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Soil Management Plan

Former Pin High Golf Center
& 3 Adjacent Parcels
4701 North First Street
San Jose, California 95002

Submitted to:

Terra Hospitality, LLC

June 1, 2018

Prepared by:
Geologica Inc.

5 Third Street, Suite 808
San Francisco, California 94103
Phone: (415) 722-3629
Fax: (888) 858-1382

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Innovative Strategies for Managing Environmental Liability

June 1, 2018

Terra Hospitality, Inc.
c/o CBRE
225 W. Santa Clara Street, 10th Floor
San Jose, CA 95113

Attention: Mr. Jag Kapoor

Soil Management Plan
Former Pin High Golf Center & 3 Adjacent Parcels
4701 North First Street
San Jose, California

Dear Mr. Kapoor:

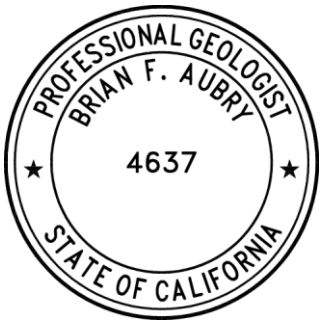
GEOLOGICA INC. is pleased to present this Soil Management Plan (SMP) for the above-referenced property. This SMP has been prepared to provide technical and operational guidelines to be followed during redevelopment and future invasive activities in identified areas of the property. This SMP was preceded by a Phase II Soil & Groundwater Investigation, which provided supporting data for this document (GEOLOGICA, 2016).

We have enjoyed working with you on this project and appreciate the opportunity to be of service. Should you have any questions, please do not hesitate to contact us at (415) 722-3629.

Very truly yours,

GEOLOGICA, INC.

Brian F. Aubry, P.G., C.E.G., C.Hg
Principal



GEOLOGICA INC.
5 Third Street, Suite 808 ~ San Francisco, California 94103
415.722.3629 telephone ~ baubry@geologicagroup.com

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1 INTRODUCTION

This Soil Management Plan (SMP) has been prepared to provide technical and operational guidelines to be followed during redevelopment and future invasive activities at (the "Project Site") in San Jose, CA (**Figures 1** and **2**). It is our understanding that the property is to be redeveloped for various commercial uses, including a Top Golf entertainment facility, a hotel, and retail / office use. Residential occupancy is not being contemplated. This SMP incorporates recent site characterization data described in a *Phase II Soil & Groundwater Investigation Report* by GEOLOGICA (2016).

The SMP addresses potential environmental issues that may be encountered during earthwork, landscape, and subsurface utility activities. These include the presence of concrete debris beneath portions of the project site and scattered detections of petroleum hydrocarbons and heavy metals in soil and groundwater. Low levels of pesticides, volatile organic compounds (VOCs), and polychlorinated biphenyls have been detected in limited areas. Previous site environmental testing results are summarized in a series of illustrative figures and tables in **Appendix A**. A site-specific Health & Safety Plan (HASP) prepared by Acumen (2018), covering relevant activities, is included as **Appendix B**.

2 SITE DESCRIPTION & HISTORY

2.1 SITE LOCATION & DESCRIPTION

The site comprises approximately 36 acres located in the northern area of the City of San Jose, CA (**Figure 1**), formerly Alviso. The property is identified by Santa Clara County Assessor's parcel numbers:

- 015-39-020 (10.3 acres) referred to herein as "Parcel 020";
- 015-39-026 (24.1 acres) referred to herein as "Parcel 026";
- 015-39-027 (~0.1 acre) referred to herein as "Parcel 027";
- 015-03-012 (0.6 acre) referred to herein as "Parcel 012"; and,
- 015-03-018 (1.4 acres) referred to herein as "Parcel 018".

Until recently, the Pin High Golf Center (4701 N. First Street) occupied the western two-thirds of Parcel 020 and the eastern half of Parcel 026 and a recreational vehicle (RV) storage yard occupied the western half of Parcel 026. The Pin High facility has closed and is being dismantled; the RV storage yard has been cleared of vehicles. A Verizon cell phone tower facility occupies Parcel 027; and Parcels 012 and 018 are undeveloped lots at the west end of the property. The elongated, irregularly-shaped site is bounded on the north by North First Street, on the west by Liberty Street, on the south by Moffat Street and the Guadalupe River channel, and on the east by undeveloped land (**Figure 1**).

2.2 PROJECT HISTORY SUMMARY

The following sections summarize site history.

2.2.1 GENERALIZED USE HISTORY

The subject property was reportedly under the same ownership since approximately 1940 to 2016. Various tenants have occupied portions of the property during that time. The subject property was mostly farmland from before 1939 until around 1970. A complex of farm buildings (some of which may date back to before 1899) was located near the middle of Parcel 026 until the late 1960s or early 1970s. There were also several buildings of uncertain use on the south side of Parcel 018 from before 1939 until the late 1960s or early 1970s. One or two inferred homes were present in the northwest corner of Parcel 012 from the early 1950s until the late 1970s. Parcels 012 and 018 subsequently remained vacant until the present.

More recently, Turner Equipment & Grading (Turner) and Excel Landscape (Excel) first occupied their portions of Parcel 026 in the 1980s, and then vacated by about 2009. In the late 1980s to early 1990s, the middle portion of Parcel 026 was being used as a storage yard for trailers, boats, and the like, while the rest of the site was vacant. The latter storage yard was replaced by the Pin High Golf Center in 1993/1994. The existing RV storage yard in the western half of Parcel 026 opened between 1993 and 1996.

2.2.2 HISTORY OF FILL PLACEMENT

Based on anecdotal information, it appears that areas in Alviso in the site vicinity were used historically, to varying degrees, as informal or formal receiving grounds for excess soils and demolition debris. For example, the Syntax Court Waste Disposal site is situated to the west of the property, near the intersection of Highway 237 and North First Street. In addition, the South Bay Asbestos Area comprises acreage to the east of the site. It has been determined that the subject property is not within the bounds of either the Syntax Court Disposal Site or the South Bay Asbestos Area. In a geotechnical report investigating the site, Terrasearch (1987) noted that this site was previously: "*at or below sea level, and the present topography is the result of a continuing program of land fill.*" The site elevation has apparently been raised at least in part to reduce the flood hazard. Other site investigations, described in **Section 4**, indicate that significant amounts of fill material with incorporated concrete and asphalt debris have apparently been placed in areas of the site over the years. The sources of the soils and debris are largely unknown. Fill may have started to be placed in Parcel 020 and in the eastern half of Parcel 026 in the 1960s, about the time when the Guadalupe River was channelized. Additional fill may have been placed starting in the late 1970s and extending to the late 1980s.

3 SURFACE & SUBSURFACE CONDITIONS

The following sections summarize the physical setting of the site based on previous work performed at the site by Terrasearch (1987), USE (2001), and GEOLOGICA (2016). These studies are summarized in more detail in **Section 4**.

3.1 TOPOGRAPHY

The property is located at the north end of the Santa Clara Valley. The property is situated on the coastal plain immediately south of tidal flats that fringe the southern San Francisco Bay. The topography in this part of San Jose has a very gentle slope to the north. However, the Diablo Range is located only about six miles to the east. Based on review of the U.S. Geological Survey's Milpitas topographic quadrangle (USGS, 1980), the natural elevation of the subject property appears to range from about sea level to approximately 5 feet above mean sea level. As noted above in **Section 2.2**, the site elevation has been raised by the placement of imported fill soils during and prior to the mid-1980s, at least in part, to reduce the flood hazard. Terrasearch (1987) reported 1 to 10 feet of un-compacted and undocumented fill material across the whole property. The fill material in places contains significant accumulations of concrete and asphalt debris as described in **Section 3.2**.

3.2 SOIL CONDITIONS

The subject site is located on a coastal plain near the tidal flats of the southern San Francisco Bay. Surficial sediments at the site have been classified as Holocene-age levee deposits, consisting of loose, moderate- to well-sorted sandy or clayey silt grading to sandy or silty clay (Helley et al, 1994). The former river channel at the southeast end of the site is mapped as a floodplain deposit (Helley et al, 1994).

As noted above, up to 10 feet of fill materials have been placed on top of native soils at the site. Terrasearch (1987) reports:

> "the entire site is covered with uncompacted fill and rubble ranging from 1 to 10 feet in thickness. Approximately 90% of the rubble consists of non-degradable broken concrete slabs. Beneath the fill, the native soils consist of basically medium stiff sandy silty clays with some local soft pockets."

USE (2001) noted that there was "a 14 feet thick concrete debris and gravel layer in the southeastern portion of the golf course and the low-lying area." In a previous geotechnical report for the site, USE (1985) noted that "at the time of our investigation, various organic debris, concrete blocks, and other refuse were being added to extend the fill area still further" to the southeast in Parcel 020. USE (2001) describes native site soils as "stiff silty clay" to a depth of at least 35 feet.

3.3 SURFACE WATER

The nearest significant surface water body is the channelized Guadalupe River, located along the southern border of the golf course (**Figure 1**). A former incised meander loop of the river is located along (and within) the southeast boundary of the subject site. This former channel segment is isolated from the present-day river channel. The channel segment apparently intersects the water table and therefore is believed to reflect first groundwater conditions. Several feet of perennial standing water are present in the channel.

3.5 GROUNDWATER

Shallow (First) Groundwater – USE (2001) indicated that groundwater was encountered in soil borings at depths of approximately 14 to 15 feet below ground surface (bgs). In contrast, boring logs in USE (1985) indicated that groundwater was encountered at depths in the range of about 7 to 18 feet, with most logs reporting groundwater at 7 to 8 feet bgs. Boring logs by Terrasearch (1987) reported that groundwater was encountered at depths in the range of 5 to 16 feet bgs. Shallow groundwater beneath the site is not a source of drinking water.

Deeper Groundwater – Subsurface data from the adjacent Syntax Court site indicated a deeper groundwater-bearing sandy zone is present at >33 feet bgs (GEOLOGICA, 2015). The deeper zone was found to be physically separated from the shallow groundwater-bearing zone by a 5 to 10-foot thick silt and clay horizon. Analyses of groundwater grab samples indicated that the deeper zone has higher salinity than the shallow groundwater (chloride concentrations up to 8,400 mg/L versus 2,000 mg/L, respectively). This suggests that the deeper zone has been impacted by salt water intrusion from San Francisco Bay.

Groundwater Flow Direction – Although the prevailing groundwater gradient is believed to be northwesterly parallel to the Guadalupe River, and towards San Francisco Bay, monitoring well data from the nearby 237 @ First Street Development site to the southeast (**Figure 1**) indicated that the site flow direction in shallow groundwater appears to be variable in the last few years, and is sometimes southeasterly, probably reflecting drought conditions (GEOLOGICA, 2015).

4 PROJECT SITE DEVELOPMENT PLAN

The property owners, Terra Hospitality, LLC, and one of the key tenants, Top Golf, Inc., are currently in the planning and permitting stages of Project Site redevelopment. The development plan is shown on **Figure 2**. The plan includes no residential occupancy. The site will be completely paved or otherwise covered after the development is complete. The Terra Hospitality development plan for the approximately 36-acre site includes:

- Top Golf – The Top Golf facility will be constructed on approximately 13½ acres of the site. The development will include construction of a three-story, 72,000 sq ft, indoor-outdoor golf and entertainment building comprising 120 hitting bays, restaurants, and appurtenant entertainment space. The hitting bays will face a driving range equipped with electronic target areas covered with artificial turf. Large boundary nets will border the sides and end of the driving range area. It is expected that the building(s) will be of steel frame construction with a slab-on-grade first floor. Parking, utilities, landscaping, and other improvements are also planned (Cornerstone, 2016).

- Hotel - A 200-room hotel is planned in the location shown in **Figure 3**. No details about this building were available at the time of preparation of this document.

- Retail - Approximately 110,000 sq ft of commercial / retail / office space along North First Street. No details about this were available at the time of preparation of this document.

Various associated underground utilities will also be constructed during development of the property. The buildings are expected to be supported on spread footings. Perimeter landscaping and parking lots will surround the buildings.

Development plans generally entail raising the site grade with clean fill material to support proposed construction pads and/or podium-style building construction with parking at street level and occupied commercial buildings on the upper level.

5 PREVIOUS SUBSURFACE INVESTIGATIONS

The following sections summarize geotechnical and environmental site assessment reports that have been prepared for the subject property. Previous site environmental testing results are summarized in a series of illustrative figures and tables in **Appendix A**.

5.1 GEOTECHNICAL ENGINEERING REPORTS

4.1.1. USE (1985): PRELIMINARY SOIL & FOUNDATION INVESTIGATION

This investigation was conducted to determine the nature of the surface and subsurface soil at the site. The investigation included 13 exploratory test borings, the collection of soil samples for geotechnical and pollutant analyses, and the installation of two piezometers for groundwater "pollutant testing." The pollutant testing was reportedly conducted by Safety Specialists, Inc.; however, the type of analyses and results are not discussed in this USE report. Soil boring depths ranged from 17½ feet to 40 feet bgs. USE found that "*varying amounts of fill and refuse currently exist on the site. The thickness of this fill material varies throughout the site.*" The fill thickness ranged from 5 to 12½ feet and was generally thicker towards the south. USE reported that "*at the time of our investigation, various organic debris, concrete blocks, and other refuse were being added to extend the fill area still further.*" Groundwater depth varied from 7 to 18 feet bgs among the borings. Piezometer borings, located on Parcel 020 and Parcel 026, were drilled to a depth of 23 feet bgs. USE was requested to close these piezometers in 1989. There is no regulatory file evidence that the piezometers were properly abandoned / closed under permit.

4.1.2 TERRASEARCH (1987): GEOTECHNICAL FEASIBILITY EVALUATION

This investigation, performed on former APN 015-39-016 (later re-parceled to 015-39-026 and 027) and Parcel 020, was for a proposed development of a mobile home park. The fieldwork included 7 borings and 11 backhoe test pits to collect soil samples for geotechnical testing. The depth to groundwater reported in the Terrasearch boring logs ranged from 5 to 16 ft bgs. Terrasearch (1987) noted that this site was previously "*at or below sea level, and the present topography is the result of a continuing program of landfill.*" The Terrasearch report concluded that "*the entire site is covered with uncompacted fill and rubble ranging from 1 to 10 feet in thickness. Approximately 90% of the rubble consists of non-degradable broken concrete slabs.*"

4.1.3 USE (2001): UPDATED GEOTECHNICAL INVESTIGATION

At the time of this field investigation, the site was described as "*an irregular-shaped, relatively flat parcel of land with scattered drainage channels located around the boundary of the site. An existing golf course and low-lying area occupied the eastern portion of the site. The central portion of the site was occupied by an RV storage yard…The northern section of the property was a vacant parcel of land. Due to the operation of the golf course, during our previous investigation, we could not gain access to the golf course and low-lying area adjacent to it. However, during this updated investigation access to the above-mentioned area was available.*"

The fieldwork consisted of 7 soil borings completed to depths ranging from 7 to 35 feet bgs. Groundwater was encountered in three of the borings at depths of 15-16 feet bgs. USE (2001) noted that there was "*a 14 feet thick concrete debris and gravel layer in the southeastern portion of the golf course and the low-lying area.*" Figure 2 of the USE report shows that the concrete-laden fill underlies the entire southern half of the golf course and the western half of Parcel 020.

5.2 ENVIRONMENTAL INVESTIGATION REPORTS

The following sections summarize previous environmental studies. Two studies (E2C, 2004b and GEOLOGICA, 2016) summarized below, included relevant soil and groundwater testing. Soil and groundwater analytical results of the E2C (2004b) Phase II investigation and the GEOLOGICA (2016) are summarized in a series of illustrative figures and tables in **Appendix A**.

4.2.1 E2C (1996): PHASE I & II ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed for the entire subject site. At the time of the study, land use at the site was the same as recent usage, except for a small section of Parcel 026 located on the south side of Moffat Street, at the east end of that street [currently vacant]. Two businesses leased that portion of the parcel: Turner Equipment & Grading and Excel Landscape. Excel was reported to have a 55-gallon drum, several partially full 5-gallon containers of used oil and coolant, and vehicle batteries stored on a wooden pallet. The premises of Turner were recorded as being relatively clean, but the ground surface was stained with petroleum products in several areas. E2C (1996) attributed the staining to leakage from vehicles. During their site inspection, E2C observed "numerous mounds of temporarily-stored soils" on Parcels 012 and 018. The maintenance area at Pin High was noted to have an aboveground 500-gallon gasoline tank. E2C reported that all areas at Pin High were very clean and well maintained. Additionally, asbestos testing was conducted at 15 locations to evaluate for asbestos in the onsite fill. Sampling locations were not identified, but reportedly did not include the Turner and Excel premises. The laboratory analyses did not detect the presence of asbestos in any of the samples. E2C concluded that was no adverse environmental impact from past and present activity on the subject site.

4.2.2 E2C (2004A): PRECURSOR SUMMARY PHASE I ENVIRONMENTAL ASSESSMENT

This study included Parcels 026, 027, and an adjacent property located on the south side of Moffat Street at Liberty Street. The environmental assessment was mainly comprised of a site inspection for each lessee along with photographs. E2C (2004a) identified the following concerns: 1) significant oil staining near the automotive lift and the waste oil basin at Turner Excavation, 2) a 55-gallon diesel tank at Pin High Maintenance Area that was in noncompliance due to the absence of secondary containment and inadequate support from its steel frame mount, 3) a 150-gallon aboveground diesel tank and battery acid associated with an emergency generator at the Verizon Wireless cell tower facility, and 4) unlabeled waste drums at Excel

Landscape. E2C (2004a) recommended Phase II soil sampling at Turner and Pin High to assess possible environmental impacts.

4.2.3 E2C (2004B): PHASE II ENVIRONMENTAL SITE ASSESSMENT

This Phase II investigation was conducted as a follow-up to the Precursor Phase I Assessment (E2C, 2004a) to evaluate for potential contamination at three target areas: (1) the former Pin High Maintenance Area, (2) Turner Equipment & Grading, and (3) vacant Parcels 012 and 018. E2C's investigation included a second phase of "step out" soil sampling after chemicals of concern (COCs) were identified during the first phase. Over 80 soil samples were analyzed by E2C (2004b). Selected soil samples were analyzed for one or more of the following analytes:

- Total Petroleum Hydrocarbons (TPH) as diesel & motor oil
- Total Oil & Grease (TOG)
- Metals
- Pesticides
- Polychlorinated Biphenyls (PCBs)
- Volatile Organic Compounds (VOCs).

Grab groundwater samples were collected for testing from each of the three target areas.

Results - Soil and groundwater analytical results of the E2C (2004b) Phase II investigation are summarized in a series of illustrative figures and tables in **Appendix A**. The soil analytical data indicated the presence of TPH as diesel, TPH as motor oil (TPH-d, TPH-mo) or TOG at scattered locations in all three target areas. Heavy metals such as arsenic, selenium, thallium, and mercury were noted at Turner Equipment and the vacant parcels. Traces of some pesticides and low levels of PCBs were noted within the vacant parcels. No VOCs were detected in any of the samples. No chemicals of concern were detected in the three grab groundwater samples. Results are detailed below:

- Total Petroleum Hydrocarbons - TPH-d was detected in 18 soil samples from the Pin High Maintenance Area at concentrations ranging from 1.7 milligrams per kilogram (mg/kg) to 716 mg/kg. TPH-mo was detected at concentrations of up to 1,250 mg/kg. TPH-d was detected in seven soil samples from Turner Equipment at concentrations in the range of 10-115 mg/kg. TOG was also detected in two samples from Turner Equipment at concentrations of 110 mg/kg and 4,700 mg/kg. Numerous samples from the vacant parcels contained TPH-d (0.6-985 mg/kg) and TPH-mo (1-1,748 mg/kg).

- Metals - Arsenic was detected in numerous samples from Turner Equipment at concentrations in the range of 6.7-33 mg/kg. Arsenic was detected in numerous samples from the vacant parcels in the range of 6.8-155 mg/kg, with most samples reporting less than 20 mg/kg. Background concentrations of arsenic in the Bay Area usually range up to about 15 mg/kg. Selenium was detected in three samples from Turner Equipment at concentrations in the range of 7.9-11 mg/kg. Selenium was detected in five samples

from the vacant parcels at concentrations in the range of 8.5-13 mg/kg. Thallium was detected in one sample from Turner Equipment at a concentration of 11.3 mg/kg. Thallium was detected in six samples from the vacant parcels in the range of 5.2-17 mg/kg. Mercury was detected in eight samples from Turner Equipment at concentrations of 0.074 - 4 mg/kg. Mercury was detected in numerous samples from the vacant parcels at concentrations in the range of 0.055-18 mg/kg, with all but two samples less than 10 mg/kg.

Based on environmental sampling and analysis conducted in June and August 2004 by E2C (2004b), concentrations of total petroleum hydrocarbons, metals, pesticides, and PCBs appeared to be occasionally present in soil at concentrations greater than the 2016 Environmental Screening Levels (ESLs) established by the Regional Water Quality Control Board (RWQCB). However, no indication of significant leaching to groundwater was noted. In addition, exceedances were not found to be associated with specific discrete sources or known historical use areas, but rather are likely present randomly within the undifferentiated fill material at the site.

4.3.4 GEOLOGICA (2016): SOIL & GROUNDWATER INVESTIGATION

GEOLOGICA performed a field investigation in 2015/2016 to confirm results from the E2C (2004b) Phase II assessment and evaluate current soil and groundwater conditions on the property, as well as to assess whether excavated soil and produced groundwater may require special handling and / or disposal during grading and excavation for redevelopment of the property. Eleven soil and groundwater sample borings (GP-1 to GP-11) were completed and sampled across the subject property. The total depths of the soil borings ranged from 20 to 28 ft bgs. Soil samples were collected at 4, 8, and 12 ft bgs. Soil samples collected were analyzed for the following analytes:

- TPH-gasoline & VOCs by EPA Method 8260B,
- TPH-d and TPH-mo by EPA Method 8015M; and,
- CAM 17 metals by EPA Methods 6010/7470.

Selected samples were also tested for:

- Organochlorine Pesticides (OCPs) by EPA Method 8081A; and,
- PCBs by EPA Method 8082.

Six groundwater "grab" samples were analyzed for:

- TPH-gas and VOCs by EPA Method 8260B.
- TPH-d and TPH-mo by EPA Method 8015M;
- Dissolved CAM 17 metals by EPA Methods 6010/7470Methods 6010/7470

Five additional soil borings were advanced to collect additional soil and groundwater samples in the vicinity of boring GP-2 (where higher TPH-d and -mo concentrations were detected) as follows:

- Four "step-out" boring (GP-2-N, GP-2-S GP-2-E, and GP-2-W) were placed 50 ft to the north, south, east, and west of GP-2.
- An additional step-out boring (GP-2-E2) was located 150 ft east of GP-2.

Results - Soil and groundwater analytical results of GEOLOGICA's Phase II investigation are summarized in a series of illustrative figures and tables in **Appendix A**. Testing results were largely consistent with E2C (2004b). Results indicated variable low levels of TPH-diesel and TPH-motor oil and various metals are present at scattered locations across the property in shallow soils. Low levels of pesticides and PCBs were present sporadically in limited areas. As with E2C (2004b), detections seem to be in most cases related to residual contamination present sporadically within the fill material placed at the property in the past (see **Section 3.2),** though minor impacts from site releases may also have occurred in a few locations.

One area of more elevated TPH-d and TPH-mo detections in soil (TPH-mo up to 4,800 mg/kg) was noted at location GP-2 in the southeast corner of the property (see **Appendix A**). TPH-d and TPH-mo detections were also noted in groundwater at this location (TPH-mo up to 10,000 ug/l). Step-out borings indicated that these detections were largely isolated to a small area. Given the use history of this area, these TPH detections are considered to be related to the undocumented fill and not indicative of an onsite source. Low levels of several chlorinated VOCs (including 1,1-DCE up to 18 ug/l) were also noted in GP-2. This appears to be related to the encroachment of the leading edge of the groundwater VOC plume sourced off-site on the adjacent property to the southeast, which is in long-term monitoring.

5.3 SUMMARY

As noted in GEOLOGICA (2016) and in previous work by E2C (2004b), low level exceedances of the 2016 RWQCB ESLs have been noted at scattered locations across the site in soil and, to a lesser extent, groundwater. These exceedances appear to be largely related to historic fill placed over the entire site randomly and do not preclude commercial / industrial development of the property as intended. Given that the site is to be developed for commercial use and will be completely paved or otherwise covered, no remedial work is proposed. Since unknown or uninvestigated areas of the site could contain low levels of TPH, metals, or other constituents, this Soil Management Plan (SMP) has been developed to provide guidelines for such activities as, but necessarily limited to, the following:

- Site grading to address soil stockpile management,
- Soil Stockpiling,
- Soil testing/waste classification for off-site disposal,
- Dust control,
- Storm-water & groundwater (if encountered) management,
- Worker safety.

6 ACTIVITIES COVERED BY SOIL MANAGEMENT PLAN

This section discusses the applicability of the Soil Management Plan. In general, any grading, excavation, drilling or other invasive activity involving soil disturbance will invoke this SMP.

6.1 CURRENT PROJECT SCOPE OF INVASIVE ACTIVITIES

Site grading for the new development will, in almost all areas of the Project Site, involve raising of the site grade by importation of clean fill across the property, as described above. Activities that will require shallow excavation/earthwork will likely include, but may not be limited to, the following:

- Rough grading
- Trenching for utilities to depths of 5 to 8 ft below ground surface (bgs).
- Construction of Top Golf Hitting Targets may require excavation to approximately 7 ft below ground surface.
- Excavation / drilling for building footings.
- Stormwater bioswales / filtration catchments requiring excavation to 2 to 4 ft bgs.

Project excavation activities will comply with this Soil Management Plan (SMP).

6.2 POST-CONSTRUCTION SCOPE OF INVASIVE ACTIVITIES

Post construction future activities that may invoke this Soil Management Plan will primarily comprise future installation, repair, or modification of utilities beneath or outside the buildings.

7 SOIL MANAGEMENT PROCEDURES

The main objective of the SMP is to describe management practices to be implemented related to handling of impacted soil and groundwater at the site to minimize the threat to human health and the environment. The SMP addresses issues to be managed during earthwork, landscape, and subsurface utility maintenance activities associated with the development and maintenance of the future 4701 North First Street development located in San Jose, California. It is anticipated that SMP activities will be coordinated with the environmental consultant. Health & Safety procedures are presented in **Appendix A**.

7.1 OVERALL EARTHWORK ACTIVITIES

Earthwork activities at the site will involve grading the existing Site to meet plan elevations. It is our understanding that grading would include the placement of roughly 1 to 2 ft of fill over existing grades to achieve final ground surface elevations across the site. This may vary in some areas based on specific development requirements in a given area. For example, based on preliminary grading plans, it appears that building finished floors at Top Golf will be raised up approximately 0 to 3 feet from existing grades,` to elevation 13.0 ft MSL for the golf and entertainment building. The driving range area will reportedly include fills ranging from 1 to 7 ft thick at the highest point, at the edges of the driving range. The current development plan intends that the site be balanced; i.e., that no imported fill will be necessary to achieve grades and that surface fill materials will be relocated on site as necessary. However, fill may be imported, as necessary, to achieve grades. It is estimated that a total of up to 20,000 cu yds of fill may be imported to the site. The project would require minimal cut on the site, mostly limited to the removal of existing paved surfaces and buried concrete, which would result in the off-haul of up to 20,000 tons of materials.

The site earthwork activities are summarized below and discussed in detail in Sections 7 and 8:

- **Project Layout** – The Contractor will engage a surveyor to survey the layout of existing and planned site features. Underground utilities will be located and cleared. Plans and specifications will be prepared to guide construction activities.

- **Mobilization** - The Contractor will mobilize equipment and establish any equipment and personnel decontamination areas and monitoring procedures, as described in the Health and Safety Plan (**Appendix B**).

- **Clearing and Grubbing** – The Pin High facility and structures will be demolished and removed. Vegetation, concrete blocks, and asphalt paving onsite will be demolished, removed, and disposed.

- **Site Grading** - The Contractor will excavate, haul, place, and compact soil to achieve design grades across the site. The current development plan intends that the site be balanced; i.e., that no imported fill will be necessary to achieve grades and that surface fill materials will be relocated on site as necessary. However, fill may be imported, as necessary, to achieve grades. Concrete blocks and debris, if encountered during rough grading, will be stockpiled for removal off-site.

- **Soil Excavation and Stockpiling** – Specific measures must be followed for excavation, relocation, and stockpiling of soils. The contractor will stockpile soil from the site in an area properly prepared and maintained. Excavated soil for stockpiling will be wetted, covered with visqueen and secured to minimize fugitive dusts.

- **Off-Site Transport and Disposal of Soil** – The contractor will work with the environmental consultant to profile soils prior to off-haul and disposal.

- **Import of Clean Soil** – The contractor will follow specifications for testing of import fill materials.

- **Excavation for Subsurface Utilities** – The contractor or other building subcontractor will install the storm drain, sanitary sewer, electrical, gas, and water lines.

- **Construction Dewatering** – The contractor will follow procedures for handling water encountered in excavations, if any, including on site containment and characterization for disposal in the sanitary sewer, if permitted, or disposal off-site. Produced water may not be discharged to the ground or storm sewer.

These activities are described in further detail below. Worker training requirements are detailed in Section 9. Section 10 describes equipment cleaning and decontamination procedures.

7.2 PROJECT LAYOUT

Prior to initial site grading/earthwork on the site, the Health and Safety Plan will be implemented and, if deemed necessary by the Health & Safety Officer, include installation of monitoring stations for airborne dust. Procedures for air monitoring during construction are described in **Appendix B,** the site Health and Safety Plan for this SMP. A surveyor licensed in the State of California will survey the layout for all proposed utilities, storm drains, and final site grading elevations. The layout will be in accordance with the contract documents. These documents will consist of the plans and specifications that will be prepared and issued by the project architect and the civil engineer. If necessary and/or required, the Contractor will engage Underground Service Alert (USA) to mark and locate all existing utilities as they enter and exit

the site. A private utility locator may also be required to mark all utilities on the site and the surveyor will note their location on the site grading drawing.

7.3 MOBILIZATION

The Contractor will mobilize all needed equipment to the site, and coordinate with environmental consultant to establish any decontamination areas, exclusion zones, and/or contamination reduction zones as may be required by the Health and Safety Plan (**Appendix B**).

7.4 DEMOLITION, CLEARING AND GRUBBING

Demolition, clearing and grubbing at this site will consist of removal of Pin High structures and site preparation for earthwork; this may include removing surface vegetation, concrete blocks, or asphalt pavement exposed at the ground surface, etc. The site is currently vacant and, in some areas, unpaved as shown on **Figures 1** and **2**. As necessary, the Contractor will remove asphalt and concrete with standard heavy equipment and these materials will be stockpiled. Concrete and asphalt debris will be loaded into dump trucks and off-hauled to a recycling facility or other appropriate disposal site. Dust control measures, described in **Section 8** below, will be followed to minimize generation and offsite migration of nuisance dust during clearing and grubbing activities.

7.5 SITE GRADING

After the property has been cleared and grubbed, the Contractor will scarify, moisture condition, and compact all areas to receive fill materials specified by the soils engineer. The contractor will notify the environmental consultant of the schedule prior to grading and coordinate grading activities with the consultant. The grading plan indicates that in most areas, approximately 1 to 2 ft of soil (and in some places more) may be placed to raise the elevation of portions of the site. If the soils engineer identifies unsuitable soils or other materials (concrete, etc.) at final grade, additional excavation, moisture conditioning, compaction or off-hauling to an approved disposal facility may be required. Landscaped portions of the site will be covered with clean imported fill, as needed, to meet final grade. It is expected that paved parking areas will be constructed with 6 inches of aggregate base beneath 4 inches of asphaltic concrete as structurally required. However, actual pavement and aggregate thicknesses may vary based on final design requirements.

Imported fill will be placed using compactors and graders in a manner to allow minimal dust generation (see **Section 8.0** and **Appendix B** for dust control and air monitoring measures, respectively). Procedures for verifying the quality of import soil are described in **Section 7.8**.

Truck tires will be washed before leaving the site to prevent off-site transport of soil and dust. In addition, soil excavation for subsurface utility alignments and other subgrade features of the plan are described below.

7.6 SOIL EXCAVATION AND STOCKPILING

Soil excavation work will be undertaken carefully to minimize generation of fugitive dust. The contractor will notify the environmental consultant of the schedule prior to excavation and coordinate excavation activities with the consultant. As reviewed in **Section 8**, dust control measures are required to be used to minimize visible dust emissions and limit potential exposure to dust-born contaminants. Any excavated soil will be stockpiled appropriately. Soil which will not be direct hauled or appropriately relocated on-site at the time of excavation must be stockpiled in a manner that limits the potential for infiltration by rainwater and generation of dust and/or sediment laden runoff. Soils to be stockpiled shall be covered with a minimum 6-mil plastic sheeting secured with sand bags at the close of each work day and, at all times, during inclement weather. Hay bales or berms must be placed around the stockpile to reduce runoff. While remaining on-site, the stockpiles will be checked daily to verify that they are adequately covered. Stockpiled soil determined to be contaminated will be placed on 6-mil visqueen, covered, secured, and properly disposed of within 90 days of generation.

7.7 TRANSPORT AND DISPOSAL

The contractor will work with the environmental consultant who will sample soils for waste classification and profiling. After receiving the results of profile samples from a soil stockpile designated for off-haul, the results will be forwarded to an appropriate permitted facility for confirmation of acceptance for disposal. Upon selecting the disposal facility, the soil will be loaded into and transported by trucks that are fully licensed and permitted to carry hazardous waste. The trucking shall be conducted in compliance with Caltrans regulations and in accordance with all other applicable federal and local regulations.

7.8 IMPORT OF CLEAN SOIL

Imported fill material will likely be provided by the Contractor or the owner. A documented source or sources of clean fill will be identified for the import materials for this project. The contractor will be provided with the SMP. In practice, however, the grading contractor will confer with the Environmental Consultant (GEOLOGICA) to clear the material for on-site use. Documentation regarding the source and chemical characteristics of the clean fill will be provided by the grading contractor prior to importation of the material. This will include:

information on the previous use of the source area and whether any environmental information exists for the source area site such as an environmental assessment or results of testing. The contractor will, in association with environmental consultant, confirm that the material meets the import fill criteria. If the criteria are not met, then an alternate source of fill will be sought.

Additional sampling and physical and chemical testing may be conducted on the proposed import soils as described below to confirm that they are free of contaminants. If necessary, an appropriate chemical testing program will be developed based on the identified source area of the fill and information available, as generally described in the Department of Toxic Substances Control's (DTSC, 2001), *Information Advisory for Clean Imported Fill Material,* to confirm that the material is appropriate for use as clean fill at this site. Samples will be collected based on the sampling frequency appropriate for the source of the soil, and based on the judgment of the environmental consultant, for analysis to confirm that the soil meets the site criteria. Any detected concentrations in the clean fill will be compared with the 2016 San Francisco Bay RWQCB Commercial/Industrial Environmental Screening Levels (ESLs). However, naturally-occurring background levels of metals (e.g., arsenic) may be invoked in some cases as acceptance criteria for import fill material.

7.9 EXCAVATION FOR SUBSURFACE UTILITIES

Sanitary sewer, electrical, gas, and water utilities will be installed after clearing, grubbing, and grading is complete. Trenches will be backfilled with excavated soil or clean imported fill. All work in the utility trenches will conform to the guidelines of the Occupational Safety and Health Administration (OSHA). The Contractor will construct the sanitary sewer, electrical, gas, and water lines in accordance with the contract documents.

7.10 CONSTRUCTION DEWATERING

Groundwater is typically encountered at depths of 7 to 15 ft bgs at the site. It is not currently anticipated that any of the planned construction activities will encounter groundwater. However, groundwater at the site has been found to contain low concentrations of chlorinated VOCs. Consequently, any groundwater produced during construction activities must be containerized onsite in a Baker Tank or other appropriate storage container until characterized for appropriate disposal, or, characterized in-situ prior to disposal. The contractor will notify the environmental consultant if groundwater is to be generated and coordinate containment, sampling, and characterization activities with the consultant. Depending on characterization results and subject to approval from the City of San Jose, groundwater may be discharged to the sanitary sewer, although on-site treatment may be required. Alternatively, transport and disposal at a suitable offsite Treatment, Storage, and Disposal (TSD) facility is allowed,

provided transport and disposal is conducted in accordance with all applicable state, federal, and local regulations. In no case may site groundwater be discharged to storm sewer, the storm water drainage system, the ground surface, or any pathway (e.g., a drainage ditch) that might reasonably be expected to convey site groundwater off the property. Testing to characterize groundwater for disposal will likely consist of testing for VOCs by EPA Method 8260, Total Petroleum Hydrocarbons as gasoline, diesel, and motor oil, and Title 22 metals. Depending on the volume of water anticipated, the City of San Jose may impose additional testing requirements (e.g., chemical oxygen demand, or other water quality parameters).

8 DUST CONTROL MEASURES

This section presents the procedures that will be followed to minimize worker exposure to site constituents in airborne dust during grading and excavation. Site construction will implement the Bay Area Air Quality Management District's (BAAQMD) "Basic" and "Optional" PM10 (fugitive dust) control measures at the project site. The effectiveness of the dust control program will be monitored through the air monitoring program described in the Health and Safety Plan (**Appendix B**). The contractor will work with the environmental consultant to implement an air monitoring program. The following fugitive dust control measures will be implemented:

- Watering all active construction areas, including any exposed soil surfaces and stockpiles, as necessary to suppress dust.
- Covering all trucks hauling soil, sand, and other loose materials.
- Sweeping all paved access roads, parking areas, and staging areas at construction sites as necessary.
- Sweeping streets if visible soil material is carried onto adjacent public streets.
- Enclose, cover, and secure stockpiles (dirt, sand, etc.).
- Limit the area subject to excavation, grading, and other construction activities at any one time.
- Monitoring of perimeter dust generation with air monitoring devices in accordance with the air quality monitoring plan (**Appendix B**).
- Suspend excavation and grading activity when: (a) sustained wind speeds exceed 25 mph or (b) dust monitoring equipment indicating airborne dust concentrations exceed 0.5 mg/m^3. Do not allow dust to become a nuisance onsite or offsite.
- Clean all trucks and equipment leaving the site in accordance with the procedures detailed in **Section 10**.

9 TRAINING OF WORKERS

As discussed in the Site Health & Safety Plan (**Appendix B**) site workers will be working under the direction of a site supervisor who has completed a 40-hour training program that complies with the requirements of 29 CFR 1910.120(3). All site workers will have undergone site training regarding specific site hazards, including, but not limited to, lead hazard communication. The Health and Safety Plan (**Appendix B**) further discusses the procedures and requirements for site specific training.

At the beginning of each work shift, a tailgate session will be held to provide a refresher discussion on safety practices and to identify any safety items of special concern. All site workers will be trained in the provisions of this SMP.

10 DECONTAMINATION PROCEDURES

This section describes procedures for decontaminating construction equipment.

10.1 MATERIALS AND EQUIPMENT

The following is a list of equipment that may be needed to perform decontamination:

- Monitoring equipment and personal protective equipment (PPE) as outlined in the Health and Safety Plan (HSP)
- Decontamination brushes and scrapers
- Pressure (steam) washer
- Potable tap water
- 55-gallon drums or other approved containers

10.2 PROCEDURES

The main purpose of decontamination procedures is to ensure that site soils are not carried off site.

Personnel decontamination will be conducted in accordance with the HSP, **Appendix B**. Used PPE will be placed in trash bags pending disposal.

Heavy equipment that has been in contact with soil will be cleaned before leaving the site. The following steps will be used to clean heavy equipment:

- Before leaving site, brush sides of truck to remove soil that may adhere to sides.
- Before leaving site, brush/sweep tires to remove any soil adhering to tires.
- Sweep or vacuum up any spilled soil underneath or around truck during load out.
- As needed, use pressure washer to clean excavator blades, tires, etc. with soil adhering before leaving site.

Rinse and detergent water will be contained in an appropriate bulk container or labeled 55-gallon drums.

10.3 WASHWATER HANDLING

Water from cleaning activities will be containerized in 55-gallon drums or other approved containers, and the containers will be secured and placed in a designated location at the site. Each container will be labeled with its contents and the date using paint or a permanent marker. Pending receipt and review of analytical testing results, decontamination water will be characterized, and depending on characterization results, may be discharged to the sanitary sewer if approved by the City of San Jose Sewer Department and the San Jose/Santa Clara

Water Pollution Control Plant, to an approved disposal facility or TSD.

11 REFERENCES

E2C, 1996, Phase I and II Environmental Site Assessment, 4701 N. First Street, Alviso, California: for Sainte Claire Corp.

E2C, April 14, 2004a, Precursor Summary Phase I Environmental Site Assessment, 4701 N. First Street, Alviso, California: for Sainte Claire Corp.

E2C, September 20, 2004b, Phase II Environmental Site Assessment, 4701 N. First Street, San Jose, California: for Sainte Claire Corp.

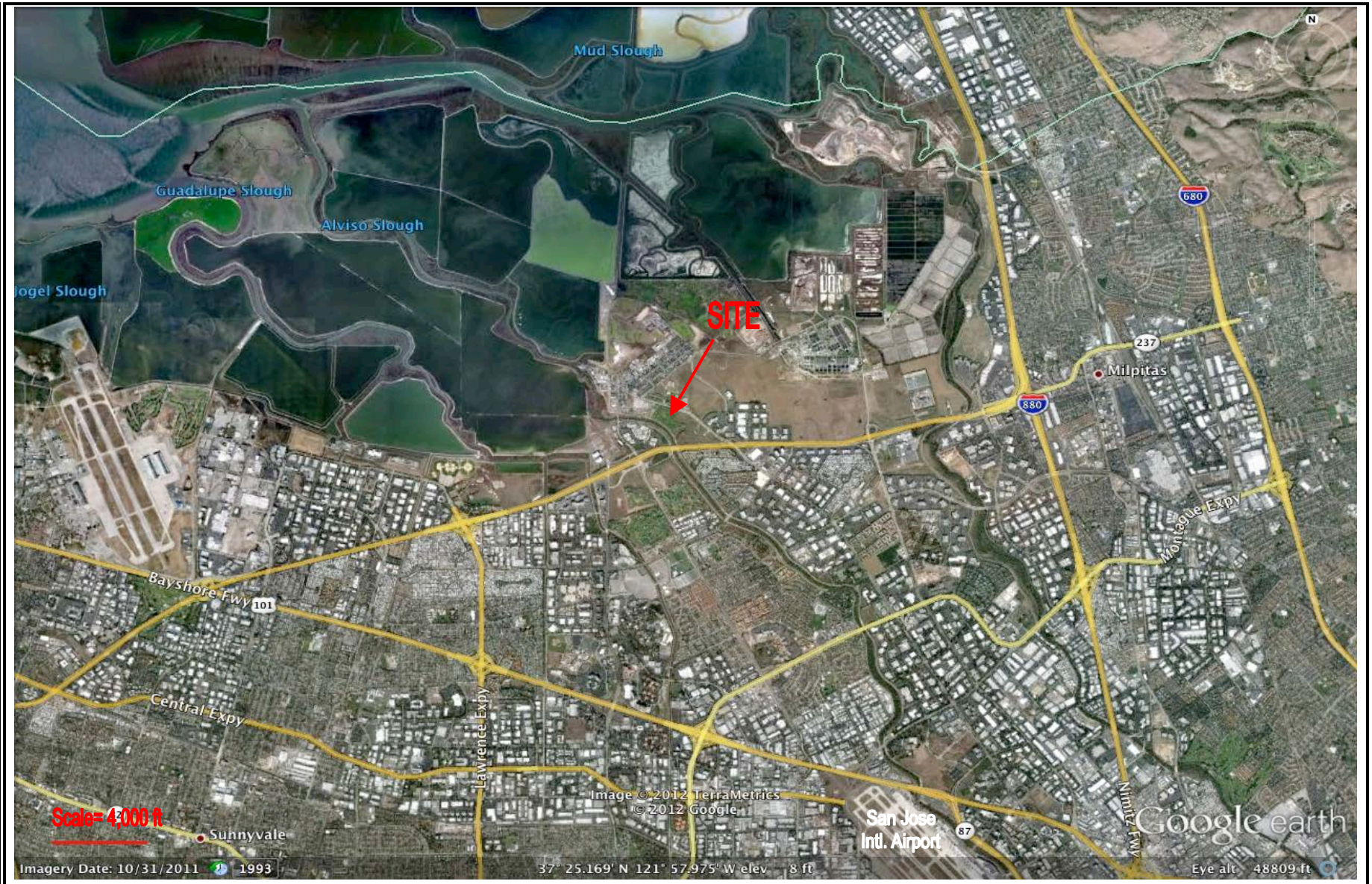
GEOLOGICA, March 17, 2016, Phase II Soil & Groundwater Investigation, Pin High Gold Center & 3 Adjacent Parcels, San Jose, California: for Terra Hospitality, Inc.

Terrasearch, Inc., March 25, 1987, Geotechnical Feasibility Evaluation on Proposed Mobile Home Park, St. Claire Corporation Property, Taylor Street, Alviso, California: for Brandenburg, Staedler and Moore.

United Soil Engineering (USE), July 1985, Preliminary Soil and Foundation Investigation and Piezometer Installation for Taylor Street, San Jose, California: for Lincoln Property Company.

United Soil Engineering, February 7, 2001, Updated Geotechnical Investigation and Pavement Design, Proposed Development Land of Saint Claire Properties, Southeast Corner of North First Street and Liberty Street, San Jose, California: for Boccardo Management Group.

Figures



N
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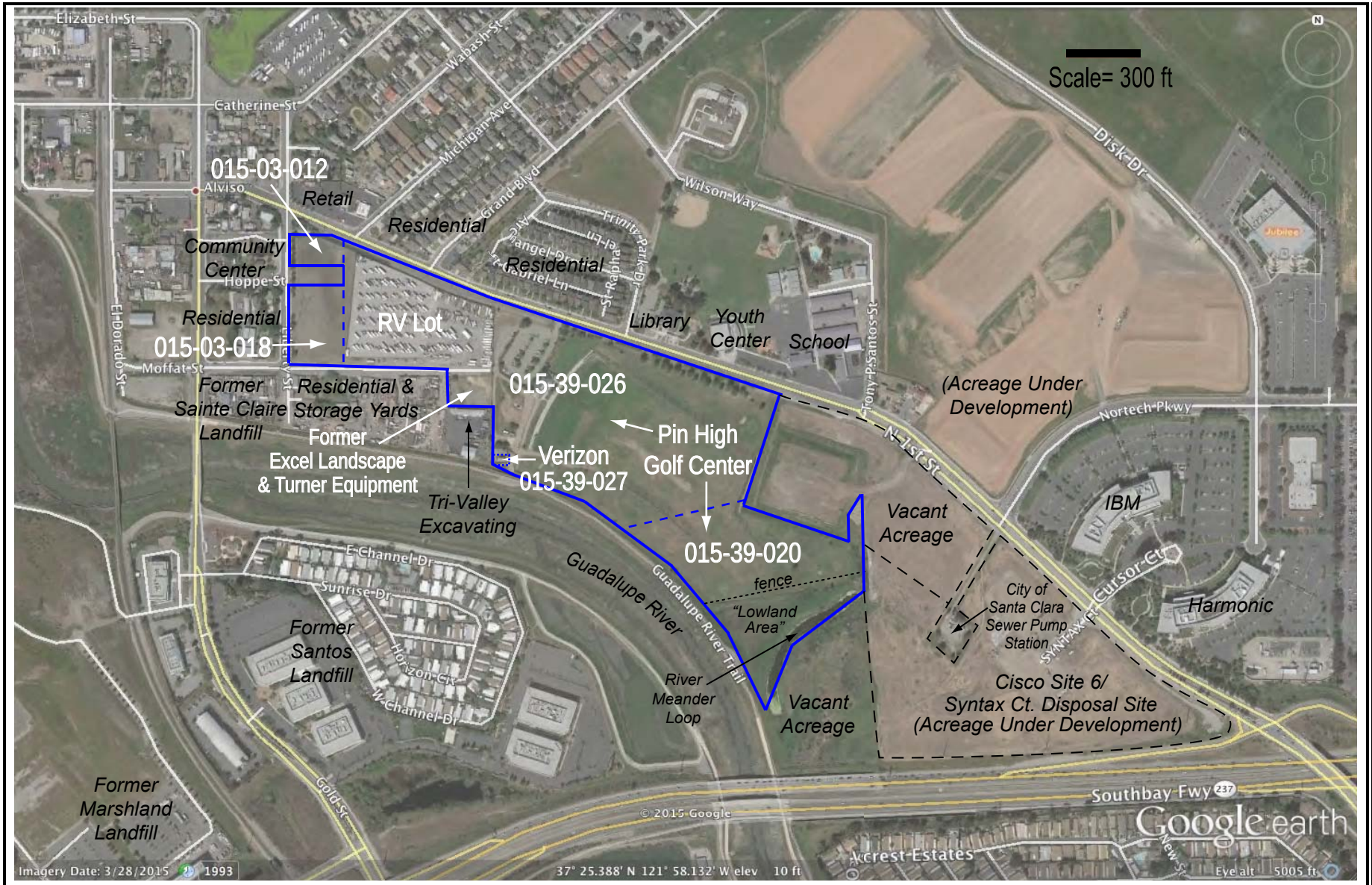
SITE LOCATION MAP

4701 N. First St
San Jose, CA 95002

FIGURE 1

geologica



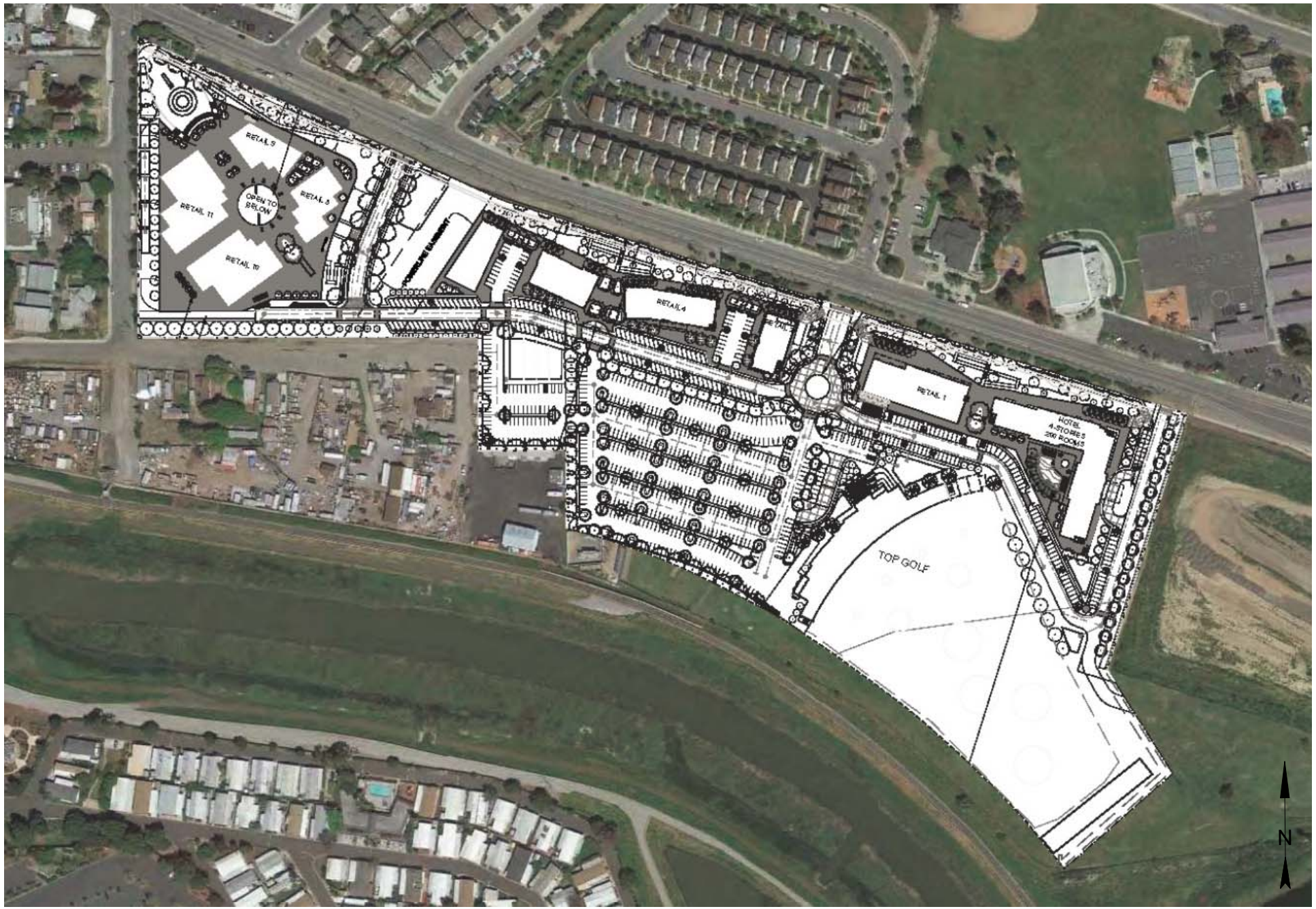
APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

SITE PLAN

4701 N First St
San Jose, CA 95002

FIGURE 2

geologica



geologica

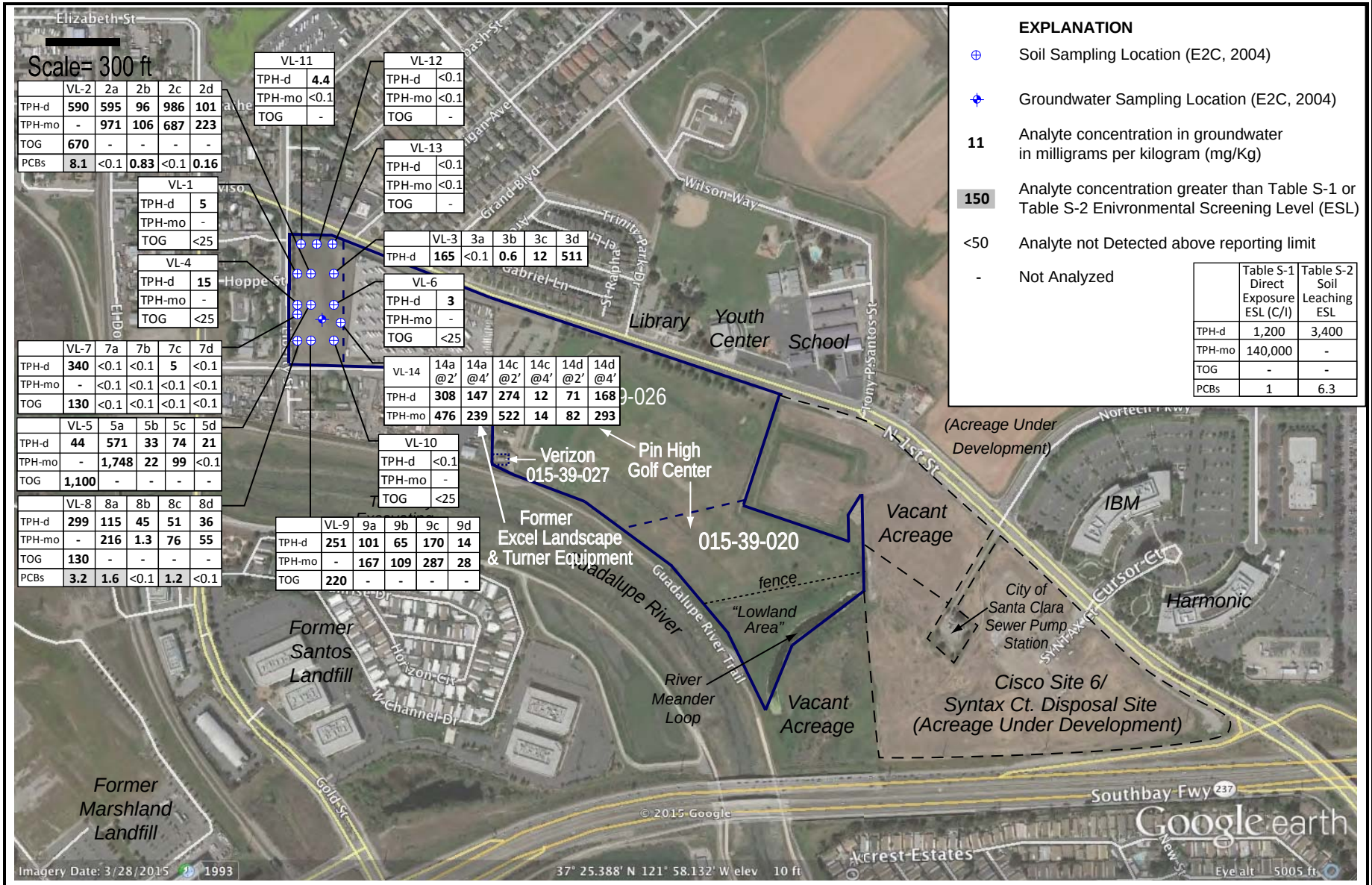
San Francisco, California

Former Pin High Golf Center
& 3 Adjacent Parcels
4701 N. First St
San Jose, CA 95002

PROPOSED
DEVELOPMENT PLAN

Figure 3

Appendix A



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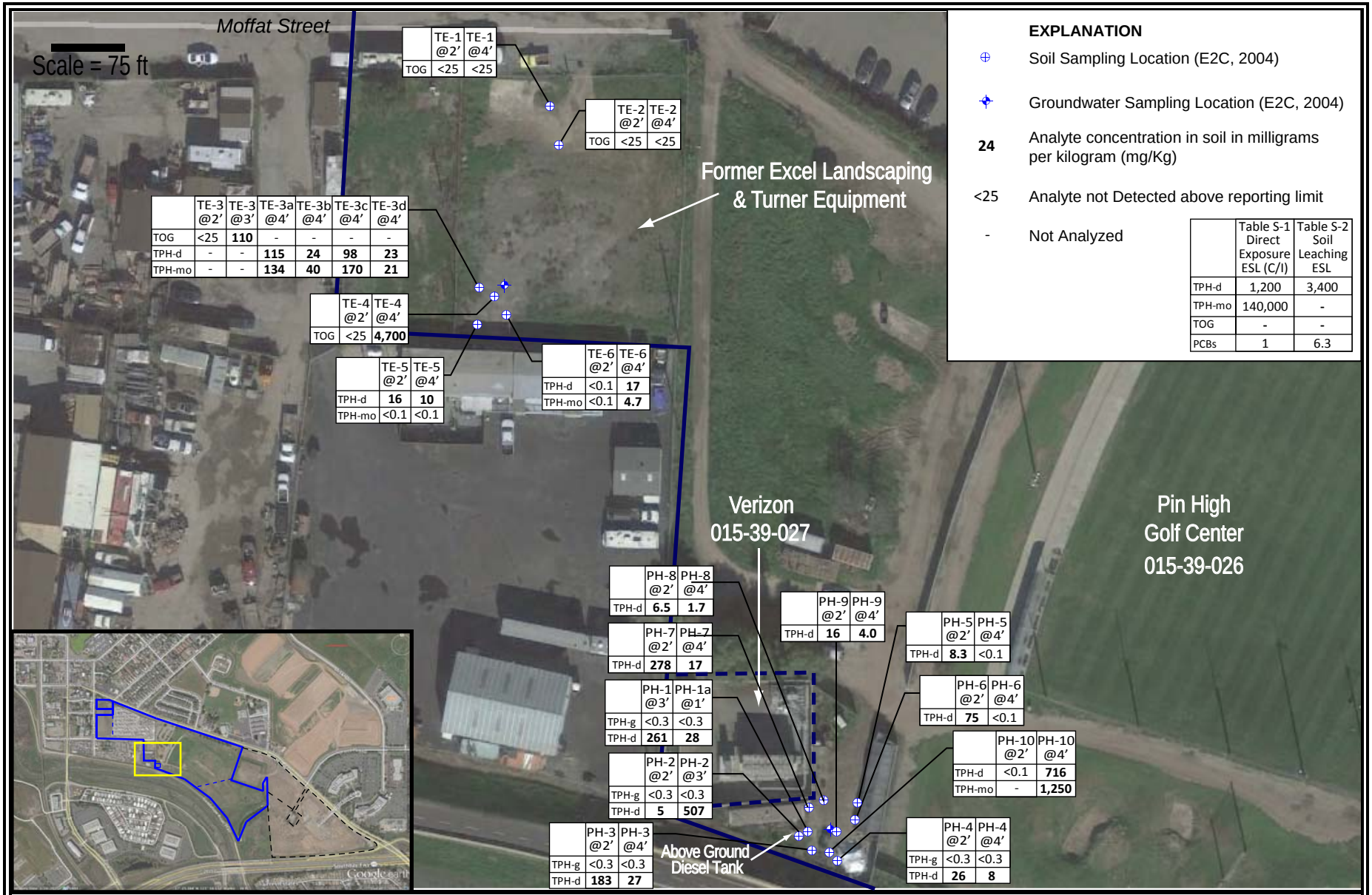
APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

2004 Soil Testing Results: Vacant Lot

Phase II Investigation
San Jose, CA 95002
FIGURE A-1a
geologica



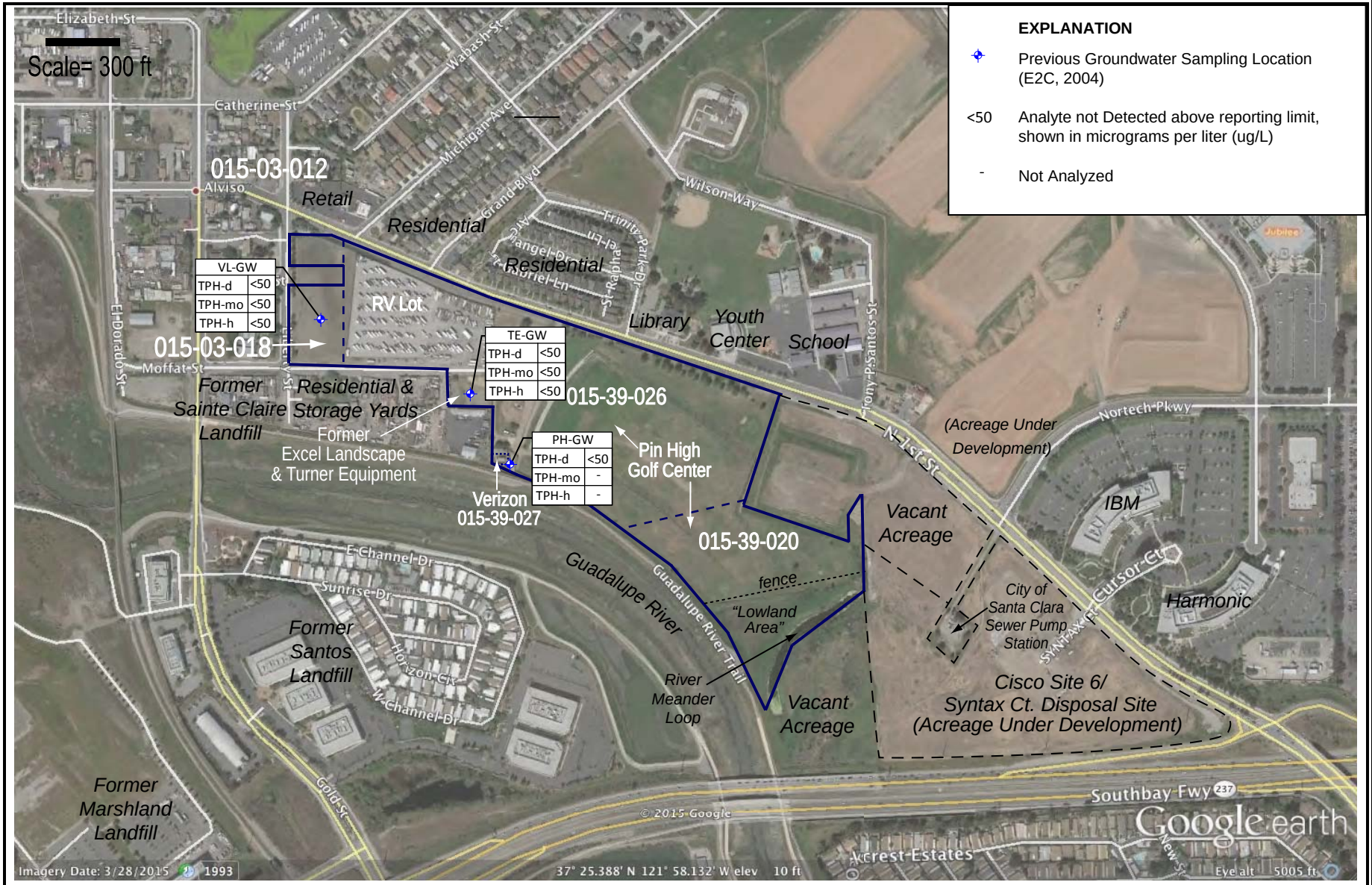
N W E S

APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

2004 Soil Testing Results:
Former Turner Equipment / Excel Landscaping and Golf Maintenance Yard

Phase II Investigation
San Jose, CA 95002

FIGURE A-1b
geologica



N
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APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

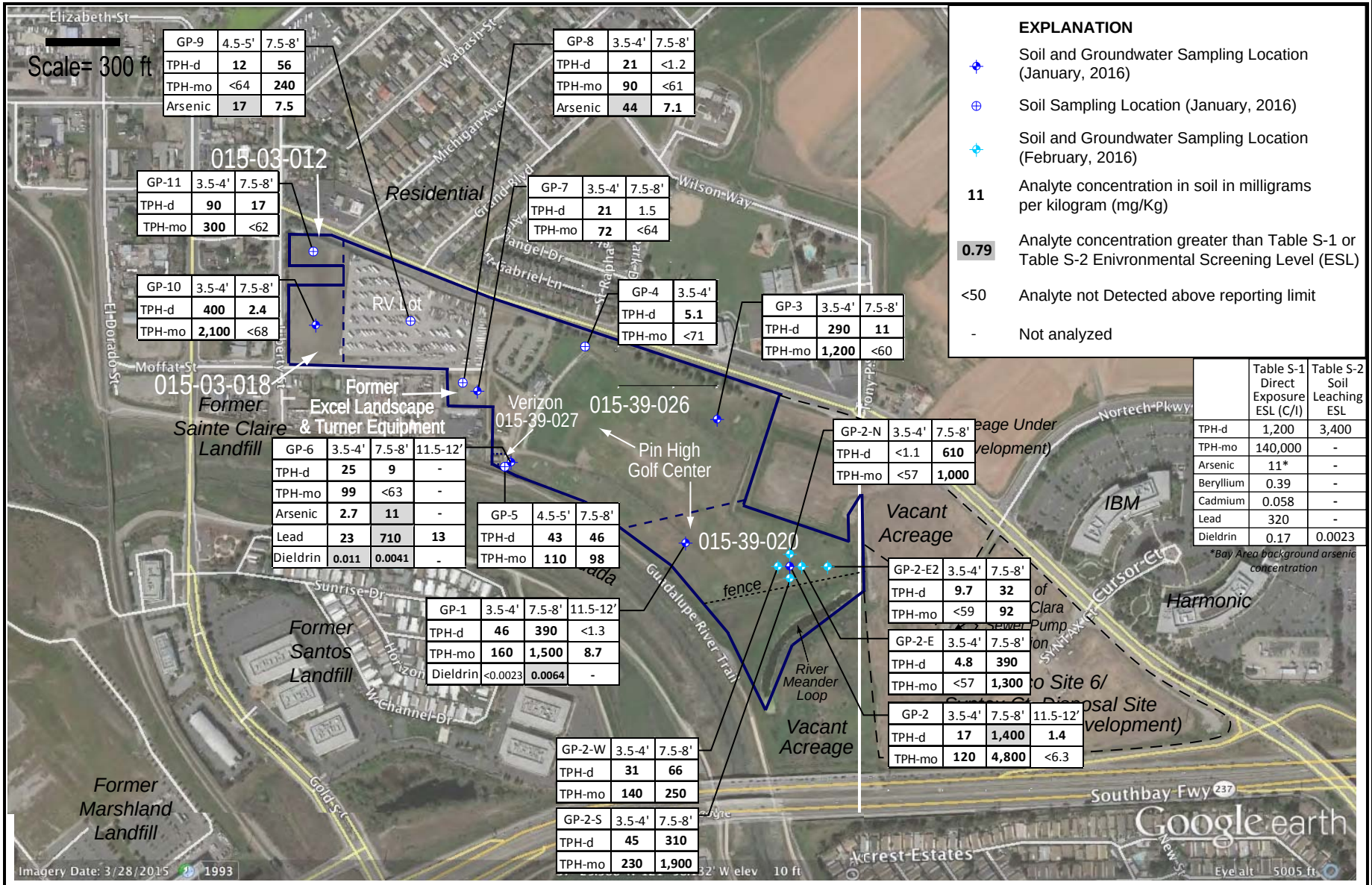
2004 Groundwater Testing Results

Phase II Investigation

San Jose, CA 95002

FIGURE A-2

geologica



N W E S

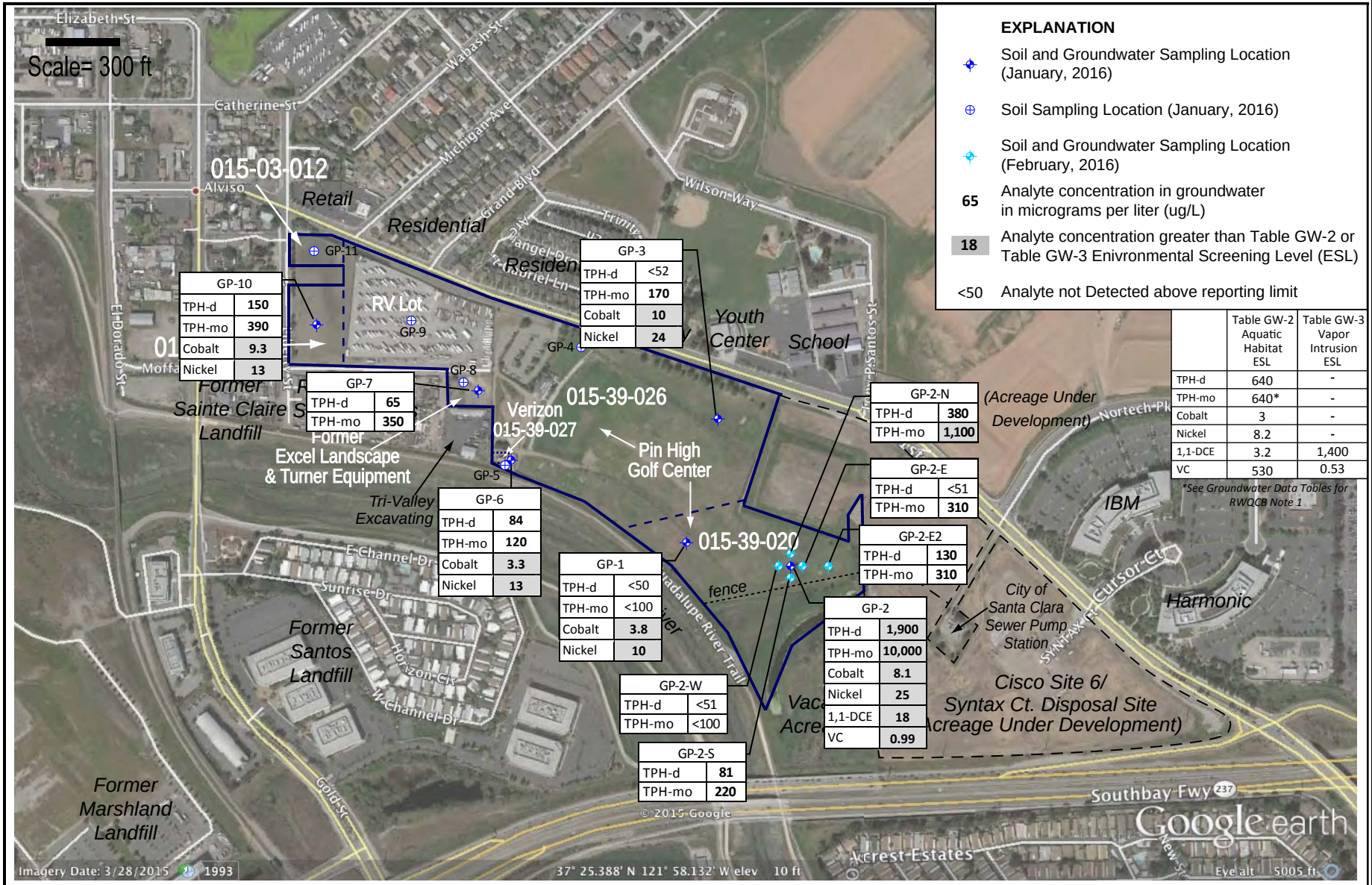
APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

2016 Soil Testing Results

Phase II Investigation
San Jose, CA 95002

FIGURE A-3

geologica



N W E S

APN 015-39-020	10.81 acres
APN 015-39-026	25.36 acres
APN 015-39-027	~0.10 acres
APN 015-03-012	1.376 acres
APN 015-03-018	0.619 acres

2016 Groundwater "Grab" Testing Results

Phase II Investigation
San Jose, CA 95002

FIGURE A-4

geologica

Table A-1

Summary of Pin High Golf Center 2016 Soil Sampling Results
San Jose, CA

Sample ID		GP-1-3.5-4'	GP-1-7.5-8'	GP-1-11.5-12'	GP-2-3.5-4'	GP-2-7.5-8'	GP-2-11.5-12'	GP-2-E2-3.5-4'	GP-2-E2-7.5-8'	GP-2-E-3.5-4'	GP-2-E-7.5-8'	GP-2-N-3.5-4'	GP-2-N-7.5-8'	GP-2-S-3.5-4'	GP-2-S-7.5-8'	ESLs	ESLs	ESLs
Sample Depth, ft bgs		3.5-4'	7.5-8'	11.5-12'	3.5-4'	7.5-8'	11.5-12'	3.5-4'	7.5-8'	3.5-4'	7.5-8'	3.5-4'	7.5-8'	3.5-4'	7.5-8'	Direct Exposure	Construction	Soil Leaching
Analytes	*Units*	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	2/23/2016	2/23/2016	2/23/2016	2/23/2016	2/23/2016	2/23/2016	2/23/2016	2/23/2016	(C/I)	Worker	
Petroleum Hydrocarbons																		
Gasoline Range Organics (GRO)-C5-C12	mg/kg	<0.290	<0.280	-	<0.320	<0.310	-	-	-	-	-	-	-	-	-	3,900	2,800	3,400
Diesel Range Organics [C10-C28]	mg/kg	**46**	**390**	<1.3	**17**	**1,400**	**1.4**	**9.7**	**32**	**4.8**	**390**	<1.1	**610**	**45**	**310**	**1,100**	**880**	3,600
Motor Oil Range Organics [C24-C36]	mg/kg	**160**	**1,500**	**8.7**	**120**	**4,800**	<6.3	<59	**92**	<57	**1,300**	<55	**1,000**	**230**	**1,900**	140,000	32,000	--
Metals																		
Antimony	mg/kg	**2.5**	<0.57	-	<0.61	<2.2	-	-	-	-	-	-	-	-	-	470	140	-
Arsenic	mg/kg	**8.7**	**7.8**	-	**5.7**	**5**	-	-	-	-	-	-	-	-	-	11[5]	11[5]	-
Barium	mg/kg	**160**	**180**	-	**220**	**150**	-	-	-	-	-	-	-	-	-	220,000	3,000	-
Beryllium	mg/kg	**0.54**	**0.18**	-	**0.36**	<0.45	-	-	-	-	-	-	-	-	-	2200	42	-
Cadmium	mg/kg	<0.47	**0.15**	-	**0.18**	<0.56	-	-	-	-	-	-	-	-	-	580	43	-
Chromium	mg/kg	**73**	**86**	-	**60**	**280**	-	-	-	-	-	-	-	-	-	1,800,000 (Cr III)	530,000 (Cr III)	-
Cobalt	mg/kg	**17**	**18**	-	**12**	**48**	-	-	-	-	-	-	-	-	-	350	28	-
Copper	mg/kg	**36**	**41**	-	**29**	**27**	-	-	-	-	-	-	-	-	-	47,000	14,000	-
Lead	mg/kg	**14**	**42**	-	**31**	**15**	-	-	-	-	-	-	-	-	-	320	160	-
Mercury	mg/kg	**0.63**	**0.3**	-	**0.21**	**0.21**	-	-	-	-	-	-	-	-	-	190	44	-
Molybdenum	mg/kg	**2.7**	<0.57	-	<0.61	<2.2	-	-	-	-	-	-	-	-	-	5,800	1,800	-
Nickel	mg/kg	**94**	**120**	-	**82**	**600**	**120**	-	-	-	-	-	-	-	-	11,000	**86**	-
Selenium	mg/kg	<3.8	<1.1	-	<1.2	<4.5	-	-	-	-	-	-	-	-	-	5,800	1,700	-
Silver	mg/kg	<0.94	<0.28	-	<0.31	<1.1	-	-	-	-	-	-	-	-	-	5,800	1,800	-
Thallium	mg/kg	**2.1**	<0.57	-	<0.61	<2.2	-	-	-	-	-	-	-	-	-	12	3.5	-
Vanadium	mg/kg	**41**	**61**	-	**36**	**43**	-	-	-	-	-	-	-	-	-	580,000	470	-
Zinc	mg/kg	**58**	**79**	-	**99**	**46**	-	-	-	-	-	-	-	-	-	350,000	110,000	-
PCBs																		
PCB-1260	ug/kg	<57	<57	-	-	-	-	-	-	-	-	-	-	-	-	1,000	5,600	6,300
Chlorinated Pesticides																		
4,4'-DDD	ug/kg	**4.6**	**31**	-	<43	-	-	-	-	-	-	-	-	-	-	12,000	81,000	750,000
4,4'-DDE	ug/kg	**28**	**57**	-	<43	-	-	-	-	-	-	-	-	-	-	8,500	57,000	1,100,000
4,4'-DDT	ug/kg	<2.3	<4.6	-	<43	-	-	-	-	-	-	-	-	-	-	8,500	57,000	4,300
alpha-Chlordane	ug/kg	<2.3	**11**	-	<22	-	-	-	-	-	-	-	-	-	-	2,200	14,000	15,000
Dieldrin	ug/kg	<2.3	**6.4**	-	<22	-	-	-	-	-	-	-	-	-	-	170	1,100	**2.3**
gamma-Chlordane	ug/kg	<2.3	**14**	-	<22	-	-	-	-	-	-	-	-	-	-	2,200	14,000	15,000
Volatile Organic Compounds (VOCs)																		
1,1,1-Trichloroethane	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	8,900	8,800	7.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	17,000	390,000	810
1,1-Dichloroethene	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	400,000	390,000	4,300
Acetone	ug/kg	<57	**110**	-	<64	<62	-	-	-	-	-	-	-	-	-	650,000,000	260,000,000	500
Benzene	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	1,000	24,000	49
cis-1,2-Dichloroethene	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	90,000	82,000	3,500
Methyl tert-butyl ether	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	180,000	3,700,000	840
trans-1,2-Dichloroethene	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	730,000	680,000	39,000
Vinyl chloride	ug/kg	<5.7	<5.5	-	<6.4	<6.2	-	-	-	-	-	-	-	-	-	150	3400	10
Percent Moisture	%	13	14	20	26	23	20	15.6	9.5	12.5	13.5	9.3	17.5	18.9	14.1	-		-

Notes:
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
<0.290 = Not detected above sample reporting limit. - = Not analyzed or criteria not established.
6.4 Sample concentration greater than one or more ESLs.

Table A-1

Summary of Pin High Golf Center 2016 Soil Sampling Results
San Jose, CA

Sample ID		GP-2-W-3.5-4'	GP-2-W-7.5-8'	GP-3-3.5-4'	GP-3-7.5-8'	GP-4-3.5-4'	GP-5-4.5-5'	GP-5-7.5-8'	GP-5-11.5-12'	GP-6-3.5-4'	GP-6-7.5-8'	GP-6-11.5-12'	GP-7-3.5-4'	GP-7-7.5-8'	ESLs	ESLs	ESLs
Sample Depth, ft bgs		3.5-4'	7.5-8'	3.5-4'	7.5-8'	3.5-4'	4.5-5'	7.5-8'	11.5-12'	3.5-4'	7.5-8'	11.5-12'	3.5-4'	7.5-8'	Direct Exposure	Construction	Soil Leaching
Analytes	*Units*	2/23/2016	2/23/2016	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/21/16	1/22/16	1/22/16	(C/I)	Worker	
Petroleum Hydrocarbons																	
Gasoline Range Organics (GRO)-C5-C12	mg/kg	-	-	<0.270	<0.300	<0.350	<0.310	<0.310	-	<0.270	<0.290	-	<0.300	<0.280	3,900	2,800	3,400
Diesel Range Organics [C10-C28]	mg/kg	**31**	**66**	**290**	**11**	**5.1**	**43**	**46**	**-**	**25**	**9**	**-**	**21**	**1.5**	**1,100**	**880**	3,600
Motor Oil Range Organics [C24-C36]	mg/kg	**140**	**250**	**1,200**	<60	<71	**110**	**98**	**-**	**99**	<63	**-**	**72**	<64	140,000	32,000	--
Metals																	
Antimony	mg/kg	-	-	<1.9	<1.6	<0.66	<1.9	<2	-	<0.43	**6.7**	-	<2.3	<1.6	470	140	-
Arsenic	mg/kg	**-**	**-**	<3.9	<3.2	**5.7**	**5.1**	**7.5**	**-**	**2.7**	**11**	**-**	**7.1**	**8.3**	**11**[5]	**11**[5]	-
Barium	mg/kg	**-**	**-**	**140**	**100**	**180**	**34**	**510**	**-**	**38**	**650**	**-**	**150**	**250**	220,000	3,000	-
Beryllium	mg/kg	**-**	**-**	<0.39	<0.32	**0.79**	<0.38	<0.41	-	**0.095**	<0.48	-	<0.46	**0.67**	2200	42	-
Cadmium	mg/kg	**-**	**-**	<0.48	<0.4	**0.37**	**0.85**	**2.8**	**-**	<0.11	**4.9**	**-**	<0.57	<0.39	580	43	-
Chromium	mg/kg	**-**	**-**	**32**	**83**	**63**	**32**	**39**	**-**	**24**	**65**	**-**	**60**	**69**	1,800,000 (Cr III)	530,000 (Cr III)	-
Cobalt	mg/kg	**-**	**-**	**11**	**16**	**13**	**5.7**	**13**	**-**	**3.9**	**15**	**-**	**14**	**17**	350	28	-
Copper	mg/kg	**-**	**-**	**25**	**63**	**45**	**62**	**140**	**-**	**20**	**99**	**-**	**34**	**39**	47,000	14,000	-
Lead	mg/kg	**-**	**-**	**3.6**	**5.9**	**39**	**210**	**290**	**-**	**23**	**710**	**13**	**38**	**12**	**320**	**160**	-
Mercury	mg/kg	**-**	**-**	**0.055**	**0.27**	**0.18**	**0.093**	**1.1**	**-**	**0.081**	**0.16**	**-**	**0.66**	**0.19**	190	44	-
Molybdenum	mg/kg	-	-	<1.9	<1.6	**0.76**	**8**	<2	-	**4.5**	<2.4	-	<2.3	<1.6	5,800	1,800	-
Nickel	mg/kg	**-**	**-**	**32**	**86**	**77**	**130**	**50**	**-**	**40**	**79**	**-**	**94**	**94**	11,000	**86**	-
Selenium	mg/kg	-	-	<3.9	<3.2	<1.3	<3.8	<4.1	-	<0.85	<4.8	-	<4.6	<3.2	5,800	1,700	-
Silver	mg/kg	-	-	<0.97	<0.81	<0.33	<0.96	<1	-	<0.21	<1.2	-	<1.1	<0.79	5,800	1,800	-
Thallium	mg/kg	-	-	<1.9	<1.6	<0.66	<1.9	<2	-	<0.43	<2.4	-	<2.3	<1.6	12	3.5	-
Vanadium	mg/kg	**-**	**-**	**50**	**69**	**51**	**11**	**38**	**-**	**14**	**47**	**-**	**39**	**55**	580,000	470	-
Zinc	mg/kg	**-**	**-**	**37**	**56**	**120**	**2,000**	**1,100**	**120**	**28**	**460**	**-**	**81**	**79**	350,000	110,000	-
PCBs																	
PCB-1260	ug/kg	-	-	-	-	-	-	-	-	<57	**130**	-	-	-	1,000	5,600	6,300
Chlorinated Pesticides																	
4,4'-DDD	ug/kg	-	-	<72	-	<10	<20	-	-	**4.4**	**62**	-	<4	-	12,000	81,000	750,000
4,4'-DDE	ug/kg	-	-	<72	-	<10	<20	-	-	**18**	**35**	-	<4	-	8,500	57,000	1,100,000
4,4'-DDT	ug/kg	**-**	**-**	<72	**-**	<10	<20	**-**	**-**	**11**	**3.4**	**-**	<4	**-**	8,500	57,000	4,300
alpha-Chlordane	ug/kg	-	-	<37	-	<5.2	**13**	-	-	<2.3	<2.5	-	<2	-	2,200	14,000	15,000
Dieldrin	ug/kg	-	-	<37	-	<5.2	<10	-	-	**11**	**4.1**	-	<2	-	170	1,100	**2.3**
gamma-Chlordane	ug/kg	-	-	<37	-	<5.2	<10	-	-	<2.3	<2.5	-	<2	-	2,200	14,000	15,000
Volatile Organic Compounds (VOCs)																	
1,1,1-Trichloroethane	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	8,900	8,800	7.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	-	-	-
1,1-Dichloroethane	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	17,000	390,000	810
1,1-Dichloroethene	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	400,000	390,000	4,300
Acetone	ug/kg	-	-	<54	<59	<70	<62	<62	-	<55	<59	-	<60	<56	650,000,000	260,000,000	500
Benzene	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	1,000	24,000	49
cis-1,2-Dichloroethene	ug/kg	**-**	**-**	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	90,000	82,000	3,500
Methyl tert-butyl ether	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	180,000	3,700,000	840
trans-1,2-Dichloroethene	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	730,000	680,000	39,000
Vinyl chloride	ug/kg	-	-	<5.4	<5.9	<7	<6.2	<6.2	-	<5.5	<5.9	-	<6	<5.6	150	3400	10
Percent Moisture	%	17.8	12.1	10	17	31	21	22	49	13	22	29	18	22	-		-

Notes:
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
<0.290 = Not detected above sample reporting limit. - = Not analyzed or criteria not established.
6.4 Sample concentration greater than one or more ESLs.

Table A-1

Summary of Pin High Golf Center 2016 Soil Sampling Results
San Jose, CA

Sample ID		GP-8-3.5-4'	GP-8-7.5-8'	GP-9-4.5-5'	GP-9-7.5-8'	GP-10-3.5-4'	GP-10-7.5-8'	GP-11-3.5-4'	GP-11-7.5-8'	ESLs	ESLs	ESLs
Sample Depth, ft bgs		3.5-4'	7.5-8'	4.5-5'	7.5-8'	3.5-4'	7.5-8'	3.5-4'	7.5-8'	Direct Exposure	Construction	Soil Leaching
Analytes	*Units*	1/22/16	1/22/16	1/22/16	1/22/16	1/22/16	1/22/16	1/22/16	1/22/16	(C/I)	Worker	
Petroleum Hydrocarbons												
Gasoline Range Organics (GRO)-C5-C12	mg/kg	<0.320	<0.310	<0.310	<0.300	<0.290	<0.310	<0.300	<0.310	3,900	2,800	3,400
Diesel Range Organics [C10-C28]	mg/kg	**21**	<1.2	**12**	**56**	**400**	**2.4**	**90**	**17**	**1,100**	**880**	3,600
Motor Oil Range Organics [C24-C36]	mg/kg	**90**	<61	<64	**240**	**2,100**	**<68**	**300**	<62	140,000	32,000	--
Metals												
Antimony	mg/kg	<2.1	<2.3	<2.5	<2.5	<0.5	<1.8	<2.4	<2.2	470	140	-
Arsenic	mg/kg	**44**	**7.1**	**17**	**7.5**	**1**	**5.6**	**7.8**	**9.4**	**11**[5]	**11**[5]	-
Barium	mg/kg	**250**	**160**	**250**	**210**	**33**	**250**	**140**	**210**	220,000	3,000	-
Beryllium	mg/kg	**0.61**	**0.81**	**0.65**	**0.78**	**0.2**	**0.74**	<0.47	**0.6**	2200	42	-
Cadmium	mg/kg	<0.52	<0.57	<0.63	<0.61	<0.12	<0.46	<0.59	<0.54	580	43	-
Chromium	mg/kg	**89**	**68**	**84**	**64**	**7.1**	**72**	**480**	**74**	1,800,000 (Cr III)	530,000 (Cr III)	-
Cobalt	mg/kg	**21**	**14**	**22**	**16**	**1.6**	**15**	**64**	**17**	350	28	-
Copper	mg/kg	**53**	**37**	**45**	**43**	**2.4**	**38**	**35**	**41**	47,000	14,000	-
Lead	mg/kg	**130**	**11**	**37**	**11**	**3.5**	**11**	**44**	**11**	**320**	**160**	-
Mercury	mg/kg	**5.4**	**0.12**	**3.8**	**0.087**	**0.024**	**0.11**	**0.1**	**0.12**	190	44	-
Molybdenum	mg/kg	<2.1	<2.3	<2.5	<2.5	**0.89**	<1.8	<2.4	<2.2	5,800	1,800	-
Nickel	mg/kg	**150**	**82**	**140**	**88**	**4.8**	**90**	**1,100**	**100**	11,000	**86**	-
Selenium	mg/kg	<4.1	<4.6	<5	<4.9	<1	<3.6	<4.7	<4.3	5,800	1,700	-
Silver	mg/kg	<1	<1.1	<1.3	<1.2	<0.25	<0.91	<1.2	<1.1	5,800	1,800	-
Thallium	mg/kg	<2.1	<2.3	<2.5	<2.5	<2	<1.8	<2.4	<2.2	12	3.5	-
Vanadium	mg/kg	**55**	**54**	**58**	**51**	**9.4**	**57**	**39**	**55**	580,000	470	-
Zinc	mg/kg	**130**	**77**	**94**	**73**	**10**	**73**	**68**	**82**	350,000	110,000	-
PCBs												
PCB-1260	ug/kg	<65	<61	-	-	<56	<68	-	-	1,000	5,600	6,300
Chlorinated Pesticides												
4,4'-DDD	ug/kg	**16**	<2.4	<86	-	<4.5	<2.7	<41	-	12,000	81,000	750,000
4,4'-DDE	ug/kg	**60**	<2.4	<86	-	<4.5	<2.7	<41	-	8,500	57,000	1,100,000
4,4'-DDT	ug/kg	**18**	<2.4	<86	-	<4.5	<2.7	<41	-	8,500	57,000	4,300
alpha-Chlordane	ug/kg	<2.6	<2.4	<44	-	<4.5	<2.7	<21	-	2,200	14,000	15,000
Dieldrin	ug/kg	<2.6	<2.4	<44	-	<4.5	<2.7	<21	-	170	1,100	2.3
gamma-Chlordane	ug/kg	<2.6	<2.4	<44	-	<4.5	<2.7	<21	-	2,200	14,000	15,000
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	8,900	8,800	7.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	-	-	-
1,1-Dichloroethane	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	17,000	390,000	810
1,1-Dichloroethene	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	400,000	390,000	4,300
Acetone	ug/kg	<65	<61	<61	<60	<57	<63	<60	<62	650,000,000	260,000,000	500
Benzene	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	1,000	24,000	49
cis-1,2-Dichloroethene	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	90,000	82,000	3,500
Methyl tert-butyl ether	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	180,000	3,700,000	840
trans-1,2-Dichloroethene	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	730,000	680,000	39,000
Vinyl chloride	ug/kg	<6.5	<6.1	<6.1	<6	<5.7	<6.3	<6	<6.2	150	3400	10
Percent Moisture	%	23	19	22	23	13	26	20	21	-		-

Notes:
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
<0.290 = Not detected above sample reporting limit. - = Not analyzed or criteria not established.
6.4 Sample concentration greater than one or more ESLs.

Table A-2

Summary of 2016 Pin High Golf Center Groundwater "Grab" Sampling Results
San Jose, CA

Analytes	Units	GP-1 1/21/16	GP-2 1/21/16	GP-2-E 2/23/2016	GP-2-E2 2/23/2016	GP-2-N 2/23/2016	GP-2-S 2/23/2016	GP-2-W 2/23/2016	GP-3 1/21/16	GP-6 1/21/16	GP-7 1/22/16	GP-10 1/22/16	Table GW-1 Drinking Water ESLs	Table GW-2 Aquatic Habitat ESLs	Table GW-3 Vapor Intrusion ESLs
Petroleum Hydrocarbons															
Gasoline Range Organics (GRO)-C5-C12	ug/L	<50	<50	-	-	-	-	-	<50	<50	<50	<50	220	440	-
Diesel Range Organics [C10-C28]	ug/L	<50	**1,900**	<51	**130**	**380**	**81**	<51	<52	**84**	**65**	**150**	**150**	**640**	-
Motor Oil Range Organics [C24-C36]	ug/L	<100	**10,000***	**150**	**310**	**1,100***	**220**	<100	**170**	**120**	**350**	**390**	**Note 1***	--	-
Dissolved Metals															
Antimony	mg/L	<0.01	<0.01	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	0.0074	0.03	-
Arsenic	mg/L	<0.01	<0.01	-	-	-	-	-	<0.01	**0.023**	<0.01	<0.01	0.000004	0.036	-
Barium	mg/L	<0.05	**0.081**	-	-	-	-	-	**0.052**	**1.3**	**0.069**	**0.097**	**2**	-	-
Beryllium	mg/L	<0.002	<0.002	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	0.0000045	0.0027	-
Cadmium	mg/L	<0.002	<0.002	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	0.00004	0.00025	-
Chromium (total)	mg/L	<0.01	<0.01	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	-	0.18	-
Cobalt	mg/L	**0.0038**	**0.0081**	-	-	-	-	-	**0.01**	**0.0033**	**0.002**	**0.0093**	**0.006**	**0.003**	-
Copper	mg/L	<0.02	<0.02	-	-	-	-	-	<0.02	<0.02	<0.02	<0.02	0.3	0.0031	-
Lead	mg/L	<0.005	<0.005	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	0.0002	0.0025	-
Mercury	mg/L	**0.00021**	<0.0002	-	-	-	-	-	<0.0002	<0.0002	**0.00025**	**0.00023**	**0.0012**	**0.000051**	-
Molybdenum	mg/L	**0.049**	**0.035**	-	-	-	-	-	**0.02**	**0.019**	**0.072**	**0.018**	**0.099**	**0.24**	-
Nickel	mg/L	**0.01**	**0.025**	-	-	-	-	-	**0.024**	**0.013**	<0.01	**0.013**	**0.012**	**0.0082**	-
Selenium	mg/L	<0.02	<0.02	-	-	-	-	-	<0.02	<0.02	<0.02	<0.02	0.03	0.005	-
Silver	mg/L	<0.005	<0.005	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	0.086	0.00019	-
Thallium	mg/L	<0.01	<0.01	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	0.0001	0.0063	-
Vanadium	mg/L	<0.01	<0.01	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	0.05	0.019	-
Zinc	mg/L	<0.02	**0.024**	-	-	-	-	-	<0.02	<0.02	<0.02	<0.02	6	0.081	-
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	ug/L	<0.5	**1.8**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**1,000**	**62**	**42,000**
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	<0.5	**1.6**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	--
1,1-Dichloroethane	ug/L	<0.5	**2.5**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**2.7**	**47**	**180**
1,1-Dichloroethene	ug/L	<0.5	**18**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**10**	**3.2**	**1,400**
Benzene	ug/L	<0.5	<0.5	-	-	-	-	-	**6.5**	**0.73**	<0.5	<0.5	**0.15**	**46**	**9.7**
cis-1,2-Dichloroethene	ug/L	<0.5	**0.62**	-	-	-	-	-	<0.5	<0.5	**0.94**	<0.5	**11**	**590**	**950**
Methyl tert-butyl ether	ug/L	<0.5	<0.5	-	-	-	-	-	<0.5	<0.5	**1.6**	<0.5	**13**	**8,000**	**11,000**
trans-1,2-Dichloroethene	ug/L	<0.5	**1.1**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**60**	**590**	**7,900**
Vinyl chloride	ug/L	<0.5	**0.99**	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**0.042**	**530**	**0.53**

Notes:
Table GW-1: Groundwater Direct Exposure Human Health Risk Screening Levels, Feb. 2016 (Rev. 3).
Table GW-2: Ecological Aquatic Habitat Goals, Feb. 2016 (Rev. 3).
Table GW-3. Groundwater Vapor Intrusion Human Health Risk Screening Levels (Volatile Chemicals Only); depth to groundwater less than or equal to 10 feet, Sand Scenario, Feb. 2016 (Rev. 3).
RWQCB Note 1 - "TPH motor oil is not soluble. TPH motor oil detections in water most likely are petroleum degradates or less likely NAPL. If the detections are degradates, add TPH motor oil and TPH diesel results and compare to TPH diesel criterion." , Feb. 2016 (Rev. 3).
<50 = Not detected above sample reporting limit. - = Not analyzed or criteria not established.
6.4 Sample concentration greater than one or more ESLs.

Table A-3
Summary of 2004 Soil Sampling Results (E2C, 2004): Former Pin High Golf Center Parcel
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	PH-	ESLs Direct Exposure (C/I)	ESLs Construction Worker	ESLs Soil Leaching
Sample Depth (feet)			3	1	2	3	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4			
Sample Date			6/25/04	6/25/04	6/25/04	6/25/04	6/25/04	6/25/04	6/25/04	6/25/04	6/25/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04	8/12/04			
Petroleum Hydrocarbons																									
	TPH Gasoline	mg/Kg	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	3,900	2,800	3,400
	TPH Diesel	mg/Kg	**261**	**28**	**5**	**507**	-	**183**	**27**	**26**	**8**	**8.3**	<0.1	**74.9**	<0.1	**277.8**	**17.2**	**6.5**	**1.7**	**15.7**	**4.0**	<0.1	**715.5**	**1,100**	**880**	3,600
	TPH Motor Oil	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1,249.9**	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**424.1**	--	--	--
Volatile Organic Compounds (VOCs)																									
8260B	all VOCs	mg/Kg	<1.0-2.0	<1.0-2.0	-	<2.0-4.0	-	<1.0-2.0	<1.0-2.0	<1.0-2.0	<1.0-2.0	-	-	-	-	-	-	-	-	-	-	-	-	various	various	various
Pesticides																									
8081A	all Pesticides	mg/Kg	<0.05-0.1	<0.05-0.1	<0.05-0.1	-	<0.05-0.1	<0.05-0.1	<0.05-0.1	<0.05-0.1	<0.05-0.1	-	-	-	-	-	-	-	-	-	-	-	-	various	various	various
Polychlorinated Biphenyls (PCBs)																									
8082B	all PCBs	mg/Kg	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	various	various	various

Notes:
(1) mg/Kg = milligrams per kilogram
<0.05 = Not detected above Method Reporting Limit.
- = Not analyzed or not established.
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml

Table A-4

Summary of 2004 Soil Sampling Results (E2C, 2004): Former Turner Equipment Grading Parcel
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	TE-1@2'	TE-1@4'	TE-1A@2.0'	TE-1A@4.0'	TE-1B@2.0'	TE-1B@4.0'	TE-2@2'	TE-2@4'	TE-2B@2.0'	TE-2B@4.0'	TE-2C@2.0'	TE-2C@4.0'	TE-2D@2.0'	TE-2D@4.0'	Table S-1 ESLs [2]	Table S-1 ESLs [4]	Table S-2 ESLs [3]
Sample Depth (feet)			2	4	2	4	2	4	2	4	2	4	2	4	2	4	Direct Exposure (C/I)	Construction Worker Exposure	Soil Leaching to Non-Potable Groundwater
Sample Date			6/25/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04			
Petroleum Hydrocarbons																			
SM 5520C	Total Oil and Grease (TOG)	mg/Kg	<25	<25	-	-	-	-	<25	<25	-	-	-	-	-	-	-	-	
8015M	TPH Diesel	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	880	3,600
	TPH Motor Oil	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CAM 17 Metals																			
6010B	Antimony	mg/Kg	<1	<1	-	-	-	-	<1	<10	-	-	-	-	-	-	470	140	--
	Arsenic	mg/Kg	<1	**6.7**	-	**17.4**	-	**8.8**	<1	<10	-	-	-	-	-	-	**11**[5]	**11**[5]	**--**
	Barium	mg/Kg	**180**	**180**	-	-	-	-	**140**	**310**	-	-	-	-	-	-	220,000	3,000	--
	Beryllium	mg/Kg	<1	<1	-	-	-	-	<1	<10	-	-	-	-	-	-	2,200	42	--
	Cadmium	mg/Kg	<1	<1	-	-	-	-	<1	<10	-	-	-	-	-	-	580	43	--
	Chromium	mg/Kg	**75**	**65**	**59**	**59.3**	**57.3**	**62.8**	**59**	**72**	**62**	**39.3**	**31.6**	**70.9**	**69.6**	**36.7**	1,800,000 (Cr III)	530,000	--
	Cobalt	mg/Kg	**24**	**15**	-	-	-	-	**12**	**19**	-	-	-	-	-	-	350	28	--
	Copper	mg/Kg	**29**	**39**	-	-	-	-	**27**	**44**	-	-	-	-	-	-	47,000	14,000	--
	Lead	mg/Kg	**13**	**61**	-	-	-	-	**26**	**23**	-	-	-	-	-	-	320	160	--
	Molybdenum	mg/Kg	<1	**1.2**	-	-	-	-	<1	<10	-	-	-	-	-	-	5,800	1,800	--
	Nickel	mg/Kg	**72**	**110**	-	-	-	-	**94**	**75**	-	-	-	-	-	-	11,000	**86**	--
	Selenium	mg/Kg	**11**	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	-	<5	-	5,800	1,700	**--**
	Silver	mg/Kg	<1	<1	-	-	-	-	<1	<10	-	-	-	-	-	-	5,800	1,800	--
	Thallium	mg/Kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	-	<5	-	12	**3.5**	--
	Vanadium	mg/Kg	**67**	**41**	-	-	-	-	**38**	**68**	-	-	-	-	-	-	5,800	470	--
	Zinc	mg/Kg	**48**	**83**	-	-	-	-	**65**	**80**	-	-	-	-	-	-	350,000	110,000	--
	Mercury	mg/Kg	<0.05	**4.0**	-	**3.49**	-	<0.05	**0.079**	**0.085**	-	-	-	-	-	-	190	44	--
Volatile Organic Compounds (VOCs)																			
8260B	all VOCs	mg/Kg	<1.0-2.0	<1.0-2.0	-	-	-	-	<1.0-2.0	<1.0-2.0	-	-	-	-	-	-	various	various	--

Notes:
(1) mg/Kg = milligrams per kilogram
<0.05 = Not detected above Method Reporting Limit.
- = Not analyzed or not established.
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
33 Sample concentration greater than one or more ESLs.

Table A-4

Summary of 2004 Soil Sampling Results (E2C, 2004): Former Turner Equipment Grading Parcel
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	TE-3@2'	TE-3@3'	TE-3A@2.0'	TE-3A@4.0'	TE-3B@2.0'	TE-3B@4.0'	TE-3C@2.0'	TE-3C@4.0'	TE-3D@2.0'	TE-3D@4.0'	TE-4@2'	TE-4@4'	TE-5@2.0	TE-5@4.0	TE-6@2.0	TE-6@4.0	Table S-1 ESLs [2]	Table S-1 ESLs [4]	Table S-2 ESLs [3]
Sample Depth (feet)			2	3	2	4	2	4	2	4	2	4	2	4	2	4	2	4	Direct Exposure (C/I)	Construction Worker Exposure	Soil Leaching to Non-Potable Groundwater
Sample Date			6/25/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04			
Petroleum Hydrocarbons																					
SM 5520C	Total Oil and Grease (TOG)	mg/Kg	<25	**110**	-	-	-	-	-	-	-	-	<25	**4,700**	-	-	-	-	-	-	
8015M	TPH Diesel	mg/Kg	-	-	-	**115**	-	**23.8**	-	**97.5**	-	**23.2**	-	-	**15.9**	**10.1**	<0.1	**17**	1,100	880	3,600
	TPH Motor Oil	mg/Kg	-	-	-	**134**	-	**40.2**	-	**169.7**	-	**20.9**	-		<0.1	<0.1	<0.1	**4.7**	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	-	-	-	**47.4**	-	<0.1	-	**41.1**	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	-	-	
CAM 17 Metals																					
6010B	Antimony	mg/Kg	<1	<1	-	-	-	-	-	-	-	-	<5	<1	<5	<5	<5	<5	470	140	--
	Arsenic	mg/Kg	**33**	**31**	**8.8**	**7**	**10.1**	<5	**11.1**	**9.3**	**12.5**	**18.1**	**20**	**12**	**9.5**	**31.1**	**8.2**	**26.6**	**11[5]**	**11[5]**	**--**
	Barium	mg/Kg	**150**	**110**	-	-	-	-	-	-	-	-	**110**	**69**	**122**	**182**	**114**	**198**	220,000	3,000	--
	Beryllium	mg/Kg	<1	<1	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	2,200	42	--
	Cadmium	mg/Kg	<1	<1	-	-	-	-	-	-	-	-	<5	<1	<2	<2	<2	<2	580	43	--
	Chromium	mg/Kg	**46**	**36**	**39.5**	-	**28**	-	**51.3**	-	**33.4**	-	**66**	**25**	**42.1**	**58.9**	**29.5**	**58.8**	1,800,000 (Cr III)	530,000	--
	Cobalt	mg/Kg	**13**	**8**	-	-	-	-	-	-	-	-	**15**	**6**	**10.2**	**14.1**	**8.1**	**14.3**	350	28	--
	Copper	mg/Kg	**30**	**25**	-	-	-	-	-	-	-	-	**33**	**15**	**24.2**	**39.7**	**21.9**	**34.9**	47,000	14,000	--
	Lead	mg/Kg	**44**	**42**	-	-	-	-	-	-	-	-	**26**	**7.6**	**14.1**	**95.4**	**49.7**	**49.2**	320	160	--
	Molybdenum	mg/Kg	<1	<1	-	-	-	-	-	-	-	-	<5	<1	**1.9**	**1.7**	**2**	**2.1**	5,800	1,800	--
	Nickel	mg/Kg	**75**	**68**	-	-	-	-	-	-	-	-	**70**	**39**	**44.2**	**97.2**	**38**	**99.2**	11,000	**86**	--
	Selenium	mg/Kg	<5	**10**	<5	<5	<5	<5	<5	<5	<5	<5	<5	**7.9**	<5	<5	<5	<5	5,800	1,700	**--**
	Silver	mg/Kg	<1	<1	-	-	-	-	-	-	-	-	<1	<1	**2.2**	**2.6**	**1.8**	**2.7**	5,800	1,800	--
	Thallium	mg/Kg	<5	<5	-	<5	-	<5	-	<5	-	**11.3**	<5	<5	<5	<5	<5	<5	12	**3.5**	--
	Vanadium	mg/Kg	**39**	**35**	-	-	-	-	-	-	-	-	**51**	**20**	**51.9**	**42.8**	**34.8**	**43.2**	5,800	470	--
	Zinc	mg/Kg	**77**	**62**	-	-	-	-	-	-	-	-	**60**	**29**	**54.6**	**85.2**	**62.6**	**63.2**	350,000	110,000	--
	Mercury	mg/Kg	**1.5**	**0.297**	-	-	-	-	-	-	-	-	**0.074**	**0.177**	<0.05	**2.93**	**0.15**	**2.77**	190	44	--
Volatile Organic Compounds (VOCs)																					
8260B	all VOCs	mg/Kg	<2.0-4.0	<1.0-2.0	-	-	-	-	-	-	-	-	<1.0-2.0	<1.0-2.0	-	-	-	-	various	various	--

Notes:
(1) mg/Kg = milligrams per kilogram
<0.05 = Not detected above Method Reporting Limit.
- = Not analyzed or not established.
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
33 Sample concentration greater than one or more ESLs.

Table A-5

Summary of 2004 Soil Sampling Results (E2C, 2004): Vacant Parcels 012 and 018
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	VL-1	VL-1a	VL-1b	VL-1c	VL-1d	VL-2	VL-2a	VL-2b	VL-2c	VL-2d	VL-3	VL-3a	VL-3b	VL-3c	VL-3d	VL-4	VL-4a	VL-4b	VL-4c	VL-4d	Table S-1 ESLs [2]	Table S-1 ESLs [4]	Table S-2 ESLs [3]
Sample Depth (feet)			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Direct Exposure (C/I)	Construction Worker Exposure	Soil Leaching to Non-Potable Groundwater
Sample Date			6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04			
Petroleum Hydrocarbons																									
SM 5520C	Total Oil and Grease (TOG)	mg/Kg	<25	-	-	-	-	**670**	-	-	-	-	<25	-	-	-	-	<25	-	-	-	-	--	--	--
8015M	TPH Gasoline	mg/Kg	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	3,900	2,800	3,400
	TPH Diesel	mg/Kg	**5**	-	-	-	-	**590**	**594.9**	**96**	**985.5**	**101.1**	**165**	<0.1	**0.6**	**12.2**	**510.9**	**15**	-	-	-	-	1,100	880	3,600
	TPH Motor Oil	mg/Kg	-	-	-	-	-	-	**971**	**106.4**	**686.7**	**222.9**	-	-	-	-	-	-	-	-	-	-	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	-	-	-	-	-	-	**344.1**	**31.1**	**410.2**	**83.1**	-	-	-	-	-	-	-	-	-	-	--	--	--
CAM 17 Metals																									
6010B	Antimony	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	470	140	--
	Arsenic	mg/Kg	**29**	**155**	<5	<5	**19.6**	**40**	<5	**15.3**	**15.1**	**10.8**	**33**	**8.5**	<5	**10.9**	**6.8**	**56**	**7.9**	<5	<5	**24.9**	**11[5]**	**11[5]**	**--**
	Barium	mg/Kg	**180**	-	-	-	-	**140**	-	-	-	-	**250**	-	-	-	-	**260**	-	-	-	-	220,000	3,000	--
	Beryllium	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	2,200	42	--
	Cadmium	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	580	43	--
	Chromium	mg/Kg	**51**	-	-	-	-	**59**	**71.1**	**72.3**	**45.2**	**53.5**	**62**	**50.5**	**48.2**	**50.8**	**47.2**	**91**	**76.7**	**48.9**	**5.9**	**64.1**	1,800,000 (Cr III)	530,000	--
	Cobalt	mg/Kg	**14**	-	-	-	-	**17**	-	-	-	-	**15**	-	-	-	-	**17**	-	-	-	-	350	**28**	--
	Copper	mg/Kg	**26**	-	-	-	-	**47**	-	-	-	-	**39**	-	-	-	-	**45**	-	-	-	-	47,000	14,000	--
	Lead	mg/Kg	**14**	-	-	-	-	**53**	-	-	-	-	**17**	-	-	-	-	**74**	-	-	-	-	320	160	--
	Molybdenum	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	5,800	1,800	--
	Nickel	mg/Kg	**58**	-	-	-	-	**130**	-	-	-	-	**85**	-	-	-	-	**140**	-	-	-	-	11,000	**86**	--
	Selenium	mg/Kg	**8.9**	-	-	-	-	<5	-	-	-	-	<5	-	-	-	-	<5	-	-	-	-	5,800	1,700	**--**
	Silver	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	5,800	1,800	--
	Thallium	mg/Kg	<5	**17**	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	**5.2**	<5	<5	<5	<5	**12**	**3.5**	--
	Vanadium	mg/Kg	**45**	-	-	-	-	**66**	-	-	-	-	**48**	-	-	-	-	**52**	-	-	-	-	5,800	470	--
	Zinc	mg/Kg	**53**	-	-	-	-	**86**	-	-	-	-	**74**	-	-	-	-	**93**	-	-	-	-	350,000	110,000	--
7471A	Mercury	mg/Kg	**0.092**	-	-	-	-	**0.226**	-	-	-	-	**0.072**	-	-	-	-	**16**	**9.12**	**0.08**	<0.05	**7.25**	190	44	--
Volatile Organic Compounds (VOCs)																									
8260B	all VOCs	mg/Kg	<1.0-2.0	-	-	-	-	<2.0-4.0	-	-	-	-	<1.0-2.0	-	-	-	-	<1.0-2.0	-	-	-	-	various	various	various
Pesticides																									
8081A	4,4'-DDE	mg/Kg	**0.14**	-	-	-	-	<0.05	-	-	-	-	<0.05	-	-	-	-	**1.5**	-	-	<0.05	**1.7**	8.5	57	1,100
	4,4'-DDD	mg/Kg	<0.05	-	-	-	-	<0.05	-	-	-	-	<0.05	-	-	-	-	**0.85**	-	-	<0.05	**1.1**	12	81	750
	4,4'-DDT	mg/Kg	<0.05	-	-	-	-	<0.05	-	-	-	-	<0.05	-	-	-	-	**0.95**	-	-	<0.05	**0.92**	8.5	57	4.3
	All other Pesticides	mg/Kg	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	<0.05-0.1	<0.05-0.1	various	various	various
Polychlorinated Biphenyls (PCBs)																									
8082A	Aroclor 1254	mg/Kg	<0.1	-	-	-	-	**8.1**	<0.1	**0.83**	<0.1	**0.16**	<0.1	-	-	-	-	<0.1	-	-	-	-	**1**	**5.6**	**6.3**
	all other PCBs	mg/Kg	<0.1	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	<0.1	-	-	-	-	1	5.6	6.3

Notes:
<0.05 = Not detected above Method Reporting Limit. - = Not analyzed or not established.
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
Table S-3: Soil Gross Contamination Screening Levels, Feb. 2016 (Rev. 3).
Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
73 Sample concentration greater than one or more ESLs.

Table A-5

Summary of 2004 Soil Sampling Results (E2C, 2004): Vacant Parcels 012 and 018
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	VL-5	VL-5-1 (VL-5a)	VL-5-2 (VL-5b)	VL-5-3 (VL-5c)	VL-5-4 (VL-5d)	VL-6	VL-6a	VL-6b	VL-6c	VL-6d	VL-7	VL-7ad	VL-7bd	VL-7cd	VL-7dd	VL-8	VL-8a	VL-8b	VL-8c	VL-8d	VL-9	VL-9a	Table S-1 ESLs [2]	Table S-1 ESLs [4]	Table S-2 ESLs [3]
Sample Depth (feet)			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Direct Exposure (C/I)	Construction Worker Exposure	Soil Leaching to Non-Potable Groundwater
Sample Date			6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	6/25/04	8/11/04			
Petroleum Hydrocarbons																											
SM 5520C	Total Oil and Grease (TOG)	mg/Kg	**1,100**	-	-	-	-	<25	-	-	-	-	**130**	-	-	-	-	**130**	-	-	-	-	**220**	-	--	--	--
8015M	TPH Gasoline	mg/Kg	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	-	-	-	<0.3	-	3,900	2,800	3,400
	TPH Diesel	mg/Kg	**44**	**571.1**	**33.2**	**73.7**	**20.7**	**3**	-	-	-	-	**340**	<0.1	<0.1	**5.0**	<0.1	**299**	**114.9**	**45.4**	**50.7**	**35.5**	**251**	**100.6**	1,100	880	3,600
	TPH Motor Oil	mg/Kg	-	**1,748**	**21.7**	**98.8**	<0.1	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	-	**216.3**	**1.3**	**75.5**	**54.5**	-	**166.7**	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	-	**338.1**	<0.1	**26.5**	<0.1	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	-	**48.8**	**5.5**	**13.1**	<0.1	-	**40.7**	--	--	--
CAM 17 Metals																											
6010B	Antimony	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	**3.0**	-	-	-	-	<1	-	470	140	--
	Arsenic	mg/Kg	**26**	**14**	**14.9**	**15.4**	**12.7**	<1	-	-	-	-	**12**	**21.2**	**9.7**	**8**	**10.4**	<1	-	-	-	-	<1	-	**11[5]**	**11[5]**	--
	Barium	mg/Kg	**130**	-	-	-	-	**180**	-	-	-	-	**190**	-	-	-	-	**180**	-	-	-	-	**170**	-	220,000	3,000	--
	Beryllium	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	2,200	42	--
	Cadmium	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	580	43	--
	Chromium	mg/Kg	**290**	**73.9**	**86.5**	**59.1**	**68.9**	**55**	-	-	-	-	**81**	**62.3**	**68.9**	**63.1**	**75.1**	**81**	**49.8**	**42.8**	**107**	**40.9**	**49**	-	1,800,000 (Cr III)	530,000	--
	Cobalt	mg/Kg	**38**	-	-	-	-	**13**	-	-	-	-	**18**	-	-	-	-	**21**	-	-	-	-	**15**	-	350	**28**	--
	Copper	mg/Kg	**27**	-	-	-	-	**31**	-	-	-	-	**39**	-	-	-	-	**44**	-	-	-	-	**31**	-	47,000	14,000	--
	Lead	mg/Kg	**34**	-	-	-	-	**16**	-	-	-	-	**56**	-	-	-	-	**53**	-	-	-	-	**19**	-	320	160	--
	Molybdenum	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	5,800	1,800	--
	Nickel	mg/Kg	**570**	-	-	-	-	**90**	-	-	-	-	**140**	-	-	-	-	**120**	-	-	-	-	**55**	-	11,000	**86**	--
	Selenium	mg/Kg	<5	-	-	-	-	**12**	<5	<5	<5	<25	<5	<5	<5	<5	<5	**13**	<5	<5	<5	<5	**11**	<5	5,800	1,700	--
	Silver	mg/Kg	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	<1	-	5,800	1,800	--
	Thallium	mg/Kg	**9.7**	<5	-	<5	<5	**5.2**	<5	<5	<5	<25	**8.2**	<5	<5	**8.5**	<5	<5	<5	<5	<5	<5	<5	<5	**12**	**3.5**	--
	Vanadium	mg/Kg	**40**	-	-	-	-	**38**	-	-	-	-	**48**	-	-	-	-	**77**	-	-	-	-	**54**	-	5,800	470	--
	Zinc	mg/Kg	**62**	-	-	-	-	**62**	-	-	-	-	**88**	-	-	-	-	**110**	-	-	-	-	**59**	-	350,000	110,000	--
7471A	Mercury	mg/Kg	**0.061**	-	-	-	-	**0.069**	-	-	-	-	**18**	**9.36**	2.16	<0.05	**1.59**	**1.4**	-	-	-	-	**0.055**	-	190	44	--
Volatile Organic Compounds (VOCs)																											
8260B	all VOCs	mg/Kg	<1.0-2.0	-	-	-	-	<1.0-2.0	-	-	-	-	<1.0-2.0	-	-	-	-	<2.0-4.0	-	-	-	-	<1.0-2.0	-	various	various	various
Pesticides																											
8081A	4,4'-DDE	mg/Kg	<0.05	-	-	-	-	<0.05	-	-	-	-	**1.2**	-	-	-	-	<0.05	-	-	-	**1.3**	<0.05	-	8.5	57	1,100
	4,4'-DDD	mg/Kg	<0.05	-	-	-	-	<0.05	-	-	-	-	**0.70**	-	-	-	-	<0.05	-	-	-	**0.75**	<0.05	-	12	81	750
	4,4'-DDT	mg/Kg	<0.05	-	-	-	-	<0.05	-	-	-	-	**0.70**	-	-	-	-	<0.05	-	-	-	**0.68**	<0.05	-	8.5	57	4.3
	All other Pesticides	mg/Kg	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	-	-	<0.05-0.1	-	-	-	<0.25-0.5	<0.05-0.1	-	various	various	various
Polychlorinated Biphenyls (PCBs)																											
8082A	Aroclor 1254	mg/Kg	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	**3.2**	**1.6**	<0.1	**1.2**	<0.1	<0.1	-	**1**	**5.6**	**6.3**
	all other PCBs	mg/Kg	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	1	5.6	6.3

Notes:
<0.05 = Not detected above Method Reporting Limit. - = Not analyzed or not established.
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
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5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
73 Sample concentration greater than one or more ESLs.

Table A-5

Summary of 2004 Soil Sampling Results (E2C, 2004): Vacant Parcels 012 and 018
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	VL-9b	VL-9c	VL-9d	VL-10	VL-10a	VL-10b	VL-10c	VL-10d	VL-11	VL-12	VL-13	VL-14a@2.0'	VL-14a@4.0'	VL-14c@2.0'	VL-14c@4.0'	VL-14d@2.0'	VL-14d@4.0'	Table S-1 ESLs [2]	Table S-1 ESLs [4]	Table S-2 ESLs [3]
Sample Depth (feet)			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2	4	2	4	2	4	Direct Exposure (C/I)	Construction Worker Exposure	Soil Leaching to Non-Potable Groundwater
Sample Date			8/11/04	8/11/04	8/11/04	6/25/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/11/04	8/12/04	8/12/04	8/12/04	8/12/04			
Petroleum Hydrocarbons																						
SM 5520C	Total Oil and Grease (TOG)	mg/Kg	-	-	-	<25	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
8015M	TPH Gasoline	mg/Kg	-	-	-	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	3,900	2,800	3,400
	TPH Diesel	mg/Kg	**65.1**	**169.9**	**14.3**	<0.1	-	-	-	-	**4.4**	<0.1	<0.1	**308.1**	**146.5**	**273.8**	**12**	**71.2**	**167.7**	1,100	880	3,600
	TPH Motor Oil	mg/Kg	**108.5**	**287.1**	**28**	-	-	-	-	-	<0.1	<0.1	<0.1	**476**	**238.5**	**522.4**	**14.2**	**81.7**	**293.3**	140,000	32,000	--
	TPH Hydraulic Fluid	mg/Kg	**18.3**	**53.2**	<0.1	-	-	-	-	-	<0.1	<0.1	<0.1	**171.7**	**69.7**	**151.2**	<0.1	**22.3**	**83.9**	--	--	--
CAM 17 Metals																						
6010B	Antimony	mg/Kg	-	-	-	<1	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	470	140	--
	Arsenic	mg/Kg	-	-	-	<1	-	-	-	-	**7.6**	**7.5**	**11.8**	**7.8**	**9.2**	**7.6**	**7.9**	**9.7**	**9.6**	**11[5]**	**11[5]**	**--**
	Barium	mg/Kg	-	-	-	**200**	-	-	-	-	**167**	**152**	**196**	**153**	**152**	**146**	**146**	**125**	**196**	220,000	3,000	--
	Beryllium	mg/Kg	-	-	-	<1	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	2,200	42	--
	Cadmium	mg/Kg	-	-	-	<1	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	580	43	--
	Chromium	mg/Kg	-	-	-	**49**	-	-	-	-	**45.1**	**65**	**32.3**	**54**	**66.9**	**110**	**46.4**	**88.8**	**44.3**	1,800,000 (Cr III)	530,000	--
	Cobalt	mg/Kg	-	-	-	**12**	-	-	-	-	**10.5**	**16.2**	**9.5**	**13.9**	**14.6**	**14.6**	**11.3**	**12.6**	**10.3**	350	**28**	--
	Copper	mg/Kg	-	-	-	**37**	-	-	-	-	**30**	**36.7**	**40.4**	**30**	**31.5**	**25.1**	**23.7**	**25.7**	**22.9**	47,000	14,000	--
	Lead	mg/Kg	-	-	-	**54**	-	-	-	-	**27.8**	**27.9**	**26.4**	**23.6**	**31.3**	**106**	**18**	**27.5**	**19.8**	320	160	--
	Molybdenum	mg/Kg	-	-	-	<1	-	-	-	-	**1.5**	**1.5**	**1.7**	**1.8**	**1.9**	**2.1**	**1.8**	**1.7**	**1.5**	5,800	1,800	--
	Nickel	mg/Kg	-	-	-	**65**	-	-	-	-	**51.6**	**59.7**	**50.5**	**92.4**	**114**	**132**	**48.4**	**124**	**57.5**	11,000	**86**	--
	Selenium	mg/Kg	<5	<5	<5	**10**	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	5,800	1,700	**--**
	Silver	mg/Kg	-	-	-	<1	-	-	-	-	**2.1**	**2.1**	**2.1**	**2.3**	**2.2**	**1.9**	**1.9**	**2.1**	**1.4**	5,800	1,800	--
	Thallium	mg/Kg	<5	<5	<5	**5.7**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	**12**	**3.5**	--
	Vanadium	mg/Kg	-	-	-	**41**	-	-	-	-	**40.7**	**67.6**	**39.9**	**54.4**	**55.1**	**46.5**	**49**	**47.3**	**42.9**	5,800	470	--
	Zinc	mg/Kg	-	-	-	**110**	-	-	-	-	**61.1**	**50.5**	**78.9**	**56.6**	**64.4**	**93**	**44**	**53.9**	**44.3**	350,000	110,000	--
7471A	Mercury	mg/Kg	-	-	-	**0.276**	-	-	-	-	**0.1**	**0.08**	**0.32**	**0.23**	**0.15**	**0.1**	**0.06**	**0.24**	**0.11**	190	44	--
Volatile Organic Compounds (VOCs)																						
8260B	all VOCs	mg/Kg	-	-	-	<1.0-2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	various	various	various
Pesticides																						
8081A	4,4'-DDE	mg/Kg	-	-	-	**0.068**	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	57	1,100
	4,4'-DDD	mg/Kg	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	12	81	750
	4,4'-DDT	mg/Kg	-	-	-	**0.064**	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	57	4.3
	All other Pesticides	mg/Kg	-	-	-	<0.05-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	various	various	various
Polychlorinated Biphenyls (PCBs)																						
8082A	Aroclor 1254	mg/Kg	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	**1**	**5.6**	**6.3**
	all other PCBs	mg/Kg	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5.6	6.3

Notes:
<0.05 = Not detected above Method Reporting Limit. - = Not analyzed or not established.
Table S-1: Soil Direct Exposure Human Health Risk Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
Table S-2: Soil Leaching to Groundwater Screening Levels (Organic Compounds only), Feb. 2016 (Rev. 3).
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Table S-4: Soil Odor Nuisance Screening Levels (Commercial/Industrial), Feb. 2016 (Rev. 3).
5: Bay Area background arsenic concentration - see http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml
73 Sample concentration greater than one or more ESLs.

Table A-6

Summary of 2004 Groundwater Analytical Results
4701 North First Street Property
San Jose, CA

Method	Analyte	Units	VL-GW	TE-GW	PH-GW	Table GW-1	Table GW-2	Table GW-3
Sample Date			8/12/04	8/12/04	8/12/04	Drinking Water ESLs	Aquatic Habitat ESLs	Vapor Intrusion ESLs
Petroleum Hydrocarbons								
	TPH Diesel	ug/L	<50	<50	<50	150	640	-
	TPH Motor Oil	ug/L	<50	<50	-	Note 1	--	-
8015	TPH Hydraulic Fluid	ug/L	<50	<50	-	-	-	-
CAM 17 Metals								
	Antimony	mg/L	<0.05	<0.05	-	0.0074	0.03	-
	Arsenic	mg/L	<0.05	<0.05	-	0.000004	0.036	-
	Barium	mg/L	**0.13**	**0.21**	-	**2**	-	-
	Beryllium	mg/L	<0.05	<0.05	-	0.0000045	0.0027	-
	Cadmium	mg/L	<0.05	<0.05	-	0.00004	0.00025	-
	Chromium	mg/L	<0.05	<0.05	-	-	0.18	-
	Cobalt	mg/L	<0.05	<0.05	-	0.006	**0.003**	-
	Copper	mg/L	<0.05	<0.05	-	0.3	0.0031	-
6010B	Lead	mg/L	<0.05	<0.05	-	0.0002	0.0025	-
	Molybdenum	mg/L	**0.07**	<0.05	-	**0.0012**	**0.000051**	-
	Nickel	mg/L	<0.05	<0.05	-	0.099	0.24	-
	Selenium	mg/L	<0.10	<0.10	-	0.012	0.0082	-
	Silver	mg/L	<0.05	<0.05	-	0.03	0.005	-
	Thallium	mg/L	<0.10	<0.10	-	0.086	0.00019	-
	Vanadium	mg/L	<0.05	<0.05	-	0.0001	0.0063	-
	Zinc	mg/L	<0.05	<0.05	-	0.05	0.019	-
	Mercury (7470A)	mg/L	<0.0002	<0.0002	-	6	0.081	-
Pesticides								
8081	All Pesticides	ug/L	ND	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)								
8082	all PCBs		ND	-	-	-	-	-

Notes:

- = Not analyzed or not established.

<0.05 = not detected above concentration listed.

California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, Feburary 2016 Update, Tier 1 ESLs, default environmental screening levels (ESLs) for unrestricted land use.

Table GW-1: Groundwater Direct Exposure Human Health Risk Screening Levels, RWQCB February 2016.

Table GW-2: Ecological Aquatic Habitat Goals, RWQCB February 2016.

Table GW-3. Groundwater Vapor Intrusion Human Health Risk Screening Levels (Volatile Chemicals Only); depth to groundwater less than or equal to 10 feet, Sand Scenario, RWQCB February 2016.

RWQCB Note 1 - "TPH motor oil is not soluble. TPH motor oil detections in water most likely are petroleum degradates or less likely NAPL. If the detections are degradates, add TPH motor oil and TPH diesel results and compare to TPH diesel criterion."

0.07	Sample concentration greater than one or more ESLs.

Appendix B

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Health and Safety Plan

Grading, Utilities & Building Construction
at
4701 North First Street Development Project
Top Golf Facility and Hotel / Retail Parcels
San Jose, California

May 2018

Acumen Project No. GEO 18101

Prepared For:

Geologica, Inc.
5 Third Street, Suite 808
Oakland, CA 94103

Paul M. Spillane, CIH, CAC (May 31, 2018)

Table of Contents

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May 2018

1.0 Introduction

The purpose of this Health and Safety Plan (HSP) is to provide guidelines for safe work practices for redevelopment and future invasive activities at the "4701 North First Street Development Project" (the "Project Site") in San Jose, CA . There have been numerous site investigations, which are summarized in GEOLOGICA (2016). These investigations indicated that low levels of metals (including lead, arsenic, and thallium), total petroleum hydrocarbons (TPH compounds), chlorinated volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs) are present in scattered areas of the Project Site. This presence of these chemicals is primarily related to placement of fill at the Project Site in the late 1950s to 1970s.

This HSP addresses work practices to be followed in those areas of the site related to the contaminants of concern. This HSP includes the overall general responsibilities for the construction contractor and its sub-contractors, to meet minimum prescribed safety provisions in handling soils or materials potentially contaminated with metals, TPH compounds, VOCs, and PCBs. This HSP is not intended to replace work practices or substitute existing safe work practices as described in GEOLOGICA's or site contractors' Safety Manual and Code of Safe Practices or similar documents. These elements are incorporated into this document by reference.

1.1 Site Description

The site comprises approximately 36 acres located in the northern area of the City of San Jose, CA, formerly Alviso including: the former Pin High Golf Center (4701 N. First Street); a former recreational vehicle (RV) storage yard; a Verizon cell phone tower facility; and several undeveloped lots at the west end of the property. The elongated, irregularly-shaped site is bounded on the north by North First Street, on the west by Liberty Street, on the south by Moffat Street and the Guadalupe River channel, and on the east by undeveloped land.

1.2 Overview of Work

The property owners, Terra Hospitality Inc., are currently in the planning and permitting stages of site redevelopment. Plans include construction of a Top Golf recreational entertainment complex, a hotel in the southeast corner along North First Street, and additional retail / commercial development, along with paved access roads, perimeter parking and landscaping. This HSP also addresses additional construction work necessary for site preparation for site development. Site grading will, in general, involve raising the site grade by 1 to 2 feet by importation of fill across the property as described in the Soil Management Plan (SMP) Update (GEOLOGICA, 2018). Activities that are anticipated will include the following:

- Rough grading
- Trenching for utilities to depths of 5 to 8 ft below ground surface (bgs).
- Excavation for Top Golf Hitting Targets.
- Excavation / drilling for building footings.
- Stormwater bioswales / filtration catchments requiring excavation to 2 to 4 ft bgs

2.0 Project Organization

The contractor shall designate individuals to fulfill the following specific roles as described below before fieldwork begins. Roles that are not specifically assigned to a named individual may be filled by the same employee. However, they must be identified before fieldwork begins.

2.1 Project Manager

The Project Manager has primary responsibility for assuring that all project personnel, and applicable sub-contractors, comply with relevant aspects of this HSP. Specific duties of the Project Manager include the following:

- Notification of all site employees and contractors of activities of potential project related hazards,
- Ensure site has been cleared of underground utilities before drilling begins,
- Ensure safety procedures comply with applicable federal, state, and local regulations,
- Ensure compliance with this HSP,
- Provide regular pre-task health and safety briefings, and
- Investigate accident and incidents promptly.

2.2 Health and Safety Officer

The designated Health and Safety Officer will be responsible for the following:

- Ensure personal wear the appropriate protective equipment in the designated work areas (HSP Section 4.0),
- Ensure that site personnel receive necessary training (HSP Section 6.0),
- Proper delineation of work zones with barricades or barrier tape. Conduct periodic inspections of the work area to identify and eliminate or control physical hazards that may exist on the project site (moving ground, tripping hazards, slipping hazards, sharp objects, etc.),
- Assist the project manager with his/her health and safety related responsibilities, and
- Identify the nearest emergency facilities (if not already done).\

The health and safety officer shall have the necessary training as described in Section 6.0 of this HSP. He shall be on-site as necessary whenever there is work that requires the handling of contaminated materials, as directed by the project manager. If necessary, an alternate health and safety officer may be designated.

The health and safety officer shall consult with Acumen Industrial Hygiene, Inc., who shall provide a board certified industrial hygienist (CIH) to provide technical assistance as needed.

3.0 Hazard Analysis

3.1 Chemical Hazards

Soil Chemical Test Results - Chemical testing for VOCs, CAM 17 metals, total petroleum hydrocarbons, and PCBs was performed on native soil samples collected at the property. Testing results indicate that low levels of soil contamination by TPH-diesel and TPH-motor oil and various metals are broadly present across the property in shallow soils above the water table. PCBs and pesticides are present sporadically in some areas. Detections seem to be in most cases related to residual contamination present within the fill material placed at the property in the past, though impacts from site releases may also have occurred. Most of the detections are below 1,200 mg/kg, the Direct Exposure ESL for TPH as diesel. Only one TPH-d detection, the TPH-d concentration of 1,400 mg/kg in sample GP-2-7.5-8', exceeds the Direct Exposure ESL of 1,200 mg/kg. Key metals include: arsenic (up to 155 mg/kg), lead (in one location at 710 mg/kg) and thallium (in one location at 17 mg/kg). Only one PCB detection was reported in the current study: boring GP-6 at a concentration of 130 ug/kg, well below the Direct Exposure ESL. The previous E2C

(2004b) detections appear highly limited in extent and sporadic. No VOCs except acetone were detected in soils.

Groundwater Test Results - Groundwater detections appear to divide into those potentially sourced on-site and those related to the potential encroachment of the leading edge of a known groundwater VOC plume sourced off-site on the adjacent property to the southeast. As with soil, low levels (less than 640 ug/l, the Aquatic Habitat ESL) of TPH as diesel and motor oil were broadly detected in groundwater samples collected across the property. Given the consistency of the detections across the property, these are likely sourced within the soil fill materials historically placed at the site. RWQCB 2016 ESLs are occasionally exceeded. One "hot spot" area, GP-2, with elevated concentrations of TPH-d (1,900 mg/l) and TPH-mo (10,000 mg/l), was noted in the western portion of the golf course area. Volatile organic compounds were generally not detected in groundwater samples collected at the site. However, low levels of several chlorinated VOCs were detected in GP-2. These included 1,1-DCE, VC, and several others up to 18 ug/l. The up-gradient property immediately to the southeast is Highway 237 at the First St Development Project.

3.2 Anticipated Exposures

Tables 1 and 2 present an industrial hygiene evaluation of worst case anticipated exposures, to meet the requirements for an objective data initial determination of exposure. This is the same basis for California Department of Transportation (Caltrans) Division of Maintenance Lead Compliance Plan. Potential inhalation exposures to airborne contaminants are expected to be low. Airborne dust generally becomes visible at concentrations of approximately 0.5 milligrams of dust per cubic meter of air (mg/m^3). This level of dust represents 5% of the current Cal-OSHA Permissible Exposure Limit (PEL) for total dust. If just visible airborne dust were to contain the highest metals content in areas to be disturbed, this concentration of dust would represent 3.0 $\mu g/m^3$. This is equivalent to 6% of the current Cal-OSHA PEL for lead (50 $\mu g/m^3$). Note that the Cal-OSHA AL is based on an 8-hour time weighted average (8h-TWA). Therefore, to reach worst case projected exposures would require continuous emissions of just visible dust for an entire shift. Given that dust control is a project requirement, this is an unlikely scenario. Consequently, the airborne lead exposure hazard is expected to be very low for work that disturbs wastes on this project

3.3 Physical Hazards

The physical hazards of this project should be normal to construction operations work. As explained above, these offer the greatest potential risk of injury during the project. These hazards should already be addressed in contractor's IIPP which is incorporated by reference into this HSP. Contractors are expected to abide by their own IIPP's, which shall be available on site during fieldwork. However, the following safety issues should be considered during this project.

- Underground and overhead utility clearance before excavation work.
- Work with and around drilling and excavation equipment, including pinch points, and heavy lifting.
- Compliance with Cal-OSHA's excavation safety orders if the work will require anyone to enter excavations deeper than five feet. These orders require a permit from Cal-OSHA as described in 8CCR1539.

Other physical hazards typical of construction activities include working around heavy equipment, electrical work, noise, slips and falls, back strains from lifting, and cuts from jagged edges and protrusions. These hazards should already be addressed in either the general contractor or applicable subcontractor IIPP, and should be discussed during routine daily job hazard analysis.

Work around equipment or noise sources that exceed 85 decibels will require the use of either earmuffs or insert hearing protectors. Earmuffs shall be maintained in a clean and sanitary condition. Insert hearing

protectors shall be disposed of after each use. Users of insert protectors shall ensure hands are clean before inserting plugs into ears.

3.4 Overview of Safety Procedures

The hazards described above shall be controlled through a combination of engineering and administrative controls and through the use of personal protective equipment, supplemental to any that may be required in Contractor's IIPP.

The engineering controls applicable to this project shall be as follows:

- Determine the location of underground utilities before excavation, drilling or other soil work activities
- Use dust control measures to minimize visible dust emissions

The administrative controls for this project shall consist of limiting access to potentially contaminated areas to properly trained and equipped personnel. These individuals shall follow the required decontamination procedures when leaving the contaminated work areas.

4.0 Site Control

4.1 Contaminated Area Definition

Exclusion areas are not necessary since as discussed above it is unlikely that this work will involve significant airborne exposures. However, this shall not relieve site workers from the requirement for personal hygiene before eating, drinking or smoking. Instead, work will take place in designated areas access to which shall be restricted to authorized and trained personnel.

4.2 Decontamination Area

A location adjacent to contaminated work areas shall be designated for the removal of protective clothing and for field washing.

5.0 Personal Protective Equipment

The following (EPA level D) personal protective equipment minimizes the physical and chemical hazards which may be encountered while working with contaminated soils that may contain aerially deposited lead.

- Hardhat;
- Nitrile gloves, if in direct contact with contaminated soils or groundwater;
- Safety glasses with side shields;
- Safety footwear with steel toe and shank.

The PPE clothing described above must be worn by all personnel who may come in direct contact with lead contaminated materials. Unnecessary contact with potentially contaminated residues shall be avoided as much as possible.

Respiratory protection is not required for this project.

6.0 Employee Training

As discussed in Section 3 of this HSP, it is unlikely that site activities will result in exposure to health hazards other than those associated with either excavation or drilling activities or work near traffic.

Therefore, training for Hazardous Waste Operations and Emergency Response (HAZWOPER) per 8CCR5192 is not generally required. However, the site superintendent shall be current in HAZWOPER training so that he or she can direct the appropriate actions should unforeseen conditions be detected.

All site personnel shall receive site-specific training on the contents and requirements of this HSP, and on the potential health hazards associated with site contaminants. This information shall be presented at a project start-up tailgate safety meeting mandatory for all site personnel. The Health and Safety Officer will conduct this meeting. Table 3 shows an outline for the site specific tailgate safety meeting in this HSP, which shall include a brief discussion on the hazards of lead exposure. This training shall be documented on the Health and Safety Plan Compliance Agreement Form appended to this HSP.

Additional training may be needed after events such as procedure changes, PPE level adjustments, accidents, or additions to this HSP. These meetings will be arranged by the Health & Safety Officer

All subcontractor personnel will be required to complete the same basic training, and shall attend all safety briefings. Employee attendance shall also be documented in training attendance records (sign-in sheets).

This training is additional to the training required either by Contractor's' IIPP or by applicable codes of safe practices. Additional training may be required should project conditions change or warrant it. This includes respiratory protection training if it is required.

7.0 Air Monitoring

Air monitoring for this project shall consist of periodic monitoring for VOCs, dust monitoring, and combustible gas monitoring. These monitoring activities shall be performed during site soil work (grading, foundation preparation, building foundation pier drilling, etc), as well as any "hot spot" remediation which may be required based on conditions encountered during site construction activities. :

As indicated in Section 3.2 above, airborne exposures to VOCs are unlikely to exceed Cal-OSHA criteria. However, this shall be verified through periodic breathing zone measurements using a calibrated photoionization detector (PID) fitted with either a 10.2 or a 10.6 eV source. Care shall be taken to assess potential interferences such as vehicle exhaust when evaluating the significance of PID results. Results shall be logged on the attached PID log (or equivalent document). Work shall be suspended until breathing zone measurements fall to less than 5 ppm for 5 consecutive minutes. The Contractor shall contact Acumen Industrial Hygiene, Inc., if it becomes necessary to suspend work as a result of elevated air monitoring results to determine whether it is necessary to revise this HSP.

Combustible gas monitoring, using a calibrated instrument, shall be required when first exposing the subsurface beneath site asphalt. Work will not be permitted if flammable gas measurements are greater than 10% of the lower explosive limit (LEL).

To verify the effectiveness of dust control measures, perimeter air monitoring shall be conducted at one upwind and two downwind locations using data logging direct reading instruments (e.g. TSI AM 510 fitted with PM_{10} filters) for the first week of field remediation, and twice weekly for the following two weeks. Work shall be suspended if results exceed either 1.1 mg/m^3 averaged over a one hour period. The frequency of proposed monitoring shall be revised based on either results or changes in schedule.

Air monitoring results shall be documented and made available to site personnel. The air monitoring equipment shall be calibrated in accordance with the manufacturer's recommendations. Calibration records shall also be maintained.

8.0 Decontamination

The following good personal hygiene practices as described below shall be implemented for this project.

8.1 Personal Decontamination

Suitable arrangements and facilities shall be made so that employees may wash their hands and face before eating, drinking or smoking. Hands shall also be thoroughly washed after leaving any areas of the site before eating, drinking, or any other activities during disturbance of subsurface materials.

8.2 Equipment Decontamination

Boots and gloves may be reused provided they have been washed and rinsed. Otherwise they shall be replaced as necessary. Footwear shall be cleaned of mud, dirt, and other debris at the end of each day before leaving the work site.

Contaminated equipment shall be decontaminated by cleaning off visible residues. Visibly clean equipment shall be considered decontaminated. Contaminated equipment shall not be removed from the regulated area until it has been cleaned.

9.0 Emergency Response

9.1 Employee Injury or Illness

The affected employee shall be removed (if it can be done safely and without aggravating conditions) and transported to the nearest emergency medical facility, the location of which shall be determined before field work begins (Table 5 shows a suggested facility for emergency or non-emergency care). Emergency telephone numbers are listed on Table 4. Only individuals currently trained in first aid or CPR shall render this type of assistance. The Health and Safety Officer shall prepare a map to the nearest emergency facility before site work begins. This map shall be kept on site, and shall be readily available.

9.2 Emergency Equipment

Emergency equipment available on-site shall consist of:

- First aid kits (to be used by trained personnel only).
- Fire extinguishers (10 ABC ratings). Fire extinguishers shall be available at drill rig, and in each supervisor vehicle. Fire extinguishers shall be inspected annually, and during each job site inspection they are re-charged as necessary.

9.3 Emergency Decontamination

As project related chemical hazards are expected to be low, it is unlikely that employee contamination can present a life threatening condition. Therefore, emergency employee decontamination shall consist of removing protective clothing and washing with soap and water. If necessary, protective clothing shall be cut away and removed before transportation to an emergency facility.

9.4 Emergency Evacuation

In the unlikely event of site evacuation, an air horn will be used to sound the alarm. Alternative alarm methods of notification are acceptable provided they are reviewed during site specific training. Reasons for emergency evacuation include fires and explosions.

Employees shall report to the location designated during the tailgate safety meeting where either the Project Manager or Site Safety Officer shall conduct a head count.

9.5 Unusual Conditions

Site employees shall be instructed to cease work, and immediately report to either the Project Manager or Health & Safety Officer should they encounter unusual conditions such as strange odors (or liquids. The Site Superintendent (or other HAZWOPER trained supervisory personnel) shall assess conditions, and shall consult with Acumen Industrial Hygiene, Inc., as needed to determine appropriate course of action, which may include modification of this HSP. If necessary, work shall be temporarily suspended until the situation can be properly addressed.

10.0 Spills

Contaminated soils spills onto uncontaminated areas shall be handled by prompt response that will include restricting the immediate area to authorized personnel only. The soil shall then be picked up, removed, and placed either in an appropriate cuttings pile.

11.0 General Safe Work Practices

The project operations shall be conducted with the following minimum safety requirements:

- Personnel on-site are to be thoroughly briefed on the anticipated hazards, equipment requirements, safety practices, emergency procedures and communication methods, initially and in daily briefings.
- Dust control measures to minimize airborne dust emissions.
- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and ingestion of materials is prohibited in all areas of contaminated soil work.
- Removal of materials from protective clothing or equipment by blowing, shaking, or any other means that may disperse materials into the air is prohibited.
- Personnel should be cautioned to inform each other and their supervisor of subjective symptoms of chemical exposure such as headache, dizziness, nausea, and irritation of the respiratory tract.
- Direct contact with contaminated soil shall be minimized.
- Legible and understandable precautionary labels shall be prominently affixed to containers of raw materials, intermediates, products, mixtures, scrap, waste, debris, and contaminated clothing.

12.0 Sanitation

The Project Manager shall provide proper sanitary facilities for use by all personnel assigned to the project. These shall include appropriate washing facilities to include an adequate supply of soap, water and towels

13.0 Respiratory Protection

As worst case anticipated exposures to metals are not likely to exceed Cal-OSHA PELs, respirator use is not required for this project. However, should conditions change such that they are needed, their use shall be consistent with the requirements of 8CCR 1529 (Cal-OSHA's Respiratory Protection Standard for the construction industry). Contractor shall provide respirators that are applicable and suitable for the purpose intended. The appropriate respiratory protection for this project if the criteria in Section 7.0 are exceeded is a NIOSH-approved half face respirator fitted with organic vapor cartridges. These respirators have a rated protection factor of 10.

As described in Section 14.0 of this HSP, all employees required to wear respiratory protection shall be required to undergo annual medical evaluations.

Contractor's respiratory protection policy shall not permit respirator use when conditions prevent a proper face piece-to-face seal. Such conditions as facial hair, scars, wrinkles, facial diseases, denture removal, or other disorders, which could prevent a proper face piece-to-face, seal. Contact lenses may not be worn when using any respirator.

Contractor supervisors and employees shall be current in the respiratory protection training including the proper selection and use of respirators and their limitations. All training is documented with records retained in the employee's training files.

14.0 Medical Surveillance

Medical surveillance is not required for this project as Cal-OSHA PELs are not likely to be exceeded.

Medical surveillance is not required for this project. However, Contractor personnel and sub-contractors engaged in project operations involving work with hazardous wastes shall participate in an annual medical surveillance program, and shall be cleared by the examining physician(s) to wear respiratory protection devices and protective clothing for working with hazardous materials as required under 8 CCR 5192 prior to field assignment. As stated in 8CCR5192(f)(3)(A)1 through 8CCR5192(f)(3)(A)5, the medical surveillance program shall include:

- Medical and work history with emphasis on symptoms related to hazardous substance handling and health hazards, and fitness for duty including the ability to wear the required personal protective equipment under conditions expected at the site.
- Medical examination, the content of which shall be determined by the examining physician. This may include pulmonary, liver and kidney function tests, as well as hematological and neurological tests.

These examinations shall be provided without either cost to employees or loss of pay to said employees, at a reasonable time and place. A licensed physician, preferably one knowledgeable in occupational medicine, shall be retained to provide the required medical examinations. In addition, medical examinations shall be provided at least once every twelve months, unless the attending physician believes a longer interval (not greater than biennially) is appropriate.

Medical examinations shall also be provided for employees who have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances, or been exposed to lead at levels above the Action Level for more than one day during any 12-month period. Medical monitoring parameters for lead exposure issues will be in compliance with the Lead Standard. The physician shall be provided a copy of Cal-OSHA's Lead in Construction regulations (8CCR1532.1).

Such exams shall be provided as soon as possible after the incident, or the development of signs or symptoms, and at additional times as determined by the examining physician.

Medical records associated with this program are maintained in a manner consistent with the requirements of 8CCR 3204. This regulation stipulates that medical records be maintained confidentially for at least 30 years following the termination of a participant in this program.

15.0 Proposition 65

Benzene is a substance known to the State of California to be carcinogenic. Consequently, it is necessary to comply with the requirements of Proposition 65 (Safe Drinking Water and Toxics Enforcement Act of 1986) during the project. This will require the posting of Proposition 65 warning notices at all entrances to the site, the inclusion of the Proposition 65 notice in the site-specific training, and written notification to any site visitors.

16.0 Standard Operating Procedures

Section 8.0 of this HSP contains procedures for decontamination. Other standard operating procedures relevant to site construction work is included in Contractor's and subcontractors' IIPP's which are incorporated into this HSP by reference. They will be available on site for review during fieldwork. Appendix A contains the project specific IIPP

Table 1

Industrial Hygiene Evaluation
Metal Contaminates in Soil
4701 North First Street
San Jose, CA

May 2018

Contaminant	Soil Conc. [1]	Air Conc. [2]	PEL [3]	%PEL [4]
Antimony*	6.700	0.003	500	0.001%
Arsenic*	155.000	0.078	10	0.775%
Barium	650.000	0.325	500	0.065%
Beryllium*	0.810	0.000	2	0.020%
Cadmium*	4.900	0.002	5	0.049%
Chromium*	480.000	0.240	50	0.480%
Cobalt	64.000	0.070	50	0.140%
Copper	140.000	0.355	1,000	0.036%
Lead*	710.000	0.003	50	0.005%
Mercury*	5.400	0.003	100	0.003%
Molybdenum	570.000	0.285	5,000	0.006%
Nickel*	1,100.000	0.550	100	0.550%
Selenium	2.700	0.001	200	0.001%
Silver	17.000	0.009	10	0.085%
Thallium	77.000	0.039	100	0.039%
Vanadium	110.000	0.055	50	0.110%
Zinc	2,000.000	1.000	1,000	0.100%

Footnotes

1. Soil Conc. indicates maximum soil concentration in milligrams of contaminant per kilogram of soil (mg/kg).
2. Air Conc. indicates predicted airborne concentration based on continuous emissions of just visible dust (500 micrograms of dust per cubic meter of air or $\mu g/m^3$). Predicted metals concentrations are expressed in $\mu g/m^3$.
3. PEL indicates current Cal-OSHA Permissible Exposure Limit (PEL) currently promulgated in Title 8 of California Code of Regulations. PELs are given in $\mu g/m^3$.
4. %PEL indicates air concentrations shown in column 3 as a percentage of the applicable PEL.

* Indicates California Proposition 65 substance.

Table 2

Industrial Hygiene Evaluation
Non-Metal Compounds in Soil
4701 North First Street
San Jose, CA

May 2018

Contaminant	Soil Conc. [1]	Air Conc. [2]	PEL [3]	%PEL [4]
Acetone	0.110	0.002	500	0.000%
TPH-Diesel	1,400.000	7.780	N/A	N/A
TPH- Oil and Grease	4,800.000	17.782	N/A	N/A
TPH Hydraulic Fluid	424.100	1.037	N/A	N/A
4,4'-DDD	1.700	<0.001	1000	<0.000%
4,4'-DDE	1.100	<0.001	1000	<0.000%
4,4'-DDT	0.950	<0.001	1000	<0.000%
alpha-Chlordane	0.013	<0.001	500	<0.000%
Dieldrin	0.011	<0.001	500	<0.000%
gamma-Chlordane	0.014	<0.001	500	<0.000%

Footnotes

1. Soil Conc. Indicates maximum soil concentration in milligrams of contaminant per kilogram of soil (mg/kg).
2. Air Conc. indicates predicted airborne concentration based on instant and continuous evaporation of substance into a space 1 meter square and 2 meters high, not allowing for any dissipation or dilution. Predicted concentrations are shown in parts per million (ppm).
3. PEL indicates current Cal-OSHA Permissible Exposure Limit (PEL) currently promulgated in Title 8 of California Code of Regulations. PELs are given in ppm. Where more than 1 PEL has been promulgated, the lowest value is given.
4. %PEL indicates air concentrations shown in column 3 as a percentage of the applicable PEL.

* Indicates California Proposition 65 substance.

Table 3

Tailgate Safety Meeting Outline

4701 North First Street
San Jose, CA

May 2018

- Introduction
- Summary of Work
- Review of Hazards
  - Chemical: TPH
  - Physical:
- Hazard Control Methods
  - Engineering
    - Dust Control
    - Stop if unusual odors
  - Administrative
    - All employees to have site specific training
    - Restrict access
  - Personal Protective Equipment
    - Standard attire plus gloves
- Air Monitoring
  - PID (< 5 ppm for 5 mins)
- Employee Decontamination
  - Follow good personal hygiene practices
- Emergency Procedures
  - Know the emergency number
  - Identify nearest hospital and route map

Table 4

Emergency Telephone Numbers

4701 North First Street
San Jose, CA

May 2018

Injury/Illness	
Minor Injury: McCarthy Medical Center	(408) 263-9936
Major Injury/Illness: O'Connor Hospital	(408) 947-2500
Emergency Services: Ambulance / Police / Fire	9-1-1
Poison Control Center	(800) 222-1222
Health & Safety	
Police/Fire/Ambulance (emergency)	9-1-1
Underground Services Alert	8-1-1
Utility Locate Service	(800) 642-2444
Pacific Gas & Electric	(800) 743-5000
Paul M. Spillane (Acumen Industrial Hygiene, Inc.)	(415) 242-6060
Regulatory Agencies	
California State Office of Emergency Service	(800) 852-7550
Chemtrec	(800) 424-9300
Department of Toxic Substances Control	(800) 728-6942
Department of Fish and Game	(800) 334-2258
Regional Water Quality Control Board	(510) 622-2300
Geologica, Inc.	
To Be Determined, Project Manager	(_ _ _) _ _ _-_ _ _ _ office (_ _ _) _ _ _-_ _ _ _ cell
To Be Determined, Project Competent Person	(_ _ _) _ _ _-_ _ _ _ office (_ _ _) _ _ _-_ _ _ _ cell
To Be Determined, Project Safety Representative	(_ _ _) _ _ _-_ _ _ _ office (_ _ _) _ _ _-_ _ _ _ cell

* Dialing 911 from a cellular phone will connect you to California Highway Patrol (CHP), not to local agencies.

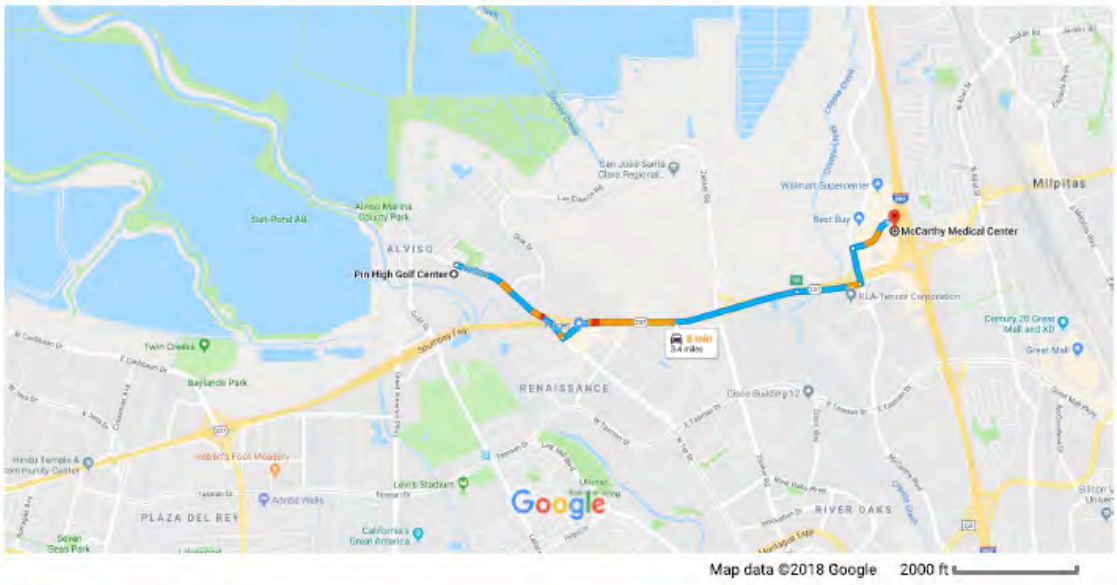
Table 5A

Medical Clinic Route
4701 North First Street
San Jose, CA

May 2018

Medical Office: McCarthy Medical Center
246 Ranch Dr, Milpitas, CA 95035
(408) 263-9936
Mon - Fri 8:30 am - 4:30 pm; Sat - Sun Closed

Google Maps Pin High Golf Center to McCarthy Medical Center Drive 3.4 miles, 8 min



Pin High Golf Center
4701 N 1st St, Alviso, CA 95002

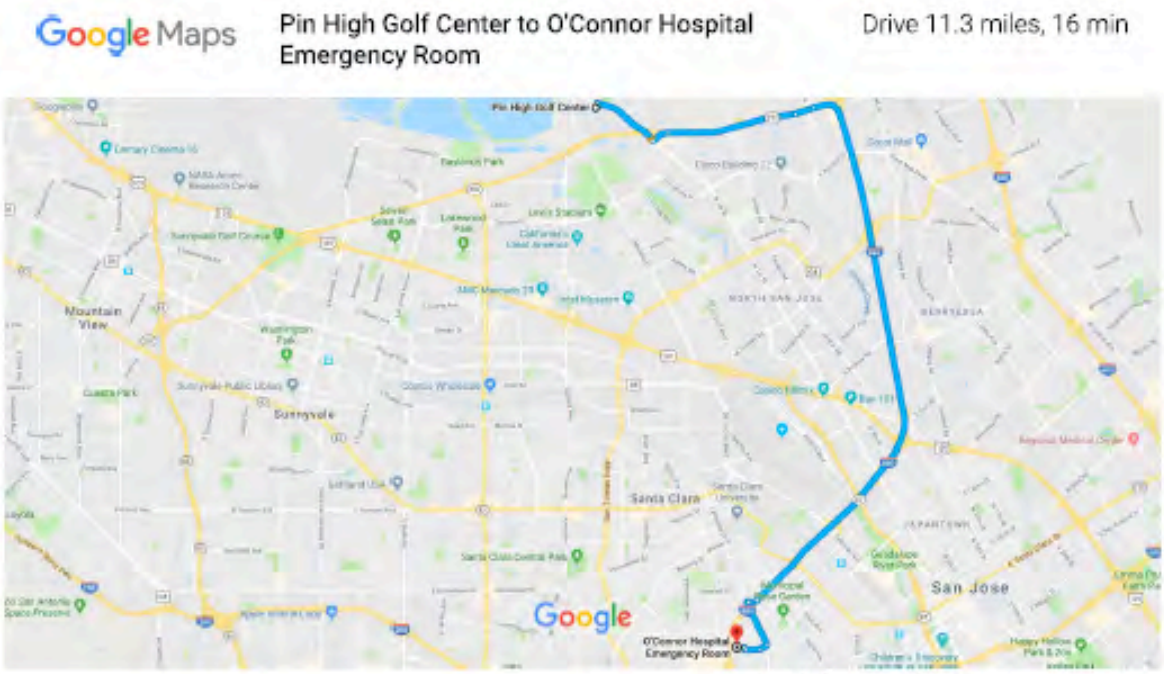
1. Head east on N 1st St toward Trinity Park Dr — 0.9 mi
2. Use the left 2 lanes to turn left to merge onto CA-237 E — 1.6 mi
3. Take exit 9A for McCarthy Blvd — 0.4 mi
4. Use the left 2 lanes to turn left onto N McCarthy Blvd — 0.2 mi
5. Use the right 2 lanes to turn right onto Ranch Dr — 0.3 mi
   Pass by In-N-Out Burger (on the right)

Table 5B

Directions to Hospital
4701 North First Street
San Jose, CA

May 2018

Hospital: O'Connor Hospital
2105 Forest Ave, San Jose, CA 95128
(408) 947-2500



Pin High Golf Center
4701 N 1st St, Alviso, CA 95002

Get on CA-237 E

3 min (1.1 mi)

1. Head east on N 1st St toward Trinity Park Dr

0.9 mi

2. Use the left 2 lanes to turn left to merge onto CA-237 E

0.2 mi

Take I-880 S to N Bascom Ave. Take exit 1D from I-880 S

9 min (9.2 mi)

3. Merge onto CA-237 E

1.6 mi

4. Use the 2nd from the right lane to take the exit toward I-880 S

0.2 mi

5. Keep right at the fork, follow signs for Interstate 880 S/San Jose and merge onto I-880 S

7.2 mi

6. Take exit 1D for Bascom Ave

0.1 mi

Continue on N Bascom Ave to your destination

5 min (1.0 mi)

7. Sharp left onto N Bascom Ave

0.6 mi

8. Turn right onto Naglee Ave

0.1 mi

9. Continue onto Forest Ave

0.2 mi

10. Turn right at Di Salvo Ave

184 ft

11. Turn left

Destination will be on the right

0.1 mi

Health and Safety Plan Compliance Agreement Form

4701 North First Street
San Jose, CA

COMPLIANCE AGREEMENT FORM		
We, the undersigned, have individually read the health and safety guidelines presented in this Health and Safety Plan and will follow them while performing on-site work activities.		
NAME / TITLE / ORGANIZATION	SIGN NAME	DATE

PID Air Monitoring Log

Project Number: **Date:**

Project Location: 4701 North First Street, San Jose, CA

PID Used *(Brand, Serial Number):* ` **Date of Last Calibration:**

Monitoring Technician Name: **Technician Phone:**

Time	Result	Sample Location	Comments
		BZ Other:	
		BZ Other:	
		BZ Other:	
		BZ Other:	
		BZ Other:	
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BZ= breathing zone (approximately five feet above ground.

STOP: If breathing zone levels that exceed 5 ppm in breathing zone for 5 consecutive minutes.

Contact Acumen Industrial Hygiene Inc. 415 242 6060 to determine appropriate action.

FAX copies of all logs to Acumen Industrial Hygiene (Fax 415 242 6006) on a weekly basis.

geologica

www.geologicagroup.com

5 Third Street, Suite
San Francisco, California 94103
Phone: (415) 722-3629
Fax: (888) 858-1382
E-mail: baubry@geologicagroup.com