May 26, 1993

Ms. Juliet Shin Hazardous Material Specialist Alameda County Health Care Services 80 Swan Way, Room 200 Oakland, CA 94621

Re: Quarterly Monitoring Report Former E-Z Serve #100877 525 West A Street Hayward, California

Dear Ms. Shin:

Attached is a monitoring report for the first quarter of 1993. This report was prepared in accordance with the requirements established by the California Regional Water Quality Control Board. Also attached is a manifest for the transportation and disposal of purge water generated during quarterly sampling.

E-Z Serves consultant has applied for encroachment permits for drilling in the right-of-way of A Street. Once the permits are obtained the field work will be initiated.

If you have any questions advise.

Sincerely,

Brian Cobb, P.E.

Bri Coll

Environmental Manager

w/enclosure

cc: Mr. Bart Racca - Associated Soils Analysis

Mr. Eddy So - CRWQCB

# ENVIRONMENTAL OVERSIGHT, INC. CONSULTING AND WELL MONITORING SERVICES

### QUARTERLY MONITORING REPORT 1st QTR - 1993

for

E-Z Serve Location # 100877 525 West A Street Hayward, California

April 12, 1993

Unite lutter to site to make sure they for make sure they for sure all wells to sure as tablished bunchers of look into sourcers of gradient variations.

(or call or check approved latter)

# ENVIRONMENTAL OVERSIGHT, INC. CONSULTING AND WELL MONITORING SERVICES

#### E-Z Serve #100877

Ground water monitoring wells at E-Z Serve Location #100877 were sampled on March 3, 1993 by Environmental Oversight, Inc.

No non-aqueous phase hydrocarbons was found in any of the six primary monitoring wells. Dissolved hydrocarbons, above the laboratory detection limits, were present in all six wells.

Contouring of the groundwater measurements taken during this sampling event shows a radial pattern toward the western border of the site. The gradient varies from 0.011 ft/ft on the northern edge and 0.016 ft/ft on the southern edge. Do to a disparity in the contamination distribution and groundwater gradient flow, Environmental Oversight recommends that the well be resurveyed to insure consistency, particularly MW-5 and MW-6.

Attached are the consolidated results from past sampling events, plot plan showing groundwater elevations, laboratory results with chain of custody documentation, and field gauging sheets.

Groundwater gradient determination and corresponding maps were completed by the Registered Geologist listed below based on information supplied by E-Z Serve and Environmental Oversight, Inc.

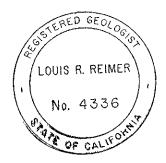
Paul R. Martin

Project Manager, REA #04413

Louis R. Reimer

California Registered Geologist No. 4336

REA-04413
Expires: 93



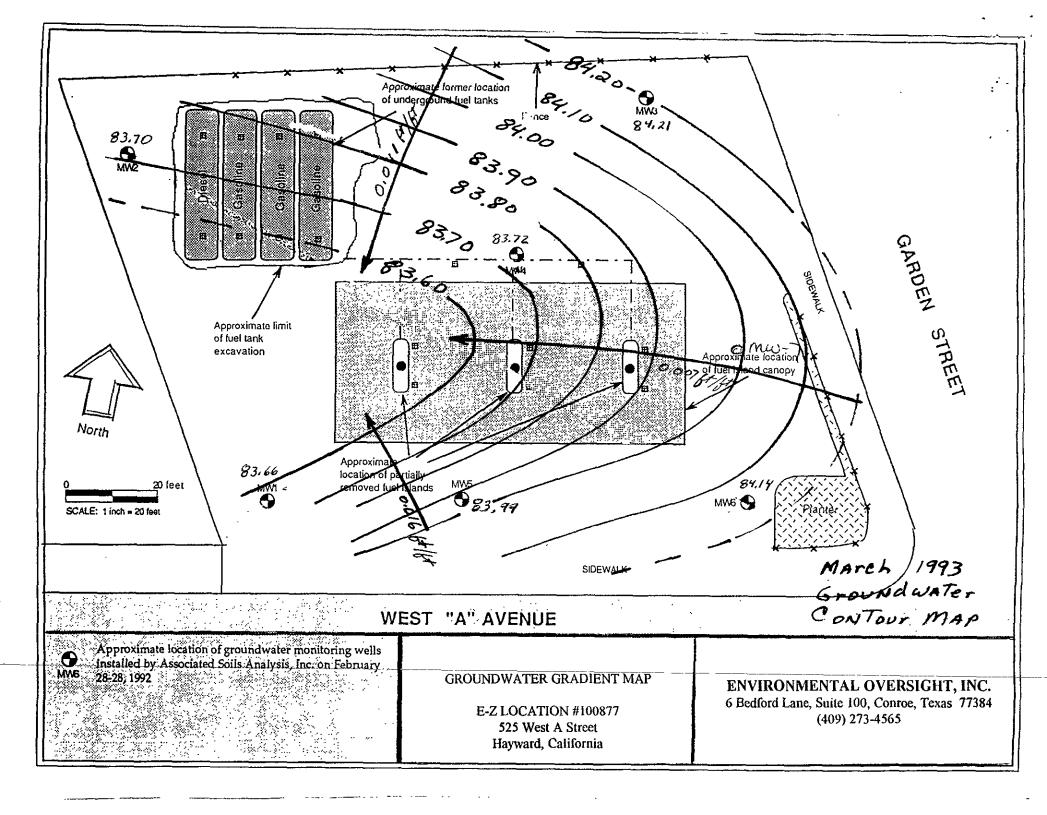
Main Office: 6 Bedford Lane, Suite 100, Conroe, Texas 77384, (409) 273-4565 California Office: 22 Kazan, Irvine, California 92714 (714) 559 - 0967 Co Shelloning,

E-Z Location #100877 525 West A Street Hayward California

MW#	Date	Well Elev	Depth to F.P.	Depth	F.P.	G.W.	(EPA 8015)		EPA 8020)	_	
MAA 14	Uale	(feet)	(feet)	to G.W (feet)	Thickness (feet)	Elevation (feet)	TPH (ppb)	(ppb)	T (ppb)	E (ppb)	(ppb)
		, , , , , , , , , , , , , , , , , , ,	<u> </u>	(1111)	(.55.)	(1000)	(рро)	(ppb)	(рро/	(ppo)	(ppb)
L D 4/ 4/			Ì								
MW #1	5-Feb-92	99.91	\ .	20.82	0.00	79.09	46,000	76 000	00.000	0.400	0.500
	11-Sep-92	99.91	\ \	20.02	0.00	79.83	48,000	76,000 9,000	23,000 1,200	2,400 1,800	6,500 4,600
	22-Dec-92		\ ;	19.79	0.00	80.12	84,000	22,000	1,600	4,800	17,000
	3-Mar-93		`` \	16.23	0.00	83.68	54,000	16,000	1,600	1,900	4,300
MW #2											
	5-Feb-92	101.45		22.35	0.00	79.10	67,000	13,000	4,700	820	1,300
	11-Sep-92			21.67	0.00	79.78	57,000	9,000	1,400	1,200	8,400
	22-Dec-92			21.39	0.00	80.06	31,000	9,900	350	2,000	4,100
	3-Mar-93			17.75	0.00	83.70	17,000	5,100	1,300	720	1,900
MW #3		404.50									
	5-Feb-92	101.50		21.85	0.00	79.65	5,900	1,100	nd	nd	nd
	11-Sep-92 22-Dec-92			21.13 20.88	0.00 0.00	80.37 80.62	9,400 12,000	1,200	180	550	1,100
	3-Mar-93			17.29	0.00	84.21	11,000	2,800 2,200	190 360	850 570	1,600 900
MW #4											
	5-Feb-92	100.50		21.31	0.00	79.19	16,000	2,700	410	nd	3,400
	11-Sep-92			20.62	0.00	79.88	43,000	7,600	1,600	1,400	4,100
	22-Dec-92			20.37	0.00	80.13	29,000	8,800	1,200	1,500	3,700
	3-Mar-93			16.78	0.00	83.72	17,000	5,000	1,500	680	1,700

E-Z Location #100877 525 West A Street Hayward California

		Well	Depth	Depth	F.P.	G.W.	(EPA 8015)	(E	EPA 8020)		
MW#	Date	Elev	to F.P.	to G.W	Thickness	Elevation	TPH	В	Ť	E	X
		(feet)	(feet)	(feet)	(feet)	(feet)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW #5											
	5-Feb-92	100.48		20.93	0.00	79.55	78,000	7,900	5,000	2,900	1,800
	11-Sep-92			20.27	0.00	80.21	49,000	4,700	400	1,400	4,100
	22-Dec-92			19.99	0.00	80.49	34,000	8,600	340	2,200	4,800
	3-Mar-93			16.49	0.00	83.99	22,000	7,500	640	1,300	3,400
MW #6											
	5-Feb-92	100.97		21.29	0.00	79.68	51,000	5,400	3,500	3,600	10,000
	11-Sep-92			20.56	0.00	80.41	24,000	2,500	830	1,400	2,300
	22-Dec-92			20.31	0.00	80.66	23,000	<b>5,10</b> 0	630	2,000	3,100
	3-Mar-93			16.83	0.00	84.14	18,000	4,400	820	1,400	2,400





March 19, 1993

Mr. Paul Martin Environmental Oversight, Inc. 6 Bedford Lane, Suite 100 Conroe, Texas 77384

Dear Mr. Martin:

Trace Analysis Laboratory received six water samples on March 3, 1993 for your E-Z Serve Project No. 100877, West A Street, Hayward (our custody log number 3014).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene and Xylenes. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Rachel Dolbier

Project Specialist

Enclosures

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3423 Investment Boulevard, #8 • Hayward, California 94545

LOG NUMBER: DATE SAMPLED:

3014 03/03/93

DATE RECEIVED:

03/03/93

DATE ANALYZED:

03/13/93 and 03/16/93

DATE REPORTED: 03/19/93

**CUSTOMER:** 

E-Z Serve Petroleum Marketing Company

REQUESTER:

Paul Martin of Environmental Oversight, Inc.

PROJECT:

No. 100877, 525 West A Street, Hayward

		MW	l-1	MW	-2	MW-3	
Method and <u>Constituent</u> :	<u>Units</u>	Concen- tration	Reporting <u>Limit</u>	Concen- <u>tration</u>	Reporting <u>Limit</u>	Concen- <u>tration</u>	Reporting <u>Limit</u>
DHS Method:						 	
Total Petroleum Hydro- carbons as Gasoline	ug/l	54,000	510	17,000	580	11,000	510
Modified EPA Method 8020	for:						
Benzene	ug/l	16,000	120	5,100	60	2,200	120
Toluene	ug/l	1,600	120	1,300	57	360	120
Ethylbenzene	ug/l	1,900	130	720	65	570	130
Xylenes	ug/l	4,300	310	1,900	160	900	310

Concentrations reported as ND were not detected at or above the reporting limit.

## Trace Analysis Laboratory, Inc.

LOG NUMBER: 3014

DATE SAMPLED: 03/03/93

DATE RECEIVED: 03/03/93

DATE ANALYZED: 03/13/93

DATE REPORTED: 03/19/93

PAGE: Two

			Sample	Typo:	Water		
		<del>,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>					
			1-4		1-5		-6
Method and Constituent:	<u>Units</u>	Concen- tration	Reporting <u>Limit</u>	Concen- tration	Reporting <u>Limit</u>	Concen- tration	Reporting <u>Limit</u>
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/l	17,000	510	22,000	510	18,000	510
Modified EPA Method 8020	for:						
Benzene	ug/1	5,000	120	7,500	120	4,400	120
Toluene	ug/1	1,500	120	640	120	820	120
Ethylbenzene	ug/l	680	130	1,300	130	1,400	130
Xylenes	ug/l	1,700	310	3,400	310	2,400	310
		Meth	od Blank			ļ	
Method and Constituent:	<u>Units</u>	Concen- tration	Reporting <u>Limit</u>				
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/1	ND	50				
Modified EPA Method 8020	for:						
Benzene	ug/l	ND	0.50				
Toluene	ug/1	ND	0.50				
Ethylbenzene	ug/l	ND	0.50				
Xylenes	ug/l	ND	1.5				

QC Summary:

% Recovery: 105 106 % RPD: 3.3 1.3

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis

Quality Assurance/Quality Control Manager

Telephone (510) 783-6960 Facsimile (510) 783-1512

				CHAIN O	F CUSTO	DY RE	CORD				
Proj. No. Project Name    100891   Fayward 525 W. AST.  Bill to:						An	alyses:		//	//	
E-Z Serve Petroleum Marketing Co. 10700 Interstate 45, Suite 500 Houston, TX, 77037-1187 (713)-684-4356 Project Manager:					of				97 7	//	
Sample ID	Date	Environm E Time	ental Ove   Site Lo	rsight ocation	Con- tainers				/	//	REMARKS
MW-1	3/3/9	3 12:20			2.	-	4		1	1	
MW-2		11:55			2	-	L				
MW-3		10:30			2	4	L				`;
Mw-4		15:50			2	4	4				
MYU - 5	/	11:45			2	L	-				
MW-6	lacksquare	11.20			2	L	4			7	
						,			`		
			<del></del>		***************************************						
Sampled b	w. /o	10001									
Sampled b	al	Las Dona	Q0 ()	Date/Tim   3/3/93		, ,	shed by Ulan	$\bigcirc$	_		Date/Time 3/3/93 12:00
Received by: (signature)  Date/Tim  3/3/9					e Re1	inqu i	shed by	/: (si	gnat	ure)	Date/Time
Received for Laboratory by: (signature)					Date/Time TURNAROUND TIME 3/3/93						
Env 6 I	Fax and Mail to: Paul Martin ph: Environmental Oversight, Inc. fx: 6 Bedford Lane, Suite 100						Nake	-Up r			_
	ii os.	TX 77384		·	······································		(2) 40 Whit		<u>97.6</u>	ach,	onice Hill
								L. Naha i T	- AT		

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## ENVIRONMENTAL OVERSIGHT, INC.

## **Consulting and Monitoring Well Services**

6 Bedford Lane, Suite 100, Conroe, Texas 77384 (409) 273-4565

## MONITORING WELL PURGING AND SAMPLING RECORD

Date Client Location # Address Sampler	3/3/93 EZ Serve 100877 525 West A Hayward, (A Vattre a. Va		· · · · · · · · · · · · · · · · · · ·	Number of Empty Full Delivere	<b>of Barrel</b> ed	s on Sit	: <b>e</b>
Well Number	c	ī	2	3	4	5	6
Prior to Pu	ırging		<sub>1</sub>			<u>,</u>	···
	Time	10:20	10:25	10:00	10:1 <b>5</b>	10:15	9:55
	Depth to FP (ft.)						<u> </u>
	Depth to GW (ft.)	16.23	17.75	17.29	16.78	16.49	16.83
	Depth of Well(ft.)	29.97	30.17	30.67	30.12	30.49	30.00
During Purg	ging					-	
_	Time	11:45	11:20	10:10	10:25	11:00	10:40
	Vol. in Well(gals)	9.21	8:32	8.52	14.01	9.38	8.70
	Vol. Removed(gals)	35	35	35	60	35	35
After Purgi	na						1
AICCI . La-g-	Time	12: 20	11:55	10:30	10:50	11:45	11:20
	Temp (Farenheit)	64.9	64.5	66.7	66.5	66.0	66.7
	pH	6.68	6.63	6.25	5.21	6.35	6.79
	Conductivity	3880	4050	4220	4340	4180	4640
Comments: Oversight.	1 Empty Drom			Associa	ted w/En	Vironmen1	<i>fal</i>

## ENVIRONMENTAL OVERSIGHT, INC.

## Consulting and Monitoring Well Services

6 Bedford Lane, Suite 100, Conroe, Texas 77384 (409) 273-4565

## MONITORING WELL PURGING AND SAMPLING RECORD

Date 3/3/93  Client 52 Serve					
Client <u>SZ Serve</u>					
transfine # leach //	<del></del>				
Location # 100877 /hymans					
Well Number 7	8	9	10	11	12
Prior to Purging		<del></del>			-
Time 1/:00					
Depth to FP (ft.) 17. 24					
Depth to GW (ft.) 17.33					
Depth of Well(ft.) 29.99					
During Purging		·- <u></u>	<del></del>		
Time 12:20					
Vol. in Well(gals) 8.54					
Vol. Removed(gals) 35					
After Purging					
Time					
Temp (Farenheit)					
ρΗ			!		
Conductivity		<u> </u>	<u> </u>		
Well Number 13	14	15	16	17	18
Prior to Purging					
Time					
Depth to FP (ft.)					
Depth to GW (ft.)					
Depth of Well(ft.)		L			
During Purging					
Time	1	<del>                                     </del>			
Vol. in Well(gals)					
Vol. Removed(gals)	_				
Voi. Meliloveu(gais)		<u> </u>	<u> </u>	<u>.                                    </u>	
After Purging					
Time					
Temp (Farenheit)					
pH					
Conductivity	<del></del>				

# ENVIRONMENTAL OVERSIGHT, INC. CONSULTING AND WELL MONITORING SERVICES

## Ground Water Monitoring Wells FIELD METHODS AND SAMPLING TECHNIQUES

Proper sampling techniques must be followed to assure that samples represent actual field conditions and that samples are labeled, preserved, and transported properly to retain sample integrity. This exhibit describes procedures to be followed by Environmental Oversight, Inc. (EOI) during collection of samples of ground water. Sampling guidance documents from the American Society of Testing and Materials (ASTM), U.S. Environmental Protection Agency (EPA), California Department of Health Services (DHS) and the California State Water Resources Control Board will be followed for all sampling procedures. Actual sampling procedures to be employed will be based on field conditions and may differ from those described herein.

#### Water Level and LPH Thickness Measurements

The static water level and LPH thickness in each well will be measured prior to purging or sampling.

The depth to water/product will be measured using an electronic interface probe. The wire of the interface probe is marked at 0.01 foot intervals. One tone is emitted from the interface probe if LPH is encountered; another tone for water. The wire of the interface probe will be lowered slowly until LPH or water is encountered. At this point, the mark on the interface wire opposite the permanent reference point on the top of the well casing, or the north side if a mark is not present, will be read to the nearest 0.01 foot and recorded. If the first encountered substance is LPH, the probe will be lowered until the tone corresponding to water is emitted. This depth will also be recorded. the difference between the two depths corresponds to the LPH thickness. The interface probe will be cleaned with an Alconox solution and rinsed in deionized water between measurements in different wells.

#### Well Evacuation

After the static water level in a well is determined and prior to collection of a ground water sample, stagnant water will be removed form the well casing and the surrounding gravel pack by bailing pumping, or with a vacuum truck, utilizing dedicated or decontaminated equipment. At least three casing volumes of water will be removed form each well from which a sample is collected. The volume of water in the casing will be determined from the known elevation of the water surface, the well bottom elevation, and the well diameter.

If the well is bailed or pumped during purging, samples will be collected and field analyzed for pH, temperature, and specific conductance.

All purged water will be containerized and properly handled and documented for disposal. If the containers are stored on site, a label specifying the date of purging, source, and the known or suspected nature of the contents will be affixed to each container.

### Sample Collection, Preservation, and Handling

After purging, a new polyethylene disposable bailer will be used to collect samples for analysis. The bailer is attached to a new disposable rope and lowered slowly into the water to avoid agitation of the collected sample. Containers for volatile organic analyses will be filled completely so that no airspace remains in the vial after sealing.

All sample containers will be prewashed and prepared at the analyzing laboratory in accordance with quality assurance/quality control protocols of the laboratory. Only sample containers appropriate for the intended analyses will be used.

### Conductivity, Temperature, and pH

Specific conductance, water temperature, and pH measurements will be made when a water sample is collected. Regardless of the sample collection method, a representative water sample will be placed in a transfer bottle used solely for field parameter determinations. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring two or all three of the parameters may also be used.

All instruments will be calibrated in accordance with manufacturer methods. All probes will be thoroughly cleaned and rinsed with fresh water prior to any measurements.

#### Sample Custody

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few people as possible will handle the samples. The field sampler is personally responsible for the care and custody o the collected samples until they are properly transferred.

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled.

Each label will contain the following information:

- Name of collector
- Project number
- Date and time of collection
- Place of collection
- Well number or identification
- Preservative (if any)

A chain of custody record will be filled out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record will contain the following information

- Project number
- Signature of collector, sampler, or recorder
- Date and time of collection
- Place of collection
- Sample type
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample
- Laboratory sample number
- Date and time of sample receipt
- Analysis requested

Samples will always be accompanied by a chain-of custody record. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record. Samples will be packed properly for shipment and dispatched to the appropriate laboratory for analysis. The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

### Field Records

Information to field sampling must be recorded. Records should include the following:

- Name of the sampler
- Location of the sampling activity
- Description of sampling points
- Date and time of collection measurement
- Well measurements of free product and ground water elevations
- Volume of liquid removed
- Field testing results for conductivity, pH, and temperature
- Unusual conditions