PENSKE

RECEIVED
By Alameda County Environmental Health at 2:19 pm, Mar 16, 2015

March 13, 2015

Ms. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Data Gap Investigation Report
Former Penske Truck Leasing Facility
725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354
Stantec PN: 185702640.200.0003

Dear Ms. Detterman:

Enclosed with this cover letter is the Data Gap Investigation Report for the above-referenced former Penske Truck Leasing location.

As an authorized representative of Penske Truck Leasing Co, LP, I offer the following statement:

> I, Chris Hawk, declare, under penalty of perjury, that the information and/or recommendations contained in the enclosed Report are true and correct to the best of my knowledge

Should you have any questions, please contact me at 610-775-6123.

Best Regards,

Chris Hawk
Environmental Engineer

Penske Truck Leasing
Rt. 10 Green Hills, PO Box 7635
Reading, PA 19603-7635

Tel 610 775 6298
Fax 610 775 6442
gopenske.com

Stantec Consulting Services Inc.
1340 Treat Boulevard, Suite 300, Walnut Creek CA 94597-7966

March 13, 2015
File: 185702858.200.0003

Ms. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Reference: **Data Gap Investigation Report**
Former Penske Truck Leasing Facility 725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354

Dear Ms. Detterman:

Stantec Consulting Services Inc. (Stantec), on behalf of Penske Truck Leasing Company (Penske), has prepared this *Data Gap Investigation Report* (Report) for the Former Penske Truck Leasing Facility (the Site) located at 725 Julie Ann Way in Oakland, California (see Figure 1). This Report provides findings of the January 2015 investigation that was conducted in accordance with Stantec's November 20, 2014, *Data Gap Investigation Work Plan* (Work Plan). The Work Plan was approved by the Alameda County Environmental Health Services (ACEHS) in a letter dated December 5, 2014.

The Work Plan addressed ACEHS's concern that residual fuel hydrocarbons in shallow groundwater may be reaching a flood control channel located immediately west of the Site, via migration through the drainage channel's earthen bank. The location of the drainage channel is shown on Figure 2 and the Site Plan is included as Figure 3. The ACEHS requested the Work Plan to characterize shallow groundwater quality along the western site boundary with a minimum of four soil borings.

The January 2015 investigation consisted of the following elements which are summarized in this report:

- A site survey to determine the elevation of the bottom of the drainage channel relative to the Site;
- Selecting and marking the boring locations for Underground Service Alert and utility clearance; and
- Advancement of the soil borings for collection of grab groundwater samples.

Reference: **Data Gap Investigation Report**
Former Penske Truck Leasing Facility 725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354

Site Survey and Project Scoping

Stantec contracted with Mid-Coast Engineers, a California licensed land surveyor, to survey the elevations of the bottom of the adjacent drainage channel and the western portion of the former Penske property. The survey was performed on December 1, 2014, and survey data are illustrated on Figure 4. Site elevations within 25 feet of the western property boundary ranged from 11.53 feet (North American Vertical Datum of 1988 [NAVD 88]) along Julie Ann Way to 10.34 feet at the northeastern corner of the property. Surveyed elevations of the bottom of the drainage channel ranged from 4.02 feet adjacent to a bridge across the channel formed by old telephone poles to 5.17 feet adjacent to the culvert headwall at the northwest boundary.

The Work Plan proposed advancing soil borings to a depth corresponding to the bottom of the adjacent drainage channel to ensure that groundwater being collected would be that with the potential to be in communication with water present in the drainage channel. The maximum elevation difference of 7.5 feet was calculated between the property (11.53 feet) and bottom of the drainage channel (4.02 feet). Based on the 7.5 foot difference, the maximum depth of the soil borings for this investigation was rounded to 8 feet below grade.

Pre-Field Activities

Stantec met with the site tenant to mark the boring locations as proposed in the Work Plan. Half of the structure along the property boundary adjacent to the drainage channel is an open carport-type structure and the other half is divided into office space and storage rooms (see Figure 4). The configuration of the office space and the storage room spaces required that borehole locations be revised from those proposed in the Work Plan. The final boring locations are shown on Figure 4.

The number of borings was increased from four to six (SB-9 through SB-14) to delineate the sheen observed in the water from SB-12 and SB-13. The locations maintain the 30-foot minimum separation requested by ACEHS in the November 6, 2014 email, with the exception of the distance between SB-10 and SB-11 which is approximately 34 feet because of the inaccessible office space between them.

The proposed boring locations were marked with white paint and Underground Service Alert was notified at least 72 hours prior to beginning field work. Cruz Brothers Locators verified that drilling locations were free of detectable subsurface utilities or obstructions. Alameda County Public Works Agency (ACPWA) issued permit W2015-0001for the borings.

Reference: **Data Gap Investigation Report**
Former Penske Truck Leasing Facility 725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354

Borehole Advancement and Grab Groundwater Sample Collection

The upper 5 feet of each borehole were advanced using a hand auger to confirm the absence of shallow subsurface utilities or obstructions. Beyond 5 feet, the boreholes were also advanced with a hand auger due to space limitations such that use of a limited access direct-push drilling rig was not possible.

The Stantec geologist logged the soils encountered from the continuous core to total depth according to the Unified Soil Classification System (USCS). The soil boring logs with these descriptions are included in Appendix A. Soils were screened for organic vapors using a photoionization detector (PID), and PID readings and observations regarding odors and staining were recorded on the soil boring logs.

After reaching terminal depth at each location, a ¾-inch polyvinyl chloride (PVC) casing with 5 feet of slotted screen was inserted in the borehole for grab groundwater sample collection. Groundwater samples were collected within 2 hours of low tide which was at 2:16 PM on January 15, 2015, based on National Oceanic and Atmospheric Administration (NOAA) Tide Prediction Charts for the Oakland Inner Harbor[1].

Groundwater samples were collected using dedicated, disposable bailers. Minimal groundwater was encountered in each boring and the rate of infiltration was observed to be extremely slow. Therefore, the sample volume from each boring was limited to three 40-milliliter vials and the analysis of total dissolve solids (TDS) and total petroleum hydrocarbons as diesel (TPHd) as proposed in the Work Plan could not be performed.

Groundwater Sample Collection and Analysis

Groundwater samples were labeled, immediately placed on ice, and submitted to Curtis and Tompkins, Ltd., a State of California-certified laboratory, under chain-of-custody documentation. Groundwater samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, and total petroleum hydrocarbons as gasoline (TPHg) by United States Environmental Protection Agency (U.S. EPA) Method 8260B. As noted above, TPHd and TDS analysis was not performed due to the inability to collect a sufficient volume of water required for the analytical method.

[1] http://tidesandcurrents.noaa.gov/tide_predictions.html

Reference: **Data Gap Investigation Report**
Former Penske Truck Leasing Facility 725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354

Soil Boring Abandonment and Waste Management

Upon completion of grab groundwater sampling, borings were backfilled with bentonite cement grout and finished with a 4- to 6-inch concrete cap in accordance with ACPWA requirements. Soil cuttings and purge/rinsate water generated during soil boring activities were stored in California Department of Transportation (DOT)-approved 55-gallon steel drums and stored on-Site pending characterization and disposal.

Investigation Results

Locations of the soil borings SB-9 through SB-14 are illustrated on Figure 4. Soil borings were advanced to depths ranging from 5 to 8 feet below ground surface (bgs) as summarized below:

- SB-9 was advanced to 5 feet bgs and terminated because of refusal;
- SB-10 was terminated at 8 feet bgs at first-encountered groundwater;
- SB-11 was terminated at 6 feet bgs at first-encountered groundwater;
- SB-12 was terminated at 5.2 feet bgs at first-encountered groundwater;
- SB-13 was terminated at 5.2 feet bgs because of refusal; and
- SB-14 was terminated at 6 feet bgs at first-encountered groundwater.

Although refusal was encountered in SB-9 and SB-13 prior to a visibly saturated zone, groundwater subsequently infiltrated the borehole.

Soils consisted primarily of silt and clay with variable amounts of gravel. Pieces of broken brick were encountered in all borings within the silty-clay zone between approximately 3 and 5 feet bgs, indicative of fill material. PID readings of recovered soils ranged from 1 part per million (ppm) in SB-9 at 3.5 feet bgs and SB-14 at 3.5 feet bgs to 35 ppm in SB-13 at a depth of 5 feet bgs. PID readings are included on the soil boring logs in Appendix A.

During advancement of the soil borings, water-bearing sediments were observed during drilling in all the borings, except SB-10. A sheen was observed on the groundwater encountered in borings SB-12 and SB-13. Static groundwater was later measured at depths ranging from 4.5 to 5.5 feet bgs. The three borings closest to Julie Ann Way (SB-9 through SB-11) were left open for over two hours in order to obtain sufficient water for sample collection and subsequent groundwater levels ranged from 4.75 feet to 5.5 feet below grade. Static water levels in borings SB-12 through SB-14 were at 4.5 feet below grade and had a slightly higher infiltrations rate due to the presence of gravel in soils below 4.5 feet.

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Alameda County Site ID RO0000354

Analytical Results

TPHg and toluene were the only petroleum hydrocarbon constituents detected in the groundwater samples. Analytical results are summarized in Table 1, illustrated on Figure 4, and summarized below:

- TPHg was detected in samples SB-12 and SB-13 at concentrations of 1,700 micrograms per liter (µg/L) and 890 µg/L, respectively (TPHg concentrations were flagged by the laboratory as being represented by chromatographic patterns not typical of the TPHg standard);
- Toluene was detected in four of the six samples at concentrations ranging from 6.3 µg/L to 22 µg/L; and
- Benzene, ethylbenzene, xylenes, and naphthalene were not detected in groundwater samples.

Data Evaluation

Grab groundwater chemical data collected from the Site property boundary suggest that shallow groundwater containing detectable concentrations of TPHg may be in communication with the drainage channel forming the Site's western boundary. TPHg was detected in only two of six samples, suggesting that impacts are limited in extent. In order to evaluate the potential impact to aquatic biota, Stantec compared groundwater chemical data to estuarine habitat Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB; December 2013). As detailed in the December 2013 ESL guidance document, tidally-influenced portions of creeks, rivers, and streams flowing into the San Francisco Bay between the Dumbarton Bridge and the Richmond-San Rafael Bridge should be considered to be 'estuarine' in screening level assessments (Section 4.2.1). Reported TPHg concentrations of 1,700 and 890 µg/L reported in two of six grab groundwater samples exceed the estuarine habitat ESL of 500 µg/L, and reported concentrations of toluene (ranging from 6.3 to 22 µg/L) do not exceed the estuarine habitat ESL of 40 µg/L.

Conclusions and Recommendations

Gasoline-range petroleum hydrocarbons in groundwater beneath the northwestern site boundary are limited in magnitude and extent. The non-standard chromatographic pattern and lack of appreciable concentrations of BTEX suggest an aged, weathered fuel product that will likely continue to degrade over time. Although concentrations of TPHg at two locations exceed the aquatic habitat screening level, the screening criterion represents a direct-exposure screening level for aquatic biota and does not consider dilution effects between groundwater and surface water.

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Former Penske Truck Leasing Facility 725 Julie Ann Way, Oakland, California
Alameda County Site ID RO0000354

Therefore, based on these data, Stantec considers the potential threat to aquatic habitat to be low, and should not represent an impediment to regulatory case closure.

If you have any questions regarding this document, please contact the undersigned.

Regards,

STANTEC CONSULTING SERVICES INC.

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Project Manager
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Neil Doran, P.G., #8503
Senior Geologist
Tel: (916) 384-0722
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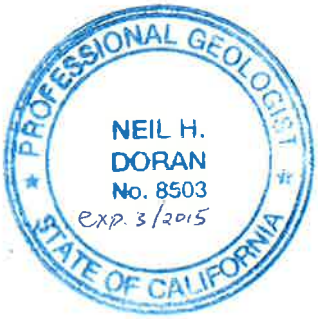


cc: Mr. Christopher Hawk, Penske Truck Leasing, Reading PA

List of Attachments

Table 1 – Grab Groundwater Sample Analytical Results

Figure 1 – Site Location Map
Figure 2 – Site Vicinity Map
Figure 3 – Site Plan
Figure 4 – 2015 Grab Groundwater Sample Results

Appendix A – Soil Boring Logs

TABLE 1
GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS
FORMER PENSKE TRUCK LEASING FACILITY
725 Julie Ann Way, Oakland, California

Well No.	Depth (ft bgs)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)
SB-9	4.7	ND <200	ND <2.0	**8.3**	ND <2.0	ND <2.0	ND <8.0
SB-10	5.5	ND < 710	ND <7.1	ND <7.1	ND <7.1	ND <7.1	ND <29
SB-11	4.8	ND <170	ND <1.7	**8.2**	ND <1.7	ND <1.7	ND <6.7
SB-12	4.6	**1,700[(a)]**	ND <0.5	**22**	ND <0.5	ND <0.5	ND <2.0
SB-13	4.5	**890[(a)]**	ND <0.5	**6.3**	ND <0.5	ND <0.5	ND <2.0
SB-14	4.4	ND <200	ND <2.0	ND <2.0	ND <2.0	ND <2.0	ND <8.0
	ESLs	500	46.0	40	30	100	21

Notes:

Samples collected on January 15, 2015.

Bold text indicates that a value was reported greater than the laboratory reporting limit.

µg/L - micrograms per liter

ft bgs - feet below ground surface

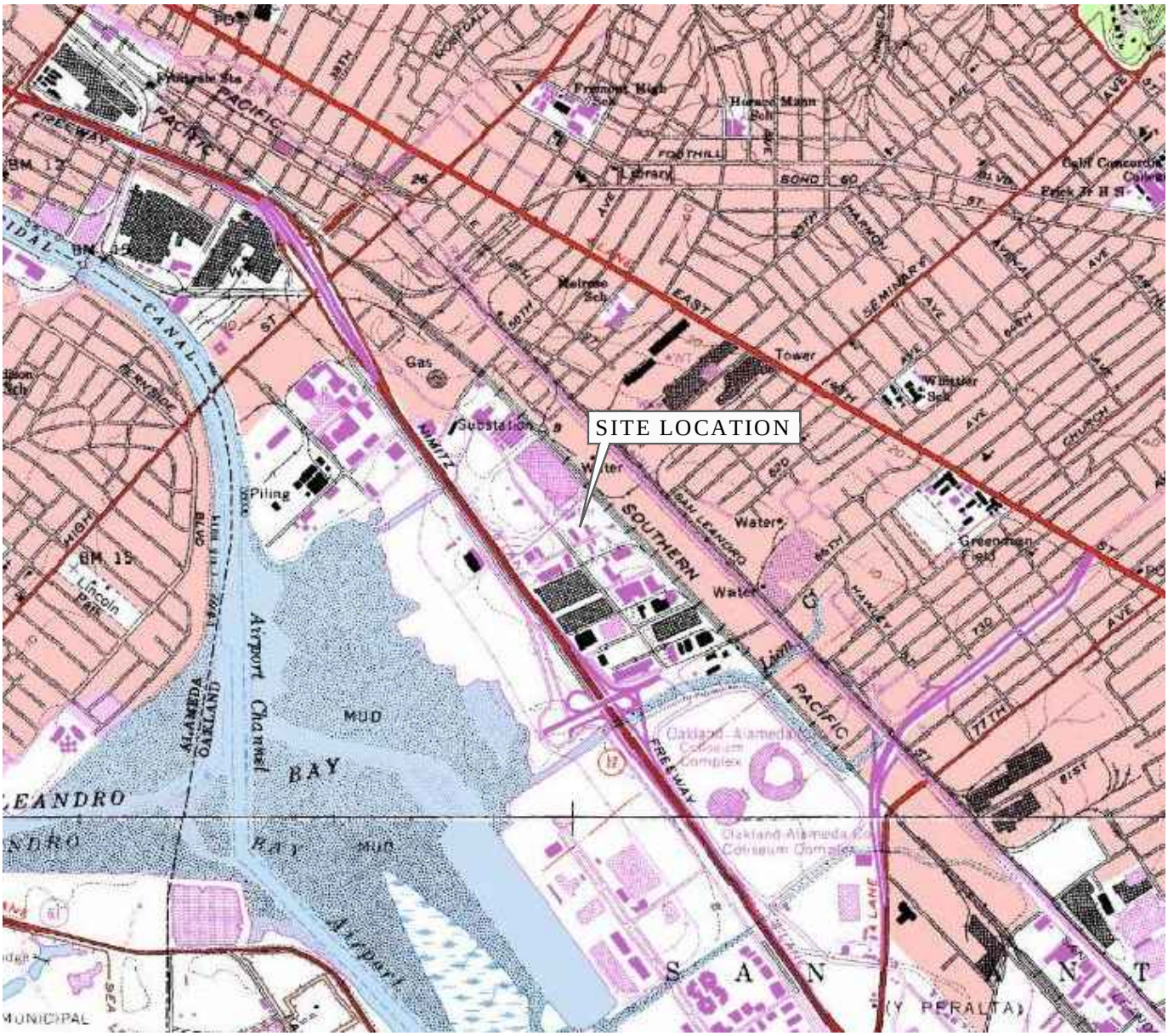
TPHg - Total Petroleum Hydrocarbons as gasoline

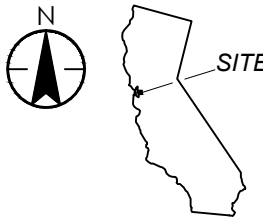
ND - Not detected at or above the laboratory detection limit

< - Indicates constituent not detected at or above specified reporting limit

(a) - Sample exhibits chromatographic pattern that does not resemble standard.

ESLs: Regional Water Quality Control Board, San Francisco Bay Region, Environmental Screening Levels, for estuarine surface water bodies (Table F), presented in the December 2013 "User's Guide: Derivation and Application of Environmental Screening Levels" .





1 1/2 0 1

SCALE IN MILE

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE IN FEET

Image courtesy of the U.S. Geological Survey and Microsoft TerraService OpenGIS Map Server

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek, CA 94597
PHONE: (925) 941-1400 FAX: (925) 941-1401

FOR:		SITE LOCATION MAP		FIGURE:
PENSKE 725 JULIE ANN WAY OAKLAND, CALIFORNIA				1
JOB NUMBER: 185702850.200.0001	DRAWN BY: RRR/STA	CHECKED BY: EH	APPROVED BY: EH	DATE: 03/03/15

FILEPATH:M:\PENSKE\PENSKE OAKLAND\2015\SLM.dwg|saguinaldo|Mar 12, 2015 at 19:32|Layout: SITE LOCATION MAP

LEGEND:

PROPERTY BOUNDARY

0 50 100

APPROXIMATE SCALE IN FEET

REFERENCE:

IMAGE ACQUIRED FROM GOOGLE EARTH PROFESSIONAL; 2014

SITE COORDINATE SYSTEM: CA STATE PLANE; ZONE III; NAD 83 VERTICLE DATUM; NAVD 88

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FOR:
PENSKE
725 JULIE ANN WAY
OAKLAND, CALIFORNIA

SITE VICINITY MAP

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702850.200.0001	RRR	EH	EH	03/03/15

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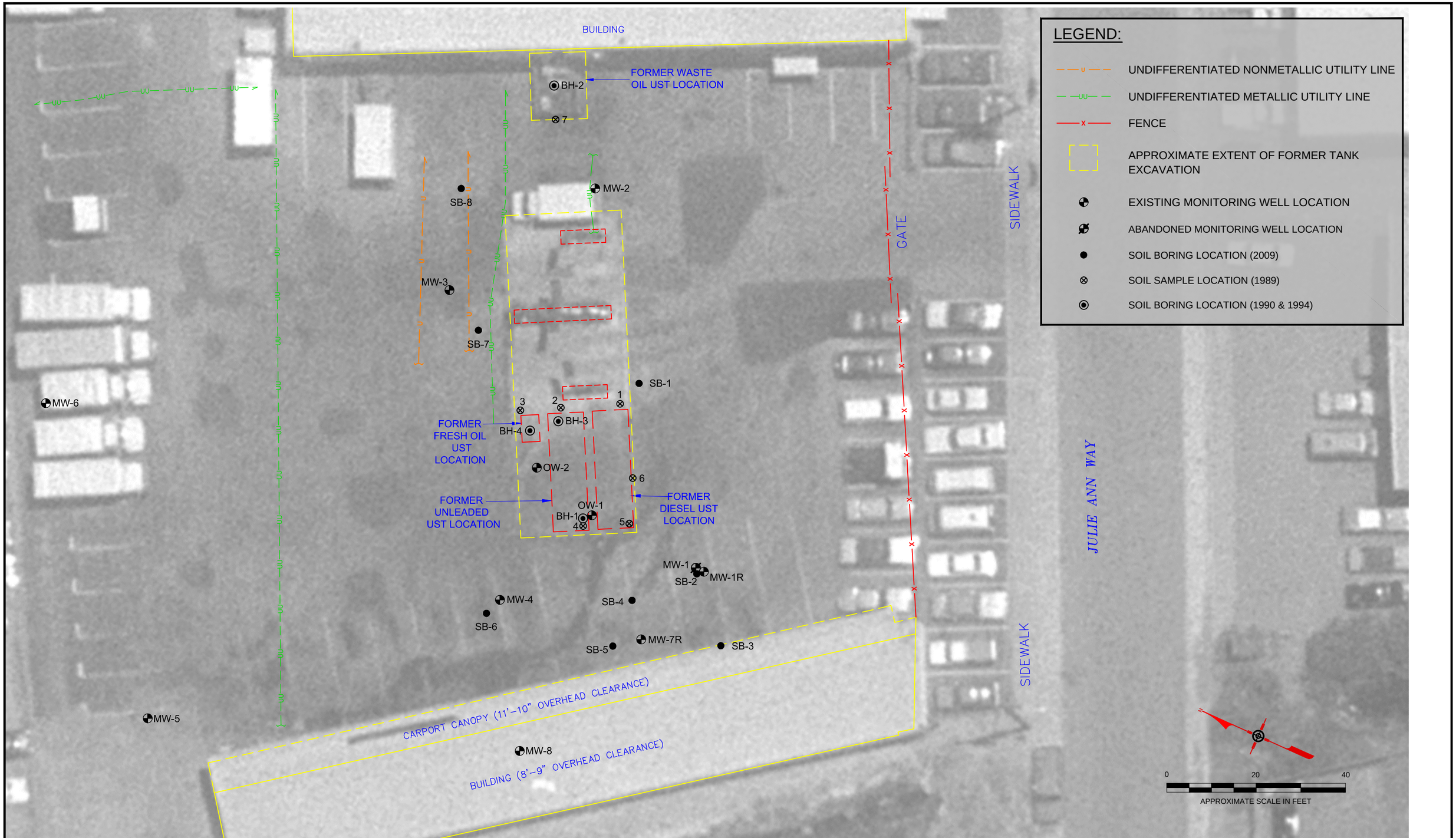

REFERENCE:

1983 AERIAL PROVIDED BY HERB LINGL WITH AERIAL ARCHIVES; PETALUMA AIRPORT

ALL SITE FEATURES AND WELL LOCATIONS, EXCEPT THE FORMER USTs, SURVEYED BY MID COAST ENGINEERS FEBRUARY AND APRIL 2011 JOB#10018X DATED APRIL 27, 2011; TITLED "MONITORING WELL LOCATION MAP FOR PENSKE"
SITE COORDINATE SYSTEM: CA STATE PLANE; ZONE III; NAD 83 VERTICLE DATUM; NAVD 88

Stantec
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Walnut Creek, CA 94597
PHONE:(925) 941-1400 FAX:(925) 941-1401

FOR: PENSKE
725 JULIE ANN WAY
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702850.200.0001	RRR/STA	EH	EH	03/03/15

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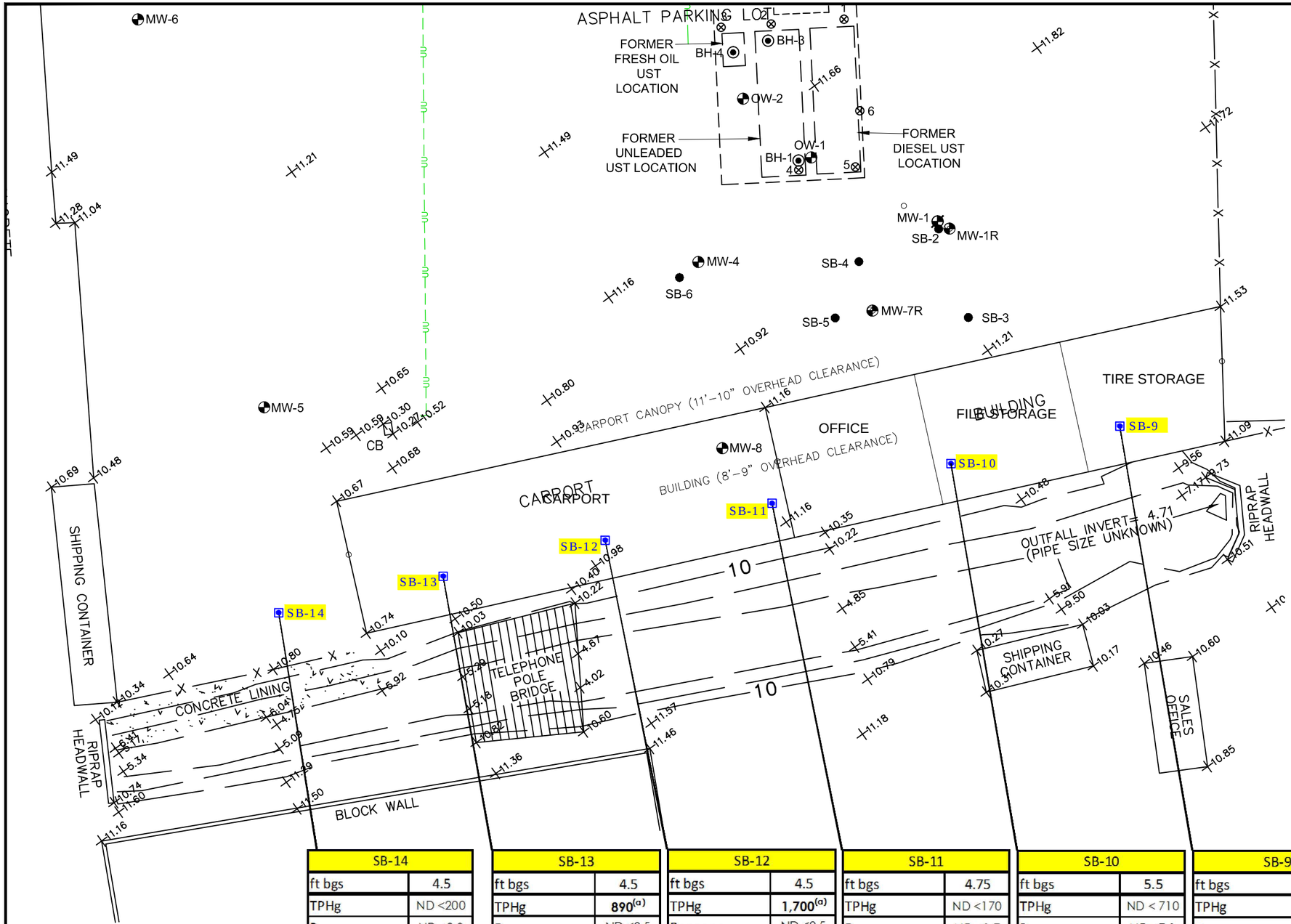


LEGEND:

- UNDIFFERENTIATED NONMETALLIC UTILITY LINE
- UNDIFFERENTIATED METALLIC UTILITY LINE
- FENCE
- APPROXIMATE EXTENT OF FORMER TANK EXCAVATION
- CB — CATCH BASIN
- SPOT ELEVATION (TYPICAL) CONTOUR INTERVAL IS 2 FEET
- **SB-9** — SOIL BORING LOCATION (2015)
- EXISTING MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- SOIL BORING LOCATION (2009)
- SOIL SAMPLE LOCATION (1989)
- SOIL BORING LOCATION (1990 & 1994)

ABBREVIATIONS:

µg/L = micrograms per liter
ft bgs = feet below ground surface
TPHg = Total Petroleum Hydrocarbons as gasoline
ND = Not detected at or above the laboratory reporting limit
< = Indicates constituent not detected at or above specified reporting limit
BOLD = Detected above laboratory reporting limit
(a) = Sample exhibits chromatographic pattern that does not resemble standard

NOTES:

1. SAMPLES COLLECTED FROM OPEN BORING ON JANUARY 15, 2015.

SB-14	
ft bgs	4.5
TPHg	ND <200
Benzene	ND <2.0
Toluene	ND <2.0
EthylBenzene	ND <2.0
Xylenes	ND <2.0
Naphthalene	ND <8.0

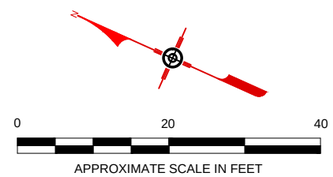
SB-13	
ft bgs	4.5
TPHg	**890**[(a)]
Benzene	ND <0.5
Toluene	**6.3**
EthylBenzene	ND <0.5
Xylenes	ND <0.5
Naphthalene	ND <2.0

SB-12	
ft bgs	4.5
TPHg	**1,700**[(a)]
Benzene	ND <0.5
Toluene	**22**
EthylBenzene	ND <0.5
Xylenes	ND <0.5
Naphthalene	ND <2.0

SB-11	
ft bgs	4.75
TPHg	ND <170
Benzene	ND <1.7
Toluene	**8.2**
EthylBenzene	ND <1.7
Xylenes	ND <1.7
Naphthalene	ND <6.7

SB-10	
ft bgs	5.5
TPHg	ND < 710
Benzene	ND <7.1
Toluene	ND <7.1
EthylBenzene	ND <7.1
Xylenes	ND <7.1
Naphthalene	ND <29

SB-9	
ft bgs	4.75
TPHg	ND <200
Benzene	ND <2.0
Toluene	**8.3**
EthylBenzene	ND <2.0
Xylenes	ND <2.0
Naphthalene	ND <8.0



REFERENCE:

UTILITIES BASED ON FIGURE PROVIDED BY NORCAL GEOPHYSICAL CONSULTANTS INC.
PLATE 1; DECEMBER 2008; BY G. RANDALL; JOB # 008-903.05

ALL SITE FEATURES AND WELL LOCATIONS, EXCEPT THE FORMER USTs, SURVEYED BY MID COAST ENGINEERS FEBRUARY AND APRIL 2011 JOB#10018X DATED APRIL 27, 2011; TITLED "MONITORING WELL LOCATION MAP FOR PENSKE"

ALL GROUND SPOT ELEVATIONS AND SURFACE CONTOURS BY MID COAST ENGINEERS - FIGURE 1 TITLED "TOPOGRAPHIC MAP FOR PENSKE" JOB#10018TP DATED DECEMBER 4, 2014

SITE COORDINATE SYSTEM: CA STATE PLANE; ZONE III; NAD 83 VERTICLE DATUM; NAVD 88

Stantec
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FOR:
PENSKE
725 JULIE ANN WAY
OAKLAND, CALIFORNIA

2015
GRAB GROUNDWATER
SAMPLE RESULTS

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702850.200.0001	RRR	EH	EH	03/03/15

FILEPATH:M:\PENSKE\PENSKE OAKLAND\2015\Penske-185702850.200.00021-F2_F4.DWG|saguinaldo|Mar 13, 2015 at 13:22|Layout: F4

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BOREHOLE NO: **SB-9** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**
STATIC DTW (ft): **4.7 1/15/15** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry; 20% silt; 15% gravel; 5% clay; gravel is fine to coarse angular broken rock indicative of Fill							neat Portland Cement
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill		-			1		
5		ML	**CLAYEY SILT WITH GRAVEL** ; ML; 5Y 5/2 olive gray; stiff; moist to wet; refusal at 5' on large rock Refusal at 5 feet. Borehole terminated at 5 feet.						5	
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15

APPENDIX A
SOIL BORING LOGS

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BORE HOLE NO: **SB-10** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **5.5** **1/15/15** BOREHOLE DEPTH (ft): **8.0**
STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry							
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill							neat Portland Cement
5		ML	**CLAYEY SILT TRACE GRAVEL** ; ML; 5Y 5/2 olive gray; medium stiff; moist; 30% clay		-			2	5	
		OH	**ORGANIC CLAY** ; OH; 5Y 3/1 very dark gray; high plasticity; medium stiff; moist; Low density due to organics; thin layers of peat							
			Borehole terminated at 8 feet.							
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BOREHOLE NO: **SB-11** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **6.0**
STATIC DTW (ft): **4.8 1/15/15** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry; 20% silt; 15% gravel; 5% clay; gravel is fine to coarse angular broken rock indicative of Fill							
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; slight HC odor; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill		-			4		neat Portland Cement
5		ML	**CLAYEY SILT TRACE GRAVEL** ; ML; 5Y 5/2 olive gray; medium stiff; moist to wet; hydrocarbon staining; 30% clay		-			6	5	
		OH	**ORGANIC CLAY** ; OH; 5Y 3/1 very dark gray; high plasticity; medium stiff; moist; Low density due to organics; thin layers of peat Borehole terminated at 6 feet.							
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BOREHOLE NO: **SB-12** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.2**
STATIC DTW (ft): **4.6 1/15/15** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry; 20% silt; 15% gravel; 5% clay; gravel is fine to coarse angular broken rock indicative of Fill							
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; slight HC odor; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill		-			6		neat Portland Cement
5		ML	**CLAYEY SILT WITH GRAVEL** ; ML; 5Y 5/2 olive gray; medium stiff; moist to wet; strong HC odor; 20% clay; 10% gravel; SPH sheen; Refusal at 5.2 feet. Borehole terminated at 5.2 feet.						5	
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BOREHOLE NO: **SB-13** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.2**
STATIC DTW (ft): **4.47 1/15/15** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry; 20% silt; 15% gravel; 5% clay; gravel is fine to coarse angular broken rock indicative of Fill							neat Portland Cement
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; slight HC odor; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill		-			4		
		ML	**CLAYEY SILT WITH GRAVEL** ; ML; 5Y 5/2 olive gray; medium stiff; moist to wet; strong HC odor; 20% clay; 10% gravel; SPH sheen							
5		GM	**SILTY GRAVEL** ; GM; 5Y 3/1 very dark gray; dense; wet; strong HC odor; SPH sheen; gravel in angular broken rock and brick indicating Fill Refusal in gravel Refusal at 5.2 feet. Borehole terminated at 5.2 feet.		-			35	5	
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15

PROJECT: **Penske**
LOCATION: **725 Julie Ann Way, Oakland CA**
PROJECT NUMBER: **185702858**

WELL / PROBEHOLE / BOREHOLE NO: **SB-14** PAGE 1 OF 1

DRILLING: STARTED **1/15/15** COMPLETED: **1/15/15**
INSTALLATION: STARTED COMPLETED:
DRILLING COMPANY: **Gregg Drilling**
DRILLING EQUIPMENT: **Hand Auger**
DRILLING METHOD: **Hand**
SAMPLING EQUIPMENT: **Hand Auger**

NORTHING (ft): EASTING (ft):
LATITUDE: LONGITUDE:
GROUND ELEV (ft): TOC ELEV (ft):
INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **6.0**
STATIC DTW (ft): **4.4 1/15/15** WELL DEPTH (ft): **---**
WELL CASING DIAMETER (in): **---** BOREHOLE DIAMETER (in): **4**
LOGGED BY: **C. Melancon** CHECKED BY: **Eva Hey**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			Asphalt							
		SM	**SILTY SAND WITH GRAVEL AND CLAY** ; SM; 2.5Y 5/3 light olive brown; fine to coarse-grained; dense; dry; 20% silt; 15% gravel; 5% clay; gravel is fine to coarse angular broken rock indicative of Fill							
		CL	**SILTY CLAY WITH SAND AND GRAVEL** ; CL; 5Y 3/1 very dark gray; medium plasticity; stiff; dry; 20% silt; 10% sand; 10% gravel; sand and gravel is fine to coarse; pieces of broken brick indicate Fill		-			1		neat Portland Cement
		ML	**CLAYEY SILT WITH GRAVEL** ; ML; 5Y 5/2 olive gray; medium plasticity; stiff; moist to wet; hydrocarbon staining; 20% clay; 10% gravel		-			4		
5		ML	**GRAVELLY SILT** ; ML; 5Y 5/2 olive gray; medium plasticity; stiff; moist to wet; slight HC odor; 30% angular gravel		-			7	5	
			Borehole terminated at 6 feet.							
10									10	

GEO FORM 304 PENSKE LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/4/15