

**REVIEW OF ENVIRONMENTAL  
SITE CONDITIONS AND WORK PLAN  
FOR SOIL INVESTIGATION  
AND REMEDIATION**

**MAGNOLIA TERRACE AT  
4001 ADELINE STREET  
EMERYVILLE, CALIFORNIA**

**RECEIVED**

1:43 pm, Aug 10, 2009

Alameda County  
Environmental Health

Prepared for

**City of Emeryville Redevelopment Agency  
1333 Park Avenue  
Emeryville, CA 94608**

and

**Housing Consortium of the east Bay  
1736 Franklin Street, 6<sup>th</sup> Floor  
Oakland, CA 94612**

July 30, 2009

Prepared by

**OTG**

**Enviroengineering  
Solutions, Inc.**

7700 Edgewater Drive, Suite 260  
Oakland, CA 94621

July 30, 2009

Mr. Steven Plunkett  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject:** Review of Environmental Conditions and Work Plan for Soil Investigation  
and Remediation at 4001 Adeline Street, Emeryville, California

Dear Mr. Plunkett:

On behalf of the City of Emeryville Redevelopment Agency (the Agency) and the Housing Consortium of the East Bay (HCEB), OTG EnviroEngineering Solutions, Inc. (OTG) is pleased to submit this report documenting current site environmental conditions and a proposed work plan for shallow soil investigation and remediation at the Magnolia Terrace, located at 4001 Adeline Street, Emeryville, California. The Agency and the HCEB have teamed up to redevelop the site for affordable housing. Your expedited review and approval of the development plan is greatly appreciated.

**Certification**

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

Please contact the undersigned at (510) 465-8982 if you have questions or comments.

Sincerely,  
*OTG EnviroEngineering Solutions, Inc.*



Xinggang Tong, PhD, PE  
Project Manager



cc: Ms. Helen Bean, City of Emeryville Redevelopment Agency  
Ms. Amy Hiestand, City of Emeryville  
Ms. Brianne Steinhauser, Housing Consortium of the East Bay

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## 1 INTRODUCTION

This report was prepared on behalf of the City of Emeryville Redevelopment Agency (the Agency) and the Housing Consortium of the East Bay (HCEB) to document existing site environmental conditions and to present a work plan for shallow soil investigation and remediation at the Magnolia Terrace (the Site), located at 4001 Adeline Street, Emeryville, California (Figure 1). The Site has an Assessor's Parcel Number (APN) 049-1025-026-05 and is only approximately 3,000 square feet (ft<sup>2</sup>). On the Site is a 2-story four-plex residential building (+/- 2,800 ft<sup>2</sup>) recently relocated from its former location at 1077 41<sup>st</sup> Street, Emeryville, CA. The Agency owns the Site and the building and has teamed with HCEB to renovate the building to two one-bedroom units and three studio units for affordable housing. The development schedule is included in Appendix A.

### Site Contact Information:

Site Address:  
4001 Adeline Street  
Emeryville, CA 94608  
APN 049-1025-026-03

Site Owner and Developer:  
City of Emeryville Redevelopment Agency  
Attention: Ms. Helen Bean  
1333 Park Avenue  
Emeryville, CA 94608  
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Site Co-Developer:  
Housing Consortium of the East Bay  
Attention: Ms. Brianne Steinhauser  
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Oakland, CA 94612  
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Site Environmental Consultant:  
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## 2. SUMMARY OF REGIONAL ENVIRONMENTAL ISSUES

The Site is located in a historically mixed use area. As shown on Figure 2, at least six (6) fuel leak cases exist within two city blocks of the Site. These fuel leak cases are:

- The former San Francisco French Bread Company site, Alameda County Fuel Leak Case No RO0000171;
- The former Celis Service Station site, Alameda County Fuel Leak Case No RO000453;
- Dunne Quality Paints site, Alameda County Fuel Leak Case No RO0000073;
- Fidelity Roof Company site, Alameda County Fuel Leak Case No RO0000186;
- Oakland National Engravers (ONE) site, Alameda County fuel Leak Case No RO0000079;
- California Linen Rental site, Alameda County Fuel Leak Case No RO0000337.

These sites have been under extensive environmental investigation and remediation in the past two decades. Voluminous reports and correspondences relating to the cases can be found at the Alameda County's Local Oversight Program (LOP) online records. In addition, extensive environmental work has also been conducted at the following two redevelopment areas next to the Site:

- SNK Andante Redevelopment Area, Alameda County Toxics Case No RO0002530;
- Oak Walk Redevelopment Area, Alameda County Toxics Case No RO0002733.

Locations of the fuel leak cases and the redevelopment areas are identified on Figure 2.

Investigations conducted through the fuel leak cases and the redevelopment activities have characterized a regional shallow groundwater plume. Constituents of concern included gasoline (TPH-g); diesel (TPH-d); paint thinner (mineral spirits); and benzene, toluene, ethylbenzene, and xylenes (BTEX). Shallow groundwater exists in the area 5 to 10 feet below ground surface (bgs) and flows in a generally east to west direction.

## 3. EXISTING SITE ENVIRONMENTAL CONDITIONS

The initial size of the parcel was only approximately 1,400 ft<sup>2</sup>, which was formed in 1995 during the 40<sup>th</sup> Street extension construction between San Pablo Avenue and Adeline Street. It occupies the northwest corner of the 40<sup>th</sup> Street and Adeline Street, as shown on Figure 3. A small restroom was later constructed on the parcel for use by AC Transit bus drivers only. The parcel was originally part of the former San Francisco French Bread Company site, a portion of which was converted to 40<sup>th</sup> Street right-of-way and the remaining became part of the Oak Walk Redevelopment site.

When Bay Rock Residential LLC (Bay Rock) proposed the Oak Walk redevelopment concept to the City, it agreed to donate additional 1,600 ft<sup>2</sup> of land next to the parcel to create a 3,000-

ft<sup>2</sup> combined parcel (the Site), which is large enough to allow the relocation of the residential building at 1077 41<sup>st</sup> Street to the Site. Bay Rock also agreed to treat the Site as part of the Oak Walk Redevelopment Area for environmental investigation and remediation purposes. Tables 1 through 4 present soil, groundwater, and soil gas investigation data generated within and near the Site by the San Joaquin Company, Inc. (SJC, on behalf of Bay Rock) and by URS Corporation (URS, on behalf of the City of Emeryville). The SJC investigation results were presented in reports of *Environmental Site Characterization, Oak Walk Redevelopment Site* (SJC, April 2005) and *Remediation Report, Oak Walk Redevelopment Site* (SJC, July 2009), and the URS results were published in *House Relocation Phase II – Soil and Soil Gas Sample Report* (URS, May 17, 2006).

It is important to note that the data summarized in Tables 1 through 4 were collected before any remediation was conducted under the Oak Walk redevelopment project, except Sample SG-10 (in Tables 1 and 4), which is a post-remediation sample collected by SJC on September 24, 2007. As documented in the *Remediation Report, Oak Walk Redevelopment Site* (SJC, July 2009), extensive soil and groundwater remediation was performed within the Oak Walk redevelopment area in 2007. SJC provided a certification letter (Appendix B) for soil remediation work conducted on the Site, which included excavation to a depth of six feet bgs, aeration of the excavated soil, and recompaction of the aerated soil to a 90% relative density. Post-remediation concentrations of volatile organic constituents, such as TPH-g, mineral spirits, and BTEX, in the top six-foot shallow soil should be lower than those presented in Table 1 (pre-remediation data).

### **3.1 Organic Compounds and Metals in Soil**

Soil organic data is summarized in Table 1, along with Environmental Screening Levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (RWQCB, May 2008 Interim Final Edition). Concentrations of reported organic constituents were all below their respective residential ESLs for shallow soils (less than 10 feet bgs). One deep soil sample collected from 20 feet bgs (Sample ID BE-3-20.0) reported a TPH-g of 1,600 mg/kg and a mineral spirits of 190 mg/kg, both of which exceeded the ESL of 180 mg/kg. However, this 180 mg/kg ESL for TPH-g and mineral spirits is based on aquatic habitats protection. For direct human exposure the ESL is 4,200 mg/kg (Table D-1 of the ESL Document). Thus, the reported levels of soil organic constituents do not appear to be of human health concern. Also, shallow groundwater level beneath the Site varies between five and ten feet bgs. The 20-ft-bgs soil sample is within the shallow groundwater zone and should be considered as part of the groundwater issue as discussed in Section 3.2. Vapor inhalation exposure is address in Section 3.3.

Soil metal data is presented in Table 2. Levels of arsenic, lead, and vanadium in surface soil exceeded their respective residential shallow soil ESLs. However, the exceedance does not appear to be extraordinary, especially with respect to arsenic concentration, which is within the arsenic background concentration range as reported by Lawrence Berkeley National Laboratory (June 2002) for the San Francisco Bay Area soil. Also, since the top six-foot soil was excavated, mixed, and recompacted after the October 2005 sampling, the current shallow soil

metal concentration could be significantly different from those presented in Table 2. For this reason a verification soil sampling plan is proposed in Section 4.

### 3.2 Groundwater Contaminants

As discussed in Section 2, groundwater contamination by petroleum hydrocarbons is a regional issue in the area and several leaking underground storage tank cases contributed to the regional contamination. No groundwater monitoring well exists on this small parcel, but two Oak Walk monitoring wells (MW-3 and MW-4) are located on 40<sup>th</sup> Street and a Dunne Quality Paints site well (OB-6) is located on Adeline Street. Well locations are identified on Figure 3. These three monitoring wells provide sufficient coverage for the Site. MWT-3 was a temporary well and was destroyed during the Oak Walk site construction. Many more monitoring wells exist within 500 feet of the Site. Groundwater data is summarized in Table 3. It is understood that a coordinated regional groundwater monitoring will start soon, which will include wells installed by Oak Walk site, Former Celis Service Station site, Dunne Quality Paints site, and Oakland National Engravers site.

Alameda County Environmental Health (ACEH) has approved residential redevelopment in the Site vicinity provided a deed restriction is filed with the County prohibiting groundwater usage. The Agency intends to file a deed restriction for the Site similar to the deed restriction filed by the Oak Walk Redevelopment site. Since activities on the Site did not contribute to the groundwater contamination from the date of this small parcel was created in 1995 and since parties responsible for the regional groundwater contamination have been actively conducting investigation and source removal, the Agency does not plan to conduct a separate groundwater investigation for this small parcel.

### 3.3 Volatile Organic Compounds in Soil Gas

Anticipating the relocation of a residential house to the Site, the Agency retained URS to conduct a soil gas investigation in October 2005 (URS, May 17, 2006). The soil gas data is summarized in Table 4. The Oak Walk site also conducted a post-remediation soil gas survey (SJC, July 2009). Sampling locations and results are included in Appendix C. SG-10 is the only sample located within 100 feet of the Site and whose result is also included in Table 4.

For the soil gas samples collected from the six on-site locations on October 17, 2005, all individual volatile organic compounds (VOCs) had concentrations below their respective ESLs for residential soil gas. TPH-g is the only constituent that marginally exceeded its soil gas ESL of 10,000 ug/ m<sup>3</sup> in OTG-SG-3 (12,000 ug/ m<sup>3</sup>) and in OTG-SG-4 (11,000 ug/ m<sup>3</sup>), but below its ESL in the other four soil gas samples. The average TPH-g concentration of the six samples is 7,050 ug/ m<sup>3</sup>. Such minor exceedance from two out of six samples does not indicate unacceptable human health risk for the following reasons:

- First, the TPH-g soil gas ESL of 10,000 ug/m<sup>3</sup> is calculated based on residential indoor air ESL of 10 ug/m<sup>3</sup> and an attenuation factor (AF) of 0.001 from soil gas to indoor air, i.e. soil gas ESL =indoor air ESL / AF. The AF is derived from the US EPA



spreadsheet version of the Johnson & Ettinger model that assumes that the residential house is constructed directly on a high permeability sandy soil having a hydraulic conductivity of  $7.4 \times 10^{-3}$  cm/sec. The highest measured hydraulic conductivity of the recompacted silty clay soil on the Site was  $7.82 \times 10^{-8}$  cm/sec, as reported by SJC in the *Remediation Report* (July 2009). A recalculation of the ESL using the site hydraulic conductivity data would yield a site-specific residential soil gas ESL of over 100,000 ug/m<sup>3</sup> for TPH-g.

- Second, the TPH-g ESL was conservatively calculated based on a Hazard Quotient (HQ) of 0.2. In a site-specific risk assessment, the cumulative HQ would be set to one. Since all detected individual VOCs had concentrations far below their respective ESLs (Table 4), their contribution to the cumulative HQ would be insignificant, and the site-specific, acceptable TPH-g soil gas concentration would be much higher than 10,000 ug/ m<sup>3</sup>.

The off-site soil gas sample SG-10 reported a benzene concentration of 840 ug/m<sup>3</sup>, which exceeds its residential soil gas ESL of 84 ug/m<sup>3</sup>. As explained by SJC in the *Remediation Report* (July 2009), this exceedance was due to the conservative assumption of the ESL that the residential house is constructed on a high permeability sandy soil having a hydraulic conductivity of  $7.4 \times 10^{-3}$  cm/sec. Using a hydraulic conductivity of  $5.5 \times 10^{-6}$  cm/sec for silty clay soil, SJC recalculated the residential soil gas ESL for benzene to be 4,200 ug/m<sup>3</sup>. The highest measured hydraulic conductivity of the silty clay engineered fill from which soil gas sample SG-10 was recovered was  $7.82 \times 10^{-8}$  cm/sec. Using this site-specific hydraulic conductivity, the calculated acceptable soil gas benzene concentration would be even higher. SJC concluded that there are no significant risks due to the presence of components of petroleum hydrocarbons in soil gas beneath the Oak Walk site.

### 3.4 Conclusions

Based on the above discussions of the existing site environmental conditions, it is concluded that:

- Concentrations of organic constituents in shallow soil (less than 10 feet bgs) are below their respective residential ESLs and thus should not be of human health concern for the proposed residential housing development.
- Available data for heavy metals in shallow soil was collected prior to remediation, which included excavation of top six feet soil, mixing/aeration, and recompaction. Therefore, on-site shallow soil will be re-sampled for heavy metal analysis. Details are presented in Section 4.
- As shallow groundwater elevation beneath the Site varies seasonally between 5 and 10 feet bgs, saturated soil from 10 feet bgs and deeper should be considered as part of groundwater issue. There is a regional petroleum hydrocarbons plume in the area contributed by multiple sources, but this Site is not one of the contributors. ACEH has

approved residential redevelopment in the Site vicinity provided a deed restriction is filed with the Alameda County prohibiting groundwater use. A deed restriction similar to the one filed by the Oak Walk Redevelopment site will be filed for this Site. Thus, groundwater contamination should not be an issue to the site residential development.

- Even though two of the six soil gas samples collected on the Site had TPH-g concentration marginally exceeded its residential soil gas ESL (11,000 and 12,000 ug/ m<sup>3</sup> detected versus the ESL of 10,000 ug/ m<sup>3</sup>), it should not be of human health concern because the site soil is the type of silty clay, which is much less permeable than the sandy soil assumed in the ESL calculation. It is unnecessary to install a 60-mil-thickness Liquid-Boot® membrane beneath the floor concrete slab of the residential building as originally proposed by SJC (Appendix B) and it will not be installed. The building foundation will not be the type of slab-on-grade, but will be continuous perimeter and interior footings with grade beams and having crawl space.

Therefore, pending the verification sampling results for shallow soil heavy metals, the existing site environmental condition should be acceptable for the proposed residential housing development after a proper deed restriction is filed with the Alameda County.

#### **4. SHALLOW SOIL SAMPLING AND REMEDIATION PLAN**

This proposed shallow soil verification sampling plan for heavy metals is designed to meet the Site development requirement. As shown on Figure 4, most of the Site is either under the building or covered by concrete/decomposed granite. Only the northeastern area will have exposed soil for vegetation. Once the area is covered by building or paved over, residents will not be exposed to the shallow soil. Therefore, only the vegetation area (landscape/softscape area on Figure 4) will be of human health concern. Three sampling locations are proposed and their locations are identified on Figure 4. Two soil samples will be collected at each location using a hand auger, one from 0 to 6 inches bgs and the second from 2.5 to 3.0 feet bgs. All six soil samples will be analyzed for California Title 22 metals (CAM 17 metals).

Soil remediation will be conducted depending on the soil analytical results:

- The site will be developed and no remediation will be conducted if none of the 17 metals have concentrations exceeding their respective background concentrations or shallow soil residential ESLs in any of the six soil samples.
- If any one of the 17 metals has concentrations that exceed its background concentration and shallow soil residential ESL in the 0-6" samples, but not in the 2.5'-3.0' samples, the entire planned vegetation area will be excavated from surface to two feet bgs, or to the depth determined safe to the existing Magnolia tree as explained below. The excavation will be filled with commercially available garden soil. The excavated soil will be transported to a landfill for disposal.

- If one or more of the 17 metals has concentrations that exceed its background concentration and shallow soil residential ESL in the 0-6" samples and/or the 2.5'-3.0' samples, the entire planned vegetation area will be excavated from surface to three feet bgs, or to the depth determined safe to the existing Magnolia tree as explained below. The excavation will be filled with commercially available garden soil. The excavated soil will be transported to a landfill for disposal.

A mature Magnolia tree exists in the planned vegetation area. This Magnolia tree is the central focal point to the site landscaping and must be protected. Any soil excavation will be conducted under the supervision of the City of Emeryville's arborist and to the extent deemed safe to the Magnolia tree.

## 5. REFERENCES

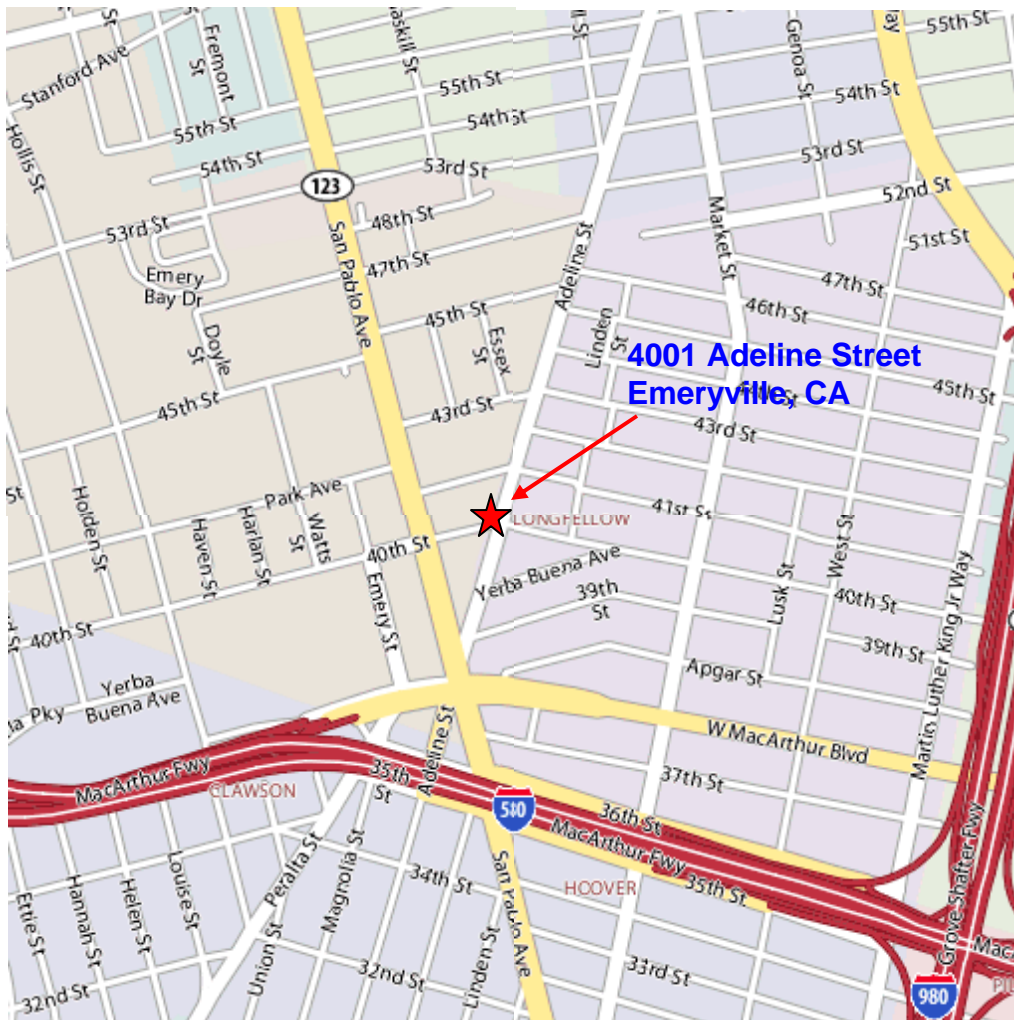
California Regional Water Quality Control Board – San Francisco Bay Region, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final, May 2008.

Lawrence Berkeley National Laboratory, *Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory*, Environmental Restoration Program, June 2005.

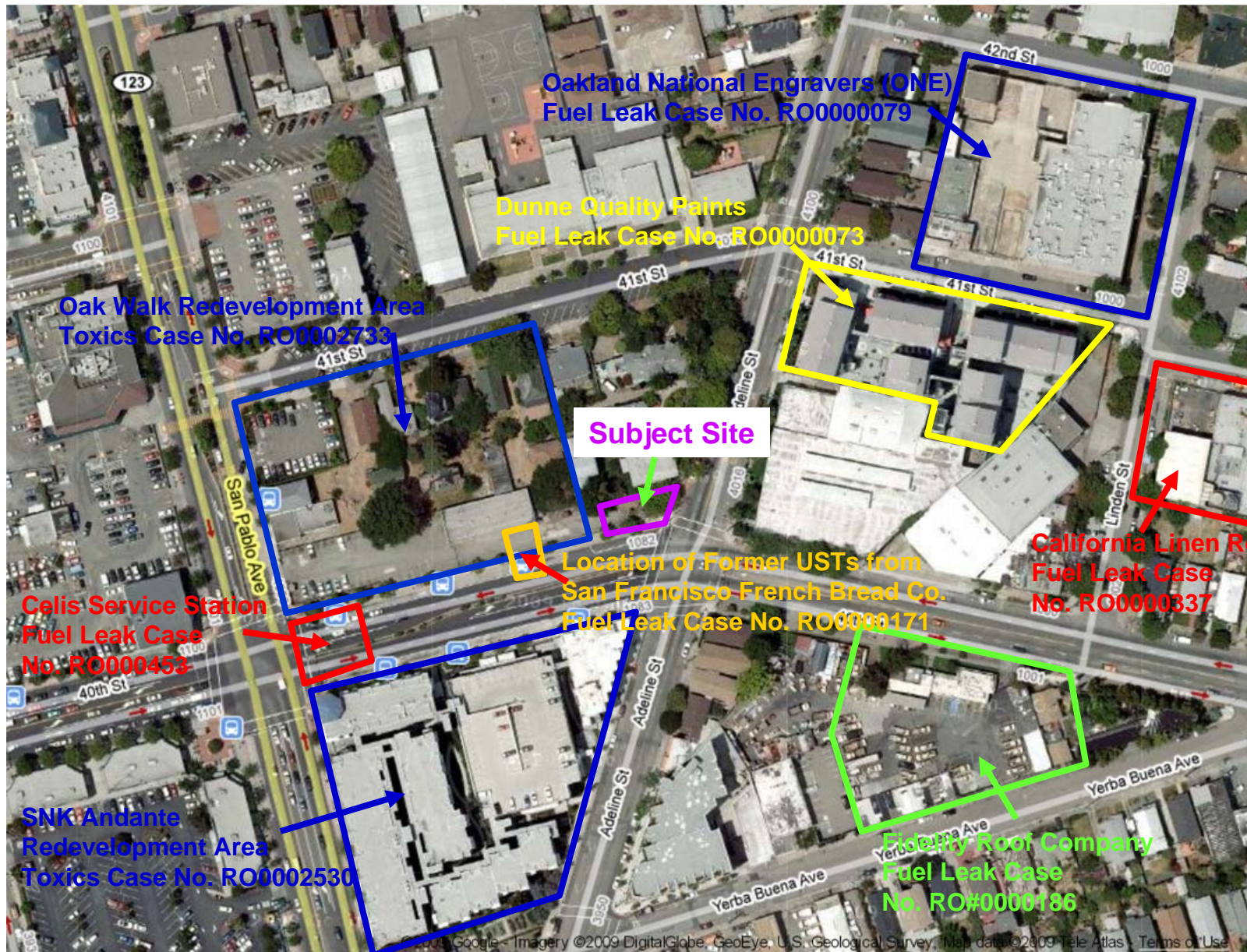
The San Joaquin Company, Inc., *Remediation Report, Oak Walk Redevelopment Site, Emeryville, CA*, July 2009.

The San Joaquin Company, Inc., *Environmental Site Characterization, Oak Walk Redevelopment Site, Emeryville, CA*, April 2005.

URS Corporation, *House Relocation, Phase II, Emeryville, CA – Soil and Soil Gas Sample Report*, May 17, 2006.







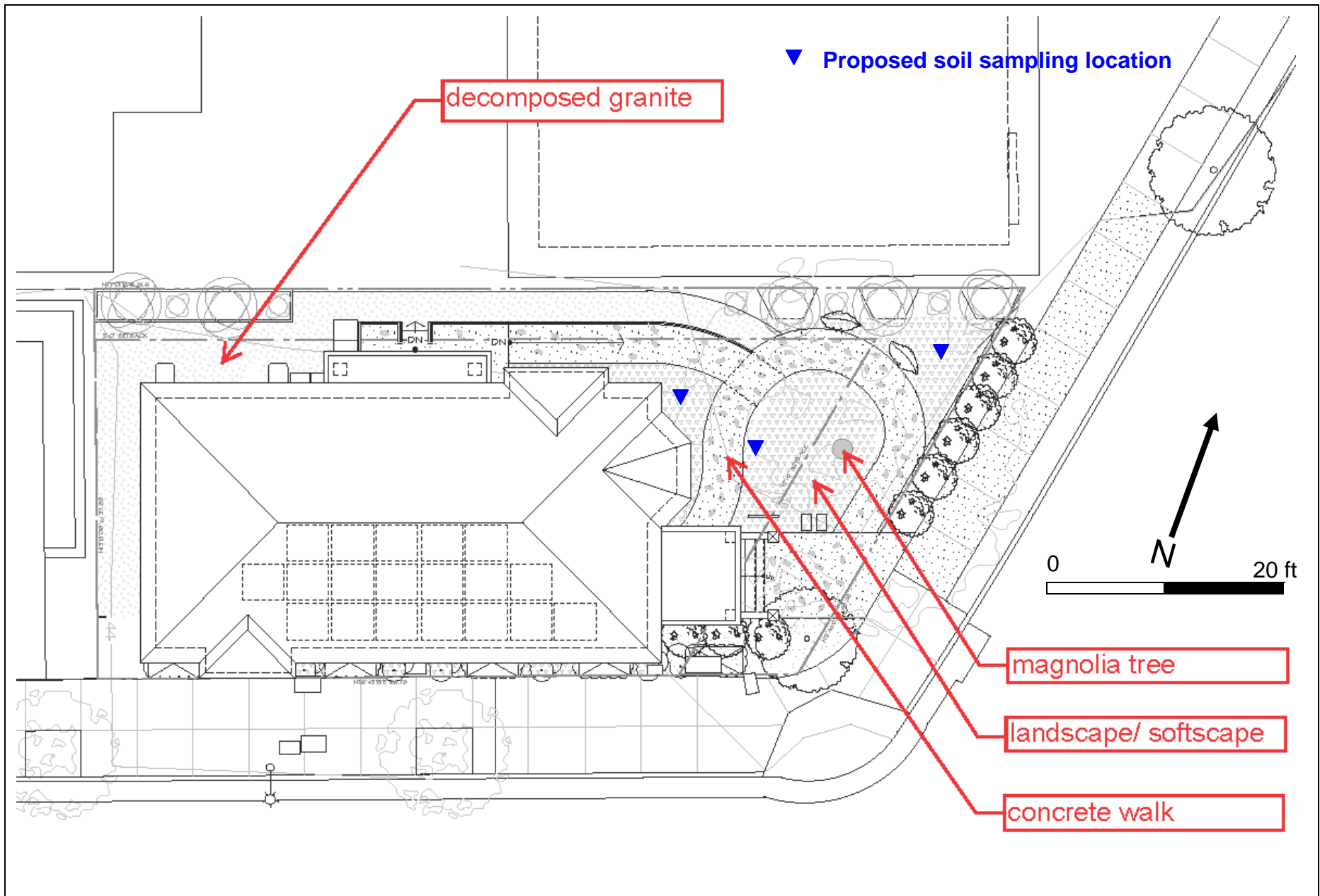
Google Imagery ©2009 DigitalGlobe, GeoEye, U.S. Geological Survey, TerraStar, 2009 Tele Atlas, Terms of Use

	<p>09EMV03.1000 June 22, 2009</p>	<p><b>Figure 2.</b> Identification of Active Cases Surrounding the Subject Site Magnolia Terrace at 4001 Adeline Street, Emeryville, California</p>
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	09EMV03.1000 May 21, 2009	<p><b>Figure 3.</b> Site Plan with Identification of Sampling Locations          4001 Adeline Street, Emeryville, California (Parcel APN 049-1025-26-03)</p>
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**Figure 4.** Proposed New Soil Sampling Locations



Table 1 - Relevant Soil Investigation Data - Organic Chemicals  
4001 Adeline St, Emeryville, CA

Sample ID	Date sampled	Depth (bgs)	Location	Petroleum Hydrocarbons				Volatile organic compounds by EPA method 8260B								EPA8270C
				TPH-g (gasoline)	Mineral Spirits	TPH-d (diesel)	Mineral Oil	Benzene	Toluene	Ehtyl benzene	Total xylenes	MTBE	Acetone	tert-Bu-tylbenzene	All other VOCs by 8260B	All PNAs
		ft.		mg/Kg	mg/Kg	mg/Kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
ESL *	May-08	<10	Table B	100	100	100	100	0.12	9.3	2.3	11	8.4	0.5			
ESL *	May-08	>10	Table D	180 (note 1)	180 (note 1)	180 (note 1)	180 (note 1)	2	9.3	4.7	11	8.4	0.5			
ESL (human direct exposure)*	May-08	>10	Table D-1	4200	4200	4200	4200	12	650	210	420	2800	100000			
Boring by the San Joaquin Company (SJC) (note 2)																
SJ-10-5.0	9/24/2007	5.0	off-site	n/a	4.8	33	n/a	0.021	ND	0.041	0.096	ND	0.082	ND		n/a
Borings by URS Corporation (note 3)																
OTG-SB-1-1	10/19/2005	0 - 0.5	on-site	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND (0.01)
OTG-SB-1-5	10/19/2005	5 - 5.5	on-site	ND (0.12)	ND (0.12)	ND (2.0)	ND (2.0)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	n/a	ND (0.01)	ND (0.01)	n/a
OTG-SB-2-1	10/19/2005	0 - 0.5	on-site	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND (0.005)
OTG-SB-2-5	10/19/2005	5 - 5.5	on-site	ND (0.1)	ND (0.1)	ND (20)	ND (20)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	n/a	ND (0.01)	ND (0.01)	n/a
OTG-SB-3-1	10/19/2005	0 - 0.5	on-site	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND (0.01)
OTG-SB-3-5	10/19/2005	5 - 5.5	on-site	ND (0.1)	ND (0.1)	ND (2.0)	ND (2.0)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	n/a	ND (0.01)	ND (0.01)	n/a
OTG-SB-4-1 **	10/19/2005	0 - 0.5	on-site	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND (0.01)
OTG-SB-4-5 **	10/19/2005	5.5 - 6.0	on-site	ND (0.1)	ND (0.1)	ND (20)	ND (20)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	n/a	ND (0.01)	ND (0.01)	n/a
Exploratory Treches by SJC (note 4)																
T3-8.0	12/03/2003	8	off-site	6.4	n/a	4.3	n/a	ND	ND	ND	ND	n/a	n/a	n/a	n/a	n/a
T3-9.5	12/03/2003	9.5	off-site	ND	n/a	ND	n/a	ND	ND	ND	ND	ND	n/a	n/a	n/a	n/a
T4-10.5	12/03/2003	10.5	on-site	ND	n/a	ND	n/a	ND	ND	ND	ND	ND	n/a	ND	ND	ND
Borings and wells by SJC (note 4)																
BE-3-5.0	04/02/2004	5.0	on-site	ND	ND	1.1	n/a	ND	ND	ND	ND	ND	0.11	ND	ND	ND
BE-3-10.0	04/02/2004	10.0	on-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	0.025	ND	ND	ND
BE-3-15.0	04/02/2004	15.0	on-site	ND	ND	1.3	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
BE-3-20.0	04/02/2004	20.0	on-site	1600	190	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWT-3-5.0	04/02/2004	5.0	off-site	ND	ND	1.2	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWT-3-10.0	04/02/2004	10.0	off-site	7.0	ND	7.5	n/a	ND	ND	ND	ND	ND	ND	0.026	ND	ND
MWT-3-15.0	04/02/2004	15.0	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWT-3-20.0	04/02/2004	20.0	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-5.5	4/30/2004	5.5	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-10.5	4/30/2004	10.5	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-15.5	4/30/2004	15.5	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4-19.5	4/30/2004	19.5	off-site	ND	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND: not detected at or above laboratory reporting limit; n/a: not analyzed.																
** OTG-SB-4-1 is a field duplicate of OTG-SB-1-1 and OTG-SB-4-5 is a field duplicate of OTG-SB-2-5.																
* ESL = Environmental Screening Level by RWQCB (May 2008 Interim Final) for residential land use and groundwater is not a current or potential source of drinking water																
Note 1 - the ESLs are based on aquatic habitats protection as non-drinking water resource																
Note 2 - from Remediation Report, Oak Walk Redevelopment Site by SJC, July 2009.																
Note 3 - from House Relocation, Phase II, Emeryville, California, Soil and Soil Gas Sample Report by URS Corporation, May 17, 2006.																
Note 4 - from Environmental Site Characterization, Oak Walk Redevelopment Site by SJC, April 2005.																

Table 2. Relevant Soil Investigation Data - Metals  
4001 Adeline St., Emeryville, CA

		ESLs (Table B)	ESLs(Table B-1)	OTG-SB-1-1	OTG-SB-2-1	OTG-SB-3-1	OTG-SB-4-1	BE-3-19.5
Metals	Unit	residential shallow soil	human direct exposure residential shallow soil	(0"-6" bgs) 10/19/2005	(0"-6" bgs) 10/19/2005	(0"-6" bgs) 10/19/2005	(0"-6" bgs) 10/19/2005	19.5 ft bgs 4/2/2004
Antimony	mg/kg	6.3	6.3	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND
<b>Arsenic</b>	<b>mg/kg</b>	<b>0.39</b>	<b>0.39</b>	<b>8.4</b>	<b>4.6</b>	<b>26</b>	<b>12</b>	<b>2.1</b>
Barium	mg/kg	750 (note 1)	3000	140	140	120	270	150
Beryllium	mg/kg	4 (note 1)	31	ND (2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND
Cadmium	mg/kg	<b>1.7</b>	<b>1.7</b>	1.2	ND(1.0)	<b>2.5</b>	1.5	ND
Chromium, total	mg/kg			58	38	37	35	
Chromium III	mg/kg	750 (note 1)	23000					30
Chromium VI	mg/kg	8 (note 1)	9.4					n/a
Cobalt	mg/kg	41 (note 1)	280	8.3	9.4	11	9.4	6.9
Copper	mg/kg	230 (note 1)	6300	30	15	56	40	19
<b>Lead</b>	<b>mg/kg</b>	<b>200 (note 1)</b>	<b>260</b>	<b>220</b>	15	<b>340</b>	<b>320</b>	5.4
Mercury	mg/kg	1.3	1.3	0.37	0.12	0.27	0.45	ND
Molybdenum	mg/kg	40 (note 1)	78	ND (5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND
Nickel	mg/kg	150 (note 1)	300	33	40	36	31	26
Selenium	mg/kg	10 (note 1)	78	ND (1.0)	ND(1.0)	1.2	ND(1.0)	ND
Silver	mg/kg	20 (note 1)	78	ND (1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND
Thallium	mg/kg	1.3	1.3	ND (5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND
Vanadium	mg/kg	<b>16</b>	<b>16</b>	<b>30</b>	<b>38</b>	<b>37</b>	<b>39</b>	25
Zinc	mg/kg	600 (note 1)	4700	240	43	280	300	32
Source of Data				URS (5/17/06)	URS (5/17/06)	URS (5/17/06)	URS (5/17/06)	SJC (4/05)
OTG-SB-4-1 is a field duplicate of OTG-SB-1-1								
ESL = Environmental Screening Level by RWQCB (May 2008 Interim Final).								
Note 1 - the ESL is based on urban area ecotoxicity criteria.								

Table 3 - Relevant Groundwater Investigation Data - Organic Constituents  
4001 Adeline Street, Emeryville, CA

Sample ID	Date sampled	Petroleum Hydrocarbons			Volatile organic compounds by EPA method 8260B														PNAs by 8270		
		TPH-g (gasoline)	Mineral Spirits	TPH-d (diesel)	Benzene	Toluene	Ehtyl benzene	Total xylenes	MTBE	Acetone	n-Butyl benzene	sec-Butyl benzene	tert-Butyl benzene	p-isopropyl benzene	n-propyl benzene	1,2,4-Tri-methyl benzene	1,3,5-Tri-methyl benzene	PCE	TCE	Napthalene	All other PNAs
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
ESL *	May-08	210	210	210	46	130	43	100	1800	1500								120	36	24	
Water Samples Collected from Exploratory Trench 3 by SJC																					
T3-W	12/3/03	6300	n/a	2300	ND	ND	31	30	ND	ND	100	47	ND	23	230	320	110	ND	ND	12	n/a
Groundwater Samples from Wells Installed by SJC																					
MW-3	5/19/04	1300	420	ND	ND	ND	ND	1.1	5.8	ND	14	ND	ND	ND	ND	ND	12	ND	ND	ND	ND
MW-4	5/19/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWT-3	5/19/04	1000	450	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND
Groundwater Samples from Wells Installed by Clayton																					
OB-6	6/27/03	n/a	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	15	n/a	n/a
ESL = Environmental Screening Level by RWQCB (May 2008 Interim Final) for groundwater is not a current or potential source of drinking water.																					

TABLE 4 - Relevant Soil Gas Investigation Data  
4001 Adeline St., Everyville, CA

			EPA TO-3 Detected Volatile Organic Compounds in Soil Gas Samples by EPA Method TO-15																								
Sample ID	Sample Location	Depth (bgs)	TPHg (gasoline)	1,3-Butadiene	Ethanol	Acetone	Carbon disulfide	Hexane	2-Butanone	Tetrahydrofuran	Chloroform	1,1,1-Trichloroethane	Cyclohexane	2,2,4-Trimethylpentane	Benzene	Heptane	Toluene	Ethyl Benzene	total xylenes	styrene	Cumene	4-Ethyl toluene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	1,2-Dichlorobenzene		
		ft.	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
Residential soil gas ESL *	Table E		10,000	NA	NA	6.6E+05	NA	NA	NA	NA	460	4.6E+05	NA	NA	84	NA	6.3E+04	980	2.1E+04	1.9E+05	NA	NA	NA	2.2E+04	4.2E+04		
Soil Gas Samples Collected by SJC from Oak Walk Redevelopment Area on 9/24/2007																											
SG-10	Off-site	5.0	n/a	ND	ND	430	ND	ND	90	ND	ND	ND	ND	ND	840	ND	33	370	620								
Soil Gas Samples Collected by URS on 10/17/2005																											
OTG-SG-1	On-site	5.0	4,300	ND(1.7)	27	150	7.1	6.4	32	7.5	ND(3.8)	ND(4.3)	3.3	3.8	7.4	8.5	18	7.6	41	3.9	ND(3.9)	11	10	ND(4.8)	ND(4.7)		
OTG-SG-1 Lab Dupli	On-site	5.0	n/a	ND(1.7)	26	150	6.6	6.6	31	6	ND(3.8)	ND(4.3)	2.9	4.2	7.2	6.6	17	8.0	41	ND(3.4)	ND(3.9)	10	10	ND(4.8)	ND(4.7)		
OTG-SG-2	On-site	5.0	7,700	5.1	16	240	6.5	9.2	41	5.3	ND(3.8)	ND(4.3)	3.6	ND(3.7)	8.1	8.5	38	80	404	ND(3.4)	4.2	10	8.1	ND(4.8)	ND(4.7)		
OTG-SG-3	On-site	5.0	12,000	ND(1.8)	6.7	64	2.6	650	7.4	5	6.4	ND(4.6)	6.1	ND(3.9)	ND(2.7)	5.4	28	12	64	ND(3.6)	ND(4.1)	8.8	9.2	ND(5.0)	ND(5.0)		
OTG-SG-4	On-site	5.0	11,000	ND(1.8)	58	170	7.1	24	37	6.4	ND(3.9)	ND(4.4)	ND(2.8)	7	13	17	44	79	416	8.6	ND	12	12	7.2	7.8		
OTG-SG-5	On-site	5.0	2,800	ND(1.8)	14	46	ND(2.5)	6.5	4.2	3.8	ND(3.9)	ND(4.4)	ND(2.8)	ND(3.8)	ND(2.6)	ND(3.3)	11	6.0	30	ND(3.4)	ND(4.0)	5.4	5.9	ND(4.8)	ND(4.8)		
OTG-SG-6	On-site	5.0	4,500	ND(1.8)	26	62	ND(2.6)	4.1	6.7	4.4	20	6.1	ND(2.9)	ND(3.9)	ND(2.7)	ND(3.4)	8.4	5	32	ND(3.6)	6	7.6	8.2	ND(5.0)	ND(5.0)		
OTG-SG-7 **	On-site	5.0	2,900	ND(1.6)	33	70	ND(2.2)	2.5	8.7	3.5	ND(3.4)	ND(3.8)	ND(2.4)	ND(3.3)	ND(2.2)	ND(2.9)	10	16	103	ND(3.0)	ND(3.5)	6.4	6.0	5.0	ND(4.2)		
OTG-SG-7 Lab Dupli	On-site	5.0	2,900	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

\* ESL = Environmental Screening Level by RWQCB (Interim Final, May 2008) for residential land use.

\*\* OTG-SG-7 is a field duplicate of OTG-SG-4

## **APPENDIX A**

### **Magnolia Terrace Development Schedule**

<b>Action</b>	<b>Initiation/Application Date</b>	<b>Approval/Completion Date</b>
Execute Exclusive Right to Negotiate	July 2008	November 21, 2008
Obtain HCD Predevelopment Loan	December 4, 2008 submittal	March 3, 2009 funding
Preliminary design concept	December 1, 2008	January 12, 2009
Complete required survey	January 6, 2009	January 23, 2009
Select General Contractor	January 6, 2009	February 6, 2009
Prepare and submit application for CUP amendment	January 15, 2009	February 20, 2009 submittal
General contractor preliminary cost estimate	March 2, 2009	March 27, 2009
Review and Approval of application for CUP amendment	February 23, 2009	April 23, 2009 Planning Commission approval
Obtain commitment of Project Based Section 8	February 2009	May 2009
Complete required seismic, environmental, and soils investigations	December 3, 2008	March 2009
Obtain CEQA/NEPA clearance	January 2009	May 2009
Obtain County HOME/CDBG Funding Commitment	March 2009 application submittal	May 2009 commitment
Obtain LIIF construction loan commitment	March 2009 application submittal	May 2009 commitment
Obtain private lender commitment for permanent financing	March 2009 application	May 2009 commitment
Obtain California MHP Supportive Housing loan commitment	May 2009 application submittal	June 2009 commitment
Prepare schematic through construction plans and specifications	May 2009	August 2009
Community Workshop	June 2009	June 2009
Obtain building permit	August 2009	October 2009
Obtain Emeryville RDA Disposition & Development Agreement		September 2009
Close construction financing: LIIF, County HOME, City RDA		October 2009
Close escrow on site acquisition		October 2009
Construction Period	October 2009	August 2010
Select residents and complete occupancy	June 2010	September 2010
Close permanent financing: private lender and MHP	August 2010	September 2010

## **APPENDIX B**

Certification of Soil Remediation Completion  
by The San Joaquin Company, Inc.

THE SAN JOAQUIN COMPANY INC.  
1120 HOLLYWOOD AVENUE, SUITE 3, OAKLAND, CALIFORNIA 94602

BayRock Oaks, LLC  
300 Clay Street  
Suite 620  
Oakland, CA 94612-1427

November 26, 2007

Attn.: Mr. Noe Valenzuela

Our Reference: 0004.085

**Subject:** Oak Walk Redevelopment Project, Emeryville, California: Site Remediation - Residential Structure at 4001 Adeline Street.

Dear Mr. Valenzuela

As the Professional Engineer in responsible charge of the environmental corrective action program for the Oak Walk Redevelopment Project in Emeryville, California, I hereby certify that:

Active remediation, which included excavation of soil to a depth of six feet beneath the ground surface and reworking of that material so that it was compacted to 90% relative density and a very low permeability has been completed at the site of the residential building at 4001 Adeline Street. That relative compaction is as specified by American Society of Testing and Materials (ASTM) *Standard D1557-02e1 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort* (56,000 ft-lbf/ft<sup>3</sup> [2,700 kN-m/m<sup>3</sup>]). The relative compaction of the soil was confirmed by field testing with a nuclear soil density gauge in compliance with *ASTM D6938-07b - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)*.

Environmental regulation and oversight of the corrective action program for the Oak Walk Redevelopment Site (**Oak Walk Site**) is the responsibility of Alameda County Environmental Health Care Services, which agency is overseeing the Oak Walk Site as a single site under regulation. That regulatory oversight includes, without separation, the site of the residential structure at 4001 Adeline Street.

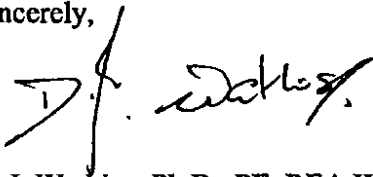
The active remediation of soil beneath the site of the structure at 4001 Adeline Street is an element of the corrective action program which is defined in The San Joaquin Company Inc's *Corrective Action Plan - Oak Walk Redevelopment Site, Emeryville California (Corrective Action Plan)* that was issued in July 2006 and approved by Alameda County Environmental Health Care Services. That Plan requires, *inter alia*, placement of a 60 mil. thickness of Liquid Boot® impermeable vapor-proof membrane



beneath the floor slab of the structure at 4001 Adeline Street. That membrane must be installed immediately prior to pouring of the floor slab.

Subject to the approval of the California Regional Water Quality Control Board – San Francisco Bay Region, Alameda County Environmental Health Care Services is expected to “close” the Oak Walk Site as a site where the subsurface has been affected by unauthorized releases of petroleum hydrocarbons, which releases, in minor degree, occurred at one on-site location and dominantly by releases that occurred at off-site locations, when the complete program of corrective action specified in the Corrective Action Plan has been completed. Occupation of the residential and commercial buildings on the Oak Walk Site will occur prior to initiation of a one-year duration post-construction groundwater-quality monitoring program. I currently expect that groundwater-quality monitoring program to be completed in early 2010.

Sincerely,



D. J. Watkins, Ph.D., PE, REA II  
Geotechnical Engineer  
The San Joaquin Company, Inc



**THE SAN JOAQUIN COMPANY INC.**  
1120 HOLLYWOOD AVENUE, SUITE 3, OAKLAND, CALIFORNIA 94602

BayRock Oaks, LLC  
300 Clay Street  
Suite 620  
Oakland, CA 94612-1427

November 02, 2007

Attn.: Mr. Noe Valenzuela

Our Reference: 0004.084

**Subject:** Oak Walk Redevelopment Project, Emeryville, California: Soil Compaction and Foundation Excavation Inspection - Residential Structure at 4001 Adeline Street - City of Emeryville Building Department Permit No. 0709-397 B

Dear Mr. Valenzuela

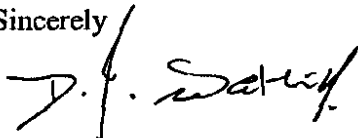
As the Geotechnical Engineer in responsible charge for the Oak Walk Redevelopment Project I hereby certify that:

The soil beneath the residential structure at 4001 Adeline Street, Emeryville, California has been compacted to a minimum of 90% relative compaction, as that relative compaction is defined by the American Society of Testing and Materials (ASTM) *Standard D1557-02e1 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort* (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)). That relative compaction is specified in the San Joaquin Company's, *Geotechnical Engineering Report - Oak Walk Project Site, Emeryville, California* that was issued in August 2004.

The relative compaction of the soil was confirmed by field testing with a nuclear soil density gauge in compliance with *ASTM D6938-07b - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)*.

On November 2, 2007, I inspected the excavations that have been opened for pouring the concrete hold-down elements of the aseismic shoring system designed for the subject structure. The excavations were in good condition and ready for concrete to be poured.

Sincerely



D. J. Watkins, Ph.D. PE  
Geotechnical Engineer  
The San Joaquin Company, Inc



## **APPENDIX C**

### **Post-Remediation Soil Gas Sampling at the Oak Walk Redevelopment Area**

TABLE I-13

## RESULTS OF SOIL GAS SURVEY AT OAK WALK REDEVELOPMENT SITE

**Soil**

Sample ID	Date Sampled	Depth BGS	Mineral Spirits	TPHd (diesel)	TPHg (gasoline)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acetone	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	1,2,4-Tri-methylbenzene	1,3,5-Tri-methylbenzene	Napthalene	
		ft.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
SG-1-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-2-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-3-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-4-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-5-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-6-5.0	10/29/07	5.0	ND	ND	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-7-5.0	09/24/07	5.0	ND	9.1	n/a	ND	ND	0.0065	0.019	ND	ND	ND	ND	ND	ND	0.005	ND	0.016	0.019	0.0049	ND	ND
SG-8-5.0	09/24/07	5.0	ND	10.0	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-9-5.0	09/24/07	5.0	ND	6.0	n/a	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-10-5.0	09/24/07	5.0	4.8	33.0	n/a	0.021	ND	0.041	0.096	ND	0.082	ND	0.018	0.019	ND	0.049	ND	0.190	0.099	0.022	0.014	ND

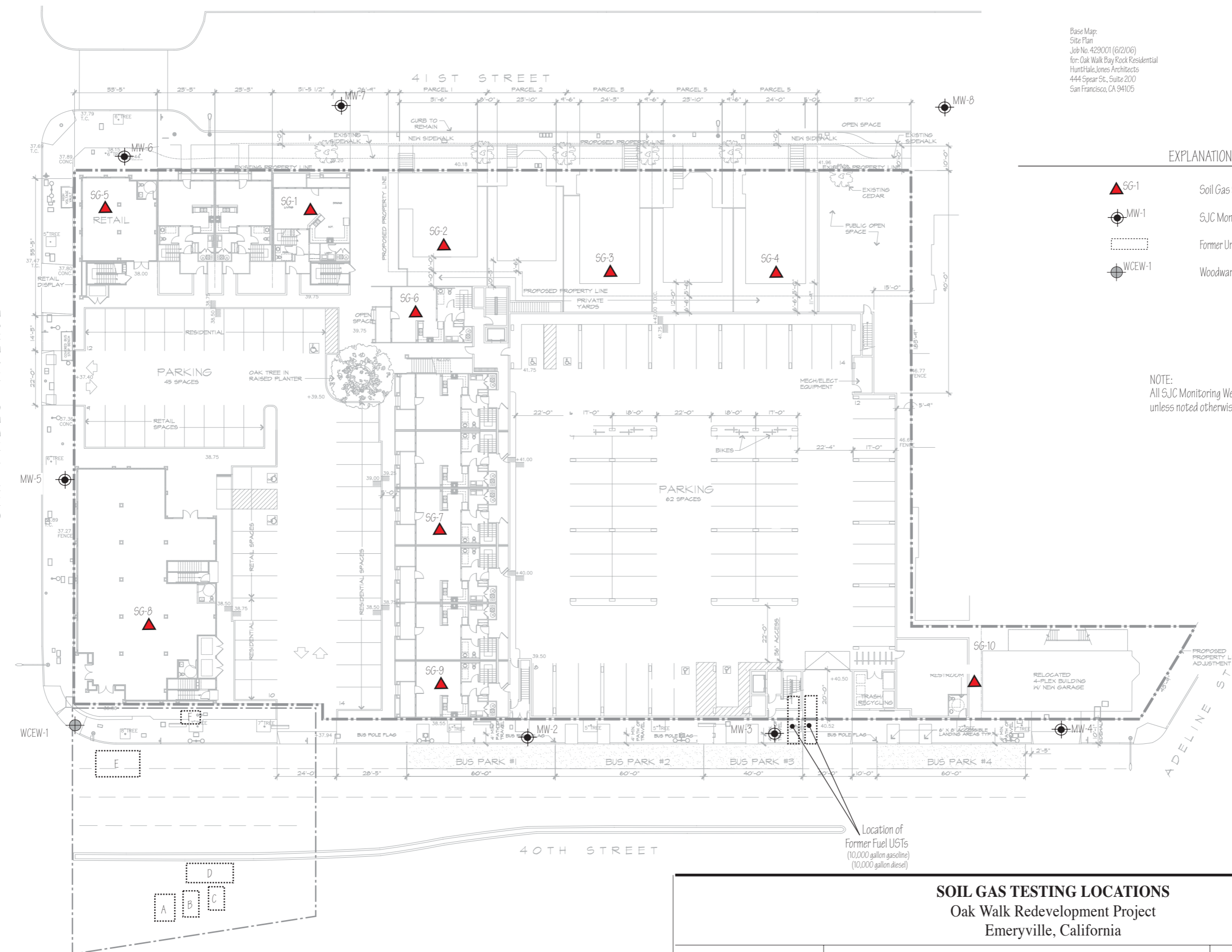
**Canisters**

Sample ID	Date Sampled	Depth BGS	Mineral Spirits	TPHd (diesel)	TPHg (gasoline)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acetone	2-Butanone	trichloro-fluoro-methane	1,2,4-Tri-methylbenzene	1,3,5-Tri-methylbenzene	Carbon disulfide	Methylene Chloride	4-ethyl-toluene	Other VOCs by 8260B GC/MS		
		ft.	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	
SG-1	10/29/07	5.0	n/a	n/a	n/a	ND	ND	ND	ND	ND	47	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-2	10/29/07	5.0	n/a	n/a	n/a	14	57	21	70	ND	120	ND	26	ND	ND	32	ND	ND	ND	ND	ND
SG-3	10/29/07	5.0	n/a	n/a	n/a	ND	ND	ND	ND	ND	94	ND	20	ND	ND	ND	ND	ND	ND	ND	ND
SG-4	10/29/07	5.0	n/a	n/a	n/a	ND	8.8	ND	ND	ND	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-5	10/29/07	5.0	n/a	n/a	n/a	13	75	35	140	ND	77	ND	ND	ND	ND	ND	ND	15	ND	ND	ND
SG-6	10/29/07	5.0	n/a	n/a	n/a	ND	ND	ND	ND	ND	93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-7	09/24/07	5.0	n/a	n/a	n/a	35	9.6	ND	ND	ND	220	58	ND	ND	ND	47	9.3	ND	ND	ND	ND
SG-8	09/24/07	5.0	n/a	n/a	n/a	29	9.0	ND	ND	ND	220	77	ND	ND	ND	ND	7.5	ND	ND	ND	ND
SG-9	09/24/07	5.0	n/a	n/a	n/a	72	16	29	48	ND	370	39	ND	ND	ND	ND	ND	ND	ND	ND	ND
SG-10	09/24/07	5.0	n/a	n/a	n/a	<b>840</b>	33	370	620	ND	430	90	ND	ND	ND	ND	ND	25	ND	ND	ND

**Notes:**

- (1) ND = Not Detected above the Method Detection Limit (MDL).
- (2) n/a = Not analyzed
- (3) Concentrations in **bold** script exceed the 2008 San Francisco Bay Area RWQCB's Environmental Screening Levels in shallow soils (<3m bgs) where groundwater is not a source of drinking water.

Base Map:  
 Site Plan  
 Job No. 429001 (6/2/06)  
 for: Oak Walk Bay Rock Residential  
 Hunt-Hale Jones Architects  
 444 Spear St., Suite 200  
 San Francisco, CA 94105



EXPLANATION

- SG-1 Soil Gas Sampling Location
- MW-1 SJC Monitoring Well
- Former Underground Storage Tank (removed)
- WCEW-1 Woodward-Clyde Extraction Well

NOTE:  
 All SJC Monitoring Wells (MW) are TD 20'  
 unless noted otherwise.

Former USTs  
 A = 4000gal. Unleaded Gas UST  
 B = 3500gal. Super Unleaded Gas UST  
 C = 2000gal. Unleaded Gas UST  
 D = 6000gal. Regular Gas UST  
 E = 7500gal. Diesel UST  
 F = 550gal. Waste Oil UST

**SOIL GAS TESTING LOCATIONS**  
 Oak Walk Redevelopment Project  
 Emeryville, California

FIG I-28

**The San Joaquin Company Inc.**

Project Number: 0004.084

Drawn by: GNM | Date: 06/21/06