# FOURTH QUARTER 2007 QUARTERLY MONITORING REPORT

Former City of Paris Cleaners 3516 Adeline Street Oakland, California 94608

#### USTCF Claim #002192

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Alameda County Environmental Health

#### **Prepared For:**

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March 15, 2008



www.westernresourcemgmt.com

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# **1.0 INTRODUCTION**

### 1.1 Project Description

On behalf of the responsible party, Western Resource Management (WRM) has prepared this *Fourth Quarter 2007 Quarterly Monitoring Report* for submittal to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) and Alameda County Health Care Services Agency (ACHSA). The scope of work conducted during this project complies with existing SRWQCB and ACHSA directive letters.

### **1.2 Site Location and Description**

The former City of Paris Cleaners is an inactive dry cleaning plant currently owned by Mrs. Debra Runyon and located at 3516 Adeline St., Oakland, CA. The site lies at the southern corner of the intersection between 35<sup>th</sup> St. and Adeline St. at 30 feet above mean sea level (msl), and has been an area of active soil and groundwater monitoring since October 1990. The address is currently listed as City of Paris Studios, a workshop for art, art restoration, collectibles and hobbies.

### **1.3 Site History and Previous Subsurface Investigations**

The plant was in operation for over 40 years until the 1960's, but cleaning materials were not completely removed from the site until 1990. The presence of Total Petroleum Hydrocarbons as Stoddard Solvent (TPH-SS) was analyzed for and confirmed at concentrations above the taste-threshold in October 1990. By this time, ownership had passed through inheritance to Mr. Champion's son and daughter-in-law, Frank and Linda Champion, who contracted B.T. Associates to monitor three groundwater monitoring wells (MW-1, MW-2, and MW-3) surrounding the former tank pit. In October 1990, TPH-SS above the taste-threshold level was confirmed at the site.

In November 1992, B.T. Associates became the principal consulting company responsible for conducting four groundwater monitoring reports per year to define the lateral and vertical extent of contamination as directed by the ACHSA. By April 1995, the concentration of TPH-SS was identified around 570-1000 parts per million (ppm) for all three monitoring wells, although some monitoring events (March and August, 1994) showed non-detect concentrations in well MW-3.

By August 1996, Dugan and Associates replaced B.T. Associates as the principal consulting company and continued the quarterly monitoring of the three on-site wells. In January 1998, Dugan and Associates prepared a work plan entitled *Work Plan for Soil and Groundwater Sampling* to further define the extent of contamination. Six exploratory soil borings (EB-1 through EB-6) were drilled to a depth of 20 feet below grade, and water samples were taken at 18 feet below grade while soil samples were taken at 5, 10 and 15 feet below grade. All samples were tested for TPH-SS, benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tertiary butyl ether (MTBE). Boring EB-1 was located approximately 10 feet southwest of MW-1, and EB-2 through EB-6 were drilled on the northern edge of  $35^{th}$  Street starting at the intersection and trending southeast parallel to the street. The results of the project indicated the contamination was focused around MW-1, with groundwater sampled from EB-1 containing TPH-SS, toluene, ethylbenzene and total xylenes at 270,000, 93, 66, and 1700 µg/l, respectively. Soil samples at EB-1 contained 310 and 340 µg/l of TPH-SS at 10 and 15 ft.,

#### Fourth Quarter 2007, Quarterly Monitoring Report Former City of Paris Cleaners, 3516 Adeline Street, Oakland, California

respectively and trace amounts of total xylenes and/or toluene. All other groundwater and soil samples from borings EB-2 through EB-6 displayed non-detect levels of constituents.

In October 1999, the property was sold to Don Rostocil by Frank and Linda Champion.

By December 1999, the chemical suite of analytes that were monitored grew to include 1,2-Dichlorobenzene (DCB), 1,1-Dichloroethane, 2-methylnaphthalene and naphthalene. All these constituents were present in one or more wells. The groundwater gradient was also defined as trending to the north at 0.003 ft./ft.

In July 2000, the property was sold to Debra Runyon by Don Rostocil.

In March 2002, in compliance with an ACHSA directive letter, WellTest, Inc. (formerly Dugan and Associates) redeveloped the three monitoring wells (by purging 10 well-volumes) and sampled the three wells pursuant to quarterly monitoring responsibilities. WellTest, Inc. also sampled the industrial well on-site. The analytical results of the sampling iindicated up to 11,000  $\mu$ g/L of TPH-SS in the sample from MW-1, no BTEX above laboratory detection limits, up to 31  $\mu$ g/L MTBE in the sample from MW-3, 0.61  $\mu$ g/L DCB in the sample from MW-1, and 130 ug/l Naphthalene in MW-1. The groundwater gradient was also defined to the southeast at 0.14 ft./ft.

In March 2004, TPH-SS and MTBE concentrations were 30,000  $\mu$ g/l in the sample from MW-1 and 5.4  $\mu$ g/l in the sample from MW-2, respectively.

WRM assumed environmental consulting responsibilities for the site commencing in June 2007.

# 2.0 GROUNDWATER MONITORING, SAMPLING, AND ANALYSIS

On December 20, 2007, to comply with quarterly groundwater monitoring requirements, WRM gauged and sampled on-site groundwater monitoring wells MW-1 through MW-3. An on-site industrial well (W-IND) was also monitored this quarter.

### 2.1 Groundwater Monitoring

Depth-to-groundwater was measured in the three monitoring wells using a water level meter capable of measurements to within 0.01 foot. The depth to the groundwater table ranged from 9.95 feet below ground surface (bgs) in MW-2 to 11.51 in MW-1. Groundwater surface elevations ranged from a high of 7.36 feet above mean sea level (msl) in MW-2 to a low of 5.93 feet above msl at W-1. The direction of groundwater flow is to the northeast at a gradient of 0.102 feet per foot. A groundwater surface contour map is included as Figure 3 and groundwater elevation data are summarized in Table 1. Field data sheets for the groundwater monitoring are included as Appendix A.

### 2.2 Groundwater Sampling and Analysis

Following groundwater level measurements, the four wells were purged and sampled in accordance with the established sampling schedule. The monitoring wells were purged with a pump and dedicated disposable tubing until at least three well casing volumes had been removed and/or after groundwater temperature, pH and electrical conductivity values had stabilized. Groundwater was sampled from the monitoring wells using dedicated and disposable polyethylene bailers and laboratory-supplied containers. All sample containers were transported in an iced cooler with chain-of-custody documentation to Sparger Technology, Inc. (Sparger), of Rancho Cordova, California, a state certified analytical laboratory (ELAP Certification #1614).

Sparger analyzed each of the groundwater samples for Total Petroleum Hydrocarbons as Stoddard solvent (TPH-SS) by EPA Method 8015Cm, Total Petroleum Hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene and xylenes (BTEX), and oxygenate methyl tertiary butyl ether (MTBE) by EPA Method 8260B.

Maximum concentrations of TPH-SS, TPH-G, benzene, toluene, ethylbenzene and total xylenes were all detected in the sample from MW-1, with concentrations of 45,000, 110,000, 20, 50, 20, and 100  $\mu$ g/l, respectively. Samples from MW-2, MW-3, and W-IND reported lower TPH-G concentrations of 3,000, 12,000, and 500  $\mu$ g/l, respectively. The only other sample to contain TPH-SS was the sample from MW-3, with a detected concentration of 18,000  $\mu$ g/l. The maximum concentration of MTBE was detected in the sample from MW-3 with a concentration of 9.2  $\mu$ g/l.

The distribution of petroleum hydrocarbon compounds and fuel oxygenates in shallow groundwater is shown on Figure 4. The groundwater sample analytical results are summarized in Table 2 and the laboratory reports, notes, and comments are included in Appendix B.

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

There appears to be an upward trend in TPH-SS concentrations even with seasonal fluctuations taken into account, especially in the downgradient wells MW-1 and MW-3. Between September 9, 2005 and December 20, 2007, TPH-SS increases were detected in two of four wells (30,000  $\mu$ g/l in MW-1 and 14,000  $\mu$ g/l in MW-3), while decreases were observed in the two remaining wells (both reductions to non-detect levels). TPH-G increases were detected in all four wells (99,000  $\mu$ g/l in MW-1, 2,902  $\mu$ g/l in MW-2, 9,400  $\mu$ g/l in MW-3, and over 450  $\mu$ g/l in W-IND).

MTBE showed a slight decrease in the sample from MW-3 and a slight increase in the sample from MW-2, although the highest reported concentration this quarter is only 9.2  $\mu$ g/l. Benzene concentrations are consistent with prior sampling events, with the exception of MW-1, where concentrations increased by over 15  $\mu$ g/l.

Consistent with the historically defined north-northeast groundwater flow, the lateral extent of impacted groundwater continues to be concentrated in the vicinity of the former tank pit, concentrated in the northwest-southeast pattern between MW-1 and MW-2 and extending to the northeast as defined in previous off-site soil borings. The trend of constituents of concern in groundwater appears to indicate a residual soil source area remaining on the property. The groundwater plume remains undefined both down and cross gradient from the location of the former UST's at the site.

WRM proposes to resume quarterly groundwater monitoring at the site upon approval by Alameda County Health Care Services Agency. In addition, WRM proposes to prepare a work plan to fully define the extent of the impacted soil and groundwater at and downgradient of the site, define site specific cleanup goals and additional tasks necessary to allow the preparation and implementation of a Corrective Action Plan at the site.

## 4.0 REPORT DISTRIBUTION

Ms. Paulette Satterley 14601 Guadalupe Drive Rancho Murieta, CA 95683

Ms. Donna Drogos Alameda County Health Care Services Agency 1131 Harbor Parkway, Suite 250 Alameda CA, 94502

Ms. Cherie McCaulou San Francisco Bay Regional Water Quality Control Board 1515 Clay St., Suite 1400 Oakland, CA 94612

## 5.0 REMARKS AND SIGNATURE

The interpretations and/or conclusions contained in this report represent our professional opinions and are based in part on information supplied by the client. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This report has been prepared solely for the use of Ms. Paulette Satterley. Any reliance on this report by third parties shall be at such parties' sole risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide you with geologic, engineering and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 729-1760.

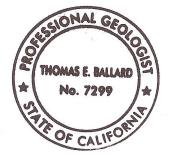
Sincerely,

#### Western Resource Management

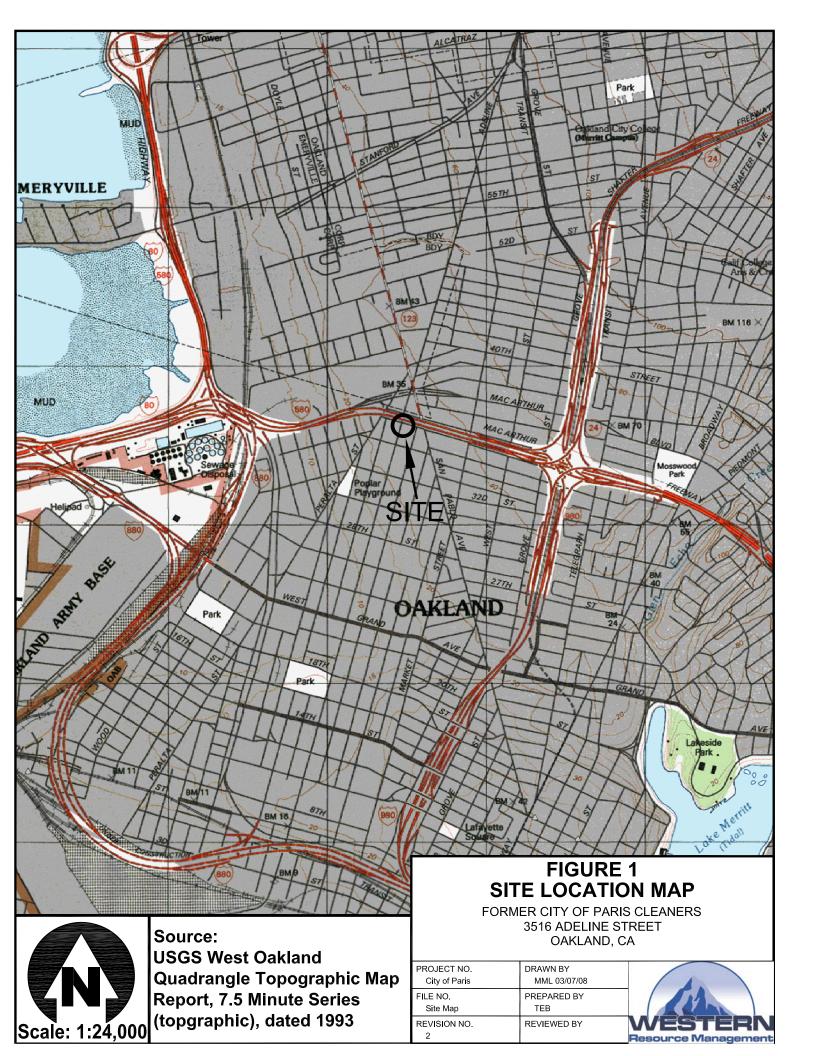
Martin A. Wills Project Manager

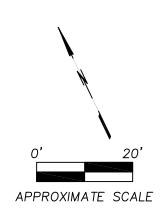
Is E Y

Thomas E. Ballard, P.G. #7299 Senior Geologist

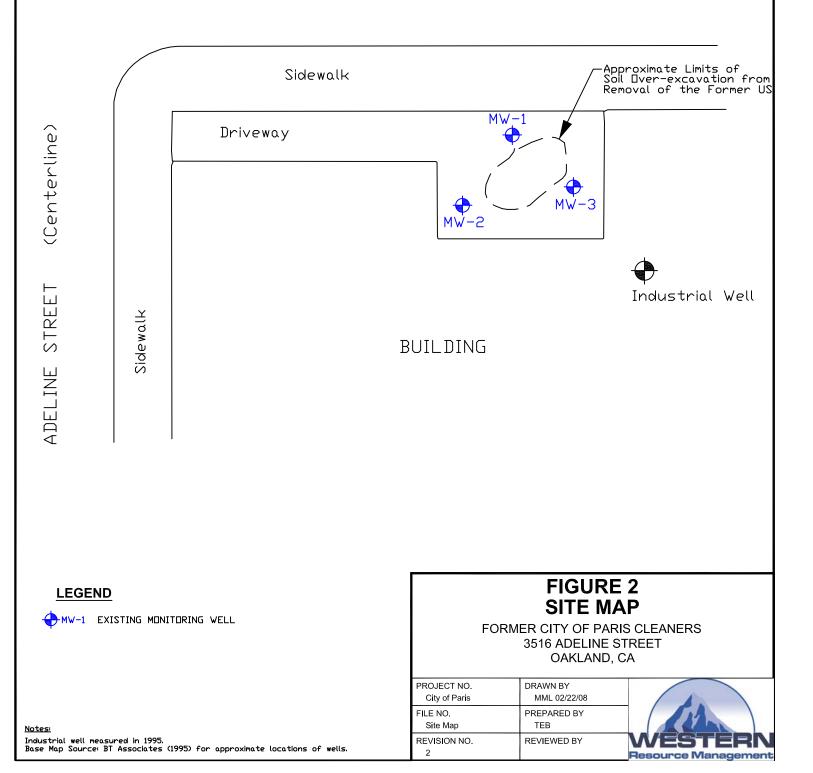


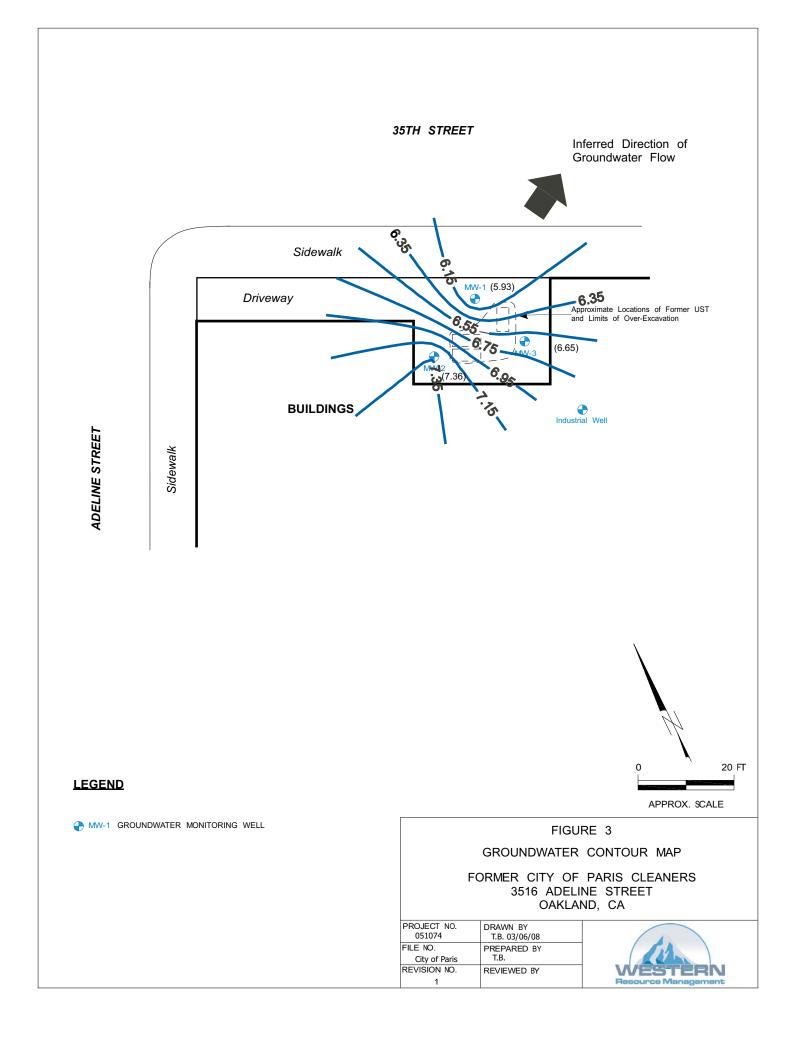
FIGURES

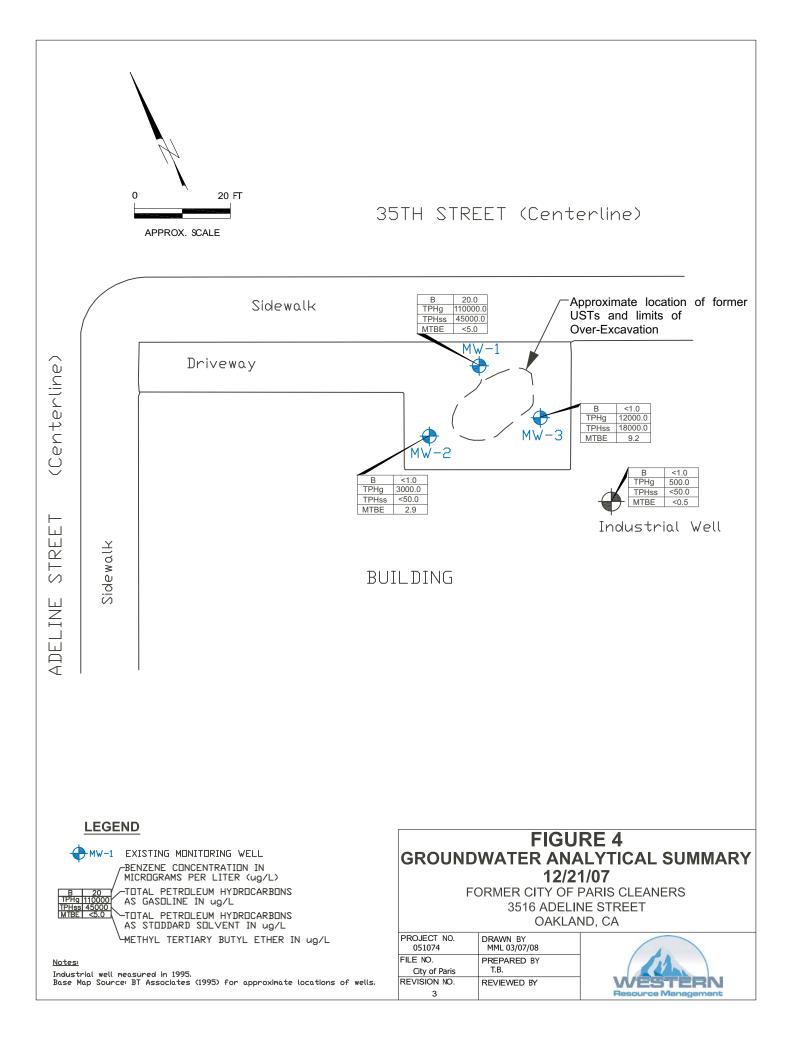




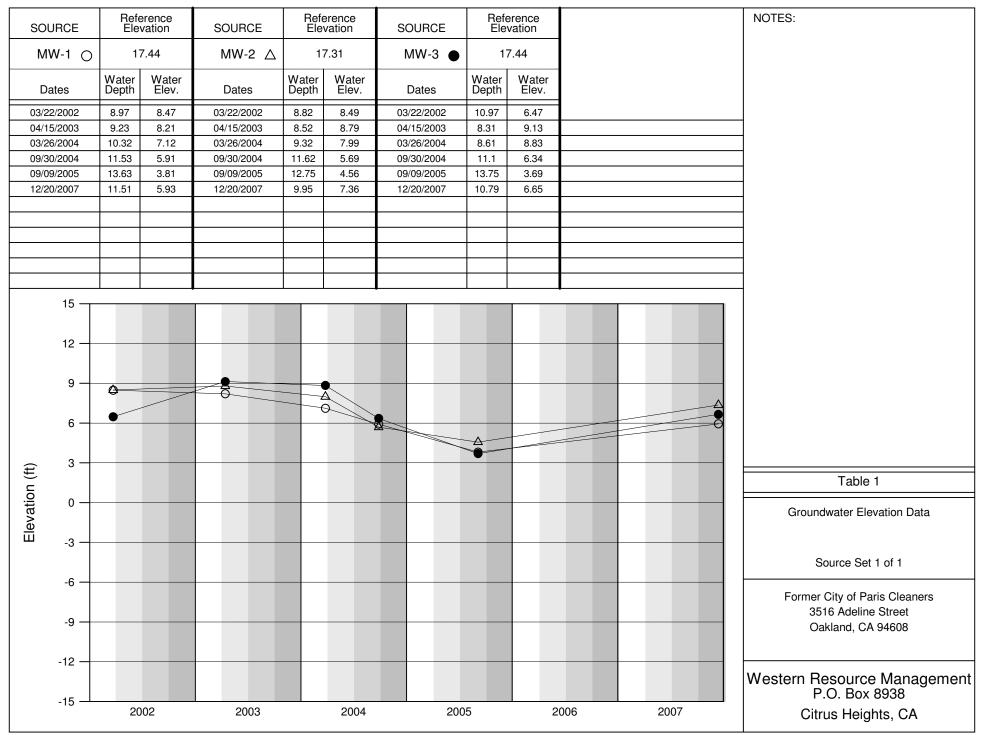
# 35TH STREET (Centerline)







TABLES



	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	11000	-	-	-	-	-	<5.0
04/15/2003	3900	-	<2.5	<2.5	<2.5	3	9
03/26/2004	30000	24000	<50	<50	<50	<50	<500
09/30/2004	3800	2600	<0.5	<0.5	<0.5	2.7	<5
09/09/2005	15000	11000	<5	<5	<5	15	<50
12/20/2007	45000	110000	20	50	20	100	<5

SOURCE: MW-1

Sampling Dates: 03/22/2002 - 12/20/2007

NOTES:

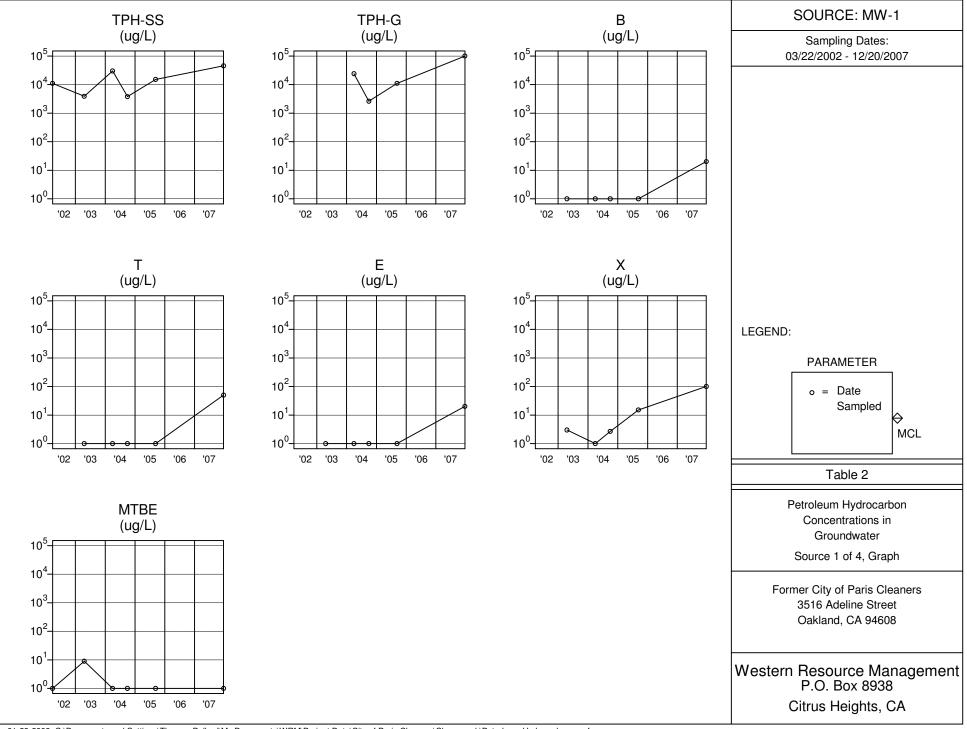
Table 2

Petroleum Hydrocarbon Concentrations in Groundwater

Source 1 of 4

Former City of Paris Cleaners 3516 Adeline Street Oakland, CA 94608

Western Resource Management P.O. Box 8938 Citrus Heights, CA



01-29-2008 C:\Documents and Settings\Thomas Ballard\My Documents\WRM\Project Data\City of Paris Cleaners\Chemgraph\Petroleum Hydrocarbons.wsf

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:			-				
03/22/2002	170	13000	410	1000	210	1100	<5.0
04/15/2003	99	-	<0.5	<0.5	<0.5	0.76	10
03/26/2004	120	93	<0.5	<0.5	<0.5	0.76	5.4
09/30/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
09/09/2005	120	98	<0.5	<0.5	<0.5	<0.5	<5
12/20/2007	<50	3000	<1	1.6	<1	2.4	2.9

SOURCE: MW-2

Sampling Dates: 03/22/2002 - 12/20/2007

NOTES:

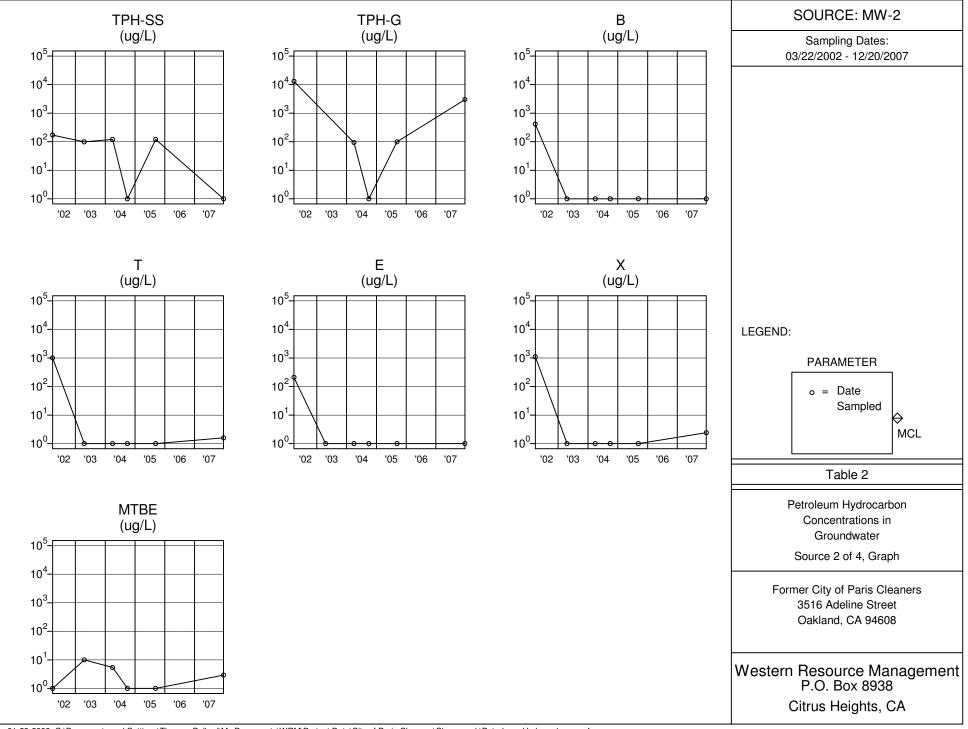
Table 2

Petroleum Hydrocarbon Concentrations in Groundwater

Source 2 of 4

Former City of Paris Cleaners 3516 Adeline Street Oakland, CA 94608

Western Resource Management P.O. Box 8938 Citrus Heights, CA



01-29-2008 C:\Documents and Settings\Thomas Ballard\My Documents\WRM\Project Data\City of Paris Cleaners\Chemgraph\Petroleum Hydrocarbons.wsf

	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	420	<50	<0.5	<0.5	<0.5	<0.5	31
04/15/2003	2700	-	<0.5	<0.5	<0.5	<0.5	40
03/26/2004	2700	1900	<1.7	<1.7	<1.7	4.3	<17
09/30/2004	3900	2600	<0.5	<0.5	<0.5	3.2	<10
09/09/2005	4000	2600	<0.5	<0.5	0.57	2.7	12
12/20/2007	18000	12000	<1	1.6	1.1	2.4	9.2

SOURCE: MW-3

Sampling Dates: 03/22/2002 - 12/20/2007

NOTES:

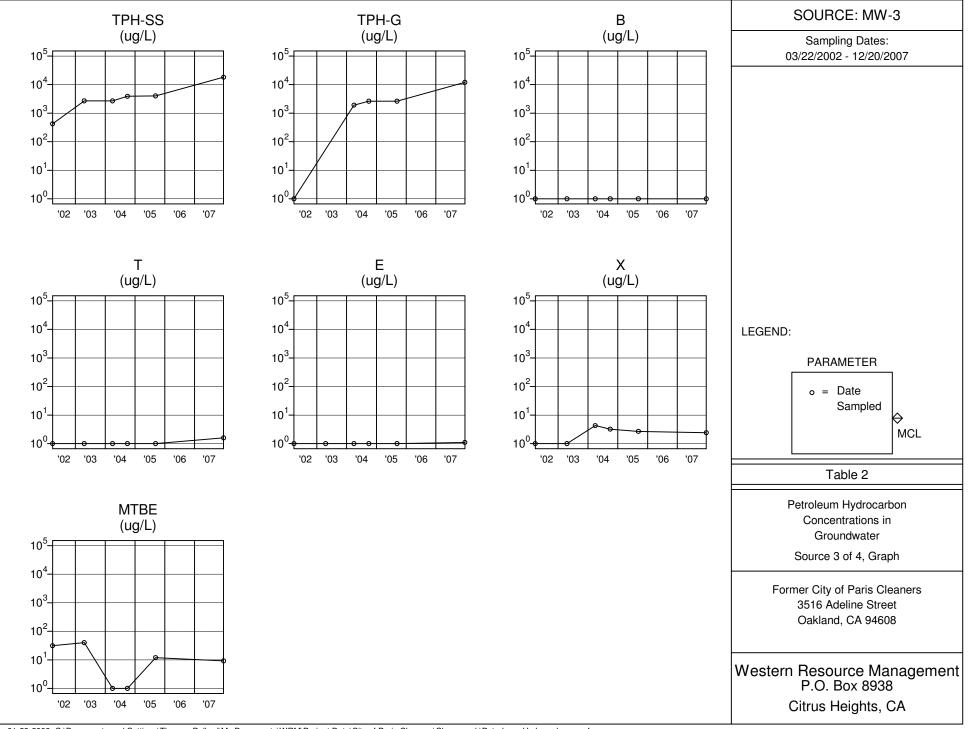
Table 2

Petroleum Hydrocarbon Concentrations in Groundwater

Source 3 of 4

Former City of Paris Cleaners 3516 Adeline Street Oakland, CA 94608

Western Resource Management P.O. Box 8938 Citrus Heights, CA



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	TPH as Stoddard Solvent	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MCL:							
03/22/2002	<50	190	<0.5	<0.5	<0.5	0.80	<5.0
04/15/2003	-	-	-	-	-	-	-
03/26/2004	500	200	<0.5	<0.5	<0.5	<0.5	<5
09/30/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
09/09/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
12/20/2007	<50	500	<1	1	<1	2.2	<.50

SOURCE: W-IND

Sampling Dates: 03/22/2002 - 12/20/2007

NOTES:

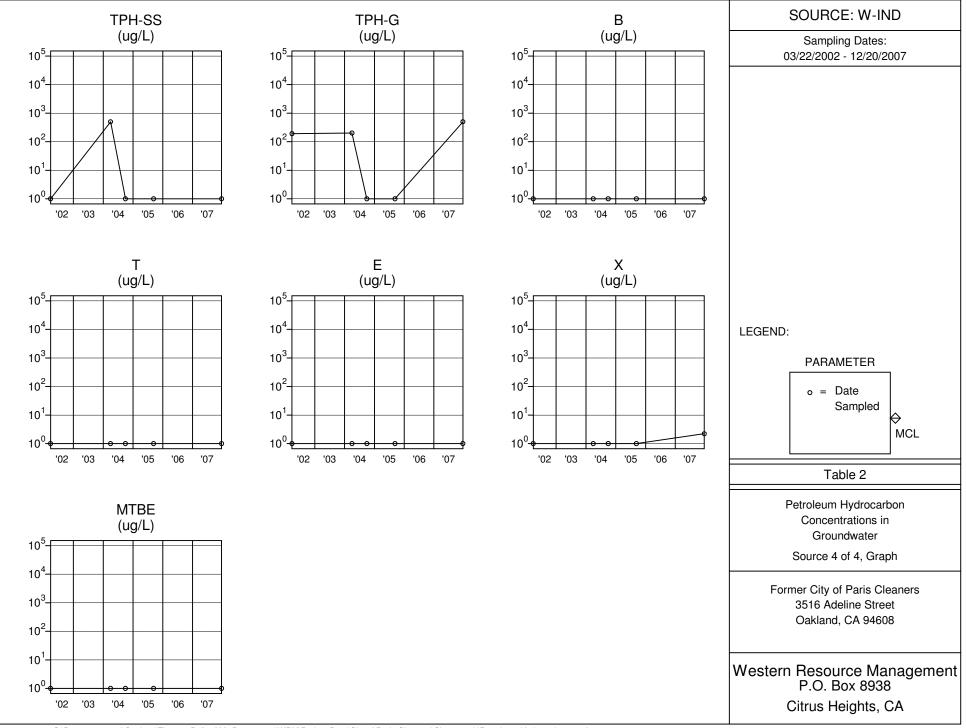
Table 2

Petroleum Hydrocarbon Concentrations in Groundwater

Source 4 of 4

Former City of Paris Cleaners 3516 Adeline Street Oakland, CA 94608

Western Resource Management P.O. Box 8938 Citrus Heights, CA



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# APPENDIX A FIELD DATA SHEETS

Doulos Environmental, Inc. Groundwater / Liquid Level Data

Project Address:

Former City of Paris Cleaners 3516 adeline Bt Ospland CA

Project No .:

Recorded by: Hal Hansp

Date: 12-20-07

Well No.	Time	Well Elev. TOC	Depth to Gr. Water	Measured Total Depth	Gr. Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	1149		11.51	27.03		1		
MW-2	1145		9,95	29,36				
			10.79	29.48		d.		N
MW-3 indistrict	1156		11,68	32.85				
	1					-		
	-	100						
	-2							
1								

Notes:

8" M&D 1 5" CNI 1 rellhead assembly: t:2 2	12" EMCO 12" EMCO 12" M&D 2" Pomeco Excellent " disposable ba " PVC bailer " PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	YES YES YES 8' or 12" BK 12" DWP Other: Good	time: Above TOC If no, see rema If no, see rema 8" Ch Fair Fair Disp 6" 1.47	hours Below arks arks aristy Poor Submers Dedicate Centrifug osable Tu 8"	TOC wible pump ad bailer gal pump
ablend ( ol devices required? in the well box? el? locked? iser (in inches):	12" EMCO 12" EMCO 12" M&D 2" Pomeco Excellent " disposable ba " PVC bailer " PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	YES YES YES YES aller flon bailer <u>Good</u> ailer 4" 0.65 <u>Measurement</u>	time: Above TOC If no, see rema If no, see rema 8" Ch Fair Fair Disp 6" 1.47	hours Below arks arks aristy Poor Submers Dedicate Centrifug osable Tu 8"	TOC 
ol devices required? in the well box? el? locked? iser (in inches):1 8" M&D1 5" CNI1 5" CNI1 t:2 4 sposable bailer1 1 Diameter: 2"4 ier:1 1.5)	2" EMCO 12" EMCO 12" M&D 2" Pomeco Excellent " disposable ba " PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	YES YES YES (8" or 12" BK 12" DWP Other: Good ailer ailer 4" 0.65 <u>Measurement</u>	Above TOC If no, see rema If no, see rema X 8" Ch Fair Disp 6" 1.47	Below arks arks aristy Poor Submers Dedicate Centrifug osable Tu 8"	bible pump ed bailer gal pump ubing 2.61 gal/ft
in the well box? el? locked? iser (in inches):1 8" M&D1 8" M&D1 5" CNI1 5" CNI1 1" ellhead assembly: t:2 4 sposable bailer4 sposable bailer1 1 Diameter: 2"4 ier:1 5)	2" EMCO 12" EMCO 12" M&D 2" Pomeco Excellent " disposable ba " PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	YES YES YES (8" or 12" BK 12" DWP Other: Good ailer ailer 4" 0.65 <u>Measurement</u>	Above TOC If no, see rema If no, see rema X 8" Ch Fair Disp 6" 1.47	Below arks arks aristy Poor Submers Dedicate Centrifug osable Tu 8"	bible pump ed bailer gal pump ubing 2.61 gal/ft
rellhead assembly:         2         2         4         sposable bailer         1 Diameter:       2"         ier:         t         -7.03         11.5)	Excellent " disposable bailer " PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	Good ailer flon bailer 4" 0.65 <u>Measurement</u> 1314	6" 1.47	Submers Dedicate Centrifug osable Tu 8"	ed bailer gal pump ubing 2.61 gal/ft
2 4 sposable bailer 1 Diameter: 2" ier: it -7.03 [1.5]	" PVC bailer " PVC bailer Te 0.16 <u>Recharge</u> Time: Depth to	flon bailer 4" 0.65 <u>Measurement</u> 131 4	6"	Dedicate Centrifug osable Tu 8"_	ed bailer gal pump ubing 2.61 gal/ft
ier: <u>t</u> <u>7.03</u> <u>/1.5)</u>	0.16 <u>Recharge</u> Time: Depth to	Measurement 1314	1.47	8"_ lated purg	
	Samp.	ling time: <u>/</u> ३	15		
Temperature	E.C.	pH	Turbi	dity	Volume
26,8	1289	768		-	1
20,9	1227	698		_	2
25.8	1238	697		2	3
earance:	ondy		Lock:	N	
Cap:	Lock:		7/32 Allenhe	ad:	
				OWP):	
1					
I	20,9 26,8 wearance: replaced: (check Cap: Cap: Cap:	20,9       1227         25,8       1238         rearance:       1238         replaced:       (check all that apply)         Cap:       Lock:	20,9       1227       698         25,8       1238       697         earance:	20,9       127       698         25,8       1238       697         earance:       1238       697         replaced:       (check all that apply)       Lock:         Cap:       Lock:       7/32 Allenhe         Cap:       Lock:       7/32 Allenhe         Cap:       Pinned Allenhead (I	20,9       127       698         25,8       1238       697         earance:       1238       697         replaced:       (check all that apply)       Lock:         Cap:       Lock:       7/32 Allenhead:         Cap:       Lock-Dolphin:       9/16 B         Cap:       Pinned Allenhead (DWP):

Client: WRM		Sampli	ng Date: 12-20	207	
Site: Formar Eity	of Paris	Cleaner Pro	ject No.:		
Site: Formar Eity. 3516 adala	e ft	Well Des	signation: MW-	2	
Cabland a	A	_			
2" Christy 8" M&D	2	YES YES YES YES 12" DWP Other: Good	time: hours Above TOC Below If no, see remarks If no, see remarks &" Christy Fair Poor	TOC	
2	2" disposable b 2" PVC bailer 4" PVC bailer	oailer eflon bailer	Dedicat	sible pump ed bailer gal pump ubing	
-	0.16	0.65	1.47	2.61 gal/	ft.
nitial Measurement ime:5 epth of well:9.36 epth to water:9.95	Recharge Time: Depth to	e Measurement 1249 water: $12327$	Calculated pur Actual pur	ge: 9,39	1
hitial Measurement ime:5 pepth of well:9.36 pepth to water:9.95 Start purge:000	Recharge Time: Depth to Samp	e Measurement 1249 water: $12_327$ pling time: $123$	Calculated pur Actual pur	ge: <u>9,3</u> ge: <u>9,3</u>	1
initial Measurement         ime:       //145         epth of well:       29.36         epth to water:       9.95         Start purge:       1200         Time       Temperature	Recharge Time: Depth to Samp E.C.	e Measurement 1249 water: $12227$ pling time: $123$ pH	Calculated pur Actual pur	ge: 9,39	1
nitial Measurement         ime:       //145         pepth of well:       29.36         pepth to water:       9.95         Start purge:       12.02         Time       Temperature         12.02       22.14	Recharge Time: Depth to Samp E.C. IG 41	e Measurement 1249 water: $12_{2}27$ pling time: $123$ pH 716	Calculated pur Actual pur	ge: <u>9.3</u> ge: <u>9.3</u> Volume	1
Time Temperature	Recharge Time: Depth to Samp E.C.	e Measurement 1249 water: $12227$ pling time: $123$ pH	Calculated pur Actual pur	ge: <u>9,3</u> ge: <u>9,3</u>	
itial Measurement         ime:       //145         epth of well:       29.36         epth to water:       9.95         Start purge:       11000         Time       Temperature         1202       22.14         1204       22.33	Recharge Time: Depth to Samp E.C. 1641 1604	e Measurement 1249 water: $12_{2}27$ pling time: $123$ pH 716 702	Calculated pur Actual pur	ge: $\underline{q}, \underline{z}$	1
nitial Measurement         ime: $//45$ ime: $//45$ pepth of well: $29.36$ pepth to water: $9.95$ Start purge: $1200$ Time       Temperature $1202$ $22.44$ $1204$ $22.34$	Recharge           Time:            Depth to	e Measurement 1249 water: $12_{2}27$ pling time: $123$ pH 716 702 701	Calculated pur Actual pur	ge: $\underline{q}, \underline{z}$ ge: $\underline{q}, \underline{z}$ Volume	
Initial Measurement         ime: $//45$ pepth of well: $29.36$ pepth to water: $9.95$ Start purge: $1202$ Time       Temperature $1202$ $22.44$ $1202$ $22.44$ $1204$ $22.33$	Recharge Time: Depth to Samp E.C. 1604 /604 /603 all that apply) Lock: Lock-	e Measurement <u>1249</u> water: <u>1227</u> pling time: <u>123</u> pH <u>716</u> <u>701</u> <u>10</u> Note con <u>7</u> Dolphin: <u>7</u>	Calculated pur Actual pur	em(s)	Parp
Initial Measurement         ime:       ///45         pepth of well:       29.36         pepth to water:       9.95         Start purge:       1100         1202       22.44         1202       22.44         1202       22.44         1202       22.44         1202       22.44         1202       22.44         1202       22.44         1203       12.03         Sample appearance:       '         Equipment replaced:       (check         2" Locking Cap:       _         4" Locking Cap:       _	Recharge Time: Depth to Samp E.C. IKU/ IGOU IGOU IGOU IGOU Lock: Lock:	e Measurement 1249 water: $1227$ pling time: $123$ pH 702 701 I Note con Dolphin:7 Pinned A	Calculated pur Actual pur	em(s)	Parp

Client	WRM		Sam	pling Date:	12-	20-07	7
Site	Formar Eity	of Paris	Cleaner P	roject No.:			
	Formar Eity 3516 addel	~ ft	Well D	esignation:	MV	1-3	
	Cabland .	CA	-				
Is there standin Is top of casing Is well cap sea Height of well Well cover typ 12" Christy 12" CNI	ed and locked? casing riser (in inches): e: 8" or 12" UV 8" M&D	NO NO 12" EMCO 12" M&D 12" Pomeco	YES YES YES VES 12" DWP Other: Good	time: Above TOC If no, see ren If no, see ren SA 8" ( Fair	Belo narks	w TOC	
Purging Equ		2" disposable b 2" PVC bailer 4" PVC bailer	ailer eflon bailer		Dedica	rsible pum ted bailer ugal pump	
Purge Vol. M Initial Measu Time:5 Depth of wel Depth to wat	1: _29, 44	0.16 <u>Recharge</u> Time:	0.65 Measurement 1359 Water: <u>138-2</u>	Calc	ulated pu Actual pu	2.61 ga urge: <b>7.</b> rge: <b>7.</b>	
Initial Measu Time: <u>45</u> Depth of well Depth to wat	fultiplier: <u>arement</u> <u>2</u> l: <u>29</u> <i>WG</i>	0.16 <u>Recharge</u> Time: Depth to	Measurement	1.47 Calc		ırge: <b>9</b> .	
Initial Measu Time: <u>45</u> Depth of well Depth to wat	Initiplier:         Initiplier:	0.16 <u>Recharge</u> Time: Depth to	Measurement 1259 Water: 138-2	1.47 Calc		ırge: <b>9</b> .	gal
Initial Measu Time:5 Depth of web Depth to wat Start	Illiplier:         I:       29.44         I:       29.44         er:       10.79         purge:       12.25         ne       Temperature	0.16 <u>Recharge</u> Time: Depth to Samp	Measurement	1.47 Calc	Actual pu	rge:	gal 1
Initial Measu Time: <u>115</u> Depth of well Depth to wat Start Tin	Initiplier:         Initiplier:	0.16 <u>Recharge</u> Time: Depth to Samp	Measurement	1.47 Calc	Actual pu	rge:	gal y
Initial Measu Time: <u>115</u> Depth of well Depth to wat Start Tin <u>12</u>	Initiplier:         I: $29, 44$ I: $29, 44$ er: $10.79$ purge: $12.25$ ne       Temperature         7 $21, 4$ 2 $21, 2$	0.16 <u>Recharge</u> Time: Depth to Samp E.C.	Measurement	1.47 Calc	Actual pu	rge:	gal U
Initial Measu Time: <u>115</u> Depth of well Depth to wat Start <u>121</u> <u>122</u>	Initiplier:         I: $29, 44$ I: $29, 44$ er: $10.79$ purge: $12.25$ ne       Temperature         7 $21, 4$ 2 $21, 2$	0.16 <u>Recharge</u> Time: Depth to Samp <u>E.C.</u> <u>1462</u> <u>1317</u> <u>1387</u>	Measurement Measurement Water: <u>138-2</u> ling time: <u>138-2</u> pH 747 731	1.47 Calc	Actual pu pidity	rge:	gal
Initial Measu Time: 15 Depth of web Depth to wat Start IL IL Samp Equip 2" Lo 4" Lo	Initiplier:         I: $29, 44$ I: $29, 44$ er: $10.79$ purge: $12.25$ ne       Temperature         7 $21, 4$ 1 $24, 4$	0.16 <u>Recharge</u> Time: Depth to Samp <u>E.C.</u> <u>1462</u> <u>1317</u> <u>1387</u> <u>1387</u> all that apply) <u>Lock:</u> Lock:	Measurement Measurement Mater: <u>138-2</u> water: <u>138-2</u> ling time: <u>138-2</u> pH <u>791</u> 791 <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>791</u> <u>705</u> Note c	1.47 Calc A DO Turb Lock: A condition of r	eplaced i	volum	gal ue Po

DOULOS ENVI	RONMENTAL	, INC.	SAN	1PLING INFO	RMAT	ION SHEET	
Client: 4				1.5	-200	37	
Site: Formar Eity of Paris Cleaner Project No.: 3516 adalane & Well Designation: IW							
35	16 adola	e ft	Well De	signation: <u>]</u>	W		
a	abland C	A					
Is setup of traffic contr Is there standing water Is top of casing cut leve Is well cap sealed and I Height of well casing r Well cover type: 8" or 12" Christy	in the well box? el? ocked? iser (in inches):	2" EMCO 12" M&D 2" Pomeco Excellent	YES YES YES YES Or 12" BK 12" DWP Other: Good	Above TOC If no, see remarks If no, see remarks 8" Chris	S	oc	
Purging Equipment Sampled with: Di	2	" disposable ba " PVC bailer " PVC bailer Tef	iler lon bailer		ibmersit edicated entrifuga able Tub	l pump	
Well Purge Vol. Multipli <u>Initial Measuremen</u> Time:56 Depth of well: Depth to water: Start purge:	t - 85 1.69	0.16 <u>Recharge I</u> Time: Depth to w	" <u>Measurement</u> <u>HH</u> vater:/ <u>H</u> ./4 ng time: _ <u>/</u> 3_/	Actu		2.61 gal/ft. :: <u>/6.2.60</u> : <u>/6.2 //</u>	
Time	Temperature	E.C.	pH	Turbidit	v	Volume	
1328	70.4	940	914			, oranic	
1331	203	938	716				
1335	2013	936	711				
Sample appe	arance: Apu	ely.		Lock:	2		
2" Locking ( 4" Locking (	eplaced: (check a Cap: Cap: Cap:	Lock: Lock-D	olphin:	7/32 Allenhead	: 9/16 Bol	t:	
Remarks: TL	58.24	est afte	n oano	thy		* j	
Signature: _//	ul Ba	_					



Western Resource Management Daily Field Report

Name Trank Kinds Date: 12/21/04

Project Name: City of TAN's Channess Staff: J. Kink ( W/ HAL HANSEN) Project Address: 3516 Adelinia STREAT OAKLAND, CH. Miles: 72 miles Project No. 05/074 Task: Hours: BHAURS WELL VANU REPAIR **Field Equipment In Use** Q-001 Air Sampling Pump Q-022 **Tedlar Bags** Q-002 Brass Tubes Q-024 **Turbidity Meter** Q-004 **Disposable Bailer** Q-026 Water Level Indicator Q-005 DO Meter Q-029 Disposable Tubing (ft) Q-007 Generator Q-030 Teflon Tubing (ft) Q-008 **Trimble GPS Receiver** Q-031 Combo Meter (DO/ORP/pH) Q-009 Grundfos Pump Q-032 Air Compressor Q-014 Q-033 Locking Well Cap Anemometer Q-015 Master Lock Q-034 Manometer Q-016 pH/Temp/EC Meter Q-035 Rotary Hammer Drill Q-017 Photoionization Detector Q-036 **IR** Thermometer Sampling Supplies Q-018 Q-037 Bladder Pump Concentre \* WELL VAULT B" 3 SAND \* BAS'S PVC 2" \* 12 SA. Drum Status Subcontractors on Site Doulos Envinionmental: Hal Sutton. Soil: Water: Sampled 4 wiells . (MW 1, 2, 3 1 Ind with) Notes: **Description of Work** Sketch - Added 4FT of 2"Pik NOTE : Doulos ENVIRON MENTOC Moundad 1 - B" Wrill Vpult 4. NEW WELL CAMPS -NEW B" WELE VAULT 3 Mays of Small - Filled Will Space of 12 MASS of Spard. 1 May of Concentre CURRENT PROPERTY OWNERS SATISFIED WITH NEW VAVIT. \* SEE: PURMASEd ITEMS DATEd 12/11/04

City of Paris Cleaners

3516 Adeline Street

Oakland, Ca.

#### Field Report and Well Data

11/30/07

<u>Well</u>	<u>Depth-to-Water</u>	<u>Total Depth</u>	Casing size	<u>Comments</u>
MW-1	13.95 Ft.	27.20 Ft.	2"	Odor, Needs new Cap.
MW-2	11.06 Ft.	29.65 Ft.	2″	No Odor, Needs new Cap.
Mw-3	13.90 Ft.	29.82 Ft.	2″	Low Odor, Needs new Cap.
Ind. Well	12.92 Ft.	33.02 Ft.*	2″	NO VAULT; CASING BROKEN

\*Industrial Well, No well vault or lid 8", Casing broken off 4 ft down hole; Grout seal below broken pipe. May be possible to add 2" pipe to broken casing (below grade pipe at an angle). Possible to re-grout around casing and install new vault. (8" concrete core looks O.K.).

Well-1, Well-2, Well-3 are O.K. (no bolts but secure), all three need new well caps.

Notified property owners that we may begin quarterly sampling in December. Owners need to be notified and home due to access and pets (dogs).

NO drums are to be left on-site. Due to past sampling events, drums were left onsite.

Pictures Taken.

# APPENDIX B LABORATORY REPORTS



Mr Ballard Western Resource Management P.O. Box 8738 Citrus Heights, CA 95621

nagement is Cleaner	
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The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

Sparger Technology, Inc. ID Suffix Keys - These descriptors will follow the Sparger Technology, Inc. ID numbers and help identify the specific sample and clarify the report.

DUP - Matrix Duplicate MS - Matrix Spike MSD - Matrix Spike Duplicate LCS - Lab Control Sample LCSD - Lab Control Sample Duplicate RPD - Relative Percent Difference QC - Additional Quality Control DIL - Results from a diluted sample ND - None Detected RL - Reporting Limit

Note: In an effort to conserve paper, the results are printed on both sides of the paper.

MES

Ray James Laboratory Director

Mr Ballard Western Resource Management P.O. Box 8738 Citrus Heights, CA 95621

Workorder 18322

Enclosed are the results from samples received on December 21, 2007.

The requested analyses are listed below.

SAMPLE	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
18322001	MW-1, Water	12/20/07	8015M TPHd DHS 8015M TPHgDHS 8260B BTEX/FOCs
18322002	MW-2, Water	12/20/07	8015M TPHd DHS 8015M TPHgDHS 8260B BTEX/FOCs
18322003	MW-3, Water	12/20/07	8015M TPHd DHS 8015M TPHgDHS 8260B BTEX/FOCs
18322004	IW, Water	12/20/07	8015M TPHd DHS 8015M TPHgDHS 8260B BTEX/FOCs



## Analytical Laboratory Division Mobile Laboratory Division Scientific Division

**Test Certificate of Analysis** 

Client ID	Western Resource Management	Workorder ID City of Paris Cleaner		
Workorder #	18322	Sampled	12/20/07	
Laboratory ID	18322001	Received	12/21/07	
Sample ID	MW-1	Reported	01/09/08	
Matrix	Water			

#### 8260B Oxygenates - 8260B BTEX/FOCs

Parameter		Prep Date A	nalyzed	Result	<b>RL</b> Units	Dilution
Methyl-tert-butyl-ether		12/28/07 12	2/28/07	ND	5.0 ug/L	1:10
Benzene		12/28/07 12	2/28/07	20	10 ug/L	1:10
Toluene		12/28/07 12	2/28/07	50	10 ug/L	1:10
Ethylbenzene		12/28/07 12	2/28/07	20	10 ug/L	1:10
Xylene (Total)		12/28/07 12	2/28/07	100	10 ug/L	1:10
Surrogates	Result	Recovery	y Limits			
1,2-Dichloroethane-d4	49 ug/L	98 %	(65 -	135)		



## Analytical Laboratory Division Mobile Laboratory Division Scientific Division

**Test Certificate of Analysis** 

Client ID	Western Resource Management	Workorder ID City of Paris Cleaner		
Workorder #	18322	<b>Sampled</b> 12/20/07		
Laboratory ID	18322002	<b>Received</b> 12/21/07		
Sample ID	MW-2	<b>Reported</b> 01/09/08		
Matrix	Water			

#### 8260B Oxygenates - 8260B BTEX/FOCs

Parameter		Prep Date	Analyzed	Result	<b>RL</b> Units	Dilution
Methyl-tert-butyl-ether		12/28/07	12/28/07	2.9	0.50 ug/L	1:1
Benzene		12/28/07	12/28/07	ND	1.0 ug/L	1:1
Toluene		12/28/07	12/28/07	1.6	1.0 ug/L	1:1
Ethylbenzene		12/28/07	12/28/07	ND	1.0 ug/L	1:1
Xylene (Total)		12/28/07	12/28/07	2.4	1.0 ug/L	1:1
Surrogates	Result	Recov	ery Limits			
1,2-Dichloroethane-d4	47 ug/L	94 %	(65 -	- 135)		



# Analytical Laboratory Division Mobile Laboratory Division Scientific Division

**Test Certificate of Analysis** 

Client ID	Western Resource Management	Workorder I	<b>D</b> City of Paris Cleaner
Workorder #	18322	Sampled	12/20/07
Laboratory ID	18322003	Received	12/21/07
Sample ID	MW-3	Reported	01/09/08
Matrix	Water		

### 8260B Oxygenates - 8260B BTEX/FOCs

Parameter		Prep Date	Analyzed	Result	<b>RL</b> Units	Dilution
Methyl-tert-butyl-ether		12/28/07	12/28/07	9.2	0.50 ug/L	1:1
Benzene		12/28/07	12/28/07	ND	1.0 ug/L	1:1
Toluene		12/28/07	12/28/07	1.6	1.0 ug/L	1:1
Ethylbenzene		12/28/07	12/28/07	1.1	1.0 ug/L	1:1
Xylene (Total)		12/28/07	12/28/07	2.4	1.0 ug/L	1:1
Surrogates	Result	Recove	ery Limits			
1,2-Dichloroethane-d4	48 ug/L	96 %	(65 -	135)		



# Analytical Laboratory Division Mobile Laboratory Division Scientific Division

**Test Certificate of Analysis** 

Client ID	Western Resource Management	Workorder ID City of I	Paris Cleaner
Workorder #	18322	<b>Sampled</b> 12/20/0 <sup>°</sup>	7
Laboratory ID	18322004	<b>Received</b> 12/21/0 <sup>°</sup>	7
Sample ID	IW	<b>Reported</b> 01/09/08	8
Matrix	Water		

### 8260B Oxygenates - 8260B BTEX/FOCs

Parameter		Prep Date	Analyzed	Result	RL Units	Dilution
Methyl-tert-butyl-ether		12/28/07	12/28/07	ND	0.50 ug/L	1:1
Benzene		12/28/07	12/28/07	ND	1.0 ug/L	1:1
Toluene		12/28/07	12/28/07	1.0	1.0 ug/L	1:1
Ethylbenzene		12/28/07	12/28/07	ND	1.0 ug/L	1:1
Xylene (Total)		12/28/07	12/28/07	2.2	1.0 ug/L	1:1
Surrogates	Result	Recove	ery Limits			
1,2-Dichloroethane-d4	52 ug/L	104 %	(65 -	135)		



**Test Certificate of Analysis** 

Client ID Workorder #	Western Reso 18322	ource Management		Workorde	er ID City of Paris	Cleaner		
Laboratory ID Sample ID Matrix	18322001 MW-1 Water			Sampled Received Reported	12/20/07 12/21/07 01/09/08			
8015M DHS T	PH LUFT							
Parameter		Method	Prep Date	Analyzed	Result	RL	Units	Dilution
$ extsf{TPHgas}^{1}$		8015M TPHgDHS	12/28/07	12/28/07	110000	50	ug/L	1:1
<b>Surrogates</b> Trifluorotol	uene	<b>Result</b> 21 ug/L	<b>Reco</b> 105	•	135)			
1 - Non-typical TP	H pattern present	in gas range.						
Laboratory ID Sample ID Matrix	18322002 MW-2 Water			Sampled Received Reported	12/20/07 12/21/07 01/09/08			
8015M DHS T	PH LUFT							
Parameter		Method	Prep Date	Analyzed	Result	RL	Units	Dilution
$\mathtt{TPHgas}^1$		8015M TPHgDHS	12/28/07	12/28/07	3000	50	ug/L	1:1

Surrogates	Result	Recovery	Limits
Trifluorotoluene	17 ug/L	85 %	(65 - 135)

1 - Non-typical TPH pattern present in gas range.



**Test Certificate of Analysis** 

Client ID Workorder #	Western Rese 18322	ource Management		Workorder	• ID City of Paris	Cleaner	
Laboratory ID Sample ID Matrix	18322003 MW-3 Water			Sampled Received Reported	12/20/07 12/21/07 01/09/08		
8015M DHS T	PH LUFT						
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution
$ extsf{TPHgas}^1$		8015M TPHgDHS	12/28/07	12/28/07	12000	50 ug/L	1:1
<b>Surrogates</b> Trifluorotol	uene	<b>Result</b> 18 ug/L	<b>Recov</b> 90 %	•	135)		
1 - Non-typical TP	H pattern present	in gas range.					
Laboratory ID Sample ID Matrix	18322004 IW Water			Sampled Received Reported	12/20/07 12/21/07 01/09/08		
8015M DHS T	PH LUFT						
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution
TPHgas		8015M TPHgDHS	12/28/07	12/28/07	500	50 ug/L	1:1
<b>Surrogates</b> Trifluorotol	uene	<b>Result</b> 17 ug/L	<b>Recov</b> 85 %	•	135)		

1 - Non-typical TPH pattern present in gas range.



# Analytical Laboratory Division Mobile Laboratory Division Scientific Division

**Test Certificate of Analysis** 

Client ID	Western Resource Management
Workorder #	18322

Workorder ID City of Paris Cleaner

Parameter Method	Stoddard Solvent 8015M TPHd DHS							
Lab ID	Sample ID	Result	RL	Units	Collected	Analyzed	Matrix	Dilution
18322001	MW-1	45000	50.0	ug/L	12/20/07	01/09/08	Water	1:1
18322002	MW-2	ND	50.0	ug/L	12/20/07	01/09/08	Water	1:1
18322003	MW-3	18000	50.0	ug/L	12/20/07	01/09/08	Water	1:1
18322004	IW	ND	50.0	ug/L	12/20/07	01/09/08	Water	1:1



Fnvironme	ntal Laboratories					
		Method Blank	x Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	Western Resource Management City of Paris Cleaner 84885 MB for HBN 339656 [VGXV/2903] Water					
Parameter	Method	Prep Date	Analyzed	Result	RL Units	Dilution
TPHgas	8015M TPHgDHS	12/28/07	12/28/07	ND	50 ug/L	1:1
Surrogates Trifluorotol	Result         Recovery         Limits           uene         17 ug/L         85 %         (70 - 130)					
	L	ab Control San	nple Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	Western Resource Management City of Paris Cleaner 84886 LCS for HBN 339656 [VGXV/2903] Water					
Parameter	Method	Prep Date	Analyzed	Result	RL Units	Dilution
TPHgas	8015M TPHgDHS	12/28/07	12/28/07	1040	50 ug/L	1:1
	Lab C	ontrol Sample	Duplicate Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	Western Resource Management City of Paris Cleaner 84887 LCSD for HBN 339656 [VGXV/2903 Water	3				
Parameter	Method	Prep Date	Analyzed	Result	RL Units	Dilution
TPHgas	8015M TPHgDHS	12/28/07	12/28/07	1120	50 ug/L	1:1
		Matrix Spike	Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	Western Resource Management City of Paris Cleaner 84888 MS for HBN 339656 [VGXV/2903] Water	-	-			
Parameter	Method	Prep Date	Analyzed	Result	RL Units	Dilution



Environmei	ntal Laborato	ories	Aatrix Spike I	Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	City of Paris C 84888	irce Management leaner 39656 [VGXV/2903]					
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution
(continued)							
TPHgas		8015M TPHgDHS	12/28/07	12/28/07	1200	50 ug/L	1:1
		Matr	ix Spike Dup	licate Report			
Client ID Workorder ID Laboratory ID Sample ID Matrix	Western Resource Management D City of Paris Cleaner						
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution
TPHgas	8015M TPHgDHS		12/28/07	12/28/07	1070	50 ug/L	1:1
		Ν	Aethod Blank	Report			
Client ID Workorder ID Laboratory ID	Western Resou City of Paris C 84890	irce Management		-			
Sample ID Matrix	MB for HBN 3 Water	339659 [VMXV/2954]					
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution
Methyl-tert-k Benzene Toluene Ethylbenzene Xylene (Total		<ul><li>8260B BTEX/FOCs</li><li>8260B BTEX/FOCs</li><li>8260B BTEX/FOCs</li><li>8260B BTEX/FOCs</li><li>8260B BTEX/FOCs</li></ul>	12/28/07 12/28/07 12/28/07	12/28/07	ND ND ND ND	0.50 ug/L 1.0 ug/L 1.0 ug/L 1.0 ug/L 1.0 ug/L	1:1 1:1 1:1 1:1 1:1
<b>Surrogates</b> 1,2-Dichloroe	ethane-d4	<b>Result</b> 50 ug/L	<b>Recovery</b> 100 %	<b>Limits</b> (65 – 135	)		



Lab Control Sample Report

Client ID	Western Resource Management
Workorder ID	City of Paris Cleaner
Laboratory ID	84891
Sample ID	LCS for HBN 339659 [VMXV/2954]
Matrix	Water

Parameter	Method	Prep Date	Analyzed	Result	RL Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	12/28/07	12/28/07	51	0.50 ug/L	1:1
Benzene	8260B BTEX/FOCs	12/28/07	12/28/07	46	1.0 ug/L	1:1
Toluene	8260B BTEX/FOCs	12/28/07	12/28/07	46	1.0 ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	12/28/07	12/28/07	46	1.0 ug/L	1:1
Xylene (Total)	8260B BTEX/FOCs	12/28/07	12/28/07	133	1.0 ug/L	1:1

Lab Control Sample Duplicate Report

Client ID	Western Resource Management
Workorder ID	City of Paris Cleaner
Laboratory ID	84892
Sample ID	LCSD for HBN 339659 [VMXV/2954
Matrix	Water

Parameter	Method Prep Date A		Analyzed	Result	<b>RL</b> Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	12/28/07	12/28/07	47	0.50 ug/L	1:1
Benzene	8260B BTEX/FOCs	12/28/07	12/28/07	44	1.0 ug/L	1:1
Toluene	8260B BTEX/FOCs	12/28/07	12/28/07	45	1.0 ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	12/28/07	12/28/07	45	1.0 ug/L	1:1
Xylene (Total)	8260B BTEX/FOCs	12/28/07	12/28/07	129	1.0 ug/L	1:1

#### **Matrix Spike Report**

Western Resource Management
City of Paris Cleaner
84893
MS for HBN 339659 [VMXV/2954]
Water

Parameter	Method Prep I		Analyzed	Result	<b>RL</b> Units	Dilution
Methyl-tert-butyl-ether	8260B BTEX/FOCs	12/28/07	12/28/07	54	0.50 ug/L	1:1
Benzene	8260B BTEX/FOCs	12/28/07	12/28/07	50	1.0 ug/L	1:1
Toluene	8260B BTEX/FOCs	12/28/07	12/28/07	55	1.0 ug/L	1:1
Ethylbenzene	8260B BTEX/FOCs	12/28/07	12/28/07	53	1.0 ug/L	1:1



Environmental Laboratories											
		Ν	Aatrix Spike	Report							
Client ID	Western Resou	arce Management									
Workorder ID	City of Paris C	leaner									
Laboratory ID	84893										
Sample ID		339659 [VMXV/2954]									
Matrix	Water										
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution				
(continued)											
Xylene (Total)		8260B BTEX/FOCs	12/28/07	12/28/07	156	1.0 ug/L	1:1				
			ix Spike Dup	licate Report							
Client ID		arce Management									
Workorder ID	City of Paris C	lleaner									
Laboratory ID Sample ID	84894 MSD for HPN	[ 339659 [VMXV/2954]									
Matrix	Water	559059 [ V IVIA V/2954]									
Parameter		Method	Prep Date	Analyzed	Result	RL Units	Dilution				
Methyl-tert-k	outyl-ether	8260B BTEX/FOCs	12/28/07	12/28/07	53	0.50 ug/L	1:1				
Benzene		8260B BTEX/FOCs	12/28/07	12/28/07	57	1.0 ug/L	1:1				
Toluene		8260B BTEX/FOCs		12/28/07	60	1.0 ug/L	1:1				
Ethylbenzene		8260B BTEX/FOCs		12/28/07	59	1.0 ug/L	1:1				
Xylene (Total	_ )	8260B BTEX/FOCs	12/28/07	12/28/07	171	1.0 ug/L	1:1				



QC SUMMARY

Client ID	Western Resource Man	agement								
Workorder ID	City of Paris Cleaner			1022000	0					
QC Batch Matrix	VGX 3017 Water		Origin		8 pike [84888]					
viatrix	water		Sampl		pike [84888] pike Duplicate	e [84889]				
		Spike	Spike Dup	Recovery		RPD				
Parameter		%Recovery	%Recovery	Limits	RPD	Limits				
TPHgas		120	107	(65-135)	11	(20 MAX)				
Client ID	Western Resource Man	agement								
Workorder ID	City of Paris Cleaner				_					
QC Batch	VMX 3000		Origir Sampl		8 pike [84893]					
Matrix	Water		e [84894]							
		Spike	Spike Dup	Recovery		RPD				
Parameter		%Recovery	%Recovery	Limits	RPD	Limits				
Methyl-tert-butyl-ether		108	106	(65-135)	1.9	(20 MAX)				
Benzene		100	114	(65-135)	13	(20 MAX)				
Toluene		110	120	(65-135)	8.7	(20 MAX)				
Ethylbenzene		106	118	(65-135)	11	(20 MAX)				
Xylene (Tota	1)	104	114	(65-135)	9.2	(20 MAX)				
Client ID	Western Resource Man	agement								
Workorder ID	City of Paris Cleaner									
QC Batch Matrix	VGX 3017 Water		Sampl	es Lab Con	trol Sample [8	48861				
	water		Sampi			uplicate [84887]				
		Check	Check Dup	Recovery		RPD				
Parameter		%Recovery	%Recovery	Limits	RPD	Limits				
TPHgas		104	112	(65-135)	7.4	(20 MAX)				
Client ID	Western Resource Man	agement								
Workorder ID	City of Paris Cleaner									
	VMX 3000									
QC Batch	WaterSamplesLab Control Sample [84891]									
-	vv atci	Lab Control Sample Duplicate [8								
QC Batch Matrix	water			Lab Con	uoi sampie D	upileate [04092]				
-	water	Check	Check Dup	Recovery	uoi Sampie D	RPD				

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QC SUMMARY

Client ID	Western Resource Management
Workorder ID	City of Paris Cleaner
QC Batch	VMX 3000
Matrix	Water

Samples	Lab Control Sample [84891]
	Lab Control Sample Duplicate [84892]
	(continued)

Parameter	Check %Recovery	Check Dup %Recovery	Recovery Limits	RPD	RPD Limits				
Methyl-tert-butyl-ether	102	94	(65-135)	8.2	(20 MAX)				
Benzene	92	88	(65-135)	4.4	(20 MAX)				
Toluene	92	90	(65-135)	2.2	(20 MAX)				
Ethylbenzene	92	90	(65-135)	2.2	(20 MAX)				
Xylene (Total)	89	86	(65-135)	3.4	(20 MAX)				

Sparger Technology.mc						3050 Fite Circle, #112 WORKORDER #: Sacramento, CA 95827 REMARKS:							<i>‡:</i> -/	83	32	2	2 —															
U	Enviro	nment	al Lat	oor	ato	ries	Inc			(91	6) 36 6) 36 ARG	62-09		RC	GER.	TEC	CHN		-								age		<u> </u>	0		[
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J O Company	<u>m Balla</u> //Address:	<u>ra</u>		<u>OP</u> San	PTIONAL														sis		_								ΤΑ			
Phone #:	ter Resou	г <b>ар 1</b> Fax #:	brugs	r≴. Glo	bal IC	•																		-					Τ	╀	Τ	Γ
729 / Project #:	1760 City	3/3 3/	HG		EDF Deliverable To (Email Address):										ەر)				B)	B			(E0B)			(x	7					
o Project Na CA Project Ac	yop Pa	ris_Cli	ants	San W	ul	s Signat	-	A	mpler'		210	rC.A	,	E (802* 5) 3015) 3015) as/BTE as/BTE as/BTE as/BTE (EPA					Total (X) W.E.T (X)	tran 105	-	-	2 hr/ 1 wk									
35K	adelino adelino adlander	Samp	oling	2		tainer	Pr				Matrix				Diesel	s Motor Oil (M	as BTEXMTE	jenates/TPH (	jenates/TPH (	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA &	EPA 8260B (Full List)	e Halocarbon:	Lead (7421/239.2) T	davd		·	12 hr/ 24 hr/ 48 hr/ 72 hr/ 1 wk			
	AMPLE ID	Date	Time	40 mL	SLEEVE	21.3	HCL		Ш	NONE	WATER	SOIL		BTEX (8021B)	втехирн	трн а	TPH as	TPH G	5 Oxyg	7 Oxyç	5 Oxyg	7 Oxy	Lead S	EPA 8:	Volatil	Lead (	5			12 hr/ 2		
2 M 3 N 4 I	W-1 W-2 W-3 W	12-2007	1315 1250 1300 1345	3							¥ V				XXXX			XXXX	> 								XXXX			57	<u>م</u> ک 	
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