



# Associated Soils Analysis

October 7, 1994  
File No. 420-93

Brian Cobb  
E-Z Serve Management Company  
2550 N. Loop West, Ste. 600  
Houston, TX 77292

PROJECT  
M-Z  
10/13/94

**PROJECT:** E-Z Serve Location #100877, 525 West "A" Street, Hayward, California

Dear Mr. Cobb:

In accordance with your request, quarterly groundwater sampling was conducted at the above subject site on May 2 and July 1, 1994. This quarterly work package includes a site data summary table, site groundwater gradient map (FIGURE 1), laboratory analyses, monitoring well sampling record, and sampling and purging protocol (ATTACHED). Our field and laboratory analyses were conducted in accordance with approved ASTM and EPA standards.

Review of the data included in the previous quarterly groundwater reports along with communication with field personnel indicate several errors. We apologize for any inconvenience which may have resulted from these errors. The summary table has been modified to reflect the following changes: (1) Sample MW11 was actually collected from MW7 and the free phase product should not have been reported on Well MW7 during the February 6, and May 2, 1994 sampling events. A sample was not collected from MW6 and the floating product reported on Well MW6 was actually present on MW1a during the September 9, 1993 sampling event. Free phase product has only been present on the groundwater surface in MW1a (The only existing well from the original set of wells installed at the site).

Petroleum constituents were detected in water samples collected from all eleven wells (7 on-site and 4 off-site) during the July 1, 1994 sampling event. The sample labeled MW11 was collected from MW1a. Hydrocarbon concentrations in MW-1, MW-6, MW-8 and MW-10 have increased since the previous quarter sampling (May 2, 1994). Wells MW-2, MW-3, MW-4, MW-7, MW-9 and MW-1a have remained essentially unchanged.

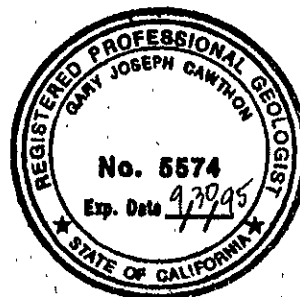
Groundwater depths at the site have decreased relative to last quarter indicating the water table has declined. A site groundwater gradient was determined by calculating the groundwater elevation in each surveyed well (SUMMARY TABLE) and contouring the elevation data (FIGURE 1). The site groundwater gradient is currently flowing toward the west at a magnitude of 0.001 foot per foot. This current groundwater gradient is similar in both magnitude and direction as last quarter's gradient.

If you have any questions about these results, please contact our office.

Sincerely,  
ASSOCIATED SOILS ANALYSIS, INC.

*Gary J. Cawthon*  
Gary J. Cawthon  
R.G. 5574

GJC/GMS/tp



NORTH



0 20 40 feet



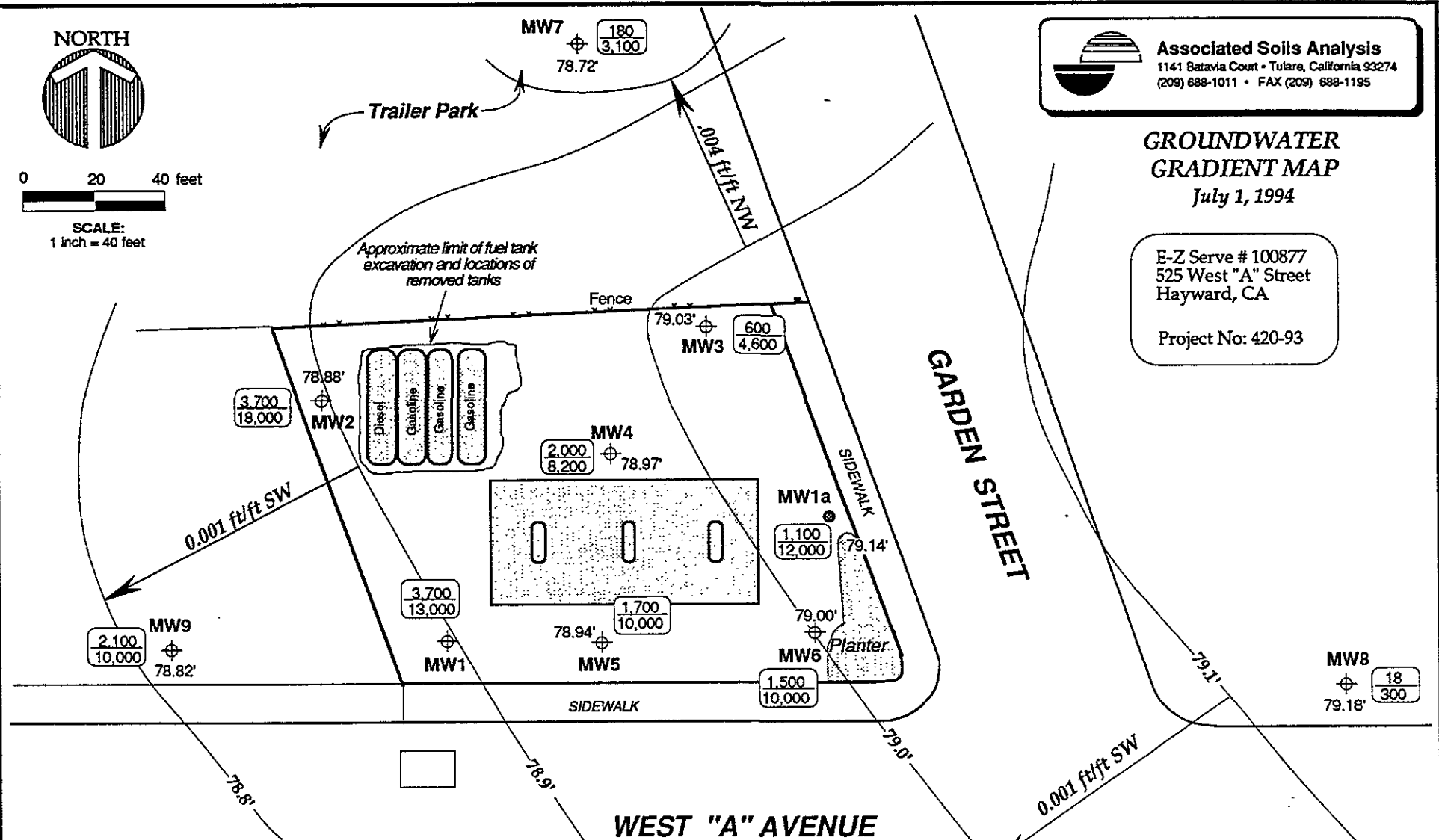
SCALE:  
1 inch = 40 feet






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**GROUNDWATER GRADIENT MAP**  
July 1, 1994



E-Z Serve # 100877  
525 West "A" Street  
Hayward, CA  
  
Project No: 420-93



**EXPLANATION**

-  Groundwater monitoring wells installed by Associated Soils Analysis, Inc. (1-6 drilled on 1-92; 7-10 drilled 6-93)
-  Groundwater monitoring wellhead reconstructed by Associated Soils Analysis, Inc. on 1-92
- 78.69' Groundwater elevation in well based on temporary benchmark
-  Approximate location of partially removed fuel islands beneath canopy

**EXPLANATION (Continued)**

-  Line of equal groundwater elevation and direction of flow
-  **Benzene** Constituent levels of water samples in ppb  
**TPH**
- fp = 0.03' Free product thickness in well

**FIGURE 1**

**ATTACHMENTS**

**MONITORING WELL SAMPLING AND PURGING PROTOCOL**

**MONITORING WELL DEVELOPMENT RECORD**

**E-Z SERVE LOCATION SUMMARY TABLE**

**LABORATORY RESULTS**

## GROUNDWATER MONITORING WELL SAMPLING AND PURGING PROTOCOL

Prior to sampling the groundwater monitoring wells, the wells are open to the atmosphere for approximately one hour to allow for the groundwater to adjust to the open barometric pressure. The depth to groundwater is then measured in the well, followed by electrical conductivity, pH, and temperature readings of the groundwater. These parameters, along with the volume of the purged water (described below) and time, are recorded on the field sampling and purging form.

The volume of water in the monitoring well is calculated using the following equation:

$$\begin{aligned} \text{Feet of water in well} \times 0.163 \text{ for 2 inch diameter well} &= \text{Volume water in gallons} \\ \text{Feet of water in well} \times 0.653 \text{ for 4 inch diameter well} &= \text{Volume water in gallons} \end{aligned}$$

Where the feet of water in well is calculated by subtracting the depth to groundwater from the total depth of the well.

The volume of water to be removed is estimated by multiplying the volume of water in gallons by three to four well volumes. This value will be recorded on the field form.

The pH, temperature, and electrical conductivity will be monitored and recorded between each well volume removed, and must be within 10% of the previous reading prior to sampling. The groundwater level in the monitoring well is allowed to recover to 80% of the original depth prior to sampling.

A minimum of four well volumes (where four volumes were available) were removed using a truck-mounted bailer prior to collecting the water sample. The removed water was placed in steel storage barrels with bolt-on lids, which were retained on site. After the well had stabilized, water samples were collected using a disposable bailer with a check valve.

The water samples were transferred into two sterilized, glass, 40 ml VOA sample containers and a 500 ml amber glass bottle. The samples were immediately sealed in the field with Teflon-lined threaded caps ensuring an airtight seal. The samples were labeled appropriately in the field. Labels included: sample location, depth, date, time, job number, and field identification number.

Samples were placed immediately in an insulated storage container cooled with chemical ice. The temperature inside the storage container was maintained at or below 4° Celsius (39.2° Fahrenheit) and monitored with a thermometer to ensure that the temperature remained constant. The storage container also included a laboratory-prepared travel blank for quality control purposes and as an indicator of cross contamination. The travel blank was placed with the sample containers and analyzed if the field samples indicated detectable levels of fuel constituents. A chain of custody record accompanied the samples. Chain of custody records included: sample location, depth, date, time, job number, field identification number, temperature of sample container, analysis required and personnel collecting samples.

Water samples were delivered to a State certified hazardous waste laboratory within approximately 24 hours of collection. The temperature was maintained at 4° Celsius (39.2° Fahrenheit) in the insulated storage container prior to delivery to the laboratory. Once the samples were delivered to the laboratory, the chain of custody was signed by the laboratory indicating that the possession of the samples had changed. The water samples were analyzed within the required 7-day period following collection.

Well purging equipment was pre-cleaned by steam prior to each purging interval. Decontamination of sampling bailers is achieved by using a different dedicated, disposable bailer for each sample.



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FILE NO: 420-93  
 DATE: 6-29-94  
 Pg 1 of 3

## MONITORING WELL PURGING FOR SAMPLING RECORD

PROJECT LOCATION: E2 Sec 400877-525 West A St - Hayward

SAMPLER NAME (Print):

		MW-1	MW-2	MW-3	MW-4	MW-5
PRIOR TO PURGING	SAMPLE LOCATION					
	SCREEN INTERVAL (TOP / BOTTOM)					
	CASING SIZE (in)	4"	4"	4"	4"	4"
	ELEVATION OF TOP OF WELL CASING					
	DEPTH TO BOTTOM OF WELL CASING	29.97	30.17	30.07	30.12	30.99
	TIME	1510	1440	1335	1230	1155
	DEPTH TO FREE PRODUCT					
	DEPTH TO WATER (From top of casing)	17.26	19.84	18.30	17.81	17.50
	WELL SOUNDING DEPTH DO	2.5	3.7	2.5	2.6	3.0
	VOLUME OF WATER IN WELL			7.8		
	TURBIDITY	10.5	13.2	4.75	6.0	9.1
	TEMPERATURE (°F)	70.4	70.1	68.4	70.8	70.1
	pH READING	6.94	6.89	6.54	6.77	6.91
	ELECTRICAL CONDUCTIVITY	1940	1170	1070	900	1120
THICKNESS OF STANDING PRODUCT (in)	0	0	0	0	0	
PETROLEUM SHEEN	NA	NA	N/A	N/A	N/A	
PETROLEUM ODOR	NA	NA	N/A	N/A	NA	
DURING PURGING	TIME	1520	1445	1345	1245	1205
	DEPTH TO WATER (From top of casing)	23.41	25.34	26.81	23.96	22.00
	VOLUME OF WATER REMOVED FROM WELL	15	15	15	15	15
	TEMPERATURE (°F)	68.6	69.6	67.1	69.3	69.5
	pH READING	6.90	6.76	6.63	6.71	6.91
	ELECTRICAL CONDUCTIVITY	1310	1190	1040	1040	1120
END OF PURGING	TIME	1530	1445	1400	1300	1215
	DEPTH TO WATER (From top of casing)	23.91	25.41	21.81	29.62	22.14
	VOLUME OF WATER REMOVED FROM WELL	15	15	15	15	15
	TEMPERATURE (°F)	69.0	70.9	69.8	69.4	69.0
	pH READING	6.90		6.79	6.75	6.92
	ELECTRICAL CONDUCTIVITY	1260	1200	1080	1140	1420
SAMPLE	TIME	1605	1515	1430	1330	1245
	DEPTH TO WATER (From top of casing)	17.29	19.97	18.37	17.88	17.53
	TOTAL WATER REMOVED FROM WELL (gal)	30	30	25	30	30
	TEMPERATURE (°F)	69.0	69.7	69.3	69.4	69.0
	pH READING	6.91	6.91	6.73	6.93	6.90
	ELECTRICAL CONDUCTIVITY	1260	1130	1090	1050	1440
NOTES:	DO	2.5	3.7	3.0	3.1	
	TURB	17.4	22.9	95.3	58.3	21.4
Return 2 drums - 10 full - 0 MTS - 5 drums full of soil						



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FILE NO.: 920-93

DATE: 5-2-94

Pg 2 of 3

## MONITORING WELL PURGING FOR SAMPLING RECORD

PROJECT LOCATION: 22 S. 100877-525 West A St. Hayward

SAMPLER NAME (Print): Jack Kash MW1a G5

	MW-6	MW-7	MW-8	MW-9	MW-10	
PRIOR TO PURGING	SAMPLE LOCATION	MW-6	MW-7	MW-8	MW-9	MW-10
	SCREEN INTERVAL (TOP / BOTTOM)					
	CASING SIZE (in)	4"	2"	2	2	2
	ELEVATION OF TOP OF WELL CASING					
	DEPTH TO BOTTOM OF WELL CASING	30.00	29.99	30.00	30.00	29.51
	TIME					
	DEPTH TO FREE PRODUCT	17.74	18.24			
	DEPTH TO WATER (From top of casing)	17.74	18.35	18.11	16.24	17.83
	WELL SOUNDING DEPTH					
	VOLUME OF WATER IN WELL					
	TURBIDITY					
	TEMPERATURE (°F)	70.1		69.6	71.2	68.7
	pH READING	6.96		6.81	6.94	6.92
	ELECTRICAL CONDUCTIVITY	1170		1420	1370	1360
THICKNESS OF STANDING PRODUCT (in)	0		0	0	0	
PETROLEUM SHEEN	NO		NO	NO	NO	
PETROLEUM ODOR	NO		NO	NO	NO	
DURING PURGING	TIME	1120		1625	1655	1720
	DEPTH TO WATER (From top of casing)	20.00		25.41	22.12	24.91
	VOLUME OF WATER REMOVED FROM WELL	5		5	5	5
	TEMPERATURE (°F)	68.1		68.6	67.7	66.9
	pH READING	6.92		6.90	6.88	6.91
	ELECTRICAL CONDUCTIVITY	1260		1380	1370	1200
END OF PURGING	TIME	1130		1635	1705	1740
	DEPTH TO WATER (From top of casing)	20.06		26.61	25.41	26.21
	VOLUME OF WATER REMOVED FROM WELL	5		5	5	5
	TEMPERATURE (°F)	66.0		66.7	69.0	66.9
	pH READING	6.88		6.91	6.77	6.86
ELECTRICAL CONDUCTIVITY	1400		1380	1310	1210	
SAMPLE	TIME	1200		1745	1945	1810
	DEPTH TO WATER (From top of casing)	17.76		18.19	16.29	17.87
	TOTAL WATER REMOVED FROM WELL (gal)	30	5	50	10	10
	TEMPERATURE (°F)	65.9		66.1	66.5	67.1
	pH READING	6.88		6.92	6.76	6.87
ELECTRICAL CONDUCTIVITY	1420		1380	1300	1210	

NOTES:



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FILE NO.: 020-93

DATE: 5-2-94

3 of 3

**MONITORING WELL PURGING FOR SAMPLING RECORD**

PROJECT LOCATION: E2 Sewer 100877-525 West A St - Hayward

SAMPLER NAME (Print): Jack Kaseh

PRIOR TO PURGING	SAMPLE LOCATION	<u>MW 11</u>			
	SCREEN INTERVAL (TOP / BOTTOM)	<u>MW 7 GS.</u>			
	CASING SIZE (in)				
	ELEVATION OF TOP OF WELL CASING				
	DEPTH TO BOTTOM OF WELL CASING	<u>28.90</u>			
	TIME	<u>3535</u>			
	DEPTH TO FREE PRODUCT				
	DEPTH TO WATER (From top of casing)	<u>18.11</u>			
	WELL SOUNDING DEPTH				
	VOLUME OF WATER IN WELL				
	TURBIDITY				
	TEMPERATURE ( ° F)	<u>68.4</u>			
	pH READING	<u>7.03</u>			
	ELECTRICAL CONDUCTIVITY	<u>1900</u>			
THICKNESS OF STANDING PRODUCT (in)	<u>0</u>				
PETROLEUM SHEEN	<u>NO</u>				
PETROLEUM ODOR	<u>N</u>				
DURING PURGING	TIME	<u>1550</u>			
	DEPTH TO WATER (From top of casing)	<u>21.10</u>			
	VOLUME OF WATER REMOVED FROM WELL	<u>5</u>			
	TEMPERATURE ( ° F)	<u>66.3</u>			
	pH READING	<u>7.01</u>			
	ELECTRICAL CONDUCTIVITY	<u>1360</u>			
END OF PURGING	TIME	<u>1600</u>			
	DEPTH TO WATER (From top of casing)	<u>21.62</u>			
	VOLUME OF WATER REMOVED FROM WELL	<u>5</u>			
	TEMPERATURE ( ° F)	<u>65.7</u>			
	pH READING	<u>6.97</u>			
ELECTRICAL CONDUCTIVITY	<u>1310</u>				
SAMPLE	TIME	<u>1630</u>			
	DEPTH TO WATER (From top of casing)	<u>18.15</u>			
	TOTAL WATER REMOVED FROM WELL (gal)	<u>10</u>			
	TEMPERATURE ( ° F)	<u>65.4</u>			
	pH READING	<u>6.96</u>			
ELECTRICAL CONDUCTIVITY	<u>1300</u>				

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FILE NO: 420-93  
 DATE: 7-7-94  
10/3

**MONITORING WELL PURGING FOR SAMPLING RECORD**

PROJECT LOCATION: #10877-525 West "A" Street, Hayward  
 SAMPLER NAME (Print): Shane Scrimshire

	MW1	MW2	MW3	MW4	MW5	
PRIOR TO PURGING	SAMPLE LOCATION	MW1	MW2	MW3	MW4	MW5
	SCREEN INTERVAL (Top/Bottom)					
	CASING DIAMETER (in)	4	4	4	4	4
	ELEVATION OF TOP OF WELL CASING					
	DEPTH TO BOTTOM OF WELL CASING	29.80	29.98	29.75	29.80	30.13
	TIME	13:10	11:18	10:35	10:55	12:50
	DEPTH TO FREE PRODUCT (feet)					
	DEPTH TO WATER (feet)					
	WELL SOUNDING DEPTH	17.60	19.80	18.63	18.13	17.79
	VOLUME OF WATER IN WELL (gallons)	7.8	7	1.1	7.4	7.9
	TURBIDITY	clear				
	TEMPERATURE (°F)	75.3	71.1	70.9	70.3	75.6
	pH READING	8.69	8.37	8.55	8.36	8.99
	ELECTRICAL CONDUCTIVITY	1447	1466	1351	1389	1439
THICKNESS OF STANDING PRODUCT						
PETROLEUM SHEEN	light					
PETROLEUM ODOR	light				Gasoline	
DURING PURGING	TIME	13:13	12:20	10:38	10:57	12:52
	DEPTH TO WATER (feet)					
	VOLUME OF WATER REMOVED (gallons)	10	10	15	10	10
	TEMPERATURE (°F)	73.6	69.9	70.7	69.7	74.1
	pH READING	8.47	8.21	8.23	8.28	8.99
	ELECTRICAL CONDUCTIVITY	1279	1461	1364	1396	1409
END OF PURGING	TIME	13:16	11:21	10:42	10:59	12:54
	DEPTH TO WATER (feet)					
	VOLUME OF WATER REMOVED (gallons)	20	18	33	22	20
	TEMPERATURE (°F)	72.1	69.9	69.9		73.4
	pH READING	8.57	8.22	8.02	8.26	8.85
	ELECTRICAL CONDUCTIVITY	1333	1455	1360	1405	14.03
SAMPLE	TIME	13:18	11:22	10:43	11:00	12:55
	DEPTH TO WATER (feet)				24	
	VOLUME OF WATER REMOVED (gallons)	28	20	35	25	25
	TEMPERATURE (°F)	71.7	69.9	69.5	68.4	72.0
	pH READING	8.36	8.22	8.02	8.28	8.30
	ELECTRICAL CONDUCTIVITY	1334	1475	1355	1405	1400

NOTES: Gasoline odor in MW1 & MW5 was very strong. Should use interface probe on next quarter to determine thickness



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FILE NO: 42094  
 DATE: 1-7-94  
2 of 3

**MONITORING WELL PURGING FOR SAMPLING RECORD**

PROJECT LOCATION: #100977 - 525 West 'a' Street, Hayward

SAMPLER NAME (Print): Shane Scrimshire

	mw6	mw7	mw8	mw9	mw10	
PRIOR TO PURGING	SAMPLE LOCATION	mw6	mw7	mw8	mw9	mw10
	SCREEN INTERVAL (Top/Bottom)					
	CASING DIAMETER (in)	4	2	2	2	2
	ELEVATION OF TOP OF WELL CASING					
	DEPTH TO BOTTOM OF WELL CASING	29.85	28.93	29.90	28.38	29.50
	TIME	12:26	12:05	9:06	9:35	10:04
	DEPTH TO FREE PRODUCT (feet)					
	DEPTH TO WATER (feet)					
	WELL SOUNDING DEPTH	18.09	18.72	18.43	16.59	18.17
	VOLUME OF WATER IN WELL (gallons)	7.6	1.6	1.7	1.1	1.8
	TURBIDITY	clear	light grey			
	TEMPERATURE (°F)	76.6	76.7	67.5	67.9	68.7
pH READING	9.18		8.28	6.85	8.68	
ELECTRICAL CONDUCTIVITY	1496	1487	1200	1344	1058	
THICKNESS OF STANDING PRODUCT						
PETROLEUM SHEEN						
PETROLEUM ODOR	gasoline					
DURING PURGING	TIME	12:28	12:06	9:07	9:31	10:04
	DEPTH TO WATER (feet)					
	VOLUME OF WATER REMOVED (gallons)	10	4	3	2	2.5
	TEMPERATURE (°F)	72.8	73.1	69.1	68.0	68.4
	pH READING	8.90		8.03	6.74	8.109
	ELECTRICAL CONDUCTIVITY	1443	1437	1225	1380	1048
END OF PURGING	TIME	12:30	12:07	9:08	9:32	10:05
	DEPTH TO WATER (feet)					
	VOLUME OF WATER REMOVED (gallons)	20	5	5	4	9
	TEMPERATURE (°F)	73.7	70.4	68.9	68.0	68.6
	pH READING	8.58		7.76	6.62	8.61
	ELECTRICAL CONDUCTIVITY	1435	1409	1289	1395	1161
SAMPLE	TIME	12:55	12:08	9:08	9:35	?
	DEPTH TO WATER (feet)		?			?
	VOLUME OF WATER REMOVED (gallons)	25	6	9	6	?
	TEMPERATURE (°F)	71.9	69.9	69.0	67.8	?
	pH READING	8.76		7.76	6.46	?
	ELECTRICAL CONDUCTIVITY	1435	1409	1289	1395	?

NOTES: gasoline odor in mw6 & mw7 was very strong. should use interface probe on next quarter to determine thickness.



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FILE NO: 420-93  
 DATE: 7-7-94  
3 of 3

**MONITORING WELL PURGING FOR SAMPLING RECORD**

PROJECT LOCATION: #100977 - 525 West "A" Street, Hayward  
 SAMPLER NAME (Print): SPADE, SCUMSHIRE

PRIOR TO PURGING	SAMPLE LOCATION	<u>MWDIA</u>			
	SCREEN INTERVAL (Top/Bottom)				
	CASING DIAMETER (In)	<u>2</u>			
	ELEVATION OF TOP OF WELL CASING				
	DEPTH TO BOTTOM OF WELL CASING	<u>28.42</u>			
	TIME	<u>8:33</u>			
	DEPTH TO FREE PRODUCT (feet)				
	DEPTH TO WATER (feet)				
	WELL SOUNDING DEPTH	<u>18.45</u>			
	VOLUME OF WATER IN WELL (gallons)	<u>1.6</u>			
	TURBIDITY				
	TEMPERATURE (°F)	<u>62.8</u>			
	pH READING	<u>7.59</u>			
	ELECTRICAL CONDUCTIVITY	<u>1271</u>			
THICKNESS OF STANDING PRODUCT					
PETROLEUM SHEEN					
PETROLEUM ODOR					
DURING PURGING	TIME	<u>8:34</u>			
	DEPTH TO WATER (feet)				
	VOLUME OF WATER REMOVED (gallons)	<u>3</u>			
	TEMPERATURE (°F)	<u>64.2</u>			
	pH READING	<u>7.69</u>			
	ELECTRICAL CONDUCTIVITY	<u>1287</u>			
END OF PURGING	TIME	<u>8:35</u>			
	DEPTH TO WATER (feet)				
	VOLUME OF WATER REMOVED (gallons)	<u>5</u>			
	TEMPERATURE (°F)	<u>64.7</u>			
	pH READING	<u>7.63</u>			
ELECTRICAL CONDUCTIVITY	<u>12.88</u>				
SAMPLE	TIME				
	DEPTH TO WATER (feet)	<u>3</u>			
	VOLUME OF WATER REMOVED (gallons)				
	TEMPERATURE (°F)				
	pH READING				
ELECTRICAL CONDUCTIVITY					

NOTES:  
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E-Z Serve Location # 100877

525 West "A" Street

Hayward, CA

MW#	Date	Well Elev (feet)	Depth to F.P. (feet)	Depth to G.W. (feet)	F.P. Thickness (feet)	G.W. Elevation (feet)	DHS Method TPH (ppb)	(EPA 8020)			
								B (ppb)	T (ppb)	E (ppb)	X (ppb)
MW# 1											
	5-Feb-92	99.91		20.82	0.00	79.09	46,000	76,000	23,000	2,400	6,500
	11-Sep-92			20.08	0.00	79.83	48,000	9,000	1,200	1,800	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
	23-Jun-93	96.73		16.86	0.00	79.87	30,000	18,000	1,100	1,400	3,700
	30-Sep-93			18.04	0.00	78.69	33,000	10,000	440	940	1,700
	6-Feb-94			18.15	0.00	78.58	64,000	18,000	1,600	4,700	12,000
	2-May-94			17.26	0.00	79.47	7,200	2,100	29	490	520
	1-Jul-94			17.60	0.00	79.13	13,000	3,700	150	550	12,000
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
	23-Jun-93	98.06		18.42	0.00	79.64	60,000	23,000	1,500	4,500	17,000
	30-Sep-93			19.63	0.00	78.43	38,000	12,000	780	1,500	6,500
	6-Feb-94			19.61	0.00	78.45	34,000	8,900	450	2,000	5,500
	2-May-94			19.84	0.00	78.22	18,000	3,800	260	1,100	3,500
	1-Jul-94			19.18	0.00	78.88	18,000	3,700	510	870	2,600
MW#3											
	5-Feb-92	101.50		21.85	0.00	79.65	5,900	1,100	ND	ND	ND
	11-Sep-92			21.13	0.00	80.37	9,400	1,200	180	550	1,100
	22-Dec-92			20.88	0.00	80.62	12,000	2,800	190	850	1,600
	3-Mar-93			17.29	0.00	84.21	11,000	2,200	360	570	900
	23-Jun-93	97.66		17.88	0.00	79.78	33,000	12,000	2,700	1,300	3,500
	30-Sep-93			19.18	0.00	78.48	4,300	1,100	160	690	670
	6-Feb-94			19.21	0.00	78.45	20,000	4,800	430	1,500	2,900
	2-May-94			18.30	0.00	79.36	4,200	680	48	310	540
	1-Jul-94			18.63	0.00	79.03	4,600	600	63	240	470

\* = Not Analyzed

ND = Not Detected

E-Z Serve Location # 100877

525 West "A" Street

Hayward, CA

MW#	Date	Well Elev (feet)	Depth to F.P. (feet)	Depth to G.W. (feet)	F.P. Thickness (feet)	G.W. Elevation (feet)	DHS Method TPH (ppb)	(EPA 8020)			
								B (ppb)	T (ppb)	E (ppb)	X (ppb)
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	
	23-Jun-93	97.10		17.45	0.00	79.65	5,700	3,000	120	560	790
	30-Sep-93			18.64	0.00	78.46	21,000	7,000	2,100	970	2,600
	6-Feb-94			18.59	0.00	78.51	24,000	7,200	1,600	990	3,200
	2-May-94			17.81	0.00	79.29	10,000	2,200	440	470	1,200
	1-Jul-94			18.13	0.00	78.97	8,200	2,000	370	350	930
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	
	23-Jun-93	96.73		17.02	0.00	79.71	15,000	5,800	120	1,100	2,100
	30-Sep-93			18.25	0.00	78.48	25,000	7,600	410	1,000	4,400
	6-Feb-94			18.26	0.00	78.47	23,000	6,000	180	2,000	5,900
	2-May-94			17.50	0.00	79.23	8,000	1,300	29	440	770
	1-Jul-94			17.79	0.00	78.94	10,000	1,700	97	600	1,400
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	5,100	630	2,000	3,100
	3-Mar-93		16.83	0.00	84.14	18,000	4,400	820	1,400	2,400	
	23-Jun-93	97.09		17.30	0.00	79.79	18,000	4,600	850	2,700	3,400
	30-Sep-93			Not sampled	**	**	---	---	---	---	---
	6-Feb-94			18.55	0.00	78.54	20,000	4,600	690	2,100	2,500
	2-May-94			17.74	0.00	79.35	5,300	930	54	610	240
	1-Jul-94			18.09	0.00	79.00	10,000	1,500	160	850	690

\* = Not Analyzed

ND = Not Detected

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

MW#	Date	Well Elev (feet)	Depth to F.P. (feet)	Depth to G.W. (feet)	F.P. Thickness (feet)	G.W. Elevation (feet)	DHS Method TPH (ppb)	(EPA 8020)			
								B (ppb)	T (ppb)	E (ppb)	X (ppb)
<b>MW#7</b>											
	23-Jun-93	97.44		17.87	0.00	79.57	29,000	4,200	71	4,400	5,600
	30-Sep-93			18.94	0.00	78.50	30,000	3,200	71	2,800	3,400
	6-Feb-94			18.89	0.00	78.70	8,900	1,700	42	1,000	400
	2-May-94			18.11	0.00	79.33	5,700	630	13	660	400
	1-Jul-94			18.72	0.00	78.72	3,100	180	99	160	520
<b>MW#8</b>											
	23-Jun-93	97.61		17.64	0.00	79.97	350	43	9.3	35	67
	30-Sep-93			18.85	0.00	78.76	2,700	190	340	170	720
	6-Feb-94			18.91	0.00	78.70	ND	ND	0.58	0.75	1.6
	2-May-94			18.11	0.00	79.50	ND	ND	3	ND	7
	1-Jul-94			18.43	0.00	79.18	300	18	48	19	37
<b>MW#9</b>											
	23-Jun-93	95.41		15.94	0.00	79.47	45,000	14,000	1,200	2,800	12,000
	30-Sep-93			17.05	0.00	78.36	86,000	22,000	1,100	3,300	15,000
	6-Feb-94			17.07	0.00	78.34	43,000	10,000	460	2,100	7,500
	2-May-94			16.24	0.00	79.17	17,000	5,400	270	1,300	4,700
	1-Jul-94			16.59	0.00	78.82	10,000	2,100	120	450	1,300
<b>MW#10</b>											
	23-Jun-93	97.11		17.39	0.00	79.72	35,000	980	640	3,500	12,000
	30-Sep-93			18.58	0.00	78.53	4,000	230	12	100	680
	6-Feb-94			18.61	0.00	78.50	2,000	69	12	220	120
	2-May-94			17.83	0.00	79.28	710	16	6	85	62
	1-Jul-94			18.17	0.00	78.94	2,000	52	43	120	210
<b>MW#1A</b>											
	23-Jun-93	97.59	17.59	17.80	0.21	79.96	*	*	*	*	*
	30-Sep-93		19.02	19.05	0.03	78.06	*	*	*	*	*
	6-Feb-94		19.05	19.11	0.06	78.38	*	*	*	*	*
	2-May-94		18.24	18.35	0.11	79.33	*	*	*	*	*
	1-Jul-94		**	18.45	0.00	79.14	12,000	1,100	ND	920	1,100

\* = Not Analyzed

ND = Not Detected



Certificate of Analysis No. 9407144-11

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-1

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 13:28:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	3700	5 P	µg/L
TOLUENE	150	5 P	µg/L
ETHYLBENZENE	550	5 P	µg/L
TOTAL XYLENE	1200	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	5600		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene  
4-Bromofluorobenzene

124  
87

METHOD 8020\*\*\*

Analyzed by: MOO  
Date: 07/15/94

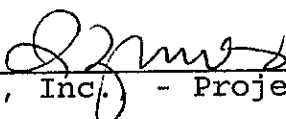
Petroleum Hydrocarbons  
Modified 8015 - Gasoline  
Analyzed by: MOO  
Date: 07/15/94

13 0.5 P mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-07

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-2

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 11:36:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	3700	50 P	µg/L
TOLUENE	510	50 P	µg/L
ETHYLBENZENE	870	50 P	µg/L
TOTAL XYLENE	2600	50 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	7680		µg/L
<b>Surrogate</b>	<b>% Recovery</b>		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	98		
METHOD 8020***			
Analyzed by: MOO			
Date: 07/15/94			
Petroleum Hydrocarbons	18	5.0 P	mg/L
Modified 8015 - Gasoline			
Analyzed by: MOO			
Date: 07/15/94			

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager





Certificate of Analysis No. 9407144-05

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-3

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 10:50:00  
DATE RECEIVED: 07/06/94

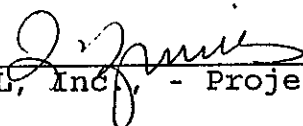
ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	600	1 P	µg/L
TOLUENE	63	1 P	µg/L
ETHYLBENZENE	240	1 P	µg/L
TOTAL XYLENE	470	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	1373		µg/L
<b>Surrogate</b>	<b>% Recovery</b>		
1,4-Difluorobenzene	99		
4-Bromofluorobenzene	81		
METHOD 8020*** Analyzed by: MOO Date: 07/14/94			
Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: MOO Date: 07/14/94	4.6	0.10 P	mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-06

E-Z Serve, Inc.
2550 North Loop West, # 600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877
SITE: Hayward, CA
SAMPLED BY: Remedial Engineering
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 07/01/94 11:10:00
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, TOTAL VOLATILE AROMATIC HYDROCARBONS, Surrogate (1,4-Difluorobenzene, 4-Bromofluorobenzene), and Petroleum Hydrocarbons (Modified 8015 - Gasoline).

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance. SPL California License # 1903

Signature: [Handwritten Signature]
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-10

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-5

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 13:05:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1700	10 P	µg/L
TOLUENE	97	10 P	µg/L
ETHYLBENZENE	600	10 P	µg/L
TOTAL XYLENE	1400	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3797		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	104
4-Bromofluorobenzene	94

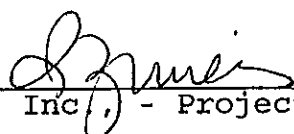
METHOD 8020\*\*\*  
Analyzed by: MOO  
Date: 07/15/94

Petroleum Hydrocarbons 10 1.0 P mg/L  
Modified 8015 - Gasoline  
Analyzed by: MOO  
Date: 07/15/94

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-09

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-6

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 12:38:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1500	10 P	µg/L
TOLUENE	160	10 P	µg/L
ETHYLBENZENE	850	10 P	µg/L
TOTAL XYLENE	690	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3200		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene

159 <

4-Bromofluorobenzene

90

METHOD 8020\*\*\*

Analyzed by: MOO

Date: 07/15/94

Petroleum Hydrocarbons  
Modified 8015 - Gasoline  
Analyzed by: MOO

10

1.0 P

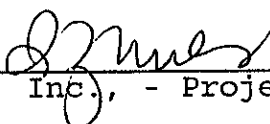
mg/L

Date: 07/15/94

(P) - Practical Quantitation Limit      < - Recovery beyond control limits.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9407144-08

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-7

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 12:16:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	180	1 P	µg/L
TOLUENE	99	1 P	µg/L
ETHYLBENZENE	160	1 P	µg/L
TOTAL XYLENE	520	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	959		µg/L
<b>Surrogate</b>	<b>% Recovery</b>		
1,4-Difluorobenzene	98		
4-Bromofluorobenzene	84		
METHOD 8020***			
Analyzed by: MOO			
Date: 07/15/94			
Petroleum Hydrocarbons	3.1	0.10 P	mg/L
Modified 8015 - Gasoline			
Analyzed by: MOO			
Date: 07/15/94			

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-02

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-8

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 09:18:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	18	1 P	µg/L
TOLUENE	48	1 P	µg/L
ETHYLBENZENE	19	1 P	µg/L
TOTAL XYLENE	37	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	122		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	98
4-Bromofluorobenzene	87

METHOD 8020\*\*\*


Analyzed by: MOO  
Date: 07/14/94

Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: MOO Date: 07/14/94	0.30	0.10 P	mg/L
--	------	--------	------

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc. - Project Manager



Certificate of Analysis No. 9407144-03

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-9

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 09:50:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2100	10 P	µg/L
TOLUENE	120	10 P	µg/L
ETHYLBENZENE	450	10 P	µg/L
TOTAL XYLENE	1300	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3970		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	108
4-Bromofluorobenzene	97


METHOD 8020\*\*\*  
Analyzed by: MOO  
Date: 07/15/94

Petroleum Hydrocarbons	10	1.0 P	mg/L
Modified 8015 - Gasoline			
Analyzed by: MOO			
Date: 07/15/94			

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9407144-04

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-10

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 10:15:00  
DATE RECEIVED: 07/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	52	1 P	µg/L
TOLUENE	43	1 P	µg/L
ETHYLBENZENE	120	1 P	µg/L
TOTAL XYLENE	210	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	425		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene  
4-Bromofluorobenzene

89  
87

METHOD 8020\*\*\*

Analyzed by: MOO  
Date: 07/14/94

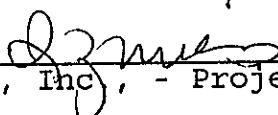
Petroleum Hydrocarbons  
Modified 8015 - Gasoline  
Analyzed by: MOO  
Date: 07/14/94

2.0 0.10 P mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

  
SPL, Inc., - Project Manager





Certificate of Analysis No. 9407144-01

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 07/26/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: Remedial Engineering  
SAMPLE ID: MW-11

PROJECT NO:  
MATRIX: LIQUID  
DATE SAMPLED: 07/01/94 08:45:00  
DATE RECEIVED: 07/06/94

*MW1a JAC*

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1100	250 P	µg/L
TOLUENE	ND	250 P	µg/L
ETHYLBENZENE	920	250 P	µg/L
TOTAL XYLENE	1100	250 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3120		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene  
4-Bromofluorobenzene

105  
101

METHOD 8020\*\*\*

Analyzed by: MOO

Date: 07/15/94

Petroleum Hydrocarbons  
Modified 8015 - Gasoline  
Analyzed by: MOO

12 5.0 P

mg/L

Date: 07/15/94

(P) - Practical Quantitation Limit ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*J. Z. Smith*  
SPL, Inc., - Project Manager

Matrix: Aqueous  
 Sample ID: 9407409-01A  
 Batch ID: HP\_N940714163400

Reported on: 07/20/94 12:06:00  
 Analyzed on: 07/15/94 09:22:00  
 Analyst: MOO

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX-Water  
 METHOD 8020

COMPOUND	Sample Value µg/L	Spike Added µg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
Benzene	2.0	20	90	85	6
Toluene	ND	20	125	110	13
EthylBenzene	ND	20	90	85	6
O Xylene	ND	20	95	85	11
M & P Xylene	ND	40	102	92	10

**NOTES**

# column to be used to flag recovery and RPD values with an asterisk  
 \* values outside of QC Limits.



Idelis Williams, QC Officer

Matrix: Aqueous  
Sample ID: 9407409-03A  
Batch ID: HP\_N940714180600

Reported on: 07/20/94 12:06:06  
Analyzed on: 07/15/94 10:24:00  
Analyst: MOO

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Petroleum Hydrocarbons-Gasoline (Water)  
Modified 8015 - Gasoline

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
Petroleum Hydrocarbons	ND	2.5	90	94	4

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
\* values outside of QC Limits.

  
\_\_\_\_\_  
Idelis Williams, QC Officer

Matrix: Aqueous  
 Sample ID: LCS\_50  
 Batch ID: HP\_N940715164400


Reported on: 07/26/94 11:06:02  
 Analyzed on:  
 Analyst: MOO

L A B O R A T O R Y   C O N T R O L   S A M P L E

BTEX-Water  
 METHOD 8020

COMPOUND	Measured Concentration µg/L	Theoretical Concentration µg/L	Percent Recovery
Benzene	46.0	50.0	92
Toluene	50.0	50.0	100
EthylBenzene	45.0	50.0	90
O Xylene	49.0	50.0	98
M & P Xylene	100	100	100

Samples in Batch 9407352-08A 9407351-03A 9407353-02A 9407353-01A  
 9407352-07A 9407352-05A 9407352-04A 9407352-03A  
 9407352-02A 9407352-01A 9407352-06A 9407351-04A  
 9407353-03A 9407143-04A 9407144-06A 9407144-09A  
 9407144-11A 9407144-08A 9407143-01A

  
 for Cynthia Williams, QC Officer

Matrix: Aqueous  
 Sample ID: 9407353-01A  
 Batch ID: HP\_N940715164400

Reported on: 07/26/94 11:04:10  
 Analyzed on: 07/16/94 08:59:00  
 Analyst: LT


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX-Water  
 METHOD 8020

COMPOUND	Sample Value µg/L	Spike Added µg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
Benzene	830	20	* 000	* 300	* 1400
Toluene	ND	20	95	105	10.0
EthylBenzene	13	20	65	80	* 21
O Xylene	ND	20	85	90	6
M & P Xylene	ND	40	90	102	12

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
 \* values outside of QC Limits.

  
 for Idelis Williams, QC Officer

Matrix: Aqueous  
 Sample ID: 9407352-07A  
 Batch ID: HP\_N940715181800

Reported on: 07/20/94 12:06:22  
 Analyzed on: 07/16/94 07:12:00  
 Analyst: LT


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Petroleum Hydrocarbons-Gasoline (Water)  
 Modified 8015 - Gasoline

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
Petroleum Hydrocarbons	0.18	2.5	101	97	4

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
 \* values outside of QC Limits.

  
 \_\_\_\_\_  
 Idella Williams, QC Officer

TH

9407144



Environmental Laboratory  
8880 Interchange Drive  
Houston, Texas 77054  
713/660-0901

Analysis Request and Chain of Custody Record

Project No. Client/Project Name *Contact - Jack Kash* Project Location *#100877 525 West A. St*  
*Remedial Engineering Serv. EZ serve, Hayward*

Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
MW-11	845	X		40ml VOA	Liquid	HCL	8020, 8015 gas	
MW-8	918	X						
MW-9	950	X						
MW-10	1015	X						
MW-3	1050	X						
MW-4	1110	X						
MW-2	1136	X						
MW-7	1216	X						
MW-6	1238	X						
MW-5	1305	X						

Samplers: (Signature) <i>[Signature]</i>	Relinquished by: (Signature) <i>[Signature]</i>	Date: 7/2/94 Time: 1000	Received by: (Signature) <i>[Signature]</i>	Date: Time:	Intact
Affiliation RES	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature) <i>[Signature]</i>	Date: Time:	Intact

SAMPLER REMARKS: Received for laboratory: (Signature) *[Signature]* Date: 07/06/94 Laboratory No. *[Number]*  
Data Results to:

Seal # 8095988412



**Environmental Laboratory**  
 8880 Interchange Drive  
 Houston, Texas 77054  
 713/660-0901

## Analysis Request and Chain of Custody Record

Project No.		Client/Project Name <u>Jack Kash</u>				Project Location				
		<u>Remedial Engineering Serv.</u>				<u>EZ Seme, Hayward</u>				
Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED			LABORATORY REMARKS
<u>Misc.</u>	<u>1325</u>	<u>X</u>		<u>40 ml VOA</u>	<u>Liquid</u>	<u>HCL</u>	<u>8020, 8015 gas</u>			
Samplers: (Signature)		Relinquished by: (Signature)				Date: <u>7/2/94</u>	Received by: (Signature)		Date:	Intact
						Time: <u>1000</u>			Time:	
Affiliation		Relinquished by: (Signature)				Date:	Received by: (Signature)		Date:	Intact
						Time:			Time:	
REMARKS:		Relinquished by: (Signature)				Date:	Received by: (Signature)		Date:	Intact
						Time:			Time:	
						Received for laboratory: (Signature)		Date: <u>7/2/94</u>	Laboratory No.	
						Data results to:		Time: <u>10:30</u>		





Certificate of Analysis No. 9405271-01

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-1

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 16:05:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2100	10 P	µg/L
TOLUENE	29	10 P	µg/L
ETHYLBENZENE	490	10 P	µg/L
TOTAL XYLENE	520	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3139		µg/L
<b>Surrogate</b>	<b>% Recovery</b>		
1,4-Difluorobenzene	114		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: KA			
Date: 05/16/94			
Petroleum Hydrocarbons	7.2	1.0 P	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 05/16/94			

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-02

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-2

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 15:15:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	3800	25 P	µg/L
TOLUENE	260	25 P	µg/L
ETHYLBENZENE	1100	25 P	µg/L
TOTAL XYLENE	3500	25 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	8660		µg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	110		
4-Bromofluorobenzene	102		
METHOD 8020*** Analyzed by: KA Date: 05/16/94			
Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: KA Date: 05/16/94	18	2.5 P	mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-03

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-3

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 14:30:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	680	1 P	µg/L
TOLUENE	48	1 P	µg/L
ETHYLBENZENE	310	1 P	µg/L
TOTAL XYLENE	540	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	1578		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	116
4-Bromofluorobenzene	134 «

METHOD 8020\*\*\*  
Analyzed by: KA  
Date: 05/16/94

Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: KA Date: 05/16/94	4.2	0.10 P	mg/L
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(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: («) - Indicates the surrogate is outside QA/QC limits.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-04

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-4

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 13:30:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2200	5 P	µg/L
TOLUENE	440	5 P	µg/L
ETHYLBENZENE	470	5 P	µg/L
TOTAL XYLENE	1200	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	4310		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	138 «
4-Bromofluorobenzene	108

METHOD 8020\*\*\*  
Analyzed by: KA  
Date: 05/16/94

Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: KA Date: 05/16/94	10	0.50 P	mg/L
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(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: («) - Indicates the surrogate is outside QA/QC limits.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-05

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-5

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 12:45:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1300	5 P	µg/L
TOLUENE	29	5 P	µg/L
ETHYLBENZENE	440	5 P	µg/L
TOTAL XYLENE	770	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	2539		µg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	131		
4-Bromofluorobenzene	108		
METHOD 8020*** Analyzed by: KA Date: 05/16/94			
Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: KA Date: 05/16/94	8.0	0.50 P	mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-06

E-Z Serve, Inc.
2550 North Loop West, # 600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877
SITE: Hayward, CA
SAMPLED BY: ASA
SAMPLE ID: MW-6

PROJECT NO: 420-93
MATRIX: WATER
DATE SAMPLED: 05/02/94 12:00:00
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, TOTAL VOLATILE AROMATIC HYDROCARBONS.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene, 4-Bromofluorobenzene.

METHOD 8020\*\*\*
Analyzed by: JZL
Date: 05/16/94

Petroleum Hydrocarbons 5.3 0.50 P mg/L
Modified 8015 - Gasoline
Analyzed by: JZL
Date: 05/16/94

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance. SPL California License # 1903

Handwritten signature: Barbara Martinez
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-07

E-Z Serve, Inc.
2550 North Loop West, # 600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877
SITE: Hayward, CA
SAMPLED BY: ASA
SAMPLE ID: MW-8

PROJECT NO: 420-93
MATRIX: WATER
DATE SAMPLED: 05/02/94 17:05:00
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

Table with columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENE, TOTAL VOLATILE AROMATIC HYDROCARBONS, Surrogate (1,4-Difluorobenzene, 4-Bromofluorobenzene), and Petroleum Hydrocarbons.

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance. SPL California License # 1903

Barbara Martinez
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-08

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-9

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 17:45:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	5400	50 P	µg/L
TOLUENE	270	50 P	µg/L
ETHYLBENZENE	1300	50 P	µg/L
TOTAL XYLENE	4700	50 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	11670		µg/L
<b>Surrogate</b>	<b>% Recovery</b>		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	92		
METHOD 8020***			
Analyzed by: JZL			
Date: 05/16/94			
Petroleum Hydrocarbons	17	5.0 P	mg/L
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 05/16/94			

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager





Certificate of Analysis No. 9405271-09

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: MW-10

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 18:10:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	16	1 P	µg/L
TOLUENE	6	1 P	µg/L
ETHYLBENZENE	85	1 P	µg/L
TOTAL XYLENE	62	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	169		µg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	76		
4-Bromofluorobenzene	81		
METHOD 8020*** Analyzed by: JZL Date: 05/16/94			
Petroleum Hydrocarbons Modified 8015 - Gasoline Analyzed by: JZL Date: 05/16/94	0.71	0.10 P	mg/L

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager



Certificate of Analysis No. 9405271-10

E-Z Serve, Inc.  
2550 North Loop West, # 600  
Houston, TX 77292  
ATTN: Brian Cobb

DATE: 05/18/94

PROJECT: EZ Serve #100877  
SITE: Hayward, CA  
SAMPLED BY: ASA  
SAMPLE ID: ~~MW-11~~ MW7 *BJ*

PROJECT NO: 420-93  
MATRIX: WATER  
DATE SAMPLED: 05/02/94 16:30:00  
DATE RECEIVED: 05/05/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	630	5 P	µg/L
TOLUENE	13	5 P	µg/L
ETHYLBENZENE	660	5 P	µg/L
TOTAL XYLENE	400	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	1703		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	83
4-Bromofluorobenzene	75

METHOD 8020\*\*\*  
Analyzed by: JZL  
Date: 05/16/94

Petroleum Hydrocarbons 5.7 0.50 P mg/L  
Modified 8015 - Gasoline  
Analyzed by: JZL  
Date: 05/16/94

(P) - Practical Quantitation Limit

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.  
SPL California License # 1903

*Barbara Martinez*  
SPL, Inc., - Project Manager

# ***QUALITY CONTROL DOCUMENTATION***

Matrix: Aqueous  
 Sample ID: 9405444-05A  
 Batch ID: HP\_P940516130000

Reported on: 05/18/94 09:56:54  
 Analyzed on: 05/16/94 13:00:00  
 Analyst: JZL


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX-Water  
 METHOD 8020\*\*\*

COMPOUND	Sample Value µg/L	Spike Added µg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
BENZENE	ND	20	98	96	1
TOLUENE	ND	20	104	104	0
ETHYLBENZENE	ND	20	101	96	5
O XYLENE	ND	20	98	96	2
M & P XYLENE	ND	40	99	98	1

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
 \* values outside of QC Limits.

  
 for Idelis Williams, QC Officer

Matrix: Aqueous  
 Sample ID: 9405195-01A  
 Batch ID: HP\_0940516143300

Reported on: 05/18/94 09:56:46  
 Analyzed on: 05/16/94 14:33:00  
 Analyst: KA


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX-Water  
 METHOD 8020\*\*\*

COMPOUND	Sample Value µg/L	Spike Added µg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
BENZENE	ND	20	81	82	0
TOLUENE	ND	20	82	74	10
ETHYLBENZENE	ND	20	84	68	* 21
O XYLENE	ND	20	87	73	17
M & P XYLENE	ND	40	86	70	* 20

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
 \* values outside of QC Limits.

  
 for Idelis Williams, QC Officer

Matrix: Aqueous  
Sample ID: 9405444-03A  
Batch ID: HP\_0940516140400

Reported on: 05/18/94 09:56:41  
Analyzed on: 05/16/94 14:04:00  
Analyst: KA


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Petroleum Hydrocarbons-Gasoline (Water)  
Modified 8015 - Gasoline

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
PETROLEUM HYDROCARBONS	ND	2.50	98	98	0

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
\* values outside of QC Limits.

  
for Idelis Williams, QC Officer

Matrix: Aqueous  
Sample ID: 9405444-05A  
Batch ID: HP\_P940516145900

Reported on: 05/18/94 09:56:59  
Analyzed on: 05/16/94 14:59:00  
Analyst: JZL


This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Petroleum Hydrocarbons-Gasoline (Water)  
Modified 8015 - Gasoline

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
PETROLEUM HYDROCARBONS	ND	2.50	84	92	9

NOTES

# column to be used to flag recovery and RPD values with an asterisk  
\* values outside of QC Limits.

  
for Idelis Williams, QC Officer