

STID 819
DH

ENVIRONMENTAL
PROTECTION

February 10, 2000

00 FEB 15 AM 8: 51

Alameda County
Health Care Services Agency
ATTN: Tom Peacock
Department of Environmental Health
Environmental Protection Division
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

STID: 819
Claim #: 002192
Re: City of Paris Cleaners, 3516 Adeline Street, Oakland, Ca. 94608

Dear Tom,

Enclosed please find the our latest monitoring report, from Dugan and Assoc., along with the soil analysis Juliet Shin requested we complete so we could prepare for closure. I am now awaiting Dugan and Associates bid for sealing the industrial well found on sight. As soon as I receive this information, I will forward it on to you.

I am also aware that we have been awaiting a new case worker and if that information is available yet I would appreciate it. I am looking forward to closure of this site and am working diligently towards that goal. I look forward to hearing from you.

Thank you,

Linda Champion

Linda Champion
9441 Laguna Lake Way
Elk Grove, California 95758
(916) 684-2993
(916) 684-9799 fax

Enclosures

Ms. Linda Champion
9441 Laguna Lake Way
Elk Grove, California 95758

February 5, 2000
Project: 218

Subject: Groundwater Monitoring Report - Fourth Quarter 1999
3516 Adeline Street, Oakland, California.

Ms. Champion:

Dugan Associates presents herein the results of groundwater sampling conducted at the above-mentioned site for groundwater quality assessment purposes (See Figure 1). The following sampling tasks were performed on monitoring wells MW-1, MW-2, and MW-3 by Dugan Associates:

- 1) Measured the total depth and static water levels.
- 2) Water surfaces were further inspected for the presence of immiscibles;
- 3) Electrical conductivity, pH, and temperature readings were obtained during the removal of three well volumes of water, and at the time of sample collection.
- 4) Samples were collected using a single-use disposable bailer per well, placed in laboratory supplied containers, and transported to a State-certified analytical laboratory [D.H.S. Lab# 1644] for EPA Method 8010 analyses [Volatile Halocarbons], and EPA Method 8270 compounds [Semi-Volatile Organics by GC/MS].

Data Summary

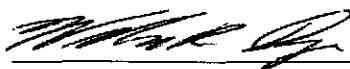
- 1) EPA Method 8010 Compounds. Of the 30 compounds that form the scope of EPA Method 8010 analyses, only two compounds were reported above laboratory detection limits: 1,2-Dichlorobenze and 1,1-Dichloroethane. 1,2-Dichlorobenze was detected at 0.87 ug/L (parts per billion) from the sample from well MW-3 [lab sample #27668]. 1,1-Dichloroethane was detected at 0.59 ug/L from the sample from well MW-1 [lab sample #27666]; at 0.53 ug/L from the sample from well MW-2 [lab sample #27667], and at 0.57 ug/L from the sample from well MW-3 [lab sample #27668]. See Figure 1 for a site map showing the locations of wells MW-1, MW-2, and MW-3. These reported concentrations do not appear to be above levels of regulatory concern.

Data Summary (Continued)

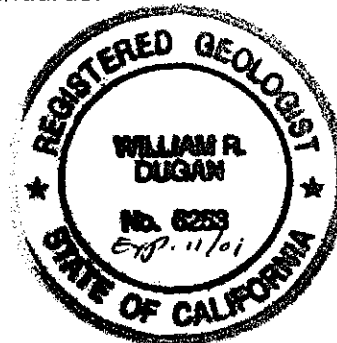
- 2) EPA Method 8270 Compounds. Of the 68 compounds that form the scope of EPA Method 8270 analyses, only two compounds were reported above laboratory detection limits: 2-Methylnaphthalene and Naphthalene. 2-Methylnaphthalene was detected at 25 ug/L (parts per billion) from the sample from well MW-2 [lab sample #27667]. Naphthalene was detected at 49 ug/L from the sample from well MW-2 [lab sample #27666], and at 88 ug/L from the sample from well MW-3 [lab sample #27668]. These reported concentrations do not appear to be above levels of regulatory concern.
- 3) Groundwater flow was calculated towards the north on 12/15/99 as shown on Figure 2 [using wells MW-1, MW-2, and MW-3] with a slope of 0.003 ft/ft.

Limitations and Certification

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein are true and accurate, and the work was performed in accordance with professional standards.

 02/05/00

William R. Dugan, R.G. Date
Sampling Manager



- Table 1. Cumulative Groundwater Monitoring Data [1 page]
- Table 2. Results of Laboratory Analyses of Groundwater [Cumulative - 2 pages]

- Figure 1: Generalized Site Map
- Figure 2: Groundwater Elevation Data [12/15/99].

- Attachment A: Chain of Custody Record and Laboratory Data Sheets
- Attachment B: Field Methods and Measurements

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING DATA
 3516 Adeline Street
 Oakland, California

Well Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater
<u>MW-1</u>			
11/18/92	17.44	13.99	3.45
11/04/93		16.79	0.65
03/08/94		14.14	3.30
08/02/94		13.18	4.26
02/08/95		10.92	6.52
07/08/96		11.62	5.82
10/09/96		14.11	3.33
03/18/97		12.37	5.07
06/19/97		13.26	4.18
11/14/97		11.45	5.99
12/15/99		11.31	6.13
<u>MW-2</u>			
11/18/92	17.31	13.18	4.13
11/04/93		14.84	2.47
03/08/94		11.50	5.81
08/02/94		13.14	4.17
02/08/95		8.18	9.13
07/08/96		11.06	6.25
10/09/96		12.38	4.93
03/18/97		10.61	6.70
06/19/97		11.68	5.63
11/14/97		10.61	6.70
12/15/99		10.97	6.34
<u>MW-3</u>			
11/18/92	17.44	13.93	3.51
11/04/93		15.16	2.28
03/08/94		13.43	4.01
08/02/94		12.82	4.62
02/08/95		7.62	9.82
07/08/96		10.97	6.47
10/09/96		11.84	5.60
03/18/97		10.16	7.28
06/19/97		11.40	6.04
11/14/97		10.71	6.73
12/15/99		10.96	6.48

Well Elevation per BT Associates , BM taken as 20 ft located at cement at gate entrance

TABLE 2A
RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
3516 Adeline Street
Oakland, California

Well Date	TPHss	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MtBE	TPHg
<u>MW-1</u>								
11/18/92	1,800	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
11/04/93	2,000	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
03/28/94	150	<50	35	40	72	120.	NA	NA
08/02/94	2,100	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
02/08/95	620	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
07/08/96	37,000	<50	1.6	<0.5	<0.5	74.	7.9	110,000*
10/09/96	42,000	NA	<0.5	5.0	<0.5	<0.5	NA	NA
03/18/97	2,600	NA	<0.5	1.5	1.5	9.6	<6.0	NA
06/19/97	660	NA	<0.5	<0.5	1.2	0.71	<5.0	NA
11/14/97	10,000	NA	<0.5	<0.5	110.	1.2	<5.0	NA
<u>MW-2</u>								
11/18/92	630	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
11/04/93	3,200	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
03/28/94	45	<50	1.4	2	11	19	NA	NA
08/02/94	170	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
02/08/95	570	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
07/08/96	1,800	<50	<0.5	2.6	15	24	6.3	2,800*
10/09/96	4,100	NA	<0.5	0.57	<0.5	<0.5	NA	NA
03/18/97	240	NA	<0.5	0.57	<0.5	<0.5	5.3	NA
06/19/97	2,500	NA	<0.5	<0.5	9.1	<0.5	<5.0	NA
11/14/97	130	NA	<0.5	<0.5	0.9	1.2	<5.0	NA
<u>MW-3</u>								
11/18/92	11,000	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
11/04/93	320	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
03/28/94	45	<50	0.8	0.9	5	10	NA	NA
08/02/94	<20	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
02/08/95	<20	<50	<0.5	<0.5	<0.5	<0.5	NA	<50
07/08/96	2,500	<50	1.0	<0.5	8.8	8	10	2,200*
10/09/96	2,600	NA	<0.5	<0.5	<0.5	<0.5	NA	NA
03/18/97	2,500	NA	<0.5	0.61	0.63	5.2	NA	NA
06/19/97	21,000	NA	<0.5	<0.5	11	<0.5	<5.0	NA
11/14/97	1,400	NA	<0.5	<0.5	28	28.	<5.0	NA
MCLs	-----	1.0	-----	680	1,750	-----	-----	-----
DWALs	-----	--,--	100	-----	-----	-----	-----	-----

Results in micrograms/liter ($\mu\text{g/l}$) = parts per billion (ppb).

ND: Less than the detection limit for the method of analysis (See laboratory data sheets).

MCLs: Maximum Contaminant Levels in Drinking Water, DHS (October 1990)

DWALs: Drinking Water Action Levels, DHS (October 1990) MtBE: Methyl-tert-Butyl-Ether

*: Components found in the gasoline range, however they are not characteristic of gasoline components.

TABLE 2B
RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
3516 Adeline Street
Oakland, California

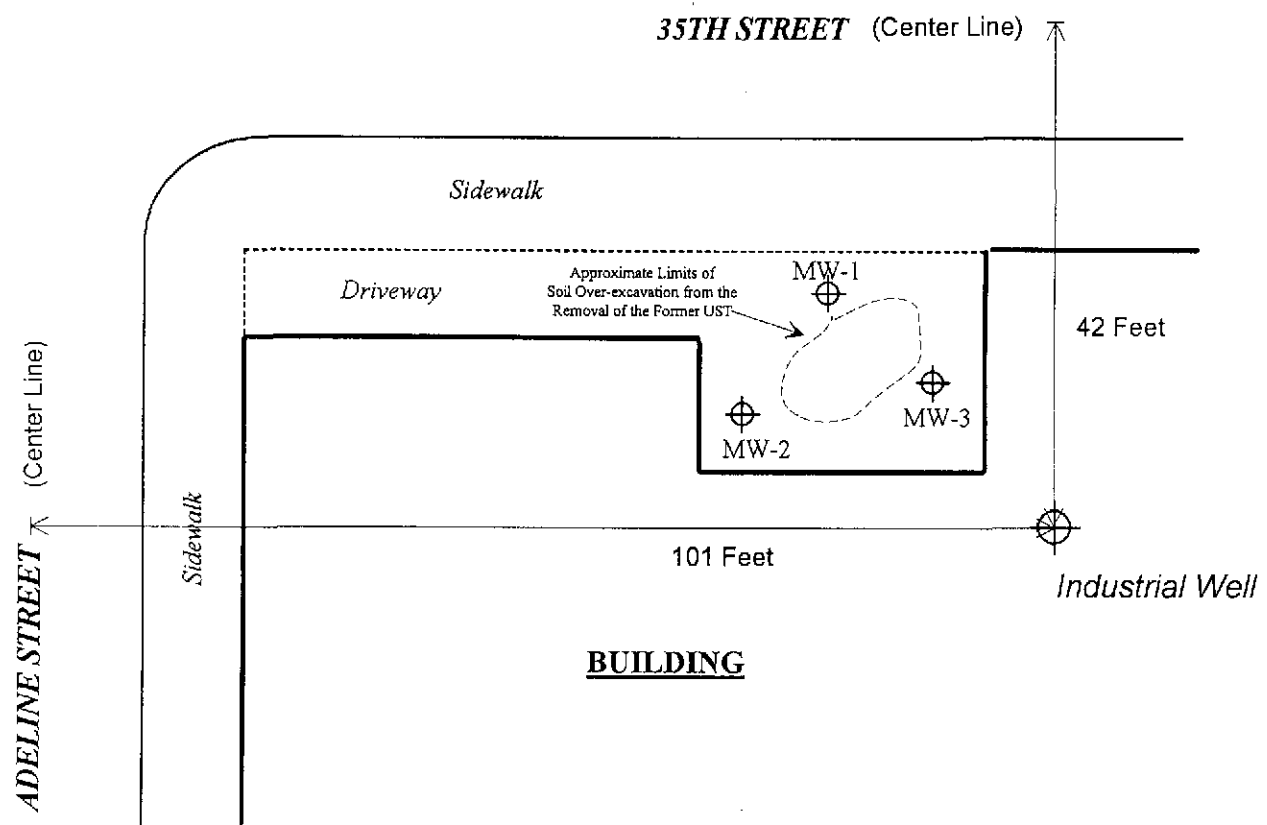
<u>Well</u> Date	1,2-DCB	1,1-DCA	2-Methyl- Naphthalene	Naphthalene
<u>MW-1</u> 12/15/99	<0.5	0.59	<0.5	<0.5
<u>MW-2</u> 12/15/99	<0.5	0.53	<0.5	49.
<u>MW-3</u> 12/15/99	0.87	0.57	25.	88.

Results in micrograms/liter ($\mu\text{g/l}$) = parts per billion (ppb).

1,2-DCB: 1,2-Dichlorobenzene by EPA Method 601

1,1-DCA: 1,1-Dichloroethane by EPA Method 601

<: Less than the detection limit for the method of analysis (See laboratory data sheets).



Legend

MW-3 = Existing Monitoring Well

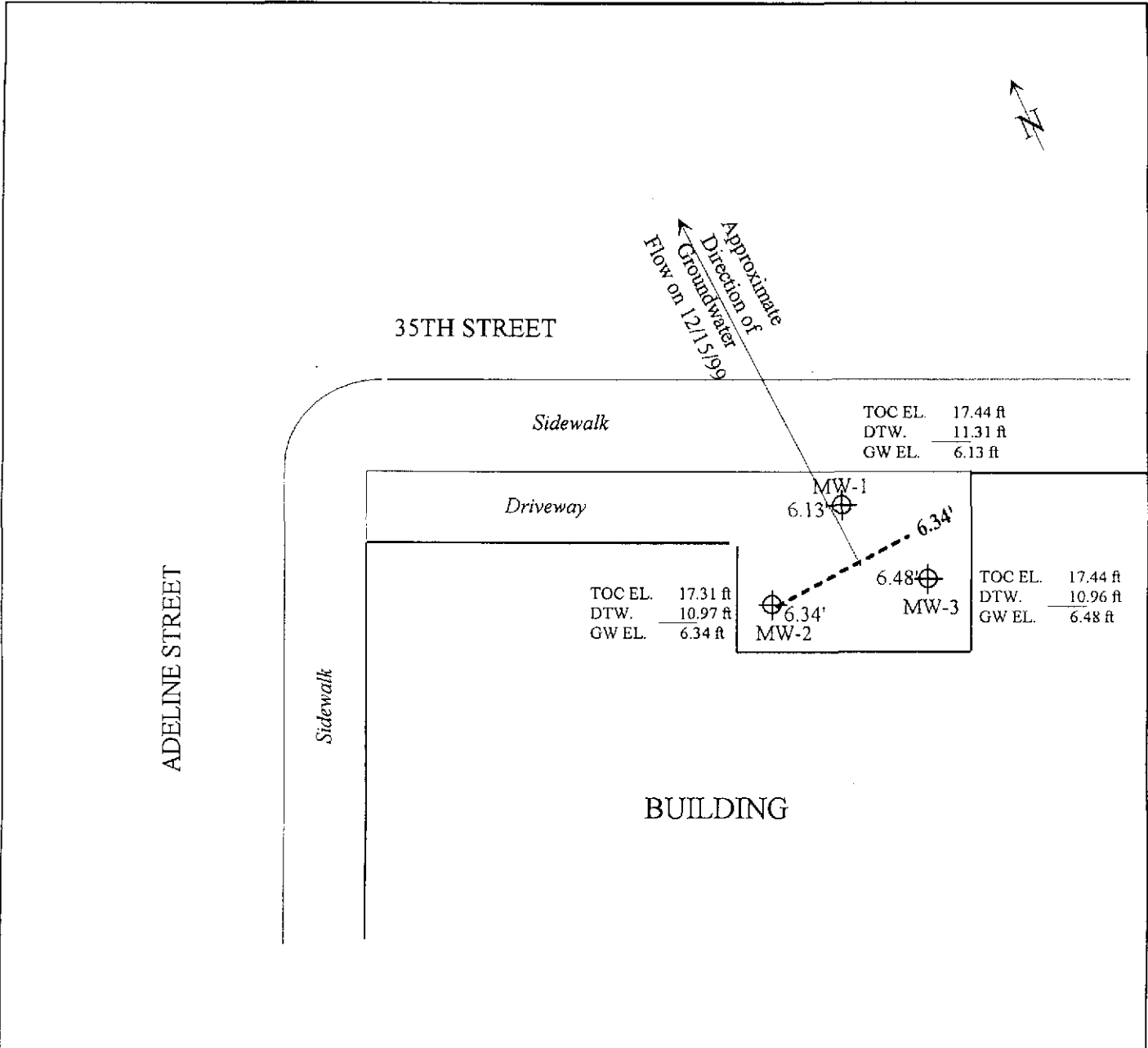
⊕

Approximate Scale: 1 inch = 20 feet
[Industrial well measured 12/15/99]

Base Map Source: BT Associates (1995) for approximate locations of wells

Site Location: 1998 Thomas Bros. Bay Area Map, Page & Grid 649 F1 [See Attachment B].

DUGAN ASSOCIATES 1180 Delmas Ave. San Jose, California	Generalized Site Map Former City of Paris Cleaners 3516 Adeline Street Oakland, California	FIGURE 1
JOB NO. 218		



Legend

- 6.34 = Groundwater Elevation in feet
- - - = Line of potential equal elevation of groundwater in feet
- MW-3 = Existing Monitoring Well



Approximate Scale: 1 inch = 20 feet

Base Map Source: BT Associates (1995) for approximate locations of wells

<p>DUGAN ASSOCIATES 1180 Delmas Ave. San Jose, California</p>	<p align="center">Groundwater Gradient Map (12/15/99)</p> <p align="center">Former City of Paris Cleaners 3516 Adeline Street Oakland, California</p>	<p align="center">FIGURE</p> <p align="center">2</p>
<p>JOB NO. 218</p>		

ATTACHMENT A

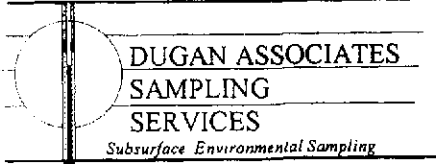
CHAIN OF CUSTODY RECORD

LABORATORY DATA SHEETS



1180 DELMAS AVE.
SAN JOSE, CA 95125

Tel. (408) 287-2175
Fax. (408) 287-2176



1180 DELMAS AVE. Tel. (408) 287-2175
SAN JOSE, CA 95125 Fax. (408) 287-2176

Chain of Custody Record

UST FUND PROJECT SITE?
yes no

SUPERVISING SAMPLING PROFESSIONAL: BILL DUGAN R.G. #6253
PROFESSIONAL REGISTRATION NO.:

CERTIFIED ANALYTICAL LABORATORY: CALIFORNIA STATE-CERTIFIED LABORATORY NO.: D.O.H.

18137 2da 53

PROJECT NAME			SITE ADDRESS										TURNAROUND TIME		STANDARD	
Former City of Paris cleaners			3516 Adeline Street, Oakland, CA													
SAMPLED BY (PRINT):		DATE (S):		NUMBER OF CONTAINERS	SAMPLE MATRIX (SOIL OR WATER)	TPHs (LUFT)	TPHs / BTEX/MTBE	TPHs (LUFT)	EPA 8260 for PCBs/PAHs/MTBE	TOTAL LEAD	5 METALS (Cd, Cr, Pb, Ni, Zn)	EPA METHOD 8270	EPA METHOD 8260	EPA METHOD 8010	T.O.C 5520 E&F	ACIDIFIED
David Nitzberg		12/15/99														
SAMPLE I.D.#:	SAMPLED		NUMBER OF CONTAINERS	SAMPLE MATRIX (SOIL OR WATER)	TPHs (LUFT)	TPHs / BTEX/MTBE	TPHs (LUFT)	EPA 8260 for PCBs/PAHs/MTBE	TOTAL LEAD	5 METALS (Cd, Cr, Pb, Ni, Zn)	EPA METHOD 8270	EPA METHOD 8260	EPA METHOD 8010	T.O.C 5520 E&F	ACIDIFIED	
	DATE	TIME														
W-MW-1	12/15/99		7	Water							X		X		YES	
W-MW-2	12/15/99		7	Water							X		X		YES	
W-MW-3	12/15/99		7	Water							X		X		YES	
																27666
																27667
																27668

COMMENTS / SPECIAL INSTRUCTIONS TO LABORATORY:
Analyses not to include TPHss [historically analyzed at this site].

COMMENTS / SPECIAL NOTATIONS BY LABORATORY:

ICE/NO GOOD CONDITION HEAD SPACE ABSENT PRESERVATION APPROPRIATE CONTAINERS

VOAS O&G METALS OTHER

RELINQUISHED BY (SIGNATURE): DUGAN ASSOCIATES RELINQUISHED BY (SIGNATURE): AFFILIATION: RECEIVED BY (SIGNATURE): AFFILIATION:	RECEIVED BY (SIGNATURE): E2C, Inc. RECEIVED BY (SIGNATURE): AFFILIATION: RECEIVED BY (SIGNATURE): AFFILIATION:	DATE 12/17 DATE 12/17 DATE	TIME 9:15 TIME 13:30 TIME
--	---	--	---------------------------------------



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Dugan Associates 1180 Delmas Avenue San Jose, CA 95125	Client Project ID: Former City of Paris Cleaners	Date Sampled: 12/15/99
		Date Received: 12/17/99
	Client Contact: Bill Dugan	Date Extracted: 12/17/99
	Client P.O:	Date Analyzed: 12/17/99

12/27/99


Dear Bill:

Enclosed are:

- 1). the results of 3 samples from your **Former City of Paris Cleaners** project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,



Edward Hamilton, Lab Director



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	Client Contact: Bill Dugan	Date Received: 12/17/99
	Client P.O.:	Date Extracted: 12/17-12/20/99
		Date Analyzed: 12/17-12/20/99

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	27666	27667	27668	
Client ID	W-MW-1	W-MW-2	W-MW-1	
Matrix	W	W	W	
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	
Bromoform ^(b)	ND	ND	ND	
Bromomethane	ND	ND	ND	
Carbon Tetrachloride ^(c)	ND	ND	ND	
Chlorobenzene	ND	ND	ND	
Chloroethane	ND	ND	ND	
2-Chloroethyl Vinyl Ether ^(d)	ND	ND	ND	
Chloroform ^(e)	ND	ND	ND	
Chloromethane	ND	ND	ND	
Dibromochloromethane	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	0.87	
1,3-Dichlorobenzene	ND	ND	ND	
1,4-Dichlorobenzene	ND	ND	ND	
Dichlorodifluoromethane	ND	ND	ND	
1,1-Dichloroethane	0.59	0.53	0.57	
1,2-Dichloroethane	ND	ND	ND	
1,1-Dichloroethene	ND	ND	ND	
cis 1,2-Dichloroethene	ND	ND	ND	
trans 1,2-Dichloroethene	ND	ND	ND	
1,2-Dichloropropane	ND	ND	ND	
cis 1,3-Dichloropropene	ND	ND	ND	
trans 1,3-Dichloropropene	ND	ND	ND	
Methylene Chloride ^(f)	ND	ND	ND	
1,1,2,2-Tetrachloroethane	ND	ND	ND	
Tetrachloroethene	ND	ND	ND	
1,1,1-Trichloroethane	ND	ND	ND	
1,1,2-Trichloroethane	ND	ND	ND	
Trichloroethene	ND	ND	ND	
Trichlorofluoromethane	ND	ND	ND	
Vinyl Chloride ^(g)	ND	ND	ND	
% Recovery Surrogate	108	110	110	
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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	Client Contact: Bill Dugan	Date Received: 12/17/99
	Client P.O:	Date Extracted: 12/17/99
		Date Analyzed: 12/18/99

Semi-Volatile Organics By GC/MS

EPA method 625 and 3510 or 8270 and 3550

Lab ID		27666					
Client ID		W-MW-1					
Matrix		W					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND	10	0.33	Di-n-octyl Phthalate	ND	10	0.33
Acenaphthylene	ND	10	0.33	1,2-Diphenylhydrazine	ND	10	0.33
Anthracene	ND	10	0.33	Fluoranthene	ND	10	0.33
Benzidine	ND	50	1.6	Fluorene	ND	10	0.33
Benzoic Acid	ND	50	1.6	Hexachlorobenzene	ND	10	0.33
Benzo(a)anthracene	ND	10	0.33	Hexachlorobutadiene	ND	10	0.33
Benzo(b)fluoranthene	ND	10	0.33	Hexachlorocyclopentadiene	ND	50	1.6
Benzo(k)fluoranthene	ND	10	0.33	Hexachloroethane	ND	10	0.33
Benzo(g,h,i)perylene	ND	10	0.33	Indeno(1,2,3-cd)pyrene	ND	10	0.33
Benzo(a)pyrene	ND	10	0.33	Isophorone	ND	10	0.33
Benzyl Alcohol	ND	20	0.66	2-Methylnaphthalene	ND	10	0.33
Bis(2-chloroethoxy)methane	ND	10	0.33	2-Methylphenol (o-Cresol)	ND	10	0.33
Bis(2-chloroethyl) Ether	ND	10	0.33	4-Methylphenol (p-Cresol)	ND	10	0.33
Bis(2-chloroisopropyl)Ether	ND	10	0.33	Naphthalene	ND	10	0.33
Bis(2-ethylhexyl) Phthalate	ND	20	0.66	2-Nitroaniline	ND	50	1.6
4-Bromophenyl Phenyl Ether	ND	10	0.33	3-Nitroaniline	ND	50	1.6
Butylbenzyl Phthalate	ND	10	0.33	4-Nitroaniline	ND	50	1.6
4-Chloroaniline	ND	20	0.66	2-Nitrophenol	ND	50	1.6
4-Chloro-3-methylpheno ^l	ND	10	0.33	4-Nitrophenol	ND	50	1.6
2-Chloronaphthalene	ND	10	0.33	Nitrobenzene	ND	10	0.33
2-Chlorophenol	ND	10	0.33	N-Nitrosodimethylamine	ND	10	0.33
4-Chlorophenyl Phenyl Ether	ND	10	0.33	N-Nitrosodiphenylamine	ND	10	0.33
Chrysene	ND	10	0.33	N-Nitrosodi-n-propylamine	ND	10	0.33
Dibenzo(a,h)anthracene	ND	10	0.33	Pentachlorophenol	ND	10	0.33
Dibenzofuran	ND	10	0.33	Phenanthrene	ND	10	0.33
Di-n-butyl Phthalate	ND	10	0.33	Phenol	ND	10	0.33
1,2-Dichlorobenzene	ND	10	0.33	Pyrene	ND	10	0.33
1,3-Dichlorobenzene	ND	10	0.33	1,2,4-Trichlorobenzene	ND	10	0.33
1,4-Dichlorobenzene	ND	10	0.33	2,4,5-Trichlorophenol	ND	10	0.33
3,3-Dichlorobenzidine	ND	20	0.66	2,4,6-Trichlorophenol	ND	10	0.33
2,4-Dichlorophenol	ND	10	0.33	Comments:			
Diethyl Phthalate	ND	10	0.33	Surrogate Recoveries (%)			
2,4-Dimethylphenol	ND	10	0.33	2-Fluorobiphenyl	48		
Dimethyl Phthalate	ND	10	0.33	2-Fluorophenol	33		
4,6-Dinitro-2-methylphenol	ND	50	1.6	Nitrobenzene-d5	44		
2,4-Dinitrophenol	ND	50	1.6	Phenol-d5	57		
2,4-Dinitrotoluene	ND	10	0.33	2,4,6-Tribromophenol	70		
2,6-Dinitrotoluene	ND	10	0.33	p-Terphenyl-d14	67		

*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

^l surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

DHS Certification No. 1644

Edward Hamilton, Lab Director



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	Client Contact: Bill Dugan	Date Received: 12/17/99
	Client P.O:	Date Extracted: 12/17/99
		Date Analyzed: 12/18/99

Semi-Volatile Organics By GC/MS

EPA method 625 and 3510 or 8270 and 3550

Lab ID		27667					
Client ID		W-MW-2					
Matrix		W					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND	10	0.33	Di-n-octyl Phthalate	ND	10	0.33
Acenaphthylene	ND	10	0.33	1,2-Diphenylhydrazine	ND	10	0.33
Anthracene	ND	10	0.33	Fluoranthene	ND	10	0.33
Benzidine	ND	50	1.6	Fluorene	ND	10	0.33
Benzoic Acid	ND	50	1.6	Hexachlorobenzene	ND	10	0.33
Benzo(a)anthracene	ND	10	0.33	Hexachlorobutadiene	ND	10	0.33
Benzo(b)fluoranthene	ND	10	0.33	Hexachlorocyclopentadiene	ND	50	1.6
Benzo(k)fluoranthene	ND	10	0.33	Hexachloroethane	ND	10	0.33
Benzo(g,h,i)perylene	ND	10	0.33	Indeno(1,2,3-cd)pyrene	ND	10	0.33
Benzo(a)pyrene	ND	10	0.33	Isophorone	ND	10	0.33
Benzyl Alcohol	ND	20	0.66	2-Methylnaphthalene	ND	10	0.33
Bis(2-chloroethoxy)methane	ND	10	0.33	2-Methylphenol (o-Cresol)	ND	10	0.33
Bis(2-chloroethyl) Ether	ND	10	0.33	4-Methylphenol (p-Cresol)	ND	10	0.33
Bis(2-chloroisopropyl)Ether	ND	10	0.33	Naphthalene	49	10	0.33
Bis(2-ethylhexyl) Phthalate	ND	20	0.66	2-Nitroaniline	ND	50	1.6
4-Bromophenyl Phenyl Ether	ND	10	0.33	3-Nitroaniline	ND	50	1.6
Butylbenzyl Phthalate	ND	10	0.33	4-Nitroaniline	ND	50	1.6
4-Chloroaniline	ND	20	0.66	2-Nitrophenol	ND	50	1.6
4-Chloro-3-methylpheno ^l	ND	10	0.33	4-Nitrophenol	ND	50	1.6
2-Chloronaphthalene	ND	10	0.33	Nitrobenzene	ND	10	0.33
2-Chlorophenol	ND	10	0.33	N-Nitrosodimethylamine	ND	10	0.33
4-Chlorophenyl Phenyl Ether	ND	10	0.33	N-Nitrosodiphenylamine	ND	10	0.33
Chrysene	ND	10	0.33	N-Nitrosodi-n-propylamine	ND	10	0.33
Dibenzo(a,h)anthracene	ND	10	0.33	Pentachlorophenol	ND	10	0.33
Dibenzofuran	ND	10	0.33	Phenanthrene	ND	10	0.33
Di-n-butyl Phthalate	ND	10	0.33	Phenol	ND	10	0.33
1,2-Dichlorobenzene	ND	10	0.33	Pyrene	ND	10	0.33
1,3-Dichlorobenzene	ND	10	0.33	1,2,4-Trichlorobenzene	ND	10	0.33
1,4-Dichlorobenzene	ND	10	0.33	2,4,5-Trichlorophenol	ND	10	0.33
3,3-Dichlorobenzidine	ND	20	0.66	2,4,6-Trichlorophenol	ND	10	0.33
2,4-Dichlorophenol	ND	10	0.33	Comments:			
Diethyl Phthalate	ND	10	0.33	Surrogate Recoveries (%)			
2,4-Dimethylphenol	ND	10	0.33	2-Fluorobiphenyl		36	
Dimethyl Phthalate	ND	10	0.33	2-Fluorophenol		33	
4,6-Dinitro-2-methylphenol	ND	50	1.6	Nitrobenzene-d5		44	
2,4-Dinitrophenol	ND	50	1.6	Phenol-d5		89	
2,4-Dinitrotoluene	ND	10	0.33	2,4,6-Tribromophenol		44	
2,6-Dinitrotoluene	ND	10	0.33	p-Terphenyl-d14		102	

*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

^a surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Dugan Associates 1180 Delmas Avenue San Jose, CA 95125	Client Project ID: Former City of Paris Cleaners	Date Sampled: 12/15/99
	Client Contact: Bill Dugan	Date Received: 12/17/99
	Client P.O:	Date Extracted: 12/17/99
		Date Analyzed: 12/18/99

Semi-Volatile Organics By GC/MS

EPA method 625 and 3510 or 8270 and 3550

Lab ID		27668					
Client ID		W-MW-1					
Matrix		W					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND	10	0.33	Di-n-octyl Phthalate	ND	10	0.33
Acenaphthylene	ND	10	0.33	1,2-Diphenylhydrazine	ND	10	0.33
Anthracene	ND	10	0.33	Fluoranthene	ND	10	0.33
Benzidine	ND	50	1.6	Fluorene	ND	10	0.33
Benzoic Acid	ND	50	1.6	Hexachlorobenzene	ND	10	0.33
Benzo(a)anthracene	ND	10	0.33	Hexachlorobutadiene	ND	10	0.33
Benzo(b)fluoranthene	ND	10	0.33	Hexachlorocyclopentadiene	ND	50	1.6
Benzo(k)fluoranthene	ND	10	0.33	Hexachloroethane	ND	10	0.33
Benzo(g,h,i)perylene	ND	10	0.33	Indeno(1,2,3-cd)pyrene	ND	10	0.33
Benzo(a)pyrene	ND	10	0.33	Isophorone	ND	10	0.33
Benzyl Alcohol	ND	20	0.66	2-Methylnaphthalene	25	10	0.33
Bis(2-chloroethoxy)methane	ND	10	0.33	2-Methylphenol (o-Cresol)	ND	10	0.33
Bis(2-chloroethyl) Ether	ND	10	0.33	4-Methylphenol (p-Cresol)	ND	10	0.33
Bis(2-chloroisopropyl)Ether	ND	10	0.33	Naphthalene	88	10	0.33
Bis(2-ethylhexyl) Phthalate	ND	20	0.66	2-Nitroaniline	ND	50	1.6
4-Bromophenyl Phenyl Ether	ND	10	0.33	3-Nitroaniline	ND	50	1.6
Butylbenzyl Phthalate	ND	10	0.33	4-Nitroaniline	ND	50	1.6
4-Chloroaniline	ND	20	0.66	2-Nitrophenol	ND	50	1.6
4-Chloro-3-methylpheno ^l	ND	10	0.33	4-Nitrophenol	ND	50	1.6
2-Chloronaphthalene	ND	10	0.33	Nitrobenzene	ND	10	0.33
2-Chlorophenol	ND	10	0.33	N-Nitrosodimethylamine	ND	10	0.33
4-Chlorophenyl Phenyl Ether	ND	10	0.33	N-Nitrosodiphenylamine	ND	10	0.33
Chrysene	ND	10	0.33	N-Nitrosodi-n-propylamine	ND	10	0.33
Dibenzo(a,h)anthracene	ND	10	0.33	Pentachlorophenol	ND	10	0.33
Dibenzofuran	ND	10	0.33	Phenanthrene	ND	10	0.33
Di-n-butyl Phthalate	ND	10	0.33	Phenol	ND	10	0.33
1,2-Dichlorobenzene	ND	10	0.33	Pyrene	ND	10	0.33
1,3-Dichlorobenzene	ND	10	0.33	1,2,4-Trichlorobenzene	ND	10	0.33
1,4-Dichlorobenzene	ND	10	0.33	2,4,5-Trichlorophenol	ND	10	0.33
3,3-Dichlorobenzidine	ND	20	0.66	2,4,6-Trichlorophenol	ND	10	0.33
2,4-Dichlorophenol	ND	10	0.33	Comments:			
Diethyl Phthalate	ND	10	0.33	Surrogate Recoveries (%)			
2,4-Dimethylphenol	ND	10	0.33	2-Fluorobiphenyl	30		
Dimethyl Phthalate	ND	10	0.33	2-Fluorophenol	31		
4,6-Dinitro-2-methylphenol	ND	50	1.6	Nitrobenzene-d5	66		
2,4-Dinitrophenol	ND	50	1.6	Phenol-d5	83		
2,4-Dinitrotoluene	ND	10	0.33	2,4,6-Tribromophenol	52		
2,6-Dinitrotoluene	ND	10	0.33	p-Terphenyl-d14	97		

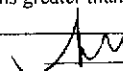
*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

^a surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8010/8020/EDB

Date: 12/17/99 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 121799		Instrument: GC-1					
Chlorobenzene	0.000	101.0	104.0	100.00	101	104	2.9
EDB	0.000	98.0	99.0	100.00	98	99	1.0
Trichloroethane	0.000	91.0	85.0	100.00	91	85	6.8
1,1-DCE	0.000	117.0	105.0	100.00	117	105	10.8

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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QC REPORT

SVOCs (EPA 8270/625/525)

Date: 12/17/99-12/18/99 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS MSD		
SampleID: 26692		Instrument: GC-8					
Pyrene	0.000	510.0	530.0	1000.00	51	53	3.8
Pentachlorophenol	0.000	420.0	400.0	1000.00	42	40	4.9
2,4-Dinitrotoluene	0.000	590.0	630.0	1000.00	59	63	6.6
Acenaphthene	0.000	440.0	460.0	1000.00	44	46	4.4
4-Nitrophenol	0.000	460.0	460.0	1000.00	46	46	0.0
4-Chloro-3-methylphenol	0.000	440.0	440.0	1000.00	44	44	0.0
1,2,4-trichlorobenzene	0.000	430.0	430.0	1000.00	43	43	0.0
N-nitroso-di-n-propyl	0.000	400.0	390.0	1000.00	40	39	2.5
1,4-Dichlorobenzene	0.000	460.0	470.0	1000.00	46	47	2.2
2-Chlorophenol	0.000	420.0	410.0	1000.00	42	41	2.4
Phenol	0.000	440.0	450.0	1000.00	44	45	2.2

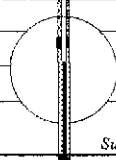
$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$\text{RPD} = \frac{(MS - \text{MSD})}{(MS + \text{MSD})} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

ATTACHMENT B

FIELD METHODS & MEASUREMENTS

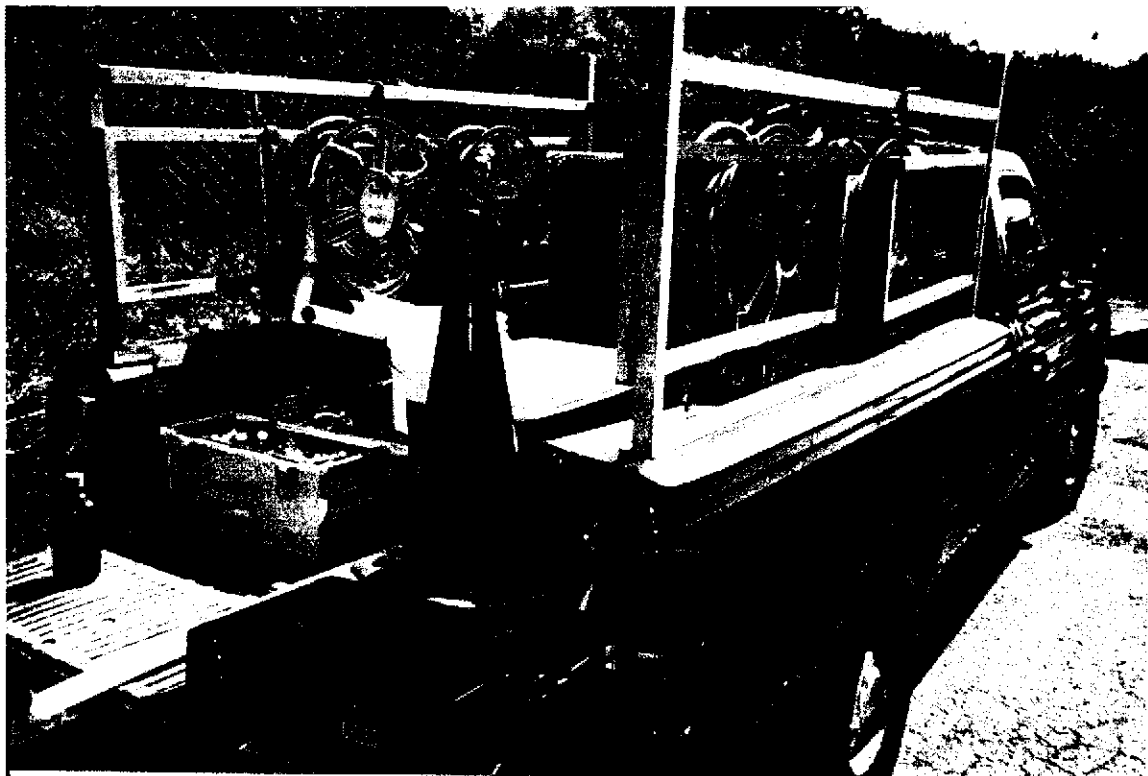


DUGAN ASSOCIATES
SAMPLING
SERVICES
Subsurface Environmental Sampling

1180 DELMAS AVE. Tel. (408) 287-2175
SAN JOSE, CA 95125 Fax. (408) 287-2176

DUGAN ASSOCIATES
GROUNDWATER MONITORING AND SAMPLING PROTOCOL

Sampling Methods: The static water level in each well is measured to the nearest 0.01-foot using an electric water-level sounder cleaned with Alconox® and water before use in each well. Surface liquids in wells are examined for visual evidence of hydrocarbons by gently lowering approximately half the length of a clean disposable bailer past the air/water interface. The bailer is then retrieved and inspected for floating product, sheen, emulsion, color, and clarity. The thickness of floating product detected is recorded to the nearest 1/8-inch. Wells which do not contain floating product are purged using a submersible pump or bailer. The pump, cables, and hoses are steam-cleaned or cleaned with Alconox® and water prior to use in each well. The wells are purged until withdrawal is of sufficient duration to result in stabilized pH, temperature, and electrical conductivity of the water, as measured using portable meters calibrated to a standard buffer and conductivity standard. If the well becomes dewatered, the water level is allowed to recover to at least 80 percent of the initial water level. A sample of the formation water is then collected from each of the wells using either a disposable bailer or cleaned stainless-steel bailer. The water samples are then gently poured into laboratory-supplied, 40-milliliter (ml) glass vials, 500 ml plastic bottles, or 1-liter glass bottles (as required per specific laboratory analysis), sealed with Teflon®-lined caps, and inspected for air bubbles to check for headspace, which would allow volatilization to occur. The samples are then labeled and promptly placed in iced storage. A field log of well evacuation procedures and parameter monitoring is maintained. Water generated by the purging of wells is stored in 55-gallon drums onsite and remains the responsibility of the client. A Chain of Custody Record is initiated by the field geologist and updated throughout handling of the samples, and accompanies the samples to a laboratory certified by the State of California for the analyses requested.



Dugan Associates specializes in the preparation of subsurface environmental sampling plans, the collection of environmental samples and hydrogeologic measurements, and the preparation of certified sampling reports in compliance with sections 6735, 7835, and 7835.1 of the Business and Professions Code.

1180 DELMAS AVE. Tel. (408) 287-2175
 SAN JOSE, CA 95125 Fax. (408) 287-2176

Site Name Former City of Paris Cleaners, Oakland, CA

Date 12/15/99 Well I.D. MW-1

Field Crew D. Nitzberg

Wellhead Inspection

- Well locked?
 Well Cap need replacement?

- Task Well Gauging Well Sampling Pump Test

Purge Method Disposable Bailer Grundfos
 PVC Bailer 2"-Whaler

Purge Volume Calculations

Total Depth of well 27.14 ft
 Depth to water 11.3 ft
 Height of Water in well 15.83 ft

$15.83 \text{ ft} \times \begin{matrix} 2\text{-inch Casing} = 0.16 \text{ gal/ft} \\ 4\text{-inch casing} = 0.667 \text{ gal/ft} \\ 5\text{-inch casing} = 1.02 \text{ gal/ft} \\ 6\text{-inch casing} = 1.47 \text{ gal/ft} \end{matrix} = \underline{2.5} \text{ gal}$
One Well Volume

$\underline{2.5} \text{ gal} \times \frac{3}{\text{Number of Target Well Volumes}} = \underline{7.6} \text{ gal}$
Purge Volume

Decon Log

Pump I.D. N/A

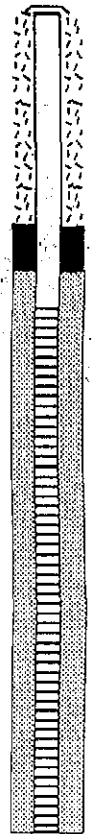
Steam-cleaned?
 Alconox rinse?

Bailer I.D. _____

Steam-cleaned?
 Alconox rinse?

Drum Log

55-gallon drum
 Drum I.D. _____



Field Observation/Notes: water color light grey v sheep strangler

TIME	GALLONS	D.O. [ppm]	O.R.P. [uS]	TURBIDITY [NTUs]	pH	[uS]	TEMP. F	DTW (ft) BTOC
4:32	0.75				8.07	1020	65.1°	
4:37	3.75				7.94	1020	64.4°	
4:42	7.75				7.87	1020	64.9°	

Recovery Data: took 15 min for 80% recovery

Sample Containers:
 40 ml VOA vials 6
 1-liter amber glass 2
 16-oz plastic bottle _____

Sample Collection: Disposable Bailer
 PVC Bailer
 Stainless-Steel Bailer

Sample Depth: 12.25 ft

Sample Handling: stored in Iced Cooler

1180 DELMAS AVE. Tel. (408) 287-2175
 SAN JOSE, CA 95125 Fax. (408) 287-2176

Site Name Former City of Paris Cleaners, Oakland, CA

Date 12/15/99 Well I.D. MW-2

Field Crew D. Nitzberg

Wellhead Inspection

- yes no
 Well locked?
 Well Cap need replacement?

- Task Well Gauging Well Sampling Pump Test

Purge Method Disposable Bailer Grundfos
 PVC Bailer 2"-Whaler

Purge Volume Calculations

Total Depth of well 29.69
 Depth to water 10.97
 Height of Water in well 18.72

18.72 ft X 2-inch Casing = 0.16 gal/ft = 3 gal
 4-inch casing = 0.667 gal/ft
 5-inch casing = 1.02 gal/ft
 6-inch casing = 1.47 gal/ft

3 gal X 3 = 9 gal
 One Well Volume Number of Target Well Volumes Purge Volume

Decon Log

Pump I.D. N/A
 yes no
 Steam-cleaned?
 Alconox rinse?

Bailer I.D. _____
 yes no
 Steam-cleaned?
 Alconox rinse?

yes no **Drum Log**
 55-gallon drum
 Drum I.D. _____

Field Observation/Notes: well in good shape
 water color clear - strong odor

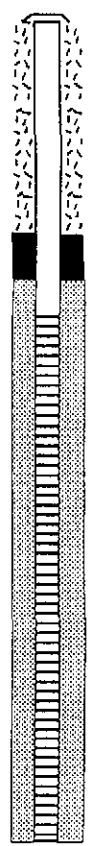
TIME	GALLONS	D.O. (ppm)	O.R.P. (uS)	TURBIDITY (NTUs)	pH	EH (uS)	TEMP. F	DTW (ft) BTOC
4:00pm	0.5				8.66	980	64.6°	
4:03pm	4.5				8.74	1000	64.3°	
4:08pm	9				8.71	990	64.5°	

Recovery Data: Took 14 min for 80% recovery

Sample Containers:
 40 ml VOA vials 6
 1-liter amber glass 2
 16-oz plastic bottle

Sample Collection: Disposable Bailer
 PVC Bailer Sample Depth: 12.5 ft
 Stainless-Steel Bailer

Sample Handling: stored in Ice Cooler



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 SAN JOSE, CA 95125 Fax. (408) 287-2176

Groundwater Monitoring & Sampling Record

Site Name Former City of Paris Cleaners, Oakland, CA
 Date 12/15/99 Well I.D. MW-3
 Field Crew D. Nitzberg

Wellhead Inspection

- Well locked?
 Well Cap need replacement?

Task Well Gauging Well Sampling Pump Test

Purge Method Disposable Bailer Grundfos
 PVC Bailer 2"-Whaler

Purge Volume Calculations

Total Depth of well 29.62 ft
 Depth to water 10.96 ft
 Height of Water in well 18.66 ft

$18.66 \text{ ft} \times \begin{matrix} 2\text{-inch casing} = 0.16 \text{ gal/ft} \\ 4\text{-inch casing} = 0.667 \text{ gal/ft} \\ 5\text{-inch casing} = 1.02 \text{ gal/ft} \\ 6\text{-inch casing} = 1.47 \text{ gal/ft} \end{matrix} = \begin{matrix} 2.984 \\ 3.0 \\ 8.59 \end{matrix} \text{ gal}$

One Well Volume 3.0 gal \times 3 Number of Target Well Volumes = 9.0 gal Purge Volume

Decon Log

Pump I.D. N/A

Steam-cleaned?
 Alconox rinse?

Bailer I.D. _____

Steam-cleaned?
 Alconox rinse?

Drum Log

55-gallon drum
 Drum I.D. _____

Field Observation/Notes: Well box flooded from planter that sits over the well box Water color - charcoal grey - strong odor

TIME	GALLONS	D.O. (ppm)	O.R.P. [uS]	TURBIDITY [NTUs]	pH	EH [uS]	TEMP. F	DTW (ft) BTWC
3:41	1				8.41	900	64.4°	
3:46	4.5				8.09	0/40	64.1°	
3:52	10 10				8.16	0/80	64.6°	

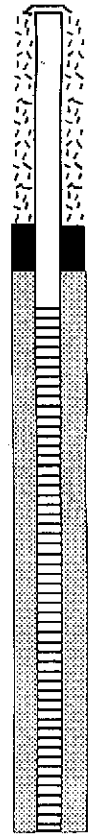
Recovery Data: Took 17 min for 85% recovery

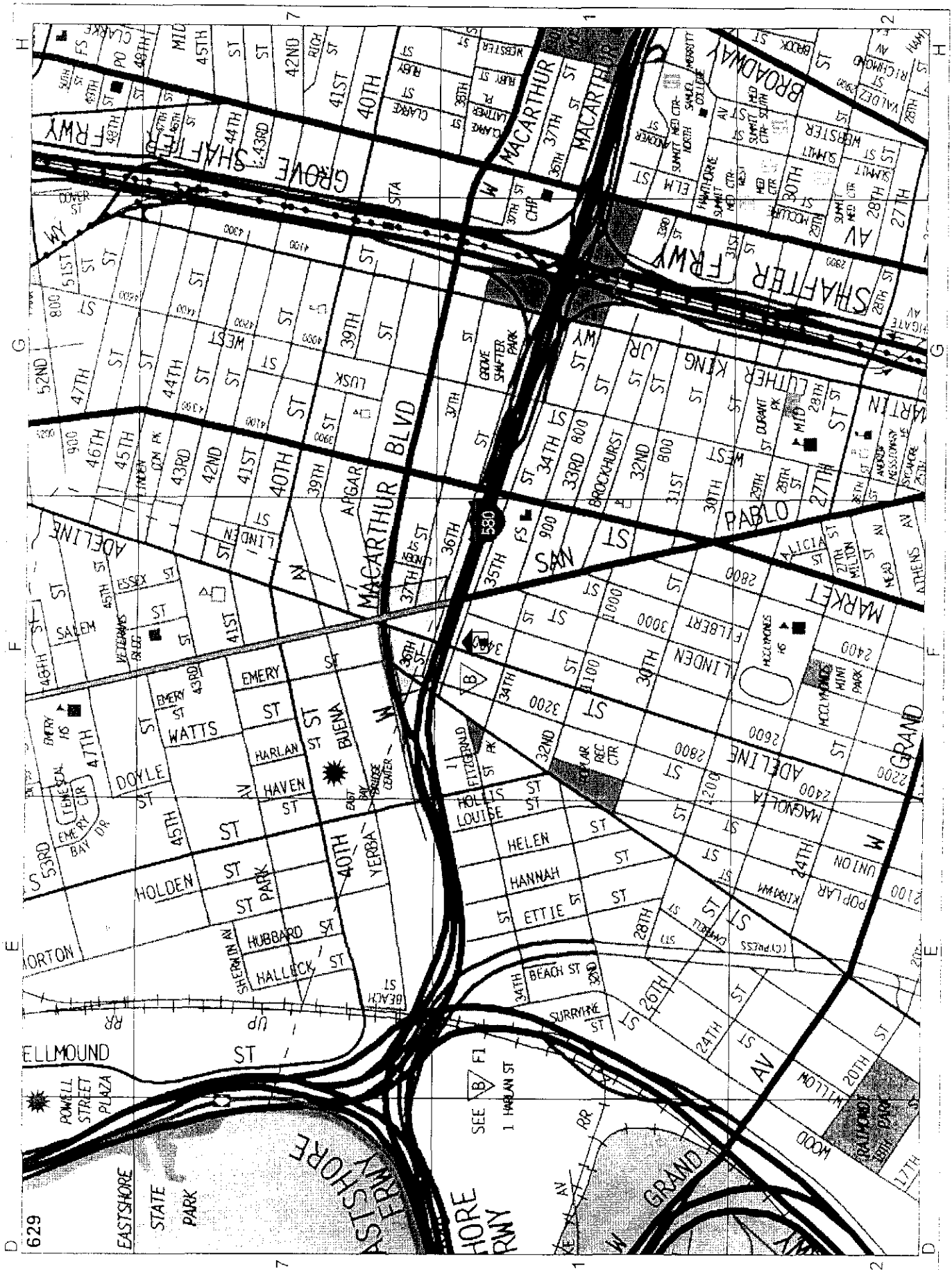
Sample Containers:
 40 ml VOA vials 6
 1-liter amber glass 2
 16-oz plastic bottle _____

Sample Collection: Disposable Bailer
 PVC Bailer
 Stainless-Steel Bailer

Sample Depth: 12.5 ft.

Sample Handling: stored in Iced Cooler







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