

FUGRO WEST, INC.

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LETTER OF TRANSMITTAL

To: Environmental Health Services Project No. 9537-0741
 1131 Harbor Bay Parkway, Suite 250 Date 11/22/96
 Alameda, CA 94502-6577

Attn: Ms. Juliet Shin

Phone: 510-567-6700 Fax No. 510-337-9335

From Peter B. Hudson

Subject First and Second Quarter 1996 Ground Water Monitoring Report

SENT BY:

- Messenger Overnight Mail Overnight (by 10 AM) Regular mail Hand Delivered

WE ARE TRANSMITTING:

- Draft Report
 Final Report
 Proposal
 Other:

THESE ARE TRANSMITTED:

- For Your Review
 For Your Information and Use
 Per Your Request
 Other:

We are sending you a copy of the First and Second Quarter 1996 Ground Water Monitoring Report for the Former Bill Chun Service Station at 2301 Santa Clara Avenue in Alameda, California. If you have any questions or comments, please call me at 415-296-1041. Thank you for the opportunity to be of service.

Signature

Date

FOR OFFICE USE ONLY

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June 30, 1998
Project No. 8700688.200

3838

Mr. Wayne Chun
265 Heron Drive
Pittsburg, California 94565

Subject: **Second Quarter 1998 Groundwater Monitoring Report**
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Dear Mr. Chun:

This report documents results of quarterly groundwater monitoring and sampling conducted on May 8, 1998, at the former Bill Chun Service Station located at 2301 Santa Clara Avenue, Alameda, California (subject property). A site location map is provided as Figure 1, and site maps are provided as Figures 2 and 3.

BACKGROUND

In July 1992, three underground storage tanks (USTs), two 550 gallon and one 285 gallon capacity, were removed from the subject property by Parker Environmental Services. During removal, it was discovered that the 285-gallon gasoline UST had leaked. Analysis of soil samples indicated total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) had impacted the subsurface soil.

Several assessment activities were conducted at the subject property to determine the extent of the petroleum-impacted soil and groundwater. These activities consisted of soil and groundwater monitoring and testing and free product recovery. Other consultants installed six monitoring wells 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. 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).

Monitoring wells MW-1, MW-2, and MW-3 were installed with the screened casing depth below the current surface of the groundwater. It is suspected that if floating gasoline product is present in the vicinity of monitoring wells MW-1, MW-2, and MW-3, accurate assessment of its extent and quantity may not be possible due to the position of the screens.



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In November 1995, Fugro West Inc. (Fugro) installed off-site monitoring wells MW-8, MW-9, MW-10, and MW-11 to assess the lateral extent and migration of TPH-g and BTEX in the groundwater.

Quarterly groundwater monitoring and sampling has occurred at the subject property since January 1993. ENSR (formerly Fugro) has conducted quarterly monitoring activities at the subject property since November 1994. Since that time, groundwater flow directions ranged from the northwest to the northeast. Free-phase product and residual sheens have been detected in monitoring well MW-5 since November, 1993 and in MW-7 since February, 1994.

GROUNDWATER MONITORING

Groundwater Levels in Monitoring Wells

ENSR collected water level data from groundwater monitoring wells MW-1 through MW-11 on May 8, 1998. The measurements were recorded to the nearest 0.01 foot from the referenced (top of casing) elevations. Groundwater elevations have decreased an average of 0.3 feet since the last monitoring event in January of 1998. The potentiometric surface of groundwater beneath the site on January 30, 1998 is shown on Figure 2. Water level data is summarized in Table 1. Groundwater elevation data indicated a hydraulic gradient of approximately 0.009 feet per foot in a northerly direction.

Monitoring Well Sampling

On January 30, 1998, groundwater monitoring wells MW-1 through MW-11 were monitored for groundwater depth and the presence of free-phase floating product. Groundwater samples were collected from monitoring wells MW-3, MW-4, MW-8, MW-9, MW-10, and MW-11. They were submitted to Sequoia Analytical, a California state certified laboratory, for analysis of TPH-g, BTEX, and methyl tertiary-butyl ether (MTBE). ~~Monitoring wells MW-1, MW-2, MW-5, MW-6, and MW-7 were not sampled because visible product sheen was observed on the groundwater within these monitoring wells.~~

Quarterly groundwater samples have been analyzed for MTBE since the June 1997 quarterly event. MTBE is found in most gasoline as an octane enhancing and oxygenating compound and has been used in California since 1990. MTBE is readily water-soluble and degrades at a relatively slower rate than other volatile constituents of gasoline.

Quarterly groundwater samples have been analyzed for volatile organic compounds (VOCs) since May 1996. In a meeting on June 5, 1997 with Alameda County Environmental Health Division (ACEHD), ENSR requested that the sampling frequency for VOC analysis be reduced to semi-annual and analysis of VOCs from monitoring wells MW-3 and MW-4 be discontinued.



Mr. Wayne Chun
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The reduction of sampling frequency for VOCs was based on the consistent detection of 1,2 dichloroethene (1,2 DCE) (ethylene dichloride). ENSR expects that the source of 1,2 DCE is the gasoline present in the soil and groundwater at the subject property or an off site source. Semi-annual sampling for VOCs will take place in April 1998.

Groundwater samples collected since November of 1995 have not contained detectable levels of total petroleum hydrocarbons as diesel (TPH-d); thus, diesel analyses were not performed. Historically, diesel fuel was not dispensed at the former Bill Chun station. It is expected that the previous diesel detection reflected high boiling point range hydrocarbons from the gasoline previously released to the subsurface.

The distribution of TPH identified as gasoline and benzene in groundwater from the January 30, 1998 sampling event is included on Figure 4. Monitoring well sampling documentation is included as Attachment 2. Laboratory analytical reports and chain of custody documentation are included as Attachment 3.

The results of groundwater elevation data and concentrations of TPH-g, BTEX, and MTBE are summarized in Table 1. Laboratory data reports and chain of custody forms are included in Attachment A. ENSR's Standard Operating Procedures for groundwater monitoring and sampling is provided in Attachment B. Groundwater analytical results are summarized in Table 3.



Mr. Wayne Chun
June 30, 1998
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REMARKS

ENSR has performed its services in a manner consistent with the standards of care and skill ordinarily exercised by members of the profession practicing under similar conditions in the geographic vicinity and at the time the services were performed. No warranty or guarantee, is expressed or implied.

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.

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 (916) 362-7100.

Sincerely,
ENSR

Annette Cornelius,
Staff Geologist

Alan D. Gibbs, R.G., C.H.G.
Client Service Center Manager

AC:AG:em

cc: Barney Chan, Alameda County Division of Environmental Health

Attachments

ATTACHMENTS

TABLES

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- TABLE 2..... GROUNDWATER LEVEL DATA
- TABLE 3..... GROUNDWATER ANALYTICAL RESULTS

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- FIGURE 2..... SITE VICINITY MAP
- FIGURE 3..... POTENTIOMETRIC SURFACE MAP
May 8, 1998
- FIGURE 4..... DISTRIBUTION MAP OF TOTAL PETROLEUM HYDROCARBONS
AS GASOLINE AND BENZENE IN GROUNDWATER
May 8, 1998

ATTACHMENTS

- ATTACHMENT A..... STANDARD OPERATING PROCEDURES
- ATTACHMENT B..... FIELD DOCUMENTATION
- ATTACHMENT C..... LABORATORY ANALYTICAL REPORT

TABLE 1
GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
MAY 8, 1998
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well Number	Groundwater Elevation (feet amsl)	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1	19.93	--	--	--	--	--	--
MW-2	20.06	--	--	--	--	--	--
MW-3	20.16	2,170	4.92	<2.5	<2.5	<2.5	--
MW-4	20.01	<50.0	<0.5	<0.5	<0.5	<0.5	--
MW-5	19.98	--	--	--	--	--	--
MW-6	19.87	--	--	--	--	--	--
MW-7	20.13	--	--	--	--	--	--
MW-8	20.13	178	13.6	3.29	3.65	4.34	--
MW-9	19.36	1,500	891	18.2	14.1	<10	--
MW-10	19.74	<50.0	<0.5	<0.5	<0.5	<0.5	--
MW-11	20.15	2,050	15.3	6.11	118	179	--
MCL	NA	NA	1.0	1,000	680	1,750	NA

NOTES:

- amsl = above mean sea level
- µg/L = micrograms per liter (which is approximately equal to parts per million [ppm])
- NA = Not Applicable - no MCL has been established for these constituents.
- ND = Not Detected
- = Not Sampled due to the presence of petroleum product sheen.
- MCL = Maximum Contaminant Level. Numbers reported for California primary MCLs. Maximum contaminant levels (MCLs) mandated by the state of California Regional Water Quality Control Board. The MCLs are established based on either identified health risks or aesthetics and apply to drinking water.

TABLE 2
GROUNDWATER LEVEL DATA
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Monitoring Well Identification	Monitoring 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)	
MWV-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	
	12/10/96		9.31	--	0.00	19.18	
	03/05/97	9.01	--	0.00	19.48		
	06/25/97	9.61	--	0.00	18.88		
	10/14/97	9.48	--	--	sheen	19.01	
01/30/98	8.16	--	--	sheen	20.33		
05/08/98	8.56	--	8.55	0.01	19.94		
MWV-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	NM
	12/20/94		NM(1)	NM	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	
	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	
	12/10/96		9.13	--	0.00	19.34	
	03/05/97	8.90	--	0.00	19.57		
	06/25/97	9.49	--	0.00	18.98		
	10/14/97	9.37	--	--	sheen	19.10	
01/30/98	8.02	--	--	sheen	20.45		
05/08/98	8.41	--	--	0.00	20.06		

- 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 wells 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 2 (Cont.)
GROUNDWATER LEVEL DATA
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Monitoring Well Identification	Monitoring 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-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	28.78 (2)	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		9.90	--	0.00	18.88
	05/01/96		9.25	--	0.00	19.53
	08/05/96		9.61	--	0.00	19.17
	12/10/96		9.27	--	0.00	19.51
	03/05/97		9.09	--	0.00	19.69
	06/25/97		9.62	--	0.00	19.16
	10/14/97		9.55	--	0.00	20.23
01/30/98	8.28	--	0.00	20.50		
05/08/98	8.62	--	0.00	20.16		
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
	05/24/95	8.86	--	0.00	19.71	
	08/30/95	28.53 (2)	9.41	--	0.00	19.16
	11/29/95		9.72	--	0.00	18.81
	05/01/96		9.17	--	0.00	19.36
	08/05/96		9.44	--	0.00	19.09
	12/10/96		9.18	--	0.00	19.35
	03/05/97		8.99	--	0.00	19.54
	06/25/97		9.43	--	0.00	19.10
	10/14/97		9.30	--	0.00	19.23
	01/30/98		8.29	--	0.00	20.24
05/08/98	8.52		--	0.00	20.01	

- 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

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NM = Not Measured

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

TABLE 2 (Cont.)
GROUNDWATER LEVEL DATA
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Monitoring Well Identification	Monitoring 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-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	
	12/10/96	8.15	8.14	0.01	19.39		
	03/05/97	8.75	—	0.00	19.58		
	06/25/97	9.34	—	0.00	18.99		
	10/14/97	9.21	—	sheen	19.12		
	01/30/98	8.09	—	sheen	20.24		
05/08/98	8.35	—	0.00	19.98			
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	
	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	
	12/10/96	9.18	—	0.00	19.18		
	03/05/97	8.97	—	0.00	19.39		
	06/25/97	9.53	—	0.00	18.83		
	10/14/97	9.37	—	sheen	18.99		
	01/30/98	8.16	—	sheen	20.20		
05/08/98	8.49	—	0.00	19.87			

- 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

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

TABLE 2 (Cont.)
GROUNDWATER LEVEL DATA
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Monitoring Well Identification	Monitoring 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-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		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	
	12/10/96	8.96	8.95	0.01	19.49	
	03/05/97	8.77	--	0.00	19.67	
	06/25/97	9.47	--	0.00	18.97	
	10/14/97	8.71	--	sheen	19.04	
	01/30/98	8.09	7.68	0.41	20.68	
05/08/98	8.31	--	0.00	20.13		
MW-8	11/29/95	28.17 (2)	8.92	--	0.00	19.25
	05/01/96		8.42	--	0.00	19.75
	08/05/96		8.75	--	0.00	19.42
	12/10/96		8.53	--	0.00	19.64
	03/05/97		8.77	--	0.00	19.76
	06/25/97		8.72	--	0.00	19.45
	10/14/97		8.71	--	0.00	19.46
	01/03/98		7.84	--	0.00	20.33
	05/08/98		8.04	--	0.00	20.13
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
	12/10/96		8.60	--	0.00	18.85
	03/05/97		8.40	--	0.00	19.05
	06/25/97		8.96	--	0.00	18.49
	10/14/97		8.80	--	0.00	18.65
	01/30/98		7.86	--	0.00	19.59
	05/08/98		8.09	--	0.00	19.36

- NOTES:
- = MW-2 could not be located; well box was temporarily buried during tank excavation activities
 - = Top of casing reference elevations of all wells 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
 - = 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 2 (Cont.)
GROUNDWATER LEVEL DATA
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Monitoring Well Identification	Monitoring 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-10	11/29/95	27.32 (2)	8.73	-	0.00	18.59
	05/01/96		NM (3)	NM	NM	NM
	08/05/96		8.50	-	0.00	18.82
	12/10/96		8.17	-	0.00	19.15
	03/05/97		8.06	-	0.00	19.26
	06/25/97		8.51	-	0.00	18.81
	10/14/97		8.06	-	0.00	19.26
	01/30/98		7.37	-	0.00	19.95
	05/08/98		7.58	-	0.00	19.74
MW-11	11/29/95	28.56 (2)	10.16	-	0.00	18.40
	05/01/96		9.12	-	0.00	19.44
	08/05/96		9.62	-	0.00	18.94
	12/10/96		9.18	-	0.00	19.38
	03/05/97		8.93	-	0.00	19.63
	06/25/97		9.65	-	0.00	18.91
	10/14/97		9.63	-	0.00	18.93
	01/30/98		7.86	-	0.00	20.70
	05/08/98		8.41	-	0.00	20.15

- 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 "out-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 3
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well Number	Sample Date	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylene (Total) (µg/L)	TPH as Diesel (µg/L)	HVOCs (µg/L)	MTBE (µg/L)	
MW-1	01/07/93	110,000	14,000	17,000	2,500	8,800	ND (3,000)	1,2-DCE-470 (470)	NA	
	09/07/93	28,000	11,000	2,100	380	1,200	1,000 (2)	NA	NA	
	12/07/93	17,000	10,000	3,000	610	2,000	1,800 (1)	NA	NA	
	03/04/94	6,600	4,400	870	150	590	920 (4)	NA	NA	
	06/06/94	12,000	6,300	230	ND (0.5)	ND (0.5)	710 (4)	NA	NA	
	11/09/94	28,000	9,500	3,000	810	2,300	250	NA	NA	
	12/20/94	5,600	3,000	92	86	76	ND (50)	NA	NA	
	03/29/95	24,000	5,800	3,100	390	1,300	ND (50)	NA	NA	
	05/24/95	2,500	800	280	31	130	ND (50)	NA	NA	
	08/30/95	48,000	14,000	3,500	620	1,600	800	NA	NA	
	11/29/95	120,000	42,000	22,000	2,300	9,900	ND (1000)	NA	NA	
	05/01/96	49,800	11,800	5,720	121	3,160	ND (50)	1,2-DCE- (5.6)	NA	
	08/05/96	54,600	17,400	7,440	1,130	3,880	ND (50)	1,2-DCE- (50.7)	NA	
	12/10/96	27,500	7,680	2,020	720	720	ND (50)	ND	NA	
	03/06/97	86,900	18,900	7,730	1,470	3,320	ND (50)	ND	NA	
	06/25/97	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	10/14/97	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	01/30/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
05/08/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	
MW-2	01/07/93	85,000	20,000	8,500	1,500	4,300	ND (3,000)	1,2-DCE-550	NA	
	09/07/93	140,000	46,000	28,000	3,300	15,000	8,200 (2)	NA	NA	
	12/07/93	86,000	28,000	17,000	35,000	16,000	8,200 (2)	NA	NA	
	03/04/94	130,000	22,000	22,000	3,500	16,000	18,000 (4)	NA	NA	
	06/06/94	100,000	27,000	22,000	2,300	10,000	9,600 (5)	NA	NA	
	11/09/94	NSL	NSL	NSL	NSL	NSL	NSL	NA	NA	
	12/20/94	NSL	NSL	NSL	NSL	NSL	NSL	NA	NA	
	03/29/95	240,000	56,000	30,000	3,100	7,000	3,800	NA	NA	
	05/24/95	330,000	54,000	51,000	4,700	22,000	28,000	NA	NA	
	08/30/95	200,000	48,000	52,000	3,900	16,000	8,000	NA	NA	
	11/29/95	170,000	42,000	40,000	3,400	17,000	ND (1000)	NA	NA	
	05/01/96	481,000	59,000	69,000	27,200	89,600	ND (50)	1,2-DCE- (61.8)	NA	
	08/05/96	193,000	41,800	56,000	3,590	18,000	ND (50)	1,2-DCE- (83.2)	NA	
	12/10/96	166,000	26,400	38,600	3,180	14,700	ND (50)	ND	NA	
	03/06/97	316,000	36,600	55,900	4,160	16,100	ND (50)	ND	NA	
	06/25/97	160,000	37,000	63,000	3,500	19,000	NA	ND	ND	
	10/14/97	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
	01/30/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP
05/08/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	

NOTES: 1,2-DCE = 1,2-Dichloroethane (1) = Results typical of a non-diesel mixture (<C16)

TCB = 1,1,2,2-Tetrachlorobenzene (2) = Results typical of a diesel and non-diesel mixture (<C16)

TPH-g = Total Petroleum Hydrocarbons as gasoline (3) = Results typical of weathered gasoline

TPH-d = Total Petroleum Hydrocarbons as diesel (4) = Results typical of diesel and unidentified hydrocarbons <C14)

MTBE = Methyl tertiarybutyl ether reported in µg/L (5) = Results typical of unidentified hydrocarbons (<C14)

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

NA = Not Analyzed

TABLE 3 (Cont.)
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well Number	Sample Date	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylene (Total) (µg/L)	TPH as Diesel (µg/L)	HVOCs (µg/L)	MTBE (µg/L)
MW-3	01/07/93	8,500 (3)	170	70	ND (30)	ND (30)	ND (3,000)	NA	NA
	09/07/93	2,800	19	46	7.7	23	2,500 (1)	NA	NA
	12/07/93	3,000	17	43	13	28	520 (2)	NA	NA
	03/04/94	2,300	22	46	9.0	27	1,300 (5)	NA	NA
	06/06/94	1,900	3.9	ND (0.5)	9.0	27	1,600 (5)	NA	NA
	11/09/94	2,800	2.6	17	17	32	ND (50)	NA	NA
	12/20/94	2,700	10	62	24	59	ND (50)	NA	NA
	03/29/95	1,200	230	230	13	37	500	NA	NA
	05/24/95	5,700	ND (5)	73	20	57	ND (50)	NA	NA
	08/30/95	3,100	ND (1.0)	29	13	28	ND (50)	NA	NA
	11/29/95	13,000	39	59	7	33	ND (80)	NA	NA
	05/01/96	3,020	ND (1.0)	39.9	9.86	30.8	ND (50)	ND	NA
	08/05/96	2,340	4.1	5.3	4.9	25.3	ND (50)	ND	NA
	12/10/96	694,000	920	5,980	1,060	2,960	ND (50)	ND	NA
	03/06/97	9,060	136	244	34	126	ND (50)	ND	NA
	06/25/97	600	ND	1.1	ND	3.0	NA	ND	ND
	10/14/97	2,400	1.8	13	7.8	18	NA	ND (0.5)	ND (5)
	01/30/98	5,900	ND	ND	ND	ND	NA	NA	44
	05/08/98	2,170	4.92	ND (2.5)	ND (2.5)	ND (2.5)	NA	ND	NA
	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	NA
03/04/94		110	ND (0.5)	ND (0.5)	ND (0.5)	0.63	56 (5)	NA	NA
06/06/94		68	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	68 (4)	NA	NA
11/09/94		90	0.7	1.1	0.5	2.1	ND(50)	NA	NA
12/20/94		130	2.2	33	4.8	27	ND (50)	NA	NA
03/29/95		ND (50)	ND (0.5)	0.5	ND (0.5)	ND (0.5)	ND (50)	NA	NA
05/24/95		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	NA	NA
08/30/95		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	NA	NA
11/29/95		100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	NA	NA
05/01/96		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND	NA
08/05/96		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND	NA
12/10/96		65	ND (0.5)	ND (0.5)	ND (0.5)	0.6	ND (50)	ND	NA
03/06/97		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	NA
06/25/97		200	ND (0.5)	ND (0.5)	0.5	ND (0.5)	NA	ND	ND
10/14/97		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	ND (0.5)	ND (5)
01/30/98		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	ND (5)
05/08/98		ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	ND	NA

NOTES: 1,2-DCE = 1,2-Dichloroethane (1) = Results typical of a non-diesel mixture (<C15)
TCB = 1,1,2,2-Tetrachlorobenzene (2) = Results typical of a diesel and non-diesel mixture (<C16)
TPH-g = Total Petroleum Hydrocarbons as gasoline (3) = Results typical of weathered gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel (4) = Results typical of diesel and unidentified hydrocarbons <C14)
MTBE = Methyl tertiarybutyl ether reported in µg/L (5) = Results typical of unidentified hydrocarbons (<C14)
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
NA = Not Analyzed

TABLE 3 (Cont.)
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California

Well Number	Sample Date	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylene (Total) (µg/L)	TPH as Diesel (µg/L)	HVOCs (µg/L)	MTBE (µg/L)
MW-5	09/07/93	37,000	2,700	1,700	870	4,600	1,700 (2)	NA	NA
	12/07/93	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	03/04/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	06/06/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	11/09/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	12/20/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	03/29/95	54,000	6,800	3,600	1,500	7,600	7,500	NA	NA
	05/24/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	08/30/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	11/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	05/01/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	08/05/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	12/10/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	03/06/97	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	06/25/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NSFP	NSFP
	10/14/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NSFP	NSFP
	01/30/98	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NA	NSFP
05/08/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	
MW-6	09/07/93	10,000	1,300	540	370	1,600	1,400 (2)	NA	NA
	12/07/93	17,000	4,300	1,200	600	2,700	2,400 (2)	NA	NA
	03/04/94	21,000	4,600	1,000	460	1,800	1,800 (4)	NA	NA
	06/06/94	12,000	5,400	350	ND (0.5)	1,200	1,600 (4)	NA	NA
	11/09/94	29,000	4,600	1,600	820	3,600	7,500	NA	NA
	12/20/94	66,000	5,800	2,200	1,100	4,600	1,100	NA	NA
	03/29/95	25,000	8,000	780	450	1,300	1,300	NA	NA
	05/24/95	56,000	1,600	1,300	1,200	7,200	40,000	NA	NA
	08/30/95	68,000	16,000	3,400	1,900	6,800	4,900	NA	NA
	11/29/95	57,000	15,000	2,900	2,500	10,000	ND (900)	NA	NA
	05/01/96	39,500	7,400	2,540	1,270	4,470	ND (50)	1,2-DCE-73 (73.0)	NA
	08/05/96	71,200	22,600	4,000	2,100	7,030	ND (50)	1,2-DCE-157 (157)	NA
	12/10/96	49,200	10,900	2,180	1,880	6,720	ND (50)	1,2-DCE-210 (210)	NA
	03/06/97	65,300	10,300	2,500	1,940	5,770	ND (50)	ND	NA
	06/25/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NSFP	NSFP
	10/14/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NSFP	NSFP
	01/30/98	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NA	NSFP
05/08/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	

NOTES: 1,2-DCE = 1,2-Dichloroethane (1) = Results typical of a non-diesel mixture (<C16)
TCB = 1,1,2,2-Tetrachlorobenzene (2) = Results typical of a diesel and non-diesel mixture (<C16)
TPH-g = Total Petroleum Hydrocarbons as gasoline (3) = Results typical of weathered gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel (4) = Results typical of diesel and unidentified hydrocarbons <C14)
MTBE = Methyl tertiarybutyl ether reported in µg/L (5) = Results typical of unidentified hydrocarbons (<C14)
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
NA = Not Analyzed

**TABLE 3 (Cont.)
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California**

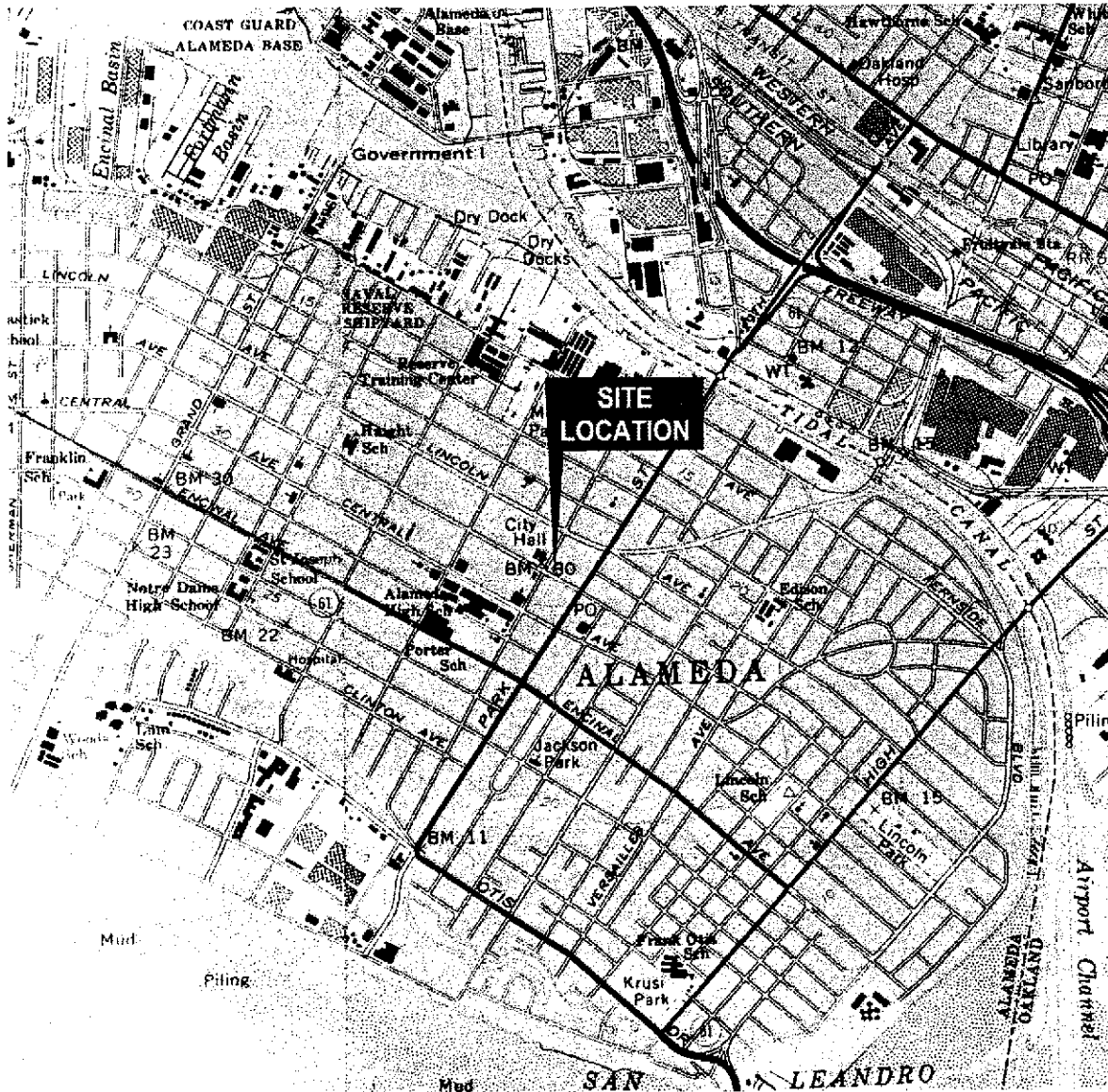
Well Number	Sample Date	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylene (Total) (µg/L)	TPH as Diesel (µg/L)	HVOCs (µg/L)	MTBE (µg/L)
MW-7	09/07/93	24,000	6,000	4,800	490	2,300	1,300	NA	NA
	12/07/93	95,000	28,000	24,000	1,600	8,700	2,200	NA	NA
	03/04/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	06/06/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	11/09/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	12/20/94	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	03/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	05/24/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	08/30/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	11/29/95	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	05/01/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	08/05/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	12/10/96	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	03/06/97	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NA
	06/25/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NSFP	NSFP
	10/14/97	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NA	NSFP
01/30/98	NSFP	NSFP	NSFP	NSFP	NSFP	NA	NA	NSFP	
05/08/98	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	NSFP	
MW-8	11/29/95	7,400	260	40	140	190	ND (80)	NA	NA
	05/01/96	270	1.02	ND	1.10	1.87	ND (50)	ND	NA
	08/05/96	1,100	22.6	3.4	11.2	12.7	ND (50)	TCB-2.5	NA
	12/10/96	442	17.2	2.7	5.9	5.6	ND (50)	ND	NA
	03/05/97	765	33.2	7.2	9.3	11.1	525	ND	NA
	06/25/97	700	36	5.1	8.0	8.0	NA	NA	10
	10/14/97	660	29	6.6	10	13	NA	ND (0.5)	ND (5)
	01/30/98	430	24	3.1	5.7	8.4	NA	NA	ND (5)
	05/08/98	178	13.6	3.29	3.65	4.34	NA	ND	NA
MW-9	11/29/95	1,500	590	2	3	20	ND (50)	1,2-DCE-46	NA
	05/01/96	230	142	0.78	ND	1.17	ND (50)	ND	NA
	08/05/96	180	3.1	0.5	0.5	2.3	ND (50)	ND	NA
	12/10/96	157,000	13.6	320	135	500	ND (50)	1,2-DCE-5.0	NA
	03/05/97	2,710	940	4.6	20.2	12.4	ND (50)	1,2-DCE-19.2	NA
	06/25/97	8,000	4,600	190	100	30	NA	NA	220
	10/14/97	910	480	8.1	2.4	5.0	NA	ND (0.5)	46
	01/30/98	2,400	1,100	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	ND (5)
	05/08/98	1,500	891	18.2	14.1	ND (10)	NA	1,2-DCA-4.76	NA
MW-10	11/29/95	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (2)	ND (950)	NA	NA
	05/01/96	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NA
	08/05/96	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	Chloroform (13.2)	NA
	12/10/96	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	1,2-DCE-10.1	NA
	03/05/97	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND	NA
	06/25/97	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NS	ND
	10/14/97	ND (50)	1.2	2.5	ND (0.5)	1.7	NA	Chloroform-1.5	ND (5)
	01/30/98	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	ND (5)
	05/08/98	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	ND	NA

NOTES: 1,2-DCE = 1,2-Dichloroethane (1) = Results typical of a non-diesel mixture (<C16)
TCB = 1,1,2,2-Tetrachlorobenzene (2) = Results typical of a diesel and non-diesel mixture (<C16)
TPH-g = Total Petroleum Hydrocarbons as gasoline (3) = Results typical of weathered gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel (4) = Results typical of diesel and unidentified hydrocarbons <C14)
MTBE = Methyl tertiarybutyl ether reported in µg/L (5) = Results typical of unidentified hydrocarbons (<C14)
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
NA = Not Analyzed

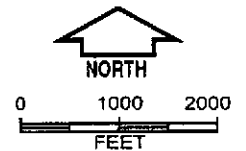
**TABLE 3 (Cont.)
GROUNDWATER ANALYTICAL RESULTS
Former Bill Chun Service Station
2301 Santa Clara Avenue
Alameda, California**

Well Number	Sample Date	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Xylene (Total) (µg/L)	TPH as Diesel (µg/L)	HVOCs (µg/L)	MTBE (µg/L)
MW-11	11/29/95	3,200	14	31	15	570	ND (50)	NA	NA
	05/01/96	79	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	107	ND	NA
	08/05/96	6,660	5,040	ND (0.5)	51.6	ND (0.5)	ND (50)	1,2-DCE-16.0	NA
	12/10/96	68,000	800	260	200	1,160	ND (50)	ND	NA
	03/05/97	340	4.2	0.6	3.1	5.3	ND (50)	ND	NA
	06/25/97	300	3.5	0.9	2.7	5.0	NA	NS	ND
	10/14/97	510	4.0	8.7	21	23	NA	ND (0.5)	ND (5)
	01/30/98	1,800	22	3.4	66	65	NA	NA	42
	05/08/98	2050	15.3	6.11	118	179	NA	ND	NA

NOTES: 1,2-DCE = 1,2-Dichloroethane (1) = Results typical of a non-diesel mixture (<C16)
TCB = 1,1,2,2-Tetrachlorobenzene (2) = Results typical of a diesel and non-diesel mixture (<C16)
TPH-g = Total Petroleum Hydrocarbons as gasoline (3) = Results typical of weathered gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel (4) = Results typical of diesel and unidentified hydrocarbons <C14)
MTBE = Methyl tertiarybutyl ether reported in µg/L (5) = Results typical of unidentified hydrocarbons (<C14)
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
NA = Not Analyzed



USGS 7.5 MINUTE
OAKLAND EAST & WEST,
CALIFORNIA QUADRANGLE



ENSR.

SITE LOCATION MAP

FIGURE
1

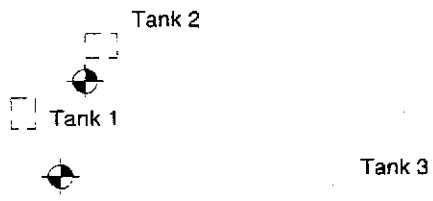
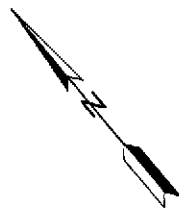
DRAWN BY: S. Hale
DATE: November 13, 1997

REVISED BY:
DATE:

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

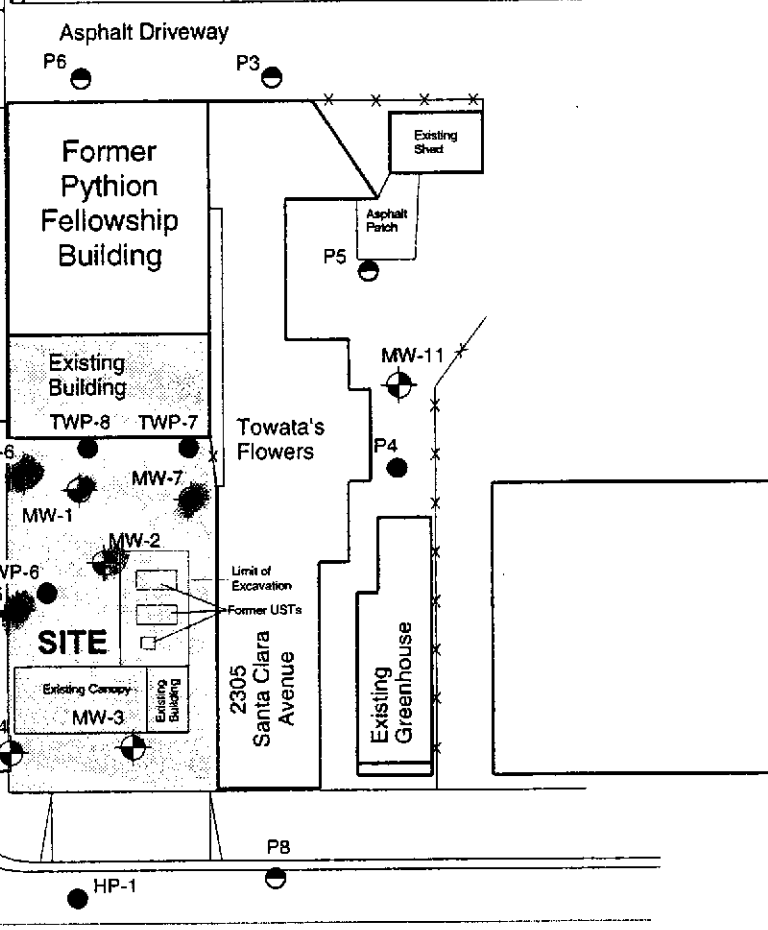
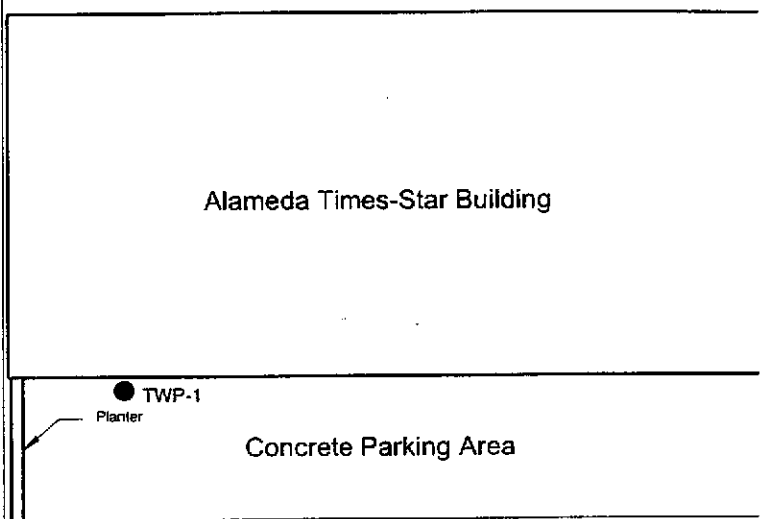
PROJECT NUMBER:
8700-688

0 40 80
Approximate Scale in Feet



Former Alameda City Hall
2263 Santa Clara Avenue

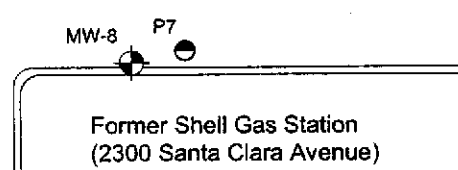
OAK STREET



LEGEND

- Monitoring Well
- Fence
- Soil Boring
- Powerpunch Sampling Location

SANTA CLARA AVENUE



- NOTES:**
1. Site Vicinity Map After Plat by Ronald R. Archer, Licensed Surveyor 11/29/95
 2. All Locations Are Approximate.



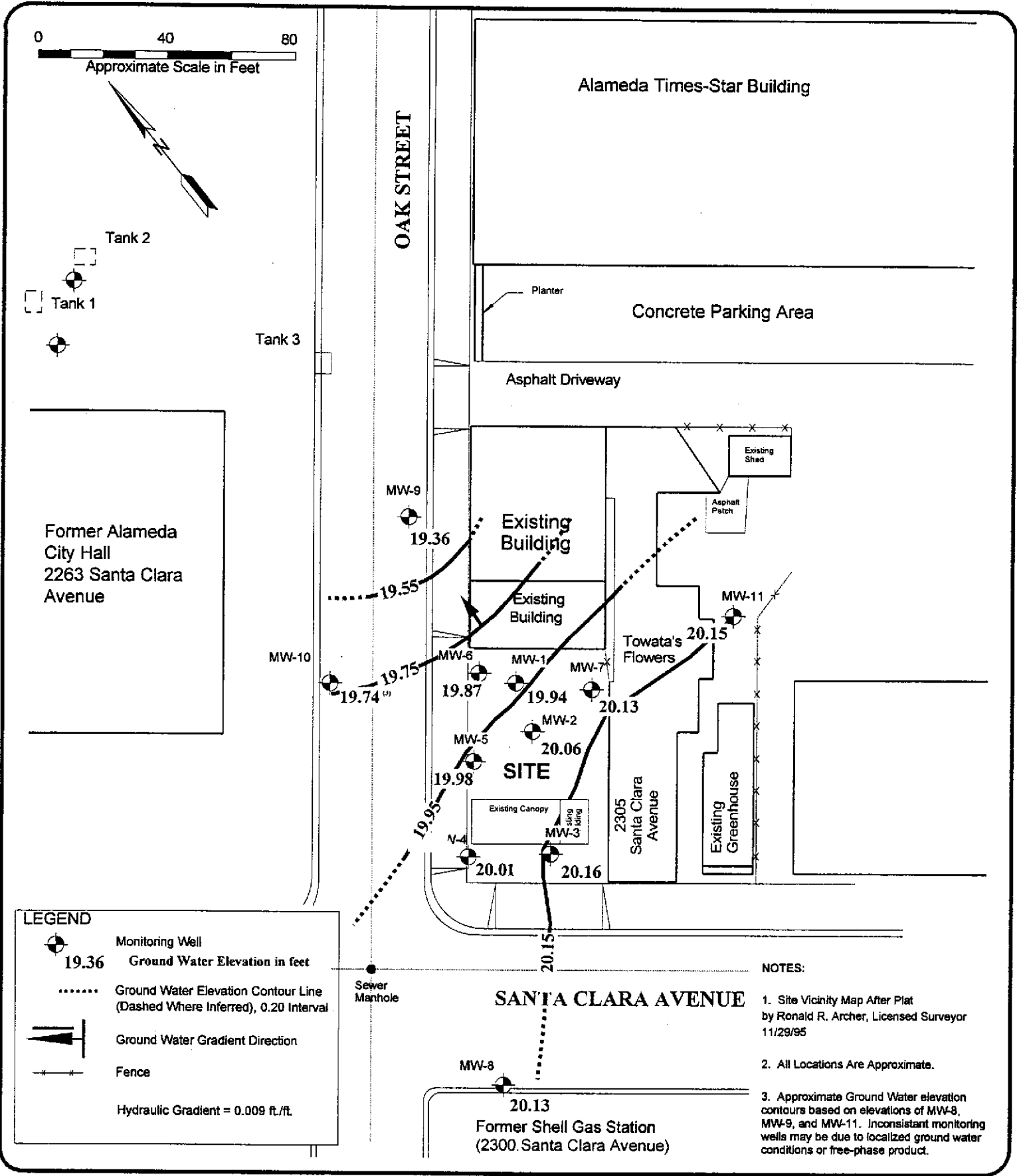
SITE VICINITY MAP

FIGURE 2

DRAWN BY: J. Paradis
REVISED BY: S. Hale
DATE: October 31, 1998
DATE: April 28, 1998

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

PROJECT NUMBER:
8700-688



POTENTIOMETRIC SURFACE MAP
May 8, 1998

FIGURE
3

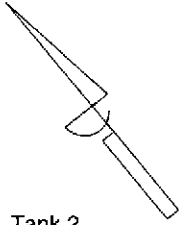
DRAWN BY: J. Paradis	REVISED BY: S. Hale
DATE: October 31, 1996	DATE: June 5, 1998

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

PROJECT NUMBER:
8700-688

0 40 80

Approximate Scale in Feet



Tank 2



Tank 1



Tank 3

Former Alameda City Hall
2263 Santa Clara Avenue

NOTES:
Site Vicinity Map After
Plat by Ronald R. Archer
Licensed Surveyor
Date: 11/29/95
All Locations Are Approximate

LEGEND



Monitoring Well

300 TPH-g in micrograms per liter
3.5 Benzene in micrograms per liter

<

Less than Laboratory Reporting Limit

FP

Free Product, Not Sampled



Fence

OAK STREET

Alameda Times-Star Building

Planter

Concrete Parking Area

Asphalt Driveway



MW-9
1,500
891

Existing Building

Existing Building

Existing Shed

Asphalt Patch

MW-11

2,050
15.3

Towata's Flowers

MW-6

FP

MW-1

FP

MW-7

FP

MW-5

FP

MW-2

FP

SITE

MW-4

FP

Existing Canopy

MW-3

FP

Existing Building

<50

<0.5

2,170
4.92

2305 Santa Clara Avenue

Existing Greenhouse



MW-10
<50
<0.5

Sewer Manhole

SANTA CLARA AVENUE

MW-8

178
13.6

Former Shell Gas Station
(2300 Santa Clara Avenue)

ENSR

DISTRIBUTION MAP OF TOTAL PETROLEUM
HYDROCARBONS AS GASOLINE AND BENZENE
IN GROUND WATER **May 8, 1998**

FIGURE

4

DRAWN BY: J. Paradis

REVISED BY: S. Hale

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

PROJECT NUMBER:

8700-688

DATE: October 31, 1998

DATE: February 20, 1998

ATTACHMENT A

**STANDARD OPERATING PROCEDURES
GROUNDWATER MONITORING AND SAMPLING**

SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES

SOP-4

Sample identification and chain-of-custody procedures ensure sample integrity, and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any name(s) of on-site personnel and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to its arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL

SOP-5

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;
2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
3. Standard operating procedures describing routine and periodic instrument maintenance;
4. "Out-of-Control"/Corrective Action documentation procedures; and,
5. Multi-level review of raw data and client reports.

GROUNDWATER PURGING AND SAMPLING

SOP-7

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize to within 10% of previously measured values; and a maximum of ten wetted casing volumes of groundwater have been recovered, or the well is bailed dry. When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level. Field measurements, observations and procedures are noted.

The sampling equipment consists of a clean bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump may be PVC with a polypropylene bladder. Sample container type, preservation, and volume depends on the intended analyses.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, and the sampler's initials.

For quality control purposes, a duplicate water sample may be collected from a well. When required, a trip blank is prepared at the laboratory and placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling

equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between use. As a second precautionary measure, wells are sampled in order of lowest to highest concentrations as established by available previous analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator.

MEASURING LIQUID LEVELS USING A WATER LEVEL INDICATOR OR INTERFACE PROBE

SOP-12

Field equipment used for liquid-level gauging typically includes the measuring probe (water level or interface) and a clean product bailer(s). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the probe tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "Measured Total Depth" of the well.

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water (DTW) indicator and the DTW measurement is made accordingly. The steady tone indicates floating hydrocarbons. In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indicator and the measurement of DTP is recorded. A corrected depth to groundwater to account for floating hydrocarbons can be calculated by using the following formula:

$$CDTW = DTW - (SP.G \times LHT).$$

CDTW = Corrected depth to groundwater.

DTW = Measured depth to groundwater.

SP.G = Specific gravity: unweathered gasoline = 0.75; diesel = 0.80

LHT = Measured liquid hydrocarbon thickness.

The corresponding groundwater elevation is the difference between a previously determined well reference elevation and either the depth to groundwater or the corrected depth to groundwater.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When floating product is indicated by the probe's response, a product bailer is lowered partially through the product-water interface to confirm the product on the water surface, and as further indication of product thickness, particularly in cases where the product layer is quite thin. Either this measurement or the difference between DTW and DTP is recorded on the data sheet as "product thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with TSP or similar solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's

ATTACHMENT B
FIELD DOCUMENTATION

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chun
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700488.100
 Well Designation: MW-2

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 2
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: 2" Disposable bailer _____ Submersible pump
 2" PVC bailer _____ Dedicated bailer
 4" PVC bailer _____

Sampled with: ~~Disposal bailer~~ Teflon Bailor:

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0641 Time: _____ Calculated purge: _____
 Depth of well: 20.67 Depth to water: _____ Actual purge: _____
 Depth to water: 8.41

Start purge: N/A Sampling time: _____ Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)

Sample appearance: NO SAMPLE SEE BELOW

QC samples collected at this well: NOPE Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.
 2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: DIP CHECKED W/ DISPOSABLE BAILER / VISABLE SHEEN ON WATER
NO MEASURABLE FREE PRODUCT

Signature: YJR Review: _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chun
 Site: 2301 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: mw-3

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : _____
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailor: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:33 Time: 10:10 Calculated purge: 5.5
 Depth of well: 101.40 Depth to water: 9.30 Actual purge: 6
 Depth to water: 8.62

Start purge: 09:58 Sampling time: 10:15 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
10:01	64.4	314 u)	7.05		1.4	2
10:03	65.5	311 u	7.09		1.0	2
10:05	66.0	360 v	7.12		0.8	2

Sample appearance: _____

QC samples collected at this well: NONE Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: SMALL AMOUNT OF SHELL SPOTS ON SURFACE WATER

Signature: JFR Review: _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chun
 Site: 2301 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: rw-4

Is setup of traffic control devices required? : NO YES
 Is there standing water in well box? : NO YES Above TOC Below TOC
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 3
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailor: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0614 Time: 0930 Calculated purge: 6.5
 Depth of well: 21.05 Depth to water: 8.51 Actual purge: 7
 Depth to water: 8.52

Start purge: 0917 Sampling time: 0935 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
0919	64.9	469.65	7.31		1.5	2
0923	66.2	464.1	7.41		1.2	3
0925	66.2	461.5	7.50		1.5	2

Sample appearance: _____

QC samples collected at this well: NONE Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: _____

Signature JFR Review _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chun
 Site: 2301 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: MW-5

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : _____
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: 2" Disposable bailer _____ Submersible pump
 2" PVC bailer _____ Dedicated bailer
 4" PVC bailer _____

Sampled with: ~~Disposal bailer~~ Teflon Bailer:

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Time: 0645 Recharge Measurement Time: _____ Calculated purge: _____
 Depth of well: 21.60 Depth to water: _____ Actual purge: _____
 Depth to water: 8.35

Start purge: N/A Sampling time: _____ Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)

Sample appearance: NO SAMPLE

QC samples collected at this well: NONE Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: CUT UPPER/CD STILL SEALS / DID CHECK W/ DISPOSABLE BAILER
USABLE SHEEN ON WATER / NO MEASURABLE PRODUCT

Signature: [Signature] Review: _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chun
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: mw-6

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC: Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 3
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: 2" Disposable bailer Submersible pump
 2" PVC bailer Dedicated bailer
 4" PVC bailer

Sampled with: Disposal bailer: Teflon Bailer:

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0635 Time: _____ Calculated purge: _____
 Depth of well: 21.87 Depth to water: _____ Actual purge: _____
 Depth to water: 8.49

Start purge: N/A Sampling time: _____ Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)

Sample appearance: NO SAMPLE SEE BELOW

QC samples collected at this well: NONE

Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: did check w/ disposable - visible sheen of water
no measurable product

Signature JFR

Review _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chen
 Site: 2301 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: rw-7

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES Above TOC Below TOC
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 4
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: 2" Disposable bailer Submersible pump
 2" PVC bailer Dedicated bailer
 4" PVC bailer

Sampled with: Disposal bailer: Teflon Bailer:

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 0653 Time: _____ Calculated purge: _____
 Depth of well: 15.57 Depth to water: _____ Actual purge: _____
 Depth to water: 8.31

Start purge: N/A Sampling time: _____ Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)

Sample appearance: NO SAMPLE SEE BELOW

QC samples collected at this well: NONE

Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: DID CHECK w/ DISPOSABLE HEAVY SIBEN IN WATER - NO MEASURABLE PRODUCT
SKIMMER IN WELL

Signature: [Signature]

Review: _____

MONITORING WELL SAMPLING INFORMATION SHEET



Handwritten initials

Client: Wayne Chum
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: MW-8

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 4
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailers: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0621 Time: 0815 Calculated purge: 3.5
 Depth of well: 14.35 Depth to water: 8.87 Actual purge: 4
 Depth to water: 8.04

Start purge: 0800 Sampling time: 0820 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
0802	66.2	406.45	6.93		1.7	(
0805	67.1	409.1	6.96		2.0	2
0808	67.6	414.4	6.97		1.8	(

Sample appearance: CLOUDY

QC samples collected at this well: NONE

Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item..

2" Locking Cap: Lock #2357: _____ Lock #0909: _____
 3" Locking Cap: Lock #3753: _____ Lock-Dolphin: _____
 4" Locking Cap: Chevron Lock: _____

Remarks: _____

Signature YJR Review _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Churn
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: rw-9

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 4
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailor: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0623 Time: 0740 Calculated purge: 3.5
 Depth of well: 15.23 Depth to water: 8.77 Actual purge: 4
 Depth to water: 8.09

Start purge: 0730 Sampling time: 0745 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
0734	63.4	645u5	6.91		1.9	2
0736	64.1	633.1	6.91		2.0	1
0738	64.5	638.4	6.92		1.8	1

Sample appearance: cloudy

QC samples collected at this well: NONE

Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: _____ Lock #0909: _____
 3" Locking Cap: Lock #3753: _____ Lock-Dolphin: _____
 4" Locking Cap: Chevron Lock: _____

Remarks: _____

Signature JFR Review _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Churn
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700688.1ED
 Well Designation: MW-10

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 3
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailor: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement
 Time: 0617 Time: 0717 Calculated purge: 3
 Depth of well: 13.55 Depth to water: 6.11 Actual purge: 3
 Depth to water: 7.56

Start purge: 0705 Sampling time: 0720 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
0708	63.1	793.5	6.10		2.6	1
0710	63.3	776.1	6.09		2.6	1
0713	63.5	698.1	6.11		2.6	1

Sample appearance: cloudy

QC samples collected at this well: NOPE Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: _____

Signature J&R Review _____

MONITORING WELL SAMPLING INFORMATION SHEET



Client: Wayne Chen
 Site: 2201 Santa Clara Ave
Alameda

Project No: 8700688.100
 Well Designation: MW-11

Is setup of traffic control devices required? : NO YES Setup & Takedown time: _____ hours
 Is there standing water in well box? : NO YES (Above TOC Below TOC)
 Is Top of Casing cut level? : NO YES (If NO please explain in remarks)
 Is well cap sealed and locked? : NO YES (If NO please explain in remarks)
 Height of Well Casing Riser (in inches) : 1
 General condition of Wellhead assembly : Excellent Good Fair Poor (Explain in remarks)

Purging Equipment: _____ 2" Disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer _____

Sampled with: Disposal bailer: Teflon Bailor: _____

Well Diameter: 2" 3" _____ 4" _____ 6" _____ 8" _____
 Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 0628 Time: 0857 Calculated purge: 3
 Depth of well: 14.90 Depth to water: 9.27 Actual purge: 3
 Depth to water: 3.41

Start purge: 0848 Sampling time: 0900 Sampling Date: 5/8/98

Time	Temp (F)	E.C.	pH	Turbidity	O (ppm)	Volume (Gal.)
0850	62.5	2704	6.79		2.1	1
0852	63.2	2681	6.84		2.1	1
0854	63.5	2704	6.84		7.2	1

Sample appearance: cloudy

QC samples collected at this well: NONE

Lock: DOLPHIN

Equipment replaced: (Check all that apply) Note condition of replaced item.

2" Locking Cap: Lock #2357: Lock #0909:
 3" Locking Cap: Lock #3753: Lock-Dolphin:
 4" Locking Cap: Chevron Lock:

Remarks: _____

Signature: YJR Review: _____



SEQUOIA ANALYTICAL CHAIN OF CUSTODY

680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9203
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: FISF		Project Name: BILL CHON	
Address: 10324 PLACER LN #200		Billing Address (if different):	
City: SAETO	State: CA.	Zip Code: 95827	
Telephone: (916) 362-7100		FAX #: (916) 362-8100	
Report To: KURT MARTIN		Sampler: TRACE FANKIN	
		P.O. #: SOB# 8700-688.100	
		QC Data: <input type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

Turnaround 10 Working Days 3 Working Days 2 - 8 Hours
 Time: 7 Working Days 2 Working Days
 5 Working Days 24 Hours

Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	THL/DBX 8010										Comments								
1. MW 3	5/14/98 1015	H ₂ O	4	4 cont. w/ HPL		X	X																	
2. MW 4	0935																							
3. MW 8	0820																							
4. MW 9	0745																							
5. MW 10	0720																							
6. MW 11	0900																							
7.																								
8.																								
9.																								
10.																								

Relinquished By: Trace Fankin	Date: 5/14/98	Time: 1600	Received By: Bill Chon	Date: 5/14/98	Time: 1600
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Pink - Client
 Yellow - Sequoia
 White - Sequoia

ATTACHMENT C

**LABORATORY REPORTS
GROUNDWATER SAMPLE ANALYSIS**

**SUPERIOR ANALYTICAL LABORATORY
MARTINEZ, CALIFORNIA**



ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW 3	S805135-00	Water	5/8/98
MW 4	S805135-01	Water	5/8/98
MW 8	S805135-02	Water	5/8/98
MW 9	S805135-03	Water	5/8/98
MW 10	S805135-04	Water	5/8/98
MW 11	S805135-05	Water	5/8/98





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 3				S805135-00			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		250	2170	ug/l	1
Benzene	"	"	"		2.50	4.92	"	
Toluene	"	"	"		2.50	ND	"	
Ethylbenzene	"	"	"		2.50	ND	"	
Xylenes (total)	"	"	"		2.50	5.43	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		89.6	%	
MW 4				S805135-01			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		109	%	
MW 8				S805135-02			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		50.0	178	ug/l	1
Benzene	"	"	"		0.500	13.6	"	
Toluene	"	"	"		0.500	3.29	"	
Ethylbenzene	"	"	"		0.500	3.65	"	
Xylenes (total)	"	"	"		0.500	4.34	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		106	%	
MW 9				S805135-03			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		1000	1500	ug/l	1
Benzene	"	"	"		10.0	891	"	
Toluene	"	"	"		10.0	18.2	"	
Ethylbenzene	"	"	"		10.0	14.1	"	
Xylenes (total)	"	"	"		10.0	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		101	%	
MW 10				S805135-04			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		110	%	
MW 11				S805135-05			Water	
Purgeable Hydrocarbons	8050154	5/14/98	5/14/98		250	2050	ug/l	1

Sequoia Analytical - Sacramento

*Refer to end of report for text of notes and definitions.

Ronald W Bobel, Client Services Representative





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 11 (continued)				S805135-05			Water	
Benzene	8050154	5/14/98	5/14/98		2.50	15.3	ug/l	
Toluene	"	"	"		2.50	6.11	"	
Ethylbenzene	"	"	"		2.50	118	"	
Xylenes (total)	"	"	"		2.50	179	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	60.0-140		116	%	

Ronald W Bobel





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 3				S805135-00			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		129	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		109	"	

Ronald W. Bobel





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 4				S805135-01			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		102	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		92.0	"	





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 8				S805135-02			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		89.0	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		84.0	"	





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 9				S805135-03			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	4.76	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		116	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		106	"	





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 10				S805135-04			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		108	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		91.0	"	





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW 11				S805135-05			Water	
Bromodichloromethane	8050235	5/21/98	5/21/98		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		1.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	70.0-130		109	%	
Surrogate: 2-Chlorotoluene	"	"	"	70.0-130		106	"	

Ronald W Bobel





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT/Quality Control
Sequoia Analytical - Sacramento

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 8050154	Date Prepared: 5/14/98	Extraction Method: EPA 5030B (P/T)								
Blank	8050154-BLK1									
Purgeable Hydrocarbons	5/14/98			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		11.0	"	60.0-140	110			

LCS	8050154-BS1									
Benzene	5/14/98	10.0		11.1	ug/l	70.0-130	111			
Toluene	"	10.0		10.3	"	70.0-130	103			
Ethylbenzene	"	10.0		10.1	"	70.0-130	101			
Xylenes (total)	"	30.0		29.9	"	70.0-130	99.7			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		10.0	"	60.0-140	100			

Matrix Spike	8050154-MS1	S805136-00								
Benzene	5/14/98	10.0	ND	11.2	ug/l	60.0-140	112			
Toluene	"	10.0	ND	10.6	"	60.0-140	106			
Ethylbenzene	"	10.0	ND	10.1	"	60.0-140	101			
Xylenes (total)	"	30.0	ND	30.2	"	60.0-140	101			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		10.1	"	60.0-140	101			

Matrix Spike Dup	8050154-MSD1	S805136-00								
Benzene	5/14/98	10.0	ND	11.1	ug/l	60.0-140	111	25.0	0.897	
Toluene	"	10.0	ND	10.4	"	60.0-140	104	25.0	1.90	
Ethylbenzene	"	10.0	ND	10.1	"	60.0-140	101	25.0	0	
Xylenes (total)	"	30.0	ND	30.1	"	60.0-140	100	25.0	0.995	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		10.1	"	60.0-140	101			

Ronald W. Bobel





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 8050235

Date Prepared: 5/21/98

Extraction Method: EPA 5030B [P/T]

Blank

8050235-BLK1

Bromodichloromethane	5/21/98			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	1.00				
2-Chloroethylvinyl ether	"			ND	"	1.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Methylene chloride	"			ND	"	5.00				
1,1,1,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	1.00				

Surrogate: Bromochloromethane	"	10.0		12.3	"	70.0-130	123			
Surrogate: 2-Chlorotoluene	"	10.0		10.2	"	70.0-130	102			

LCS 8050235-BS1

Chlorobenzene	5/21/98	20.0		22.9	ug/l	70.0-130	114			
1,1-Dichloroethane	"	10.0		11.1	"	65.0-135	111			
Trichloroethene	"	10.0		10.9	"	70.0-130	109			
Surrogate: Bromochloromethane	"	10.0		10.6	"	70.0-130	106			
Surrogate: 2-Chlorotoluene	"	10.0		10.7	"	70.0-130	107			

Sequoia Analytical - Sacramento

*Refer to end of report for text of notes and definitions.

Ronald W Bobel, Client Services Representative





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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**Volatile Organic Compounds by EPA Method 8010B/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike	8050235-MS1		S805109-01							
Chlorobenzene	5/21/98	20.0	ND	21.4	ug/l	60.0-140	107			
1,1-Dichloroethane	"	10.0	ND	10.6	"	60.0-140	106			
Trichloroethene	"	10.0	ND	10.2	"	60.0-140	102			
Surrogate: Bromochloromethane	"	10.0		10.3	"	70.0-130	103			
Surrogate: 2-Chlorotoluene	"	10.0		9.90	"	70.0-130	99.0			
Matrix Spike Dup	8050235-MSD1		S805109-01							
Chlorobenzene	5/21/98	20.0	ND	21.1	ug/l	60.0-140	106	25.0	0.939	
1,1-Dichloroethane	"	10.0	ND	10.2	"	60.0-140	102	25.0	3.85	
Trichloroethene	"	10.0	ND	9.90	"	60.0-140	99.0	25.0	2.99	
Surrogate: Bromochloromethane	"	10.0		10.3	"	70.0-130	103			
Surrogate: 2-Chlorotoluene	"	10.0		9.90	"	70.0-130	99.0			





ENSR 10324 Placer Ln., Ste. 200 Sacramento, CA 95827	Project: Bill Chun Project Number: 8700-688.100 Project Manager: Kurt Martin	Sampled: 5/8/98 Received: 5/11/98 Reported: 6/5/98
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Notes and Definitions

#	Note
1	Chromatogram Pattern: Weathered Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Sequoia Analytical - Sacramento

Ronald W Bobel, Client Services Representative





SEQUOIA ANALYTICAL CHAIN OF CUSTODY

680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: <u>EPSA</u>			Project Name: <u>BILL CHON</u>		
Address: <u>10324 PLAZER LN #200</u>			Billing Address (if different):		
City: <u>SAETO</u>	State: <u>CA</u>	Zip Code: <u>95827</u>			
Telephone: <u>(916) 362-7100</u>		FAX #: <u>(916) 362-8100</u>	P.O. #: <u>BOX # 8700-688.102</u>		
Report To: <u>KURT MARTIN</u>	Sampler: <u>TRACE RANKIN</u>		QC Data: <input type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		

Turnaround 10 Working Days 3 Working Days 2 - 8 Hours
 Time: 7 Working Days 2 Working Days
 5 Working Days 24 Hours

Drinking Water Waste Water Other
Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	/					Comments	
1. MW 3	5/11/98 1015	H ₂ O	4	40ml WAS W/ HCL		X	X			5805	35.00	
2. MW 4	↓ 0935	↓	↓	↓		↓	↓				01	
3. MW 8	↓ 0820	↓	↓	↓		↓	↓				02	
4. MW 9	↓ 0745	↓	↓	↓		↓	↓				03	
5. MW 10	↓ 0720	↓	↓	↓		↓	↓				04	
6. MW 11	↓ 0900	↓	↓	↓		↓	↓				05	
7.												
8.												
9.												
10.												

Relinquished By: <u>[Signature]</u>	Date: <u>5/11/98</u>	Time: <u>1600</u>	Received By: <u>[Signature]</u>	Date: <u>5/11/98</u>	Time: <u>1600</u>
Relinquished By: <u>[Signature]</u>	Date: <u>5/11/98</u>	Time: <u>1730</u>	Received By: <u>[Signature]</u>	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <u>[Signature]</u>	Date: <u>5/11/98</u>	Time: <u>1730</u>

Pink - Client
 Yellow - Sequoia
 White - Sequoia