FUGRO WEST, INC.

FIRST AND SECOND QUARTER 1996 GROUND WATER MONITORING REPORT

FORMER BILL CHUN SERVICE STATION
2301 SANTA CLARA AVENUE
ALAMEDA, CALIFORNIA

Prepared for:
MR. WAYNE CHUN
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Pittsburgh, California 94565

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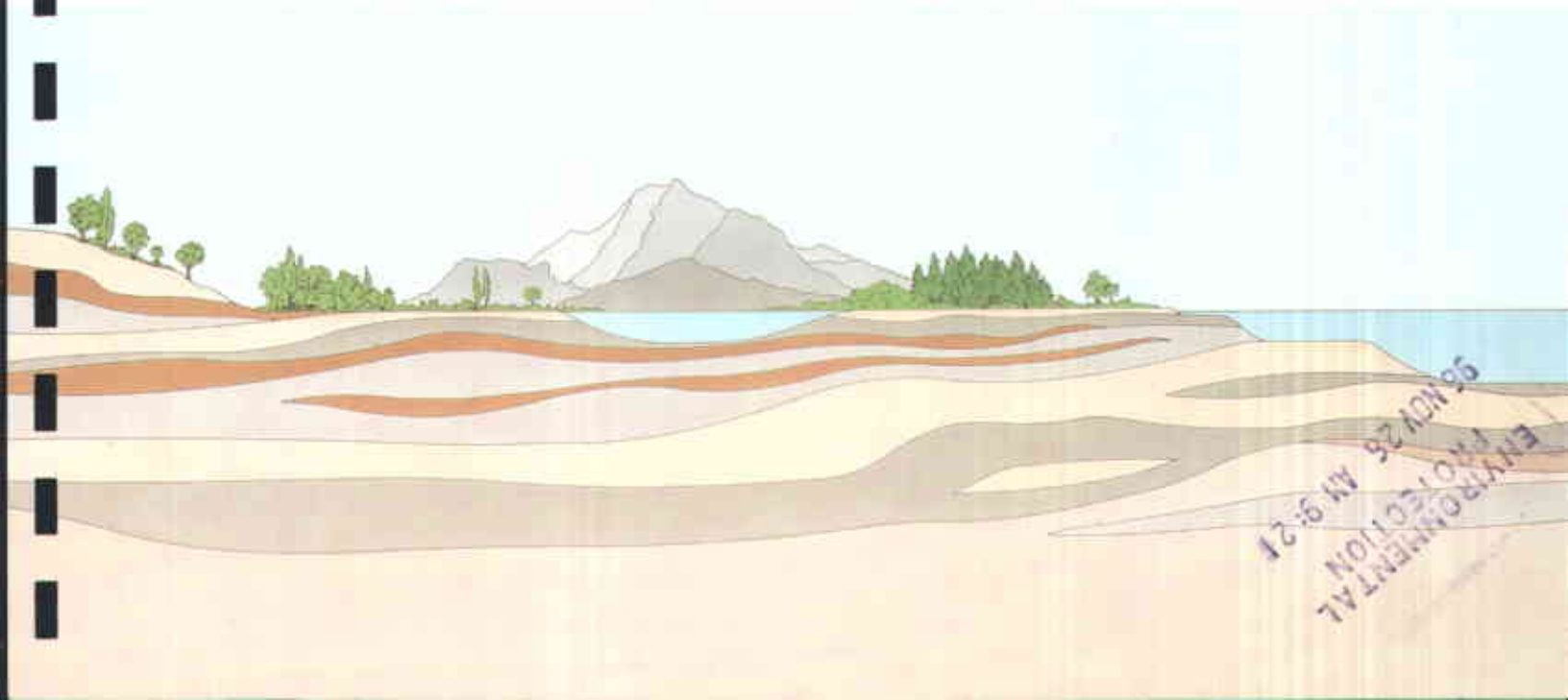
Project No. 9537-0741
November 1996



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November 21, 1996
Project No. 9537-0741

Mr. Wayne Chun
265 Heron Drive
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First and Second Quarter 1996 Ground Water Monitoring Report
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Dear Mr. Chun:

This report documents results of quarterly groundwater monitoring at the former Bill Chun Service Station located at 2301 Santa Clara Avenue, Alameda, California (subject property). Two monitoring events are included in this document: first quarter, May 1, 1996 and second quarter, August 5, 1996. A site location map is provided in Figure 1, and a site map is provided in Figure 2.

Background

The following paragraphs provide background information leading up to the current conditions of the subject property.

In July of 1992, three underground storage tanks (USTs) were removed from the subject property by Parker Environmental Services (Parker): two 550 gallon and one 285 gallon. During removal activities, a leak was discovered in the 285 gallon tank. The contents of the USTs were not specified in the removal report. Analysis of soil samples collected during removal revealed concentrations of total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Several investigative activities have been conducted at the subject property to determine the extent of the hydrocarbon impacted soil and groundwater. These activities include soil and groundwater sampling and analysis, soil vapor extraction, and free product recovery. Details of these activities are documented in *Results of Free Product Recovery; Additional Groundwater Assessment and Quarterly Groundwater Monitoring Activities* (Fugro - January, 1996).

Six monitoring wells were installed at the subject property in 1993: MW-1, MW-2, and MW-3 in January, and MW-4, MW-5, and MW-6 in September by another consultant. The

purpose of these wells was to determine the lateral extent of petroleum-impacted subsurface soil and groundwater. Concentrations of gasoline-range hydrocarbons were detected in soils at depths of 9.5 to 11 feet below ground surface (bgs).

There is some concern regarding monitoring wells MW-1, MW-2, and MW-3 which may have been installed with the top of the screened casing at a depth below the surface of the groundwater. It is suspected that floating product could be present in wells MW-1 and MW-2; if this is the case, accurate assessment of it's extent and quantity may not be possible due to the positioning of the screened casings.

Fugro installed offsite monitoring wells MW-8, MW-9, MW-10, and MW-11 on November 22, 1995. These were installed to aid in the investigation of the lateral extent of contamination in groundwater adjacent to the subject property.

Quarterly groundwater monitoring and sampling has occurred at the subject property since January, 1993. Fugro has conducted quarterly monitoring activities since November, 1994. The direction of groundwater flow has typically been in the northwest and northeast directions. Free product has been detected in monitoring well MW-5 since November, 1993 and MW-7 since February, 1994.

Current Monitoring Activities

Quarterly groundwater monitoring activities for the two sampling events will be described in the following paragraphs. The first sampling event occurred on May 1, 1996, and the second occurred on August 5, 1996. Included in monitoring results are: depth to groundwater, TPH-g, total petroleum hydrocarbons as diesel (TPH-d), BTEX, and halogenated volatile organic compounds (HVOCs).

May 1, 1996

Table 1 provides results of monitoring performed on May 1, 1996, as well as maximum contaminant levels (MCLs) mandated by the state of California. Monitoring well MW-10 was not monitored for groundwater elevation or petroleum products due to the presence of a car on top of the well. Monitoring wells MW-5 and MW-7 were not sampled due to the presence of free product in the wells. Free product thickness was measured at 0.01 feet in MW-5 and 0.09 feet in MW-7.

Table 1. Groundwater elevations and analytical results obtained from samples collected at the Former Bill Chun Service Station on May 1, 1996.

Well	GW Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-d (µg/L)	HVOC's (ppb)[a]
MW-1	19.30	[illegible]	[illegible]	5,720	121	3,160	ND (50)	[illegible]
MW-2	19.38	[illegible]	[illegible]	69,000	27,200	89,600	ND (50)	[illegible]
MW-3	19.53	[illegible]	ND (1.0)	[illegible]	[illegible]	30.9	ND (50)	ND
MW-4	19.36	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND
MW-5	19.47	FP	FP	FP	FP	FP	FP	FP
MW-6	19.36	[illegible]	7,400	2,540	1,270	4,470	ND (50)	[illegible]
MW-7	19.63	FP	FP	FP	FP	FP	FP	FP
MW-8	19.75	[illegible]	[illegible]	ND	[illegible]	[illegible]	ND (50)	ND
MW-9	18.79	[illegible]	[illegible]	0.78	ND	[illegible]	ND (50)	ND
MW-11	19.44	[illegible]	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	[illegible]	ND
MCL	NA	NA	[illegible]	1,000	680	1,750	NA	[illegible]

1,2-DCE = 1,2-Dichloroethane
ppb = parts per billion
ND = Not Detected
FP = Not Sampled due to the presence of free product
MCL = Maximum Contaminant Level. Numbers reported for California primary MCLs.
a. numbers in parenthesis represent the reported concentration

Groundwater gradient at the subject property is generally in the northerly direction at a magnitude of approximately 0.006 foot per foot (Figure 3). Groundwater depth measurements do not appear consistent with previous monitoring events. For example, the elevation obtained for monitoring well MW-7 was reported as 19.63 feet. This appears high compared to nearby monitoring wells MW-1 (19.30 ft) and MW-2 (19.38 ft). It is possible that an error was made during measurement or that groundwater had not sufficiently equilibrated in the well prior to measurement.

The highest levels of TPH-g were found in monitoring well MW-2 (481,000 ppb), and the lowest levels were found in monitoring well MW-4 (ND). The highest levels of benzene were found in monitoring well MW-2 (59,000 parts per billion (ppb)), and the lowest levels were found in monitoring wells MW-3 (ND), MW-4 (ND), and MW-11 (ND) (Figure 4). Laboratory data reports and chain of custody forms are included in Appendix A.

Following is a comparison of current data with data obtained from the November of 1995 monitoring event. No comparisons were made for monitoring wells MW-8, MW-9, MW-10, MW-11 because there are no November data for these wells. Historical data including data from the November monitoring event are provided in Tables 3 and 4 at the end of this report.

- Groundwater elevations between November and May were found to have increased an average of 0.76 feet.

- The wells sampled, with the exception of well MW-2, showed an overall reduction or no change in concentrations of TPH-g and benzene, toluene, and total xylenes. Monitoring well MW-2 showed an increase in each of the analyzed constituents.

- The wells sampled showed a reduction in ethylbenzene levels except for MW-3. MW-3 showed an increase in ethylbenzene from 7 ppb to 9.86 ppb.

- Levels of TPH-d were reported as 107 ppb in MW-11. Levels of TPH-d were below the analysis detection limit in the remaining wells sampled during this sampling event.

- Monitoring wells MW-1, MW-2, and MW-6 contained levels of 1,2-dichloroethane (DCE) reported as 5.6 ppb, 61.8 ppb, and 73.0 ppb, respectively. The EPA maximum contaminant level for 1,2-dichloroethane is 5.0 ppb. 1,2-DCE has been found previously in samples collected from monitoring wells MW-1, MW-2, and MW-9.

August 5, 1996

Table 2 provides results of monitoring performed on August 5, 1996. Monitoring wells MW-5 and MW-7 were not sampled due to the presence of free product in the wells. Free product thickness was measured at 0.01 feet in MW-5 and 0.03 feet in MW-7.

Table 2. Groundwater elevations and analytical results obtained from samples collected at the Former Bill Chun Service Station on August 5, 1996.

Well	GW Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-d (µg/L)	HVOC's (ppb)[a]
MW-1	18.86	84,600	17,400	7,400	1,130	3,880	ND (50)	1,2-DCE (50.7)
MW-2	18.98	[illegible]	41,800	56,000	3,590	18,000	ND (50)	1,2-DCE (83.2)
MW-3	19.17	2,840	4.1	5.3	4.9	25.3	ND (50)	ND
MW-4	19.09	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND
MW-5	18.97	FP	FP	FP	FP	FP	FP	ND
MW-6	18.81	91,200	20,600	4,000	2,100	7,030	ND (50)	1,2-DCE (157)
MW-7	18.98	FP	FP	FP	FP	FP	FP	FP
MW-8	19.42	1,190	22.6	3.4	11.2	12.7	ND (50)	1,1,2,2-TCE (2.5)
MW-9	18.51	180	3.1	0.5	0.5	2.3	ND (50)	ND
MW-	18.82	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	Chloroform (13.2)
MW-	18.94	6,600	5,040	ND (0.5)	[illegible]	ND (0.5)	ND (50)	1,2-DCE (16.0)
MCL	NA	NA	1.0	1,000	680	1,750	NA	1,2-DCE (0.5) 1,1,2,2-TCE(5) Chloroform (100)

1,2-DCE = 1,2-Dichloroethane
1,1,2,2-TCE = 1,1,2,2-Tetrachloroethane
ppb = parts per billion
ND = Not Detected
FP = Not Sampled due to the presence of free product
a. numbers in parenthesis represent the reported concentration

Groundwater gradient at the subject property is generally in the northerly direction at a magnitude of approximately 0.005 foot per foot (Figure 5). The highest levels of TPH-g were reported from monitoring well MW-2 (193,000 ppb), and the lowest levels were reported from monitoring well MW-4 (ND) and MW-10 (ND). The highest levels of benzene were reported from monitoring well MW-2 (41,800 ppb), and the lowest levels were reported from monitoring wells MW-4 (ND), and MW-10 (ND) (Figure 6). Laboratory reports and chain of custody forms are included in Appendix A.

Following is a comparison of current data with data obtained from the May of 1995 monitoring event. Historic data, including data from the November monitoring event, are provided in Tables 3 and 4.

- Groundwater elevations decreased an average of 0.43 feet between August and May, and groundwater gradient decreased from 0.006 to 0.005. Elevation levels obtained in August appear more consistent and less sporadic than those obtained in May. For example, evaluation of monitoring well MW-7 reveals an elevation that is consistent with nearby wells.

- Samples collected from monitoring wells MW-1, MW-6, and MW-8 indicated an increase in the concentrations of TPH-g and BTEX.

- Samples collected from monitoring well MW-2 indicated a reduction in the concentrations of TPH-g and BTEX.

- Samples collected from monitoring wells MW-4 and MW-10 did not contain levels of TPH-g, BTEX, and HVOC's above the method of analysis detection limit.

- Levels of TPH-d were not detected in the wells sampled during this sampling event.

- Monitoring wells MW-1 (50.7 ppb), MW-2 (83.2 ppb), MW-6 (157 ppb), and MW-11 (16 ppb) showed increases in levels of 1,2-Dichloroethane.

- 1,1,2,2-Tetrachloroethane was detected in the sample collected monitoring well MW-8 at 2.5 ppb. This constituent has not previously been detected in MW-8, nor has it been detected in samples collected from other monitoring wells at the subject property.

- Chloroform was detected in monitoring well MW-10 at 13.2 ppb. This constituent has not previously been detected in MW-10, nor has it been detected in samples collected from other monitoring wells at the subject property.

Remarks

Fugro expects to conduct additional free product and groundwater assessment in December of 1996. The proposed scope of this additional assessment is discussed in the work plan prepared by Fugro, dated October 2, 1996. The work plan was approved by the Alameda County Health District on October 3, 1996.

This report has been prepared solely for the use of Mr. Wayne Chun. Any reliance on this report by third parties shall be at the parties sole risk. this report was prepared under the review and supervision of the professional engineer, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide environmental consulting services to Mr. Wayne Chun. If there are any questions or comments regarding this report, or if we can assist you in any other matter, please contact us at (415) 296-1041.

Sincerely,

FUGRO WEST, INC.

Robyn K. Simonsen
Staff Engineer

Peter B. Hudson
Project Geologist

REGISTERED PROFESSIONAL ENGINEER
STEPHEN J. BOUDREAU
No. C 055353
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Stephen J. Boudreau
Regional Branch Manager
Senior Environmental Engineer

RKS:lah

c: Juliet Shin, Alameda County Division of Environmental Health

TABLE 3

GROUNDWATER ELEVATION DATA

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	Top of Casing Elevation (ft. above MSL)	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Corrected Groundwater Elevation (ft. above MSL)
MW-1	01/07/93	28.53	8.87	--	0.00	19.66
	09/07/93		9.63	--	0.00	18.90
	11/16/93		9.89	--	0.00	18.64
	12/07/93		9.66	--	0.00	18.87
	01/06/94		9.67	--	0.00	18.86
	02/03/94		9.50	--	0.00	19.03
	03/04/94		9.18	--	0.00	19.35
	06/06/94		9.55	--	0.00	18.98
	11/09/94		8.83	--	0.00	19.70
	12/20/94		9.00	--	0.00	19.53
	03/29/95		8.44	--	0.00	20.09
	05/24/95		9.01	--	0.00	19.52
	08/30/95		9.52	--	0.00	19.01
	11/29/95	28.49 (2)	9.96	--	0.00	18.53
	05/01/96		**9.19**	--	**0.00**	**19.30**
	08/05/96		**9.63**	--	**0.00**	**18.86**
MW-2	01/07/93	28.51	8.78	--	0.00	19.73
	09/07/93		9.52	--	0.00	18.99
	11/16/93		9.73	--	0.00	18.78
	12/07/93		9.54	--	0.00	18.97
	01/06/94		9.54	--	0.00	18.97
	02/03/94		9.37	--	0.00	19.14
	03/04/94		9.02	--	0.00	19.49
	06/06/94		9.40	--	0.00	19.11
	11/09/94		NM(1)	NM	NM	NM
	12/20/94		NM(1)	NM	NM	NM
	03/29/95		8.26	--	0.00	20.25
	05/24/95		8.89	--	0.00	19.62
	08/30/95		9.41	--	0.00	19.10

TABLE 3, Continued

GROUNDWATER ELEVATION DATA

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	Top of Casing Elevation (ft. above MSL)	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Corrected Groundwater Elevation (ft. above MSL)
	11/29/96	28.47 (2)	9.96	--	0.00	18.53
	05/01/96		**9.19**	**--**	**0.00**	**19.30**
	08/05/96		**9.49**	**--**	**0.00**	**18.98**
MW-3	01/07/93	28.82	8.86	--	0.00	19.96
	09/07/93		9.62	--	0.00	19.20
	11/16/93		9.82	--	0.00	19.00
	12/07/93		9.60	--	0.00	19.22
	01/06/94		9.62	--	0.00	19.20
	02/03/94		9.45	--	0.00	19.37
	03/04/94		9.11	--	0.00	19.71
	06/06/94		9.50	--	0.00	19.32
	11/09/94		8.82	--	0.00	20.00
	12/20/94		9.00	--	0.00	19.82
	03/29/95		8.45	--	0.00	20.37
	05/24/95		8.99	--	0.00	19.83
	08/30/95		9.54	--	0.00	19.28
	11/29/95	28.78 (2)	9.90	--	0.00	18.88
	05/01/96		**9.25**	**--**	**0.00**	**19.53**
	08/05/96		**9.61**	**--**	**0.00**	**19.17**
MW-4	09/07/93	28.57	9.39	--	0.00	19.18
	11/16/93		9.60	--	0.00	18.97
	12/07/93		9.42	--	0.00	19.15
	01/06/94		9.44	--	0.00	19.13
	02/03/94		9.31	--	0.00	19.26
	03/04/94		9.05	--	0.00	19.52
	06/06/94		9.31	--	0.00	19.26
	11/09/94		8.68	--	0.00	19.89
	12/20/94		8.97	--	0.00	19.60
	03/29/95		8.46	--	0.00	20.11

TABLE 3, Continued

GROUNDWATER ELEVATION DATA

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	Top of Casing Elevation (ft. above MSL)	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Corrected Groundwater Elevation (ft. above MSL)
MW-4	05/24/95		8.86	--	0.00	19.71
	08/30/95		9.41	--	0.00	19.16
	11/29/95	28.53 (2)	9.72	--	0.00	18.81
	05/01/96		**9.17**	**--**	**0.00**	**19.36**
	08/05/96		**9.44**	**--**	**0.00**	**19.09**
MW-5	09/07/93	28.37	9.31	0.00	--	19.06
	11/16/93		9.99	9.45	0.54	18.81
	12/07/93		9.88	9.27	0.61	18.98
	01/06/94		9.85	9.27	0.58	18.98
	02/03/94		9.51	9.19	0.32	19.12
	03/04/94		8.99	8.96	0.03	19.40
	06/06/94		9.72	9.14	0.58	19.11
	11/09/94		8.58	8.56	0.02	19.81
	12/20/94		8.77	8.76	0.01	19.61
	03/29/95		8.31	--	0.00	20.06
	05/24/95		8.77	8.76	0.01	19.61
	08/30/95		9.50	9.19	0.31	19.12
	11/29/95	28.33 (2)	9.84	9.60	0.24	18.68
	05/01/96		**8.87**	**8.86**	**0.01**	**19.47**
	08/05/96		**9.37**	**9.36**	**0.01**	**18.97**
MW-6	09/07/93	28.41	9.53	--	0.00	18.88
	11/16/93		9.74	--	0.00	18.67
	12/07/93		9.58	--	0.00	18.83
	01/06/94		9.60	--	0.00	18.81
	02/03/94		9.47	--	0.00	18.94
	03/04/94		9.18	--	0.00	19.23
	06/06/94		9.46	--	0.00	18.95
	11/09/94		8.72	--	0.00	19.69
	12/20/94		9.00	--	0.00	19.41

TABLE 3, Continued

GROUNDWATER ELEVATION DATA

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	Top of Casing Elevation (ft. above MSL)	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Corrected Groundwater Elevation (ft. above MSL)
MW-6	03/29/95		8.44	--	0.00	19.97
	05/24/95		8.94	--	0.00	19.47
	08/30/95		9.43	--	0.00	18.98
	11/29/95	28.36 (2)	9.83	--	0.00	18.53
	05/01/96		**9.00**	--	**0.00**	**19.36**
	08/05/96		**9.55**	--	**0.00**	**18.81**
MW-7	09/07/93	28.56	9.61	--	0.00	18.95
	11/16/93		9.86	--	0.00	18.70
	12/07/93		9.58	--	0.00	18.98
	01/06/94		9.59	--	0.00	18.97
	02/03/94		9.56	9.39	0.17	19.14
	03/04/94		9.04	9.01	0.03	19.54
	06/06/94		9.67	9.37	0.30	19.13
	11/09/94		8.57	8.52	0.05	20.03
	12/20/94		9.08	8.67	0.41	19.81
	03/29/95		8.51	7.96	0.55	20.49
	05/24/95		8.98	8.81	0.17	19.72
	08/30/95		9.71	9.40	0.31	19.10
	11/29/95	28.44 (2)	9.86	9.84	0.02	18.60
	05/01/96		**8.94**	**8.85**	**0.09**	**19.57**
	08/05/96		**9.48**	**9.45**	**0.03**	**19.03**

TABLE 3, Continued

GROUNDWATER ELEVATION DATA

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	Top of Casing Elevation (ft. above MSL)	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Corrected Groundwater Elevation (ft. above MSL)
MW-8	11/29/95	28.17 (2)	8.92	--	0.00	19.25
	05/01/95		**8.42**	--	**0.00**	**19.75**
	08/05/96		**8.75**	--	**0.00**	**19.42**
MW-9	11/29/95	27.45 (2)	9.23	--	0.00	18.22
	05/01/96		**8.66**	--	**0.00**	**18.79**
	08/05/96		**8.94**	--	**0.00**	**18.51**
MW-10	11/29/95	27.32 (2)	8.73	--	0.00	18.59
	05/01/96		**NM (3)**	**NM**	**NM**	**NM**
	08/05/96		**8.5**	--	**0.00**	**18.82**
MW-11	11/29/95	28.56 (2)	10.16	--	0.00	18.40
	05/01/96		**9.12**	--	**0.00**	**1944**
	08/05/96		**9.62**	--	**0.00**	**18.94**

NOTES:
(1) MW-2 could not be located; well box was temporarily buried during tank excavation activities
(2) Top of casing reference elevations of all well were resurveyed on Nov. 29, 1995, following installation of MW-8, MW-9, and MW-11. Elevations relative to a found "cut-cross" in the top of the depressed curb at the mid return of the northwest corner of the intersection of Santa Clara Avenue and oak Street. Benchmark elevation taken as 28.455 feet above MSL
(3) MW-10 inaccessible due to parked car

MSL = Mean Sea Level

NM = Not Measured

Ground water elevations (GWE) are corrected for free product thickness (FPT) using the following equation: Corrected GWE = Top of Casing Elevation - (Measured Depth to Water - (0.8 x FPT))

Data prior to 11/09/94 from Environmental Science and Engineering, Inc.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH-d (µg/L)	HVOC's (ppb)
MW-1	01/07/93	110,000	14,000	17,000	2,500	8,800	ND (3,000)	1,2-DCE (470)
	09/07/93	28,000	11,000	2,100	380	1,200	1,000 (2)	NA
	12/07/93	17,000	10,000	3,000	610	2,000	1,800 (1)	NA
	03/04/94	6,600	4,400	870	150	590	920 (4)	NA
	06/06/94	12,000	6,300	230	ND (0.5)	ND (0.5)	710 (4)	NA
	11/09/94	28,000	9,500	3,000	810	2,300	250	NA
	12/20/94	5,600	3,000	92	86	76	ND (50)	NA
	03/29/95	24,000	5,800	3,100	390	1,300	ND (50)	NA
	05/24/95	2,500	800	280	31	130	ND (50)	NA
	08/30/95	48,000	14,000	3,500	620	1,600	800	NA
	11/29/95	120,000	42,000	22,000	2,300	9,900	ND (1000)	NA
	05/01/96	**49,800**	**11,800**	**5,720**	**121**	**3,160**	**ND (50)**	1,2-DCE (5.6)
	08/05/96	**54,600**	**17,400**	**7,440**	**1,130**	**3,880**	ND (50)	1,2-DCE (50.7)
MW-2	01/07/93	85,000	20,000	8,500	1,500	4,300	ND (3,000)	1,2-DCE (550)
	09/07/93	140,000	46,000	28,000	3,300	15,000	8,200 (2)	NA
	12/07/93	86,000	28,000	17,000	35,000	16,000	8,200 (2)	NA
	03/04/94	130,000	22,000	22,000	3,500	16,000	18,000 (4)	NA
	06/06/94	100,000	27,000	22,000	2,300	10,000	9,600 (5)	NA
	11/09/94	NSL	NSL	NSL	NSL	NSL	NSL	NA
	12/20/94	NSL	NSL	NSL	NSL	NSL	NSL	NA
	03/29/95	240,000	56,000	30,000	3,100	7,000	3,800	NA
	05/24/95	330,000	54,000	51,000	4,700	22,000	28,000	NA
	08/30/95	200,000	48,000	52,000	3,900	16,000	8,000	NA
	11/29/95	170,000	42,000	40,000	3,400	17,000	ND (1000)	NA
	05/01/96	**481,000**	**59,000**	**69,000**	**27,200**	**89,600**	**ND (50)**	1,2-DCE (61.8)
	08/05/96	**193,000**	**41,800**	**56,000**	**3,590**	**18,000**	ND (50)	1,2-DCE (83.2)
MW-3	01/07/93	8,500 (3)	170	70	ND (30)	ND (30)	ND (3,000)	NA
	09/07/93	2,800	19	46	7.7	23	2,500 (1)	NA
	12/07/93	3,000	17	43	13	28	520 (2)	NA
	03/04/94	2,300	22	46	9.0	27	1,300 (5)	NA
	06/06/94	1,900	3.9	ND (0.5)	9.0	27	1,600 (5)	NA
	11/09/94	2,800	2.6	17	17	32	ND (50)	NA
	12/20/94	2,700	10	62	24	59	ND (50)	NA
	03/29/95	1,200	230	230	13	37	500	NA
	05/24/95	5,700	ND (5)	73	20	57	ND (50)	NA
	08/30/95	3,100	ND (1.0)	29	13	28	ND (50)	NA
	11/29/95	13,000	39	59	7	33	ND (80)	NA
	05/01/96	**3,020**	**ND (1.0)**	**39.9**	**9.86**	**30.8**	ND (50)	ND
	08/05/96	**2,340**	**4.1**	**5.3**	**4.9**	**25.3**	ND (50)	ND

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

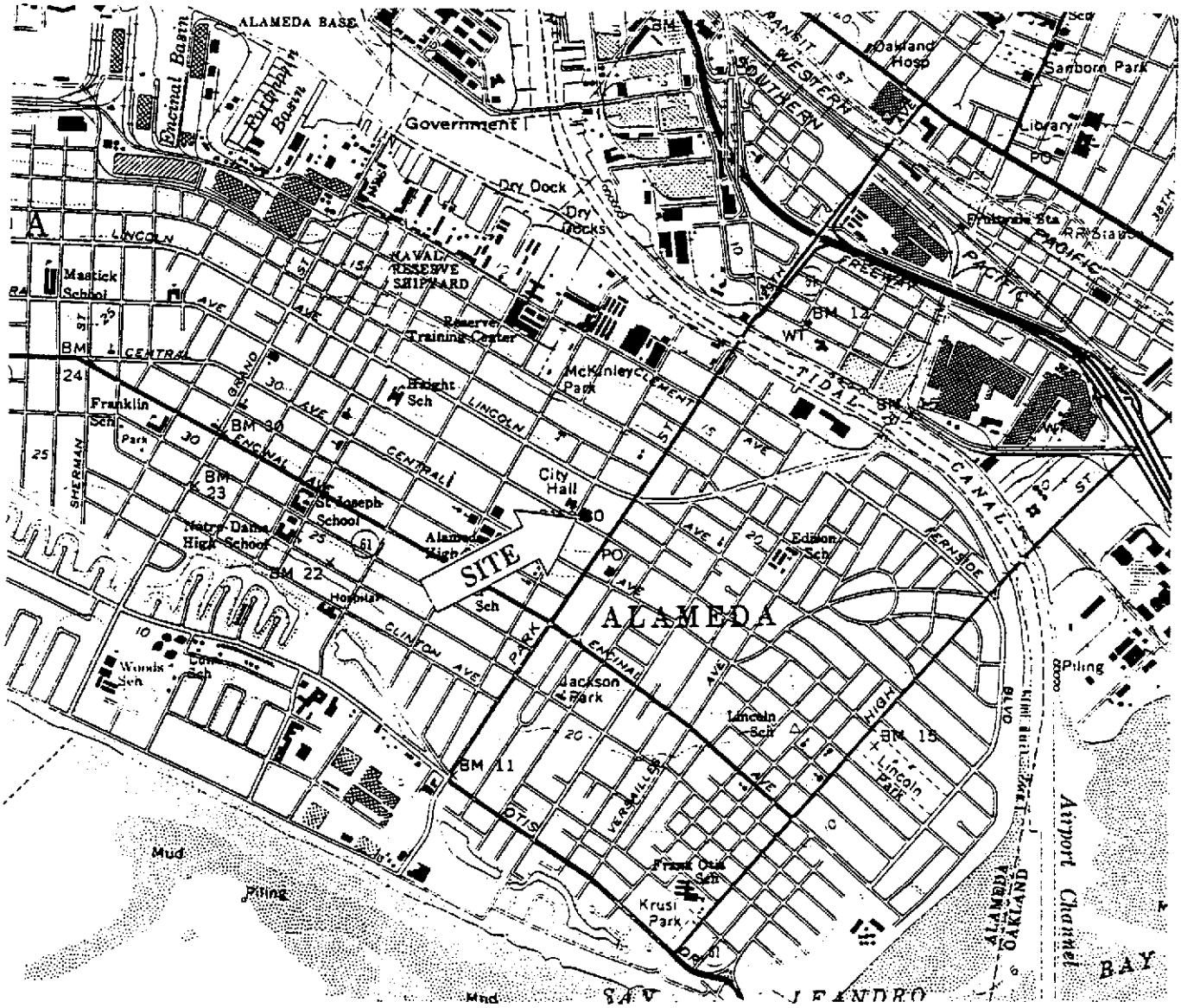
Well	Date	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH-d (µg/L)	HVOC's (ppb)
MW-4	09/07/93	440	2.7	1.2	1	1.9	330 (2)	NA
	12/07/93	610	6.6	0.5	0.61	2.5	460 (2)	NA
	03/04/94	110	ND (0.5)	ND (0.5)	ND (0.5)	0.63	56 (5)	NA
	06/06/94	68	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	68 (4)	NA
	11/09/94	90	0.7	1.1	0.5	2.1	ND(50)	NA
	12/20/94	130	2.2	33	4.8	27	ND (50)	NA
	03/29/95	ND (50)	ND (0.5)	0.5	ND (0.5)	ND (0.5)	ND (50)	NA
	05/24/95	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	NA
	08/30/95	**ND (50)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	ND (50)	NA
	11/29/95	100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	NA
	05/01/96	**ND (50)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (50)**	**ND**
	08/05/96	**ND (50)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (50)**	**ND**
MW-5	09/07/93	37,000	2,700	1,700	870	4,600	1,700 (2)	NA
	12/07/93	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	03/04/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	06/06/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	11/09/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	12/20/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	03/29/95	54,000	6,800	3,600	1,500	7,600	7,500	NA
	05/24/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	08/30/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	11/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	05/01/96	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**
	08/05/96	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**
MW-6	09/07/93	10,000	1,300	540	370	1,600	1,400 (2)	NA
	12/07/93	17,000	4,300	1,200	600	2,700	2,400 (2)	NA
	03/04/94	21,000	4,600	1,000	460	1,800	1,800 (4)	NA
	06/06/94	12,000	5,400	350	ND (0.5)	1,200	1,600 (4)	NA
	11/09/94	29,000	4,600	1,600	820	3,600	7,500	NA
	12/20/94	66,000	5,800	2,200	1,100	4,600	1,100	NA
	03/29/95	25,000	8,000	780	450	1,300	1,300	NA
	05/24/95	56,000	1,600	1,300	1,200	7,200	40,000	NA
	08/30/95	68,000	16,000	3,400	1,900	6,800	4,900	NA
	11/29/95	57,000	15,000	2,900	2,500	10,000	ND (900)	NA
	05/01/96	**39,500**	**7,400**	**2,540**	**1,270**	**4,470**	**ND (50)**	1,2-DCE (73.0)
	08/05/96	**71,200**	**22,600**	**4,000**	**2,100**	**7,030**	**ND (50)**	1,2-DCE (157)
MW-7	09/07/93	24,000	6,000	4,800	490	2,300	1,300	NA
	12/07/93	95,000	28,000	24,000	1,600	8,700	2,200	NA
	03/04/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	06/06/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	11/09/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	12/20/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	03/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	05/24/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	08/30/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	11/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	05/01/96	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**
	08/05/96	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**	**NSFP**

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well	Date	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH-d (µg/L)	HVOC's (ppb)
MW-8	11/29/95	7,400	260	40	140	190	ND (80)	NA
	05/01/96	**270**	**1.02**	**ND**	**1.10**	**1.87**	**ND (50)**	**ND**
	08/05/96	**1,100**	**22.6**	**3.4**	**11.2**	**12.7**	**ND (50)**	**1,1,2,2-TCE (2.5)**
MW-9	11/29/95	1,500	590	2	3	20	ND (50)	1,2-DCE (46)
	05/01/96	**230**	**142**	**0.78**	**ND**	**1.17**	**ND (50)**	**ND**
	08/05/96	**180**	**3.1**	**0.5**	**0.5**	**2.3**	**ND (50)**	**ND**
MW-10	11/29/95	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (2)	ND (950)	NA
	05/01/96	**NSR**	**NSR**	**NSR**	**NSR**	**NSR**	**NSR**	**NSR**
	08/05/96	**ND (50)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (50)**	**Chloroform (13.2)**
MW-11	11/29/95	3,200	14	31	15	570	ND (50)	NA
	05/01/96	**79**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**ND (0.5)**	**107**	ND
	08/05/96	**6,660**	**5,040**	**ND (0.5)**	**51.6**	**ND (0.5)**	**ND (50)**	1,2-DCE (16.0)

NOTES:

TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel
µg/L = micrograms per liter or parts per billion (ppb)
ND = Not Detected (detection limit in parentheses)
NSFP = Not Sampled - Free Product present
NSL = Not Samples - well could not be located
NSR = Not Sampled - well could not be reached
(1) = Results typical of a non-diesel mixture (<C16)
(2) = Results typical of a diesel and non-diesel mixture (<C16)
(3) = Results typical of weathered gasoline
(4) = Results typical of diesel and unidentified hydrocarbons (<C14)
(5) = Results typical of unidentified hydrocarbons (<C14)

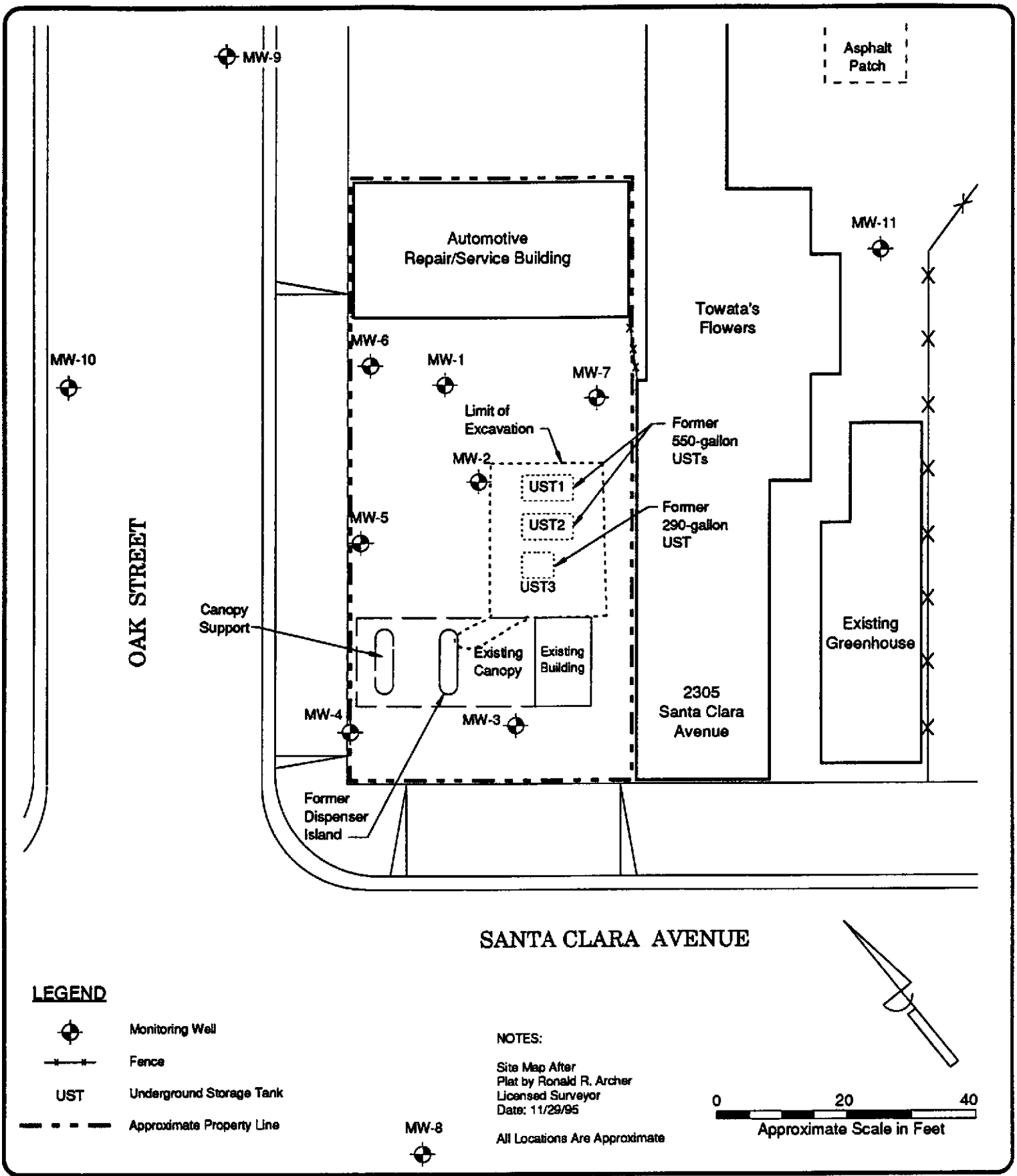


GENERAL NOTES:

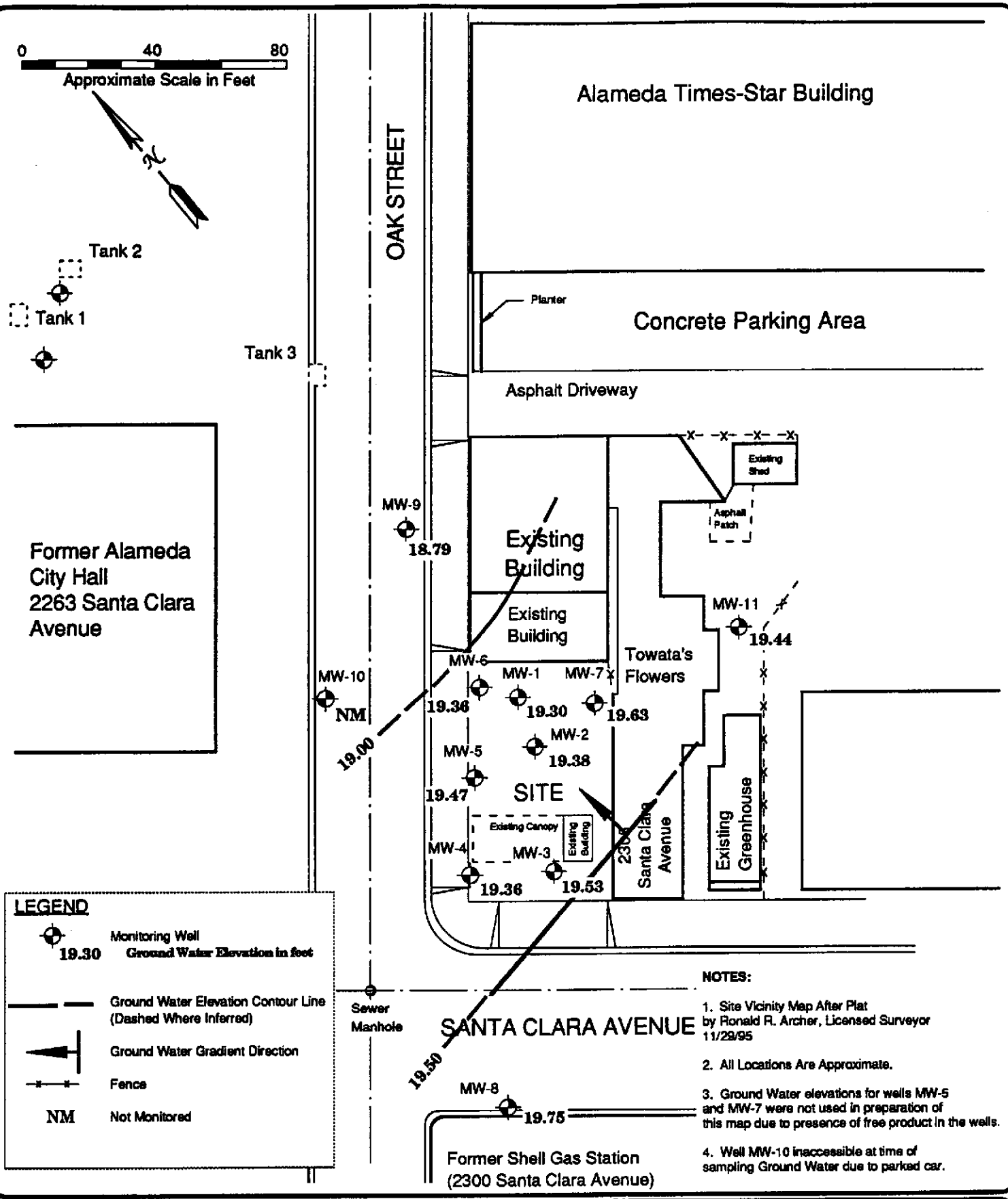
BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
OAKLAND EAST & WEST, CA

0 2000 4000
Approximate Scale in Feet

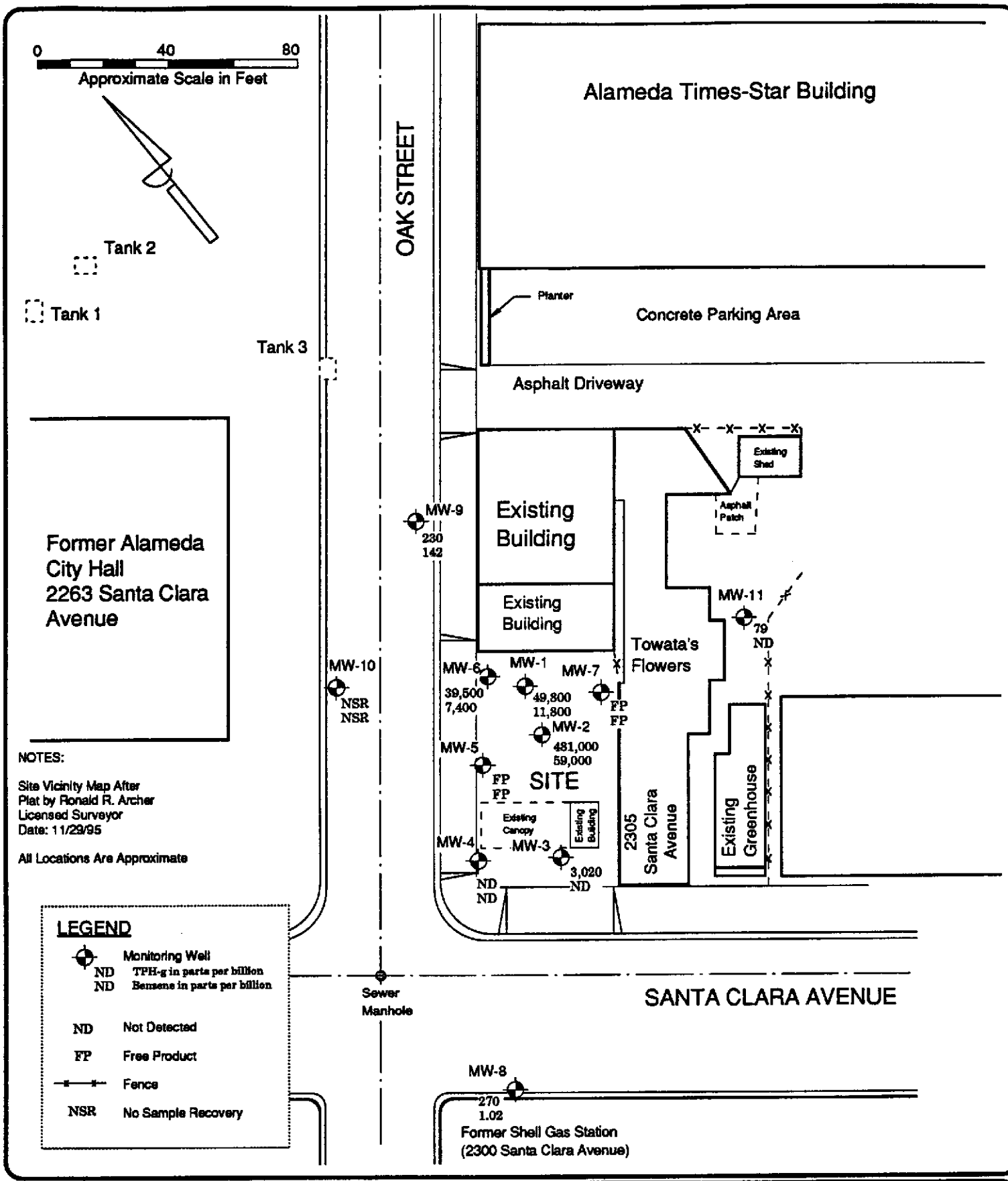
FUGRO	DRAWN BY: D. Hada DATE: January 5, 1995 REVISED BY: DATE:	SITE LOCATION MAP Former Bill Chun's Service Station 2301 Santa Clara Avenue Alameda, CA	FIGURE 1 PROJECT NUMBER: 95-37-0431



FUGRO	DRAWN BY: J. Scruggs DATE: December 28, 1995 REVISED BY: J. Paradis DATE: October 31, 1996	SITE MAP Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, CA	FIGURE 2 PROJECT NUMBER: 95-37-0431



TUGRO	DRAWN BY: J. Paradis DATE: October 31, 1996 REVISED BY: DATE:	POTENTIOMETRIC SURFACE MAP May 1, 1996 Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, CA	FIGURE 3 PROJECT NUMBER: 95-37-0741



FUGRO

DRAWN BY: J. Paradis

DATE: October 31, 1996

REVISED BY:

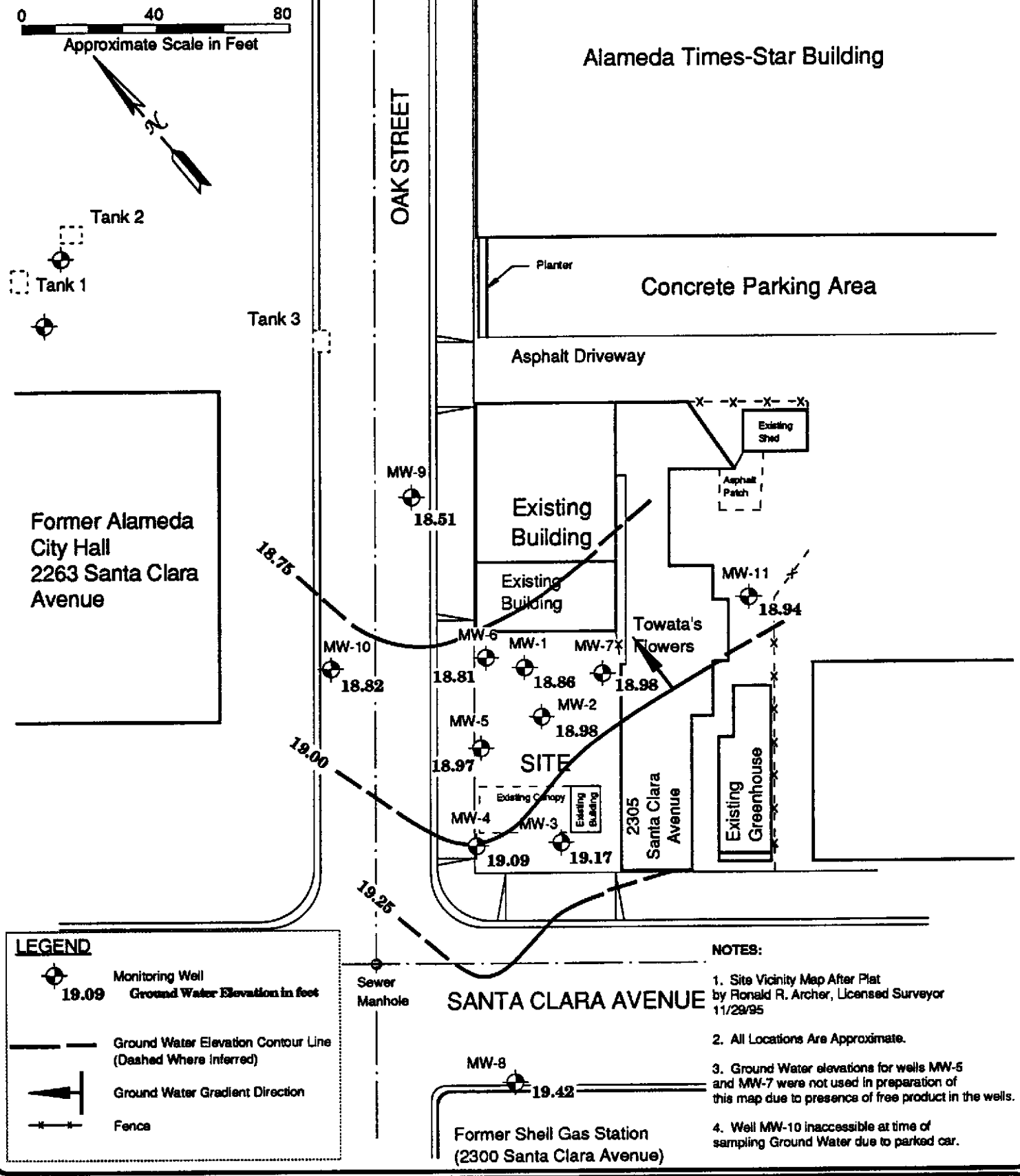
DATE:

DISTRIBUTION MAP OF TPH-g AND BENZENE IN GROUND WATER May 1, 1996

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, CA

FIGURE 4

PROJECT NUMBER: 95-37-0431



FUGRO

DRAWN BY: J. Paradis

DATE: October 31, 1996

REVISED BY:

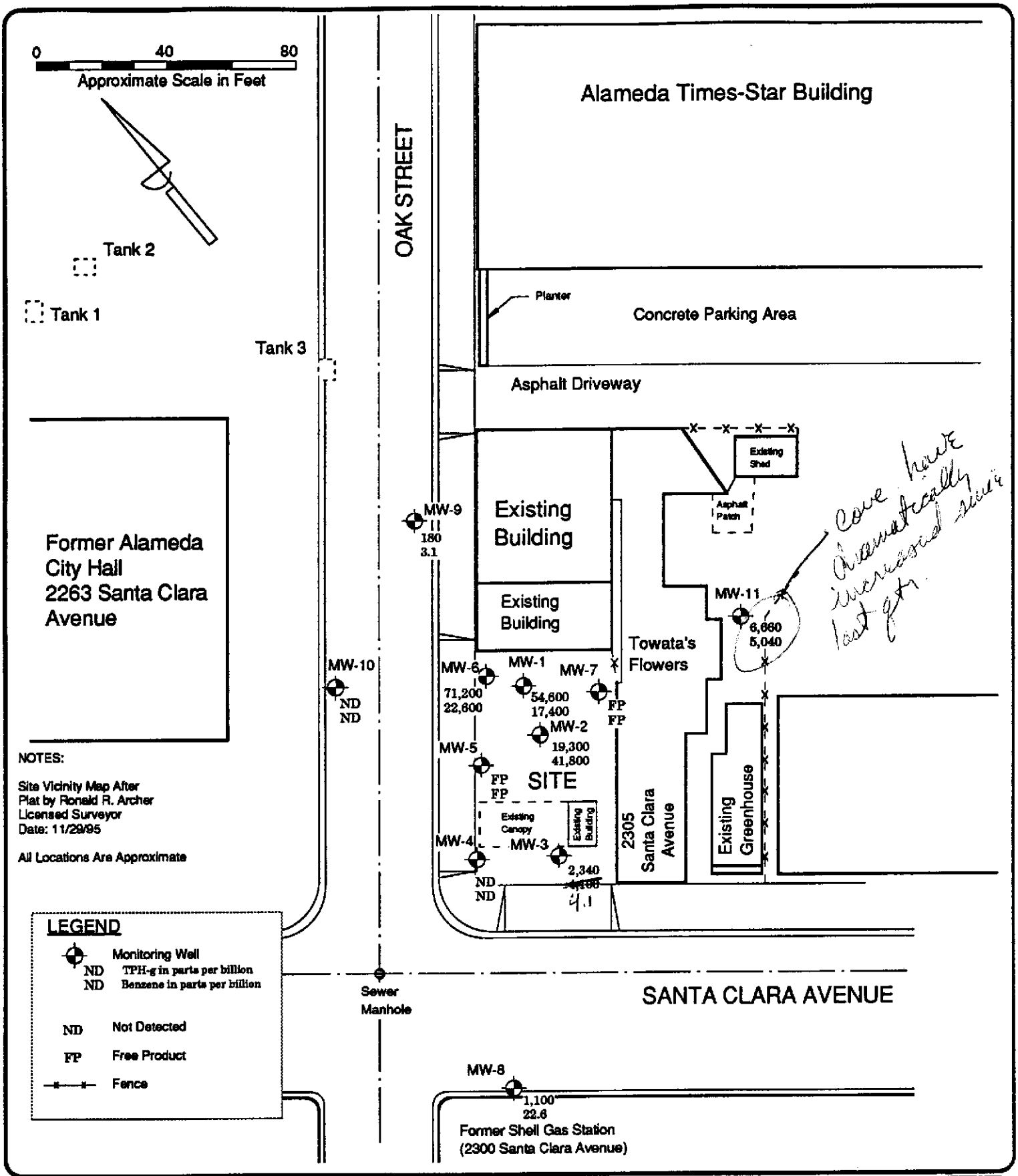
DATE:

POTENTIOMETRIC SURFACE MAP
August 5, 1996

Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, CA

FIGURE 5

PROJECT NUMBER: 95-37-0741



FUGRO

DRAWN BY: J. Paradis	DISTRIBUTION MAP OF TPH-g AND BENZENE IN GROUND WATER August 5, 1996
DATE: October 31, 1996	Former Bill Chun Service Station 2301 Santa Clara Avenue Alameda, CA
REVISED BY:	
DATE:	

FIGURE 6

PROJECT NUMBER: 95-37-0431

APPENDIX A

ANALYTICAL LABORATORY RESULTS OF GROUNDWATER SAMPLES

EXELCHEM ENVIRONMENTAL LABORATORIES

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST
44 Montgomery Street, Suite 1010
San Francisco, CA 94104

Project: 9537-0741 / Former Bill Chun's

Date Sampled: 05/01/96
Date Received: 05/02/96

Matrix: Water

Analyte	Sample I.D.: MW-1 Lab I.D.: W0596014 ppb (ug/L)			Sample I.D.: MW-2 Lab I.D.: W0596015 ppb (ug/L)			Sample I.D.: MW-3 Lab I.D.: W0596016 ppb (ug/L)		
	Results	R.L.	Analysis Date	Results	R.L.	Analysis Date	Results	R.L.	Analysis Date
Benzene	**11800**	200	5/13/96	**59000**	1000	5/13/96	ND	1.00	5/13/96
Toluene	**5720**	200	5/13/96	**69000**	1000	5/13/96	**39.9**	1.00	5/13/96
Ethylbenzene	**121**	20	5/13/96	**27200**	1000	5/13/96	**9.86**	1.00	5/13/96
Total Xylenes	**3160**	20	5/13/96	**89600**	1000	5/13/96	**30.8**	1.00	5/13/96
TPH as Gasoline	**49800**	2000	5/13/96	**481000**	100000	5/13/96	**3020**	100	5/13/96
TPH as Diesel	ND	50	5/9/96	ND	50	5/9/96	ND	50	5/9/96

Analyte	Sample I.D.: MW-4 Lab I.D.: W0596017 ppb (ug/L)			Sample I.D.: MW-6 Lab I.D.: W0596018 ppb (ug/L)			Sample I.D.: MW-8 Lab I.D.: W0596019 ppb (ug/L)		
	Results	R.L.	Analysis Date	Results	R.L.	Analysis Date	Results	R.L.	Analysis Date
Benzene	ND	0.5	5/13/96	**7400**	50	5/13/96	**1.02**	0.5	5/14/96
Toluene	ND	0.5	5/13/96	**2540**	50	5/13/96	ND	0.5	5/14/96
Ethylbenzene	ND	0.5	5/13/96	**1270**	50	5/13/96	**1.10**	0.5	5/14/96
Total Xylenes	ND	0.5	5/13/96	**4470**	50	5/13/96	**1.87**	0.5	5/14/96
TPH as Gasoline	ND	50	5/13/96	**39500**	5000	5/13/96	**270**	50	5/14/96
TPH as Diesel	ND	50	5/9/96	ND	50	5/9/96	ND	50	5/9/96

ppb = parts per billion = microgram per Liter
R.L. = Reporting Limit
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylene isomers are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector.

TPHg - Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed using modified EPA Method 8015 which utilizes a gas chromatograph (GC) equipped with a flame ionization detector (FID).

Laboratory Representative

05/16/96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Bill Bassett FUGRO-WEST 44 Montgomery Street, Suite 1010 San Francisco, CA 94104	Date Sampled: Date Received:	05/01/96 05/02/96
Project:	9537-0741 / Former Bill Chun's	Matrix:	Water

Analyte	Sample I.D.: **MW-9** Lab I.D.: **W0596020** ppb (ug/L)			Sample I.D.: **MW-11** Lab I.D.: **W0596021** ppb (ug/L)		
	Results	R.L.	Analysis Date	Results	R.L.	Analysis Date
Benzene	**142**	5.0	5/14/96	ND	0.5	5/14/96
Toluene	**0.78**	0.5	5/14/96	ND	0.5	5/14/96
Ethylbenzene	ND	0.5	5/14/96	ND	0.5	5/14/96
Total Xylenes	**1.17**	0.5	5/14/96	ND	0.5	5/14/96
TPH as Gasoline	**230**	50	5/14/96	**79**	50	5/14/96
TPH as Diesel	ND	50	5/10/96	**107***	50	5/10/96

ppb = parts per billion = microgram per Liter
R.L. = Reporting Limit
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.
* = Peaks in diesel range, however, sample chromatography does not resemble our diesel standard chromatography.

ANALYTICAL PROCEDURES

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylene isomers are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector.

TPHg - Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed using modified EPA Method 8015 which utilizes a gas chromatograph (GC) equipped with a flame ionization detector (FID).

Laboratory Representative

05/16/96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention:	Mr. Bill Bassett FUGRO-WEST, INC. 44 Montgomery Street, Suite 1010 San Francisco, CA 94104	BTEX Analyzed: Matrix:	05-13-96 Water
Project:	9537-0741 / Former Bill Chun's		

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB
Reporting Limit:	0.5	0.5	0.5	0.5
QA/QC PARAMETER				
Matrix Blank	ND	ND	ND	ND
PERCENT RECOVERIES				
Matrix Spike	97%	96%	97%	97%
Matrix Spike Duplicate	101%	100%	101%	102%

ppb = parts per billion = ug/L = microgram per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

All surrogate recoveries were within 30% of target values.
Spikes & Spike Duplicates were each spiked with 250 ng BTEX standard.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

Laboratory Representative

05-16-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention:	Mr. Bill Bassett FUGRO-WEST, INC. 44 Montgomery Street, Suite 1010 San Francisco, CA 94104	TPHd Analyzed: Matrix:	05-13-96 Water
Project:	9537-0741 / Former Bill Chun's		

	TPHd PPB
Reporting Limit:	50
QA/QC PARAMETER	
Matrix Blank	ND
PERCENT RECOVERIES	
Laboratory Control Spike	111%
Laboratory Control Spike Duplicate	109%

ppb = parts per billion = ug/L = microgram per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Spikes & Spike Duplicates were each spiked with 5000 ug of diesel standard.

ANALYTICAL PROCEDURES

TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

05-16-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST, INC.
44 Montgomery Street, Suite 1010
San Francisco, CA 94104
Project: 9537-0741 / Former Bill Chun's

Date Analyzed: 05-06-96
Matrix: Water

Compound	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery
Trichlorofluoromethane	96%	92%
Carbon Tetrachloride	113%	116%
Dibromodichloromethane	121%	122%
1,2-Dichlorobenzene	130%	135%

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention:	Mr. Bill Bassett FUGRO-WEST, INC. 44 Montgomery Street, Suite 1010 San Francisco, CA 94104	Date Analyzed: Matrix:	05-09-96 Water
Project:	9537-0741 / Former Bill Chun's		

Compound	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery
Trichlorofluoromethane	97%	94%
Carbon Tetrachloride	94%	93%
Dibromodichloromethane	85%	84%
1,2-Dichlorobenzene	80%	85%

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Bill Bassett	Date Sampled:	05-01-96
	FUGRO-WEST, INC.	Date Received:	05-02-96
	44 Montgomery Street, Suite 1010	Date Analyzed:	05-06/09-96
	San Francisco, CA 94104	Matrix:	Water
Project :	9537-0741 / Former Bill Chun's		
Sample ID:	MW-1		
Lab ID :	W0596014		

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	5.6
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -		
	Bromochloromethane	86%
	4-Bromofluorobenzene	75%
	2-Bromochlorobenzene	16%*

* = Low recovery due to matrix interference.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST, INC.
44 Montgomery Street, Suite 1010
San Francisco, CA 94104

Project : 9537-0741 / Former Bill Chun's
Sample ID: MW-2
Lab ID : W0596015

Date Sampled: 05-01-96
Date Received: 05-02-96
Date Analyzed: 05-09-96
Matrix: Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	2.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	5.0	61.8
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -		
	Bromochloromethane	117%
	4-Bromofluorobenzene	61%*
	2-Bromochlorobenzene	1.0%*

* = Low recovery due to matrix interference.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST, INC.
44 Montgomery Street, Suite 1010
San Francisco, CA 94104

Project : 9537-0741 / Former Bill Chun's
Sample ID: MW-3
Lab ID : W0596016

Date Sampled: 05-01-96
Date Received: 05-02-96
Date Analyzed: 05-06-96
Matrix: Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -

Bromochloromethane	140%
4-Bromofluorobenzene	116%
2-Bromochlorobenzene	117%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Bill Bassett	Date Sampled:	05-01-96
	FUGRO-WEST, INC.	Date Received:	05-02-96
	44 Montgomery Street, Suite 1010	Date Analyzed:	05-06-96
	San Francisco, CA 94104	Matrix:	Water
Project :	9537-0741 / Former Bill Chun's		
Sample ID:	MW-4		
Lab ID :	W0596017		

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -		
	Bromochloromethane	124%
	4-Bromofluorobenzene	107%
	2-Bromochlorobenzene	113%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Bill Bassett	Date Sampled:	05-01-96
	FUGRO-WEST, INC.	Date Received:	05-02-96
	44 Montgomery Street, Suite 1010	Date Analyzed:	05-06/09-96
	San Francisco, CA 94104	Matrix:	Water
Project :	9537-0741 / Former Bill Chun's		
Sample ID:	MW-6		
Lab ID :	W0596018		

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	5.0	73.0
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -		
	Bromochloromethane	126%
	4-Bromofluorobenzene	107%
	2-Bromochlorobenzene	38%*

* = Low recovery due to matrix interference.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST, INC.
44 Montgomery Street, Suite 1010
San Francisco, CA 94104
Project : 9537-0741 / Former Bill Chun's
Sample ID: MW-8
Lab ID : W0596019

Date Sampled: 05-01-96
Date Received: 05-02-96
Date Analyzed: 05-06-96
Matrix: Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -

Bromochloromethane	117%
4-Bromofluorobenzene	95%
2-Bromochlorobenzene	97%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Bill Bassett
FUGRO-WEST, INC.
44 Montgomery Street, Suite 1010
San Francisco, CA 94104
Project : 9537-0741 / Former Bill Chun's
Sample ID: MW-9
Lab ID : W0596020

Date Sampled: 05-01-96
Date Received: 05-02-96
Date Analyzed: 05-06/09-96
Matrix: Water

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -

Bromochloromethane	133%
4-Bromofluorobenzene	104%
2-Bromochlorobenzene	106%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Bill Bassett	Date Sampled:	05-01-96
	FUGRO-WEST, INC.	Date Received:	05-02-96
	44 Montgomery Street, Suite 1010	Date Analyzed:	05-06-96
	San Francisco, CA 94104	Matrix:	Water
Project :	9537-0741 / Former Bill Chun's		
Sample ID:	MW-11		
Lab ID :	W0596021		

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Chloromethane	1.0	ND
Vinyl Chloride	1.0	ND
Bromomethane	1.0	ND
Chloroethane	1.0	ND
Trichlorofluoromethane	1.0	ND
1,1-Dichloroethene	1.0	ND
Methylene Chloride	1.0	ND
Trans-1,2-Dichloroethene	1.0	ND
1,1-Dichloroethane	1.0	ND
1,1,1-Trichloroethane	1.0	ND
Carbon Tetrachloride	1.0	ND
1,2-Dichloroethane	1.0	ND
Trichloroethene	1.0	ND
1,2-Dichloropropane	1.0	ND
Bromodichloromethane	1.0	ND
Cis-1,3-Dichloropropene	1.0	ND
Trans-1,3-Dichloropropene	1.0	ND
1,1,2-Trichloroethane	1.0	ND
Tetrachloroethene	1.0	ND
Dibromochloromethane	1.0	ND
Chlorobenzene	1.0	ND
Bromoform	1.0	ND
1,1,2,2-Tetrachloroethane	1.0	ND
1,3-Dichlorobenzene	1.0	ND
1,4-Dichlorobenzene	1.0	ND
1,2-Dichlorobenzene	1.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -		
	Bromochloromethane	145%
	4-Bromofluorobenzene	116%
	2-Bromochlorobenzene	146%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 601 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with an electrolytic conductivity detector.

Laboratory Representative

05-14-96
Date Reported

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Bill Bassett
Phone #: 415/ 296-1041

Company/Address: 44 Montgomery St. FAX #:
FUGRO SAN FRANSISCO, CA.

Project Number: 9537-[redacted]0741
P.O.#:
Project Name: Former Bill Chun's

Project Location: Alameda, CA.
Sampler Signature:

ANALYSIS REQUEST 596023

TAT

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO_3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	W.E.T. (#)	TOTAL (#)	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
MW-1	5-1-96	1:39	6		1						X			X	X					X						WO596014								X
MW-2	5-1-96	11:41																								WO596015								
MW-3	5-1-96	10:30																								WO596016								
MW-4	5-1-96	11:17																								WO596017								
MW-6	5-1-96	12:36																								WO596018								
MW-8	5-1-96	9:29																								WO596019								
MW-9	5-1-96	8:58																								WO596020								
MW-10	NOT SAMPLED																																			
MW-11	5-1-96	8:22																								WO596021								

Relinquished by:	Date	Time	Received by:	Remarks:
	5/2/96			
Relinquished by	Date	Time	Received by:	
Relinquished by	Date 5/2/96	Time 9:50	Received by Laboratory: Kim R. Cook	Bill To:

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Peter Hudson
FUGRO-WEST, INC.
44 Montgomery Street
San Francisco, CA 94104

Date Sampled : 08-05-96
Date Received: 08-08-96
BTEX Analyzed: 08-16-96
TPHg Analyzed: 08-16-96
Matrix: Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	200	200	20	20	2000
SAMPLE Laboratory Identification:					
MW1 W0896162	17400	7440	1130	3880	54600
MW6 W0896166	22600	4000	2100	7030	71200

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	BTEX Analyzed:	08-16-96
	San Francisco, CA 94104	TPHg Analyzed:	08-16-96
		Matrix:	Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	2.0	2.0	2.0	2.0	200
SAMPLE Laboratory Identification:					
MW3 W0896164	4.1	5.3	4.9	25.3	2340

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	BTEX Analyzed:	08-16-96
	San Francisco, CA 94104	TPHg Analyzed:	08-16-96
		Matrix:	Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	0.5	0.5	0.5	0.5	50
SAMPLE Laboratory Identification:					
MW4 W0896165	ND	ND	ND	ND	ND
MW8 W0896167	22.6	3.4	11.2	12.7	1100
MW9 W0896168	3.1	0.5	0.5	2.3	180
MW10 W0896169	ND	ND	ND	ND	ND

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	BTEX Analyzed:	08-16-96
	San Francisco, CA 94104	TPHg Analyzed:	08-16-96
		Matrix:	Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	500	500	100	100	10000
SAMPLE Laboratory Identification:					
MW2 W0896163	41800	56000	3590	18000	193000

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention: Mr. Peter Hudson
FUGRO-WEST, INC.
44 Montgomery Street
San Francisco, CA 94104

Date Sampled : 08-05-96
Date Received: 08-08-96
BTEX Analyzed: 08-16-96
TPHg Analyzed: 08-16-96
Matrix: Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB	TPHg PPB
Reporting Limit:	100	20	20	20	2000
SAMPLE Laboratory Identification:					
MW11 W0896170	5040	ND	51.6	ND	6660

ppb= Parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).
TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

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Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	TPHd Analyzed:	08-20-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

	Reporting Limit (PPB)	TPHd Result (PPB)
SAMPLE Laboratory Identification		
MW-1 S0896162	2500	ND*
MW-2 S0896163	2500	ND*
MW-3 S0896164	50	ND
MW-4 S0896165	50	ND
MW-6 S0896166	2500	ND*

PPB = Parts per billion = ug/L = micrograms per Liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.
* = Diesel may be masked by high levels of gasoline.

ANALYTICAL PROCEDURES

TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

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Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	TPHd Analyzed:	08-20-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

	Reporting Limit (PPB)	TPHd Result (PPB)
SAMPLE Laboratory Identification		
MW-8 S0896167	50	ND
MW-9 S0896168	50	ND
MW-10 S0896169	50	ND
MW-11 S0896170	50	ND

PPB = Parts per billion = ug/L = micrograms per Liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

TPHd--Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510 followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
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500 Giuseppe Court, Suite 9
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Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun
Sample ID: MW1
Lab ID: W0896162

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	50.7
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1.3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	97%
	Toluene-d8	99%
	4-Bromofluorobenzene	92%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW2
Lab ID: W0896163

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	83.2
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	104%
	Toluene-d8	121%
	4-Bromofluorobenzene	92%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW3
Lab ID: W0896164

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	ND
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	93%
	Toluene-d8	99%
	4-Bromofluorobenzene	94%

ANALYTICAL PROCEDURES

HV–Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

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ENVIRONMENTAL LABS

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Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW4
Lab ID: W0896165

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	ND
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1.3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1.2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	88%
	Toluene-d8	98%
	4-Bromofluorobenzene	94%

ANALYTICAL PROCEDURES

HV–Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW6
Lab ID: W0896166

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	25	157
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	106%
	Toluene-d8	154%
	4-Bromofluorobenzene	90%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW8
Lab ID: W0896167

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	ND
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	2.5
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	86%
	Toluene-d8	99%
	4-Bromofluorobenzene	92%

ANALYTICAL PROCEDURES

HV–Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

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Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW9
Lab ID: W0896168

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	ND
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	86%
	Toluene-d8	98%
	4-Bromofluorobenzene	92%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

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ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
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Phone#: (916) 773-3664 Fax#: (916) 773-4784

ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-16-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW10
Lab ID: W0896169

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	13.2
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	ND
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	88%
	Toluene-d8	96%
	4-Bromofluorobenzene	96%

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

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ANALYSIS REPORT

Attention:	Mr. Peter Hudson	Date Sampled :	08-05-96
	FUGRO-WEST, INC.	Date Received:	08-08-96
	44 Montgomery Street	Date Analyzed:	08-14-96
	San Francisco, CA 94104	Matrix:	Water

Project: 9537-0741/Former Bill Chun

Sample ID: MW11
Lab ID: W0896170

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Dichlorodifluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Bromomethane	2.0	ND
1,1-Dichloroethene	2.0	ND
Methylene Chloride	5.0	ND
Trans-1,2-Dichloroethene	2.0	ND
1,1-Dichloroethane	2.0	ND
Chloroform	2.0	ND
1,1,1-Trichloroethane	2.0	ND
Carbon Tetrachloride	2.0	ND
1,2-Dichloroethane	2.0	16.0
Iodomethane	2.0	ND
Trichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
Bromodichloromethane	2.0	ND
Cis-1,3-Dichloropropene	2.0	ND
Trans-1,3-Dichloropropene	2.0	ND
Tetrachloroethene	2.0	ND
Dibromochloromethane	2.0	ND
Chlorobenzene	2.0	ND
Bromoform	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
1,2-Dichlorobenzene	2.0	ND

ppb = parts per billion = ug/L = micrograms per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit

Surrogate Recoveries -	1,2-Dichloroethane-d4	88%
	Toluene-d8	96%
	4-Bromofluorobenzene	89%

ANALYTICAL PROCEDURES

HV–Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention: Mr. Peter Hudson
FUGRO-WEST, INC.
44 Montgomery Street
San Francisco, CA 94104

Date Analyzed : 08-16-96
Matrix: Water

Project: 9537-0741/Former Bill Chun

	Benzene PPB	Toluene PPB	Ethyl-benzene PPB	Total Xylenes PPB
Reporting Limit:	0.5	0.5	0.5	0.5
QA/QC PARAMETER				
Matrix Blank	ND	ND	ND	ND
PERCENT RECOVERIES				
Matrix Spike	100%	97%	95%	97%
Matrix Spike Duplicate	102%	98%	97%	99%

ppb = parts per billion = ug/L = microgram per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

All surrogate recoveries were within 30% of target values.
Spikes & Spike Duplicates were each spiked with 250 ng BTEX standard.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention: Mr. Peter Hudson
FUGRO-WEST, INC.
44 Montgomery Street
San Francisco, CA 94104

Date Analyzed : 08-20-96
Matrix: Water

Project: 9537-0741/Former Bill Chun

	TPHd PPB
Reporting Limit:	50
QA/QC PARAMETER	
Matrix Blank	ND ✓
PERCENT RECOVERIES	
Laboratory Control Spike	86% ✓
Laboratory Control Spike Duplicate	70%

ppb = parts per billion = ug/L = microgram per liter
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Spikes & Spike Duplicates were each spiked with 5000 ug of diesel standard.

ANALYTICAL PROCEDURES

TPHd--Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3510, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

08-22-96
Date Reported

EXCELCHEM
ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9
Roseville, CA 95678
Phone#: (916) 773-3664 Fax#: (916) 773-4784

QA/QC REPORT

Attention: Mr. Peter Hudson
FUGRO-WEST, INC.
44 Montgomery Street
San Francisco, CA 94104

Date Analyzed : 08-14-96
Matrix: Water

Project: 9537-0741/Former Bill Chun

Compound	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery
1,1-Dichloroethene	78%	78%
Trichloroethene	86%	88%
Chlorobenzene	120%	93%

ppb = parts per billion = ug/L = microgram per liter.
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

ANALYTICAL PROCEDURES

HV--Halogenated Volatiles are measured using EPA Method 624 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

Laboratory Representative

08-22-96
Date Reported

Excelchem
Environmental Labs

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: PETER HUDSON
Phone #: (415)296-1041

Company/Address: FUGRO
FAX #: (415)296-0944
44 MONTGOMERY ST SAN FRANCISCO, CA 94104

Project Number: 9537-0741
P.O.#:
Project Name: FORMER BILL CHUN

Project Location: 2301 SANTA CLARA AVE ALAMEDA, CA.
Sampler Signature:

ANALYSIS REQUEST 896047

TAT

Sample ID	Sampling DATE	Sampling TIME	Container: VOA (1)	Container: SLEEVE	Container: 1L GLASS (2)	Container: 1L PLASTIC	Method Preserved: HCl (1)	Method Preserved: HNO_3	Method Preserved: ICE	Method Preserved: NONE (2)	Matrix: WATER	Matrix: SOIL	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015)	TPH as Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	W.E.T. (Y)	TOTAL (Y)						RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
MW1	8/5/96	1200	6		1		X				X			X	X					X							W	0	8	9	6	1	6	2						X
MW2		1130																														1	6	3						
MW3		0940																														1	6	4						
MW4		0950																														1	6	5						
MW6		1145																														1	6	6						
MW8		1025																														1	6	7						
MW9		0820																														1	6	8						
MW10		0755																														1	6	9						
MW11		0845																										W	0	8	9	6	1	7	0						

Relinquished by:	Date	Time	Received by:
	8/8/96	1000	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	8/8/96	1600	

Remarks: Run 624 in lieu of 601 as per Peter H. 8-13-96

Bill To: