

geo - logic

geotechnical and environmental consulting services

1140 - 5th Avenue, Crockett, CA 94525

(510) 787-6867 - Fax (510) 787-1457

September 10, 1999

Ms. Susan Hugo
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

RE: Third Quarter - 1999 Monitoring and Sampling Reports
Former Berkeley Farms Truck Repair Shop and Yard
Former Berkeley Farms Dairy
4575 and 4550 San Pablo Avenue
Emeryville, California 94608

Dear Ms. Hugo:

Enclosed are the third quarter, 1999 monitoring and sampling reports for the above-referenced sites. Should you have any questions regarding the reports, please feel free to call me at (510) 787-6867.

Sincerely,

Geo-Logic



Joel G. Greger, C.E.G.
Certified Engineering Geologist

License No. EG 1633
Exp. Date 8/31/2000

Attachments: Reports

*9/22/99 meeting at Carol Light
number 5 of Carol Light
S.P. Street
2) Preferential pathways along S.P. Street
3) Risk filtered & unfiltered samples
for TPHd in NW 1 & NW 2*

99 SEP 13 PM 3:57

ENVIRONMENTAL PROTECTION

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(510) 787-6867 - Fax (510) 787-1457

Paradiso Job No. 1103-05
September 10, 1999

Mr. Pat Roland
Berkeley Farms
25500 Clawiter Road
Hayward, California

Re: Third Quarterly Sampling of Monitoring Wells
Former Berkeley Farms Dairy Facility
4550 San Pablo Avenue
Emeryville, California 94608

Dear Mr. Roland:

This report presents the results of the third quarterly sampling of the monitoring wells at the subject site. During this quarter, the wells were monitored and sampled on September 6, 1999. The work performed during this quarter was conducted in compliance with the guidelines established by the Regional Water Quality Control Board and Alameda County Environmental Health Services (ACEHS).

SITE DESCRIPTION AND BACKGROUND

The subject site is located on the eastern side of San Pablo Avenue between 45th and 47th Streets in Emeryville, California, and formerly operated as a Berkeley Farms dairy facility. A Site Plan (Figure 1 - Potentiometric Surface Map) is attached to this report.

Geo-Logic's previous work at the site began in September, 1998, and includes sampling during the removal of three underground fuel tanks, a dispenser island, and product piping. This work was summarized in Geo-Logic's reports (GL-98-120.R1/P1 through R3) dated September 23, 1998, November 20, 1998, and March 10, 1999.

On February 26, 1999, two 2-inch diameter monitoring wells (designated as MW1 and MW2 on the attached Figure 1) were installed at the site. The purpose of the well installation was to determine the ground water flow direction, and to further investigate the degree and extent of petroleum hydrocarbon impacts to soil and ground water at the site. The work performed was in accordance with Geo-Logic's work plan/proposal (GL-98-120.P2) dated February 13, 1999, and was documented in Geo-Logic's report dated March 18, 1999.

RECENT FIELD ACTIVITIES

Wells MW1 and MW2 were monitored and sampled during this quarter on September 6, 1999.

Prior to sampling, the wells were checked for depth to water, and the presence of free product and sheen. Oily droplets of free product were noted in well MW1. No free product was observed in MW2. The monitoring data collected this quarter is summarized in Table 1.

After recording the monitoring data, the wells were each purged of approximately ten gallons of water. Once a minimum of approximately three to four casing volumes had been removed from each well and the groundwater level was observed to have stabilized, water samples were then collected by the use of a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

HYDROLOGY

On September 6, 1999, the measured depth to ground water in monitoring wells MW1 and MW2 was 7.67 and 8.42 feet below the tops of the well casings, respectively. Since last quarter, the elevation of ground water in wells MW2 and MW3 has shown decreases of 0.49 and 0.97 feet, respectively. Using the monitoring data from the two wells, and the data from three wells at 4575 San Pablo Avenue (also monitored on September 6, 1999), the calculated ground water flow direction was to the west, as shown on the attached Potentiometric Surface Map, Figure 1. The hydraulic gradient at the site on September 6, 1999, was approximately 0.01. The ground water flow direction and hydraulic gradient observed this quarter is consistent with the previous quarters.

ANALYTICAL RESULTS

Water samples from wells MW1 and MW2 were analyzed at Calcoast Analytical, Inc., in Emeryville, California. All samples were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for TPH as gasoline and TPH as diesel by EPA method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA method 8020.

The concentrations of TPH as gasoline, benzene, and TPH as diesel detected in the ground water samples collected on September 6, 1999, are shown on the attached Figure 2. The results of the water analyses are summarized in Table 2. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

DISTRIBUTION

A copy of this report should be sent to Ms. Susan Hugo of the ACEHS.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this work are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed these data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

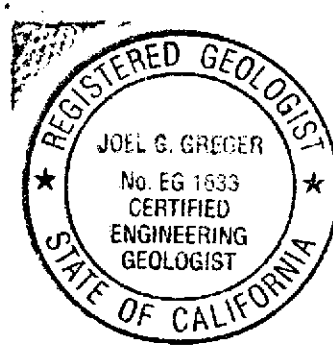
If you have any questions regarding this report, please do not hesitate to call me at (510) 787-6867.

Sincerely,

Geo-Logic



Joel G. Greger, C.E.G.
Certified Engineering Geologist
License No. EG 1633
Exp. Date 8/31/2000



Attachments: Tables 1 and 2
Figures 1 & 2
Laboratory Analyses and
Chain of Custody documentation

TABLE I

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)</u>	<u>Total Well Depth (feet)</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>
(Monitored and Sampled on <u>September 6, 1999</u>)						
MW1A	32.62	9.88	16.94	0	No	8
MW2	32.16	8.62	16.55	0	No	8
MW3	32.88	8.20	16.59	0	No	8
MW1-Dairy	35.26	7.67	21.77	oily droplets		10
MW2-Dairy	33.70	8.42	21.79	0	No	10
(Monitored and Sampled on <u>June 7, 1999</u>)						
MW1		(Well inaccessible, damaged)				
MW2	32.65	8.13	16.55	0	No	8
MW3	33.57	7.51	16.61	0	No	8
MW1-Dairy	35.75	7.18	21.78	oily droplets		10
MW2-Dairy	34.67	7.45	21.79	0	No	10
(Monitored and Sampled on <u>March 4, 1999</u>)						
MW1		(Well inaccessible, damaged)				
MW2	35.28	5.50	16.56	0	No	8
MW3	35.85	5.23	16.60	0	No	8
MW1-Dairy	38.59	4.34	21.77	oily droplets		10
MW2-Dairy	37.91	4.21	21.80	0	No	10
(Monitored and Developed on <u>March 1, 1999</u>)						
MW1-Dairy	38.58	4.35	21.78	oily droplets		22
MW2-Dairy	37.91	4.21	21.80	0	No	23

TABLE 1 - (continued)

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

<u>Well #</u>	<u>Top of Casing Elevation* (feet)</u>
MW1	42.01
MW2	40.78
MW3	41.08
MW1 - Dairy	42.93
MW2 - Dairy	42.12

Depth to water and total well depth measurements are taken from the top of the well casings.

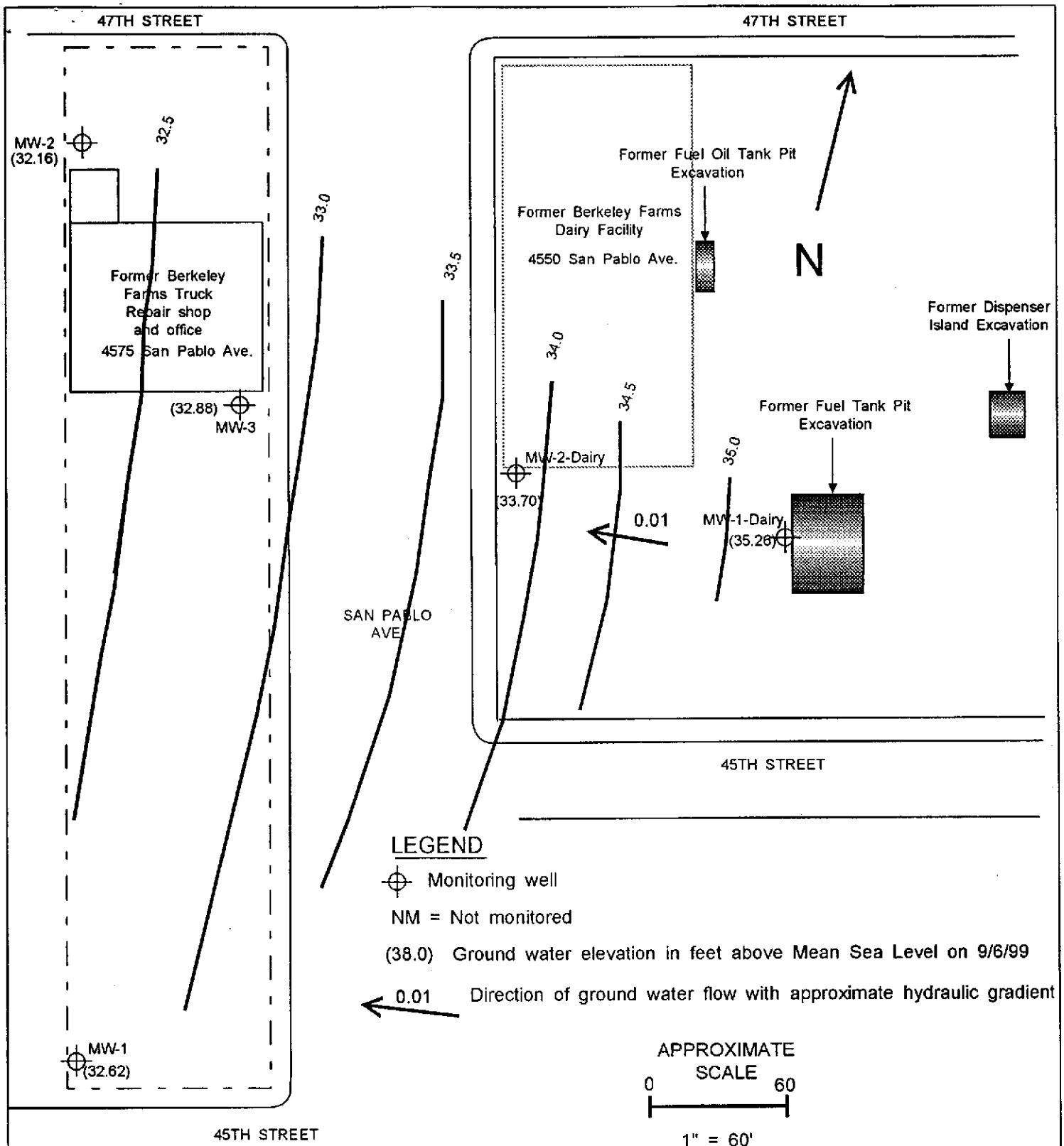
- * The elevation of the tops of the well casings have been surveyed relative to City of Oakland Benchmark No. 241.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>	<u>MTBE</u>
9/6/99	MW1	560,000	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
6/7/99	MW1	540,000	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
3/4/99	MW1	447,000	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/99	MW2	14,000	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
6/7/99	MW2	8,700	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
3/4/99	MW2	16,000	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
Method Blank/ Det. Limit		5.0	5.0	0.5	0.5	0.5	0.5	0.5

Results are in parts per billion.



Former Berkeley Farms Dairy Facility
4550 San Pablo Avenue
Emeryville, California

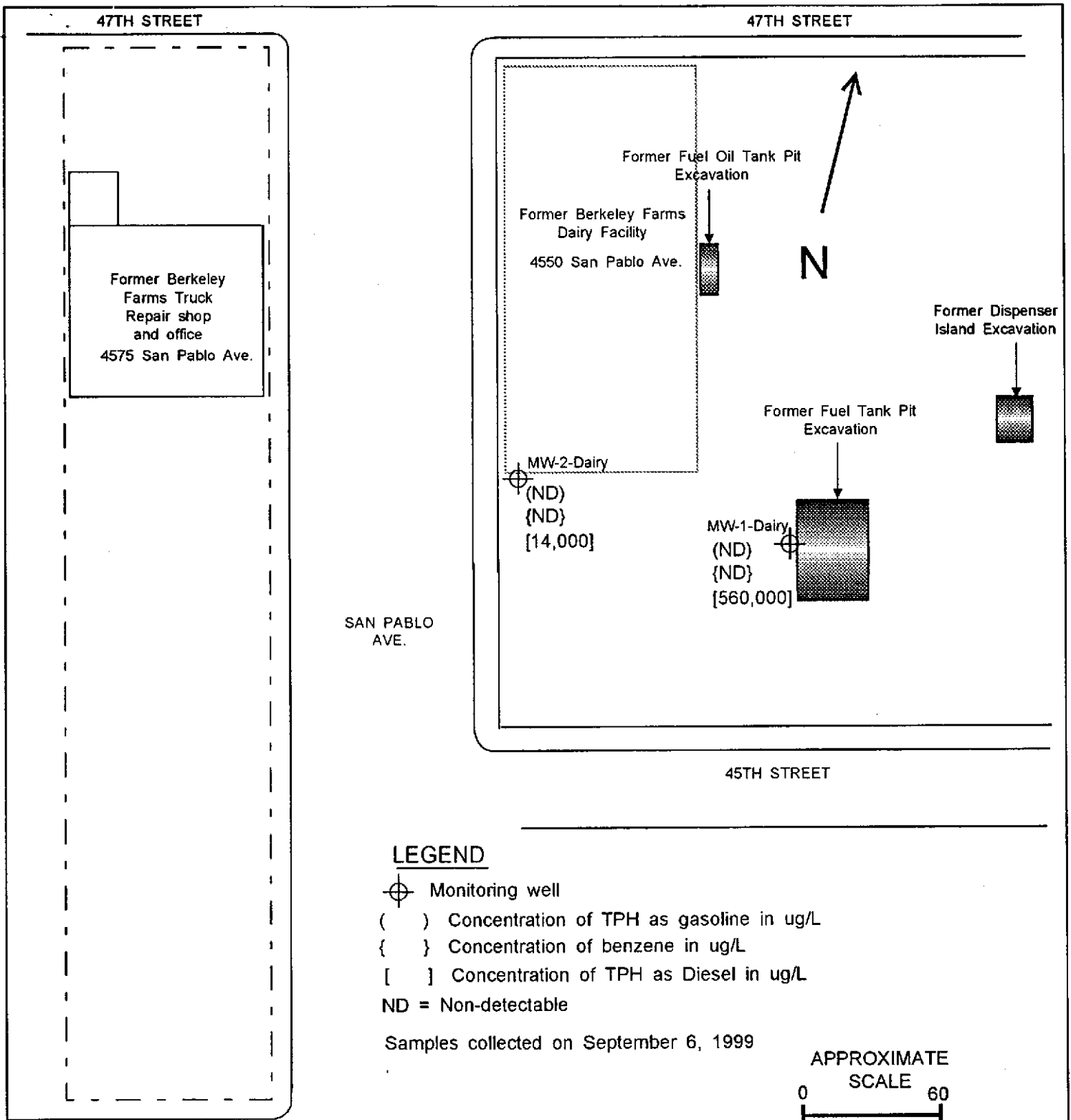
Figure No:

1

Date: September 7, 1999

Drawn By: JG/Geo-Logic

Potentiometric Surface Map



Former Berkeley Farms Dairy Facility
4550 San Pablo Avenue
Emeryville, California

Figure No:

2

Date: JSeptember 9, 1999

Drawn By: JG/Geo-Logic

Petroleum Hydrocarbons in Groundwater

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
*California Department of Health Services
City of Los Angeles, Dept. of Building & Safety*

September 9, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No. 0907-2A/D-99

1. SAMPLES:

Two (2) water samples, each contained in two (2) VOAs;

Project: Former Berkeley Farms Dairy, 4550 San Pablo, Emeryville
Project No: 1013 - 05
Samples: A. MW1 - Dairy
B. MW2 - Dairy

Collected: September 6, 1999

Received: September 7, 1999

2. ANALYSIS REQUIRED:

- A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
- B. Total Petroleum Hydrocarbons - diesel (TPH-d) by GC.
- C. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
- D. Methyl-tert-butyl ether (MTBE) by GC.

3. METHODS OF ANALYSIS:

- A. EPA Method 8015; SW-846
- B. EPA Method 8015; SW-846
- C. EPA Method 8020; SW-846
- D. EPA Method 8020; SW-846

COATINGS • BUILDING MATERIALS • HAZARDOUS WASTE
SPECTROSCOPY • CHROMATOGRAPHY • MICROSCOPY

TELEPHONE (510) 652-2979

FAX (510) 652-3085

P.O. BOX 8702 • EMERYVILLE, CA 94662

4072 WATTS STREET • EMERYVILLE, CA 94608

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (µg/L)
A. MW1-Dairy	< 5.0 (ND)
B. MW2-Dairy	< 5.0 (ND)

Method Blank / Detection Limit = < 5.0 µg/L (none detected)
 Mean Spike Recovery = 111%

B. TPH - diesel

SAMPLE	TPH - diesel (µg/L)
A. MW1-Dairy	560,000
B. MW2-Dairy	14,000

Method Blank / Detection Limit = < 5.0 µg/L (none detected)
 Mean Spike Recovery = 96%

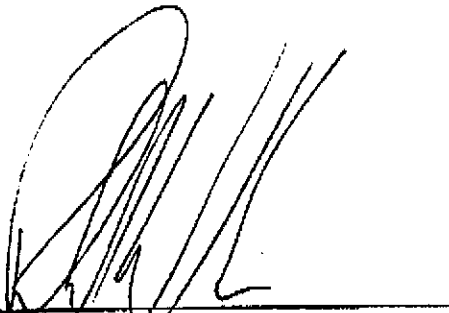
C. BTEX

Sample	Concentration - (µg/L)			
	Benzene	Toluene	Ethylbenzene	Xylene
A. MW1	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)
B. MW2	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)
Method Blank	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)
Mean Spike Recovery	105%	104%	92%	108%

D. MTBE

SAMPLE	MTBE ($\mu\text{g/L}$)
A. MW1	< 0.5 (ND)
B. MW2	< 0.5 (ND)

Method Blank / Detection Limit = < 0.5 $\mu\text{g/L}$ (none detected)



Ronald W. Shrewsbury
Analytical Chemist

RWS: swr

ALL SAMPLES SUBMITTED FOR TESTING WILL BE HELD 30 DAYS FROM REPORT DATE AT WHICH TIME THEY WILL BE RETURNED TO CLIENT OR DESTROYED. CLIENT WILL BE RESPONSIBLE FOR ALL SHIPPING, HANDLING, AND DISPOSAL CHARGES. SAMPLES WILL BE STORED UPON WRITTEN INSTRUCTIONS AND FEE ARRANGEMENTS.

This report was made at the request of and for the use only of the purchaser of said report. Any use of or dissemination of information contained herein or reference to Calcoast Labs, Inc. without prior written consent of Calcoast Labs, Inc. is strictly prohibited.

Proj. Mgr. <u>Joel Greger-Geologic</u>					Analysis Report															NUMBER OF CONTAINERS		
Company: <u>Paradiso Medicinal</u>					TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 8242)	BASE/NEUTRALS, ACIDS (EPA 625/827, 8270, 825)	TOTAL OIL & GREASE (EPA 5520, B-F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418-1)	118E-648020	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)		TOTAL LEAD	EXTRACTION (TCLP, STLC)
Address: <u>1003 1836</u>																						
<u>2600 Williams St</u>																						
Address: <u>San Leandro</u>																						
Samples (signature) (Phone No.)																						
<u>Joel M</u> 510 7876867 (Fax No.)																						
510 7871457																						
Sample ID	Type	Date	Time	Preserve																		
<u>mwt-Dairy</u>		<u>9/6/99</u>	<u>9:30 AM</u>		<u>Watt provide</u>																	
<u>mwt-Dairy</u>		<u>9/6/99</u>	<u>9:30 AM</u>																			
Project Information					Sample Receipt					Relinquished By:					1. Relinquished By:							
Project Name: <u>Former Berkeley Farms Dairy</u>					Total No. of Containers					(Signature) <u>Joel M</u>					(Signature)							
Project No.					Head Space					(Printed Name) <u>Joe L. Greger</u>					(Printed Name)							
PO #					Rec'd Good Condition/Cold					(Date) <u>9/6/99</u>					(Date)							
TAT <u>Standard 5-Day</u>					Conforms To Record					(Time) <u>9:45 AM</u>					(Time)							
Special Instructions / Comments:					Other					Received By:					1. Received By:							
<u>Refer to Job Name + No on lab sheets + invoice</u> <u>Former Berkeley Farms Dairy</u> <u>4550 San Pablo Ave</u> <u>Emeryville</u> <u>Paradiso Job # 1103-05</u>										(Signature) <u>Robert A. Hoff</u>					(Signature)							
										(Printed Name) <u>Robert A. Hoff</u>					(Printed Name)							
										(Date) <u>9/6/99</u>					(Date)							
										(Time) <u>9:45</u>					(Time)							