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November 13, 2006

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Mr. Barney Chan Alameda County Health Care Services Environmental Health Services 1131 Harbour Bay Parkway, Suite 250 Alameda, CA 94502-6577

Soil Management Plan Addendum

3781-3799 Broadway, Oakland, California

SECOR PN: 05OT.50238 00

Dear Mr. Chan:

SECOR International Incorporated (SECOR), on behalf of Kaiser Foundation Health Plan, Inc. (Kaiser Permanente), is pleased to present the enclosed Soil Management Plan Addendum. This document has been prepared as an Addendum to the August 3, 2006, Soil Management Plan for 3701-3757 Broadway in Oakland, California. This addendum describes excavation and soil management practices proposed at the above-referenced site.

If you have any questions regarding the Plan or the project in general, please contact Mr. David Grede with Kaiser Permanente at (510) 987-3143 or the undersigned at (925) 299-9300.

Sincerely,

SECOR International Incorporated

Grea D. Hoehn

Principal Geologist

Enclosure

CC: Jay Asercion, Kaiser Permanente

David Grede, Kaiser Permanente Tim Havel, Kaiser Permanente Kim Kelley, Kaiser Permanente

Mark Herman, NBBJ Angeles Garcia, McCarthy

SECOR INTERNATIONAL INCORPORATED

SOIL MANAGEMENT PLAN ADDENDUM 3781 – 3799 Broadway Oakland, California

November 13, 2006 SECOR PN: 05OT.50238.00

Prepared For:

Mr. Jay Asercion Kaiser Foundation Health Plan, Inc. 1100 San Leandro Boulevard, Suite 200 San Leandro, California 94577

Submitted By:

SECOR International Incorporated 57 Lafayette Circle, 2nd Floor Lafayette, California 94549-4321

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Note: Tables and Figures appear at end of report.

The material and data in this report were prepared under the supervision and direction of the undersigned. This report was prepared consistent with current and generally accepted geologic and environmental consulting principles and practices that are within the limitations provided herein.

Prepared for:

Mr. Jay Asercion Kaiser Foundation Health Plan, Inc. 1100 San Leandro Boulevard, Suite 200 San Leandro, California 94577

Submitted by:

SECOR International Incorporated 57 Lafayette Circle, 2nd Floor Lafayette, California 94549

Prepared by:

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Principal Geologist

BRUCE SCARBROUGH

1.0 INTRODUCTION

SECOR International Incorporated (SECOR), on behalf of Kaiser Foundation Health Plan, Inc. (Kaiser Permanente), has prepared this *Soil Management Plan Addendum* (SMP Addendum) for the portion of the Kaiser Permanente Medical Office Building (MOB) project located at 3781 through 3799 Broadway in Oakland, California. The MOB project as a whole encompasses the city block fronting Broadway between MacArthur Boulevard to the south and 38th Street to the north, corresponding to physical street addresses of 3701-3799 Broadway. Soil and groundwater management practices for the properties corresponding to 3701-3757 Broadway were described in SECOR's *Soil Management Plan* (SMP) dated August 3, 2006. The SMP was approved by Mr. Barney Chan of the Alameda County Health Care Services Agency (ACHCSA) in correspondence dated September 6, 2006 (ACHCSA, 2006).

This SMP Addendum was prepared using data from additional subsurface characterization performed at 3785-3799 Broadway. The SMP and SMP Addendum should be used together to properly manage soils excavated during the MOB project.

The purpose of this SMP Addendum is to define areas of the Site which may require special handling and/or disposal considerations during excavation due to elevated concentrations of petroleum hydrocarbons and/or metals. General safe work practices regarding handling, excavating, transporting, and disposing of impacted soils are described in this document. SECOR recommends that a site-specific health and safety plan (HASP) be prepared prior to implementing this SMP. The HASP should describe potential chemical and physical hazards, methods for monitoring, chemical action levels, and response actions.

2.0 PROJECT SUMMARY

2.1 Site Description

The portion of the Site covered by this SMP Addendum is located at 3781 through 3799 Broadway in Oakland, California (see Figure 1, Site Location Map), and consists of several commercial properties with frontage to Broadway. The Site is bounded to the southeast by Broadway; to the southwest by vacant commercial property at 3757 Broadway; to the northwest by Western Creek, single-family residences, and Manila Street; and to the northeast by 38th Street.

The property located at 3781 Broadway is currently vacant and was most recently used as office space by Applied Research. The building located at 3785 Broadway is currently a Firestone automotive service and repair facility and the building at 3793 Broadway was most recently a pet boarding facility. The property at 3799 previously operated as a Midas automotive service and repair facility. The Site and vicinity are illustrated on Figure 2.

2.2 Proposed Scope of Work

Kaiser Permanente's development plans include demolition of the existing structures and construction of a parking garage servicing the MOB, which will include at least one basement level. The footprint of the building, illustrated on Figure 3, will be excavated to approximately 31 feet below ground surface (bgs) as measured at the northern edge adjacent to 38th Street. Because the ground slopes downward slightly towards the south across the Site, the excavation will be slightly shallower relative to existing grade in the southern part of the Site. Excavated soils will be managed appropriately and off-hauled for disposal.

2.3 Existing and Anticipated Site Conditions

Each of the four properties contain an existing building, and properties at 3785, 3793, and 3799 Broadway also have asphalt or concrete parking areas. Prior to excavation, all existing buildings and related structures will be demolished and removed. Demolition will include removal of pavement and/or concrete and possibly removal of shallow base rock and fill materials. SECOR anticipates that Kaiser Permanente's contractor will use the subgrade lot northeast of 3735-3737 Broadway as a staging area, as necessary. Western Creek is located adjacent to the Site to the northwest and is in either a culvert or open channel as it flows along the property. Flow from the creek will be routed through a temporary culvert during demolition and excavation activities. Streambed protection work and permitting will be performed by others on behalf of Kaiser Permanente.

2.4 Environmental Characterization Work Performed to Date

SECOR completed Phase I Environmental Site Assessments (Phase I ESAs) at each of the four properties. Based on the findings of the Phase I ESAs, SECOR performed a subsurface investigation at three of the four properties in September 2006 (3781 Broadway was excluded due to access constraints). SECOR reported the findings of the investigation in the *Additional Site Characterization Report* dated October 24, 2006 (SECOR, 2006a). The following sections summarize the findings of the Phase I ESAs and describe subsurface investigation activities at each of the properties. Soil and groundwater chemical data are summarized on Tables 1 and 2, respectively, and September 2006 soil boring locations are illustrated on Figure 2.

2.4.1 3781 Broadway - Former Applied Research

The property at 3781 Broadway consists of a single-story office building most recently occupied by Applied Research. According to SECOR's Phase I Environmental Site Assessment (Phase I ESA; SECOR 2006b), the building was constructed in the 1920s and was used as an automotive service and/or electric motor repair facility between the 1920s and 1960s, when the property began to be used as office space. Based on this historical site use, SECOR acknowledged the potential for subsurface chemical impacts from solvents, oil, fuels, and related compounds. Because the structure is an office building with no areas accessible by a direct-push drill rig, no soil and/or groundwater sampling was performed on the property during the September 2006 investigation. After the building is demolished, observations made during subsequent construction activities will help determine if areas of contamination exist.

2.4.2 3785 Broadway - Firestone

The property at 3785 Broadway is currently operating as a Firestone tire shop and vehicle repair facility. SECOR performed a Phase I ESA at the property in June 2006 (SECOR, 2006c), in which SECOR identified six in-ground hydraulic hoists, an in-ground oil/water separator, and heavy staining on the floor as conditions which may warrant additional environmental assessment. The hydraulic lifts were reportedly installed in 1977; because polychlorinated biphenyls (PCBs) were not regulated until 1977, the hoists' hydraulic fluid systems may be a potential source of PCBs. Additionally, SECOR noted that a waste oil UST was removed from the site in 1990. Contamination associated with the UST appeared to be limited to soil, and the case was granted 'no further action' from the ACHCSA.

During the September 2006 investigation, SECOR advanced soil borings at four locations adjacent to the hydraulic hoists and two soil borings near the former waste oil UST. Two additional soil borings were advanced within the parking lot to characterize soil conditions away from areas of suspected chemical impact. Soil samples were collected from each of the soil borings, and grab groundwater samples were collected from the soil borings advanced near the former waste oil UST.

2.4.3 3793 Broadway - Former Pet Boarding Facility

The property at 3793 Broadway historically operated as a veterinary hospital and recently operated as a pet boarding facility. SECOR performed a Phase I ESA at the property in June 2006 (SECOR, 2006d) and did not identify any site features or conditions which warranted specific additional investigation.

SECOR advanced four soil borings at representative locations across the Site to evaluate subsurface conditions. Grab groundwater samples were collected from two of the four soil borings to characterize chemical constituents originating from off-site, upgradient sources.

2.4.4 3799 Broadway - Former Midas

The property at 3799 Broadway previously operated as a Midas muffler shop and vehicle repair facility. SECOR performed a Phase I ESA at the property in October 2004 (SECOR, 2004). SECOR observed seven in-ground hydraulic hoists and one 250-gallon aboveground storage tank (AST), features which warranted additional investigation. Because the hydraulic hoists were reportedly installed in the 1960s, the hoists' hydraulic fluid systems may be a potential source of PCBs. Additionally, a facility across 38th Street in the upgradient (north) direction has had documented releases of petroleum hydrocarbons and chlorinated solvents to soil and groundwater.

SECOR advanced five soil borings adjacent to the hydraulic hoists and four soil borings at representative locations to evaluate soil conditions away from areas of suspected chemical impact. Grab groundwater samples were collected from two of the soil borings to evaluate chemical concentrations originating from an off-site, upgradient source.

2.5 Areas Requiring Special Soil Handling

Based on work performed to date, SECOR has identified two areas which will require special handling and disposal of chemically-impacted soils. The two areas are illustrated on Figure 3.

Soil Area 5 – Hydraulic Hoists at the Former Midas (3799 Broadway). Soils between 6 feet bgs (shallowest depth analyzed) and 20 feet bgs in the vicinity of the in-ground hydraulic hoists are impacted by elevated concentrations of petroleum hydrocarbons. Select soil samples (those with the highest concentrations of petroleum hydrocarbons) were also analyzed for PCBs; none were detected. SECOR recommends excavating soils in the area depicted on Figure 3 to approximately 22 feet or first-encountered groundwater (expected at 22 to 24 feet bgs).

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Soil Area 6 – Former Waste Oil UST at Firestone (3785 Broadway). One soil sample collected from 8 feet bgs within the former waste oil UST excavation reported an elevated concentration of lead (350 milligrams per kilogram or mg/kg). Although this lead concentration may not be representative of soil conditions in the area, because it was detected within the former UST excavation, SECOR recommends the conservative approach of removing soils in the area depicted on Figure 3 to approximately 12 feet bgs.

3.0 SOIL HANDLING AND DISPOSAL

The following sections describe excavation, handling, transport, and disposal of impacted soil.

3.1 Permitting

Kaiser Permanente's excavation contractor will acquire the necessary grading and/or encroachment permits from the City of Oakland.

3.2 Shoring

Kaiser Permanente's excavation contractor will install shoring as necessary to complete the excavations described in Section 2.5.

3.3 Excavation and Loading of Soil

Soils will be excavated and stockpiled or loaded directly onto trucks for off-site disposal. If stockpiling is necessary, soils will be placed on and underneath plastic sheeting. A loading zone will be designated out of the public right-of-way and trucks will be cleaned using shovels to minimize the spreading of impacted soils to the sidewalk and street.

3.4 Management of Nuisance Odors and Dust

During excavation, SECOR or contractor staff will monitor excavation activities using a photoionization detector (PID). If volatile vapors are produced at such a level that they constitute a nuisance to nearby residents and workers, the excavation contractor will mitigate odors using an odor-reducing agent over the excavation area. The excavation will proceed in such a manner that generation of dust will be minimized. If dust is observed originating from the excavation, a wetting agent will be applied.

3.5 Transport and Disposal of Impacted Soils

Soils will be transported in accordance with City of Oakland truck route restrictions. Soils will be transported to an accepting Class II, Class III, or recycling disposal facility.

3.6 Confirmation Sampling

Confirmation soil samples will be collected following removal of impacted soils. The following sections detail the sampling frequency and analytical program for each area.

3.6.1 Soil Area 5 – Hydraulic Hoists at Former Midas (3799 Broadway)

Three confirmation soil samples will be collected from the floor of the excavation, unless groundwater is encountered. Sidewall confirmation samples will be collected from each of the four sidewalls at depths corresponding to approximately 10 and 20 feet bgs. At each interval, two soil samples will be collected from each of the long-dimension sidewalls (those trending east-west) and one soil sample will be collected from each of the short-dimension sidewalls (those trending north-south). Soil samples will be analyzed for total extractable petroleum hydrocarbons (TEPH) as diesel, motor oil, and hydraulic fluid by U.S. Environmental Protection Agency (USEPA) Method 8015B with silica gel cleanup.

3.6.2 Soil Area 6 – Former Waste Oil UST at Firestone (3785 Broadway)

One confirmation soil sample will be collected from the floor of the excavation and soil samples will be collected at 5-foot vertical intervals from each of the four sidewalls. Soil samples will be analyzed for the following constituents:

- TEPH as diesel and motor oil by USEPA Method 8015B with silica gel cleanup; and
- ☐ Five LUFT metals by USEPA Method 6010B.

3.7 Groundwater Management

SECOR's September 2006 investigation indicates that groundwater beneath the former Midas facility is impacted by petroleum hydrocarbons (see Table 2). Groundwater generated during Site excavation will be treated using activated carbon filtration. Groundwater will be collected into a holding tank (10,000- to 20,000-gallon capacity) and pumped through two 10,000-pound carbon vessels in series using a booster pump. The treated groundwater will be sampled to confirm adequate treatment and discharged to the sanitary sewer under permit. A schematic of the proposed groundwater treatment system is presented as Figure 4.

4.0 REFERENCES

- ACHCSA, 2006: Fuel Leak Case RO205, 3741 Broadway, Oakland, CA 94611 (Proposed Kaiser Development). September 6.
- SECOR, 2004: Phase I Environmental Site Assessment Report, 3799 Broadway, Oakland, California. October 15.
- SECOR, 2006a: Additional Site Characterization Report, 3735 3799 Broadway, Oakland, California. October 24.
- SECOR, 2006b: Phase I Environmental Site Assessment Report, 3781 Broadway, Oakland, California. April 24.
- SECOR, 2006c: Phase I Environmental Site Assessment Report, 3785 Broadway, Oakland, California. June 23.
- SECOR, 2006d: Phase I Environmental Site Assessment Report, 3793 Broadway, Oakland, California. June 12.

5.0 LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations:

- The data and findings presented in this report are valid as of the dates when the
 investigations were performed. The passage of time, manifestation of latent
 conditions or occurrence of future events may require further exploration at the Site,
 analysis of the data, and reevaluation of the findings, observations, and conclusions
 expressed in the report.
- 2. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the Site.
- 3. Because of the limitations stated above, the findings, observations, and conclusions expressed by SECOR in this report are not, and should not be, considered an opinion concerning the compliance of any past or present owner or operator of the Site with any federal, state or local law or regulation.
- 4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon Site conditions in existence at the time of investigation.
- 5. SECOR reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, state or local governmental agencies. Any use of the report constitutes acceptance of the limits of SECOR's liability. SECOR's liability extends only to its client and not to any other parties who may obtain the report. Issues raised by the report should be reviewed by appropriate legal counsel.

TABLES

Soil Management Plan Addendum 3781-3799 Broadway Oakland, California SECOR PN: 05OT.50238.00 November 13, 2006

Table 1 Soil Sample Analytical Results Kaiser Permanente Oakland Medical Office Building (MOB) Project: 3781 - 3799 Broadway Oakland, California

Investigation	Sample ID	Depth (ft)			A Method 8		, ···ອ <i>)</i>	Volatile Organic Compounds EPA Method 8260B (mg/kg) 13,5- 13,5															EPA Me	Polychlorinated Biphenyls EPA Method 8082 (µg/kg)					
(2 op ()	Sample Date	TPHg	TPHd	TPHmo	TPHhf	Benzene	Toluene	Ethyl benzene	Xylenes	Acetone	Naphthalene	n-Propyl benzene	1,2,4-Trimethyl benzene	1,3,5- Trimethyl benzene	n-Butyl benzene	2-Butanone	Methylene Chloride	1,1-Dichloro ethane	cis -1,2- Dichloro ethene	Trichloroethene	Tetrachloroethene	Cadmium	Chromium	Lead	Nickel	Zinc	PCBs
	SB-54-6	6	09/12/06	ND<0.96	2.1 H Y	17			ND<0.0047	ND<0.0047			ND<0.0047	ND<0.0047						ND<0.0047		ND<0.0047	ND<0.0047	ND<0.25	66	5.2	64	29	
	SB-54-11	11	09/12/06	ND<1.0	ND<1.0	ND<5.0	ND<5.0	ND<0.0049	ND<0.0049	ND<0.0049			ND<0.0049			ND<0.0049			0.42>LR	ND<0.0049	ND<0.0049	ND<0.0049	ND<0.0049	ND<0.25	53	5.0	55	27	
	SB-54-16	16	09/12/06	ND<0.97	ND<0.99	ND<5.0	ND<5.0	ND<0.005	ND<0.005	ND<0.005			ND<0.005	ND<0.005	ND<0.005			ND<0.010	0.24>LR	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.25	56	6.2	68	30	
_	SB-55-9.5	9.5	09/14/06	ND<1.1	3.9 H Y	29			ND<0.0047	ND<0.0047	ND<0.0047	0.028	ND<0.0047	ND<0.0047		ND<0.0047		ND<0.0094	0.25>LR		ND<0.0047	ND<0.0047	ND<0.0047	ND<0.25	32	4.5	43	17 37	
	SB-55-18.5 SB-56-6	18.5 6	09/14/06	ND<1.0	ND<0.99	ND<5.0			ND<0.0047 ND<0.0047	ND<0.0047 ND<0.0047			ND<0.0047 ND<0.0047			ND<0.0047 ND<0.0047					ND<0.0047 ND<0.0047	ND<0.0047 ND<0.0047	ND<0.0047 ND<0.0047	0.64	44	3.4 4.5	54	37 140	
	SB-56-11	о 11	09/12/06 09/12/06	ND<1.0 ND<1.1	1.5 Y ND<1.0	ND<5.0 ND<5.0			ND<0.0047 ND<0.0045	ND<0.0047 ND<0.0045			ND<0.0047			ND<0.0047			-		ND<0.0047	ND<0.0047 ND<0.0045	ND<0.0047 ND<0.0045	ND<0.25 ND<0.25	42 44	4.5 4.6	69 41	140	
	SB-50-11 SB-57-5	5	09/14/06	ND<1.1	3.1 Y	35 H			ND<0.0043 ND<0.0048	ND<0.0043 ND<0.0048			ND<0.0045			ND<0.0045		ND<0.0091			ND<0.0045	ND<0.0045 ND<0.0048	ND<0.0045	0.28	54	9.5	100	48	
	SB-57-14	14	09/14/06	ND<1.1	-	11		ND<0.0048	ND<0.0048	ND<0.0048			ND<0.0048			ND<0.0048					ND<0.0048	ND<0.0048	ND<0.0048	0.33	72	14	130	65	
	SB-58-6	6	09/11/06	ND<0.99	ND<1.0	ND<5.0	ND<5.0	ND<0.0048	ND<0.0048	ND<0.0048			ND<0.0048			ND<0.0048		ND<0.0096	0.12>LR	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.25	56	8.6	59	29	
	SB-58-12	12	09/11/06	ND<0.97	30 H Y	92	92		ND<0.0045	ND<0.0045			ND<0.0045			ND<0.0045		ND<0.0091			ND<0.0045	ND<0.0045	ND<0.0045	ND<0.25	39	4.0	65	39	
S	SB-58-17	17	09/11/06	ND<0.94	110 H Y	490	490	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.024	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0094	0.21>LR	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.25	48	6.7	69	38	ND<9.6-19
٤	SB-59-6	6	09/11/06	ND<1.0	3,100 H Y	13,000	13,000	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	0.051	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	0.010	0.47>LR	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.25	29	12	41	17	
\$	SB-59-10	10	09/11/06	ND<0.95	280 H Y	1,000	1,000	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.022	ND<0.0045	ND<0.0045		ND<0.0045	ND<0.0045	ND<0.0089	0.24>LR	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.25	40	4.0	48	25	
	SB-59-19	19	09/11/06	1.0 H Y	4,700 H Y	16,000	17,000	ND<0.005	ND<0.005	ND<0.005		ND<0.025	ND<0.005	ND<0.005	ND<0.005			ND<0.010	0.26>LR	0.021	0.012	0.0064	0.0072	ND<0.25	35	4.6	54	38	ND<9.7-19
	SB-60-6	6	09/11/06	ND<1.0	1,400 H Y	4,000	4,500		ND<0.0049	ND<0.0049	ND<0.0049	0.130	ND<0.0049			ND<0.0049		0.031		ND<0.0049	0.0051	ND<0.0049	ND<0.0049	ND<0.25	19	79	24	63	
	SB-60-10	10	09/11/06	ND<1.0	1,300 H Y	4,600	4,900		ND<0.0048	ND<0.0048	ND<0.0048	0.087	ND<0.0048			ND<0.0048		0.021		ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.25	28	6.6	35	19	
	SB-60-16 SB-61-6	16 6	09/11/06	1.4 H Y ND<0.93	2,300 H Y	3,400	5,100	ND<0.005	ND<0.005	ND<0.005 ND<0.0048		ND<0.025 ND<0.024	ND<0.005 ND<0.0048	ND<0.005 ND<0.0048	ND<0.005		ND<0.005	ND<0.010 ND<0.0096	0.19>LR	0.012	ND<0.005 0.0055	ND<0.005 ND<0.0048	0.0064	ND<0.25 ND<0.26	32	2.2	46	36 49	ND<9.7-19
	SB-61-11	11	09/12/06 09/12/06	ND<0.93	6.5 H Y 860 H Y	32 4,700	32 4,500	ND<0.0048 ND<0.017	ND<0.0048 ND<0.017	ND<0.0048 ND<0.017	ND<0.0048 ND<0.017	0.140	ND<0.0048	ND<0.0048		ND<0.0048 ND<0.017	ND<0.0048 ND<0.017	ND<0.0096	0.25>LR 1.3>LR	ND<0.0048 ND<0.017	0.0055	0.094	0.017 0.070	ND<0.26 ND<0.25	24 50	25 9.2	28 52	32	ND<9.6-19
	SB-61-20	20	09/12/06	ND<1.0	750 H Y	1,300	1,800		ND<0.017	ND<0.017			ND<0.017			ND<0.017		ND<0.0098	0.31>LR	ND<0.017	ND<0.0049	ND<0.0049	ND<0.0049	ND<0.25	43	4.8	54	26	ND<9:0-19
	SB-62-6	6	09/12/06	ND<1.1	3.0 H Y	1,300	1,000		ND<0.0048	ND<0.0048						ND<0.0048			0.37>LR		ND<0.0048	ND<0.0048	0.024	ND<0.23	52	11	52	57	
	SB-62-10	10	09/12/06	ND<0.97	11 H Y	83	67		ND<0.0046	ND<0.0046						ND<0.0046		ND<0.0093	0.23>LR		ND<0.0046	ND<0.0046	0.012	ND<0.25	52	5.2	53	28	
	SB-62-16	16	09/12/06	ND<0.99	150 H Y	1,100	980		ND<0.0046	ND<0.0046			ND<0.0046			ND<0.0046		ND<0.0093	0.19>LR	ND<0.0046	ND<0.0046	ND<0.0046	0.020	ND<0.25	51	3.6	53	26	ND<9.5-19
٤	SB-64-6	6	09/11/06	ND<1.0	2.1 H Y	ND<5.0	5.3 Y	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.024	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0094	0.96>LR	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.0047	ND<0.25	70	6.6	84	35	
	SB-64-12	12	09/11/06	ND<0.93	ND<0.99	ND<5.0			ND<0.0044	ND<0.0044						ND<0.0044		ND<0.0088			ND<0.0044	ND<0.0044	ND<0.0044	ND<0.26	62	3.9	63	29	
	SB-64-17	17	09/11/06	ND<1.1	ND<1.0	ND<5.0			ND<0.0046	ND<0.0046		ND<0.023	ND<0.0046			ND<0.0046				ND<0.0046		ND<0.0046	ND<0.0046	ND<0.26	38	2.4	45	40	
	SB-65-6	6	09/12/06	ND<1.0	2.3 H Y	23	22			ND<0.0047	ND<0.0047	0.026	ND<0.0047			ND<0.0047		ND<0.0094		ND<0.0047		ND<0.0047	ND<0.0047	ND<0.28	55	14	71	59	
	SB-65-11	11	09/12/06	ND<0.95	1.1 H Y	ND<5.0			ND<0.0047	ND<0.0047	ND<0.0047	0.130	ND<0.0047	ND<0.0047		ND<0.0047		0.018			ND<0.0047	ND<0.0047	ND<0.0047	ND<0.27	71	12	78	31	
	SB-65-16 SB-66-8	16 8	09/12/06 09/12/06	ND<0.92 ND<0.98	1.5 H Y ND<1.0	7.4 ND<5.0	7.4 ND<5.0	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	0.200 ND<0.025	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005		ND<0.0045 ND<0.005		0.018 ND<0.010	0.53>LR 0.46>LR	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.25 0.26	55 50	5.7 6.1	59 97	28 35	
	SB-66-11	11	09/12/06	ND<0.98	ND<1.0 ND<1.0	ND<5.0 ND<5.0	ND<5.0 ND<5.0		ND<0.005 ND<0.0048	ND<0.005 ND<0.0048			ND<0.005 ND<0.0048			ND<0.005		ND<0.010 ND<0.0048	0.46>LR 0.40>LR		ND<0.005 ND<0.0048	ND<0.005 ND<0.0048	ND<0.005	0.26	60	4.9	83	35 41	
	SB-66-16	16	09/12/06	ND<1.1	1.2 H Y	8.1	8.0	ND<0.0048	ND<0.0048	ND<0.0048		ND<0.024	ND<0.0048	ND<0.0046	ND<0.0048			ND<0.0048	0.40>LR 0.39>LR	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.005	0.32	52	5.4	97	45	
	SB-67-6	6	09/12/06	ND<1.0	ND<1.0	ND<5.0	ND<5.0	ND<0.005	ND<0.005	ND<0.005		ND<0.025	ND<0.005	ND<0.005		ND<0.005	ND<0.005	ND<0.010	0.16>LR	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.25	44	2.6	50	32	
	SB-67-10	10	09/12/06	ND<0.93		6.3	7.1		ND<0.0049	ND<0.0049			ND<0.0049			ND<0.0049		ND<0.0098	0.10>LR		ND<0.0049	ND<0.0049	ND<0.0049	ND<0.25	60	4.5	87	39	
ε	SB-67-15	15	09/12/06	ND<1.0	ND<0.99	ND<5.0	ND<5.0	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.023	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0091	0.14>LR	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.0045	ND<0.25	41	4.7	47	40	
	SB-69-8	8	09/14/06	ND<0.98	2.1 H Y	6.8	7.6	ND<0.0047	ND<0.0047	ND<0.0047		ND<0.024	ND<0.0047	ND<0.0047		ND<0.0047			0.77>LR	ND<0.0047	ND<0.0047	ND<0.0047	0.012	ND<0.25	36	5.8	51	21	ND<12-24
	SB-69-20	20	09/14/06	ND<0.95	1.1 Y Z	ND<5.0			ND<0.0048	ND<0.0048			ND<0.0048			ND<0.0048		ND<0.0096	0.63>LR		ND<0.0048	ND<0.0048	ND<0.0048	ND<0.25	53	5.5	77	51	
	SB-70-6	6	09/14/06	ND<1.0	5.6 H Y	46	44		ND<0.0044	ND<0.0044						ND<0.0044		ND<0.0088			ND<0.0044	ND<0.0044	ND<0.0044	0.32	44	24	60	75	ND<12-24
	SB-70-18	18	09/14/06	ND<1.0	ND<0.99	ND<5.0			ND<0.0045	ND<0.0045 ND<0.0045			ND<0.0045			ND<0.0045		ND<0.0091	0.53>LR		ND<0.0045	ND<0.0045	ND<0.0045	ND<0.25	36	3.8	52	24	 ND -0 C 40
	SB-71-8 SB-71-16	8 16	09/13/06 09/13/06	ND<0.99 ND<0.99	2.6 H Y ND<1.0	8.0 ND<5.0	9.3 ND<5.0	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005			ND<0.0045 ND<0.005	ND<0.0045 ND<0.005		ND<0.0045 ND<0.005		ND<0.0091 ND<0.010	0.57>LR 0.37>LR	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.0045 ND<0.005	ND<0.25 ND<0.25	54 45	8.2 3.0	71 51	38 19	ND<9.6-19
	SB-71-16 SB-72-6	6	09/13/06	ND<0.99	2.0 H Y	7.4	7.2	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005				ND<0.005	ND<0.005			ND<0.010 ND<0.010	0.37>LR 0.27>LR	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.25	49	3.0 45	83	47	
3785 Broadway	SB-72-18	18	09/13/06	ND<1.0	2.4 H Y	18	15		ND<0.003	ND<0.003			ND<0.003	ND<0.003		ND<0.003		ND<0.010	0.27>LR 0.19>LR		ND<0.003	ND<0.003	ND<0.003	ND<0.25	42	26	48	48	ND<9.6-19
	SB-74-8	8	09/13/06	ND<0.97	9.4 H Y	52			ND<0.0047	ND<0.0047			ND<0.0047	ND<0.0047		ND<0.0047		ND<0.0094	0.58>LR		ND<0.0047	ND<0.0047	ND<0.0047	0.77	55	350	65	310	
	SB-74-20	20	09/13/06	ND<0.96	ND<0.99	ND<5.0			ND<0.0045	ND<0.0045			ND<0.0045			ND<0.0045			0.30>LR		ND<0.0045	ND<0.0045	ND<0.0045	ND<0.25	67	5.9	59	62	
	SB-75-8	8	09/13/06	ND<0.94	5.4 H Y	21		ND<0.0049	ND<0.0049	ND<0.0049			ND<0.0049			ND<0.0049				ND<0.0049		ND<0.0049	ND<0.0049	ND<0.25	48	80	84	110	
	SB-75-20	20	09/13/06	ND<0.94	1.5 H Y	7.1			ND<0.0048	ND<0.0048			ND<0.0048			ND<0.0048				ND<0.0048		ND<0.0048	ND<0.0048	ND<0.25	41	2.2	45	42	
	SB-76-6	6	09/13/06	ND<1.0	1.1 Y	6.0 Y			ND<0.0046	ND<0.0046						ND<0.0046		ND<0.0093			ND<0.0046	ND<0.0046	ND<0.0046	ND<0.25	58	6.4	66	20	
S	SB-76-18	18	09/13/06	ND<1.0	72 H Y	350		ND<0.0048	ND<0.0048	ND<0.0048		ND<0.024	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0096	0.24>LR	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.0048	ND<0.25	54	4.3	67	40	
			Residential (<3m) Residential (>3m)	100 100	100 100	500 1,000	NE NE	0.044 0.044	2.9 2.9	3.3 3.3	2.3 2.3	0.5 0.5	0.46 0.46	NE NE	NE NE	NE NE	NE NE	3.9 3.9	0.077 0.077	0.2 0.2	0.19 0.19	0.26 0.26	0.87 0.87	1.7 38	58 58	150 750	150 1,000	600 2,500	0.22 6.3
	ESL	1	residentiai (>3m)		Middle	Residual	NE	0.044	2.9	3.3	2.3	0.5	0.40	NE	INC.	NE	NE	3.9	0.077	0.2	0.19	0.20	0.87	38	36	/50	1,000	2,500	0.3
1				Gasolines	distillates	fuels																							
		M-1-1- 2		NA	NA	NA	NΙΔ	NA	NA	NA	NA	NA	NA	NA	NA	NΑ	NA	NA	NA	NIA	NA	NA	NA	0.05 4.7	22 4 570	12.4 - 97.1	9 - 509	88 - 236	NA
Ва	ackground	wetals Co	ncentrations ²	NA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	Avi	NA	INA	INA	Avi	0.05 - 1.7	23 - 1,5/9	12.4 - 97.7	9 - 509	00 - 230	Avi

- Notes:

 Besides BTEX, only VOCs with one or more detections are shown; please refer to laboratory analytical reports for full list of analytes.

 1 Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) for exposure to subsurface soils in a residential setting, where groundwater is a current or potential source of drinking water (SF Bay RWQCB, Interim Final, February 2005, Summary Tables A-1 and C-1).
 - Source: Background Concentrations of Trace and Major Elements in California Soils, Kearney Foundation of Soil Science, March 1996. Not analyzed.

 Indicates compound was detected at or above laboratory reporting limit.

Bold

Indicates concentration exceeds the residential ESL for that compound.

Abbreviations:

TPHg Total petroleum hydrocarbons as gasoline.
TPHd Total petroleum hydrocarbons as diesel.

TPHmo Total petroleum hydrocarbons as motor oil.

TPHhf Total petroleum hydrocarbons as hydraulic fluid.

NE No ESL established for compound.

NA Not applicable.

ND<x.xx Indicates analyte not detected at or above the specified laboratory reporting limit.

- Laboratory Flags:
 H Heavier hydrocarbons contributed to the quantitation.
 - Sample exhibits chromatographic pattern which does not resemble standard.

 - Sample exhibits unknown single peak or peaks.

 Response exceeds instrument's linear range. All reported methylene chloride

results are the result of laboratory contamination (see case narrative in laboratory report for discussion).

Table 2 Groundwater Sample Analytical Results Kaiser Permanente Oakland Medical Office Building (MOB) Project: 3781 - 3799 Broadway Oakland, California

Area of Investigation	Sample ID	Sample Date			ım Hydroca hod 8015N				Volatile Organic Compounds EPA Method 8260B (µg/L)																
			TPHg	TPHd	TPHmo	TPHhf	TPHss	Benzene	Toluene	Ethyl benzene	Xylenes	Isopropyl benzene	Naphthalene	n-Propyl benzene	1,2,4- Trimethyl benzene	1,3,5- Trimethyl benzene	sec-Butyl benzene	n-Butyl benzene	p-Isopropyl toluene	1,1-Dichloroethane	cis-1,2- Dichloroethene	Trichloroethene	Tetrachloroethene	Vinyl Chloride	MtBE
3793 Broadway	SB-55-24-W	09/15/06	ND<50	54 Y	ND<300		ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
3793 bioadway	SB-57-21-W	09/14/06	ND<50	58 Y	ND<300		ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
3799 Broadway	SB-64-20-W	09/11/06	ND<50	ND<50	ND<300	ND<300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.5
37 99 Dioadway	SB-65-19-W	09/11/06	ND<50	290,000 H Y	1,000,000	1,100,000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.3	15	1.0	0.5	13	1.0
3785 Broadway	SB-74-22-W	09/13/06	ND<50	420 H Y	1,800			ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
3703 Bloadway	SB-77-23-W	09/13/06	ND<50	59 H Y	ND<300			ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	•			100	100	NE	NE	1.0	40	30	20	NE	17	NE	NE	NE	NE	NE	NE	5.0	6.0	5.0	5.0	0.5	5.0
	ESI	L ¹	Casalinas	Middle	Residual																				1
			Gasolines	distillates	fuels																				'

Notes:

Besides BTEX, only VOCs with one or more detections are shown; please refer to laboratory analytical reports for full list of analytes

Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) for exposure to groundwater in a residential setting, where groundwater is a current or potential source of drinking water (SF Bay RWQCB, Interim Final, February 2005, Summary Table A-1).

Not analyzed.

Bold Indicates compound was detected at or above laboratory reporting limit.

Indicates concentration exceeds the residential ESL for that compound.

Abbreviations:

NE No ESL established for compound.

TPHg Total petroleum hydrocarbons as gasoline.

TPHd Total petroleum hydrocarbons as diesel.
TPHmo Total petroleum hydrocarbons as motor oil.

TPHhf Total petroleum hydrocarbons as hydraulic fluid.

TPHss Total petroleum hydrocarbons as Stoddard solvent.

ND<x.xx Indicates analyte not detected at or above the specified laboratory reporting limit.

Laboratory Flags:

- L Lighter hydrocarbons contributed to the quantitation.
- H Heavier hydrocarbons contributed to the quantitation.
- Y Sample exhibits chromatographic pattern which does not resemble standard.

FIGURES

Soil Management Plan Addendum 3781-3799 Broadway Oakland, California SECOR PN: 05OT.50238.00 November 13, 2006







