



7844 Madison Avenue, Suite 106 • Fair Oaks, CA 95628
1.800.242.5249 • Ph. 916.535.0200 • Fax 916.535.0207

November 12, 1998

Mr. Jerry McCrory
McCrory Real Estate
417 4th Street
Marysville, California 95901

Subject: Groundwater Monitoring Report
Duncan and Son Petroleum
29303 Pacific Street, Hayward, California
Apex Project No. DUN01.001

Dear Mr. McCrory:

Apex Envirotech, Inc. (Apex) is pleased to provide McCrory Real Estate (McCrory) this report documenting the results of groundwater monitoring conducted on October 15, 1998, at the subject site (Figure 1). The monitoring included collection of groundwater level measurements and groundwater samples from monitoring wells MW-V, MW-W, MW-X, MW-Y, and MW-Z (Figure 2). Groundwater investigations were also performed in monitoring wells MW-A, MW-B, and MW-C

This report is based, in part, on information obtained by Apex from Duncan and Son, and is subject to modification as newly acquired information may warrant.

BACKGROUND

The Duncan and Son Petroleum, Inc. site located at 29303 Pacific Street in Hayward, California is currently a non-operating (closed) gasoline and diesel fuel dispensing facility.

In 1986, Aqua Science Engineers, Inc. (ASE), of San Ramon, California, installed eight groundwater monitoring wells to investigate and evaluate the extent of petroleum hydrocarbon contamination.

Sampling of the wells in July of 1986 showed three wells containing free-product (MW-A, MW-B, and MW-C). The other five monitoring wells (MW-V, MW-W, MW-X, MW-Y, and MW-Z) had varying levels of TPH, as gasoline and diesel, and the fractions benzene, toluene,

ethylbenzene, and total xylenes (BTEX).

In July of 1987, a free-product recovery system was installed at the site by ASE to reduce the levels of free-product floating on the groundwater in monitoring wells MW-A, MW-B, and MW-C.

In September of 1992, ASE conducted groundwater sampling of the eight monitoring wells on site and the overspill collection tank, as requested by the Hayward Fire Department. Results of these analyses can be found in ASE's *Groundwater Monitoring Well Sampling*, dated September 18, 1992.

No additional monitoring or remediation work had occurred at the site since September 18, 1992.

In May 1998, Apex was contracted by Mr. Jerry McCrory, property manager for the site owner, Ms. Dorothy Duncan, to bring the site in compliance with all operating permits and environmental issues. Apex completed quarterly monitoring of the eight groundwater monitoring wells located at the site on October 15, 1998.

GROUNDWATER MONITORING

Groundwater Levels

On October 15, 1998, Apex personnel collected groundwater level measurements from all eight monitoring wells (MW-A, MW-B, MW-C, MW-V, MW-W, MW-X, MW-Y, and MW-Z) in accordance with Apex Standard Operating Procedures (SOP) included in Appendix A. All groundwater elevations were measured to the nearest 0.01 foot, relative to the surveyed top-of-casing elevations. The groundwater level measurements are summarized in Table 1. A potentiometric surface map of the shallow water-bearing zone on October 15, 1998, is shown on Figure 3.

Groundwater Sampling and Analysis

On October 15, 1998, Apex personnel collected groundwater samples from five of the eight monitoring wells in accordance with the Apex SOP included in Appendix A (MW-A, MW-B, and MW-C all contained floating free-product and were not sampled). The groundwater samples were submitted, under chain-of-custody documentation, to CLS Labs of Rancho Cordova, California, a state-certified analytical laboratory. All samples were analyzed for concentrations of: total petroleum hydrocarbons, as gasoline (TPHg) and as diesel (TPHd) by EPA Method 8015 Modified; benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8020; and the five oxygenates (TAME, ETBE, DIPE, MTBE, and TBA) by EPA Method 8260. The analytical results are summarized in Table 2. A distribution map of concentrations of TPHg, TPHd, benzene, and MTBE in groundwater on October 15,

1998, is shown in Figure 4. The analytical report and chain-of-custody form are included in Appendix B.

REPORT DISTRIBUTION

A copy of this report in its final form was submitted to:

Mr. Hugh Murphy
City of Hayward Fire Department
777 B Street
Hayward, California 94541-5007

REMARKS AND SIGNATURES

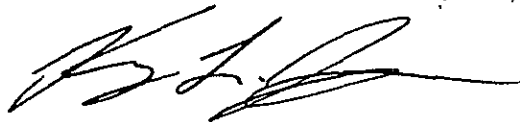
The interpretations and/or conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This report has been prepared solely for the use of Mr. McCrory. Any reliance on this report by third parties shall be at such parties' sole risk. The work described herein was performed under the direct supervision of the professional geologists, registered with the State of California, whose signatures appear below.

We appreciate the opportunity to provide Mr. McCrory geologic, engineering and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 535-0200.

Sincerely,

APEX ENVIROTECH, INC.



Kasey L. Jones
Staff Environmental Scientist



Pat Wright
Senior Geologist
R. G. No. 0529



FIGURES:

FIGURE 1 LOCATION MAP
FIGURE 2 SITE MAP
FIGURE 3 POTENTIOMETRIC SURFACE MAP:
OCTOBER 15, 1998
FIGURE 4 TPHg, TPHd, BENZENE AND MTBE
IN GROUNDWATER: OCTOBER 15, 1998

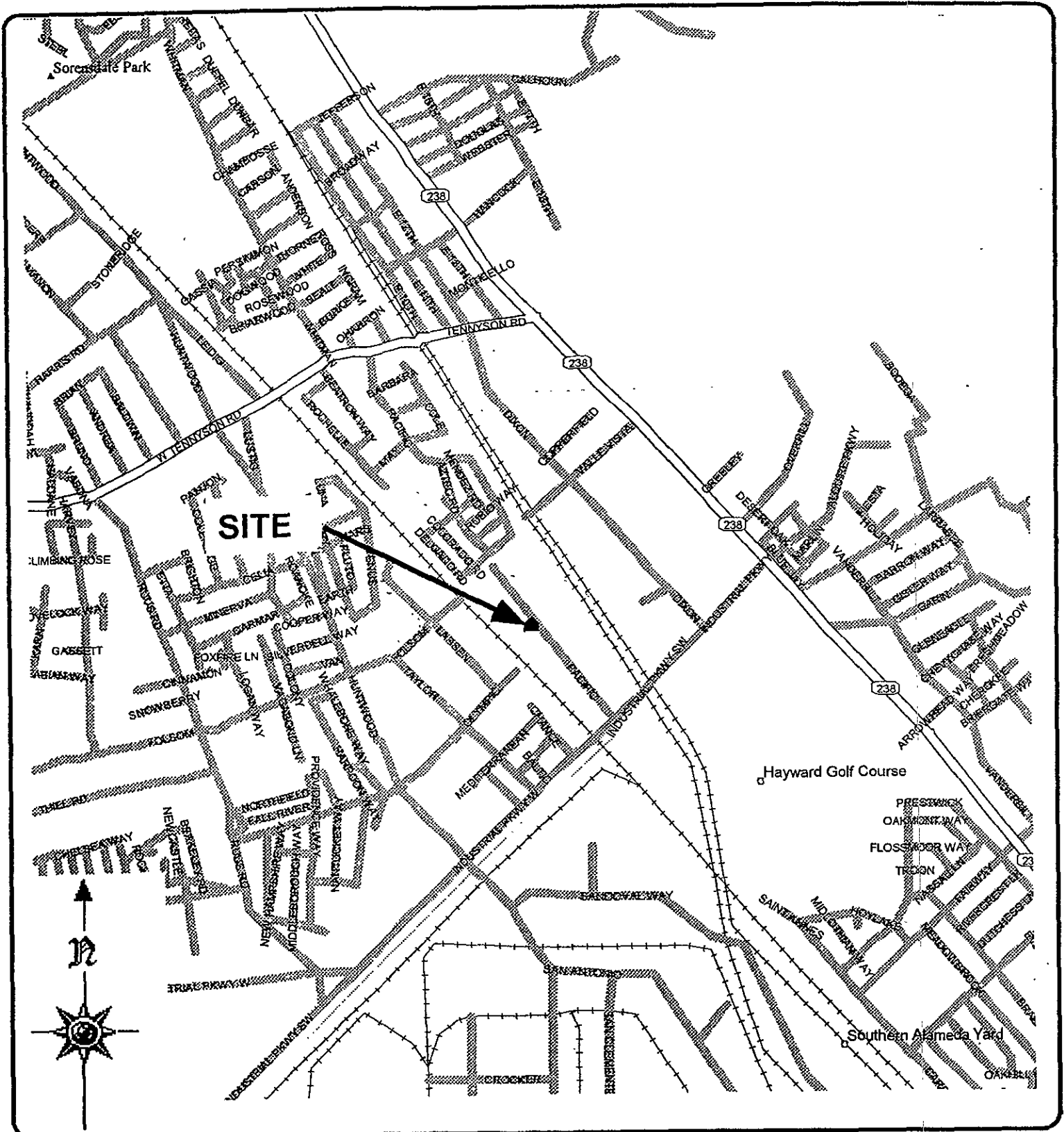
TABLES:

TABLE 1..... GROUNDWATER LEVEL DATA
TABLE 2..... GROUNDWATER ANALYTICAL RESULTS

APPENDIX:

APPENDIX A..... STANDARD OPERATING PROCEDURES
APPENDIX B LABORATORY ANALYTICAL REPORT AND
CHAIN-OF-CUSTODY FORM

FIGURES



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DATE: 8-5-96	
REVISIONS	



LOCATION MAP

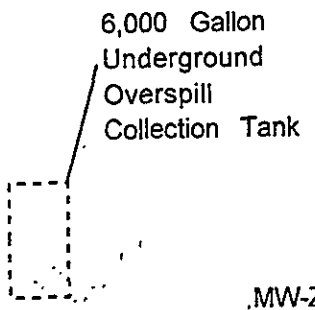
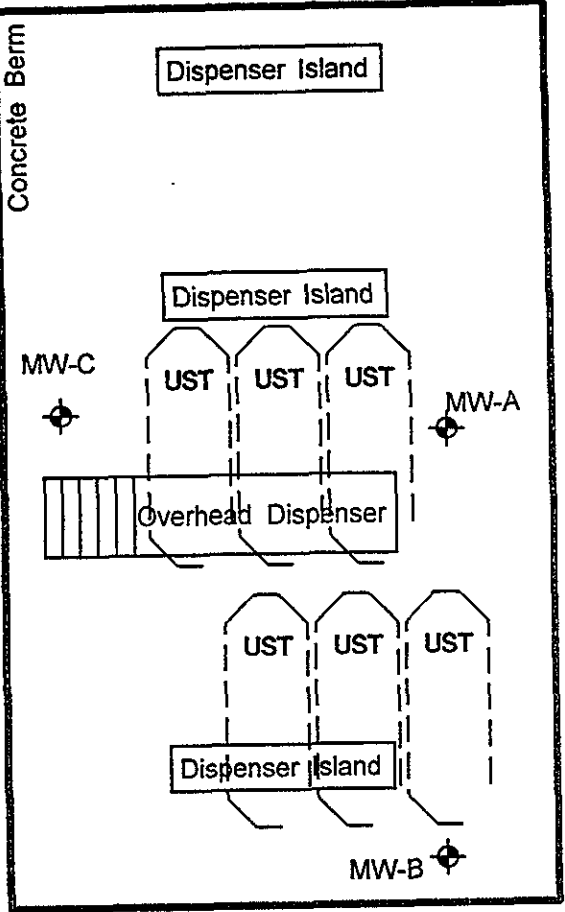
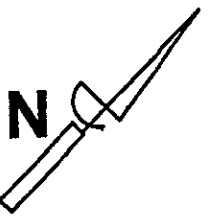
Duncan and Son Petroleum, Inc.
 29303 Pacific Street
 Hayward, California

FIGURE
 1

PROJECT NUMBER:
 DUN01.001

HAYWARD PRO-FLAME

Chain Link Fence



PACIFIC STREET

MW-V



MW-C



MW-A

MW-Z



MW-W



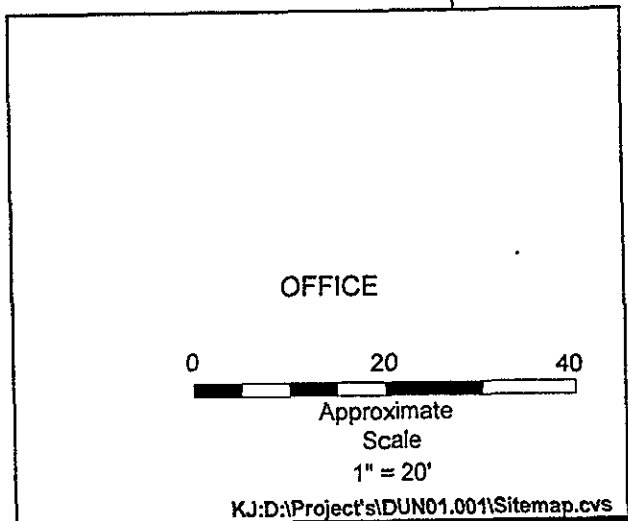
MW-X



LEGEND

 MONITORING WELL

MW-Y



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DATE: 10/27/98

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SITE MAP

Duncan and Son Petroleum, Inc.
29303 Pacific Street
Hayward, California

FIGURE

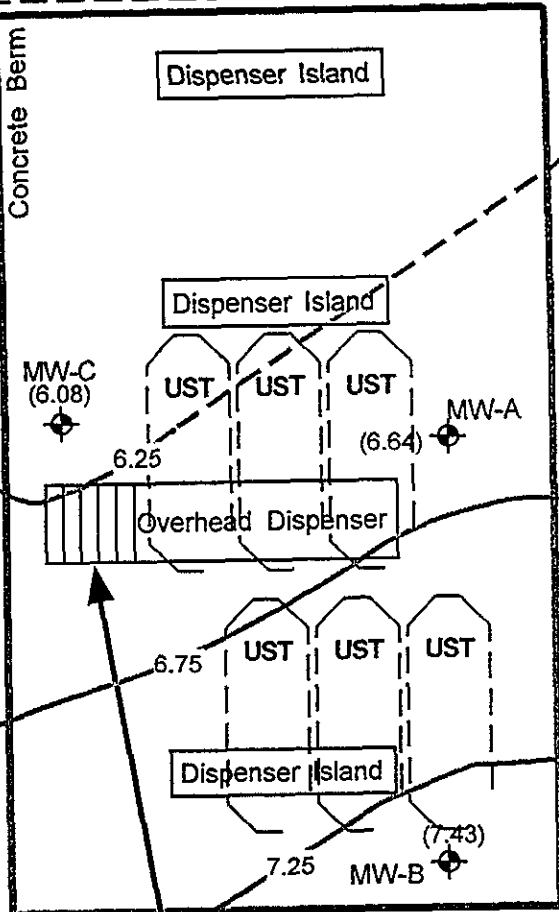
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PROJECT NUMBER
DUN01.001

HAYWARD PRO-FLAME

Chain Link Fence

N



6,000 Gallon
Underground
Overspill
Collection Tank

PACIFIC STREET

MW-V
(6.70)

MW-C
(6.08)

MW-A
(6.64)

MW-Z
(6.84)

MW-W
(6.58)

MW-X
(6.85)

MW-Y
(8.16)

LEGEND

- Monitoring Well Location
- Groundwater Contour
- Inferred Groundwater Contour
- Approximate Direction of Groundwater Flow
- (6.08) Groundwater Elevation

Contour Interval = 0.1 ft
Hydraulic Gradient ≈ 0.006 ft/ft

OFFICE



Approximate
Scale
1" = 20'

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DATE: 10/27/98
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**POTENTIOMETRIC SURFACE MAP:
OCTOBER 15, 1998**

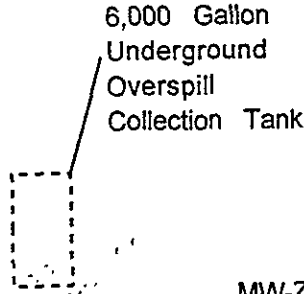
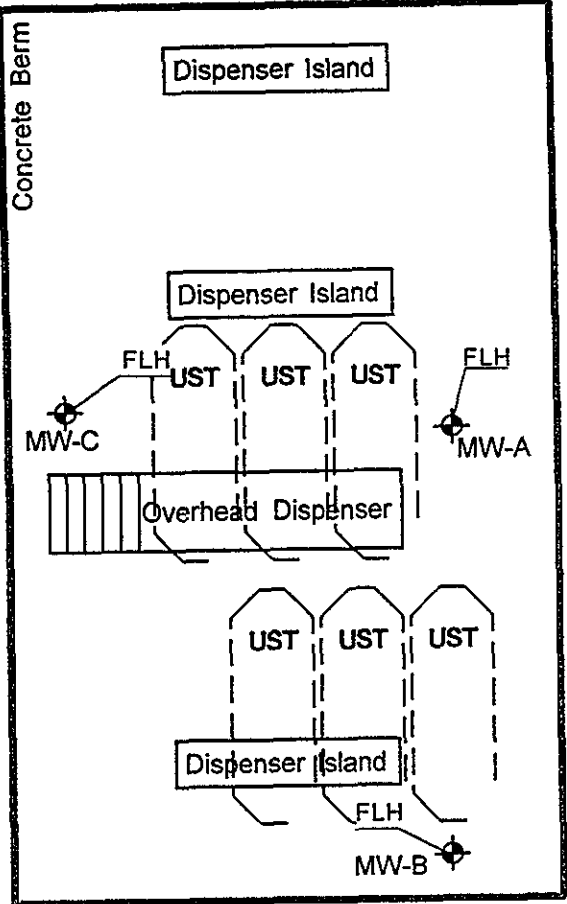
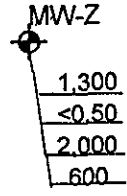
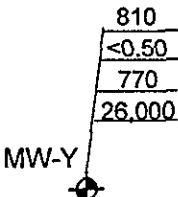
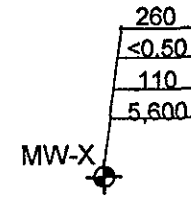
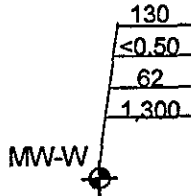
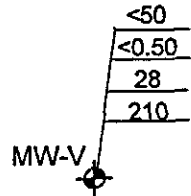
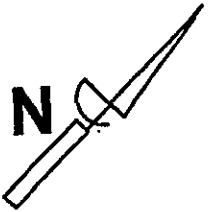
Duncan and Son Petroleum, Inc.
29303 Pacific Street
Hayward, California

**FIGURE
3**

PROJECT NUMBER
DUN01.001

HAYWARD PRO-FLAME

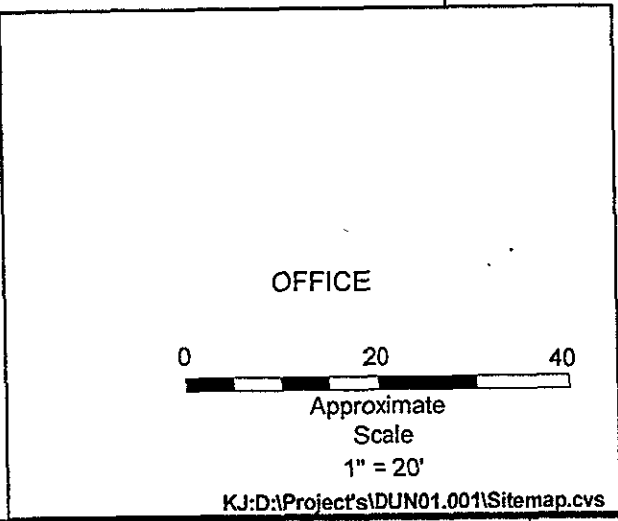
Chain Link Fence



PACIFIC STREET

LEGEND

- Monitoring Well Location
- <50 TPHg Concentration (ppb)
- <0.50 TPHd Concentration (ppm)
- 28 Benzene Concentration (ppb)
- 210 MTBE Concentration (ppb)
- FLH Not Sampled Due to Presence of Floating Liquid Hydrocarbons



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	DRAWN BY: K. Jones DATE: 10/27/98	TPHg, TPHd, BENZENE, AND MTBE IN GROUNDWATER: OCTOBER 15, 1998	FIGURE 4
	REVISIONS		
Duncan and Son Petroleum, Inc. 29303 Pacific Street Hayward, California			

TABLES

TABLE 1

GROUNDWATER LEVEL DATA
 DUNCAN AND SON PETROLEUM, INC.
 29303 Pacific Street, Hayward, California
 (All measurements are in feet)

Monitoring Well	Date	Reference Elevation (top of casing)	Thickness of FLH	Depth to Groundwater	Corrected Depth to Groundwater	Groundwater Elevation
MW-A	10/15/98	14.76	0.75	8.68	8.12	6.64
MW-B	10/15/98	14.89	1.03	8.23	7.46	7.43
MW-C	10/15/98	15.19	0.40	9.41	9.11	6.08
MW-V	10/15/98	14.42	NA	7.72	NA	6.70
MW-W	10/15/98	14.50	NA	7.92	NA	6.58
MW-X	10/15/98	14.90	NA	8.05	NA	6.85
MW-Y	10/15/98	14.46	NA	6.30	NA	8.16
MW-Z	10/15/98	14.17	NA	7.33	NA	6.84

NOTES:

NA = Not Applicable

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
 DUNCAN AND SON PETROLEUM, INC.
 29303 Pacific Street, Hayward, California

Monitoring Well ID	Date of Sampling	Total Petroleum Hydrocarbons as			Aromatic Volatile Organics				Five Oxygenates by EPA Method 8260				
		Gasoline (ppb)	Diesel (ppm)	Motor Oil (ppm)	Benzene (ppb)	oluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	DIPE (ppb)	ETBE (ppb)	MTBE (ppb)	TAME (ppb)	TBA (ppb)
MW-A	10/15/98	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH
MW-B	10/15/98	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH
MW-C	10/15/98	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH	FLH
MW-V	10/15/98	<50	<0.050	1.1	28	<0.50	<0.50	<1.0	<25	<25	210	<25	<250
MW-W	10/15/98	130	<0.050	2.7	62	<0.50	<0.50	<1.0	<130	<130	1,300	<130	<1,200
MW-X	10/15/98	260	<0.50	2.1	110	1.1	1.6	<1.0	<2,500	<2,500	5,600	<2,500	<25,000
MW-Y	10/15/98	810	<0.50	4.7	770	5.6	3.4	6.4	<1,200	<1,200	26,000	<1,200	<12,000
MW-Z	10/15/98	1,300	<0.50	0.68	2,000	7.5	12	7.2	<250	>250	600	<250	<2,500

NOTES:

< = Less than indicated laboratory detection limit.