February 8, 2013

Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Ambassador Apartments
3623 Adeline Street and 1168 36th Street, Emeryville, California
Conceptual Site Model and Monitoring Well Installation – Work Plan

Dear Alameda County Environmental Health:

The Ambassador, L.P. is in the process of constructing a new 69-unit multifamily apartment building at the corner of Peralta and 36th Streets in Emeryville, California. Resources for Community Development (RCD) is the developer of the site and The Ambassador, L.P. is the owner. The site was previously owned by the City of Emeryville and was sold to The Ambassador, L.P. in March 2012.

The attached *Work Plan - Conceptual Site Model and Monitoring Well Installation* was prepared by Adanta, Inc. ("Adanta"), who we believe to be experienced and qualified to advise us in a technical area that requires a high degree of professional expertise. We have relied on Adanta's assistance, knowledge and expertise in their preparation of the attached Addendum. I am unaware of any material inaccuracy in the information in the report or of any violation of government guidelines that are applicable to the Report. 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.

Please feel free to call me at (510) 841 – 4410 x335 should you require additional information or have any questions.

Sincerely,

Jessica Sheldon
Project Manager

2220 Oxford Street • Berkeley, CA 94704 • Phone: (510) 841-4410 • Fax: (510) 548-3502

Adanta, Inc.
828 School Street
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Adanta

February 8, 2013
Project A1085-7

Mark Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Jessica Sheldon
The Ambassador LP
c/o Resources for Community Development
2220 Oxford Street
Berkeley, California 94704

WORK PLAN
CONCEPTUAL SITE MODEL AND
MONITORING WELL INSTALLATION
Ambassador Property
1168 36th Street
Emeryville, California
ACEH Case #RO0002973, Global ID T0619717287

Dear Mr. Detterman,

Adanta, Inc. (Adanta) is pleased to forward this work plan to Alameda County Environmental Health (ACEH) on behalf of The Ambassador, LP. This work plan, along with other assessment requisites, was required by ACEH in a letter dated November 16, 2012. The work plan is designed to provide a description of how Adanta is to give ACEH a more complete understanding of the soil and groundwater conditions at the Property by developing a Conceptual Site Model, and to specifically identify potential contamination adjacent to the former production water well that had been installed in 1910 and was properly abandoned in 2012.

CURRENT PROPERTY CONDITIONS

The Property consists of approximately 38,000 square feet of land configured in the shape of a sideways "U" shape. Inside the vacant space of the "U" are two single-family residences that are not a part of the Property. Construction is ongoing at the Property for a multi-family low-income, housing project by The Ambassador, LP, a non-profit housing developer. At the time of the writing of this document, the underground parking structure where the proposed monitoring well

is requested to be installed has been completed and construction is occurring on the four-story multi-family residential building atop the parking structure. The ceiling height of the parking structure in the area of the proposed well is eight feet, and the floor is a six-inch thick reinforced concrete slab. The slab in the area adjacent to and within at least five feet of the former 1910 production well is underlain by about three feet of soil fill material followed by approximately eight feet of controlled density fill (CDF), which is a concrete slurry. The CDF is underlain by native soil.

BACKGROUND

Historically, the Property had been developed with an industrial laundry commonly known as Ambassador Laundry. This facility occupied much of the Property from about 1910 until the mid 1980s. Reviewed historical information does not suggest that dry cleaning was conducted by the laundry. In addition, to the laundry, the Property had automotive repair facilities and single family residences. The laundry building abutted the west Property boundary with maintenance and fueling facilities on the east side of the building, which is the approximate center of the existing Property and the primary area of environmental concern. The residences were located adjacent to Adeline Street on the east side of the Property. Vehicle fueling and maintenance was likely conducted at the laundry. Following use as a laundry, the Property experienced a mix of residential and commercial uses. Businesses operating at the Property included a spa assembly, a commercial sign company, art studios, bronze art foundry, a metal contractor, vehicle maintenance, and other commercial uses. All buildings had been removed from the Property by the end of 2005. A large billboard remained at the Property until its removal in 2012.

Based on information observed on a Sanborn Fire Insurance Map, the commercial laundry, that operated that the Property for over 70 years initially used their own water supply well. The well was apparently used to supply water to the onsite boilers, providing hot water to wash fabric. The 150-foot deep well was 12-inches in diameter, and was constructed with a light-gauge metal casing. The well was reportedly placed into service in about 1910 during construction of the building. During excavation activities for the subsurface parking, the well was discovered approximately five feet below the original ground surface. The well was decommissioned under oversight of James Yoo, Alameda County Department of Public Works on May 18, 2012. The well had floating product on the water surface that was analyzed and found to be a dense petroleum liquid. It is our understanding that having a floating petroleum on top of the water in a well that was developed in that time frame is common, and occurs from lubrication of the pump that was often positioned over the well.

Historical documentation suggests that the well was in the near vicinity of a wooden sump that was removed in 2005. In addition, three underground storage tanks in the immediate vicinity of the well have been removed. Each was found to have associated soil contamination. These tanks included: a 2,500-gallon UST removed by ACEH in 1995, a 750-gallon UST removed by Kleinfelder in 2007, and a 500-gallon UST removed by Golden Gate Tank Removal in 2012..
Soil in the tank pit of UST #4 was found to be affected by petroleum hydrocarbons. Adanta was contracted to observe the further removal of soil from the area of this UST. An area approximately 20 feet by 24 feet, and eight to 13 feet deep was excavated and soil removed from the Property to Keller Canyon Class II landfill in Pittsburg, California. In addition, Adanta installed an extraction well in an approximate down gradient groundwater flow direction (about 20 feet south southwest) from the production well to find if there was an area wide problem with floating product. An absorbent sock was placed in the well. The sock was removed from the well three times over the ensuing three months. The sock did not exhibit indications that free product was contained in the well.

SUMMARY OF PREVIOUS REPORTS

Adanta has reviewed several reports related to the environmental history of the Property, which was first developed in 1910 with a commercial laundry. The laundry building was of masonry construction with a concrete foundation. The building was razed in 2005. The Property also had a vehicle maintenance garage, a single-family residence, and storage sheds. The specific dates these structures were originally constructed are uncertain, but all of the buildings were removed in 2005.

Two underground storage tanks (USTs), one that stored heating oil and one that stored gasoline were removed from the Property in 1994 and 1995, respectively. The gasoline UST was in the northeast portion of the Property. Soil sampling confirmed that it had not leaked. In addition, two sumps were removed, one in 1999 and a second sump in 2005. In 2007 another UST was detected during a geophysical survey. That tank was subsequently removed. Kleinfelder, Inc. was contracted by the City of Emeryville to assess the contamination caused by leaks in the tanks. Results of soil sampling by Kleinfelder suggested that soil that had been affected would not be of regulatory concern. Groundwater sampling revealed that toluene and ethylbenzene were reported at concentrations exceeding the environmental screening levels (ESLs) in boring KB-9. Total petroleum hydrocarbons as gasoline (TPHg) was reported above the ESL in groundwater collected from two borings (KB-7 and KB-9), and total petroleum hydrocarbons as diesel (TPHd) and motor oil (TPHmo) were reported above ESLs in KB-8. Because of the reported contamination, Kleinfelder installed six groundwater monitoring wells. During drilling of the monitoring wells, soil contamination by petroleum compounds was commonly only found

below 16 feet from surface. Groundwater was reported in the borings at about nine feet, after it rose from the "groundwater bearing zone" that was determined by Kleinfelder to be between about 20 and 25 feet below ground surface. It should be noted that Kleinfelder suggested that the groundwater beneath the Property surface does not have beneficial uses.

Fugro West (Fugro) conducted soil sampling at the Property from the surface and up to eight feet below surface. Fugro found that the primary contaminant of concern encountered during their sampling was lead, with a minor amount of TPHd and TPHmo. Fugro estimated that lead contamination was primarily found within two feet of the surface. Based upon the findings of their assessments as well as previous environmental assessments by others, Fugro wrote a Soil and Groundwater Management Plan (SGMP) dated January 6, 2011. An addendum was written to the SGMP dated February 8, 2011 at the request of ACEH. The SGMP details how to deal with contaminated soil (and potentially groundwater) at the Property so that the soil (and potentially groundwater) might be appropriately managed during excavation and removal from the Property.

In December 2011, Adanta, conducted additional soil sampling at the Property to better assess the quantity of near-surface soil that would eventually have to be removed from the Property and transported to a regulated facility. Adanta advanced 44 soil borings to three feet below ground surface using hand driven augers. Four soil samples per boring were analyzed using an XRF in order to detect and profile lead content at various depths in the soil. Soil samples were collected at the surface, and at one, two, and three feet below surface. The resulting soil sample data provided information for a better understanding of the quantities of soil to be disposed at a Class I facility. Predominately, it was found that the majority of soil contamination was located within six inches of the soil surface. Additional soil sampling was conducted during excavation activities using the XRF as a guiding field instrument. Approximately 750 cubic yards of soil was removed to a Class I landfill facility in Utah.

During subsequent soil excavation activities for the subsurface parking garage, the removed soil was off-hauled to Keller Canyon a Class II landfill for disposal due to slight to moderate hydrocarbon odor. Seven soil samples were collected at the bottom of the excavation in locations where contractors had previously smelled a hydrocarbon odor. Of the seven samples, one was reported by the laboratory to have concentrations of petroleum hydrocarbons above the ESL. Subsequently that location was excavated along with the soil from UST #4.

EXISTING SOIL AND GROUNDWATER DATA

There is a considerable amount of environmental assessment data within the near vicinity of the recently decommissioned well in the area of concern. A wooden sump, very near to the northeast of the well, was removed by Clayton in 2005. Soil data is available to a depth of about 16. Oily water and construction-type debris nearly filled the sump. Three USTs have now been removed within about 25 feet to the east of the well, a 2,500 gallon UST removed in 1995, a 750-gallon UST removed in 2007, and a 500-gallon UST removed in 2012. There is soil sampling data for each tank removal. Four monitoring wells were installed in the near vicinity of the decommissioned well, but all have been abandoned. However soil and groundwater data are available for three of the wells, and groundwater data is available for the fourth well. In addition, there are three additional soil borings that have soil sample analytical results and one soil vapor sampling location in the UST area (Please refer to Figure 2 for the approximate locations of these features). Furthermore, the floating product found in the decommissioned well was analyzed by fuel fingerprinting, and the water beneath the floating product was analyzed for numerous constituents.

CONCEPTUAL SITE MODEL

As required by ACEH, a Conceptual Site Model (CSM) will be developed to achieve a better understanding of Property environmental conditions. The following is taken from the California LUFT Manual: September 2012

The California State Water Resources Control Board (State Water Board) Low-Threat Underground Storage Tank (UST) Case Closure Policy (Case Closure Policy) defines the CSM as: "a fundamental element of a comprehensive site investigation. The CSM the and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential receptors (including water supply wells, surface water bodies, structures and their inhabitants)."

The objectives of a CSM are

- To convey an understanding of the origin, nature, and lateral and vertical extent of contamination.

- To identify potential contaminant fate-and-transport processes and pathways.

- To identify potential human and environmental receptors that may be impacted by contamination associated with the site.

- To guide site investigation activities and identify additional data needed (if any) to draw reasonable conclusions regarding the source(s), pathways, and receptors

- To frame the evaluation of risk to human health, safety, and the environment posed by releases at a site.

To comply with the objectives of the Regional Water Quality Control Board, the CSM will describe physical, topographic, soil and groundwater characteristics of the Property, and of the general area of the Property. A history of the use of the Property as well as environmental assessment activities will be compiled from readily available data obtained in regulatory databases and from The Ambassador, LP.

Known and potential sources of contamination will be identified, and remediation efforts of known contamination will be compiled. Potential beneficial uses of groundwater will be discussed on a local and regional basis. Ample graphics will be presented following the report that show Property conditions, as it was at the time of the assessment activities, and as it currently exists. The graphics will be presented in both plan view and in cross-section. The graphical representations will contain environmental and physical data where appropriate.

GROUNDWATER MONITORING WELL INSTALLATION

MOBILIZATION AND OFFICE ACTIVITIES

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Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be prepared by Adanta prior to commencing field operations. The HASP will address known or potential health and safety hazards that may be present at the Property, and possible precautions to avoid personal injury from the hazards. The HASP will include a map of the Property area with a direct route to the nearest emergency medical facility. Adanta will conduct worker's Health and Safety meetings prior to the commencement of each day's scheduled field activities.

Subcontractors

Adanta will contact necessary subcontractors, such as drilling companies and environmental analytical laboratories to secure times and reasonable costs to conduct the project as described in this work plan.

In-House Meeting

A meeting will be held among Adanta staff to clarify each aspect of the project in order to limit misunderstandings and promote a smooth operation during mobilization and field activities. In addition, a Project Manager will be assigned to the project who will be responsible for all project-related activities, and will be a single source of contact for the client as well as the ACEH.

PURPOSE OF WELL

The ACEH has required installation of a monitoring well in the near vicinity of the former 1910 production water well that was used to pump groundwater to boilers inside the laundry. When discovered during excavation of the Property for subsurface parking the well was observed to have floating product. Because of the viscosity of the floating product it was difficult to determine the depth of the free product. An oil/water interface probe was used to assess thickness, however the probe tip was clogged by the viscous petroleum liquid and would not produce an accurate reading. It is likely that the depth of the free product was no more than about four or five inches based on what was observed during the well abandonment process.

At the beginning of the well abandonment process, Pitcher Drilling placed a steel well casing that was about 14-inches in diameter and 20-feet long over the top of the existing 12-inch diameter steel well casing. This larger casing was pounded into the ground by using an excavator bucket as the driving force. Following placement of the larger casing Pitcher attempted to measure the depth of the well, and found that it was likely the action of the excavator bucket pounding on the over casing apparently crumpled the existing well casing, preventing access to the bottom of the well. Pitcher Drilling used an auger to drill through the suspected crumpled well screen in two places within 15 feet of the existing ground surface.

The approximate upper eight feet of the abandoned production well was excavated during removal of contaminated soil associated with UST #4. The soil adjacent to the former well was noted to have contained an obvious petroleum odor and petroleum staining was observed in the soil, however indications of petroleum saturation or free product was not observed during excavation. The soil surrounding the former well appeared similar to other soil in tank excavation area.

MONITORING WELL DESCRIPTION

ACEH requires the placement of a well in the near vicinity of the previous 1910 production water well to find if the free product from the production well entered the soil and groundwater in the area. Based upon observation during over-excavation of UST 4, groundwater in the vicinity is within 10 feet of surface, although the recovery time is very slow. Close to the former location of the production well the surface is covered with a six-inch thick reinforced concrete slab followed by approximately three feet of fill soil. Beneath the fill soil is about five to six feet of CDF which is underlain by natural soil. Natural soil is about eight to nine feet below the concrete surface of the floor of the subsurface parking structure.

Prior to excavation for the subsurface parking, the original Property ground surface in the area of the 1910 production well was at approximately 28 feet amsl. The surface where the UST was excavated and the production well was discovered had been cut for the ramp leading from 36th Street into the subsurface parking. At the time of the tank removal, the area of UST #4 was approximately four to five feet below original grade (23 to 24 feet amsl) The over-excavation of the soil in the area of UST #4 was to a depth of about eight feet. In addition, a trench was excavated in the middle of the over-excavated area a further five feet. The bottom of the main section of the over-excavation was about 15 feet below the original Property surface (13 feet amsl), and the bottom of the trench was at about eight feet amsl..

The proposed well will be constructed to a total depth of about 15 feet below the existing concrete pad. The upper five feet of the well would consist of two-inch diameter blank PVC well screen, while the bottom 10 feet of the well would consist of a 0.020-inch machine slotted PVC well screen (please refer to the well diagram presented as Figure 3). This is designed to place the static water level approximately in the middle of the well screen. A #3 silica sand filter pack will be emplaced in the annular space of the boring. A two foot thick bentonite chip seal and cement grout will complete the well seals. The surface completion will consist of a three foot deep concrete annular seal and an 8 or 12-inch diameter flush-mounted steel well vault set in a 2-foot diameter concrete pad.

A specialty drill rig will be necessary to undertake this project due to limited space in the area where the well is to be placed. Adanta proposes to use a Marl 1.5T Warthog owned and operated by Gregg Drilling to complete the well drilling. This particular drill rig reportedly can install two-inch diameter wells in areas with a ceiling height of seven feet, which would accommodate the limits of conditions in the designated area.

SOIL AND GROUNDWATER SAMPLING

Due to well construction parameters there would be no naturally-occurring soil to sample until a depth of about 10 feet below surface. Adanta will collect soil samples with a continuous core (either punch core or continuously driven drive sampler [SPT]) from approximately10 to 15 feet below surface during drilling activities. Soil samples will be collected from the core at lithologically appropriate intervals. Particular attention will be given to attempting to sample the soil at the CDF/fill soil interface, and the fill soil/natural soil interface. Samples will be removed from the core and collected in laboratory-cleaned glass sampling jars. The sample containers will be sealed, labeled, and then placed in an ice chilled cooler for transport to a State-certified environmental analytical laboratory. Samples will be handled under normal chain-of-custody protocol to protect the legal integrity of the samples.

In addition, following development of the well groundwater samples will be collected for laboratory analysis. Prior to sampling, an oil/water interface probe will be utilized to detect and measure potential LNAPL. If LNAPL is detected, a clear disposable bailer will be used to collect a sample. A disposable bailer will be used to remove three well volumes (if possible) of water from the well. A clean disposable bailer will then be used to collect groundwater, which will be transferred to appropriate laboratory-cleaned glass sampling vessels. The sample containers will be sealed, labeled, and then placed in an ice chilled cooler for transport to a State-certified environmental analytical laboratory. Samples will be handled under normal chain-of-custody protocol to protect the legal integrity of the samples.

Laboratory Analyses

Adanta will have soil samples analyzed for the following:

- TPHd and TPHmo using US EPA method 8015 M
- Volatile Organic Compounds with TPHg using method 8260b

Groundwater will be analyzed for the following:

- TPHd and TPHmo using US EPA method 8015 M
- Volatile Organic Compounds with TPHg using method 8260b

WELL DEVELOPMENT

The well seals will be allowed to set for 48 hours before the well is developed by a development rig equipped for that purpose. The well will be bailed of residual drilling sediment and mud, surged with a vented surge block in 3 to 4-foot intervals, and finally pumped with a small electric submersible pump, assuming adequate flow. Apparent pumping capacity and recovery rate will be recorded to obtain a preliminary approximation of the well's capacity. Imhoff cones will be utilized to record sediment concentrations during the development process, and to document final sediment concentrations.

REPORT

Two reports will be provided for the project as described in this work plan. The first will be the Conceptual Site Model, which will contain information concerning the known history of the Property as well as a description of known sources of contamination, and environmental assessments of contaminated soil and groundwater. A description will be included of existing topographic, geologic, and hydrogeologic conditions at the Property and in the vicinity. In addition, the CSM will detail remediation efforts conducted to date. The CSM will contain graphics that adequately describe the data presented in the CSM, as well as tables of analytical data, and other appendices as appropriate.

The second report will contain an explanation of the assessment activities and the results of each activity. In addition, the report will contain a section that summarizes the appropriate data and makes recommendations for conducting or not conducting further work. The appendices of the report will contain photographs of the fieldwork, appropriate maps and figures including cross sections and boring logs, tables of the results of analyses, and laboratory analytical reports.

LIMITATIONS

In today's technology, no amount of assessment can ascertain that the Property is free of environmental concern. No warranty or guarantee is expressed or implied concerning the scope of work presented herein. The assessment activities described here will be conducted in accordance with accepted practice conducted in similar assessments conducted in the environmental industry for similar sites in this geographic region. Any physical data are to be used only by Adanta for the purposes set forth in this work plan, and for no other purpose.

Sincerely,
Adanta, Inc.

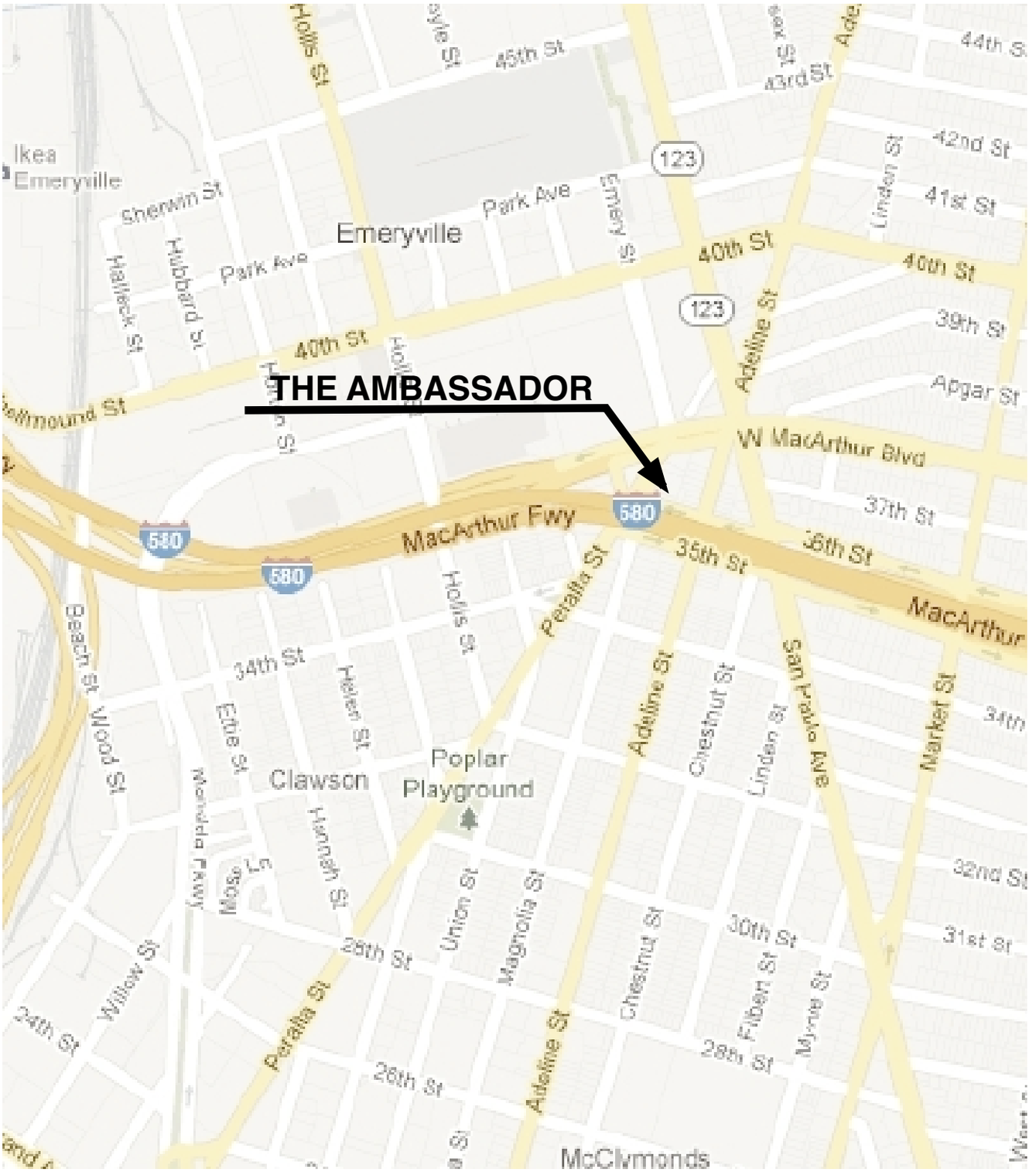
Nick Patz
Project Manager

Randolph C. Harris

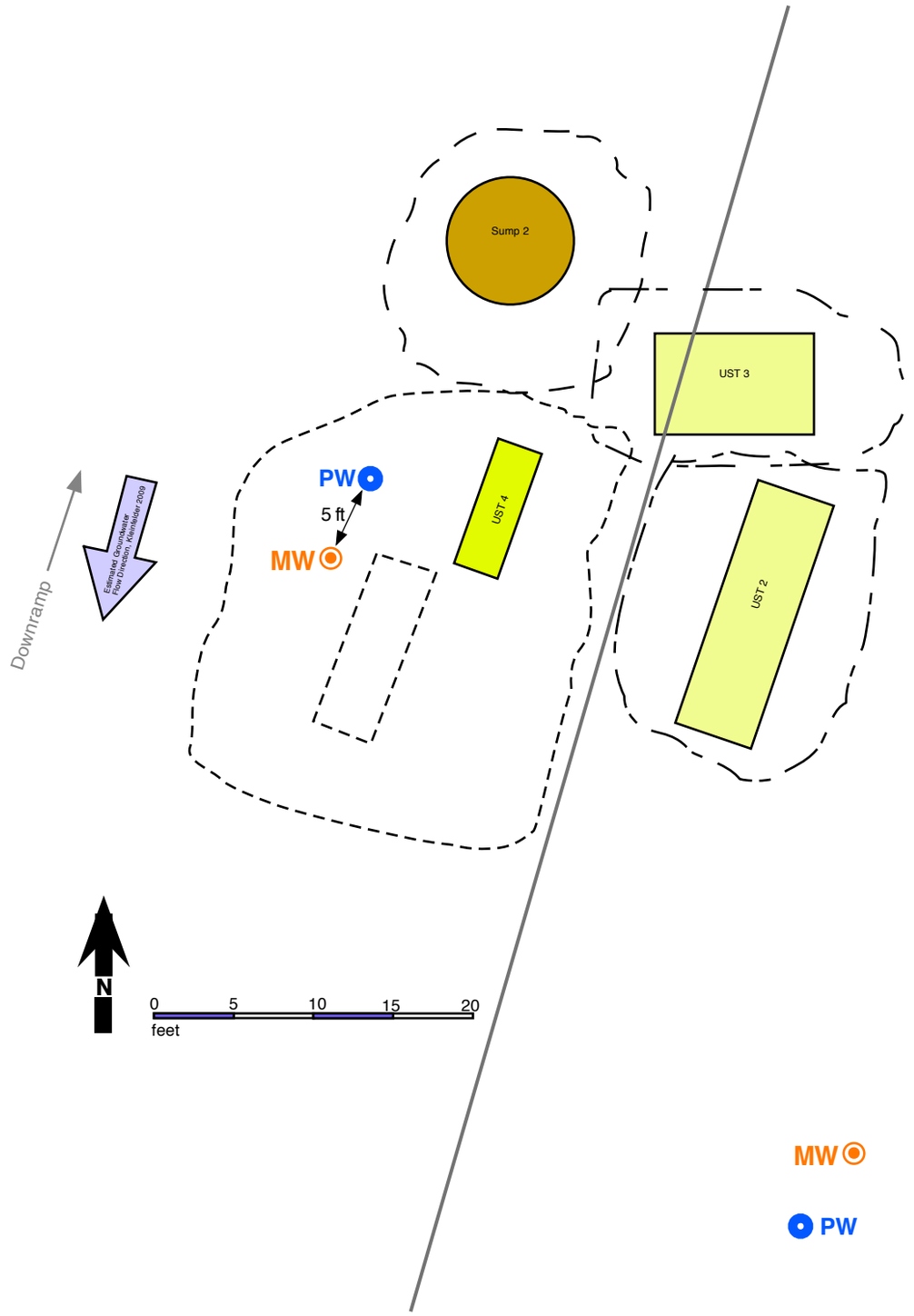
Randolph C. Harris, PG, CHG
Senior Hydrogeologist

REGISTERED GEOLOGIST
Exp. 9/14
RANDOLPH C. HARRIS
3708
STATE OF CALIFORNIA

Attachments
Figure 1 – Property Location Map
Figure 2 – Monitoring Well Location Map
Figure 3 – Monitoring Well Diagram



Base: Google Maps



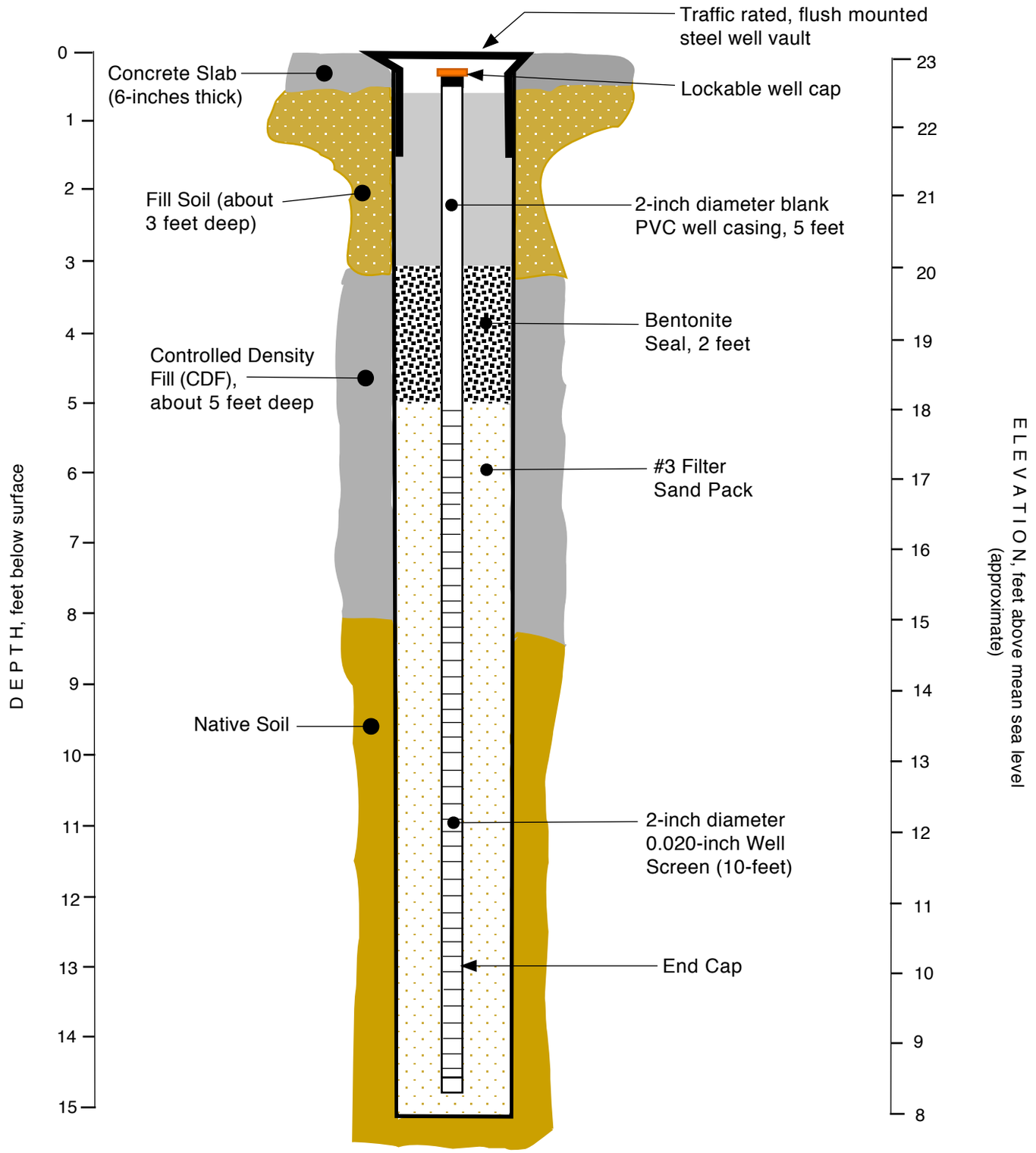
Adanta

The Ambassador
Emeryville, California

Project A1085-7 February 2013

MONITORING WELL LOCATION MAP

FIGURE
2



The Ambassador
Emeryville, California

Project A1085-7 February 2013

MONITORING WELL DIAGRAM

FIGURE
3