July 11, 2005



SOIL & GROUNDWATER INVESTIGATION WORKPLAN

6310 Houston Place Dublin, California 94568

AEI Project No. 11427 Fuel Leak Case No. RO0002862

Prepared For

Mr. Cary Grayson
G&G International Holding Company
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Prepared By

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July 11, 2005

Attn: Ms. Dona Drogos Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject:

Bay Counties Petroleum, Former UST Site at:

6310 Houston Place Dublin, CA 94568

Fuel Leak Case No. RO0002862

AEI Project # 11427



Dear Ms. Drogos:

Enclosed is one (1) copy of the Soil & Groundwater Investigation Workplan requested in a letter from your agency prepared by Robert Schultz, dated April 12, 2005.

We look forward to working with your office on this matter. Should you have any questions or need any additional information, please contact me. I can be reached at 925/283-6000, extension 128, or via email at jquick@aeiconsultants.com.

Sincerely,

AEI Consultants

Jeremy Quick Staff Geologist

SAN FRANCISCO

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1.0 Introduction

AEI Consultants (AEI) has prepared this plan on behalf of G&G International Holding (G&G) for the facility located at 6310 Houston Place in the City of Dublin, Alameda County, California. AEI has been retained by G&G to provide environmental engineering and consulting services for the property.

This workplan outlines a scope of work to characterize the extent of a release of petroleum hydrocarbons from a former 12,000-gallon diesel underground storage tank (UST), which was removed from the subject property in October 2004. The scope of work includes collection and analyses of soil and groundwater samples to be collected from four (4) soil borings around this former UST and associated dispenser. The investigation was requested by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated April 12, 2005.

2.0 SITE DESCRIPTION AND HISTORY

The subject property is located in a commercial and light industrial area of Dublin, on the south side of Houston Place, just east of Dougherty Road. The subject property yard is currently vacant although the building is used for storage. Please refer to Figures 1 and 2 for the site location map and site plan details.

According to records on file with the Dublin Building Department (DBD), three USTs (one 12,000-gallon diesel USTs, one 7,500-gallon gasoline UST, and one 2,000-gallon gasoline UST) were installed on the subject property in 1968.

According to a case closure summary report prepared by Alameda County Health Care Services Agency (ACHCSA), a piping leak and a localized surface spill of used motor oil were discovered at the site prior to 1984. Following the release, 156 cubic yards of contaminated soil was removed from the site to the satisfaction of San Francisco Bay Regional Water Quality Control Board (SFRWQCB). On March 31, 1989, four USTs (one 500-gallon waste oil, two 12,000-gallon and one 8,000-gallon diesel tanks) were excavated, three of which were removed. One 12,000-gallon diesel UST was refinished internally with "Glass Armor" coating and was reinstalled for continued use. Soil samples collected from the sidewalls of the excavation during tank removal activities had concentrations of Total Petroleum Hydrocarbons as diesel (TPH-d) to 190 milligrams per kilogram (mg/kg) and Total Oil and Grease (TOG) up to 240 mg/kg. No concentrations of TPH as gasoline; Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX); or chlorinated hydrocarbons were detected in these samples. One grab groundwater sample was collected from the diesel UST excavation, which had concentrations of TPH-d and TOG up to 380,000 micrograms per liter (μg/L) and 50,000 μg/l, respectively.

Following removal of the three USTs, three groundwater monitoring wells (MW-1 through MW-3) were installed on August 9, 1989, and quarterly groundwater monitoring and sampling commenced. To further define the extent of the groundwater contamination plume, three additional wells (MW-4 through MW-6) were installed between May 1990 and March 1991.



TPH-d and TOG were detected up to 22,000 μg/L and 8,600 μg/L, respectively, during initial sampling of these wells. Intermittent monitoring and sampling of the wells continued between August 1989 and October 1994. During the last sampling episode conducted in October 1994 concentrations of TPH-d and TOG were detected up to 850 μg/L and 600 μg/L, respectively. Refer to Appendix A for previous groundwater sample analytical results. Based on a recent site inspection, the former onsite monitoring wells had been decommissioned. Approximate former well locations are shown on Figure 2.

Based on the gradual decline of TPH-d and TOG in the groundwater, and the remaining low concentrations of these contaminants in groundwater and soil, the ACHCSA granted case closure in a letter dated February 28, 1995.

At the request of a prospective purchaser of the property, AEI collected samples from on-site monitoring wells MW-1, MW-2, and MW-5 on January 23, 2001. TPH-d was detected up to $5,200 \,\mu g/L$ in the samples. No concentrations of TOG were detected in these samples.

On October 27, 2004, the remaining 12,000-gallon diesel UST, fuel dispensers, and product piping were removed from the subject property by Golden Gate Tank Removal, Inc. (GGTR). Following excavation, GGTR collected a total of seven soil and two groundwater samples from the UST excavation bottom and sidewall, overburden stockpile, and areas in the vicinity of the fuel dispensers and product piping. These samples were analyzed for TPH-d, MTBE, and BTEX. TPH-d was detected at concentrations of 6 mg/kg and 197 mg/kg in stockpile soil samples and at a concentration of 1 mg/kg in a soil sample obtained from the UST excavation sidewall. TPH-d was detected in the water sample collected from the UST pit at 0.3 mg/L and at 23.8 mg/L in water that was present in the shallow excavation beneath the dispenser. Locations of the samples collected by GGTR are shown on Figure 3 and a summary of sample analytical data from the tank removal is presented in Tables 1 and 2. The excavation was backfilled with the stockpiled soil and imported fill.

Upon reviewing the GGTR Tank Closure Report, the ACHCSA issued a letter requesting the workplan presented in this report.

3.0 GEOLOGY AND HYDROLOGY

Based on a review of the United States Geological Survey (USGS) Dublin, California Quadrangle topographic map, the site is situated in the southeast end of the San Ramon Valley, and is located approximately ¾-mile south/southeast of the Dougherty Hills, which are foothills of Mount Diablo. The site is situated east of Dougherty Creek, which is located approximately ½-mile from the site. The site is relatively flat and at an elevation of approximately 335 feet above mean sea level (amsl). Any apparent slope throughout the surface of the site was likely produced to manage surface water drainage.

Based on the USGS Quaternary Geology of Alameda County, and Parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin Counties, California: A Digital



Database, surface deposits in the vicinity of the site consist of Holocene Age Basin Deposits. These are identified as by very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans.

During previous investigations, groundwater has been encountered at depth of approximately 10 feet below ground surface (bgs). Previous monitoring identified a southeasterly groundwater flow direction with a hydraulic gradient of 10⁻³ ft/ft.

4.0 CONDUIT AND RECEPTOR SURVEY

During site reconnaissance activities, AEI inspected the property for evidence of utilities and other subsurface conduits. A storm drain was identified just east of the property boundary, approximately 15 feet from the former UST area. Along the northern boundary of the property, telecommunications and electrical service lines were apparent. Natural gas and water lines were observed entering the property from the northwest corner, running to the western side of the property building. The location of sewer lines could not be ascertained. Locations of the identified utilities are shown on Figure 2. The depth of the storm drain appeared to be approximately 2 to 4 feet. The depth of the other utilities is assumed to be 3 to 8 feet, based on construction standards.

The Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) have both been contacted for well records for the area. As of the date of this document, these record searches were not complete.

5.0 Proposed Investigation

As required, a soil and groundwater investigation is proposed near the recently removed UST and dispenser. Based on the GGTR samples, the only evidence of a release was near the dispenser island and in the groundwater present in the UST excavation. Pictures on file with ACHCSA of the UST pit did suggest floating fuel product within the excavation. However, based on the shallow depth of water beneath the dispenser, it does not appear that that sample collected is representative of true groundwater conditions. Four soil borings (labeled SB-1 through SB-4) are proposed, three in the vicinity of the former UST, and one in the vicinity of the former dispenser island. The proposed boring locations are shown on Figure 3. A summary of the proposed soil borings is presented below:

Proposed Borings

Boring ID	Purpose
SB-1	Collect soil sample beneath tank, investigate former tank hold / source area soil and groundwater
SB-2	Investigate southeast (down-gradient) extent of impacted groundwater
SB-3	Investigate southern extent of impacted groundwater
SB-4	Investigate soil and groundwater beneath former dispenser



6.0 FIELD OPERATION PROCEDURES

6.1 Permits and Clearances

Upon approval of a scope of work for these investigation activities, a soil boring permit application will be submitted to the Alameda County Public Works Agency (ACPWA), Zone 7. Prior to beginning drilling activities, Underground Service Alert (USA) will be notified. All drilling work will be performed by a California C57 licensed drilling contractor working under the direction of AEI professional staff. Once drilling dates have been established, the ACPWA and other parties will be given adequate notification to schedule any necessary inspections and site visits.

6.2 Drilling and Sampling

The soil borings will be advanced with a direct-push drilling rig (GeoProbe or similar). The borings will be advanced to anticipated depths of approximately 10 to 15 feet bgs, as necessary to collect groundwater samples.

Soil will be continuously collected from each boring in 2" diameter acrylic liners. The borings will be continuously logged by an AEI geologist, under the direction of a California Professional Geologist (PG) using the Unified Soil Classification System (USCS). Soil samples will be cut from the liners at selected depths based on field observations and organic vapor measurements collected in the field. Selected samples will be sealed with Teflon tape and end caps, labeled with a unique identifier, and stored over water ice. It is expected that at least 2 to 3 samples will be selected for possible analyses.

Groundwater samples will be collected from each boring. Upon encountering groundwater, temporary ¾ inch factory slotted well casing will be installed with blank casing to ground surface. Water levels will be measured before sample collection. Samples will be collected with a peristaltic pump or inertial pump into appropriate laboratory supplied containers.

Upon completion of sampling, all temporary casing and sampling rods will be removed from the borings. Each boring will then be backfilled with neat cement grout to ground surface.

6.3 Sample Storage and Analyses

All samples will be labeled with at a minimum, a unique sample identification, sample date and time, and project number. The samples will be sealed in plastic bags and immediate placed in a pre-chilled cooler over water ice. Samples will be entered onto a chain of custody prior to leaving the site. Samples will be delivered on the day of collection to a California Department of Health Services (DHS) certified analytical laboratory. One



groundwater sample and one to two soil samples will be analyzed from each boring. The proposed analyses for samples selected during this project will include the following:

- Total petroleum hydrocarbons as diesel (TPH-d) by EPA method 8015C/Cm with silica gel cleanup
- Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) by EPA method 8021.
- Methyl tert-butyl ether (MTBE) by EPA method 8260B.

6.4 Equipment Decontamination

Sampling equipment, including sampling barrels, augers, and other equipment used to sample, will be decontaminated between samples using a triple rinse system containing AlconoxTM or similar detergent. Rinse water will be contained in sealed labeled DOT approved 55-gallon drums in a secure location on-site pending proper disposal.

6.5 Waste Handling

All investigation-derived waste (IDW) will be stored on-site in sealed, labeled 55-gallon drums. IDW will include soil cuttings, plastic sample liners, and other sampling disposables. Equipment rinse water will also be stored in 55-gallon drums, separate from solid IDW. Upon receipt of analytical results, the waste will be profiled into appropriate disposal or recycling facilities and transported from the site under appropriate manifest. Copies of manifest(s) will be made available once final copies are received from the disposal facility(s).

6.6 Site Safety

AEI will prepare a site specific Health and Safety Plan conforming to Part 1910.120 (i) (2) of 29 CFR. Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. The Health and Safety Plan will be reviewed and emergency procedures will be outlined at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest. All site personnel will be in Level D personal protection equipment, which is the anticipated maximum amount of protection needed. A working area will be established with barricades and warning tape to delineate the zone where hard hats, steel-toed shoes and safety glasses must be worn, and where unauthorized personnel will not be allowed. The site Health and Safety Plan will be on site at all times during the project.



7.0 REPORTING

AEI will prepare and issue a final report following receipt of all necessary data. The report will include logs of borings, data tables, figures of drilling and sampling locations, and copies of laboratory analytical reports. It is expected that ACPWA and DWR well survey data will be available for the inclusion in the report. A written discussion of the methods and findings, and recommendations will be included. Based on the presence of a previous release at the site, historical data, including concentrations of site contaminants present at closure will be considered. The information gathered during this investigation will be utilized to begin preparing a conceptual model of the release. Site data will be uploaded into the GeoTracker database, as necessary. The project will be overseen and the report(s) signed by an AEI California registered professional geologist or engineer.

8.0 **SCHEDULE**

Once a scope of work has been agreed upon by all involved parties, drilling permit applications for the soil borings will be submitted. Upon approval of the permits, field work will be scheduled and the ACHCSA will be notified of the schedule. It is expected that the borings will occur within approximately 2 to 3 weeks of permit approval. The final report will be issued with approximately 1 to 2 months of receipt of all necessary documentation.

9.0 **SIGNATURES**

The proposed scope of work has been prepared on behalf of G&G in accordance with generally accepted practices in the environmental engineering and consulting field that existed at the time and location of the work. AEI requests comment and concurrence with this plan. We can be reached at 925/944-2899.

Sincerely,

AEI Consultants

Jeremy Quick Staff Geologist Peter J. McIntyre, PG

Project Manager

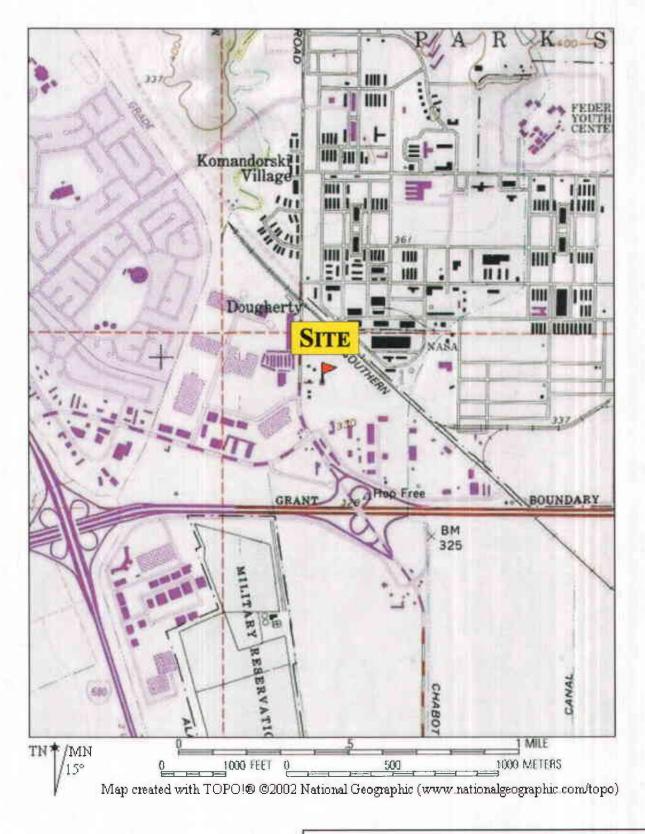
Distribution:

Mr. Cary Grayson, G&G International Holding Company, 2413 Stirrup Court, Walnut Creek, CA 94596

Ms. Dona Drogos, ACHCSA, 1131 Harbor Bay Parkway, Suite 250, Alameda CA, 94502

FIGURES





USGS DUBLIN, CALIFORNIA QUADRANGLE TOPOGRAPHIC MAP Created 1979, Revised 1980

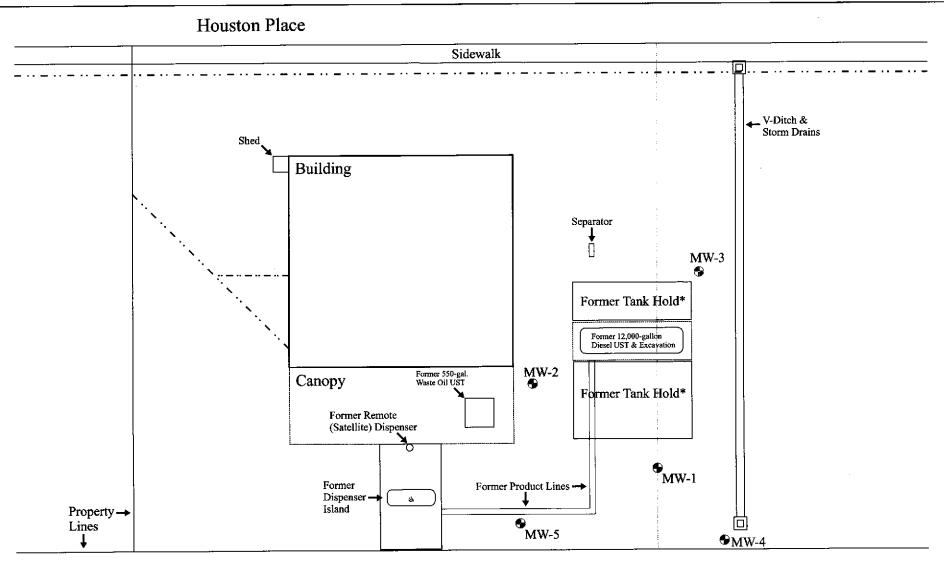
AEI CONSULTANTS

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

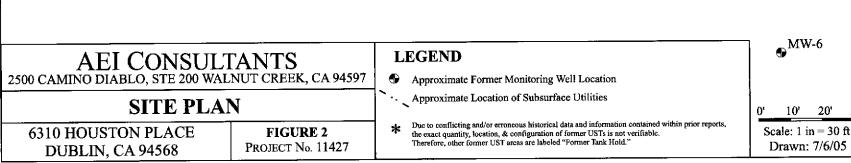
SITE LOCATION MAP

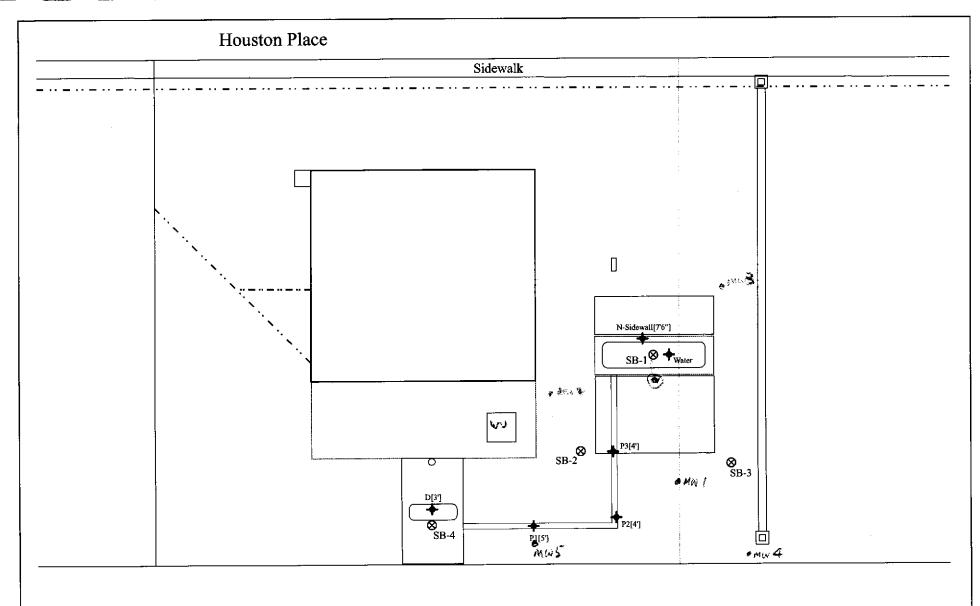
6310 HOUSTON PLACE DUBLIN, CA 94568

FIGURE 1 PROJECT No. 11427



Drawn: 7/6/05





AEI CONSULTANTS 2500 CAMINO DIABLO, STE 200 WALNUT CREEK, CA 94597

PROPOSED SOIL BORINGS

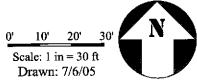
6310 HOUSTON PLACE DUBLIN, CA 94568

FIGURE 3
PROJECT No. 11427

LEGEND

- ♦ Approximate Former Soil/Groundwater Sample Location (GGTR, 2004)
- ⊗ Proposed Soil Boring Location

· MW6



TABLES



Table 1
Soil Sample Analytical Results

Sample ID	Sample Date	Sample Location	TPH-d mg/kg EPA Method 8015M	MtBE µg/kg	Benzene μg/kg	Toluene µg/kg EPA Methods 5030 / 802	Ethylbenzene µg/kg 20F	Xylenes μg/kg
8559-SP1 8559-SP2 8559-SP3 8559-P1[5'] 8559-P2[4']	10/27/2004 10/27/2004 10/27/2004 10/27/2004 10/27/2004 10/27/2004	Stockpile Stockpile Stockpile Product Piping Product Piping Product Piping	6 <1 197 <1 <1 <1	ぐ5 ぐ5 ぐ5 ぐ5 ぐ5 ぐ5	ひ ひ ひ ひ ひ	<5 <5 <5 <5 <5 <5	ぐ5 ぐ5 ぐ5 ぐ5 ぐ5 ぐ5	<10 <10 <10 <10 <10 <10
8559-N-Sidewall[7'6"]	10/27/2004	UST Excavation	1	<5	<5	<5	<5	<10
		RL_	1	5	5	5	5	10

TPH-d = Total Petroleum Hydrocarbons as diesel

MtBE = Methyl tertiary-Butyl Ether

RL = Laboratory reporting limit

mg/kg = milligrams per kilogram (equivalent to parts per million) μ g/kg = micrograms per kilogram (equivalent to parts per billion) UST = Underground Storage Tank

UST excavation and sampling routine performed by Golden Gate Tank Removal, Inc., October 2004.

Table 2
Groundwater Sample Analytical Results

Sample ID	Sample Date	Sample Location	TPH-d mg/L EPA Method 8015M	MtBE μg/L	Benzene μg/L	Toluene μg/L PA Methods 5030 / 80	Ethylbenzene µg/L 20F	Xylenes μg/L
8559-D[3'] 8559-Water	10/27/2004 10/27/2004	Dispenser UST Excavation	23.8 0.3	1.1 3.8	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	1.8 <1.0
		RL	0.05	0.5	0.5	0.5	0.5	1.0

TPH-d = Total Petroleum Hydrocarbons as diesel

MtBE = Methyl tertiary-Butyl Ether

RL = Laboratory reporting limit

mg/L = milligrams per liter (equivalent to parts per million)

 $\mu g/L = \text{micrograms per kilogram (equivalent to parts per billion)}$

UST = Underground Storage Tank

UST excavation and sampling routine performed by Golden Gate Tank Removal, Inc., October 2004.

APPENDIX A HISTORICAL GROUNDWATER MONITORING DATA



Table 1: Summary of historical groundwater monitoring results for American City Truck Stop, Winning Action Investment, Dublin, CA

MONITORING	WELL MW-1			-			
DATE	TPHD	TOG	В	T	E	X .	PNAS
8/15/89 12/13/89 6/20/90 8/30/90 3/01/91 7/19/91 1/17/92 9/24/92 1/28/93 W/7/44 MONITORING	10.6 60.0 4.3 15.0 <0.05 10.0 3.2 0.69 ND ND WELL MW-2	N/A N/A 7.2 20.0 <0.5 20.0 <5 ND ND	0.016 ND ND N/A N/A <0.0003 ND N/A	ND ND ND N/A N/A 0.0006 ND N/A	0.0024 ND ND N/A N/A 0.0004 ND N/A	0.0031 ND ND N/A N/A 0.0024 ND N/A	DN
DATE	TPHD	TOG	В	T	E	X	* * * * *
8/15/89 12/13/89 6/20/90 8/30/90 3/01/91 7/19/91 1/17/92 9/24/92 1/28/93 16[7[9+	47.0 34.0 1.2 1.8 <0.05 2.3 0.65 0.26 ND	50.0 95.0 ND 2.5 1.9 8.9 <5 ND ND	ND ND ND N/A N/A <0.0003 ND N/A	ND ND ND N/A N/A <0.0003 ND N/A	ND ND ND N/A N/A <0.0003 ND N/A	ND ND ND N/A N/A 0.0006 ND N/A	
DATE	TPHD	TOG	В	T	E	x	
8/15/89 12/13/89 6/20/90 3/01/91 7/19/91 1/17/92 9/24/92 1/28/93	2.0 1.7 ND 0.45 0.32 0.16 ND	N/A N/A ND 0.6 0.7 <5 ND	ND ND N/A N/A <0.003 ND N/A	DN DN DN A\A A\N E000.0> DN A\N	ND ND N/A N/A <0.0003 ND	ND ND N/A N/A 0.0003 ND N/A	
	G WELL MW-4			,			
0ATE 6/20/90 8/30/90 3/01/91 7/19/91 1/17/92 9/24/92 1/28/93 I/1 (44 MONITORIN	TPHD 22.0 0.56 0.73 0.72 N/A N/A 0.13	TOG 8.6 2.4 1.4 1.2 N/A N/A ND	B ND ND N/A N/A N/A N/A N/A	T ND ND N/A N/A N/A N/A	E ND ND N/A N/A N/A N/A	X ND N/A N/A N/A N/A	
DATE	TPHD	TOG	В	T	. E	X	
3/07/91 7/19/91 1/17/92	74.0 32.0 0.66	160 34 <5	<0.0005 <0.0005 <0.0003	0.0012 <0.0005 <0.0003	0.001 <0.0005 <0.0003	0.0022 0.0020 0.0009	

9/24/92 1/28/93 10/7/94 MONITORING	0.17 ND PS WELL MW-6	ND O.C	ND N/A N/A	ND N/A N/A	nd n/a <i>N/A</i>	ND N/A N/A	ND
DATE	TPHD	TOG	В	т	Ē	Х	
3/07/91 7/19/91 1/17/92 9/24/92 1/28/93	<0.05 <0.05 <0.05 ND ND	<0.5 <0.5 <5 ND ND	N/A N/A <0.0003 ND ND	N/A N/A <0.0003 ND ND	N/A N/A <0.0003 ND ND	N/A N/A <0.0003 ND ND	- ^

DHS/DWS FOR IS: 0.001 FOR BENZENE, 0.680 FOR ETHYLBENZENE AND 1.750 FOR XYLENES.

Note: 1989 and 1990 results reported in Winters Petroleum (1989), Safety Specialists (1989) and NSI (1990).

Concentrations expressed in milligrams per liter (mg/L), or ppm.

Abbreviations

TPHD - total petroleum hydrocarbons as diesel

B - benzene

T - toluene

X - xylenes

E - ethylbenzene

TOG - total oil and grease

ND - not detected

N/A - not analyzed

DHS/DWS - California Department of Health Services Drinking Water

Standards

(CCR Title 22)