

Miller Environmental Company, Inc.

Engineering • Geology • Construction

November 6, 1992

Department of Environmental Health Hazardous Materials Division 80 Swan Way, Room 200 Oakland, CA 94621

Attn: Ms. Susan Hugo

Re: California Linen Rental Co., 989 41st Street,

Oakland, CA

Dear Ms. Hugo,

Enclosed are the laboratory results for the quarterly sampling interval for the above-mentioned site. This latest sampling episode is a continuation of the quarterly monitoring requirements recommended by Alameda County Health Care Services Agency (ACHCSA) in their letter dated 04/15/91.

Ground Water Monitoring Results

A visual observation for floating product was done prior to sampling by using a clear teflon bailer. No free product was observed in either of the monitoring wells. A minimum of four well volumes were purged from each well prior to sampling. Ground water samples were collected in 40ml VOA bottles and 1-Liter amber jars. Samples were stored on ice during transport to a state-certified laboratory for analysis. Ground water samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, Total Oil and Grease (TOG), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX). A summary of laboratory results is presented in Table 1.

Table 2 is a summary of ground water elevations.

Discussion of Results

Detected amounts of Benzene, Toluene, Ethylbenzene and Xylenes in monitoring well MW1 have shown an abrupt rise since November of 1991. TPH as Gasoline in this well has not exhibited a significant increase in concentrations. Total Oil and Grease (TOG) was detected in monitoring well MW1 at 20 ppm. This increase in TOG may be attributable, in part, to the abrupt increase in other hydrocarbon fractions and may

be related to the mineralization of the lighter fractions. When lighter hydrocarbon fractions are mineralized the longer chain and more recalcitrant fractions remain and are detected in the TOG analysis. The small amounts of Toluene and Xylene(s) detected in well MW2 for the first time in March of 1992, have disappeared and were probably anomalous.

If you have any questions please do not hesitate to call me.

Sincerely,

MILLER ENVIRONMENTAL COMPANY

John H. Sammons, Ph.D. Principal Scientist

Enc: Laboratory results

cc : RWQCB

Mr. Joel Pitney - California Linen

file

TABLE 1 - CALIFORNIA LINEN SUMMARY OF LABORATORY RESULTS

	SAMPLE	\mathbf{TPH}	TPH			ETHYL					
WELL	DATE	GAS 🔿	DIESEL	TOG	BENZENE	TOLUENE	BENZENE	XYLENE			
		MG/Lem	MG/L	${\tt MG/L}$	UG/L	UG/L	UG/L	UG/L			
											
MWl	10-02-89	70.00	0.61	ND	2,800	2,400	4,800 4	-2,300			
MW1	02-20-90	73.00	2.20	3.00	7,500	5,900	680	5,300			
MWl	07-25-90	34.00	ND	1.00	2,000	670	120	1,500			
MW1	10-23-90	50.00	1.10	ND	3,300	4,000	4,200	4,700			
MW1	01-28-91	99.00	1.70	3.00	4,400	7,400	1,800	8,600			
MW1	06-05-91	23.00	0.56	ND	2,000	1,200	640	2,500			
MW1	08-15-91	59.00	3.50	3.00	3,800	5,500	1,100	4,800			
MW1	11-21-91	47.00	9.80	ND	6,000	7,200	2,200	1,000			
MW1	03-18-92	77.00	14.00	ND	17,000	18,000	2,300	1,300			
MW1	NS	NS	NS	NS	NS	NS	NS	NS .			
MW1	10-17-92	83.00	ND	20.00 _°			The state of the s	- 9 800°			
MW1	10-17-92	、83₊00∘,	ND	20.00 _%			San	*** 8 · 800 *			
MW1 MW2	10-17-92 10-02-89	83.00 · .	ND ND	20. ∙ 00 ⊲ ND	ND	ND	ND	ND			
						ND ND	ND ND	***			
MW2	10-02-89	ND	ND	ND	ND			ND			
MW2 MW2	10-02-89 02-20-90	ND ND	ND ND	ND ND	ND ND	ND	ND	ND ND			
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TPH - TOTAL PETROLEUM HYDROCARBONS

TOG - TOTAL OIL AND GREASE

MG/L - MILLIGRAMS PER LITER / PARTS PER MILLION (PPM)

UG/L - MICROGRAMS PER LITER / PARTS PER BILLION (PPB)

ND - NOT DETECTED NS - NOT SAMPLED

CHOP TOPING

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TABLE 2 CALIFORNIA LINEN GROUND WATER ELEVATION RESULTS

		1					3		
	SAMPLE	EĽEV.	DEPTH	GW		SAMPLE	ELEV	DEPTH	GW
WELL	DATE	/TOC	TO	ELEV	\mathtt{WELL}	DATE	TOC	TO	ELEV
		AMSL	GW	AMSL			AMSL	GW	AMSI
		'							
MW1	10-11-89	38.88	7.30	31.58	MW2	10-11-89	34.96	9.22	25.74
MWl	11-13-89	38.88	6.97	31.91	MW2	11-13-89	34.96	9.95	25.01
MW1	12-14-89	38.88	6.98	31.90	MW2	12-14-89	34.96	10.01	24.95
MW1	02-20-90	38.88	7.65	31.23	MW2	02-20-90	34.96	10.39	24.57
MW1	03-22-90	38.88	7.67	31.21	MW2	03-22-90	34.96	10.21	24.75
MWl	04-23-90	38.88	6.93	31.95	MW2	04-23-90	34.96	10.03	24.93
MW1	07-25-90	38.88	6.79	32.09	MW2	07-25-90	34.96	9.92	25.04
MW1	08-22-90	38.88	7.46	31.42	MW2	08-22-90	34.96	9.55	25.41
MW1	09-25-90	38.88	7.32	31.56	MW2	09-25-90	34.96	9.57	25.39
MW1	10-23-90	38.88	6.80	32.08	MW2	10-23-90	34.96	9.68	25.28
MW1	01-28-91	38.88	6.46	32.42	MW2	01-28-91	34.96	9.50	25.46
MWl	06-05-91	38.88	6.66	32.22	MW2	06-05-91	34.96	9.25	25.71
MW1	08-15-91	38.88	6.31	32.57	MW2	08-15-91	34.96	9.56	25.40
MW1	11-21-91	38.88	6.55	32.33	MW2	11-21-91	34.96	9.48	25.48
MWl	03-18-92	38.88	8.46	30.42	MW2	03-18-92	34.96	9.55	25.41
MW1	NS	38.88	NS	NS	MW2	NS	34.96	NS	NS
MW1	10-17-92	38.88	7.88	31.00	MW2	10-17-92	34.96	9.36	25.60

NS - NOT SAMPLED

TOC - TOP OF CASING

ELEV - ELEVATION

AMSL - ABOVE MEAN SEA LEVEL

GW - GROUND WATER

n (#13/89)



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

10-379\1718\012191

Miller Environmental Company 999 Anderson Drive, #120 San Rafael, CA 94901

Attn: Darin Reinhodlt

Project Manager

Date Sampled: 10-07-92 Date Received: 10-08-92 Date Analyzed: 10-15-92

Sample Number

102176

Sample Description Project # 10-379 Cal Linen

MW2

WATER

ANALYSIS _____

	Detection Limit	Sample Results		
	ppb	ppb		
Total Petroleum Hydrocarbons as Gasoline	50	<50		
Benzene	0.5	<0.5		
Toluene	0.5	<0.5		
Xylenes	0.5	<0.5		
Ethylbenzene	0.5	<0.5		

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



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10-379\1718\012191

Miller Environmental Company 999 Anderson Drive, #120 San Rafael, CA 94901

Attn: Darin Reinhodlt
Project Manager

Date Sampled: 10-07-92 Date Received: 10-08-92 Date Analyzed: 10-15-92

Sample Number

102177

Sample Description
----Project # 10-379
Cal Linen

MW1 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	83,000
Benzene	0.5	11,000
Toluene	0.5	18,000
Xylenes	0.5	13,000
Ethylbenzene	0.5	2,800

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

10-379\1428\012191

Miller Environmental Company 999 Anderson Drive, #120 San Rafael, CA 94901

Attn: Darin Reinholdt

Project Manager

Date Sampled: 10-07-92

Date Received: 10-08-92

Date Analyzed: 10-14-92

WATER

Sample Sample Detection Total Petroleum
Number Description Limit Hydrocarbons as Diesel
ppb ppb

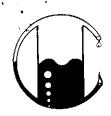
Cal Linen Proj # 10-379

102176 MW2 50 <50 102177 MW1 50 <50

QA/QC: Sample blank is none detected

Note: Analysis was performed using EPA method 3510 and TPH LUFT. (ppb) = $(\mu g/L)$

MOBILE CHEM LABS



5021 Blum Road, Suite 3 • Martinez, CA 94553 Phone (415) 372-3700 • Fax (415) 372-6955

10-379\102176\012191

Miller Environmental 999 Anderson Drive, #120 San Rafael, CA 94901 Attn: Darin Reinholdt

Project Manager

Date Sampled: 10-07-92 Date Received: 10-08-92 Date Analyzed: 10-16-92

WATER

Sample Sample Detection Gravimetric Waste Oil
Number Description Limit as Petroleum Oil
ppm ppm

Project # 10-379 Cal Linen

102176 MW2 10 <10 102177 MW1 10 20

QA/QC: Freon Blank is none detected.

Spike Recovery on 102176 is 89%

Duplicate Deviation on 102176 is 2.3%

Note: Analysis was performed using EPA extraction method 3550

with Trichlorotrifluoroethane as solvent, and gravimetric

determination by standard methods 5520

(ppm) = (mg/L)

MOBILE CHEM LABS

Sample Analysis Request/Chain of Custody

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MILLER ENVIRONMENTAL COMPANY, INC.						JOB NUMBER:							P.O.	Number:			
engineering Geology Construction 999 ANDERSEN DRIVE, SUITE 120 SAN RAFAEL, CALIFORNIA 94901 (415) 457-3400 FAX (415) 457-3695 Samplers: Darin Reinhold+						f Containers	1	1/4	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		/				Tura		
Sample 1.D.	Date	Tine	Conp.	Grab		Locati	on	No. of	Matrix	Z Ž	5/2	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	200 E/L	0/.			Around Tine
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