ALAMEDA COUNTY HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



June 14, 2006

Mr. Denis Brown Shell Oil Products US 20945 S. Wilmington Ave. Carson, CA 90810-1039

Mr. Fidel Casillas 2910 East 16th Street Oakland, CA 94601 ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

Subject: Fuel Leak Case No. RO0000305, Shell, 2001 Fruitvale Avenue, Oakland, CA

Dear Mr. Brown and Mr. Casillas:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual TPH as motor oil remains in soil at concentrations exceeding San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (Water Board 2005) at depths of approximately 10 to 22.5 feet bgs in the area of the former waste oil tank.
- PCE, that appears to be from an off-site source, is present in groundwater at the site at concentrations ranging from 7.6 to 58 ppb.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Donna L. Drogos, P.E.

LOP and Toxics Program Manager

Enclosures:

- 1. Remedial Action Completion Certificate
- 2. Case Closure Summary

CC:

Ms. Cherie McCaulou (w/enc)
SF- Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Leroy Griffin (w/enc) City of Oakland Fire Department 250 Frank Ogawa Plaza, Suite 3341 Oakland, CA 94612 Mr. Toru Okamoto (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Ms. Ana Friel (w/enc)
Cambria Environmental Technology, Inc.
270 Perkins Street
Sonoma, CA 95476

√Jerry Wickham (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

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ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATE

Dear Mr. Brown and Mr. Casillas:

Subject: Fuel Leak Case No. RO0000305, Shell, 2001 Fruitvale Avenue, Oakland, CA

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

William Pitcher
William Pitcher

Interim Director Alameda County Environmental Health

CASE CLOSURE SUMMARY LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Agency Name: Alameda County Environmental Health

Address: 1131 Harbor Bay Parkway

City/State/Zip: Alameda, CA 94502-6577

Phone: (510) 567-6791

Responsible Staff Person: Jerry Wickham

Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Shell/Fidel Casillas							
Site Facility Address: 2001 Fruitva							
RB Case No.: 01-2427	Case No.: RO0000305						
URF Filing Date: 02/01/1996	F Filing Date: 02/01/1996 SWEEPS No.: APN:						
Responsible Parties	Addresses	Phone Numbers					
Denis Brown, Shell Oil Products US	20945 S. Wilmington Avenue, Carso 90810	707-865-0251					
Fidel and Dolores Casillas	2910 East 16 th Street, Oakland, CA						

Tank I.D. No	Size in Gallons	Closed In Place/Removed?	Date	
1 and 2	1,000 gallons	Fuel	Removed	Prior to 1984; date unknown
3	4,000 gallons	Fuel	Removed	Prior to 1984; date unknown
4	110 gallons	Waste oil		Prior to 1984; date unknown
	Piping		Removed	Prior to 1984; date unknown

Date: April 6, 2006

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. No information on condition of tanks when removed.							
Site characterization complete? Yes	Date	Approved By Oversigh	t Agency:				
Monitoring wells installed? Yes		Number: 3	Proper screened interval? Yes				
Highest GW Depth Below Ground Surface: 15	,	Lowest Depth: 23	Flow Direction: Southwest				
Most Sensitive Current Use: Potential drinking	water	source.					

Summary of Production Wells in Vicinity: No	known drinking water wells within 1,700 feet of the site.					
Are drinking water wells affected? No	Aquifer Name: East Bay Plain					
Is surface water affected? No	Nearest SW Name: Soscal Creek is approximately 525 feet north of site.					
Off-Site Beneficial Use Impacts (Addresses/Locations): None						
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department					

	TREATMENT	AND DISPOSAL OF AFFECTED MATERIAL	
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	2 - 1,000 gallon tanks 1 - 4,000 gallon tank 1 - 110 gallon tank	No information available from tank removals	Prior to 1984; date unknown
Piping	Not reported	No information available from tank removals	Prior to 1984; date unknown
Free Product	Not reported		
Soil	Not reported		
Groundwater	Not reported		

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRAT No information available from tank removals IONS BEFORE AND AFTER CLEANUP

(Please see Attachments 1 through 5 for additional information on contaminant locations and concentrations)

Contouringert	Soil ((ppm)	Water (ppb)			
Contaminant	Before	After	Before	After		
TPH (Gas)	830	830	6,100(1)	6,100(1)		
TPH (Diesel)	1,500	1,500	28,000(2)	28,000(2)		
TPH (Motor Oil)	11,100	11,100	NA	NA 13 25 25 25 52 710(4)		
Benzene	0.057	0.057	13			
Toluene	0.41	0.41	25			
Ethylbenzene	0.73	0.73	25			
Xylenes	4.9	4.9	52			
Heavy Metals	410(3)	410(3)	710(4)			
MTBE	0.26	0.26	<1(5)	<1(5)		
Other (8240/8270)	0.046(6)	0.046(6)	58(7)	58(7)		

(1) Hydrocarbon does not match pattern of laboratory standard for gasoline.

(3) Total lead; 49 ppm chromium; 82 ppm nickel; and 87 ppm zinc.

⁽²⁾ Grab groundwater sample collected in 1999; results likely biased due to suspended sediment in the sample. The highest concentration of TPH as diesel detected in groundwater samples from monitoring wells is 630 ppb and does not match the pattern of laboratory standard for diesel.

⁽⁴⁾ Total lead; 35 pp chromium; 250 ppb nickel; and 170 ppb zinc. Grab groundwater sample collected in 1999; results likely skewed due to suspended sediment in the sample.

⁽⁵⁾ MTBE <1 ppb; DIPE, ETBE, and TAME <4 ppb in groundwater; TBA <10 ppb in groundwater; EDC <0.5 ppb in groundwater.

⁽⁶⁾ Tetrachloroethene (PCE).

^{(7) 58} ppb PCE; 5.1 ppb Trichloroethene; 13 ppb cis-1,2-dichloroethene; <0.5 ppb vinyl chloride.

Site History and Description of Corrective Actions:

The site is currently a paved parking lot but was a former Shell service station from prior to 1957 until approximately 1984. No reports are available to indicate when the underground storage tanks (USTs), piping, and dispensers were removed. In January 1996, five soil borings were advanced at the former locations of two UST complexes, two dispenser islands, and a sump formerly containing 2-inch suction fuel lines. The suspected former locations of the USTs, dispensers, and equipment were based on a 1957 Shell Oil Company plan that shows the locations of "existing" and "planned" USTs and dispensers. Chemicals that were unrecognizable or resembled Stoddard solvent were observed in all five of the January 1996 soil borings. However, the chromatogram pattern of gasoline was observed in soil in only one of the borings, SB-4 at a depth of 19 feet below ground surface (bgs). The gasoline appeared to be strongly aged. Stoddard solvent, TPH as gasoline, and unrecognizable compounds were detected in two grab groundwater samples from the soil borings.

On March 31, 1999, three direct-push borings were advanced at the site. Total petroleum hydrocarbons as motor oil were detected in soil at elevated concentrations at depths of 10, 15.5, and 22.5 feet bgs in boring SB-A, located adjacent to the former waste oil tank. Temporary well casings were installed in the borings and groundwater samples were collected. The groundwater gradient appeared to be toward the southeast at approximately 0.001. Underground utilities are less than 10 feet bgs and therefore, are not likely to act as preferential pathways for contaminant migration.

Three monitoring wells were installed at the site on March 26 and 27, 2003. Groundwater monitoring was conducted from May 2003 to October 2005. The highest concentration of TPH as gasoline detected in groundwater was 6,100 ppb in well MW-3. However, the hydrocarbon did not match the laboratory standard for gasoline. During the October 26, 2005 groundwater monitoring event, benzene, MTBE, and fuel oxygenates were not detected in groundwater samples from the three monitoring wells. The groundwater samples collected on October 26, 2005 were also analyzed for halogenated organic compounds using EPA Method 8260B. Tetrachloroethene (PCE) was detected in each of the three monitoring wells at the site at concentrations ranging from 7.6 to 58 ppb. The PCE appears to be from an off-site source. Trichloroethene, which may be a degradation product of the PCE, was detected at concentrations ranging from 0.62 to 5.1 ppb.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No							
tial beneficial uses per the Regional I	Board Basin Plan? Yes No						
current land use? Alameda County E blic health risk. However, based upor would present a risk to human health b	the information available in our						
e for the fuel leak site is granted for co ervative scenario occurs at this prope case needs to be re-evaluated. This the residual contamination posing a	rty, Alameda County site is to be entered into the						
e changes? Yes							
? No	Date Recorded:						
Number Decommissioned: 0	Number Retained: 3						
	tial beneficial uses per the Regional current land use? Alameda County E blic health risk. However, based upor would present a risk to human health be for the fuel leak site is granted for corvative scenario occurs at this prope case needs to be re-evaluated. This the residual contamination posing a e changes? Yes						

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

Residual TPH as motor oil remains in soil at concentrations exceeding San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (Water Board 2005) at depths of approximately 10 to 22.5 feet bgs in the area of the former waste oil tank. PCE, that appears to be from an off-site source, is present in groundwater at the site at concentrations ranging from 7.6 to 58 ppb.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommend case closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham	Title: Hazardous Materials Specialist
Signature: Lun Wicholaum	Date: \$4/86/2886
Approved by Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date: 04/06/06

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

itvale, Oakland Closure summary 04_06_06. Cherie MCcaulou - RO0305 Shell 2001

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	VII. R	ÉGIONAL	BOARD	NOTIF	ICATION
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Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 4/6/04
Signature Cl. Caul	Date: 4/13/66

VIII. MONITORING WELL DECOMMISSIONING

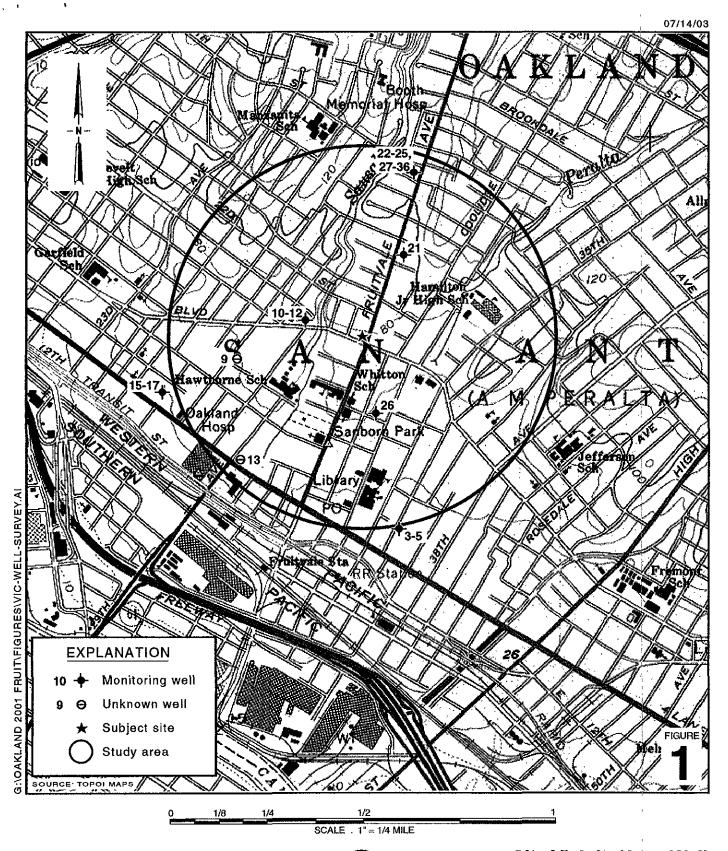
			<u></u> .
Date Requested by ACEH: OH/14 2006	Date of Well Decommissioning R	eport: 06/07/	2066
All Monitoring Wells Decommissioned Yes No	Number Decommissioned: 3	Number Retained:	Ø
Reason Wells Retained: N A			
Additional requirements for submittal of groundwa	ter data from retained wells:	Jone	
ACEH Concumence - Signature:	Hidden	Date: 0 6/13	<i>چا</i> 200

- Attachments:
 1. Sité Vicinity Map/Area Well Survey Map
 2. Groundwater Contour/Chemical Concentration Map (October 26, 2005)
 3. Soil Analytical Data
 4. Groundwater Analytical Data
 5. Soil Analytical Data

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

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R00305 - Closure Summary



Former Shell Service Station

2001 Fruitvale Avenue Oakland, California Incident #97109122



Site Vicinity/Area Well Survey Map

(1/2 Mile Radius)

ATTACHMENT 1

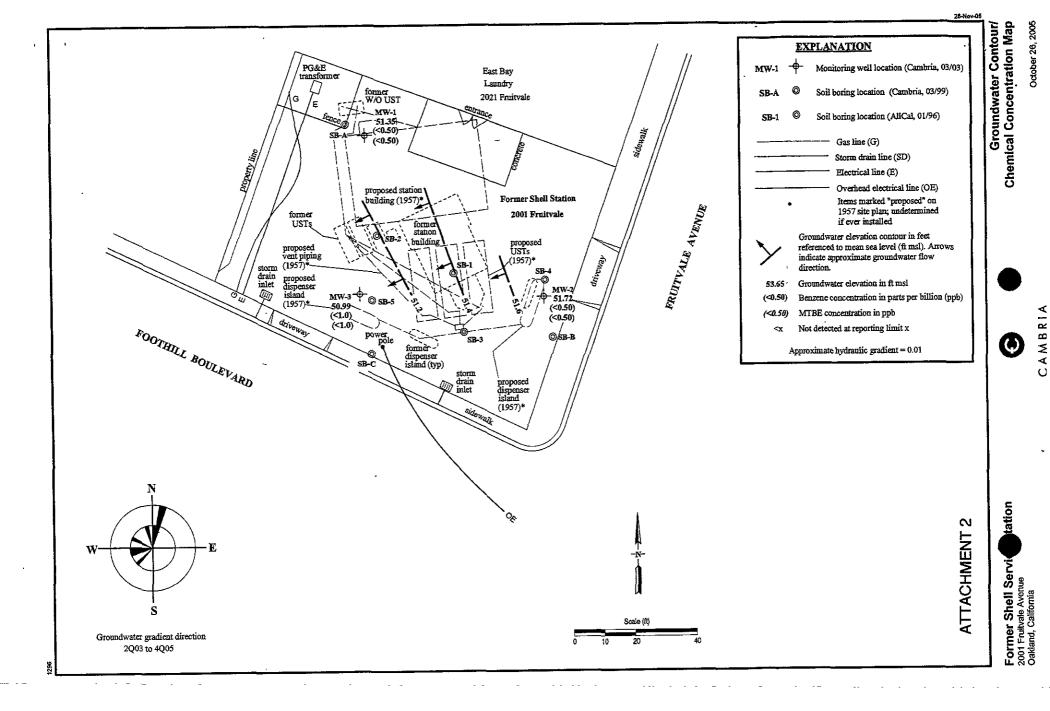


Table 1. Soil Analytical Results for Select Hydrocarbons and Oxygenates- Former Shell Service Station - 2001 Fruitvale Avenue, Oakland, California - Incident # 97109122

Sample ID	Sample Date	Depth	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA (EDC)
		(fbg)							— pp	m ———						
MW-1-5.5	3/26/2003	5.5	<1.0 (<1)	<1.0	<50	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.01	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050
			_			(<0.005)	(<0.005)	(<0.005)	(<0.005)	(<0.005)						
MW-1-9.0	3/26/2003	9.0	<1.0 (<1)	1.1	<50	<0.0050	< 0.0050	< 0.0050	< 0.0050	<0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1637 1 140	2/2//2002	140				(<0.005)	(<0.005)	(<0.005)	(<0.005)	(<0.005)						
MW-1-14.0	3/26/2003	14.0	<1.0 (<1)	1.1	<50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.01	<0.0050	< 0.0050	< 0.0050	< 0.0050	<0.0050
MW-1-19.0	3/26/2003	19.0	<1.0 (<1)	<1.0	<50	(<0.005) <0.0050	(<0.005) <0.0050	(<0.005) <0.0050	(<0.005)	(<0.005)	-0.01	-0.00.50				
14144-1-15.0	3/20/2003	17.0	~1.0 (~1)	~1.0	<50	(<0.005)	(<0.005)	<0.0050 (<0.005)	<0.0050 (<0.005)	<0.0050 (<0.005)	<0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
MW-1-24.0	3/26/2003	24.0	<1.0 (<1)	1.1	<50	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.01	< 0.0050	< 0.0050	< 0.0050	<0.0050	< 0.0050
			-10 (-)			(<0.005)	(<0.005)	(<0.005)	(<0.0050	(<0.005)	~0.01	~0.0000	~0.0050	\0.0030	~0.0030	~0.0050
MW-1-29.0	3/26/2003	29.0	280 (310)	590	1,600	<6.2 (<0.5)	<6.2 (<0.5)	` ,	•	<6.2 (<0.5)	<1	< 0.5	< 0.5	<2.5	<0.5	< 0.5
MW-2-5.5	3/27/2003	5.5	<1.0	1.2		< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.0050						
MW-2-9.0	3/27/2003	9.0	<1.0	1.1		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050						
MW-2-14.0	3/27/2003	14.0	<1.0	1.5		< 0.0050	< 0.0050	<0.0050	< 0.0050	<0.0050			**-			
MW-2-19.0	3/27/2003	19.0	<1.0	2.1		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050					***	
MW-2-24.0	3/27/2003	24.0	<1.0	2.1	***	< 0.0050	< 0.0050	0.0086	< 0.0050	< 0.0050						to design
MW-2-29.0	3/27/2003	29.0	<1.0	1.1		< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.0050						
MW-3-5.5	3/26/2003	5.5	<1.0	1.3		< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.0050	***			***		
MW-3-9.0	3/26/2003	9.0	<1.0	<1.0		< 0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050					•••	
MW-3-14.0	3/26/2003	14.0	<1.0	5.4		< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050		***				
MW-3-19.0	3/26/2003	19.0	5.3	5.6		< 0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050			***			
MW-3-24.0	3/26/2003	24.0	1,600	540		<6.2	<6.2	<6.2	<6.2	<6.2	***					
MW-3-29.0	3/26/2003	29.0	1,100	7.4	***	<6.2	<6.2	<6.2	<6.2	<6.2						
11111 0 20.0	3,20,2003	27.0	1,100	7		10,2	\0.2	~ 0,∠	~0. ∠	~0.2					***	
SBA 10.0'	3/31/1999	10.0	61	1,500	11,100	< 0.050	< 0.050	< 0.050	0.21	< 0.25						
SBA 15.5'	3/31/1999	15.5	13	1,100	10,100	< 0.0050	< 0.0050	0.019	0.19	< 0.25			***			
SBA 22.5'	3/31/1999	22.5	34	510	6,840	0.057	0.41	0.16	0.45	0.26						
SBB 6.0'	3/31/1999	6.0	<1.0	2,4	***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025					***	
SBB 16.0'	3/31/1999	16.0	<1.0	1.2		< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.042		***			-	
SBB 20.5'	3/31/1999	20.5	<1.0	1.1		<0.0050	<0.0050	< 0.0050	< 0.0050	0.026		***				
SBC 5.5'	3/31/1999	5.5	<1.0	4.0		<0.0050	<0.0050	<0.0050	<0.0 <u>05</u> 0	< 0.025						
SBC 15.5'	3/31/1999	15.5	<1.0	2.1		<0.0050	<0.0050	<0.0050	<0.0050	<0.025			***			
SBC 20.5'	3/31/1999	20.5	<1.0	2.0		<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	782	****				

Table 1. Soil Analytical Results for Select Hydrocarbons and Oxygenates- Former Shell Service Station - 2001 Fruitvale Avenue, Oakland, California - Incident # 97109122

Sample ID	Sample Date		TPHg	TPHd	ТРНто	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	ЕТВЕ	TAME	TBA	EDB	1,2-DCA (EDC)
		(fbg)	4						pp	om ———						
SB-1-6.0-6.5	1/3/1996	6.0-6.5	<1.0			< 0.005	< 0.005	< 0.005	<0.005							
SB-1-11.0-11.5	1/3/1996	11.0-11.5	<1.0			< 0.005	< 0.005	< 0.005	<0.005					**		••
SB-1-16.0-16.5	1/3/1996	16.0-16.5	<1.0			<0.005	< 0.005	<0.005	<0.005					~-		
SB-1-21.0-21.5	1/3/1996	21.0-21.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005					4=		
SB-2-6.0-6.5	1/3/1996	6.0-6.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005							
SB-2-11.0-11.5	1/3/1996	11.0-11.5	<1.0	<1.0		< 0.005	< 0.005	< 0.005	0.009							
SB-2-16.0-16.5	1/3/1996	16.0-16.5	170	62		< 0.04	< 0.04	< 0.04	< 0.04	4.						
SB-2-21.0-21.5	1/3/1996	21.0-21.5	830	410		< 0.02	0.11	0.47	4.9	••						
SB-3-6.0-6.5	1/3/1996	6.0-6.5	3.5	_	••	< 0.005	< 0.005	< 0.005	0.010							
SB-3-11.0-11.5	1/3/1996	11.0-11.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005							
SB-3-16.0-16.5	1/3/1996	16.0-16.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005		4=					
SB-3-21.0-21.5	1/3/1996	21.0-21.5	20			< 0.005	0.005	< 0.005	0.057				***			
SB-4-6.0-6.5	1/3/1996	6.0-6.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005							*-
SB-4-11.0-11.5	1/3/1996	11.0-11.5	<1.0	<1.0		< 0.005	< 0.005	< 0.005	< 0.005							
SB-4-16.0-16.5	1/3/1996	16.0-16.5	<1.0	<1.0		< 0.005	< 0.005	< 0.005	< 0.005							
SB-4-19.0-19.5	1/3/1996	19.0-19.5	5.0	14		< 0.005	< 0.005	< 0.005	0.014				••	**		
SB-5-6.0-6.5	1/3/1996	6.0-6.5	<1.0			< 0.005	< 0.005	< 0.005	< 0.005							
SB-5-11.0-11.5	1/3/1996	11.0-11.5	<1.0	<1.0		< 0.005	< 0.005	< 0.005	< 0.005							
SB-5-16.0-16.5	1/3/1996	16.0-16.5	<1.0	<1.0		< 0.005	< 0.005	< 0.005	< 0.005							7.5
SB-5-21.0-21.5	1/3/1996	21.0-21.5	300	160		<0.02	0.12	0.73	0.95							

Notes and Abbreviations:

fbg = feet below grade

ppm = parts per million

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015M (results in parenthesis analyzed by EPA Method 8260B)

TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015M

TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015M

Benzene, toluene, ethylbenzene and total xylenes analyzed by EPA Method 8021B (results in parenthesis analyzed by EPA Method 8260B)

MTBE = Methyl tert-butyl ether analyzed by EPA Method 8021B (results in parenthesis analyzed by EPA Method 8260B)

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tert-butyl ether analyzed by EPA Method 8260B

TAME = Tert-arrayl methyl ether analyzed by EPA Method 8260B

TBA = Text-butanol analyzed by EPA Method 8260B

EDB = 1,2 - Dibromoethane analyzed by EPA Method 8260B

1,2-DCA (EDC) = 1,2-Dichloroethane analyzed by EPA Method 8260B

<X = Below laboratory detection limit of X

--- = Not analyzed

Table 2. Soil Analytical Results for SVOCs and HVOCs - Former Shell Service Station - 2001 Fruitvale Avenue, Oakland, California - Incident # 97109122

Sample ID	Sample Date	Depth	Butyl benzyl phthalate	PCE	Phenol	Remainder of SVOCs	HVOCs
·	<u></u>	(fbg)		*****	ppm —		 1
MW-1-5.5	3/26/2003	5.5	< 0.17	<0.005	< 0.067	ND	ND
MW-1-9.0	3/26/2003	9.0	< 0.17	< 0.005	< 0.067	ND	ND
MW-1-14.0	3/26/2003	14.0	< 0.17	< 0.005	< 0.067	ND	ND
MW-1-19.0	3/26/2003	19.0	0.43	< 0.005	< 0.067	ND	ND
MW-1-24.0	3/26/2003	24.0	< 0.17	< 0.005	< 0.067	ND	ND
MW-1-29.0	3/26/2003	29.0	< 0.17	<0.005	<0.067	ND	ND
SBA 10.0'	3/31/1999	10.0	<2.5	0.046	3.6	ND	ND
SBA 15.5'	3/31/1999	15.5	<2.5	< 0.025	<2.5	ND	ND
SBA 22.5'	3/31/1999	22.5	<0.5	< 0.025	< 0.5	ND	ND

Notes and Abbreviations:

fbg = feet below grade

ppm = parts per million

SVOCs = Semi-volatile organic compounds by EPA Method 8270C

HVOCs = Halogenated volatile organic compounds by EPA Method 8021B/8260B

<X = Below laboratory detection limit of X

ND = Not detected above laboratory reporting limit. Reporting limits vary, see analytical report.

PCE = Tetrachlorethene

TABLE 2

SOIL ANALYTICAL DATA Former Shell Service Station 2001 Fruitvale Avenue Oakland, California SAP Code 117941 Incident #97109122

Sample	Date	ТРРН	TEPH	TRPH	В	Т	E	х	MTBE	Primary Soil Type (Unified	Comments
Depth (ft	Sampled	(mg/kg)	Soil Class)								

Abbreviations and Notes:

NA = Not analyzed.

< x =Not detected at method detection limit of x.

TPPH = Total purgeable petroleum hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified).

TEPH = Total extractable petroleum hydrocarbons by EPA Method 8015 (Modified).

TRPH = Total recoverable petroleum hydrocarbons by EPA Method 418.1.

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020.

MTBE = Methyl tertiary butyl ether by EPA Method 8020.

Cadmium, chromium, lead, nickel, and zinc by EPA Method 6010A.

HVOCs = Halogenated volatile organics by EPA Method 8010.

SVOCs = Semivolatile organics by EPA Method 8270.

241-1296

2

TABLE 2

SOIL ANALYTICAL DATA Former Shell Service Station 2001 Fruitvale Avenue Oakland, California SAP Code 117941 Incident #97109122

Sample Depth (ft)	Date	TPPH	TEPH	TRPH	B	T	E	X	MTBE	Primary Soil Type (Unified Soil Class)	Comments
Debru (ii)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Jour Class)	
SBA											
		100	and the same	0.00			and the state of				Chromium-49 ppm, Łead-870 ppm; Nickel
			a de gra								82 ppm, Zinc 87, ppm, HMOCs ND, except - Tetraculoroethene-0.046 ppm - SVOCs
10.0	81-Mar-99	61	1500	11100	<0.050;	<0.050 %	<0.050	0.214	** 140,26* <u>.</u> .		 ND except Phenol 3.6 ppm. Chromlub 37 ppm. Lead 410 ppm. Nickel
45.5	04.1450		400				Supplied Supplied				⇒ 55 ppm. Zinc-70 ppm. >HV⊚Cs and
15.5	31-Mar-99	13 i 36	1,100	10100 .	<0.0050	<0.0050	September 1941	0.19	<0.025		SVOCs ND: Chromium-17:ppm://Lead:14.ppm;/Nickel/
22.5	31-Mar-99	34	640 640	6840	0.057		0.16	T. Care	0.26		34 ppm, Zinc-29 ppm, HVOCs and SVOCs ND
SBB											
ELITADA ANTONIO POR CONTRACTOR DE CONTRACTOR	31-Mar-99 31-Mar-99	<1.0 ⇒≤1.0	2(4 1.2	NA NA	<0.0050 4.<0.0050	<0.0050 <0.0050		<0.0050 <0.0050	2<0.025 ± 0.042	SO SO	
20,5	31-Mar-99		1,1	NA E	₹0.0050	<0.0050		<0.0050	0,026	CL	
SBC				 						ı	
5.5	31-Mar-99-	<1.0	4.0	NA	<0.0050¢	=<0.0050°	×<0:0050=	<0.0050	< 0.025	CL	Topical and produce a second
15,5 20,5	31-Mar-99 31-Mar-99	<1.0	2.1 2.0	ONA THE	<0.0050	<0.0050	<0.0050		+ <0.025 N	SALCE:	The property of the state of th
ZV:3	or-ware99	<1.0	4 - 62	NA NA	<u>UU50 //</u>	<0.0050	<0.0U50.	i<0.0050∦.	e-≪0:025×.	CL S	CONTRACTOR OF THE PROPERTY OF

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241-1296

Table 3. Soil Analytical Results for LUFT 5 Metals - Former Shell Service Station - 2001 Fruitvale Avenue, Oakland, California - Incident # 97109122

Sample ID	Sample Date	Depth (fbg)	Cadmium ◆	Chromium	Lead	Nickel	Zinc
	· · · · · · · · · · · · · · · · · · ·	(^05)			— ppm —		
MW-1-5.5	3/26/2003	5.5	2.4	46	7.6	77	50
MW-1-9.0	3/26/2003	9.0	2.1	50	6.8	91	46
MW-1-14.0	3/26/2003	14.0	1.7	38	5.4	58	33
MW-1-19.0	3/26/2003	19.0	1.6	19	5.1	34	54
MW-1-24.0	3/26/2003	24.0	1.7	38	3.2	30	29
MW-1-29.0	3/26/2003	29.0 .	1.4	23	7.1	33	35
SBA 10.0'	3/31/1999	10.0	<0.50	49	370	82	87
SBA 15.5'	3/31/1999	15.5	< 0.50	37	410	55	70
SBA 22.5'	3/31/1999	22.5	<0.50	17	14 .	34	29
SB-1-21.0-21.5	1/3/1996	21.0-21.5		***	8.7		
SB-2-21.0-21.5	1/3/1996	21.0-21.5			7.9		w.
SB-3-21.0-21.5	1/3/1996	21.0-21.5	***		3.0		
SB-4-19.0-19.5	1/3/1996	19.0-19.5			8.3		
SB-5-21.0-21.5	1/3/1996	21.0-21.5			3.2		***

Notes and Abbreviations:

fbg = feet below grade ppm = parts per million

LUFT 5 Metals by method 6010B

-- = Not analyzed

WELL CONCENTRATIONS Former Shell Service Station 2001 Fruitvale Avenue Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to . Water (ft.)	GW Elevation (MSL)
															<u> </u>
MVV-1	05/01/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.37	18.82	55.55
MW-1	05/13/2003	260 a	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA NA	NA NA	74.37	18.99	55.2
MW-1	07/01/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA.	74.37	21.11	53.2
MW-1	11/04/2003	86 a	170 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA NA	NA NA	74.37	23.44	50.93
MW-1	01/22/2004	<50	62 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA.	NA	NA.	74.37	18.30	56.07
MW-1	04/01/2004	69 a	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA NA	74.37	18.82	55.55
MW-1	01/13/2005	64 a	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA.	NA NA	NA .	74.37	15.59	58.78
MW-1	07/08/2005	<50 b	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA NA	74.37	20.72	
MW-1	08/16/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA NA	74.37	21.63	53.65
MW-1	10/26/2005	<50	<50 d	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	74.37	23.02	52.74 51.35
						,							7-7.07	20.02	31.33
MW-2	05/01/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	74.25	18.48	55.77
MW-2	05/13/2003	190	120 a	<0.50	<0.50	1.3	5.2	<0.50	NA	NA	NA	NA NA	74.25	18.71	55.54
MW-2	07/01/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA NA	NA NA	74.25	20.64	53.61
MW-2	11/04/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA NA	NA NA	NA NA	74.25	23.16	51.09
MW-2	01/22/2004	200	97 a	<0.50	<0.50	6.1	2.4	<0.50	NA	NA	NA NA	NA.	74.25	17.94	51.09 56.3 <u>1</u>
MW-2	04/01/2004	150	100 a	<0.50	<0.50	3.9	1.9	<0.50	NA	NA NA	NA .	NA	74.25	18.64	55.
MW-2	01/13/2005	1600	570 a	0.71	1.1	54	24	<0.50	NA	NA.	NA NA	NA NA	74.25	15.25	
MW-2	07/08/2005	<50 b	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA NA	NA	NA NA	74.25	20.38	59.00
MW-2	08/02/2005	75	<50	<0.50	<0.50	1.4	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	74.25	20.84	53.87
MW-2	10/26/2005	120 c	<50 d	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	74.25	22.53	53.41 51.72
						<u></u>						10.0	17.20	22,33	21.72
MW-3	05/01/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	73.63	18.00	<i>EE</i> 60
MW-3	05/13/2003	6,100 a	160 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA NA	NA NA	NA NA	NA NA	73.63		55.63
MW-3	_07/01/2003_	210	-57 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA NA	NĀ.	NA NA	NA NA		18.12	55.51
MW-3	11/04/2003	4,200	630 a	<5.0	<5.0	8.7	10	<5.0	NA	NA NA	NA NA	NA NA	73.63 73.63	20.00 23.28	53.63 50.35

WELL CONCENTRATIONS Former Shell Service Station 2001 Fruitvale Avenue Oakland, CA

Weil ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
· · · · ·															
MW-3	01/22/2004	350 a	110 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	73.63	17.60	56.03
MW-3	04/01/2004	150	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	73.63	18.00	55.63
MW-3	01/13/2005	170 a	92 a	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	73.63	14.78	58
MW-3	07/08/2005	330	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	73.63	19.64	53.55
MW-3	10/26/2005	1,800	340 d,e	<1.0	<1.0	1.6	2.1	<1.0	<4.0	<4.0	<4.0	<10	73.63	22.64	50.99

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B.

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B.

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B.

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B.

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

WELL CONCENTRATIONS Former Shell Service Station 2001 Fruitvale Avenue Oakland, CA

	-				1			MTBE						Depth to	GW
Well ID	Date	TPPH	TEPH	B	T	E	X	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)								

Notes:

- a = Hydrocarbon does not match pattern of laboratory's standard.
- b = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.
- c = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
- d = TEPH with Silica Gel Clean-up
- e = Hydrocarbon reported is in the early Diesel range and does not match the laboratory's Diesel standard.

Site surveyed May 29, 2003 by Virgil Chavez Land Surveying of Vallejo, CA.

TABLE 3

GROUNDWATER ANALYTICAL DATA

Former Shell Service Station 2001 Fruitvale Avenue Oakland, California SAP Code 117941 Incident #97109122

Sample	Date Sampled	TPPH (ug/L)	TRPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE by 8020 (ug/L)	MTBE by 8260A (ug/L)	Comments
SBA-W							Į .				
	3 <u>1</u> *Mar*99.								10 miles		Chromium-35 ppb. Lead-710 ppb. Nickel-250 ppb. Zinc 170 ppb. HVOCSND excepticis-ti/2-Dichloroethene-47 ppb. Tetrachloroethene-15 ppb. Trichloroethene-477 ppb. SVOCS ND except Bls(2-eth)/lhexy//ppithalate-35 ppb. Buly/ benzyl phthalate-13 ppb, 2-Methylnaphthalene-46; appb; Naphthalene-68, ppb, Pyrene-14 ppb.
SBB-W	31-Mar-99	5100	NA	3300	8.8	15	25	24	<25	<2,00	
SBC-W	31-Mar-99	2500	NA	890	1.3	25	5.8	19	8.5	×<2.00	

Abbreviations:

NA = Not analyzed.

<x = Not detected at method detection limit of x.

TPPH = Total purgeable petroleum hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified),

TPPH ≈ Total extractable petroleum hydrocarbons by EPA Method 8015 (Modified).

TPPH ≈ Total recoverable petroleum hydrocarbons by EPA Method 418.1.

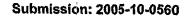
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020.

MTBE = Methyl tertiary butyl ether.

Cadmium, chromium, lead, nickel, and zinc by EPA Method 200.7.

HVOCS = Halogenated volatile organics by EPA Method 8010.

SVOCS = Semivolatile organics by EPA Method 8270.





Halogenated Volatile Organic Compounds by 8021B/8260B

Blaine Tech Services, Inc. Attn.: Michael Ninokata

1680 Rogers Avenue San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: BTS#051026-BA3

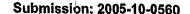
97109122

Received: 10/27/2005 13:15

Site: 2001 Fruitvale Ave., Oakland

PPONSE SCHÖRE	##Jest(s):// 8260B (W/th 1995) Heliage	
Sample (ID: JWK):	** ***********************************	
Talled tales (Inc. 1977) and the state of th	_{क रक्ष} । Extracted ा 172/2005 23:35 ः वर्षः स्थानकार	
S)shmotlereb 109/26/2010/5 (2.5-1.2) Wester	CGBatch# 2005/11/02/01 06 🐙 😘	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	11/02/2005 23:35	
Vinyl chloride	ND	0.50	ug/L	1.00	11/02/2005 23:35	
Chloroethane	ND	1.0	ug/L	1.00	11/02/2005 23:35	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/02/2005 23:35	
1,1-Dichloroethene ^	ND	0.50	ug/L	1.00	11/02/2005 23:35	
Methylene chloride	ND	5.0	ug/L	1.00	11/02/2005 23:35	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/02/2005 23:35	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/02/2005 23:35	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	}
Chloroform	1.1	0.50	ug/L	1.00	11/02/2005 23:35	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	,
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/02/2005 23:35	ļ
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	{
Trichloroethene	ND	0.50	ug/L	1.00	11/02/2005 23:35	-
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/02/2005 23:35	ĺ
Bromodichloromethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	i
trans-1,3-Dichioropropene	ND	0.50	ug/L	1.00	11/02/2005 23:35	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/02/2005 23:35	1
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	
Tetrachloroethene	58	0.50	ug/L	1.00	11/02/2005 23:35	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	[
Chlorobenzene	ND	0.50	ug/L	1.00	11/02/2005 23:35	
Bromoform	ND	2.0	ug/L	1.00	11/02/2005 23:35	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35]
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/02/2005 23:35]
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/02/2005 23:35	}
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/02/2005 23:35	}
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/02/2005 23:35	}
Chloromethane	ND	1.0	ug/L	1.00	11/02/2005 23:35	





Halogenated Volatile Organic Compounds by 8021B/8260B

Blaine Tech Services, Inc. Attn.: Michael Ninokata

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: BTS#051026-BA3

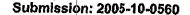
97109122

Received: 10/27/2005 13:15

Site: 2001 Fruitvale Ave., Oakland

; ((c.)(c.)())	
Salmale ID: MW.Z	AA NESUSI BEBOR
	PaidD: 2005.10-0560-2/10
ələrini olayidə (məyezəy/xələtə (təhətə)	# Extracted: 11/5/2005 10:05
Welliky Wellsiy	1 QC Batch#i: 2005/11/05-1B:06

			,			100 March 1971
Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	11/05/2005 10:05	
Vinyl chloride	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Chloroethane	ND	1.0	ug/L	1.00	11/05/2005 10:05	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/05/2005 10:05	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Methylene chloride	ND	5.0	ug/L	1.00	11/05/2005 10:05	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/05/2005 10:05	
cis-1,2-Dichloroethene	1.3	0.50	ug/L	1.00	11/05/2005 10:05	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Chloroform	ND	0.50	ug/L	1.00	11/05/2005 10:05	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/05/2005 10:05	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Trichloroethene	1.0	0.50	ug/L	1.00	11/05/2005 10:05	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/05/2005 10:05	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/05/2005 10:05	ļ
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	i
Tetrachloroethene	34	0.50	ug/L	1.00	11/05/2005 10:05	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Chlorobenzene	ND .	0.50	ug/L.	1.00	11/05/2005 10:05	
Bromoform	ND	2.0	ug/L	1.00	11/05/2005 10:05	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	Ì
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/05/2005 10:05	-
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/05/2005 10:05	1
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/05/2005 10:05	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/05/2005 10:05	İ
Chloromethane	ND	1.0	ug/L	1.00	11/05/2005 10:05	





Halogenated Volatile Organic Compounds by 8021B/8260B

Blaine Tech Services, Inc. Attn.: Michael Ninokata

1680 Rogers Avenue San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: BTS#051026-BA3

97109122

Received: 10/27/2005 13:15

Site: 2001 Fruitvale Ave., Oakland

#Pirejp(s));	Tes((s): 37 8260B.0 - 37 37 37 37 37 37 37 37 37 37 37 37 37
C. Stamelle (IDX (NV) 3)	⊈ : Lab ID? 1., 2005-10-0560 -3. (
ି ଆଲ୍ଗୋଲ୍ଲା: h0/23/2005 (15/05)	Extracted: 11/4/2005 17 43 (4) 1
Matrick : Water	OC Batch# 2005/11/04/01/06 1 19 11 11:
Analysis Flagkil, A.(ESec Legendrand Note Segilon	ALM 第二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	4.0	ug/L	4.00	11/04/2005 17:43	
Vinyl chloride	ND	2.0	ug/L	4.00	11/04/2005 17:43	
Chloroethane	ND	4.0	ug/L	4.00	11/04/2005 17:43	ļ
Trichlorofiuoromethane	ND	4.0	ug/L	4.00	11/04/2005 17:43	
1,1-Dichloroethene	ND	2.0	ug/L	4.00	11/04/2005 17:43	ſ
Methylene chloride	ND	20	ug/L	4.00	11/04/2005 17:43	
trans-1,2-Dichloroethene	ND	2.0	ug/L	4.00	11/04/2005 17:43	-
cis-1,2-Dichloroethene	13	2.0	ug/L	4.00	11/04/2005 17:43	
1,1-Dichloroethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	
Chloroform	ND	2.0	ug/L	4.00	11/04/2005 17:43	1
1,1,1-Trichloroethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	i
Carbon tetrachloride	ND	2.0	ug/L	4.00	11/04/2005 17:43	1
1,2-Dichloroethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	,
Trichloroethene	5.1	2.0	ug/L	4.00	11/04/2005 17:43	Ì
1,2-Dichloropropane	ND	2.0	ug/L	4.00	11/04/2005 17:43	[
Bromodichloromethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	ì
trans-1,3-Dichloropropene	ND	2.0	ug/L	4.00	11/04/2005 17:43	
cis-1,3-Dichloropropene	ND	2.0	ug/L	4.00	11/04/2005 17:43	J
1,1,2-Trichloroethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	.
Tetrachloroethene	7.6	2.0	ug/L	4.00	11/04/2005 17:43	ĺ
Dibromochloromethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	1
Chlorobenzene	ND	2.0	ug/L	4.00	11/04/2005 17:43	ļ
Bromoform	ND	8.0	ug/L	4.00	11/04/2005 17:43	j
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L	4.00	11/04/2005 17:43	
1,3-Dichlorobenzene	ND	2.0	ug/L	4.00	11/04/2005 17:43	ĺ
1,4-Dichlorobenzene	ND	2.0	ug/L	4.00	11/04/2005 17:43	
1,2-Dichlorobenzene	ND	2.0	ug/L		11/04/2005 17:43	ļ



DEFAULT.GDT

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WELL, LOG (PID)

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Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME Shell Oil Products US **BORING/WELL NAME** MW-1 **JOB/SITE NAME** Shell-Branded Service Station **DRILLING STARTED** 26-Mar-03 LOCATION DRILLING COMPLETED ___26-Mar-03 2001 Fruitvale Avenue, Oakland PROJECT NUMBER 245-1296 WELL DEVELOPMENT DATE (YIELD) NA DRILLER Gregg Drilling Not Surveyed **GROUND SURFACE ELEVATION** DRILLING METHOD Hollow-stem auger TOP OF CASING ELEVATION NA BORING DIAMETER _ 10" SCREENED INTERVAL 16 to 31 ft bgs J. Gerke LOGGED BY DEPTH TO WATER (First Encountered) 23.5 ft (26-Mar-03)

M. Derby, PE# 55475 REVIEWED BY **DEPTH TO WATER (Static)** NA REMARKS Hand augered to 5'. CONTACT DEPTH (fbg) GRAPHIC LOG (mdd) BLOW U.S.C.S. DEPTH (fbg) EXTENI SAMPLE LITHOLOGIC DESCRIPTION WELL DIAGRAM B (Fill; brown; damp; clayey sand with gravel. 4.5 Silty CLAY (CL); brown; very stiff; damp; 60% clay, 30% 0 MW-1silt, 10% fine to medium sand; medium plasticity. 17 5.5 Portland Type 12 CL 12 20 0 MW-1-9.0 10 11.8 Sandy SILT (ML); brown; very stiff; damp; 10% clay, 55% silt, 35% fine sand; low plasticity. Bentonite Seaf 12 0 MW-1-ML 14.0 Monterey Sand #2/12 16.8 Gravelly SAND (SPG); brown; very dense; damp: 10% silt, 60% fine to coarse subangular sand; 30% fine to coarse subangular gravel; no plasticity. 34 50 0 1.3 MW-1-19.0 20 0 o ø 0 <u>V</u> 4"-diam., 0.010" Slotted 20 25 @ 23.5 fbg - gray; wet; 10% silt, 50% sand, 40% gravel. MW-1-47 Schedule 40 24.0 25 **PVC** 0 0 0 Ø. @ 28.5 fbg - brown; dense; 5% silt, 85% sand, 10% fine 0 53 MW-1-30-29.0 31.0 **Bottom of** Boring @ 31 ft **ATTACHMENT 5**



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BORING/WELL LOG

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CLIENT NAME	Shell Oil Products US	BORING/WELL NAME MW-3	
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED 26-Mar-03	
LOCATION	2001 Fruitvale Avenue, Oakland	DRILLING COMPLETED 26-Mar-03	
PROJECT NUMBER	245-1296	WELL DEVELOPMENT DATE (YIELD)_	NA L
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem-auger	TOP OF CASING ELEVATION NA	
BORING DIAMETER	10"	SCREENED INTERVAL 15 to 30	ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	20.0 ft (26-Mar-03)
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Static)	_ NA
REMARKS	Hand augered to 5'		1

CONTACT DEPTH (fbg) PID (ppm) GRAPHIC LOG BLOW U.S.C.S. EXTENT DEPTH (fbg) SAMPLE LITHOLOGIC DESCRIPTION WELL DIAGRAM **ASPHALT** 0.4 Fill; brown; very stiff; damp; clayey sand with gravel. 5.1 6 8 25 MW-3-0 Silty CLAY (CL); brown; damp; 70% clay, 20% silt, 5% Portland Type 5.5 sand; 5% gravel; medium plasticity. 10 8 @ 8.5 fbg - stiff; 60% clay, 30% silt, 10% sand. 0 MW-3-9.0 CL ■ Bentonite Seal Monterey Sand #2/12 12 13 0 MW-3-14.0 16.8 Gravelly SAND (SPG); grayish brown; very dense; moist; 20% silt, 45% fine to coarse subangular sand; 35% 0 fine to medium subangular gravel; no plasticity. WELL LOG (PID) GAOAKLAND 2001 FRUITVALEIGINTIOAK2001.GPJ DEFAULT.GDT 26 38 o. 53 MW-3-Ã 0 19.0 @ 20 fbg - gray; wet. \Diamond o ø 4"-dlam., 0.010" Slotted 0 Schedule 40 @ 23.5 fbg - dense; 20% silt, 60% sand, 20% gravel. ⋄ () 45 MW-3-**PVC** 24.0 25 O 0 o 0 12 16 Ø @ 28.5 fbg - 10% silt, 70% sand, 20% fine gravel. 0 284 MW-3-30.0 29.0 30 Bottom of Boring @ 30 ft PAGE 1 OF



LOG (PID)

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BORING/WELL LOG

PAGE 1 OF

CLIENT NAME Shell Oil Products US **BORING/WELL NAME** MW-2 JOB/SITE NAME Shell-Branded Service Station **DRILLING STARTED** 27-Mar-03 LOCATION 2001 Fruitvale Avenue, Oakland DRILLING COMPLETED __27-Mar-03 PROJECT NUMBER 245-1296 WELL DEVELOPMENT DATE (YIELD) DRILLER Gregg Drilling **GROUND SURFACE ELEVATION** Not Surveyed DRILLING METHOD Hollow-stem auger TOP OF CASING ELEVATION NA BORING DIAMETER 10" SCREENED INTERVAL 16 to 31 ft bgs LOGGED BY J. Gerke DEPTH TO WATER (First Encountered) 23.5 ft (27-Mar-03) REVIEWED BY M. Derby, PE# 55475 **DEPTH TO WATER (Static)** NA

