# **RECEIVED**

12:56 pm, Oct 13, 2008

Alameda County Environmental Health

#### NOTICE OF INTENT TO DISCHARGE FOR RWQCB PERMIT

EMERY STATION EAST 5885 HOLLIS STREET EMERYVILLE, CA

**NOVEMBER 1, 2005** 

Prepared for: DPR Redwood City, California

Prepared by:





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SIGN	NATURE PAGE		
All engineering information, conclusions, been prepared by a California Professional		contained in th	is report hav
William P. Simons California Professional Engineer Civil (37814)	Date	e	



#### 1.0 INTRODUCTION

This Notice of Intent to Discharge from a Fuel Leak Site under NPDES CAG912002, ("NOI") has been prepared by Pacific States Environmental Contractors, Inc. (PSEC) on behalf of Wareham Development Group San Rafael, California The Application has been prepared for discharge of water generated by dewatering activities on the property located at 5885 Hollis Street Emeryville, CA, see Figure 1 The site will be developed into either a commercial/laboratory space or multi-family residential constructed over subgrade parking.

This application is being submitted to the Regional Water Quality Control Board – San Francisco Region ("the Regional Board") pursuant to Order Number 01-100, CAG912002, a General Waste Discharge Requirement Permit. The application is being submitted to obtain Regional Board authorization to discharge treated groundwater generated by dewatering activities during construction of a parking garage and underground utilities at the Site. The groundwater beneath part of the Site is impacted by petroleum hydrocarbons

As part of the development, excavation of underlying soil will be conducted to allow for a subgrade basement garage. The excavation will require dewatering and these dewatering activities will remove a significant quantity of contaminated groundwater. That water will be treated using treatment equipment provided by Baker Tanks and maintained by PSEC



#### 2.0 PROJECT DESCRIPTION

Groundwater from dewatering operations will be pumped to the temporary treatment system. Water will be pumped into a 21,000-gallon tank to allow settlement of suspended solids. The water will then pass through a sand filter, and then through at least two 2,000-pound 75 psi granular activated carbon vessels containing either coconut shell carbon or bituminous carbon. The carbon vessels will be arranged in series and parallel to provide adequate time between carbon change outs. The water will be discharged to an effluent storage tank to make treated water available for dust control and compaction use during construction. Unused treated effluent water will flow from the effluent tank via a discharge line to the storm drain inlet at the south end of the jobsite on Pleadeau Street. The process flow schematic is shown in Figure 3.

Sludge from the settling tank has been characterized prior to dewatering (See Predevelopment Investigation Reports by Treadwell & Rollo). It will be disposed in accordance with state and federal regulations. Activated carbon will be transported to a regeneration facility in accordance with state and federal regulations.

#### 2.1 DESIGN CRITERIA

The maximum dewatering influent and effluent discharge flow rate for the treatment system of 30 wells is 5 gallons per minute per well, or 216,000 gallons per day. Average daily flows will likely be in the range of 210,000 to 220,000 gallons per day. Maximum inflow concentrations of total petroleum hydrocarbons as diesel (TPH-d) have been estimated at 8,400 µg/l. The system is also designed to treat low concentrations of benzene, toluene, ethyl benzene and total xylenes (BTEX), and other non-chlorinated volatile organic compounds (VOCs) that may be encountered during dewatering

Effluent criteria for and benzene, toluene and ethyl benzene compounds are 5  $\mu$ g/l. Effluent criteria for TPH is 50  $\mu$ g/l.



TPHg, TPH-d, and BTEX concentrations will be monitored via samples collected at the influent (I-1, following the settling tank) the carbon filter midpoint (M-1), and effluent from the carbon filters (E-1). Additional sampling will occur as required in the NPDES permit CAG912002 Self-Monitoring Program.



#### 3.0 APPLICATION MATERIALS

The following sections provide the materials requested by the Regional Board for the complete application package.

#### 3.1 EFFLUENT RECLAMATION STUDY

#### 3.1.1 Reuse of Treated Groundwater

PSEC has reviewed potential uses for reclaimed water in the Site area with the General Contractor. Since this water will be generated for only a short time during construction, the most suitable reclamation uses will be on-site construction uses for dust control and compaction. The volume of water required for this use will vary depending on construction activities. A pump will be provided in the effluent storage tank to allow water truck drivers to fill their tanks. The extent of the water use will be within the boundaries of the construction site

The volume of water that will be used onsite for construction is estimated to be 0 to 24,000 gallons per day (gpd). The reclaimed water will be used for dust control and for controlling moisture content during compaction. The water will be used onsite by the Contractor, and will be delivered to points of use by water truck or fire hose. The water will be used during construction hours, which will generally be 7AM to 3PM Monday through Friday, but which may include additional hours depending on construction schedule demands.

Runoff and human contact will be minimized by the nature of use: over-watering will create mud which will be detrimental to construction activities, so construction foremen will be required to regulate the use. The water will be reused as needed for the duration of the dewatering activities

The reused water will be monitored through observation by construction supervisors who will identify and correct excessive spraying



The user of the water will be the DPR Construction Inc. contractors and subcontractors.

#### 3.1.2 Discharge to POTW

Pacific States has contacted Gale Topper of East Bay Municipal Utility District via telephone. The purpose of the call was to identify whether the District will accept the wastewater associated with construction dewatering. According to Gale Topper, the District would accept the dewater-effluent after treatment for dissolved organics at a cost of \$0.03/gallon. The additional monthly cost impact of \$97,000 to \$250,000 would place significant economic strain on the project.

#### 3.2 U.S. EPA Application Forms

U.S. EPA Application Forms 1 and 2D are included in Appendix B. The forms are signed by a corporate officer of Project Owner (Wareham Development Group)

#### 3.3 PROCESSING FEE

The \$5,688.00 processing fee is attached

#### 3.4 SUMMARY OF CHEMICAL ANALYSES FOR UNTREATED GROUNDWATER

The Site and adjacent properties have been extensively investigated as part of predevelopment investigations. Appendix C contains summary tables of groundwater analytical data prepared by Treadwell&Rollo Oakland, California dated April 2000, January 2005 and June 2005. Based on these analytical results, the treatment system has been designed to treat groundwater with TPHd at a concentration of 32,000  $\mu$ g/l, as well as trace amounts of BTEX and TPHg



#### 3.5 DESCRIPTION OF PROPOSED CLEANUP PROJECT

The construction of the parking garage will include extraction and treatment of groundwater required to facilitate installation. The locations of the planned garage excavation and dewatering wells are shown in Figure 4.

#### 3.6 TOPOGRAPHIC MAP

A topographic map of the site is included with EPA Form 1 in Appendix B.

#### 3.7 EFFLUENT VOLUME AND CONCENTRATION

The system will be operated for the duration of the excavation project. Currently, the construction schedule calls for excavation over a six-month period. Assuming the extraction system is operated twenty-four hours per day for twenty-four weeks over the six-month period, effluent volume will be approximately 40 million gallons. Concentration of TPH in the effluent will be at or less than  $50 \mu g/l$ .

#### 3.8 RECEIVING WATERS

The ultimate receiving waters for the treatment system effluent discharge will be San Francisco Bay. The treatment system will discharge through a temporary pipe into the storm drain inlet at the south end of the jobsite on Peladeau Street and flow through City of Emeryville storm drains.

#### 3.9 Plans for Prevention of Run-on and Run-off from contaminated soils

If petroleum hydrocarbon-impacted soils are detected, then those soils will be placed on and covered with visqueen, characterized, and disposed in compliance with state and federal regulations. Saturated soils will be stored so that leachate can be collected and treated at the treatment system PSEC is not responsible for the excavation of the site.



#### 3.10 APPLICABILITY OF GENERAL PERMIT TO THIS PROJECT

The project is treating groundwater from documented onsite occurrences of petroleum hydrocarbons in test results. Since the source of the contamination is likely a petroleum hydrocarbon leak site from previous owners, the general permit is applicable.

#### 3.11 ADDITIONAL INFORMATION

No additional information is provided.

# **FIGURES**

# **APPENDIX A**

List of Reclaimed Water Users

#### Reclaimed Water Users

Authorized users of treated groundwater include:

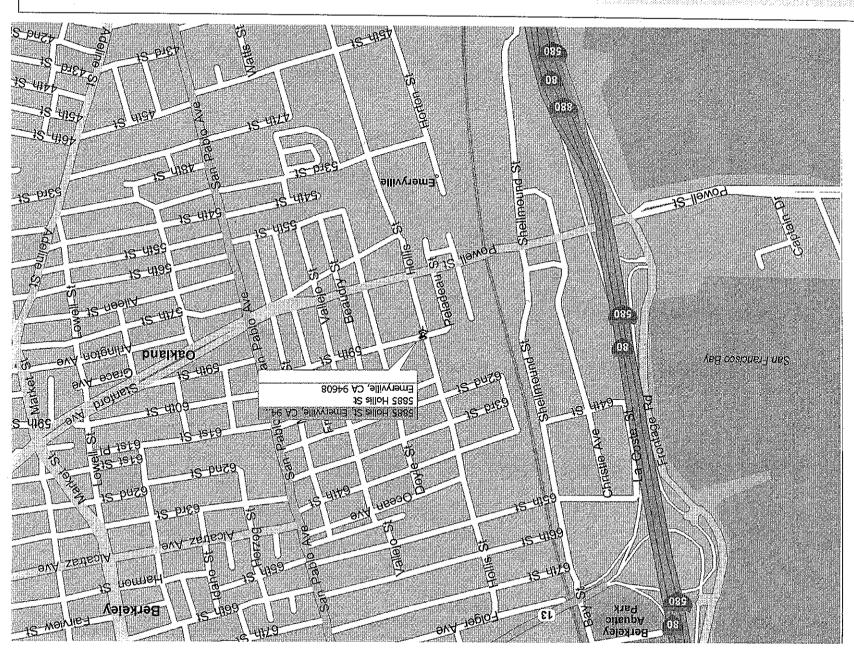
- 1. Pacific States Environmental Contractors, Inc.
- 2. DPR Construction Inc.

# APPENDIX B EPA Forms 1 and 2D

# **APPENDIX C**

Chemical Analysis Results Of Groundwater Sampling

# **FIGURES**

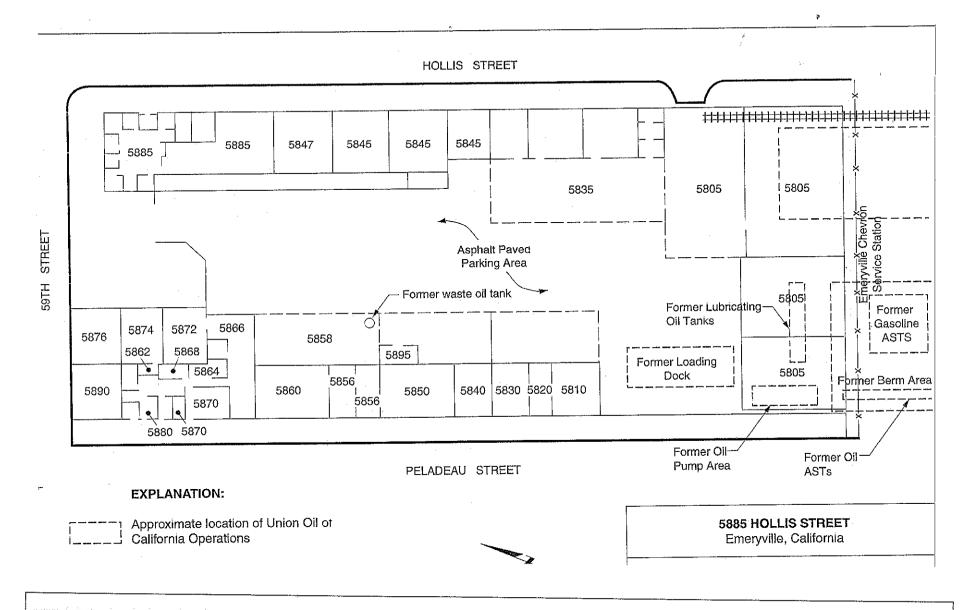


### Site Location Map

5885 Hollis Street Emeryville, CA



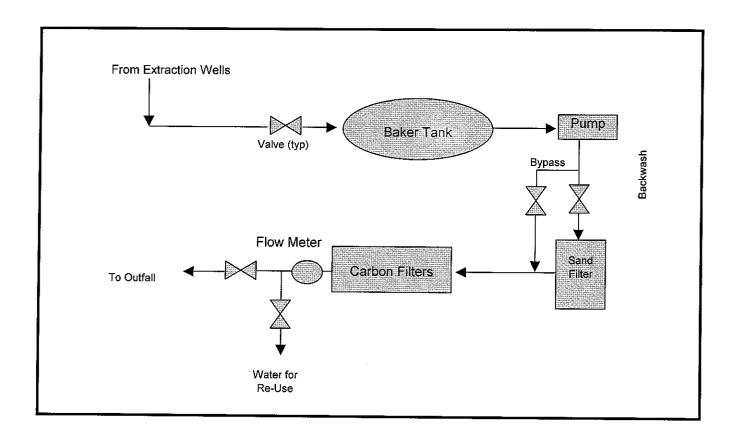






#### Site Plan

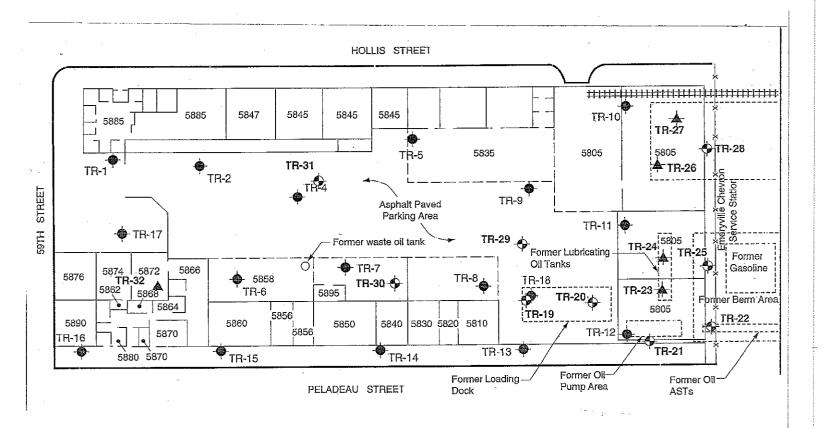
5885 Hollis Street Emeryville, CA Figure





**Process Flow Schematic** 

5885 Hollis Street Emeryville, CA Figure 3



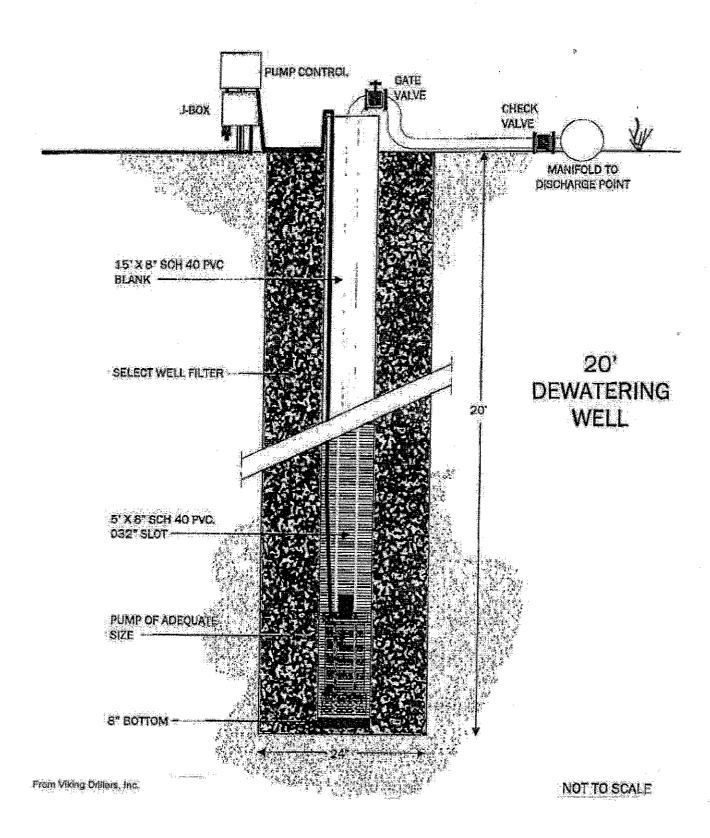
From Viking Drillers, Inc.



# Site Plan Showing Well Locations

5885 Hollis Street Emeryville, CA

Figure 4





**Dewatering** Well

5885 Hollis Street Emeryville, CA

Figure

5

# **APPENDIX A**

List of Reclaimed Water Users

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Authorized users of treated groundwater include:

- 1 Pacific States Environmental Contractors, Inc.
- 2. DPR Construction Inc.

# APPENDIX B EPA Forms 1 and 2D

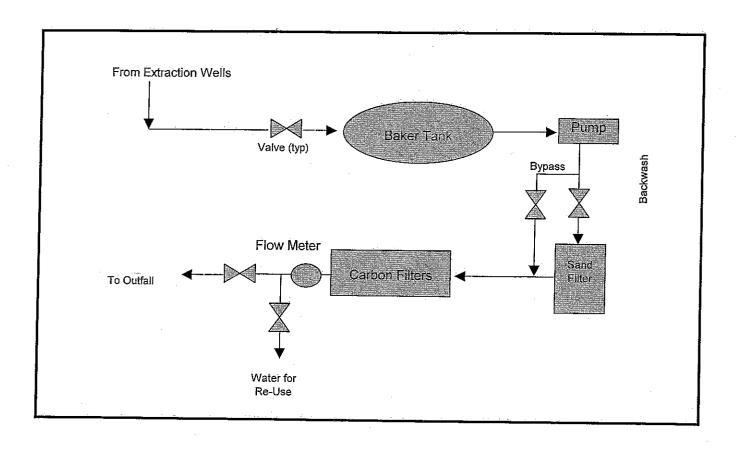
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is excluded from permit requirements; see Section C of the			·	o, Section D of the instructions	for definitions of bold-faced	terms	· .	\$4.6.				
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VIII. OPERATOR INFORMATION	31 16 5 9 15 15 15 15 15 15 15 15 15 15 15 15 15
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	Item VIII-A also the
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XII, NATURE OF BUSINESS (provide a brief description)	
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XIII. CERTIFICATION (see instructions)	
I certify under penalty of law that I have personally examined and a	m familiar with the information submitted in this application and all
attachments and that, based on my inquiry of those persons imme	ediately responsible for obtaining the information contained in the
application, I believe that the information is true, accurate and com	olete I am aware that there are significant penalties for submitting
false information, including the possibility of fine and imprisonment.	
A. NAME & OFFICIAL TITLE (type or print) B. SIGNATI	JRE C. DATE SIGNED
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Year Per Day Measu	of		n. Product, Material, e		neet).

5885 Hollis Street Emeryville, CA TOPOGRAPHIC MAP





Process Flow Schematic EPA NPDES Form 2D 5885 Hollis Street Emeryville, CA

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Geoff Sears				415-457-4964

EPA Form 3510-2D (Rev. 8-90)

C. Signature

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D Date Signed

# **APPENDIX C**

**Chemical Analysis Results Of Groundwater Sampling** 

# TABLE 3 SUMMARY OF GROUNDWATER SAMPLE DATA - ORGANICS 5885 Hollis Street Emeryville, California

												1,3,5-	1,2,4-				BARLES ARRESTO
Sample ID	Sample Date	TPHd ug/l	TPHmo: ug/l	TPHg	Benzene		Ethylbenzene		o-Xylene		Propylbenzen e		Trimethylben zene	sec- Butvibenzene	Naphthalene	Acetone	Other VOCs
TR-1	4/6/2000	130	ND	ug/l 98		ug/I	ug/l	ug/l	ug/L	ug/)	ug/I	ug/l	ug/I			ug/l	ue/l
TR-6	4/5/2000	ND	1,400	ND	 < 5	< 5									_	· m	ND (8010)
TR-9	4/6/2000	ND	420	ND			< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 100	ND (8260)
TR-12	4/6/2000	700	ND	3,300													
TR-23 (GW)	6/20/2005	8,400 L Y		28,000	4,300	< 25	990										ND (8010)
TR-24 (GW)	6/15/2005	6800 L		91000 Y	2500	31	950	300 380	< 25	120	240	45	160	< 25	380	< 500	ND (8260)
TR-25 (GW)	1/20/05	NA	NA	150,000 Y	2,500	< 10	3,600	1,100	380 620	210	110	290	43	70	710	35	**
TR-29 (GW)	1/20/05	280 H Y	340 L	< 50	< 0.5	0.61 C	< 0.5	0,60 C					1				
TR-30 (GW)	1/20/05	640 H Y	960	< 50	< 0.5	0.85 C	< 0.5	0.85 C	< 0.5			***					
TR-31 (GW)	1/20/05	270 H Y	1.500	< 50	< 0.5	0.56 C	< 0.5	0.57 C			<del>-</del>						
Maximum	<del>                                     </del>	8400	1500	150000	4300	31	3600	-	< 0.5								ND
ESL (Table E-1a)	1			13000,0	4500	. 31	3600	1100	620	210	240	290	160	70	710	- 35	ND
Residential - high																	
permeability*		500	640	500	540	380.000	170,000	160,000	160,000	NA	NA	27.1					
ESL (Table E-1a)	1			!				100,000	100,000	INA	NA.	NA	NA	NA	3,200	53,000,000	NA
Commercial - high	1 1			]						'			1 . 1				
permeability*		640	640	500	1,800	380,000	170,000	160,000	160,000	NA	NA	NA	NA	NA	11,000	150,000,000	NA
Maximum vs. Residential ESL		Exceeds ESL	Exceeds ESL	Exceeds ESL	Exceeds ESL	Less than ESL	Less than ESL	Less than ESL	Less than ESL	NA	NA	NA	NA NA	NA NA	Less than ESL	Less than ESL	ND
Maximum vs. Commercial ESL		Exceeds ESL	Exceeds ESL	Exceeds ESL	Exceeds ESL	Less than ESL	Less than ESL	Less than FSI	Less than ESL	NA	NA.	214	2.7.4		Less than	Less than	
		~	·				200	TOWN WHILE TOP	LUL	IVA	INA.	NA	NA	NA	ESL	ESL	ND

#### Notes:

Results presented in units indicated at top of table.

ug/l = micrograms per liter (parts per billion)

TPHg = Total Petroieum Hydrocarbons quantified as gasoline

TPHd = Total Petroleum Hydrcarbons quantified as diesel fuel

TPHmo = Total Petroleum Hydrocarbons quantified as motor oil

VOCs = Volatile Organic Compounds (see laboratory data sheets for complete list of VOCs analyzed)

< 1 = indicates not detected at the indicated laboratory detection limit

ND = Not detected at or greater than the laboratory detection limit which varies, see laboratory report

C = Presence confirmed, but RPD (Relative Percent Difference) between columns exceeds 40%

Y = Laboratory flag indicating sample exhibits chromatographic pattern which does not resemble standard

H = Laboratory flag indicating heavier hydrocarbons contributed to quantitation

L = Laboratory flag indicating lighter hydrocarbons contributed to quantitation

NA = not analyzed