
USEPA 8260B Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
USEPA 8260B Oxygenates (TBA, MTBE, DIPE, ETBE, and TAME)
USEPA 8015M Total Petroleum Hydrocarbons ad Diesel/Motor Oil (TPH-D/MO)

All samples will be analyzed by a state-certified laboratory with standard turn around on laboratory results.

3.9 Report Preparation

A report summarizing investigative activities and results will be prepared for submittal to ACEH. This report will describe all investigative methods and results, and will include tabulated laboratory results and graphical depictions of result. If warranted, the report will also include a Conceptual Site Model (CSM) and Corrective Action Plan (CAP) for the Site.

3.10 Management of Investigative Spoils

It is estimated that well drilling, installation, and sampling activities will generate approximately four 55-gallon drums of soil and one 55-gallon drums of purge and rinseate water. If found to be contaminated, these spoils will be disposed of offsite in accordance with all applicable State and Federal guidelines and statutes.

3.11 Project Schedule

Subject to ACEH approval, the proposed well installation activities can be completed within approximately four weeks. The soil boring investigation can then be completed in approximately four weeks, and the summary report will follow in approximately four weeks.

Alameda County Department of
Environmental Health
March 6, 2012
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We appreciate this opportunity to provide this report for your review. Please contact us if there are questions or if additional information is required.

Very truly yours,



James E. Gribi
Registered Geologist
California No. 5843

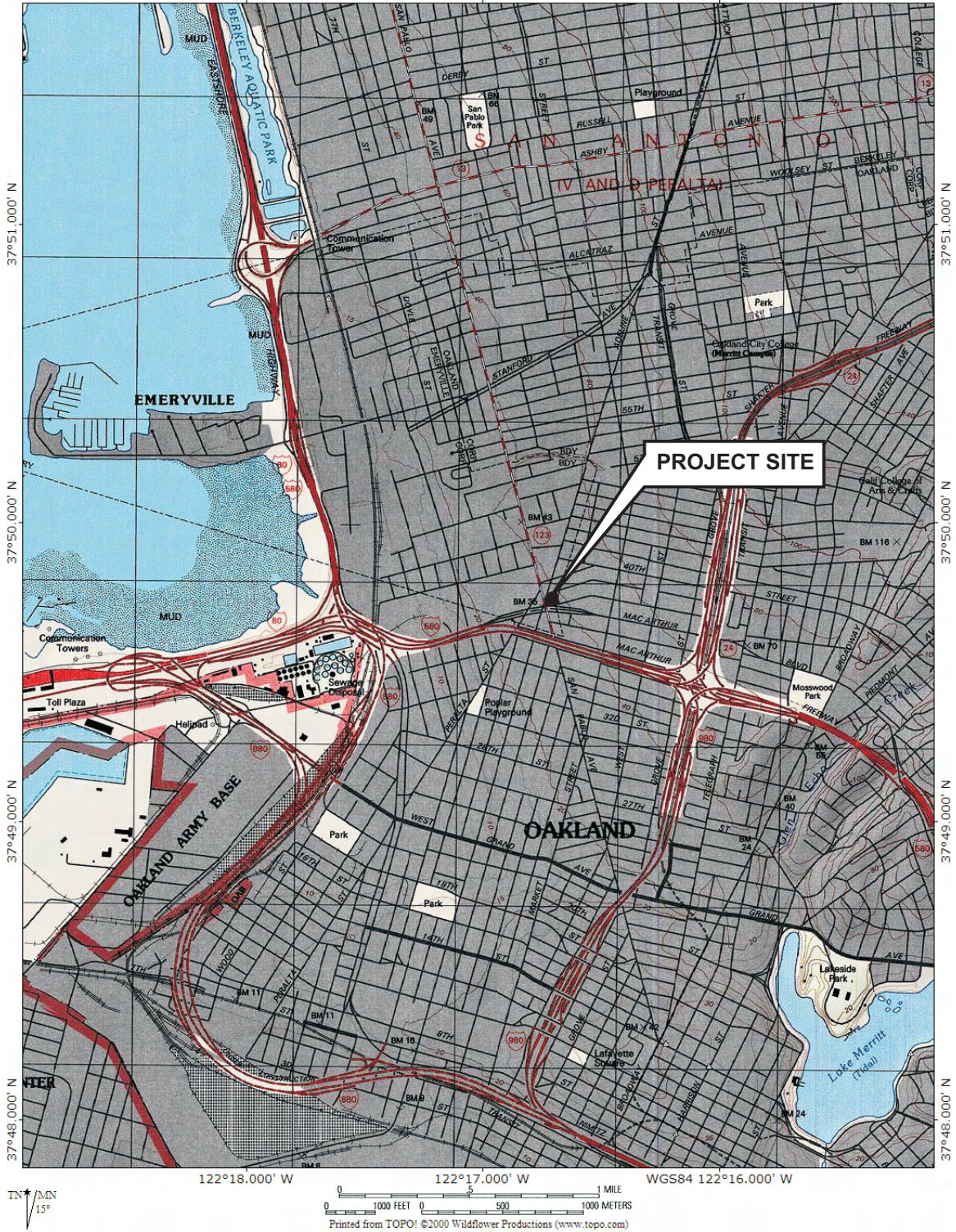


Enclosure

c: Mr. Bill Banker, San Pablo Avenue Venture

FIGURES

TOPO! map printed on 04/03/07 from "California.tpo" and "Untitled.tpg"
 122°18.000' W 122°17.000' W WGS84 122°16.000' W



DESIGNED BY:

CHECKED BY:

DRAWN BY: JG

SCALE:

PROJECT NO:

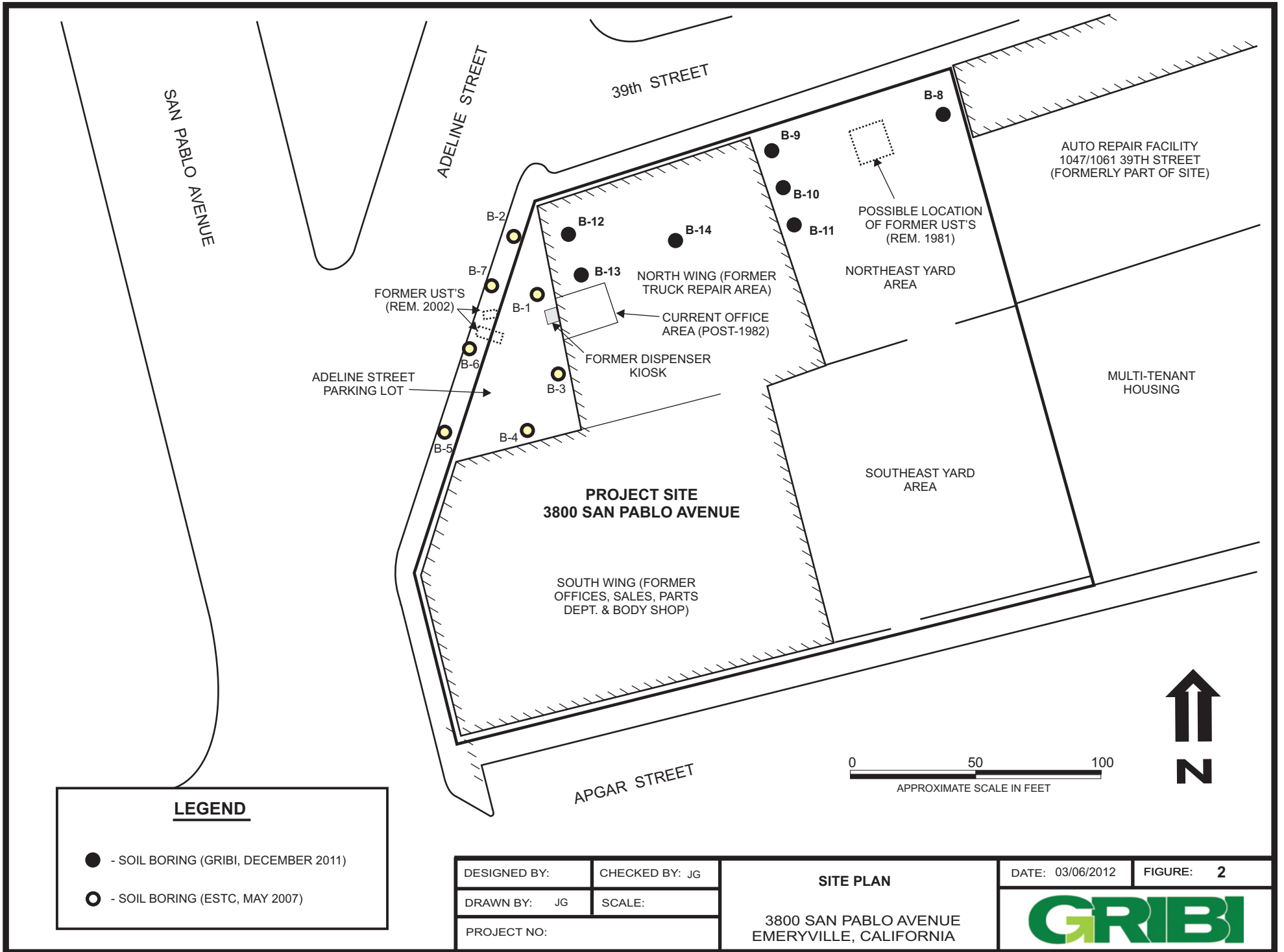
SITE VICINITY MAP

3800 SAN PABLO AVENUE
 EMERYVILLE, CALIFORNIA

DATE: 01/13/2012

FIGURE: 1





LEGEND

- - SOIL BORING (GRIBI, DECEMBER 2011)
- - SOIL BORING (ESTC, MAY 2007)

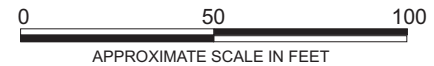
DESIGNED BY:	CHECKED BY: JG
DRAWN BY: JG	SCALE:
PROJECT NO:	

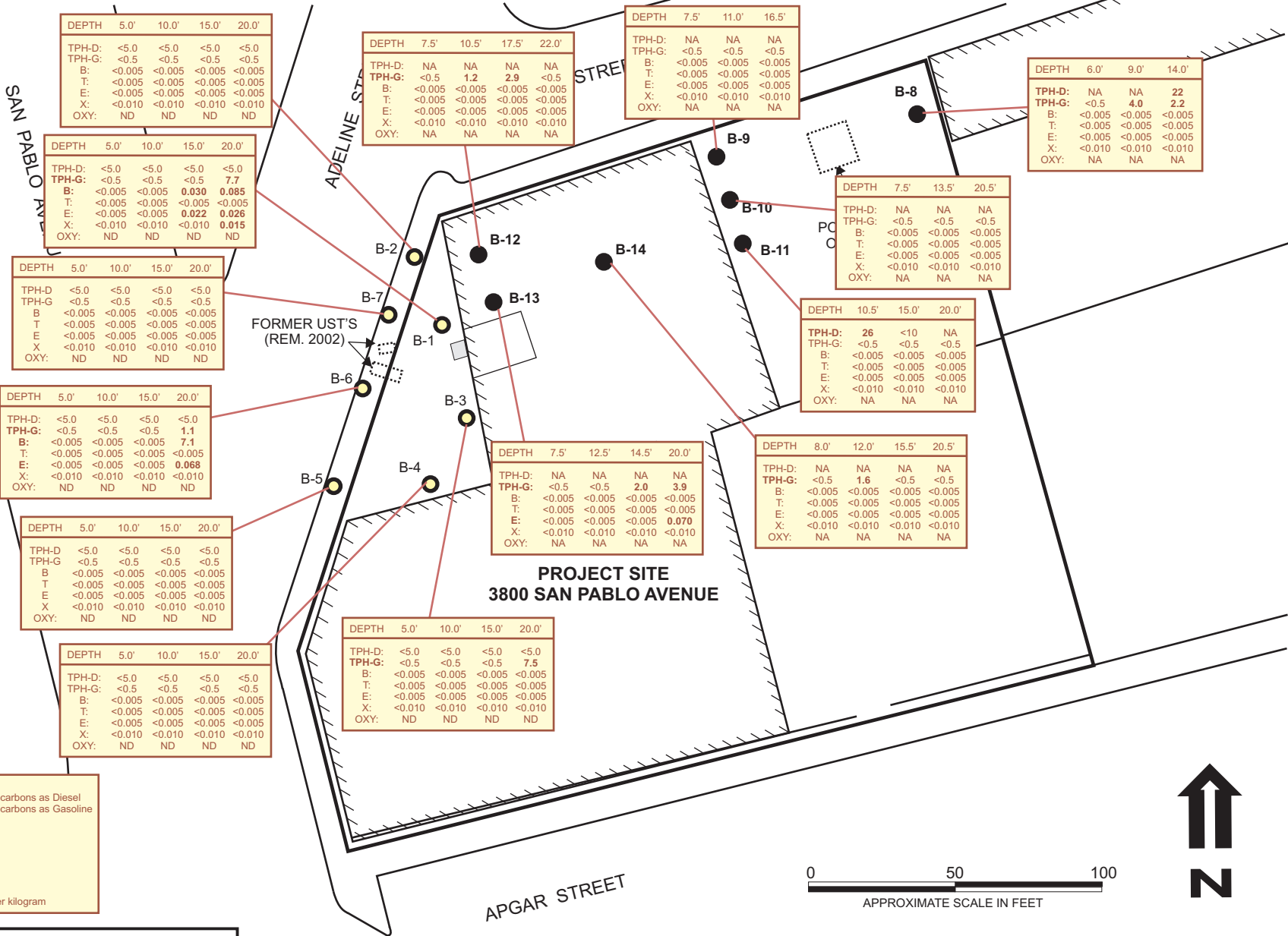
SITE PLAN

3800 SAN PABLO AVENUE
EMERYVILLE, CALIFORNIA

DATE: 03/06/2012

FIGURE: 2





DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	7.7
B:	<0.005	<0.005	0.030	0.085
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	0.022	0.026
X:	<0.010	<0.010	<0.010	0.015
OXY:	ND	ND	ND	ND

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	1.1
B:	<0.005	<0.005	<0.005	7.1
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	0.068
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

DEPTH	7.5'	10.5'	17.5'	22.0'
TPH-D:	NA	NA	NA	NA
TPH-G:	<0.5	1.2	2.9	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	NA	NA	NA	NA

DEPTH	7.5'	11.0'	16.5'
TPH-D:	NA	NA	NA
TPH-G:	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010
OXY:	NA	NA	NA

DEPTH	6.0'	9.0'	14.0'
TPH-D:	NA	NA	22
TPH-G:	<0.5	4.0	2.2
B:	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010
OXY:	NA	NA	NA

DEPTH	7.5'	13.5'	20.5'
TPH-D:	NA	NA	NA
TPH-G:	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010
OXY:	NA	NA	NA

DEPTH	10.5'	15.0'	20.0'
TPH-D:	26	<10	NA
TPH-G:	<0.5	<0.5	<0.5
B:	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010
OXY:	NA	NA	NA

DEPTH	7.5'	12.5'	14.5'	20.0'
TPH-D:	NA	NA	NA	NA
TPH-G:	<0.5	<0.5	2.0	3.9
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	0.070
X:	<0.010	<0.010	<0.010	<0.010
OXY:	NA	NA	NA	NA

DEPTH	8.0'	12.0'	15.5'	20.5'
TPH-D:	NA	NA	NA	NA
TPH-G:	<0.5	1.6	<0.5	<0.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	NA	NA	NA	NA

DEPTH	5.0'	10.0'	15.0'	20.0'
TPH-D:	<5.0	<5.0	<5.0	<5.0
TPH-G:	<0.5	<0.5	<0.5	7.5
B:	<0.005	<0.005	<0.005	<0.005
T:	<0.005	<0.005	<0.005	<0.005
E:	<0.005	<0.005	<0.005	<0.005
X:	<0.010	<0.010	<0.010	<0.010
OXY:	ND	ND	ND	ND

Depth: Boring depth
 TPH-D: Total Petroleum Hydrocarbons as Diesel
 TPH-G: Total Petroleum Hydrocarbons as Gasoline
 B: Benzene
 T: Toluene
 E: Ethylbenzene
 X: Xylenes
 OXY: Oxygenates
 ND: Nondetect
 NA: Not analyzed
 Concentrations in milligrams per kilogram

LEGEND

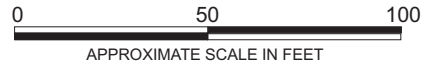
- - SOIL BORING (GRIBI, DECEMBER 2011)
- - SOIL BORING (ESTC, MAY 2007)

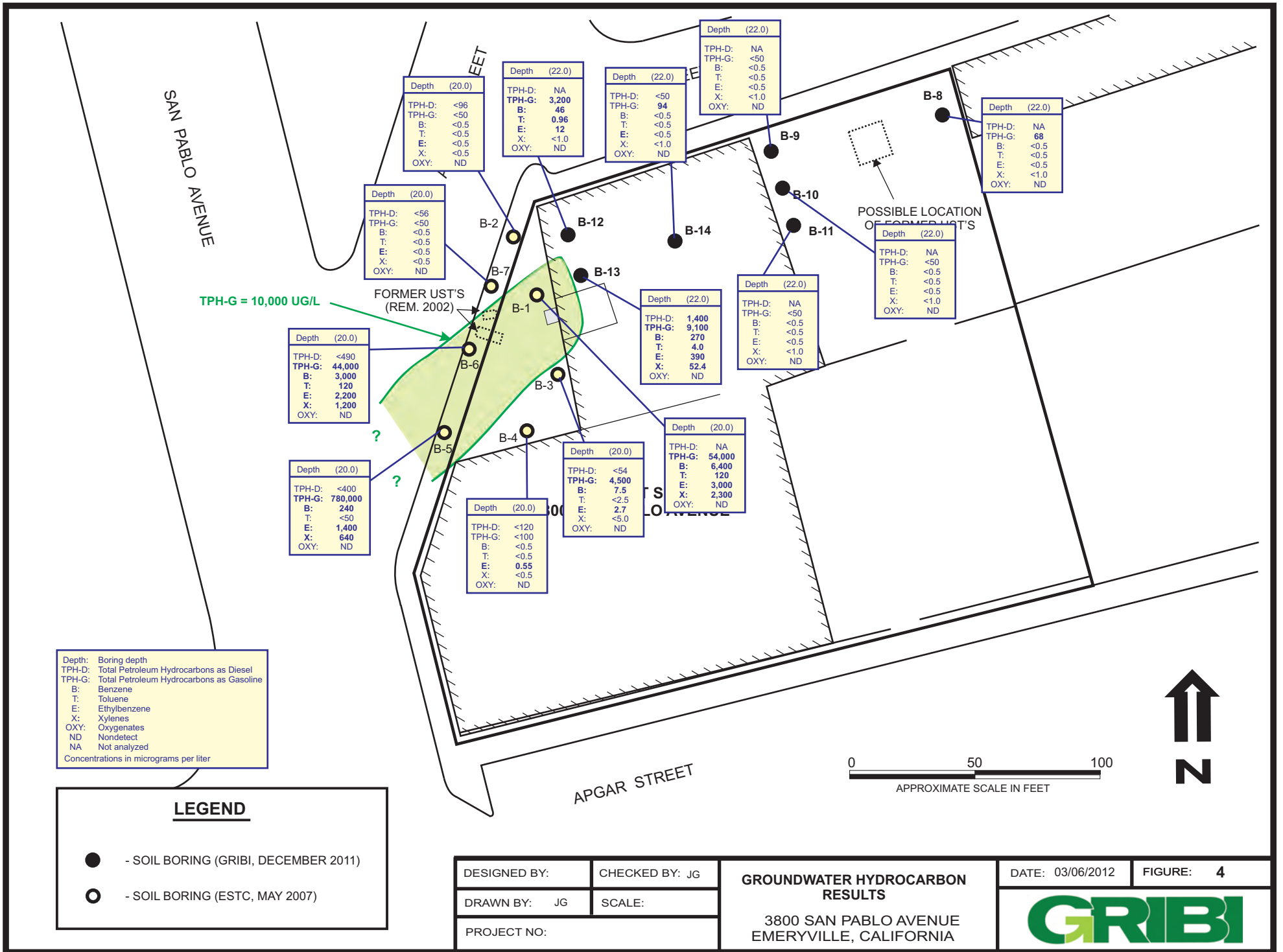
DESIGNED BY:	CHECKED BY: JG
DRAWN BY: JG	SCALE:
PROJECT NO:	

SOIL HYDROCARBON RESULTS

3800 SAN PABLO AVENUE
 EMERYVILLE, CALIFORNIA

DATE: 03/06/2012 FIGURE: 3





SAN PABLO AVENUE

APGAR STREET

TPH-G = 10,000 UG/L

FORMER UST'S
(REM. 2002)

POSSIBLE LOCATION
OF FORMER UST'S

Depth:	Boring depth
TPH-D:	Total Petroleum Hydrocarbons as Diesel
TPH-G:	Total Petroleum Hydrocarbons as Gasoline
B:	Benzene
T:	Toluene
E:	Ethylbenzene
X:	Xylenes
OXY:	Oxygenates
ND:	Nondetect
NA:	Not analyzed
Concentrations in micrograms per liter	

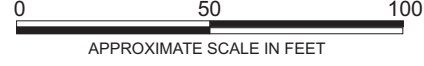
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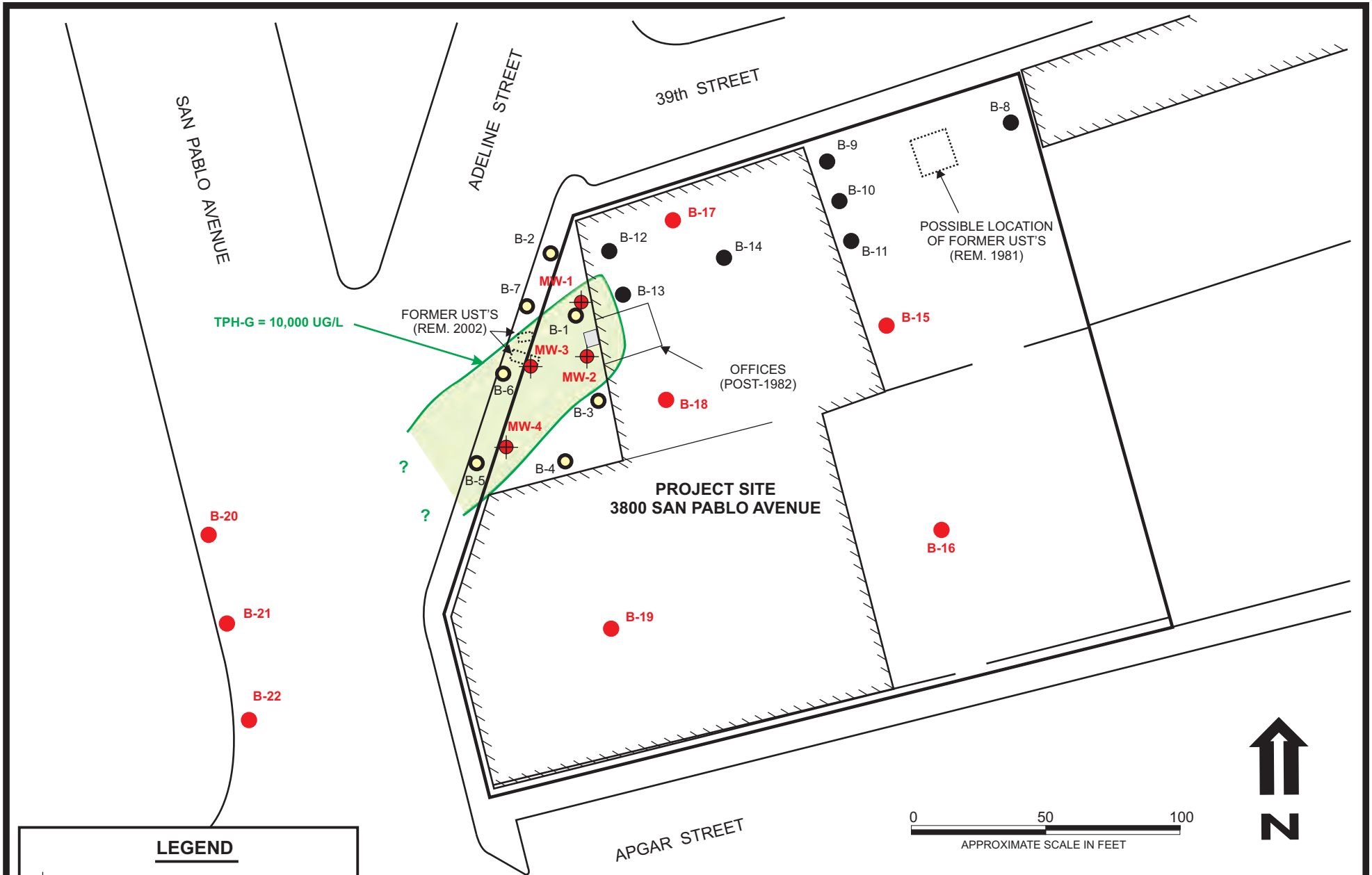
- - SOIL BORING (GRIBI, DECEMBER 2011)
- - SOIL BORING (ESTC, MAY 2007)

DESIGNED BY:	CHECKED BY: JG
DRAWN BY: JG	SCALE:
PROJECT NO:	

GROUNDWATER HYDROCARBON RESULTS
3800 SAN PABLO AVENUE EMERYVILLE, CALIFORNIA

DATE: 03/06/2012	FIGURE: 4
GRIBI	





LEGEND	
	- PROPOSED MONITORING WELL LOCATION
	- PROPOSED SOIL BORING LOCATION
	- SOIL BORING (GRIBI, DECEMBER 2011)
	- SOIL BORING (ESTC, MAY 2007)

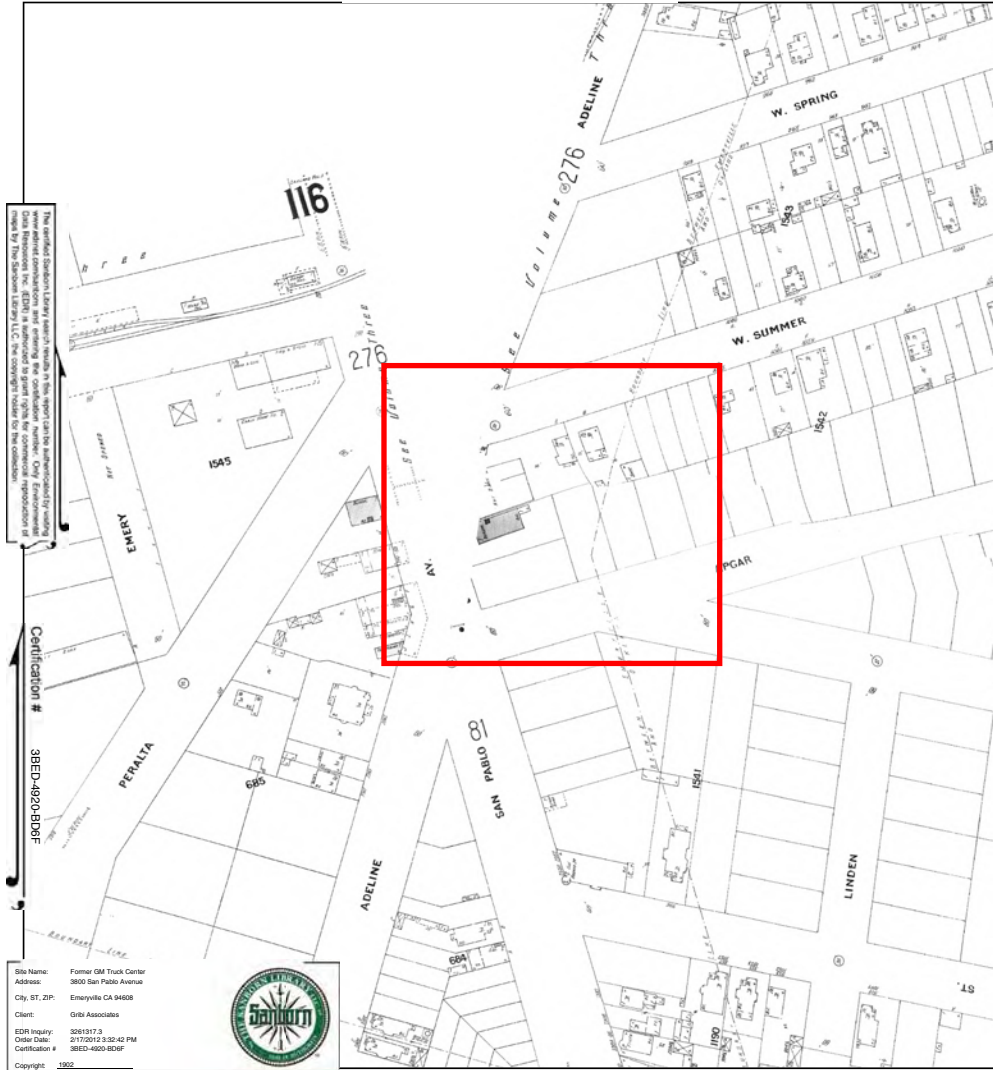
DESIGNED BY:	CHECKED BY: JG
DRAWN BY: JG	SCALE:
PROJECT NO:	

PROPOSED WELL AND BORING LOCATIONS 3800 SAN PABLO AVENUE EMERYVILLE, CALIFORNIA
--

DATE: 03/06/2012	FIGURE: 5

ATTACHMENT A
HISTORICAL SANBORN FIRE
INSURANCE MAPS

1902 Certified Sanborn Map



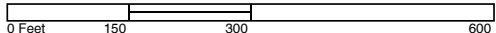
Site Name: Former GM Truck Center
 Address: 3800 San Pablo Avenue
 City, ST, ZIP: Emeryville CA 94608
 Client: Gribb Associates
 EDR Inquiry: 3261317.3
 Order Date: 2/17/2012 3:32:42 PM
 Certification #: 38ED-4920-BD6F
 Copyright: 2002



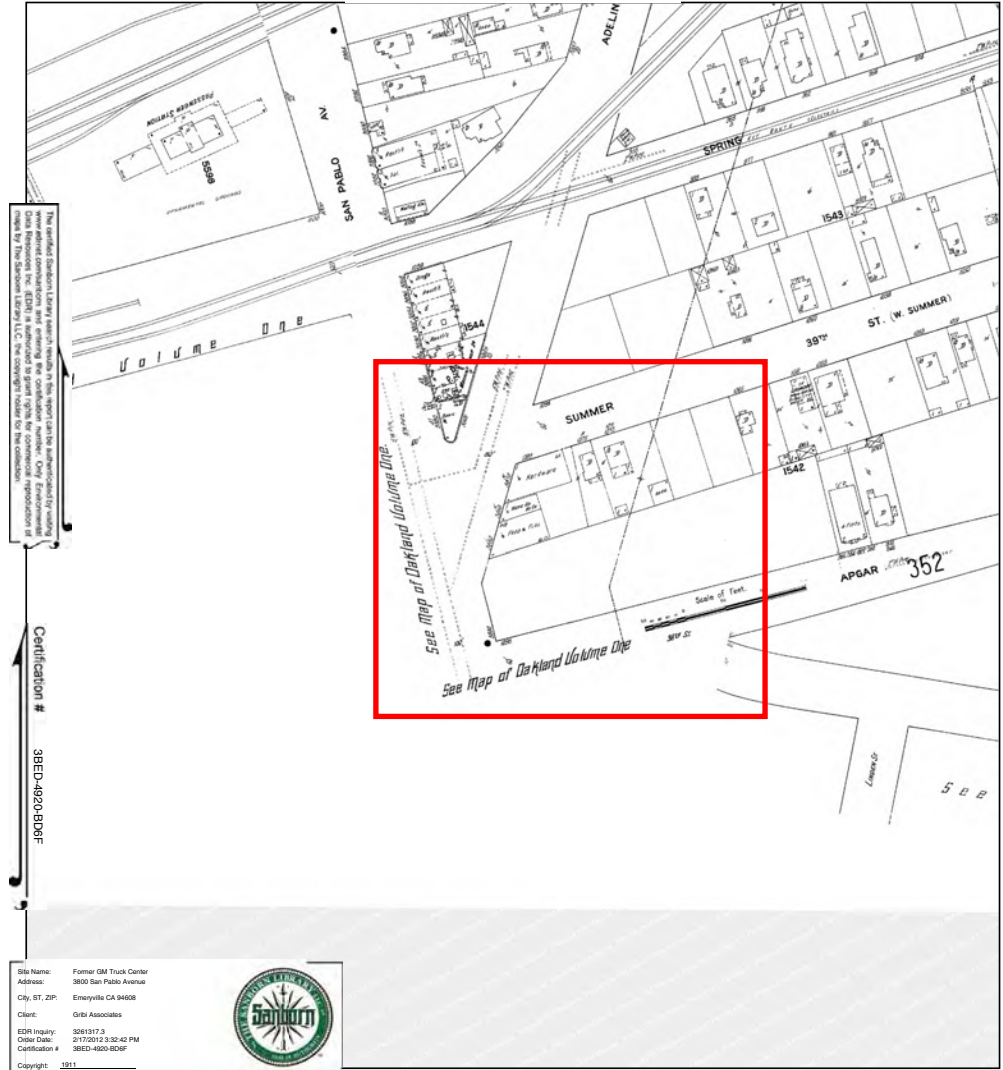
This Certified Sanborn Map combines the following sheets.
 Outlined areas indicate map sheets within the collection.



- Volume 1, Sheet 81
- Volume 1, Sheet 82
- Volume 1, Sheet 116



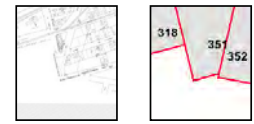
1911 Certified Sanborn Map



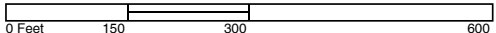
Site Name: Former GM Truck Center
 Address: 3800 San Pablo Avenue
 City, ST, ZIP: Emeryville CA 94608
 Client: Gribb Associates
 EDR Inquiry: 3261317.3
 Order Date: 2/17/2012 3:32:42 PM
 Certification #: 38ED-4920-BD6F
 Copyright: 2011



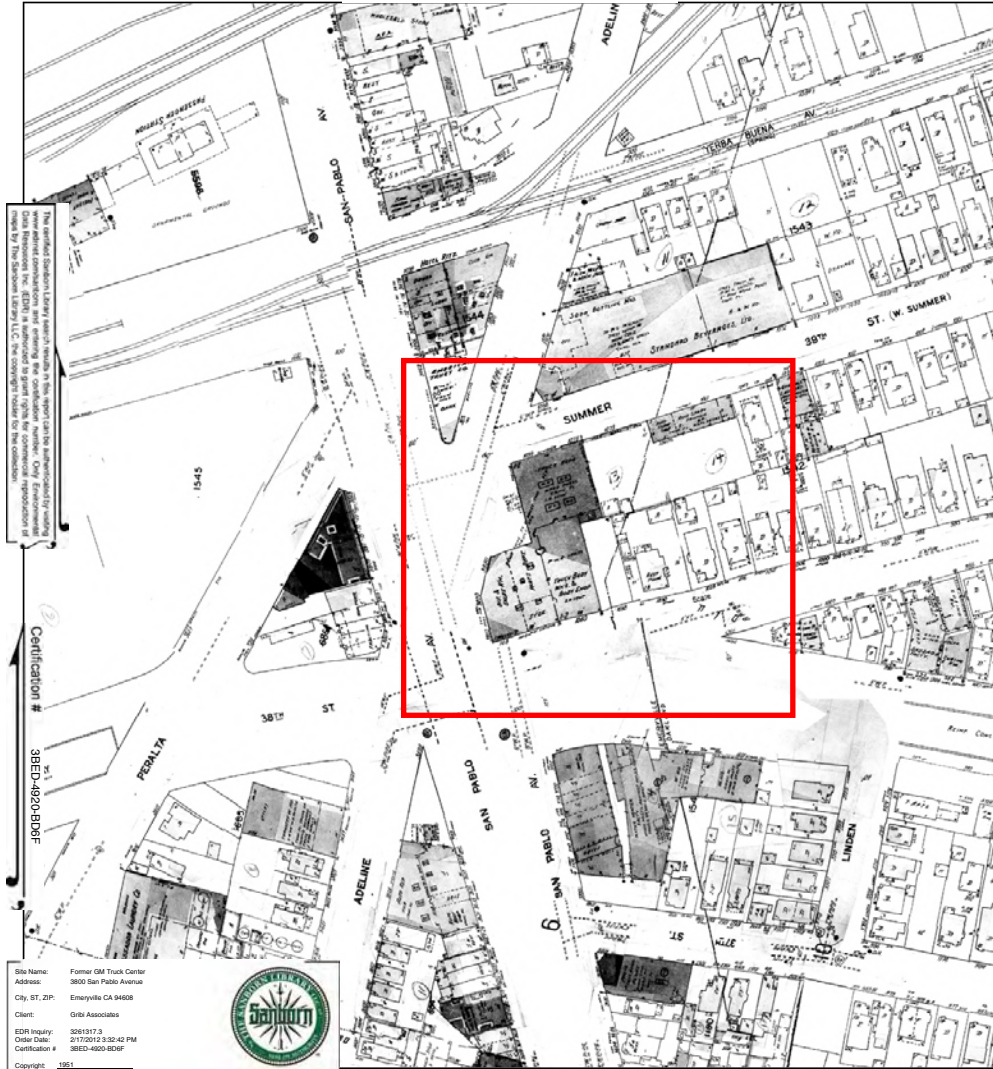
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 Outlined areas indicate map sheets within the collection.



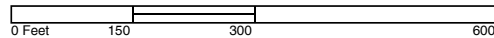
- Volume 3, Sheet 318
- Volume 3, Sheet 351
- Volume 3, Sheet 352



1951 Certified Sanborn Map



This Certified Sanborn Map combines the following sheets.
 Outlined areas indicate map sheets within the collection.



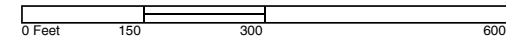
- Volume 3, Sheet 318
- Volume 3, Sheet 351
- Volume 3, Sheet 352
- Volume 1, Sheet 6



1967 Certified Sanborn Map



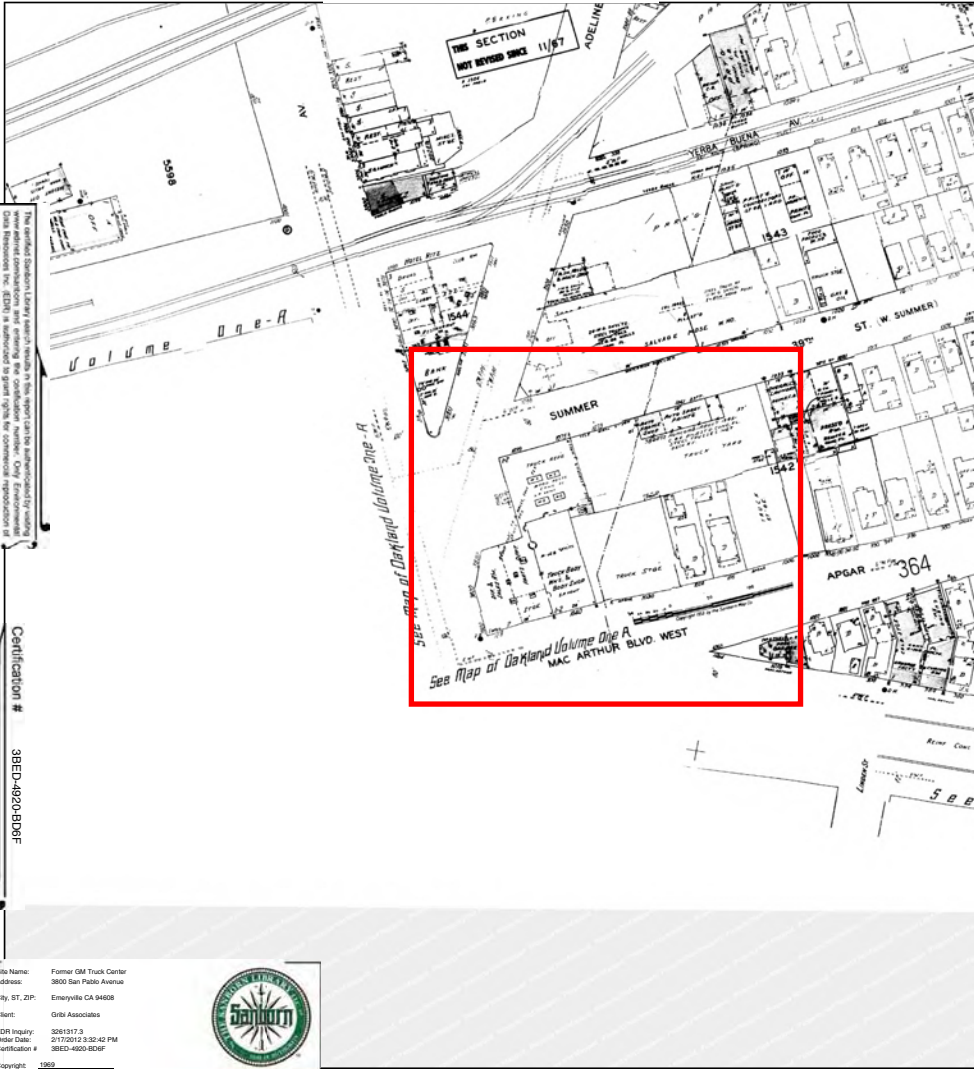
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 Outlined areas indicate map sheets within the collection.



- Volume 3, Sheet 318
- Volume 3, Sheet 363
- Volume 3, Sheet 364
- Volume 1A, Sheet 6a



1969 Certified Sanborn Map



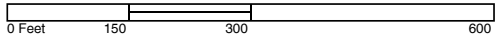
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Site Name: Former GM Truck Center
 Address: 3800 San Pablo Avenue
 City, ST, ZIP: Emeryville CA 94608
 Client: Grib Associates
 EDR Inquiry: 3261317-3
 Order Date: 2/17/2012 3:32:42 PM
 Certification #: 3BED-4920-BD6F
 Copyright: 2009



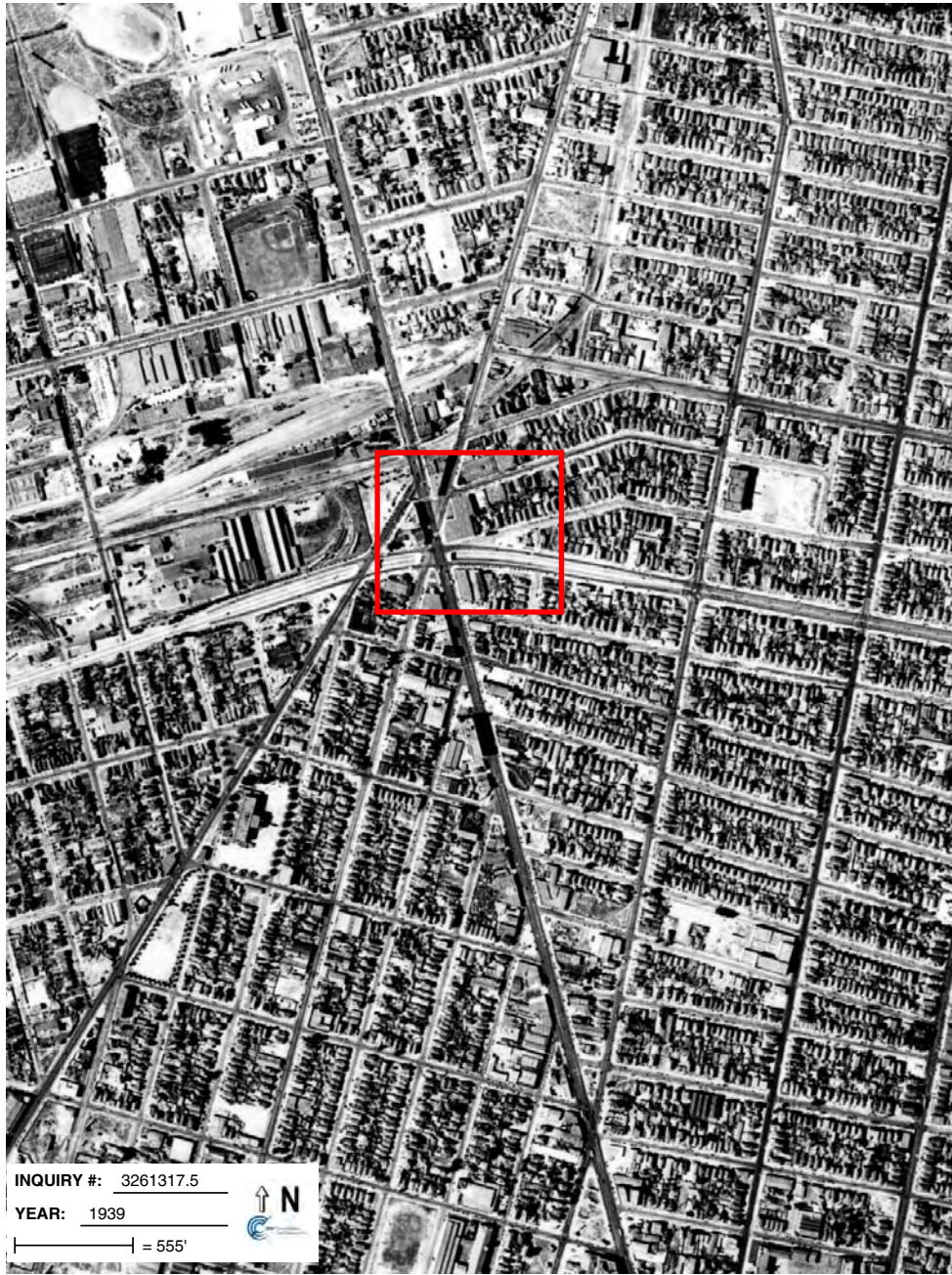
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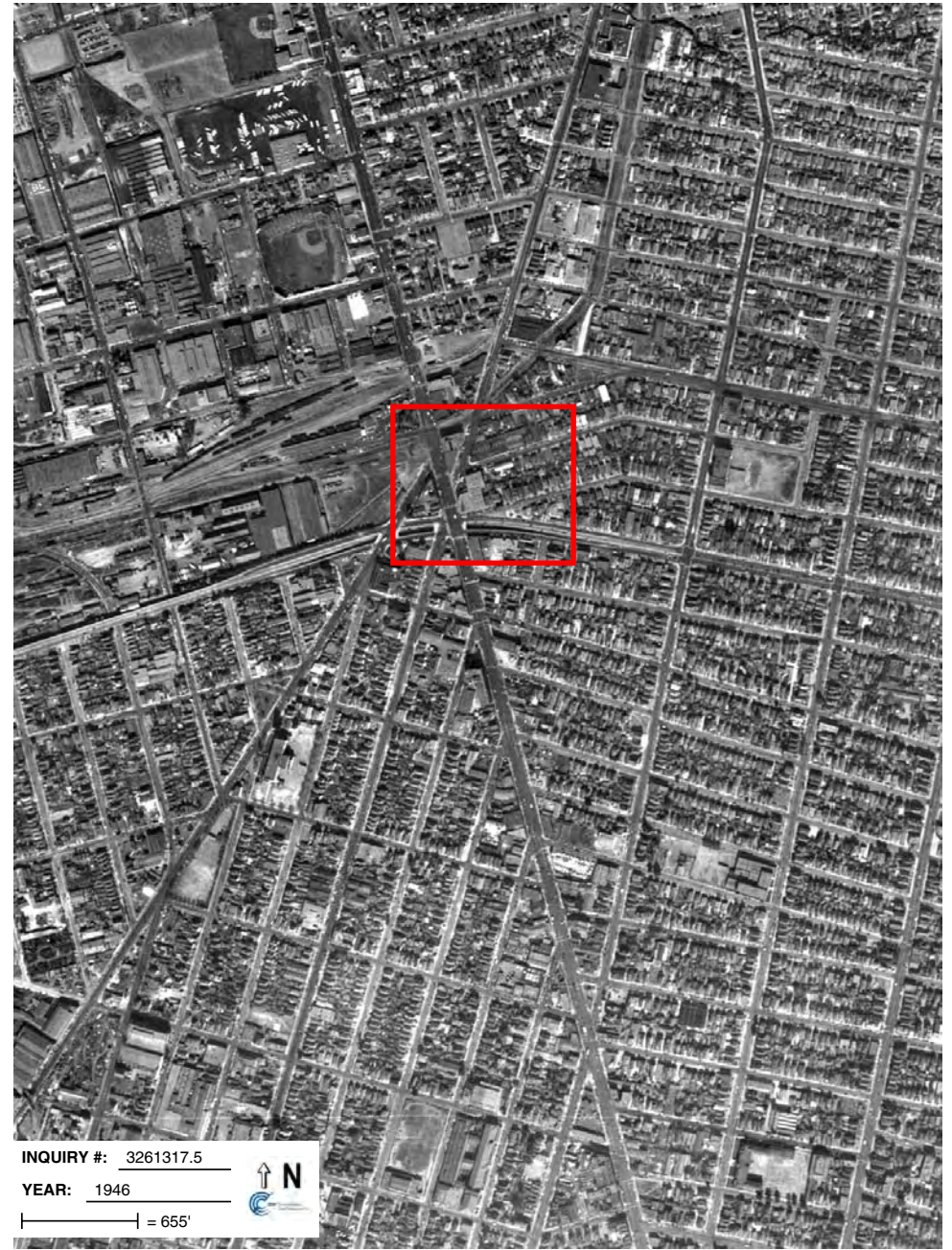

- Volume 3, Sheet 318
- Volume 3, Sheet 363
- Volume 3, Sheet 364



ATTACHMENT B
HISTORICAL AERIAL PHOTOS



INQUIRY #: 3261317.5
YEAR: 1939
| = 555'



INQUIRY #: 3261317.5
YEAR: 1946
| = 655'

