

## **Appendix B**

### **Site Closure, Soil Management Plan & Documentation**

# County of Santa Clara

Department of Environmental Health

1555 Berger Drive, Suite 300  
San Jose, California 95112-2716  
(408) 918-3400  
www.EHinfo.org



March 29, 2017

APN <455-360-09>

Dan Nethercott  
2829 Monterey Development Company, L.P.  
6710 E Camelback Rd. Suite 100  
Scottsdale, AZ 85251

**Subject: Voluntary Cleanup Program Case Closure: Former Raisch Property,  
2829 Monterey Rd., San Jose, CA Case No. 07S1E27L01s**

Dear Mr. Nethercott:

This letter confirms the completion of site investigation and corrective action activities for the release of waste located at the above-described location (Site). Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the release of waste are greatly appreciated.

Based on information in the above-referenced file, and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at the above-referenced site satisfies the cleanup goal requirements of the remedial action agreement between the responsible party and the Department of Environmental Health (DEH) as outlined in Section 101480 of the Health and Safety Code, and that no further action related to the release of waste at the site is required at this time. It should be noted that any additional or previously unidentified contamination at this site may require further investigation or cleanup.

The data collected at the site and presented in the attached Case Closure Summary Report, Section 6, indicates the following conditions were reported at the site at the time of closure:

- Soil: 39,000 parts per million (ppm) Total Petroleum Hydrocarbons as diesel (TPHd), 0.59 ppm Total Petroleum Hydrocarbons as motor oil (TPHmo), 1.5 ppm Total Xylenes, 11 ppm Naphthalene, 0.0095 ppm 1,2-dichloroethene, 2.1 ppm 1,2,4-trimethylbenzene, 0.48 ppm 1,3,5-trimethylbenzene, and 0.67 ppm n-Butylbenzene.

**Site Management Requirements:** As described in the Case Closure Summary Report, residual contamination remains at the Site. The DEH has determined that the levels of contamination

remaining pose a low risk to human health and the environment under current land use conditions; however the residual contamination could pose an unacceptable risk under certain site development activities such as changes in land use, grading, excavation, or the installation of water wells. The DEH has approved a Soils Management Plan (SMP) which should be implemented during development. The DEH shall be notified prior to changes in land use, installation of water wells, or if contamination is encountered at the Site.

This notice is issued pursuant to subdivision (e) of Section 101480 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,



Michael Balliet  
Interim Director  
Department of Environmental Health

Attachment: Case Closure Summary Report

cc: Bernard Sentianin, EEI, (bsentianin@eeitiger.com)  
Meenaaxi Panakkal, City of San Jose Environmental Planning,  
(meenaxi.panakkal@sanjoseca.gov)  
File – GeoTracker

**CASE CLOSURE SUMMARY REPORT<sup>1</sup>**  
**Voluntary Cleanup Program (VCP)**



**1. Agency Information**

<b>Agency Name:</b> Santa Clara County Department of Environmental Health	<b>Address:</b> 1555 Berger Drive, #300
<b>City/State/Zip:</b> San Jose, CA 95112	<b>Phone:</b> (408) 918-3400
<b>Responsible Staff person:</b> Aaron Costa	<b>Title:</b> Senior Hazardous Materials Specialist

**2. Case Information**

<b>Site Facility Name:</b> Former Raisch Property	<b>GeoTracker Global ID:</b> T10000006433	<b>VCP Case No:</b> 07S1E27L01s
<b>Site Facility Address:</b> 2829 Monterey Road San Jose, Santa Clara County, CA 95111	<b>Assessor Parcel No:</b> 455-360-09	
<b>Responsible Parties</b>	<b>Address</b>	<b>Phone Number</b>
2829 Monterey Development Company, L.P. Attention: Mr. Dan Nethercott	6710 E. Camelback Road, Suite 100, Scottsdale, AZ 85251	(480) 315-9595
<b>Property Owner</b>		
2829 Monterey Development Company, L.P.	6710 E. Camelback Road, Suite 100, Scottsdale, AZ 85251	(480) 315-9595

**3. Tank Information**

Tank #	Size in Gallons	Contents	Closed in Place/Removed	Date
1	10,000	Liquid Asphalt	Removed	10/22/2014
2	15,000	Liquid Asphalt	Removed	10/22/2014
3	15,000	Liquid Asphalt	Removed	10/31/2014
4	15,000	Liquid Asphalt	Removed	10/31/2014

**4. Release and Site Characterization Information**

<b>Cause and type of release:</b> Liquid asphalt released to soil from onsite USTs	<b>Was source removed to extent practical:</b> Yes	
<b>Site characterization complete?</b> Yes	<b>Regional Watershed Name:</b> Santa Clara – Coyote Creek (205.30)	
<b>Monitoring Wells installed?</b> No	<b>Number:</b> 0	<b>Proper screen interval?</b> NA
<b>Highest GW depth below ground surface:</b> Approximately 45 feet below ground surface (bgs)	<b>Lowest:</b> Approximately 50 feet bgs	<b>Flow Direction:</b> Estimated to flow to the northwest
<b>Most Sensitive Current GW use:</b> Potential Drinking Water		
<b>Are Water Wells affected?</b> No	<b>Hydrologic Unit:</b> Santa Clara Valley	
<b>Is the Site on Municipal Water?</b> Yes		

<sup>1</sup> This case closure summary report is a summary of site conditions based on data collected at the site and included in the case file. It should be used in conjunction with the complete case file which can be reviewed online at <http://geotracker.waterboards.ca.gov/>



## CASE CLOSURE SUMMARY REPORT

<b>Distance to nearest Water Well(s):</b> Approximately 1.49 mile to the west-northwest.	<b>Well Type/Status:</b> Observation/Active
<b>Distance to nearest Surface Water(s):</b> Approximately 1.02 mile (Coyote Creek)	<b>Has Surface Water(s) been affected?</b> No
<b>Off-site Beneficial use impacts (addresses/locations):</b> None	
<b>Conceptual Site Model complete?</b> Yes	<b>Date of CSM:</b> January 14, 2016

### 5. Treatment/Disposal Methods

Material	Amount (Include Units)	Action (Treatment or Disposal Method)	Date
Tanks	One (1) 10,000-gallon Three (3) 15,000-gallon	Transported offsite and recycled as raw steel	October 22 and 31, 2014
Piping	—	—	—
Free Product	25 yards of liquid asphalt/debris 15 yards of liquid asphalt/debris 15 yards of liquid asphalt/debris	Offsite disposal	October 20, 2014 October 21, 2014 October 22, 2014
Soil	1,113.79 tons	Offsite disposal as non-hazardous special waste	November 17 and 18, 2014
Ground Water	—	—	—

# CASE CLOSURE SUMMARY REPORT

## 6. Site Data

CONTAMINANT CONCENTRATIONS IN SOIL <sup>1</sup>					
Please see Attachment 3 for additional information on contaminant locations and concentrations					
Contaminant	Soil (ppm)		Contaminant	Soil (ppm)	
	Max <sup>2</sup>	After <sup>3</sup>		Max <sup>2</sup>	After <sup>3</sup>
TPH-g (Gas)	0.12	--	TPH-mo (motor oil)	5,400	0.059
TPH-d (Diesel)	39,000	--	Naphthalene	11	--
Benzene	ND	--	1,2-dichloroethene	0.0095	--
Toluene	ND	--	1,2,4-trimethylbenzene	2.1	--
Ethylbenzene	ND	--	1,3,5-Trimethylbenzene	0.48	--
Total Xylenes	1.5	--	n-Butyl benzene	0.67	--
MTBE	NA	NA	Other VOCs	ND	--
TBA	NA	NA	Other SVOCs	ND	--

Notes:

ppm = parts per million

NA = Not Analyzed

1. This table presents maximum historical contaminant concentrations in soil and documented contaminant concentrations if confirmation sampling was conducted.
2. The maximum concentration listed is the highest concentration reported for a specific constituent in soil samples collected at the site.
3. "--" indicates that confirmation soil sampling was not conducted. Maximum concentrations listed are for soil samples collected between 2014 and 2015, and it is likely that concentrations remaining have decreased by natural processes and remediation.

CONTAMINANT CONCENTRATIONS IN GROUNDWATER <sup>1</sup>					
Please see Attachment 4 for additional information on contaminant locations and concentrations					
Contaminant	Water (ppm)		Contaminant	Water (ppb)	
	Max <sup>2</sup>	Most Recent <sup>3</sup>		Max <sup>2</sup>	Most Recent <sup>3</sup>
TPH-g (Gas)	NA	--	TPH-mo (motor oil)	0.22	--
TPH-d (Diesel)	5.87	--	Naphthalene	NA	--
Benzene	ND	--	Other SVOCs	NA	--
Toluene	ND	--	Other VOCs	NA	--
Ethylbenzene	ND	--			
Total Xylenes	ND	--			
MTBE	NA	--			
TBA	NA	--			

Notes:

ppm = parts per million

NA = Not Analyzed

ND = Not detected above laboratory detection limits

1. This table presents maximum historical contaminant concentrations and most recent contaminant concentrations in groundwater.
2. The maximum concentration listed is the highest concentration reported for a specific constituent in groundwater samples collected at the site.
3. "--" indicates that confirmation groundwater sampling was not conducted. Maximum concentrations listed are for groundwater samples collected on February 17, 2015, and it is likely that concentrations remaining have decreased by natural processes and remediation.

## CASE CLOSURE SUMMARY REPORT

### 7. Closure

<b>Amount of contaminant mass removed:</b> approx. 22,000 lbs (assuming avg. 10,000 mg/kg TPH)		
<b>Contaminant and media type:</b> Petroleum hydrocarbons (TPH-d and TPH-mo) in soil and groundwater.		
<b>Location/depth of residual contaminant mass left-in-place:</b> Within vicinity of former UST field, located within the eastern portion of the subject property at depths greater than 10 feet bgs.		
<b>Is the plume stable and/or shrinking?</b> Yes	<b>Does remaining plume extend off-site?</b> No	
<b>Does corrective action protect public health for current land use?</b> Yes		
<b>Should corrective action be reviewed if land uses change?</b> Yes – See site management requirements below.		
<b>Monitoring Wells destroyed?</b> NA	<b>Number destroyed:</b> NA	<b>Number retained:</b> NA

### 8. Additional Comments

**Site Management Requirements:** Site is currently vacant, but was previously occupied by Granite Construction Company, which conducted asphalt batching, among other construction related activities. While residual contamination exists at the Site, the nature and extent of the residual contamination is well defined and is primarily located at depths of 10 feet bgs or more. The residual contamination in soil remaining at the site could pose an unacceptable risk under certain site development activities such as, but not limited to, site grading, excavation, or the installation of water wells. Following development, most of the Site will be paved. It is unlikely that any occupants or user of the Site will come into direct contact with any impacted soils. During development and installation of utilities, it is possible that construction workers could come into contact with impacted soils. A Soils Management Plan (SMP), dated December 21, 2015, has been prepared to address any impacted soils that are encountered during redevelopment. The SMP shall be followed during development activities to protect human health and the environment. The SMP can be located on GeoTracker at: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000006433](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000006433)

The impact of the disturbance of any residual contamination or the installation of water well(s) in the vicinity of the residual contamination shall be assessed and appropriate action taken so that there is no significant impact to human health, safety, or the environment. This could necessitate additional sampling, health risk assessment, and additional mitigation measures. DEH shall be notified of any variance to the SMP and prior to any changes in land use, grading activities, excavation, and installation of water wells. This notification shall include a statement that residual contamination exists on the property and list all mitigation actions, if any, necessary to ensure compliance with this site management requirement.

It is anticipated that natural attenuation processes will continue to dissipate and degrade the residual petroleum hydrocarbons at the Site.

**Background:** Known environmental conditions include soil impacted with low to moderate levels of asphalt oil (i.e., diesel and motor oil range petroleum hydrocarbons) in the immediate vicinity of the former liquid asphalt storage tanks. Reportedly, the impact to soil originated from leakage of the underground liquid-asphalt storage tanks (USTs), discovered during removal in 2014. Post removal excavation removed and disposed of 1,114 tons of petroleum hydrocarbon-impacted soil at an off-site location. A second area of impacted soil was identified in the area of boring SB-12. Soils were reportedly removed from this area in 2012. While the shallow soil contamination identified above has been removed, it is possible that additional impacted soils may be encountered during re-development. The following summarizes the recent investigations of soil and groundwater conditions at the Site:

In February 2015, AMEC Foster Wheeler conducted a soil and groundwater investigation to assess site impacts from the UST release(s). Four borings, advanced to a maximum depth of 44.5 feet bgs, were advanced to collect soil samples and grab groundwater samples from two of the borings. Each of the borings contained TPH-d and TPH-mo; TPH-d concentrations exceeded the ESL threshold of 83 mg/kg in each boring. The highest TPH values were obtained from the deepest sample in each boring: 30 feet bgs (three borings) and 39 feet bgs (one boring). The two groundwater samples contained TPH-d at concentrations of 1,050 micrograms per liter (µg/L) and 5,870 µg/L.



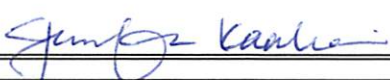
## CASE CLOSURE SUMMARY REPORT

In July 2015, EEI collected soil samples from an area identified as the Tunnel Area (north of and adjacent to the former UST location) and from an area identified as the Trough (along the fence line on the southern margin of the property). Analytical results from a sample collected at 10 feet bgs in the Tunnel Area reported TPH at 120 mg/kg at carbon range C6 to C12, 4,500 mg/kg at carbon range C13 to C28, and 11,000 mg/kg at carbon range C29-C40. No VOCs were reported in the Tunnel sample. These results are consistent with prior sampling in the vicinity of the former USTs. No TPH was reported in the Trough sample; however, the Trough sample reported 1,2-dichloroethene (9.5 µg/kg), naphthalene (11,000 µg/kg), and 1,2,4-trimethylbenzene (5.5 µg/kg).

In January 2017, EEI advanced seven (7) trench locations that were sampled at 4 and 9 feet bgs (total of 14 soil samples), and were analyzed for Extractable Petroleum Hydrocarbons – Full Carbon Chain, by USEPA Test Method 8015B and VOCs by USEPA Test Method 8260B. No concentrations of chemicals of concern were detected in any of the soil samples analyzed, except for location T2 at 9', which had reported concentrations of TPH-mo at levels less than the USEPA RSL soil screening numbers for a residential land use scenario. Therefore, based on the results of their investigation, EEI concluded that no additional investigation appeared warranted.

The excavation and sampling depths reflected in EEI's January 2017 investigation represent the maximum depth for proposed construction-related utility installation. They are consistent with previous investigation findings, which had indicated that significantly contaminated soil at the site was only present at depths below 10 feet bgs.

### 9. Local Agency Representative Data

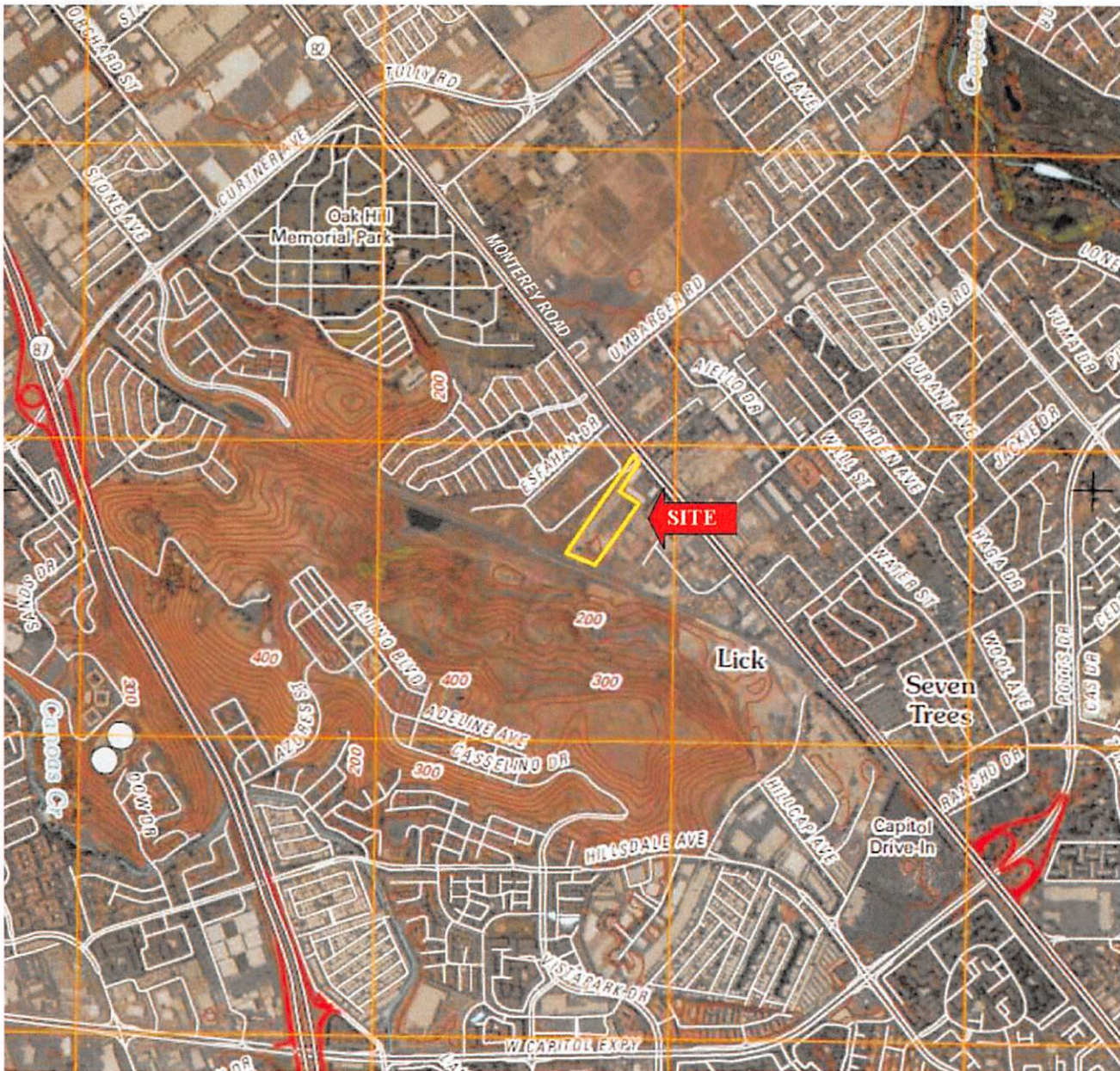
Prepared by: Aaron Costa	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 3/15/2017
Reviewed by: Gerald O'Regan	Title: Environmental Health Geologist
Signature: 	Date: 3/15/2017
Approved by*: Jennifer Kaahaaina	Title: Hazardous Materials Program Manager
Signature: 	Date: 3/20/2017

\* This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions. The file for this case can be reviewed online at <http://geotracker.waterboards.ca.gov/>

#### Attachments:

1. Site Location Map
2. Aerial Site Map
3. Historical Soil Sample Results
4. Historical Groundwater (Grab) Sample Results



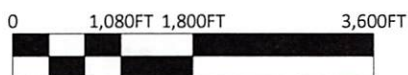


Source: USGS 7.5-minute Topographic Map, San Jose East, California, 2012

# LEGEND



Scale: 1" = 1,800'



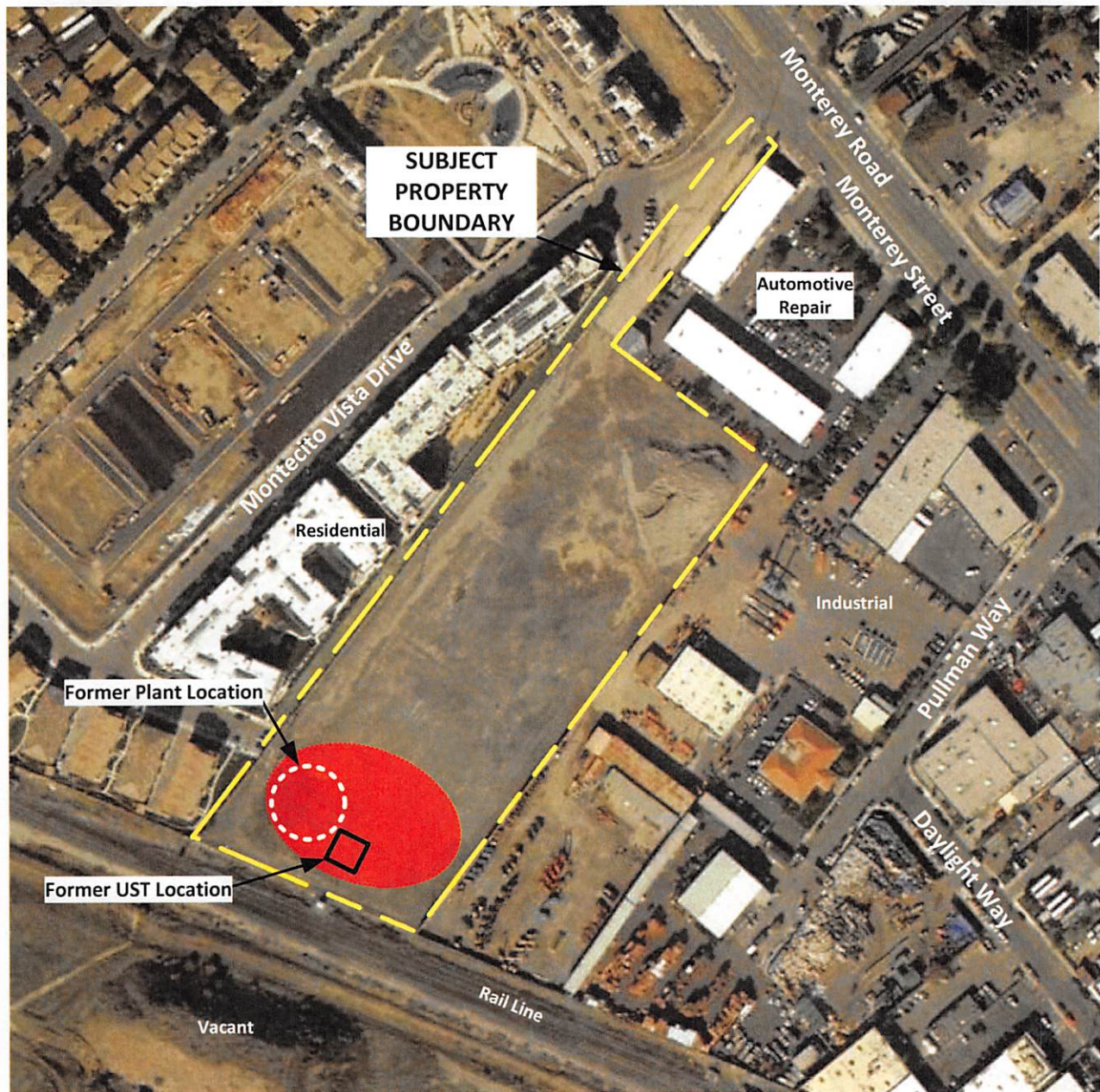
Note: All Locations Are Approximate

**SITE LOCATION MAP**  
**FORMER RAISCH PROPERTY**  
 2829 Monterey Road  
 San Jose, California 95111  
 EEI Project No. WOL-72200.2  
 Updated February 2017




**FIGURE 1**





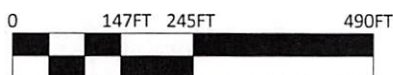
Map Source: Google Earth®, Image Date: November 2, 2016

### LEGEND

 Estimated Location of Petroleum Hydrocarbon-impacted Soil



Scale: 1" = 245'



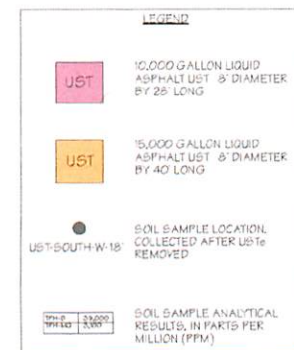
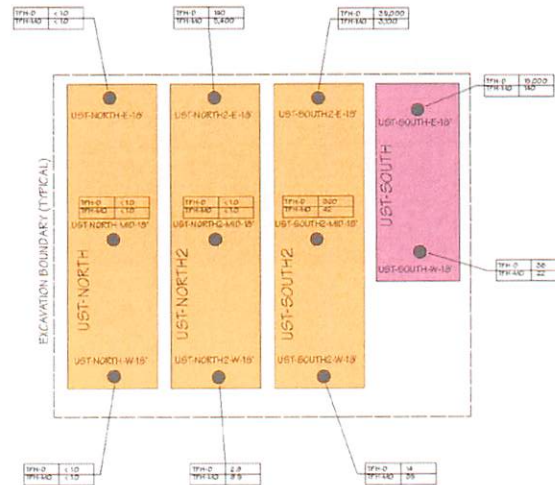
Note All Locations Are Approximate

### AERIAL SITE MAP

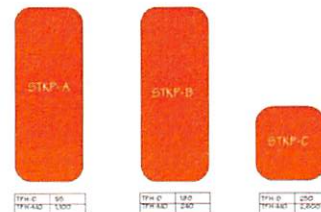
FORMER RAISCH PROPERTY  
2829 Monterey Road  
San Jose, California 95111  
EEI Project No. WOL-72200.2  
Created February 2017



FIGURE 2



#### SOIL STOCKPILES



NORTH  
NOT TO SCALE

Source : Aqua Science Engineers, Inc., UST and Soil Sample Location Map, 2014.

#### LEGEND



Not to Scale

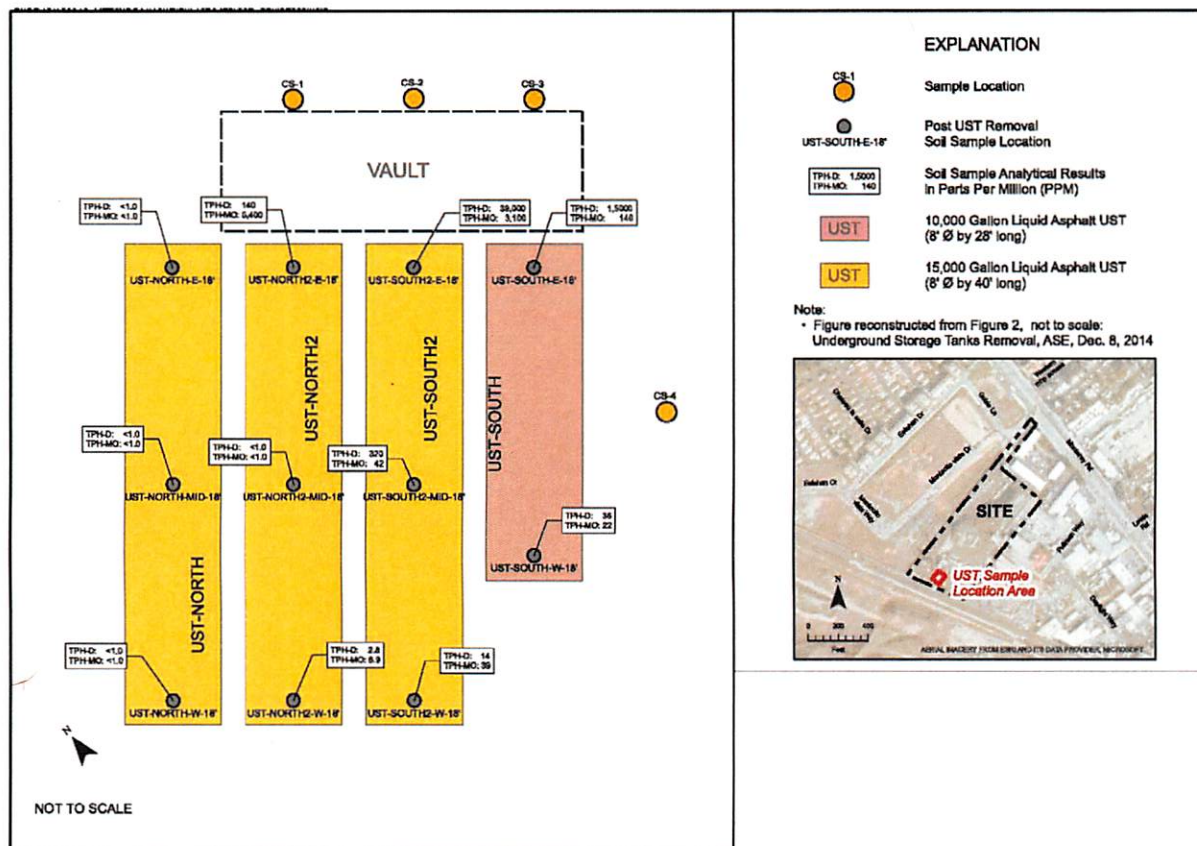
Note: All Locations Are Approximate

**2014 UST and Soil Sample Location Map**  
FORMER RAISCH PROPERTY  
2829 Monterey Road  
San Jose, California 95111  
EEI Project No. WOL-72200.2  
Created February 2017



**FIGURE 3**





#### LEGEND



Not to Scale

Note: All Locations Are Approximate

2015 UST and Soil Sample Location Map  
FORMER RAISCH PROPERTY  
2829 Monterey Road  
San Jose, California 95111  
EEI Project No. WOL-72200.2  
Created February 2017



FIGURE 4





Map Source: Google Earth®, Image Date: March 28, 2015

#### LEGEND

**X** EEI Soil Sample Location (7/7/2015)

Scale: 1" = 245'



Note All Locations Are Approximate



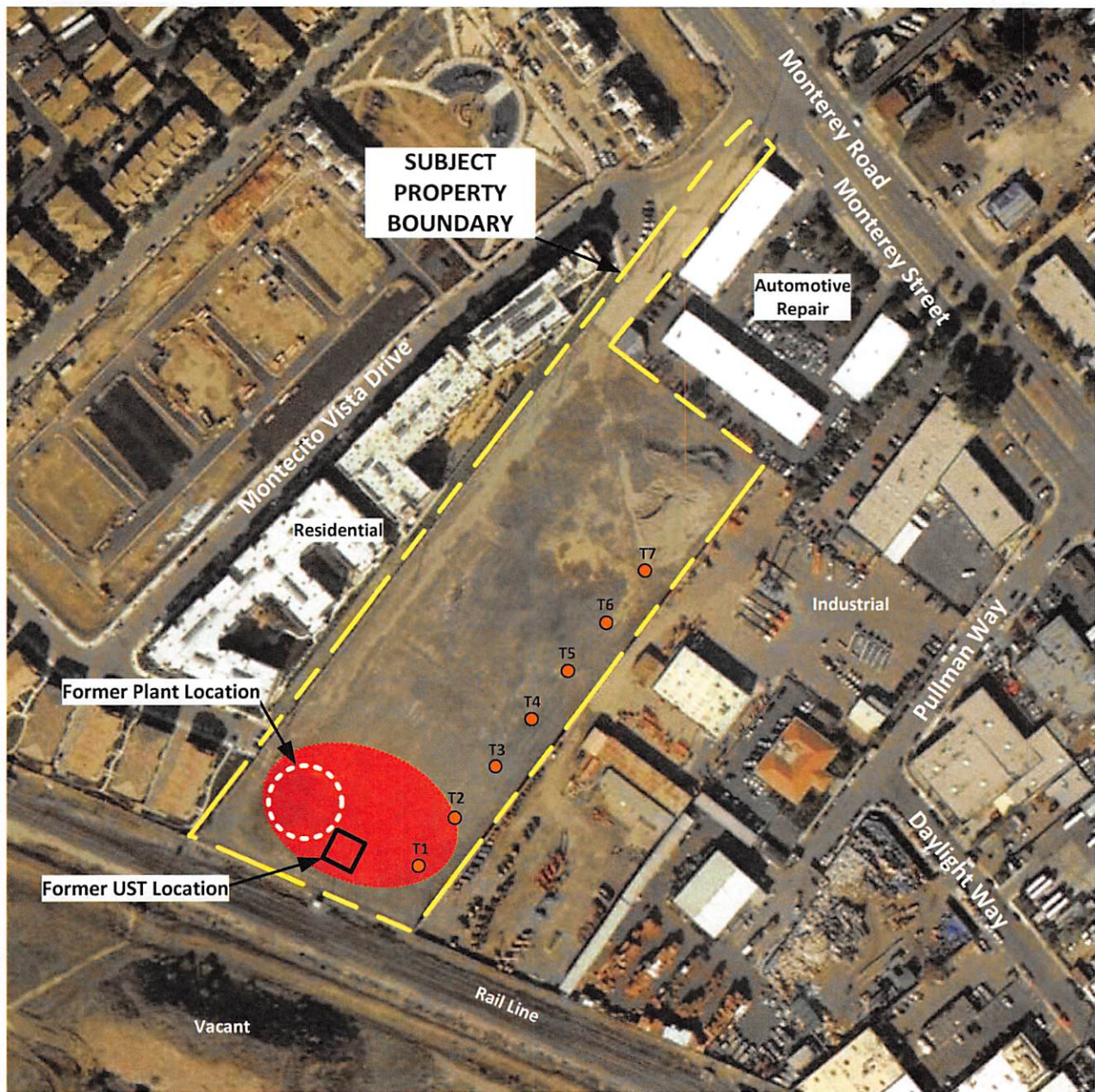
#### AERIAL SITE MAP WITH TROUGH AND TUNNEL SAMPLE LOCATIONS

FORMER RAISCH PROPERTY  
2829 Monterey Road  
San Jose, California 95111  
EEI Project No. WOL-72200.2  
Created February 2017




FIGURE 5





Map Source: Google Earth®, Image Date: November 2, 2016

#### LEGEND

 Estimated Location of Petroleum Hydrocarbon-impacted Soil

 Trench Sample Location

Scale: 1" = 245'



Note All Locations Are Approximate



#### AERIAL SITE MAP WITH TRENCH SAMPLE LOCATIONS

FORMER RAISCH PROPERTY  
2829 Monterey Road  
San Jose, California 95111  
EEI Project No. WOL-72200.2  
Created February 2017



FIGURE 6



<b>TABLE 1</b> <b>HISTORICAL SOIL SAMPLE RESULTS</b> <b>2829 Monterey Road, San Jose, CA</b>									
Sample ID	Depth (feet bgs)	Date Sampled	EPA 8260B		EPA 8015M			EPA 6010	EPA 7470/7471
			VOCs	SVOCs	GRO	DRO	MORO	Metals	Mercury
			mg/kg						
UST-NORTH-E-18'	18	10/22/2014	NA	NA	NA	ND	ND	NA	NA
UST-NORTH-MID-18'	18	10/22/2014	NA	NA	NA	ND	ND	NA	NA
UST-NORTH-W-18'	18	10/22/2014	NA	NA	NA	ND	ND	NA	NA
UST-SOUTH-E-18'	18	10/22/2014	1,2,4-Trimethylbenzene - 2.1; 1,3,5-Trimethylbenzene - 0.48; All Other Constituents - ND	ND	NA	15,000	140	NA	NA
UST-SOUTH-W-18'	18	10/22/2014	NA	NA	NA	36	22	NA	NA
STKP-A	NA	10/22/2014	NA	NA	NA	95	1,100	NA	NA
STKP-B	NA	10/22/2014	NA	NA	NA	180	240	NA	NA
STKP-C	NA	10/22/2014	NA	NA	NA	250	2,600	NA	NA
UST-NORTH2-E-18'	18	11/3/2014	ND	ND	NA	140	5400	NA	NA
UST-NORTH2-W-18'	18	11/3/2014	ND	ND	NA	2.8	8.9	NA	NA
UST-NORTH2-MID-18'	18	11/3/2014	ND	ND	NA	ND	ND	NA	NA
UST-SOUTH2-W-18'	18	11/3/2014	ND	ND	NA	14	39	NA	NA
UST-SOUTH2-E-18'	18	11/3/2014	n-Butyl benzene - 0.67; n-Propyl benzene - 0.47; 1,2,4-Trimethylbenzene - 5.4; 1,3,5-Trimethylbenzene - 2.5; Total Xylenes - 1.5; All Other Constituents - ND	ND	NA	39,000	3,100	NA	NA
UST-SOUTH2-MID-18'	18	11/3/2014	ND	ND	NA	320	42	NA	NA
S-CS1-15	15	2/17/2015	NA	NA	NA	1.01	3.64	NA	NA
S-CS1-20	20	2/17/2015	NA	NA	NA	ND	1.89	NA	NA
S-CS1-30	30	2/17/2015	NA	NA	NA	196	641	NA	NA
S-CS2-15	15	2/17/2015	NA	NA	NA	ND	1.85	NA	NA
S-CS2-20	20	2/17/2015	NA	NA	NA	ND	2.63	NA	NA
S-CS2-30	30	2/17/2015	NA	NA	NA	192	856	NA	NA
S-CS4-15	15	2/16/2015	NA	NA	NA	116	ND	NA	NA
S-CS4-20	20	2/16/2015	NA	NA	NA	ND	1.79	NA	NA
S-CS4-30	30	2/16/2015	NA	NA	NA	44.0	12.5	NA	NA
S-CS4-39	39	2/16/2015	NA	NA	NA	531	193	NA	NA
S-CS3-15	15	2/16/2015	NA	NA	NA	1.10	4.20	NA	NA
S-CS3-20	20	2/16/2015	NA	NA	NA	ND	2.01	NA	NA
S-CS3-30	30	2/16/2015	NA	NA	NA	181	98.1	NA	NA
Laboratory Reporting Limit			0.0040-4.0	0.25-250	10	1.0 - 100	5.0 - 500	1.0 - 250	0.20
Residential Soil Screening Numbers / *Tier 1 ESL			NA	NA	*100	*230	*5,100	Barium - 5,200; Chromium - 100,000; Cobalt - 660; Copper - 3,000; Nickel - 1,600; Vanadium - 530; Zinc - 23,000.	11
bgs = below ground surface; Residential Soil Screening Numbers = Office of Environmental Health Hazard Assessment, Risk Assessment Soil and Soil Gas, dated 9/23/10; *Tier 1 ESL = San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, Tier 1 ESLs, dated February 2016 (rev. 3); EPA = Environmental Protection Agency; mg/kg = milligrams per kilogram; NA = Not Applicable/Analyzed; VOCs = Volatile Organic Compounds; SVOCs = Semi-Volatile Organic Compounds; GRO = Gasoline Range Organics (C1-C9); DRO = Diesel Range Organics (C10-C28); MORO = Motor Oil Range Organics (C29-C40); ND = Non-detect or less than the laboratory reporting limit. Complete laboratory analytical report and chain-of-custody documentation is provided as a report attachment.									



TABLE 1 HISTORICAL SOIL SAMPLE RESULTS 2829 Monterey Road, San Jose, CA									
Sample ID	Depth (feet bgs)	Date Sampled	EPA 8260B		EPA 8015M			EPA 6010	EPA 7470/7471
			VOCs	SVOCs	GRO	DRO	MORO	Metals	Mercury
			mg/kg						
W.Side/Back Fence	2	7/7/2015	cis-1,2-Dichloroethene - 9.4; Naphthlene - 11,000; 1,2,4-Trimethylbenzene - 5.5; All Other Constituents - ND	NA	ND	ND	ND	Barium - 16; Chromium - 9.1; Cobalt - 5.2; Copper - 6.0; Nickel - 30; Vanadium - 7.5; Zinc - 8.5; All Other Constituents - ND	ND
Tunnel 10	10	7/7/2015	ND	NA	120	4,500	11,000	Barium - 150; Chromium - 68; Cobalt - 17; Copper - 37; Nickel - 130; Vanadium - 46; Zinc - 78; All Other Constituents - ND	1.6
T1 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T1 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T2 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T2 9	9	1/31/2017	ND	NA	ND	ND	59	NA	NA
T3 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T3 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T4 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T4 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T5 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T5 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T6 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T6 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T7 4	4	1/31/2017	ND	NA	ND	ND	ND	NA	NA
T7 9	9	1/31/2017	ND	NA	ND	ND	ND	NA	NA
Laboratory Reporting Limit			0.0040-4.0	0.25-250	10	1.0 - 100	5.0 - 500	1.0 - 250	0.20
Residential Soil Screening Numbers / *Tier 1 ESL			NA	NA	*100	*230	*5,100	Barium - 5,200; Chromium - 100,000; Cobalt - 660; Copper - 3,000; Nickel - 1,600; Vanadium - 530; Zinc - 23,000.	11
bgs = below ground surface; Residential Soil Screening Numbers = Office of Environmental Health Hazard Assessment, Risk Assessment Soil and Soil Gas, dated 9/23/10; *Tier 1 ESL = San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, Tier 1 ESLs, dated February 2016 (rev. 3); EPA = Environmental Protection Agency; mg/kg = milligrams per kilogram; NA = Not Applicable/Analyzed; VOCs = Volatile Organic Compounds; SVOCs = Semi-Volatile Organic Compounds; GRO = Gasoline Range Organics (C1-C9); DRO = Diesel Range Organics (C10-C28); MORO = Motor Oil Range Organics (C29-C40); ND = Non-detect or less than the laboratory reporting limit. Complete laboratory analytical report and chain-of-custody documentation is provided as a report attachment.									



# County of Santa Clara

Department of Environmental Health

1555 Berger Drive, Suite 300  
San Jose, California 95112-2716  
(408) 918-3400  
www.EHInfo.org



February 17, 2016

Mr. Dan Nethercott  
2829 Monterey Development Company, L.P.  
6710 E. Camelback Road, Suite 100  
Scottsdale, Arizona 85251

SUBJECT: Voluntary Cleanup Program, Raisch Property, 2829 Monterey Road, San Jose, CA; SCCo Case No. 07S1E27L01s

Dear Mr. Nethercott:

The Department of Environmental Health (DEH) has reviewed the *Soil Mitigation Plan (SMP)* submitted by EEI and dated December 21, 2015. The SMP documents historical subsurface contamination and remedial activities, proposes contingency actions for unforeseen or unanticipated conditions, and addresses site management requirements during development to protect site workers and the surrounding areas from exposures to contamination. The DEH approves the SMP provided the following conditions are met.

## APPROVAL CONDITIONS

1. A copy of the SMP must be kept on-site and available to workers at all times.
2. If unexpected contamination is encountered notification to the DEH is required within 24 hours and the contingency actions listed in the SMP should be implemented.
3. If the respirable dust air quality standard ( $150 \mu\text{g}/\text{m}^3$  for 8-hour average) is exceeded, or noticeable dust is escaping the site boundary, additional dust suppression should be implemented and a notification to the DEH is required within 24 hours.
4. If a Storm Water Pollution Prevention Plan (SWPPP) is required, a copy should be submitted to the DEH.
5. Identification of contaminated or potentially contaminated soil should be performed either by visual observation, or with handheld air monitoring equipment, or both.
6. All soil samples collected for analysis shall be analyzed using the methods and protocols described in Section 5.0 of the SMP.

7. You must obtain prior approval from the DEH for any re-use of soil that is contaminated or potentially contaminated. Any DEH approved soil re-use will require a subsurface marker to identify where contaminated soil has been placed.
8. All daily field reports, waste manifests, dust monitoring logs, site photographs, and analytical data (derived for any reason) must be submitted to the DEH as part of the Final Grading Completion Report.

Please prepare and submit a schedule of the redevelopment work. We may wish to be onsite to observe ongoing activities.

#### **TECHNICAL REPORT REQUEST**

Please submit the following documents to DEH via Geotracker (Attention: Mr. Aaron Costa), according to the following schedule:

**Project Schedule**

**March 11, 2016**

**Final Grading Completion Report      45 Days After Completion of Final Grading**

These documents are requested pursuant to our authority under Section 101480 of the California Health and Safety Code. Each report shall include conclusions and recommendations for the next phases of work required to protect water resources, human health and safety, and the environment at the site. We request that all required work be performed in a prompt and timely manner. Revisions to the schedule shall be requested at least two weeks prior to the due date in writing with appropriate justification for the anticipated delays and a proposed revised schedule.

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) require that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments must be performed under the direction of an appropriately registered or certified professional.

This case is subject to California regulations for electronic submittal of information for all soil and groundwater cleanup cases in California (Title 23, Division 3, Chapter 30, Articles 1 and 2; Title 27, Division 3, Subdivisions 1 and 2). To be considered complete, all required submittals must be uploaded to the State of California Geotracker database in compliance with State Water Resources Control Board requirements by specified submittal due dates. All reports and correspondence should be uploaded directly to Geotracker and notification provided to the caseworker via email of the upload. The assigned caseworker will accept and review all documents in Geotracker. Please note there is a two day delay between the document upload and caseworker's ability to view and accept the document. Do not submit paper copies of reports to this office.

#### **PERJURY STATEMENT**

All proposals and reports submitted to this office must be accompanied by a cover letter from the responsible party which states, at a minimum, the following:

Former Ralsch  
February 17, 2016  
Page 3 of 3

"I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct to the best of my knowledge."

This letter must be signed by an officer or legally authorized representative of your company. Future submittals made without the perjury statement may be returned as insufficient.

If you have any questions, please feel free to contact me at (408) 918-1954 or via email.

Sincerely,

Aaron Costa  
Senior Hazardous Materials Specialist  
Site Mitigation Program  
Aaron.costa@deh.sccgov.org

cc: Mr. Bernard Sentianin, EEI, (bsentianin@eeitiger.com)  
File (geotracker)



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# **SOIL MANAGEMENT PLAN**

2829 MONTEREY DEVELOPMENT COMPANY, LP  
Proposed Self-Storage Facility Development  
2829 Monterey Road  
San Jose, Santa Clara County, California 94511

December 21, 2015

EEI Project No: WOL-72200

**SOIL MANAGEMENT PLAN**

Prepared for:

Mr. Dan Nethercott  
2829 Monterey Development Company, LP  
6710 East Camelback Road, Suite 110  
Scottsdale, Arizona 85251

Site location:

2829 Monterey Road  
APN 455-36-009  
San Jose, Santa Clara County, California 94511

*Prepared under the direction of:*



Bernard A. Sentianin, PG #5530  
Principal Geologist



EEI  
2195 Faraday Avenue, Suite K  
Carlsbad, California 92008

EEI Project No. WOL 72200

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## **GENERAL SITE INFORMATION**

**Project Information:** Proposed Self-Storage Commercial Development – 7.36-Acres

**Proposed Activities:** The proposed self-storage development is not anticipated to disturb existing localized areas of soil potentially impacted by heavy petroleum hydrocarbons and accordingly this Soil Management Plan (SMP) was prepared as a contingency plan in the event that workers encounter unanticipated areas of petroleum hydrocarbon impacted soils. If impacted soils are encountered the soil should be segregated and stockpiled for profiling and off-site disposal.

**EEI Project Number:** WOL 72200

**Site Information:**

2829 Monterey Road  
APN 455-36-009  
San Jose, Santa Clara County, California 94511

**Consultant Information:**

Bernard A. Sentianin - Principal Geologist  
EEI  
2195 Faraday Ave., Suite K  
Carlsbad, CA 92008  
**Phone:** (760) 431-3747  
**Fax:** (760) 431-3748  
**E-mail Address:** [bsentianin@eetiger.com](mailto:bsentianin@eetiger.com)

**Current Property Owner Information:**

2829 Monterey Development Company, LP  
6710 East Camelback Road, Suite 110  
Scottsdale, Arizona 85251  
Dan Nethercott – (916) 531-3366

**Grading Contractor (subject to change):**

Paul Brannon  
Brannon Corporation  
873 Savaker Street  
San Jose, California 95126  
Paul Brannon (408) 294-2910

## **1.0 INTRODUCTION**

### **1.1 Purpose**

The purpose of this Soils Management Plan (SMP) is to provide background information and general worker awareness information related to known environmental conditions, as well as action for potential unknown environmental conditions that may be encountered during future site improvements for a proposed self-storage development. Future site improvements include surface clearing; mass grading and earthwork; utility trenching; road work; and construction of the storage buildings.

Known environmental conditions include soil impacted with low to moderate levels of diesel and motor oil range petroleum hydrocarbons in the immediate vicinity of the former liquid asphalt storage tanks. Reportedly, the impact to soil originated from leakage of the underground liquid-asphalt storage tanks (USTs), discovered during removal in 2014. Post removal excavation removed and disposed of 1,114 tons of petroleum hydrocarbon -impacted soil at an off-site location. A second area of impacted soil was identified in the area of boring SB-12. Soils were reportedly removed from this area in 2012. While the shallow soil contamination identified above has been removed, it is possible that additional impacted soils may be encountered during future site grading/improvements.

This document serves as general guidance if contaminated soils are encountered during future grading activities or construction. However, this document should not be considered a remedial or corrective action plan, or a 29 Code of Federal Regulations (CFR) 1910 compliant Health and Safety Plan (H&SP), but rather as a general guidance document that provides insight for proposed subject property improvements. This document is based on findings from previous due diligence assessment and investigation (both research and physical sampling) conducted by EEI and other parties associated with the subject property development.

### **1.2 Development Project Description**

2829 Monterey Development Company, LP (MDC) and a potential purchaser are currently seeking approval of Design Review and the associated Building Permit by the City of San Jose in order to construct a self-storage facility. The proposed project will consist of approximately 151,000 gross square feet of self-storage divided among two 2-story self-storage buildings, plus approximately 150 paved boat and RV parking spaces (covered and uncovered) and a 2,500 to 3,000 square foot – 2-story building which will have an office on the first floor for employees that manage the self-storage business and the upstairs will be an apartment that will be occupied by an onsite resident manager. Paving is anticipated over a majority of the site.

## **2.0 PHYSIOGRAPHIC SETTING**

### **2.1 Site Description**

The flag shaped subject property is located on the west side of Monterey Road, approximately 1.25 miles north of its intersection with Capitol Expressway, in the City of San Jose, Santa Clara County, California (**Figure 1**). The subject property is currently vacant but was previously occupied by Granite Construction Company, which conducted asphalt batching among other construction related activities.

The subject property comprises approximately 7.36 acres identified by Assessor's Parcel Number 455-36-009 and is assigned a street address of 2829 Monterey Road. Access to the property is across a narrow strip of land serving as a portal to Monterey Road with the majority of the property being land-locked west of an existing industrial property.

The immediate adjacent properties include multi-family residential to the west, a rail line and vacant property to the south, mixed industrial to the east, and automotive repair and Monterey Road to the north.

According to the City of San Jose Planning Department, the zoning classification for the subject property is Heavy Industrial under the Envision 2040 General Plan. The Envision 2040 General Plan Area is located south of downtown San Jose with surrounding land use characterized as urbanized interspersed with limited undeveloped areas.

## **2.2 Topography**

The subject property is located on the United States Geological Survey (USGS) San Jose East, California 7.5 Minute Quadrangle map (USGS, 2012). The map indicates the elevation of the subject property is approximately 140 feet above mean sea level (amsl). The subject property is essentially level, with surface drainage flowing gently to the northeast.

## **2.3 Regional and Local Geology**

The site is located within the Coast Ranges California Geomorphic Province (CGS, 2002). The Coast Ranges are comprised of northwest-trending mountain ranges and valleys that trend sub-parallel to the San Andreas Fault. The Pacific Ocean lies to the west of the province, and the coastline is characterized by uplifted, terraced and wave-cut features. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide- topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows. The San Andreas Fault is more than 600 miles long, extending from Point Arena to the Gulf of California.

The subject property lies along the southern margins of San Francisco Bay, a northwest-trending structural depression (synclinal) between the Diablo Range and the Santa Cruz Range. The Bay is part of a system of bays that have been flooded in response to Pleistocene glacial cycles. The eastern shoreline of the Bay consists of Bay plain and alluvial plain deposits that are Quaternary in age and represent shallow-water marine and nonmarine depositional environments. Recent alluvial soil, derived primarily from older sedimentary rocks, covers the gently sloping flatland.

According to records at the County of Santa Clara Planning Department, no other seismic hazards are recognized for the subject property. Structural deformation in the vicinity of the site is related to the South Hayward Fault (approximately 7 miles east), and the San Andreas Fault (approximately 10 miles west).

Soil in the vicinity of the site has been identified by the USDA (1958) as the clays of the Hangerone and Urbanland-Newpark complex. The soils are poorly drained and have a moderately fine texture. They are underlain by sedimentary alluvium and form on low-level alluvial plains and basins. The permeability is generally very low.

## **2.4 Regional and Local Hydrogeology**

According to the California Regional Water Quality Control Board - San Francisco Bay Region (CRWQCB, 1995), the site is located in the Santa Clara Valley Groundwater Basin. Groundwater in this basin has been identified as beneficial for municipal, domestic, industrial process, industrial supplies, and agricultural supplies. Amec Foster Wheeler (2015), reported first groundwater at a depth of approximately 43.5 feet bgs in two boring locations near the former UST location on the property. Groundwater in the vicinity of the site generally flows to the northwest, toward Coyote Creek and San Francisco Bay.

## **2.5 Hydrologic Flood Plain Information**

EEI reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) online database to determine if the subject property was in a flood zone. According to Panel No 06085C0261H, effective May 18, 2009, the subject property is located within flood Zone D. FEMA defines Zone D as an area of undetermined flood hazard, usually depicted on FIRMs as above the 500-year flood level.

## **3.0 SITE BACKGROUND**

### **3.1 Prior Uses and Site History**

The subject property was formerly used for decades as an asphalt batching plant, most recently by Granite Construction Co. (Granite, d.b.a. "San Jose Hot Plant"). The exact dates of use as an asphalt batching plant facility are not known; however, in June 2007, SECOR International Incorporated (SECOR) published the findings from a Phase II environmental site assessment conducted to document site conditions prior to occupancy by Granite. Additionally, in October 2012, SHN Consulting Engineers & Geologists, Inc. (SHN) performed a nearly identical post-occupancy investigation, indicating that Granite operated on the property from approximately 2007 until 2012.

### **3.2 Previous Assessments**

Based on the information available on the State Water Resources Control Board GeoTracker website, previous site investigation activities have been conducted on the subject property. The following section summarizes the information EEI reviewed. Select excerpts from the reports are included in **Appendix A**.

#### **3.2.1 SECOR, Phase II Environmental Site Assessment Report, June, 2007.**

The above referenced report reportedly documented an investigation by SECOR which advanced nine borings collecting soil samples for laboratory analysis. The SECOR report was not posted on GeoTracker and its existence is known solely due to a reference in the February 22, 2013 SHN report. EEI assumes that the nature of the SECOR investigation was to document site conditions prior to occupancy by Granite.

**3.2.2 SHN Consulting Engineers & Geologists, Inc., Phase II Environmental Site Assessment Update and Excavation Report of Findings, San Jose Hot Plant, 2829 Monterey Road, San Jose, California, February 22, 2013.**

The above referenced report documented SHN's post-occupancy site investigation which purported to replicate SECOR's pre-occupancy investigation albeit with minor variations. SHN advanced nine borings at approximately the same locations as SECOR with the exception of boring SB-12 which did not duplicate SECOR SB-2 due to field obstructions.

Borings were advanced to a depth of 20 feet below grade and 18 soil samples were submitted for laboratory analysis. SHN reported findings similar to SECOR with the exception of SB-12. Detectable analytes were below Commercial/Industrial Environmental Screening Levels (ESLs) published by the San Francisco Bay Regional Water Quality Control Board in 2013 except in SB-12 which contained Total Petroleum Hydrocarbons as diesel (TPH-d) and Total Petroleum Hydrocarbons as motor oil (TPH-mo) exceeding the ESLs at depths of 5 and 10 feet bgs. At 10 feet bgs, TPH-d was reported at 13,000 milligrams per kilogram (mg/kg) and TPH-mo at 430 mg/kg. No data from depths below 10 feet bgs was presented in the SHN report.

In October 2012, SHN conducted a limited remedial excavation at the location of SB-12. Confirmation soil samples were collected from the side walls at a depth of approximately 5-feet bgs and from the bottom of the excavation at a depth of 13-feet bgs. A single sidewall sample contained detectable TPH-mo at a concentration of 16 mg/kg; well below the corresponding ESL value of 2,500 mg/kg. The remedial excavation was reportedly backfilled with the removed soil (SHN 2013) and in November 2012 it was re-excavated and shipped off-site for disposal. Additional confirmation samples were not collected.

**3.2.3 Aqua Science Engineers, Inc., Project Report, Underground Storage Tanks Removal, Raisch Investment Group, Ltd. Property, 2829 Monterey Road, San Jose, California (ASE Job NO. 4616), December 8, 2014.**

The above referenced report documented the removal of four USTs under the supervision of Aqua Science Engineers, Inc. The USTs consisted of three, single-wall steel 15,000-gallon tanks and one 10,000-gallon tank used to store liquid asphalt. UST removal occurred in two stages with two tanks removed in October and the remaining two in November 2014. The USTs were reportedly housed beneath a concrete secondary containment vault designed for above-ground storage tanks which had replaced the USTs. The USTs removed in November 2014 had been abandoned in-place by filling with concrete and base rock.

Five confirmation soil samples were collected below the USTs removed in October at a depth of approximately 18-feet bgs. Two samples contained detectable TPH-d and TPH-mo at concentrations of 36 and 15,000 mg/kg (TPH-d) and 22 and 140 mg/kg (TPH-mo). The unauthorized release triggered regulatory oversight by the County of Santa Clara Department of Environmental Health (CSCDEH) through the Voluntary Cleanup Program. Additional laboratory analysis for volatile organic compounds (VOCs) by EPA Method 8260B and for semi-VOCs by EPA Method 8270B was performed on the sample containing the highest TPH concentrations. Low levels of 1,2,4-trimethylbenzene (2.1 mg/kg) and 1,3,5-trimethylbenzene (0.48 mg/kg) were detected. The UST excavation was backfilled with imported fill.



Six confirmation soil samples were collected below the two removed 15,000-gallon USTs at a depth of approximately 18 feet bgs. Five of the six samples contained detectable TPH-d and TPH-mo at concentrations ranging from 2.8 to 39,000 mg/kg (TPH-d) and 8.9 to 3,100 mg/kg (TPH-mo). Trace concentrations of VOCs of the EPA Method 8260B list were associated with the sample containing the highest TPH concentrations.

Approximately 1,114 tons of petroleum hydrocarbon-impacted soil classified as a non-hazardous waste were hauled off-site for disposal. Approximately 1,647 tons of imported Class II base-rock were used to backfill the excavation. No post-excavation confirmation soil sampling was reported.

**3.2.4 Amec Foster Wheeler, UST Confirmation Soil and Groundwater Sampling Investigation Findings and Request for No Further Action under California's Low-Threat Underground Storage Tank Case Closure Policy (SWRCB, 2012), 2829 Monterey Development Company LP, 2829 Monterey Road, San Jose, California, March 19, 2015.**

In February 2015, AMEC conducted a soil and groundwater investigation to assess site impacts from the unauthorized UST release(s). Four borings, advanced to a maximum depth of 44.5 feet bgs, were advanced to collect soil samples and grab groundwater samples from two of the borings. Each of the borings contained TPH-d and TPH-mo; TPH-d concentrations exceeded the ESL threshold of 83 mg/kg in each boring. The highest TPH values were obtained from the deepest sample in each boring; 30 feet bgs (three borings) and 39 feet bgs (one boring). The two groundwater samples contained TPH-d at concentrations of 1,050 micrograms per liter (ug/L) and 5,870 ug/L.

**3.2.5 County of Santa Clara Department of Environmental Health (CSCDEH), Email concerning 2829 Monterey Road, San Jose, California, April 10, 2015.**

The above referenced CSCDEH email acknowledges and concurs with an Amec request for No Further Action based on the State Water Resource Control Board's Low Threat Case Closure Policy. CSCDEH's acknowledgement and concurrence included a stipulation that site conditions be monitored during future grading. Accordingly, the UST case was to remain open pending completion of the site grading and removal of the subsurface structures. This was to verify that no visually apparent soil staining indicative of TPH, solvent or metal contamination was uncovered during construction. Upon completion of the grading work, CSCDEH requested a report documenting soil conditions including field observations and sampling results.

**3.2.6 EEI, Summary of Soil Sampling – Proposed Commercial Development, 2829 Monterey Road, San Jose, CA 94511, EEI Project No. WOL-72200.2, September 23, 2015.**

In July 2015, EEI collected soil samples from an area identified as the Tunnel Area (north of and adjacent to the former UST location) and from an area identified as the Trough (along the fence line on the southern margin of the property). Analytical results from a sample collected at 10 feet bgs indicated that the Tunnel Area reportedly contained TPH at 120 mg/kg at carbon range C6 to C12, 4,500 mg/kg at carbon range C13 to C28, and 11,000 mg/kg at carbon range C29-C40. No TPH was reported in the Trough sample. No VOCs were reported in the Tunnel sample; however, the Trough sample contained 1,2-dichloroethene (9.5 ug/kg), naphthalene (11,000 ug/kg), and 1,2,4-trimethylbenzene (5.5 ug/kg).

## **4.0 SOIL MANAGEMENT**

### **4.1 Proposed Activities**

The proposed redevelopment plan for the subject property involves the following steps:

- 1) Remove any remaining concrete structures and/or footings remaining from historic site use.
- 2) Conduct mass grading to accommodate the proposed redevelopment.
- 3) Conduct utility trenching in portions of the property in preparation for development.

A portion of these activities will be conducted in areas previously identified as having petroleum hydrocarbon-impacted soils. As such, the grading contractor is responsible for identifying any areas where soil is suspected of containing contamination due to color, odor, or other attributes. Where suspected contamination is encountered, the contractor should follow the procedures outlined below.

### **4.2 General Worker Health and Safety**

This section describes general worker health and safety practices that should be followed during proposed excavation and/or related grading activities in areas with known or suspected environmental conditions at the subject property. A Health & Safety Plan (HSP) for work conducted in petroleum hydrocarbon-impacted areas should be generated prior to field activities. Note that contractors are responsible for complying with all applicable worker health and safety requirements imposed under federal, state and local laws.

Detectable concentrations of petroleum hydrocarbons (predominantly diesel and motor oil range up to a maximum of 39,000 mg/kg) have been reported in soil as shallow as 10 feet bgs, up to a maximum depth approximately 43 feet. The presence of petroleum contaminated soil represents only a minor potential exposure hazard to site workers, which can be mitigated by utilizing proper dust control measures; limiting skin exposure by use of gloves, eye protection, and hand washing; and limiting incidental ingestion of soil.

Based on the nature of the site contaminants (i.e., liquid asphalt), significant vapor inhalation hazards in the proposed areas of development are not anticipated. However, standard work practices, such as dust suppression, performing proposed site improvements in the upwind position, and monitoring for the potential presence of VOCs if impacted soil is encountered, should be observed whenever possible. Where impractical, the site safety officer (SSO), or designated alternate, should be consulted to identify acceptable alternatives. If an inhalation hazard is identified, Level C respiratory protection utilizing NIOSH-approved half-face air purifying respirators (APR) with volatile organic or combination high-efficiency particulate (HEPA)/volatile organic cartridges may be required.

Specific requirements regarding respiratory protection, potential routes of entry and air monitoring should be provided for in the subcontractor's HSP for the subject property.

Under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), individuals who may be exposed in the work place to chemicals that may cause cancer or birth defects must be warned of such hazards pursuant to California Health and Safety Code 25249.6.

NOTE: It is the responsibility of the contractor or subcontractor to comply with local, state, or federal training requirements regarding worker health and safety when operating equipment or working in areas with soils impacted by chemicals of concern. At a minimum, all site workers within the project location who may encounter or handle impacted soil should have completed 40-hour HAZWOPER training, as well as any required annual refresher courses.

#### **4.3 Identification and Management of Impacted Soils**

Petroleum hydrocarbon-impacted soils are known to be present at depths of 10 feet bgs in the southern portion of the subject property (**Figure 2**), and may be encountered in any excavation in that area. Since petroleum hydrocarbon-impacted soil is typically stained a greenish-grey color, visual indicators are useful in initially screening site soils for further characterization. During excavation, soil that visually displays dark discoloration/staining should be flagged and segregated during the excavation process. These segregated soils shall be tested in accordance with Section 5.0, to determine whether the soil can be reused on-site or must be hauled off-site for disposal.

Potentially impacted soils should be stockpiled on plastic sheeting to segregate them from clean soils. Vapor and dust from excavation and stockpiling activities should be controlled utilizing one or more of the following: water misting; covering with poly sheeting; backfilling of off-gassing excavations; locating stockpiles away from and/or downwind of onsite workers and public receptors; reducing the pace of project site activities and/or halting activities. In general, impacted locations should be visually located and if necessary, confirmed by hand-held (or equivalent) global positioning system (GPS) equipment to determine location.

If soil removal is necessary, excavation efforts should proceed under the direction of an environmental professional at individual flagged (impacted) suspect areas based upon visual staining, odors, and/or other methods (i.e., air monitoring equipment). Once excavation is completed, confirmation soil samples should be collected from stockpiled soil and excavation areas, and properly documented as excavation proceeds as further addressed in Sections 4.6 and 4.7 below.

#### **4.4 Stockpile Management**

If known or potentially impacted soils are encountered during site redevelopment activities, they should be stockpiled according to the following procedures:

- Place impacted soil stockpiles in locations which minimize impacts to the general public and surrounding neighborhoods, taking into consideration such factors as noise, odor, dust, and prevailing wind direction.
- Place impacted soil on a relatively impervious surface such as asphalt, concrete, or plastic sheeting.
- Moisten to minimize dust emissions during stockpiling (no runoff is to be created during this process).
- Construct and maintain the stockpile in a manner that prevents surface and rainwater from entering the stockpile.
- Cover stockpile with heavy plastic sheeting to minimize vapor emissions and prevent runoff from rain (sheeting must be maintained in good condition).

- Remove stockpiled soil in a timely manner after excavation to avoid nuisance complaints. Stockpile sampling and screening criteria are discussed in sections 4.6 and 6.0.
- Storm water permitting and Best Management Practices (BMP) requirements must be met per the local and state guidelines.

All stockpiled soils exhibiting characteristic petroleum hydrocarbon odors should be monitored for the presence of VOCs as regulated by Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 40 (BAAQMD, 2005), utilizing a photoionization detector (PID) or equivalent monitoring device. At this time, it is not anticipated that Rule 40 monitoring will be required.

#### **4.5 Fugitive Dust Control Measures**

Soil excavation and any stockpiled soils at the subject property will require fugitive dust control. The BAAQMD generally prohibits visible dust emissions beyond property lines. Dust suppression, such as periodic watering, covering, or restricted activities during high wind events should be conducted during soil excavation and stockpiling activities at the subject property. Additional fugitive dust suppression may be required as part of subject property redevelopment; therefore, should be handled according to the methods provided by the project's General Contractor.

#### **4.6 Stockpiled Soil Sampling Protocol**

The following section provides guidance on properly sampling stockpiled soils that are impacted or are suspected of being impacted based on visual observations, odors or field screening. The suggested laboratory analytical program is provided under section **5.0 Laboratory Analytical Program**.

The following bulleted items summarize the minimum number of samples to be collected from stockpiled material, and assumes a representative distribution of sample points:

- Stockpiles less than 2,000 cy: a minimum of one composite sample per 250 cy must be collected.
- Stockpiles from 2,000 to 10,000 cy: a minimum of one composite sample per 500 cy must be collected.
- Stockpiles greater than 10,000 cy: a minimum of (1) composite sample for each 1,000 cy or portion must be collected.

Stockpiled soil is assumed to have a non-homogeneous distribution of contaminants. If a stockpile previously characterized by this protocol is split for any reason, the remaining mass must be re-sampled as a new stockpile per the protocol listed above.

#### **4.7 Confirmation Sampling Protocol**

Confirmation soil samples should also be collected from any excavation areas to characterize any remaining TPH or VOC-impacted soil. The selection of confirmation sample locations will be based in part on physical observation and field screening, and in part upon consultation with CSCDEH personnel, if necessary.

In general, confirmation samples should be collected at lateral intervals of approximately one sample per 20 linear feet of excavation, and at vertical intervals of approximately one sample per 5 feet of depth.

Soil samples should be collected using appropriate hand sampling tools or from the bucket of the excavation equipment and placed in laboratory-supplied glass sample jars and/or stainless steel sleeves, as required. In either case, samples should be compacted within the sample container to remove any head space. Soil samples should be sealed with Teflon-lined lids/caps, labeled with a number unique to the sample, placed in a chilled cooler and logged under proper chain-of-custody protocol for transportation to a California-state certified laboratory. A mobile laboratory may be utilized to analyze soil samples during the excavation confirmation process, depending upon the nature of the contaminant and/or the scheduling needs of the project. See Section 5.0 below for the suggested analytical program.

## 5.0 LABORATORY ANALYTICAL PROGRAM

The following section is a suggested laboratory analytical program for additional testing/screening of soils impacted by chemicals of concern. This laboratory analytical program may be altered and/or amended based on field observations, CSCDEH directives (if applicable), and/or disposal facility requirements.

- All soil samples collected from excavations and stockpiled soil will be analyzed using: EPA Test Method 8015M (Total Petroleum Hydrocarbons) for the presence of gasoline, diesel and motor oil; and if the presence of VOC is indicated by field screening, EPA Test Method 8260B for the presence of VOCs.

## 6.0 ON-SITE USE/OFF-SITE DISPOSAL OF IMPACTED SOILS

Based on preliminary discussions with Lani Lee of CSCDEH, and given the proposed light industrial use at the site and anticipated paving over a majority of the site, EEI proposes no site-specific screening level, and instead anticipates that soils generated during construction (utility trenching, footings, etc) may be reused onsite, provided that they either be placed back in the original excavation or other similar area where the surface shall be paved. However, site soils generated during construction that are not able to be reused onsite under the circumstance described above shall be disposed of in a timely manner (i.e., within 30 days) at a permitted disposal or soil recycling facility in accordance with applicable regulatory guidelines.

## 7.0 REPORTING

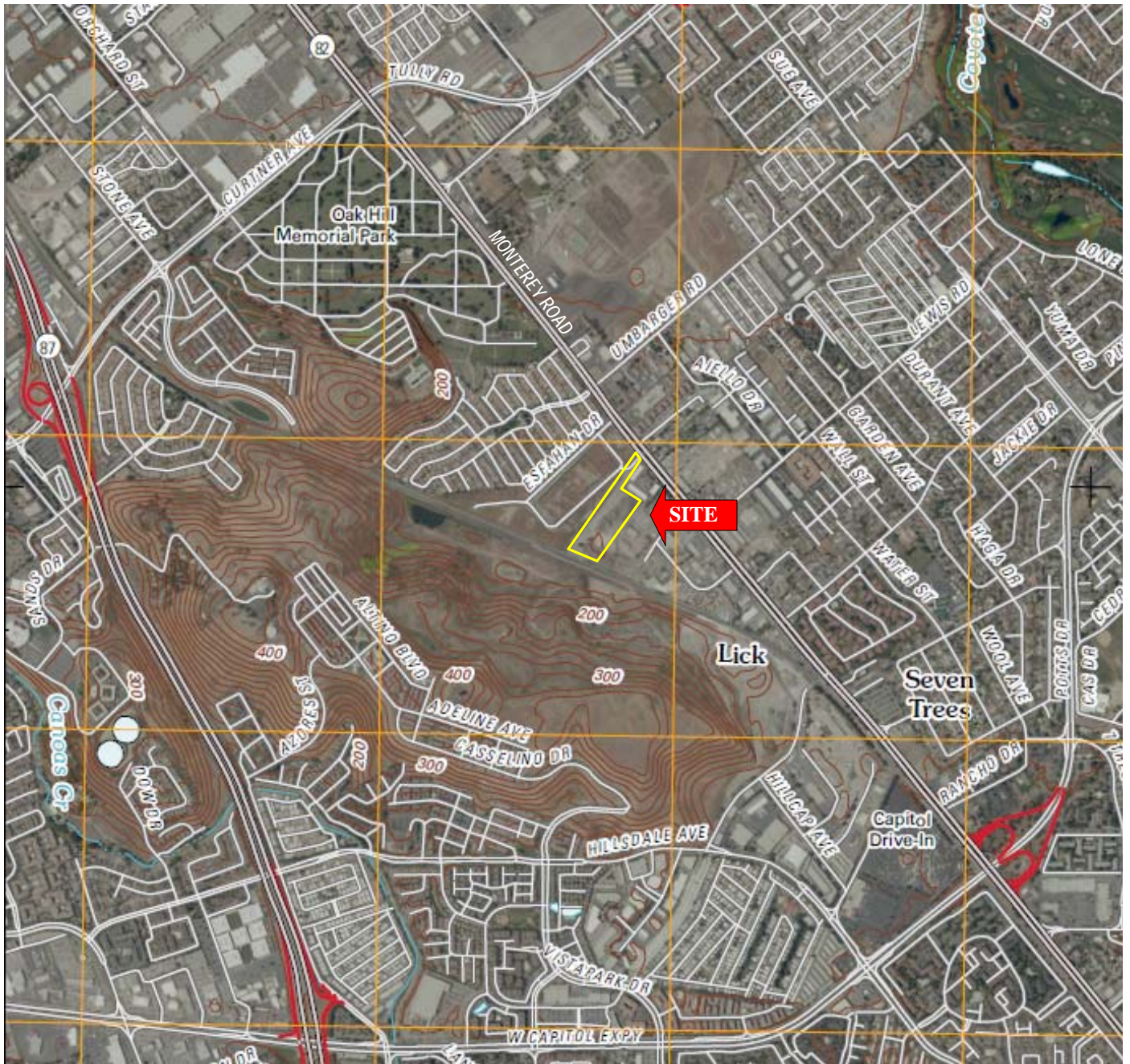
Following the implementation and conclusion of the work described in this *Soil Management Plan*, a technical report for the outlined activities should be prepared, and shall discuss all pertinent observations, procedures and findings related to the described activities and related laboratory analyses. Based on the findings and conclusions, appropriate recommendations will be made. The final report should be submitted to CSCDEH for review, as per their email directive of April 10, 2015.

## **8.0 LIMITATIONS**

This SMP is based upon the information obtained during the preparation of past and present investigation activities, information supplied by third parties, and subject property constraints. Please note that individual tasks or projects discussed in this SMP may require specific health and safety plans, regulatory notification, and documentation not identified in this document. Additionally, all invasive subject property investigations are inherently based upon a small fraction of the actual subsurface data set, and conclusions are commonly based upon a variety of assumptions which may or may not be accurate. No warranty; expressed or implied, is made upon our investigation, nor its results and conclusions, due to these inherent uncertainties and unknowns.

## **FIGURES**

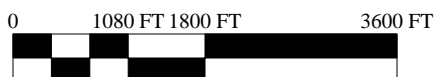




Source: USGS 7.5-minute Topographic Map, San Jose East, California, 2012



**APPROXIMATE SCALE: 1" = 1800'**



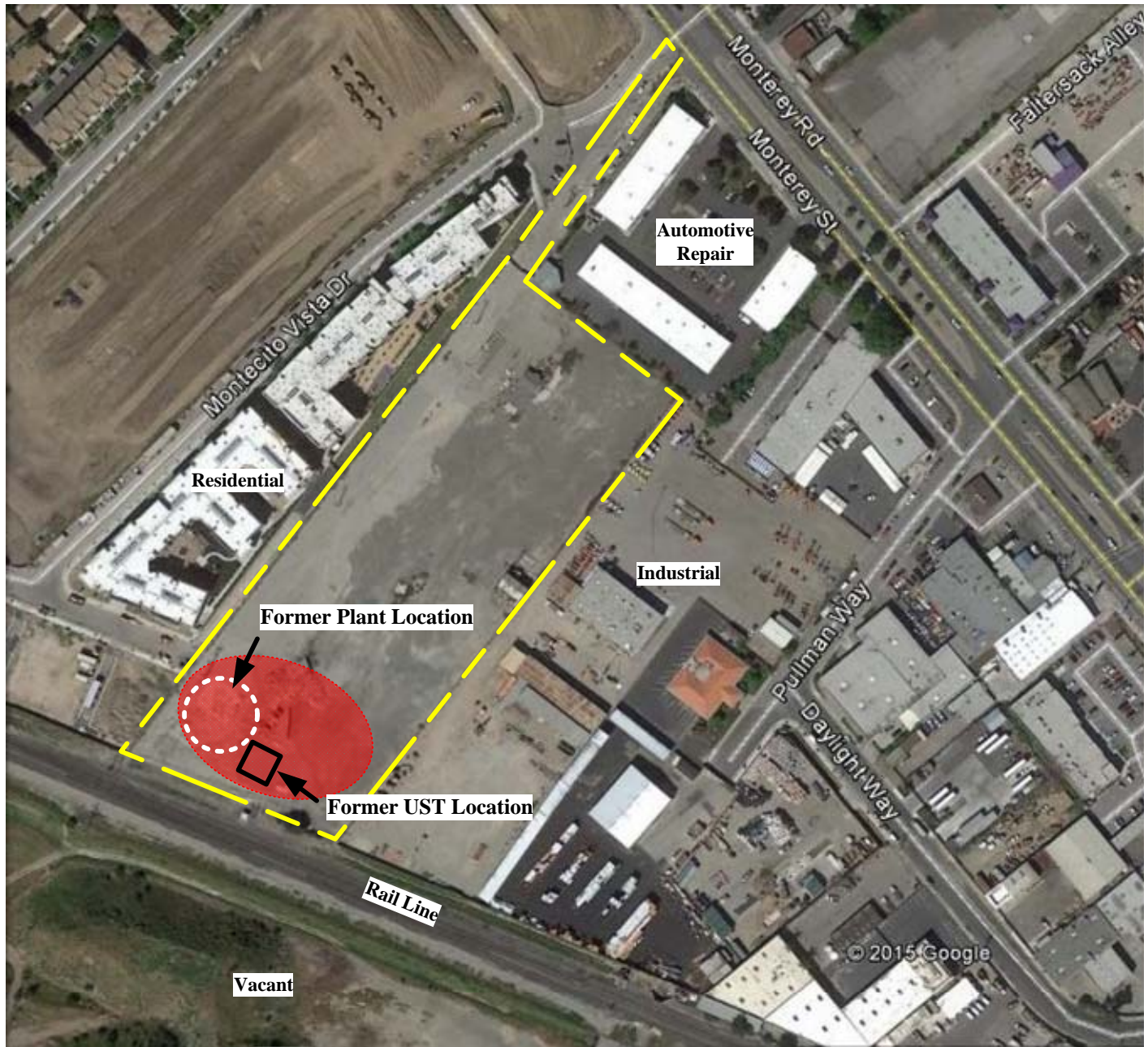
All Locations Are Approximate

**SITE LOCATION MAP**  
 FORMER RAISCH PROPERTY  
 2829 Monterey Road  
 San Jose, California  
 EEI Project No. WOL-72200  
 Created October 2015



**FIGURE 1**





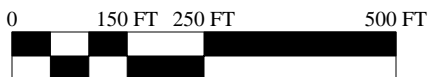
Source: Google Earth, Aerial Photograph dated 3/28/15



Estimated Location of Petroleum Hydrocarbon-impacted Soil



**APPROXIMATE SCALE: 1" = 250'**



All Locations Are Approximate

**SITE PLAN**  
 FORMER RAISCH PROPERTY  
 2829 Monterey Road  
 San Jose, California  
 EEI Project No. WOL-72200  
 Created October 2015




**FIGURE 2**

**APPENDIX A**





		Figure 1	
<p><b>SITE LOCATION MAP</b> <b>SOIL BORING LOCATIONS</b> 2829 Monterey Road Development Company LP 2829 Monterey Road San Jose, California 95111</p>			
By: WBC		Date: 03/18/2015	Project No. OD15180010

**EXPLANATION**

NOTE:

- All locations are approximate as estimated from field notes.

○ Soil Boring Location

□ UST Area

--- Site Boundary

# EXPLANATION

○ Soil Boring Location

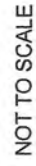
■ UST Area

--- Site Boundary

## NOTE:

- All locations are approximate as estimated from field notes.





By: WBC	Date: 03/18/2015	Project No. OD15180010
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<b>UST Removal Confirmation Sample Identification</b>	<b>TPH-d (mg/kg)</b>	<b>TPH-mo (mg/kg)</b>
UST-NORTH-WEST-18'	< 1.0	<1.0
UST-NORTH-EAST-18'	< 1.0	<1.0
UST-NORTH-MID-18'	< 1.0	<1.0
UST-SOUTH-WEST-18'	36	22
UST-SOUTH-EAST-18'	15,000	140
UST-NORTH2-WEST-18'	2.8	8.9
UST-NORTH2-EAST-18'	140	5,400
UST-NORTH2-MID-18'	< 1.0	<1.0
UST-SOUTH2-WEST-18'	14	39
UST-SOUTH2-EAST-18'	39,000	3,100
UST-SOUTH2-MID-18'	320	42

In addition, the following volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), were detected above laboratory reporting limits in soil sample UST-SOUTH2-EAST-18': 0.67 mg/kg of n-butyl benzene, 0.47 mg/kg of n-propyl benzene, 5.4 mg/kg of 1,2,4-trimethylbenzene, 2.5 mg/kg of 1,3,5-trimethylbenzene and 1.5 mg/kg of xylenes. The VOCs detected in this sample are typically associated with gasoline and appear to be inconsistent with known product use onsite. The detection of these VOCs may be related to contamination from an outside source that occurred during sample collection.

#### **Remedial Activities and Regulatory Status:**

During UST removal activities, excavated soil was stockpiled and tested for TPH content. Excavated soils were stockpiled into three piles, and testing of the stockpiled soil produced the following results:

<b>Soil Stockpile Sample Identification</b>	<b>TPH-d (mg/kg)</b>	<b>TPH-mo (mg/kg)</b>
STKP-A	95	1,100
STKP-B	180	240
STKP-C	250	2,600

A total of approximately 1,114 tons of stockpiled soil were removed from the Site and disposed at Newby Island Landfill in Milpitas, California. The volume and weight of each individual stockpile were not reported by ASE. The excavation was backfilled and compacted in lifts with approximately 1,647 tons of clean imported Class II baserock.

TABLE 1

**TOTAL PETROLEUM HYDROCARBON ANALYTICAL RESULTS**

2829 Monterey Road Development Company LP

2829 Monterey Road

San Jose, California

Sample Identification	TPH-D	TPH-MO	BTEX	Chromagraph Pattern	
				TPH (C10-C28)	TPH (>C28-C40)
Soil Results reported in mg/kg					
CS1-15	1.01 J	3.64 J	—	—	--
CS1-20	<3.3	1.89 J	--	—	—
CS1-30	196	641	—	(a)	(b)
CS2-15	<3.3	1.85 J	—	—	—
CS2-20	<3.3	2.63 J	—	—	—
CS2-30	192	856	—	(d)	(b)
CS3-15	1.1 J	4.20 J	—	—	—
CS3-20	<3.3	2.01 J	—	—	—
CS3-30	181	98.1	—	—	—
CS4-15	116	<33	—	(c)	—
CS4-20	<3.3	1.79 J	—	—	—
CS4-30	44	12.5	—	(e)	(b)
CS4-39	531	193	—	(e)	(b)
Grab Groundwater Results in mg/L					
CS1-43	1.05	0.22	ND	(c)	—
CS4-44	5.87	<2.2	ND	(f)	—

**Notes**

1. All soil results in milligram per kilo gram (mg/kg)
2. All grab groundwater results in milligram per Liter (mg/L)
3. "J" compound detected but quantification is estimated
4. BTEX = benzene, toluene, ethylbenes and total xylenes
5. BTEX compounds were non detected (ND), see analytical data sheets for reporting limits
6. <3.3 analyte non detected at indicated report limit
7. "—" not tested

**Abbreviations**

- (a) Pattern is consistent with Diesel.
- (b) Pattern is consistent with Motor Oil.
- (c) Pattern appears to be Transformer Oil related but does not perfectly match with calibration standard, quantitated as best match.
- (d) Pattern appears to be Diesel related but does not perfectly match with calibration standard, quantitated as best match.
- (e) Pattern appears to be Kerosene/Jet Fuel (C10-C18) related but does not perfectly match with calibration standard, quantitated as best match.
- (f) Pattern appears to be Jet-A/Kerosene related but does not perfectly match with calibration standard, quantitated as best match.



**APPENDIX B**

**REGULATION 8  
ORGANIC COMPOUNDS  
RULE 40  
AERATION OF CONTAMINATED SOIL AND  
REMOVAL OF UNDERGROUND STORAGE TANKS**

**INDEX**

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- 8-40-111 Exemption, Excavated Hole
- 8-40-112 Exemption, Sampling
- 8-40-113 Exemption, Non-volatile Hydrocarbons
- 8-40-114 Exemption, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs
- 8-40-115 Exemption, Contaminated Soil Excavation Unrelated to Underground Storage Tank Activities
- 8-40-116 Exemption, Small Volume
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- 8-40-118 Exemption, Aeration Projects of Limited Impact

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- 8-40-302 Controlled Contaminated Soil Aeration
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**8-40-400 ADMINISTRATIVE REQUIREMENTS**

- 8-40-401 Reporting, Removal or Replacement of Tanks
- 8-40-402 Reporting, Excavation of Contaminated Soil

- 8-40-403 Reporting, Aeration of Soil
- 8-40-404 Reporting, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs
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**8-40-600 MANUAL OF PROCEDURES**

- 8-40-601 Contaminated Soil Sampling
- 8-40-602 Measurement of Organic Content
- 8-40-603 Determination of Emissions
- 8-40-604 Measurement of Organic Concentration
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**REGULATION 8**  
**ORGANIC COMPOUNDS**  
**RULE 40**  
**AERATION OF CONTAMINATED SOIL AND**  
**REMOVAL OF UNDERGROUND STORAGE TANKS**

(Adopted July 16, 1986)

**8-40-100 GENERAL**

**8-40-101 Description:** The purpose of this Rule is to limit the emission of organic compounds from soil that has been contaminated by organic chemical or petroleum chemical leaks or spills, and to describe an acceptable procedure for controlling emissions from underground storage tanks during removal or replacement.

*(Amended 2/15/89; 12/15/99)*

**8-40-110 Exemption, Storage Piles:** Calculations of aeration volume under Section 8-40-204 shall not include storage piles that are covered per Section 8-40-305, nor shall they include active storage piles.

*(Amended December 15, 1999)*

**8-40-111 Exemption, Excavated Hole:** The exposed surfaces of an excavated hole shall not be included in calculations of aerated volume under Section 8-40-204.

**8-40-112 Exemption, Sampling:** Contaminated soil exposed for the sole purpose of sampling shall not be considered to be aerated. Inactive storage piles may remain uncovered for no longer than one hour for soil sampling purposes.

*(Amended December 12, 1999)*

**8-40-113 Exemption, Non-volatile Hydrocarbons:** The requirements of all sections of this Rule shall not apply if the soil is contaminated solely by a known organic chemical or petroleum liquid and that chemical or liquid has an initial boiling point of 302°F or higher provided that the soil is not heated.

*(Amended February 15, 1989)*

**8-40-114 Exemption, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs:** The requirements of Section 8-40-402 shall not apply if contaminated soil is being excavated in order to repair leaking organic liquid service pipelines and if no more than 5 cubic yards of contaminated soil are generated, and provided the requirements in Section 8-40-404 are satisfied.

*(Adopted 2/15/89; Amended 12/15/99)*

**8-40-115 Exemption, Contaminated Soil Excavation Unrelated to Underground Storage Tank Activities:** The requirements of Section 8-40-402 shall not apply where contaminated soil is discovered during excavations unrelated to underground storage tank activities, and provided the requirements in Section 8-40-405 are satisfied.

*(Adopted 2/15/89; Amended 12/15/99)*

**8-40-116 Exemption, Small Volume:** The provisions of this rule shall not apply to excavation or aeration projects where:

116.1 The total volume of contaminated soil is no more than 1 cubic yard, or

116.2 The total volume of contaminated soil is no more than 8 cubic yards and organic content does not exceed 500 ppmw as determined by the procedures in Sections 8-40-601 and 8-40-602. The exemption of this subsection may be applied to any single excavation site or facility no more than once in any 3 month period.

*(Adopted December 15, 1999)*

**8-40-117 Exemption, Accidental Spills:** The provisions of this rule shall not apply to soil contaminated by accidental spillage of five gallons or less of liquid organic compounds.

*(Adopted December 15, 1999)*

**8-40-118 Exemption, Aeration Projects of Limited Impact: Exemption, Aeration Projects of Limited Impact:** The requirements of Sections 8-40-403 and 8-40-405 shall not apply to any aeration project in which total project emissions of volatile organic compounds are less than 150 pounds, and total project emissions of toxic air contaminants are less than the trigger levels listed in Table 2-5-1 in District Regulation 2, Rule 5.

**8-40-200 DEFINITIONS**

**8-40-201 Active Storage Pile:** A storage pile to which soil is currently being added or from which soil is currently being removed. Activity must have occurred within one hour to be current.

(Amended December 15, 1999)

**8-40-202 Aeration:** Exposure of excavated soil containing volatile organic compounds to the air.

(Amended December 15, 1999)

**8-40-203 Aeration Depth:** The smaller of the following: the actual average depth of contaminated soil; or 0.15 meters (0.5 feet) multiplied by the daily frequency with which soil is turned.

(Amended February 15, 1989)

**8-40-204 Aeration Volume:** The volume of soil being aerated shall be calculated as follows: the exposed surface area (in square feet or square meters) shall be multiplied by the aeration depth. The exposed surface area includes the pile of excavated soil unless the pile is covered per Section 8-40-305.

(Amended 2/15/89; 12/15/99)

**8-40-205 Contaminated Soil:** Soil which has an organic content exceeding 50 ppmw as measured using the procedure in Section 8-40-602, or soil which registers an organic concentration greater than 50 ppmv (expressed as methane, C1) when measured using the procedure in Section 8-40-604.

(Amended December 15, 1999)

**8-40-206 Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

**8-40-207 Organic Content:** The concentration of volatile organic compounds measured in the composite sample collected and analyzed using the procedures in Sections 8-40-601 and 8-40-602.

(Amended December 15, 1999)

**8-40-208 Vapor Free:** The process of purging gases from a tank using dry ice to replace organic vapors with an inert atmosphere.

**8-40-209 Ventilation:** The process of purging gases from a tank by blowing or drawing another gas through the tank.

**8-40-210 Emergency Removal or Replacement or Excavation:** A removal or replacement of a tank or an excavation of contaminated soil carried out pursuant to an order of a state or local government agency issued because the contaminated soil poses an imminent threat to public health and safety.

(Adopted 2/15/89; Amended 12/15/99)

**8-40-211 Organic Concentration:** The concentration of volatile organic compounds measured in ppmv (expressed as methane, C1) above the soil surface using the procedures in Section 8-40-604.

(Adopted December 15, 1999)

**8-40-212 Organic Liquid Service:** The conveyance or storage of volatile organic compounds that are typically liquid at standard temperature and pressure, as applied to tanks and pipelines. This does not include septic tanks, sewer lines, storm water drainage, fresh water lines, natural gas lines, or electrical conduit.

(Adopted December 15, 1999)

**8-40-213 Volatile Organic Compound (VOC):** Any organic compound, as described in Section 8-40-206, which would be emitted to the atmosphere.

(Adopted December 15, 1999)

**8-40-214 Vapor Suppressant:** Any material demonstrated to be at least as effective as water spray at reducing VOC emissions from contaminated soil to the atmosphere.

(Adopted December 15, 1999)

**8-40-215 Backfill:** Replacement of contaminated soil to an excavated pit below existing grade or to a engineered fill location below final grade performed in such a way as to minimize exposure of contaminated soil to the atmosphere. To constitute backfill, replacement of soil may be back into the original excavation, or any other final fill site located on the site where the original excavation occurred. Backfill does not include

the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201).

*(Adopted December 15, 1999)*

**8-40-216 Storage Pile:** A pile of excavated contaminated soil located above existing grade level.

*(Adopted December 15, 1999)*

## **8-40-300 STANDARDS**

**8-40-301 Uncontrolled Contaminated Soil Aeration:** Until June 1, 2000, a person shall not aerate contaminated soil at a rate in excess of that specified in Table 1 for the degree of organic content. The limitations in Table 1 shall apply to the entire facility and indicate the volume of contaminated soil that may be added, on any one day, to contaminated soil that is already aerating. These limited aeration rates shall also apply to the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201).

Table 1 Allowable Rate of Uncontrolled Aeration		
ORGANIC CONTENT	RATE OF UNCONTROLLED AERATION	
ppm (weight)	Cubic meters/day	Cubic yards/day
< 50	Exempt	Exempt
50 - 99	459.0	600
100 - 499	91.8	120
500 - 999	45.9	60
1000 - 1999	22.9	30
2000 - 2999	11.5	15
3000 - 3999	7.6	10
4000 - 4999	5.7	8
> 5000	0.08	0.1

Effective June 1, 2000, a person shall not aerate contaminated soil except as provided in sections 8-40-304 through 306. This prohibition includes the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201). *(Amended 2/15/89; 12/15/99)*

**8-40-302 Controlled Contaminated Soil Aeration:** Until June 1, 2000, contaminated soil may be aerated at rates exceeding the limitations of 8-40-301 provided emissions of organic compounds to the atmosphere are reduced by at least 90% by weight.

*(Amended December 15, 1999)*

**8-40-303 Deleted December 15, 1999**

**8-40-304 Active Storage Piles:** Effective June 1, 2000, contaminated soil shall be kept visibly moist by water spray, treated with a vapor suppressant, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. Covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate. For any active storage pile, the surface area not covered by plastic sheeting or other covering shall not exceed 6,000 square feet.

*(Adopted December 15, 1999)*

**8-40-305 Inactive Storage Piles:** Effective June 1, 2000, contaminated soil shall be covered during periods of inactivity longer than one hour. The contaminated soil shall be covered with continuous heavy duty plastic sheeting or other covering to minimize emissions to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.

*(Adopted December 15, 1999)*

**8-40-306 Contaminated Soil - Excavation and Removal:** Effective June 1, 2000, any person excavating and/or permanently removing contaminated soil shall adopt the following procedure:

306.1 During excavation, all exposed contaminated soil surfaces above existing grade level shall be kept visibly moist by water spray, treated with an approved vapor suppressant, or covered with continuous heavy duty plastic



sheeting or other covering to minimize emissions of organic compounds to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.

- 306.2 All contaminated soils loaded into trucks or trailers for off site disposal or treatment shall be covered with continuous heavy duty plastic sheeting or other covering so as to minimize emissions to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.
- 306.3 All contaminated soil shall be stockpiled separately from soil which is not contaminated, unless emissions of VOC from the storage pile are minimized according to the provisions of this Rule.
- 306.4 Within 45 days of excavation, or within 90 days for soil of organic content less than 500 ppmw as determined by the procedures in Sections 8-40-601 and 8-40-602, the following shall take place:
  - 4.1 all contaminated soil shall be backfilled and covered with at least 6 inches of uncontaminated soil, or
  - 4.2 all contaminated soil shall be removed from the site, or
  - 4.3 treatment to remove the contamination shall be initiated.
- 306.5 Treatment of contaminated soil to remove the contamination shall be subject to all applicable District Rules and Regulations.
- 306.6 During backfilling, all exposed contaminated soil surfaces shall be kept visibly moist by water spray, or treated with an approved vapor suppressant, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. During periods of inactivity longer than 12 hours, backfilled contaminated soil shall be covered with at least 6 inches of uncontaminated soil, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.

*(Adopted December 15, 1999)*

**8-40-310 Underground Storage Tanks - Removal or Replacement:** Any person wishing to permanently remove or replace an underground storage tank which previously contained organic compounds shall follow the following procedure:

- 310.1 All piping shall be drained or flushed into the tank or other container.
- 310.2 All liquids and sludges shall be removed, to the extent possible, from the tank. A hand pump shall be used to remove the bottom few inches of product if necessary.
- 310.3 Vapors shall be removed from the tank using one of the following three methods:
  - 3.1 The tank may be filled with water, displacing vapors and hydrocarbon liquids.
  - 3.2 Vapor freeing.
  - 3.3 Ventilation.
- 310.4 Effective June 1, 2000, all soils disturbed and/or excavated as part of the tank removal shall be subject to the requirements of Sections 8-40-301 through 306, unless the soil has been determined to be not contaminated by measurement of organic content using the procedures in Section 8-40-601 and 8-40-602.

*(Amended 2/15/89; 6/15/94; 12/15/99)*

**8-40-311 Vapor Freeing:** No person shall vapor free an underground storage tank of 250 gallons or greater capacity, unless emissions of organic compounds to the atmosphere are reduced by at least 90% by weight. The emission control system shall be operated until the concentration of organic compounds in the tank is less than 5,000 ppm expressed as methane.

*(Amended December 15, 1999)*

**8-40-312 Ventilation:** No person shall ventilate an underground storage tank of 250 gallons or greater capacity, unless emissions of organic compounds to the atmosphere are

reduced by at least 90% by weight. The emission control system shall be operated until the concentration of organic compounds in the tank is less than 5,000 ppm expressed as methane.

*(Amended December 15, 1999)*

## **8-40-400 ADMINISTRATIVE REQUIREMENTS**

**8-40-401 Reporting, Removal or Replacement of Tanks:** The person responsible for the removal or replacement of tanks which are subject to the provisions of Section 8-40-310 shall provide written notice to the APCO of intention to remove or replace tanks. The written notice shall be postmarked at least 5 days prior to commencement of such removal or replacement. In the case of emergency removal or replacement of tanks, notice shall be provided as early as possible prior to the commencement of such emergency removal or replacement, to be followed by written verification not later than 30 working days after the removal or replacement is completed. The written notice of intention shall include:

- 401.1 Names and addresses of persons performing and responsible for the tank removal or replacement.
- 401.2 Location of site at which tank removal or replacement will occur.
- 401.3 Scheduled starting date of tank removal or replacement. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.
- 401.4 Procedures to be employed to meet the requirements of Sections 8-40-310.
- 401.5 If applicable, name, title and authority of the state or local government representative who has ordered a tank removal or replacement which is subject to emergency procedures.
- 401.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306.

*(Adopted 2/15/89; Amended 12/15/99)*

**8-40-402 Reporting, Excavation of Contaminated Soil:** The person responsible for the excavation of known contaminated soil subject to the provisions of Sections 8-40-301 through 8-40-306 shall provide written notice to the APCO of intention to excavate. The written notice shall be postmarked at least 5 days prior to commencement of such excavation. In the case of emergency excavations, notice shall be provided as early as possible prior to the commencement of such emergency excavation, to be followed by written verification not later than 30 working days after excavation is completed. Written notice of intention to excavate may be submitted to the APCO at the same time written notice of intention to remove or replace tanks is submitted provided that such notification precedes the commencement of either tank removal or replacement or contaminated soil excavation by at least 5 days as indicated by postmark. The written notice of intention shall include:

- 402.1 Names and addresses of persons performing and responsible for excavation.
- 402.2 Location of site at which excavation will occur.
- 402.3 Scheduled starting date of excavation. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.
- 402.4 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306.
- 402.5 If applicable, name, title and authority of the state or local government representative who has ordered an excavation which is subject to emergency procedures.
- 402.6 Estimated quantity of contaminated soil to be excavated.
- 402.7 Estimated average organic content of contaminated soil.

*(Adopted 2/15/89; Amended 12/15/99)*

**8-40-403 Reporting, Aeration of Soil:** The person responsible for aeration of any soil shall provide written notice to the APCO of intention to aerate soil, with the following information. The written notice shall be postmarked at least 5 days prior to

commencement of such excavation. The District shall again be notified within 24 hours of a change in one or more of the following parameters:

- 403.1 Estimated total quantity of soil to be aerated
- 403.2 Estimated quantity of soil to be aerated per day
- 403.3 Estimated average organic content of soil
- 403.4 Chemical composition of organic compounds (i.e., gasoline, methylene chloride, etc.)
- 403.5 A basis on which these estimates were derived (soil analysis test reports, etc.)
- 403.6 Names and addresses of persons performing and responsible for the aeration project.
- 403.7 Location of site at which the aeration project will occur.

*(Amended, Renumbered 2/15/89; Amended 12/15/99)*

**8-40-404 Reporting, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs:** The person responsible for the excavation of no more than 5 cubic yards of contaminated soil generated by an organic liquid service pipeline leak repair shall provide written notice to the APCO as early as possible, but not later than 30 working days, after excavation is completed. The written notice shall include:

- 404.1 Names and addresses of persons performing and responsible for excavation
- 404.2 Location of site at which excavation occurred.
- 404.3 Date of excavation.
- 404.4 Quantity of contaminated soil excavated.
- 404.5 Estimated average organic content of contaminated soil.
- 404.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306.

*(Adopted 2/15/89; Amended 12/15/99)*

**8-40-405 Reporting, Contaminated Soil Excavations Unrelated to Underground Storage Tank Activities:** The person responsible for contaminated soil excavations unrelated to underground storage tank activities where contaminated soil is discovered shall provide notice as early as possible upon detection of such contaminated soil, to be followed by written verification not later than 30 working days after excavation is completed. The written verification shall include:

- 405.1 Names and addresses of persons performing and responsible for excavation.
- 405.2 Location of site at which excavation occurred.
- 405.3 Date of excavation.
- 405.4 Quantity of contaminated soil excavated.
- 405.5 Estimated average organic content of contaminated soil.
- 405.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306.

*(Adopted 2/15/89; Amended 12/15/99)*

## **8-40-600 MANUAL OF PROCEDURES**

**8-40-601 Contaminated Soil Sampling:** Composite samples shall be collected and analyzed for-excavated contaminated soil as follows:

- 601.1 Until June 1, 2000, for every 50 cubic yards of excavated contaminated soil to be aerated as per Table 1 in Section 8-40-301, at least one composite sample shall be collected from each storage pile within 12 hours of excavation.
- 601.2 For excavation projects seeking exemption under the provisions of Section 8-40-116.2, at least one composite sample shall be collected and analyzed.
- 601.3 For excavation projects subject to Sections 8-40-306.4 (90 day limit only) or 8-40-310.4, involving 250 cubic yards of contaminated soil or less, at least one composite sample shall be collected and analyzed for every 50 cubic yards of excavated contaminated soil.
- 601.4 For excavation projects subject to Sections 8-40-306.4 (90 day limit only) or 8-40-310.4, involving more than 250 cubic yards of contaminated soil, at

least one composite sample shall be collected and analyzed for every 100 cubic yards of excavated contaminated soil.

601.5 Each composite sample shall consist of four separate soil samples taken using the procedures described below. The soil samples shall remain separate until they are combined in the laboratory just prior to analysis.

601.6 Each pile for which a composite sample is required shall be considered to have four equal sectors. One sample shall be taken from the center of each sector. Samples shall be taken from at least twelve inches below the surface of the pile. Samples shall be taken using one of the following methods:

6.1 Samples shall be taken using a driven-tube type sampler, capped and sealed with inert materials, and extruded in the lab in order to reduce the loss of volatile materials; or

6.2 Samples shall be taken using a clean brass tube (at least twelve inches long) driven into the soil with a suitable instrument. The ends of the brass tube shall then be covered with aluminum foil, then plastic end caps, and finally wrapped with a suitable tape. The samples shall then be immediately placed on ice, or dry ice, for transport to a laboratory.

*(Amended 2/15/89; 12/15/99)*

**8-40-602 Measurement of Organic Content:** Organic content of soil shall be determined by EPA Reference Methods 8015B and 8021B or any method determined to be equivalent by the United States Environmental Protection Agency and approved in writing by the APCO or designee.

*(Amended 2/15/89; 10/6/93; 12/15/99)*

**8-40-603 Determination of Emissions:** Emissions of organic compounds as specified in Sections 8-40-302, 8-40-311 and 8-40-312 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

*(Amended 2/15/99; 6/15/94; 12/15/99)*

**8-40-604 Measurement of Organic Concentration:** Organic concentration as specified in Section 8-40-205 shall be measured at a distance of three inches from the surface of the excavated soil with an organic vapor analyzer complying with 40 CFR Part 60 Appendix A, EPA Method 21 Section 3, "Determination of Volatile Organic Compound Leaks, Monitoring Instrument Specifications," or any method determined to be equivalent by the United States Environmental Protection Agency and approved in writing by the APCO or designee. For the purpose of determining contamination, the soil surface of the excavated soil pile may be disturbed to obtain a measurement.

*(Adopted December 15, 1999)*

**8-40-605 Analysis of Samples, Initial Boiling Point:** Samples of organic compounds shall be analyzed by ASTM D-1078-93 for the determination of initial boiling point as specified in Section 8-40-113.

*(Adopted December 15, 1999)*