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emailed.

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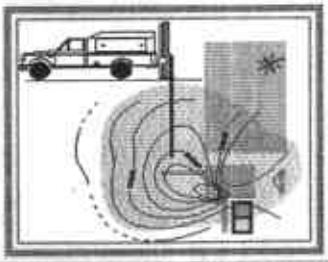


April 10, 2005

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-9335

Telephone: (510) 567-6765
FAX: (510) 337-9335

Subject: Groundwater Monitoring of Hydrocarbons related to the Former Underground Storage Tanks at the FORMER BILL CHUN SERVICE STATION @ 2301 SANTA CLARA AVENUE, ALAMEDA, CA 94501

Dear Barney:

This report summarizes the laboratory results of analyses performed for gasoline constituents in groundwater. Eight (8) groundwater monitoring and four (4) groundwater extraction wells were purged and sampled. Seventeen (17) wells were measured for water level measurements.

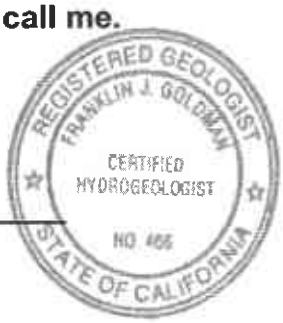
Although the overall trend in concentrations of TPHg and benzene identified in groundwater have decreased over time, some wells have undergone an increase. Most notably, increased concentrations of TPHg were identified in MW-3, MW-11, and EW-15. Increases of benzene were identified in MW-7 and EW-15 located immediately north of the former UST pit as well as in MW-3 located south of the existing kiosk.

If you have any questions, please call me.

Sincerely,

Franklin J. Goldman

Franklin J. Goldman
Certified Hydrogeologist No. 466



GROUNDWATER FLOW DIRECTION

On February 05, 2004, a slope Indicator water level meter was used to measure the depth to groundwater in the groundwater extraction and monitoring wells prior to well development and sampling. The measurements were read to the nearest 100th of an inch from the top of casing.

Groundwater was encountered at depths of approximately seven (7) to nine (9) feet bgs. The predominant groundwater gradient direction was measured to the southeast at 0.004 feet/foot (See Figure 1 for Gradient Map) and (Table 1 for Depth to Water Level Measurements). Water levels were measured with an electronic water level sounder after sampling and the water levels were allowed to stabilize. A slope indicator water level meter was used to measure the depth to groundwater prior to purging and sampling. The measurements were read to the nearest 100th of an inch. The groundwater gradient was determined by comparing water levels with elevations provided by a certified land survey.

WELL PURGING

Depth to groundwater was measured, prior to purging, to provide for a reference elevation. Purging of the wells was performed by the use of 1 3/4 inch diameter steel disposable check valve bailor. Each well was sampled after well development which entailed the removal of approximately three (3) or more borehole volumes from each well, allowing the water level to recover to at least 80% of the original, static water level. Temperature, electrical conductivity, and pH were monitored during the bailing process, so that the three parameters demonstrated an error difference of within 10% from one another, over three consecutive readings wells (See Appendix A for Sampling Event Sheets). The recorded data was used to verify that a sufficient volume of groundwater had been removed from the each well casing so that anomalies caused by remnant well casing storage would not preclude us from obtaining a groundwater sample which would be more representative of the aquifer contaminant distribution as a whole. Well purge water was placed in properly labeled 55 gallon drums left on-site pending laboratory analysis to determine a legal point of disposal.

GROUNDWATER SAMPLING FROM WELLS

Water samples were collected by lowering a 1½ inch diameter plastic disposable check valve bailer down the center of the well casing. Water samples were contained in 40-milliliter VOA vials for TPH-g, MTBE, and BTEX analyses. EPA Method 8260b for 5 oxygenates and two lead scavengers was used to confirm the presence of MTBE on other gasoline constituents. The samples were labeled and stored on ice until delivered, under chain-of-custody procedures, to American Analytics, Inc. of Chatsworth, California, a State-certified analytical laboratory.

LABORATORY RESULTS OF HYDROCARBONS IN GROUNDWATER

Although the overall trend in concentrations of TPHg and benzene identified in groundwater have decreased over time, some wells have undergone an increase. Most notably, increased concentrations of TPHg were identified in MW-3, MW-11, and EW-15. Increases of benzene were identified in MW-7 and EW-15 located immediately north of the former UST pit as well as in MW-3 located south of the

existing kiosk (See Appendix B for Laboratory Data Sheets) and (Table 2 for Lab Result Trends for TPHg and benzene). The plumes of benzene and TPHg in groundwater still appear to be centered in the general vicinity of the former USTs on site (See Figures 2 and 3 for TPHg and benzene concentration maps).

CONCLUSIONS

Dissolved benzene may still be migrating to the southeast in the direction of the predominant groundwater gradient flow direction.

RECOMMENDATIONS

Perform an additional round of groundwater sampling. Include perimeter wells after remediation activities are initiated.

LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. Reviewers of this technical report must recognize that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein, is done so at the sole risk of the said user.

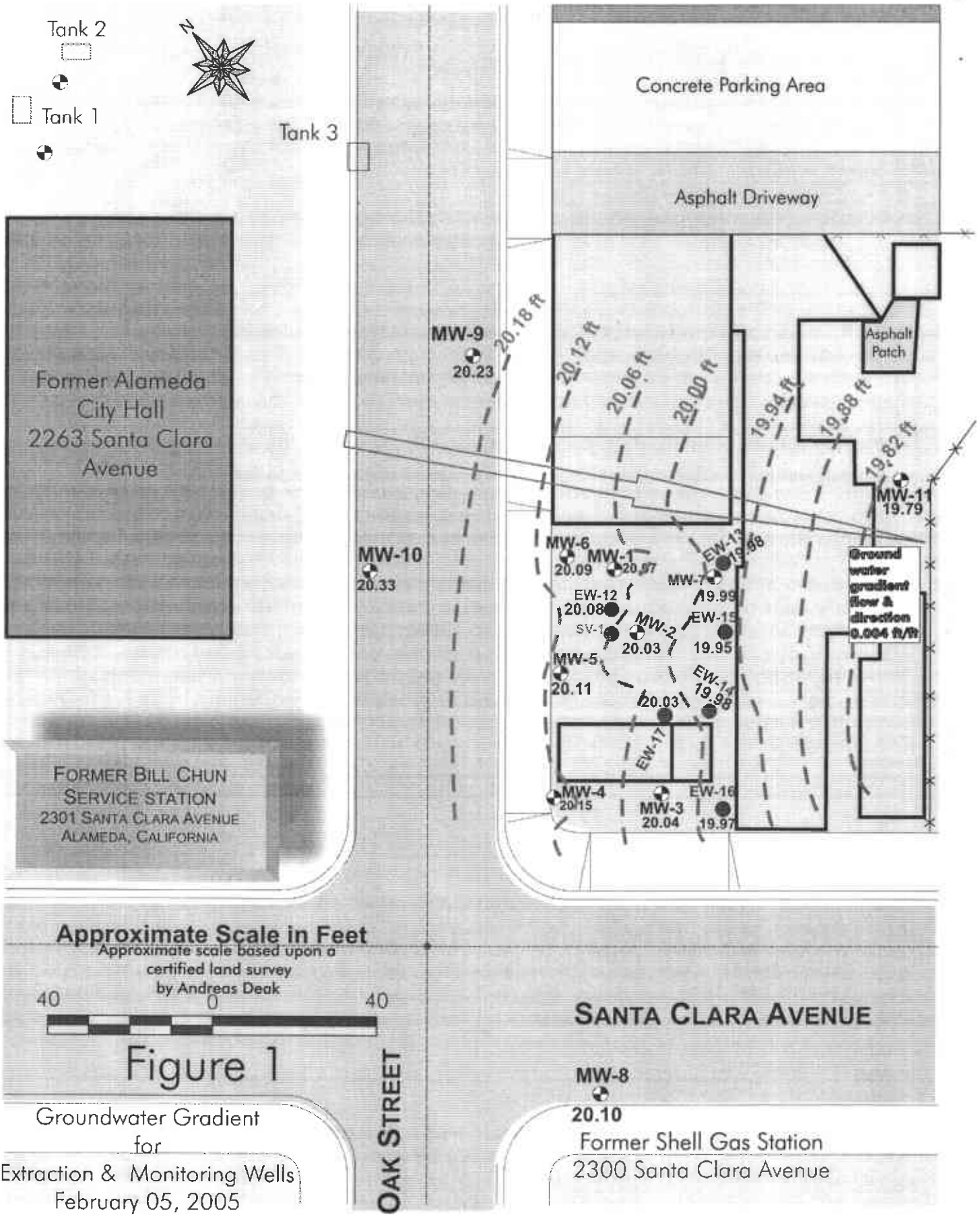


Figure 1

Groundwater Gradient
for
Extraction & Monitoring Wells
February 05, 2005

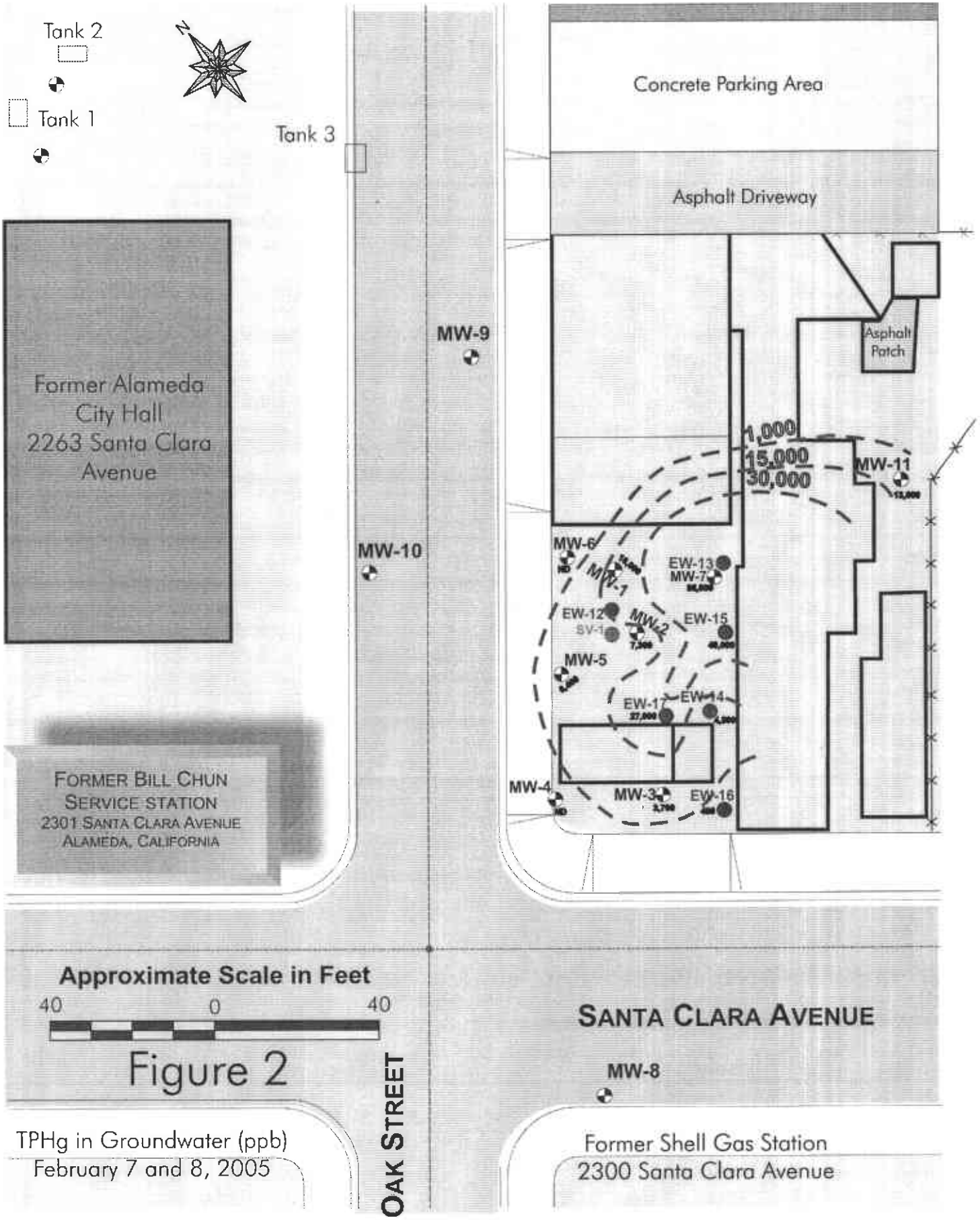


Figure 2

TPHg in Groundwater (ppb)
February 7 and 8, 2005

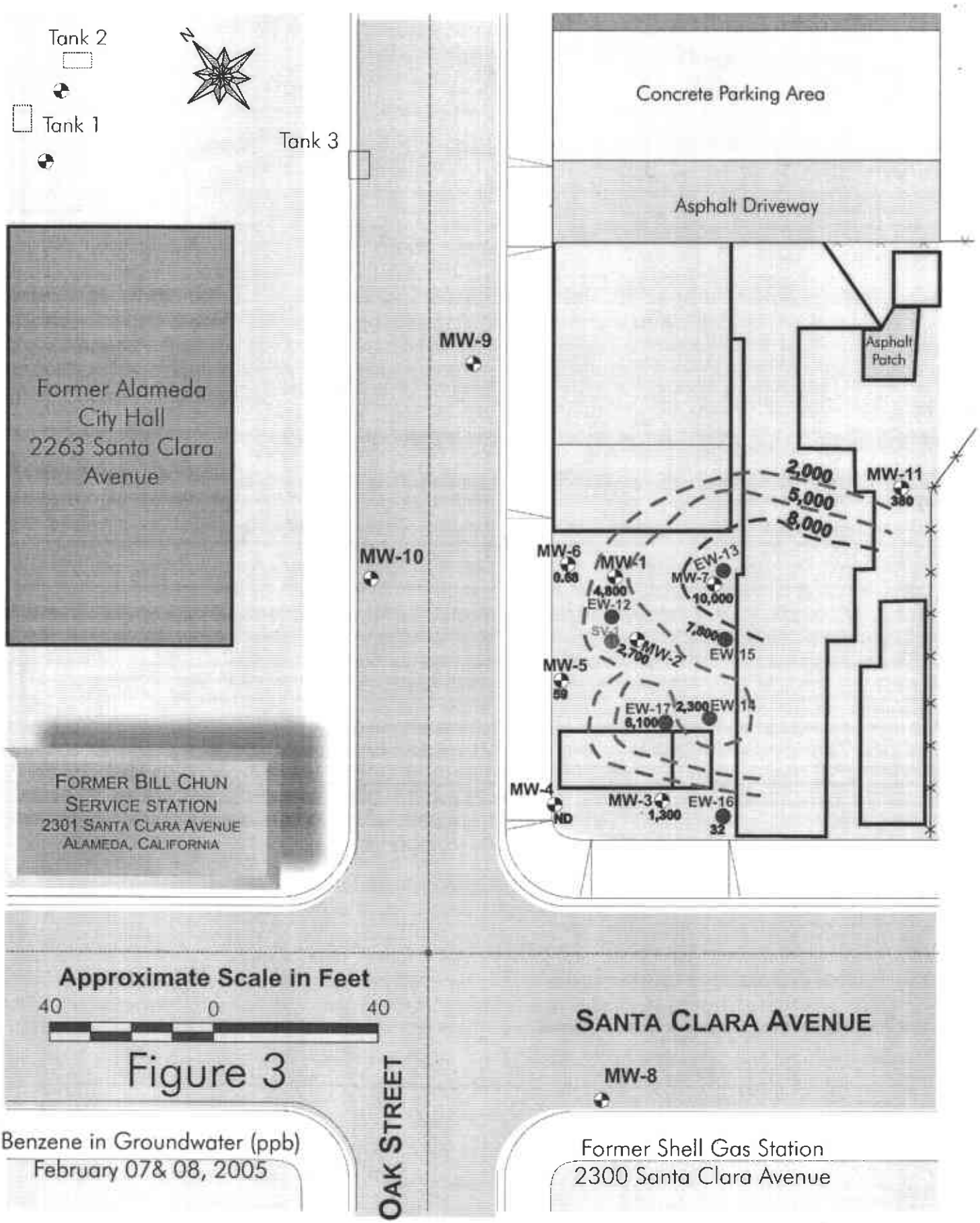


Figure 3

Benzene in Groundwater (ppb)
February 07& 08, 2005

Former Shell Gas Station
2300 Santa Clara Avenue

TABLE 1
Depth to Groundwater Measurements
February 05, 2005

Well No	Depth to Groundwater from TOC (feet bgs)	TOC Elevation (feet) MSN	Water Table Elevation (feet)
MW-1	8.42	28.49	20.07
MW-2	8.44	28.47	20.03
MW-3	8.74	28.78	20.04
MW-4	8.38	28.53	20.15
MW-5	8.22	28.33	20.11
MW-6	8.27	28.36	20.09
MW-7	8.45	28.44	19.99
MW-8	8.07	28.17	20.10
MW-9	7.22	27.45	20.23
MW-10	6.99	27.32	20.33
MW-11	8.77	28.56	19.79
EW-12	8.17	28.25	20.08
EW-13	8.66	28.64	19.98
EW-14	9.23	29.21	19.98
EW-15	8.76	28.71	19.95
EW-16	9.05	29.02	19.97
EW-17	8.92	28.95	20.03

TABLE 2 - Chun
Representative Analytical for Gasoline in Groundwater (ppb)

Well No		TPHg	Benzene
MW-1	(02-07-05)	18,000	4,800
	(11-05-04)	18,000	5,100
	(08-08-04)	29,000	9,700
	(04-24-04)	33,000	8,000
	(12-25-03)	12,000	3,400
	(09-20-03)	19,000	4,900
	(07-04-02)	*43,000*	*7,200*
	(09-17-00)	*65,000*	*15,000*
MW-2	(02-07-05)	7,300	2,700
	(11-05-04)	18,000	5,800
	(08-08-04)	21,000	6,800
	(04-24-04)	44,000	8,400
	(12-25-03)	46,000	6,100
	(09-21-03)	*27,000*	*2,400*
	(07-04-02)	41,000	5,600
	(09-17-00)	*140,000*	*21,000*
MW-3	(02-07-05)	3,700	1,300
	(11-05-04)	2,900	470
	(08-08-04)	2,500	400
	(04-24-04)	3,100	1,000
	(12-25-03)	3,300	290
	(09-21-03)	*2,700*	*320*
	(07-04-02)	10,000	2,300
	(09-17-00)	*9,300*	*3,000*
MW-4	(02-07-05)	ND	ND
	(11-05-04)	ND	ND
	(08-08-04)	ND	ND
	(04-24-04)	3,000	0.97

	(12-25-03)	ND	ND
	(09-20-03)	*ND*	*ND*
	(07-04-02)	ND	ND
	(09-17-00)	*ND*	*ND*
MW-5	(02-07-05)	6,400	59
	(11-05-04)	6,400	76
	(08-08-04)	13,000	82
	(04-24-04)	13,000	97
	(12-25-03)	2,300	140
	(09-21-03)	*8,700*	*ND*
	(07-04-02)	16,000	89
	(09-17-00)	*44,000*	*490*
MW-6	(02-07-05)	ND	0.68
	(11-05-04)	610	5.9
	(08-08-04)	320	2.7
	(04-24-04)	110	3.6
	(12-25-03)	1,200	18
	(09-20-03)	*500*	*15*
	(07-04-02)	3,900	29
	(09-17-00)	*10,000*	*110*
MW-7	(02-07-05)	86,000	10,000
	(11-05-04)	86,000	8,300
	(08-08-04)	92,000	9,300
	(04-24-04)	100,000	10,000
	(12-25-03)	110,000	12,000
	(09-21-03)	*110,000*	*4,200*
	(07-04-02)	140,000	15,000
	(09-17-00)	*220,000*	*32,000*
MW-8	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(08-08-04)	NA	NA
	(04-24-04)	ND	ND

	(12-25-03)	ND	ND
	(09-20-03)	*ND*	*ND*
	(07-03-02)	ND	1.1
	(09-17-00)	*ND*	*1.4*
MW-9	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(04-24-04)	NA	NA
	(04-24-04)	ND	ND
	(12-25-03)	ND	ND
	(09-20-03)	*ND*	*ND*
	(07-03-02)	ND	ND
	(09-17-00)	*ND*	*ND*
MW-10	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(04-24-04)	NA	NA
	(04-24-04)	ND	ND
	(12-25-03)	ND	ND
	(09-20-03)	*ND*	*ND*
	(07-03-02)	ND	ND
	(09-17-00)	*ND*	*ND*
MW-11	(02-07-05)	13,000	380
	(11-05-04)	21,000	760
	(08-08-04)	29,000	3,100
	(04-24-04)	38,000	5,000
	(12-25-03)	14,000	1,400
	(09-22-03)	46,000	1,700
	(10-24-02)	59,000	5,100
SV-1	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(08-08-04)	NA	NA
	(04-24-04)	9,600	740
	(12-25-03)	83,000	2,200

	(09-21-03)	*89,000*	*2,300*
	(07-04-02)	210,000	7,900
	(09-17-00)	560,000	10,000
EW-12	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(08-08-04)	NA	NA
	(04-24-04)	12,000	920
	(12-25-03)	9,900	790
	(09-21-03)	19,000	590
	(10-31-02)	5,840	75.7
EW-13	(02-07-05)	NA	NA
	(11-05-04)	NA	NA
	(08-08-04)	NA	NA
	(04-24-04)	100,000	19,000
	(12-25-03)	110,000	17,000
	(09-21-03)	71,000	10,000
	(10-31-02)	109,200	9,120
EW-14	(02-08-05)	4,500	2,300
	(11-06-04)	43,000	8,000
	(08-08-04)	14,000	6,300
	(04-24-04)	9,400	4,100
	(12-25-03)	26,000	5,300
	(09-22-03)	68,000	4,100
EW-15	(02-08-05)	49,000	7,800
	(11-06-04)	48,000	5,400
	(08-08-04)	36,000	3,300
	(01-21-04)	72,000	8,400
EW-16	(02-08-05)	400	32
	(11-06-04)	1,500	210
	(08-08-04)	2,500	590
	(01-21-04)	1,500	290
EW-17	(02-08-05)	27,000	6,100

(11-06-04)	31,000	6,300
(08-08-04)	30,000	6,800
(01-21-04)	18,000	2,600

Appendix A
Sampling Event Sheets

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-6

DTW 8.27

packer intake bailer depth

Action	Time	Pump Rate	IWL (low yield)
Stop			
Sampled			
(Final IWL)			

Purge Calculation

____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 = ____ gals. (one volume / purge volume-3 casings)

Head Purge Calculation (Airlift Only)

____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.5	68.3	924	7.1			6:15
2. 2.5	70.4	919	7.0			6:50
3. 2.0	70.6	922	6.9			7:10 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L. drop MY - Wt. drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LY - able to purge 3 volumes by returning later or next day. VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-4

DTW 8.38

packer intake bailer depth

Action	Time	Pump Rate	IWL (low yield)
Stop			
Sampled			
(Final IWL)			

Purge Calculation

____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 = ____ gals. (one volume / purge volume-3 casings)

Head Purge Calculation (Airlift Only)

____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	69.6	913	7.1			7:30
2. 2.5	70.1	912	7.0			8:00
3. 2.0	70.1	917	7.0			8:30 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L. drop MY - Wt. drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LY - able to purge 3 volumes by returning later or next day. VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-5

DTW 8.22

packer intake bailer depth

Action	Time	Pump Rate	IWL (low yield)
Stop			
Sampled			
(Final IWL)			

Purge Calculation

____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 = ____ gals. (one volume / purge volume-3 casings)

Head Purge Calculation (Airlift Only)

____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	71.1	934	7.0			8:55
2. 2.0	70.0	941	7.0			9:20
3. 2.5	70.2	945	7.1			9:45 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L. drop MY - Wt. drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LY - able to purge 3 volumes by returning later or next day. VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-3

SWL 8.74

packer intake bailer depth

Action	Time	Pump Rate	IWL (low yield)
Stop			
Sampled			
(Final IWL)			

Purge Calculation

____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 = ____ gals. (one volume / purge volume-3 casings)

Head Purge Calculation (Airlift Only)

____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	70.0	987	6.8			10:20
2. 2.0	70.2	982	6.9			11:00
3. 2.0	70.1	989	6.8			11:35am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L. drop MY - Wt. drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LY - able to purge 3 volumes by returning later or next day. VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-2

DTW 8.44

packer intake bailer depth

Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator: ____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 (one volume) = ____ gals. (purge volume-3 casings)

Head Purge Calculation (Aliiff Only): ____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailer, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	71.8	911	7.1			12:00
2. 2.0	71.7	911	7.1			12:30
3. 2.0	71.9	901	7.1			1:00 pm
4.						
5.						

*Take measurement at approximately each casing volume purged

● HV-Minimal W.L. drop MV - W. drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LV - able to purge 3 volumes by returning later or next day. VLV - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-1

DTW 8.42

packer intake bailer depth

Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator: ____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 (one volume) = ____ gals. (purge volume-3 casings)

Head Purge Calculation (Aliiff Only): ____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailer, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Clear moderate strong odor

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	72.2	944	6.9			1:25
2. 2.0	72.7	936	7.0			2:05
3. 1.5	71.9	936	7.1			2:45 pm
4.						
5.						

*Take measurement at approximately each casing volume purged

● HV-Minimal W.L. drop MV - W.L drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LV - able to purge 3 volumes by returning later or next day. VLV - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-7

DTW 8.45

packer intake bailer depth

Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator: ____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 (one volume) = ____ gals. (purge volume-3 casings)

Head Purge Calculation (Aliiff Only): ____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailer, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	71.1	1011	7.0			3:20
2. 1.5	71.3	1111	7.1			3:45
3. 2.0	69.9	1104	7.2			4:15 pm
4.						
5.						

*Take measurement at approximately each casing volume purged

● HV-Minimal W.L. drop MV - W.L drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LV - able to purge 3 volumes by returning later or next day. VLV - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: _____ SAMPLER: FG DATE: Feb 07, 2005

WELL/HYDROLOGIC STATISTICS MW-11

DTW 8.77

packer intake bailer depth

Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator: ____ gal/ft. ____ ft. (SWL to BOP or packer to BOP) ____ gals. X 3 (one volume) = ____ gals. (purge volume-3 casings)

Head Purge Calculation (Aliiff Only): ____ gal/ft. ____ ft. (packer to SWL) ____ gals

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailer, Hydac kit

Actual Gallons Purged: _____

Actual Volumes Purged: _____

Well Yield: ● _____ (See Below)

COC #: _____

Sample I.D.	Analysis	Lab

Additional Comments:

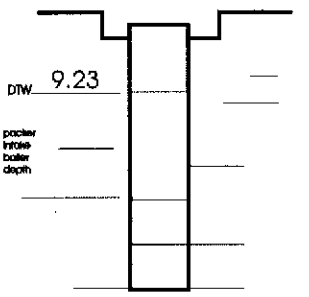
Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	72.1	951	6.9			4:50
2. 2.5	72.9	958	7.1			5:20
3. 2.0	72.4	968	7.0			5:55 pm
4.						
5.						

*Take measurement at approximately each casing volume purged

● HV-Minimal W.L. drop MV - W.L drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. LV - able to purge 3 volumes by returning later or next day. VLV - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: SAMPLER: FG DATE: Feb 08, 2005

WELL/HYDROLOGIC STATISTICS EW-14



Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator
gal/ft. ____ ft. ____ gals. X 3 = ____ gals.
SWL to BOP or packer to BOP | one volume | purge volume-3 casings

Head Purge Calculation (Airlift Only)
____ gal/ft. ____ ft. ____ gals
packer to SWL

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: ____

Actual Volumes Purged: ____

Well Yield: ● ____
(See Below)

COC #: ____

Sample I.D.	Analysis	Lab

Additional Comments:

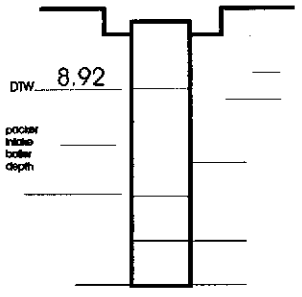
Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.0	71.9	998	7.1			6:35
2. 2.0	71.1	989	7.0			7:00
3. 2.5	71.7	1003	7.0			7:35 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L drop | MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. | LY - able to purge 3 volumes by returning later or next day. | VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: SAMPLER: FG DATE: Feb 08, 2005

WELL/HYDROLOGIC STATISTICS EW-17



Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator
____ gal/ft. ____ ft. ____ gals. X 3 = ____ gals.
SWL to BOP or packer to BOP | one volume | purge volume-3 casings

Head Purge Calculation (Airlift Only)
____ gal/ft. ____ ft. ____ gals
packer to SWL

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: ____

Actual Volumes Purged: ____

Well Yield: ● ____
(See Below)

COC #: ____

Sample I.D.	Analysis	Lab

Additional Comments:

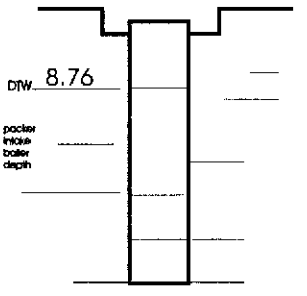
Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.5	70.8	988	7.1			7:55
2. 2.5	71.1	1002	7.0			8:20
3. 1.5	71.7	1011	7.0			9:15 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L drop | MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. | LY - able to purge 3 volumes by returning later or next day. | VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: SAMPLER: FG DATE: Feb 08, 2005

WELL/HYDROLOGIC STATISTICS EW-15



Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator
____ gal/ft. ____ ft. ____ gals. X 3 = ____ gals.
SWL to BOP or packer to BOP | one volume | purge volume-3 casings

Head Purge Calculation (Airlift Only)
____ gal/ft. ____ ft. ____ gals
packer to SWL

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: ____

Actual Volumes Purged: ____

Well Yield: ● ____
(See Below)

COC #: ____

Sample I.D.	Analysis	Lab

Additional Comments:

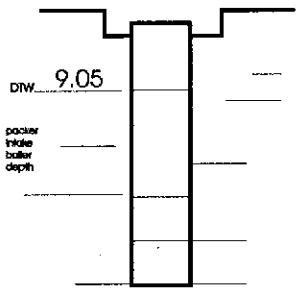
Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.5	71.8	985	6.9			10:00
2. 2.0	71.9	977	6.9			10:40
3. 1.5	711.3	985	6.9			11:15 am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L drop | MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. | LY - able to purge 3 volumes by returning later or next day. | VLY - Minimal recharge unable to purge 3 volumes.

PROJECT: Chun EVENT: SAMPLER: FG DATE: Feb 08, 2005

WELL/HYDROLOGIC STATISTICS EW-16



Action	Time	Pump Rate	WL (low yield)
Stop			
Sampled			
(Final WL)			

Purge Calculator
____ gal/ft. ____ ft. ____ gals. X 3 = ____ gals.
SWL to BOP or packer to BOP | one volume | purge volume-3 casings

Head Purge Calculation (Airlift Only)
____ gal/ft. ____ ft. ____ gals
packer to SWL

Equipment Used/Sampling method/Description of Event:

Electronic water level indicator, weighted plastic disposable bailor, Hydac kit

Actual Gallons Purged: ____

Actual Volumes Purged: ____

Well Yield: ● ____
(See Below)

COC #: ____

Sample I.D.	Analysis	Lab

Additional Comments:

Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TURBIDITY (NTU)	HEAD (FT)	TIME
1. 2.5	69.9	945	6.9			11:35
2. 2.5	69.6	945	7.1			11:55
3. 2.0	69.0	961	7.0			12:30am
4.						
5.						

*Take measurement at approximately each casing volume purged

● HY-Minimal W.L drop | MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump. | LY - able to purge 3 volumes by returning later or next day. | VLY - Minimal recharge unable to purge 3 volumes.

Appendix B
Laboratory Data Sheets

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Chun
Project No.: NA
Project Name: Chun
Sample Matrix: Water
Method: EPA 8015M (GRO)

AA Project No.: A57207
Date Received: 02/14/05
Date Reported: 02/24/05
Units: mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
182392	MW-6	02/07/05	02/15/05	1.0	<0.1	0.1
182393	MW-4	02/07/05	02/15/05	1.0	<0.1	0.1
182394	MW-5	02/07/05	02/15/05	10.0	**6.4**	0.1
182395	MW-3	02/07/05	02/15/05	5.0	**3.7**	0.1
182396	MW-2	02/07/05	02/15/05	50.0	**7.3**	0.1
182397	MW-1	02/07/05	02/15/05	50.0	**18**	0.1
182398	MW-7	02/07/05	02/15/05	100.0	**86**	0.1
182399	MW-11	02/07/05	02/15/05	20.0	**13**	0.1
182400	EW-14	02/08/05	02/15/05	20.0	**4.5**	0.1
182401	EW-17	02/08/05	02/15/05	50.0	**27**	0.1
182402	EW-15	02/08/05	02/15/05	50.0	**49**	0.1
182403	EW-16	02/08/05	02/15/05	1.0	**0.40**	0.1

MRL: Method Reporting Limit J: Estimated Value DF: Dilution Factor

NOTES:

GRO : Gasoline Range Organics

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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client:	Chun	**AA Project No.:**	A57207
Project No.:	NA	**Date Received:**	02/14/05
Project Name:	Chun	**Date Reported:**	02/24/05
Sample Matrix:	Water	**Units:**	ug/L
Method:	EPA 8260B		

Date Sampled:	02/07/05	02/07/05	02/07/05	02/07/05	
Date Analyzed:	02/17/05	02/17/05	02/17/05	02/17/05	
AA ID No.:	182392	182393	182394	182395	
Client ID No.:	MW-6	MW-4	MW-5	MW-3	
Dilution Factor:	1.0	1.0	10.0	5.0	**MRL**
Compounds:					
Benzene	**0.68**	<0.5	**59**	**1300**	0.5
Di-isopropyl Ether	<2	<2	<20	<10	2
1,2-Dibromoethane (EDB)	<0.5	<0.5	<5	<2.5	0.5
1,2-Dichloroethane (EDC)	<0.5	<0.5	<5	**100**	0.5
Ethyl tert-Butyl Ether	<2	<2	<20	<10	2
Ethylbenzene	**1.4**	<0.5	**370**	**6.0**	0.5
Methyl tert-Butyl Ether	<2	<2	<20	<10	2
Tert-Amyl Methyl Ether	<2	<2	<20	<10	2
Toluene	**0.79**	<0.5	**150**	**2.9**	0.5
m,p-Xylenes	**3.0**	<1	**980**	**9.5**	1
o-Xylene	**1.5**	<0.5	**200**	<2.5	0.5
tert-Butanol	<10	<10	<100	<50	10

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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client:	Chun	**AA Project No.:**	A57207
Project No.:	NA	**Date Received:**	02/14/05
Project Name:	Chun	**Date Reported:**	02/24/05
Sample Matrix:	Water	**Units:**	ug/L
Method:	EPA 8260B		

Date Sampled:	02/07/05	02/07/05	02/07/05	02/07/05	
Date Analyzed:	02/17/05	02/17/05	02/17/05	02/17/05	
AA ID No.:	182396	182397	182398	182399	
Client ID No.:	MW-2	MW-1	MW-7	MW-11	
Dilution Factor:	50.0	50.0	500.0	50.0	**MRL**
Compounds:					
Benzene	**2700**	**4800**	**10000**	**380**	0.5
Di-isopropyl Ether	<100	<100	<1000	<100	2
1,2-Dibromoethane (EDB)	<25	<25	<250	<25	0.5
1,2-Dichloroethane (EDC)	<25	<25	<250	<25	0.5
Ethyl tert-Butyl Ether	<100	<100	<1000	<100	2
Ethylbenzene	**190**	**740**	**2600**	**630**	0.5
Methyl tert-Butyl Ether	<100	<100	<1000	<100	2
Tert-Amyl Methyl Ether	<100	<100	<1000	<100	2
Toluene	**540**	**2200**	**36000**	**400**	0.5
m,p-Xylenes	**450**	**1800**	**11000**	**3700**	1
o-Xylene	**190**	**450**	**5300**	**970**	0.5
tert-Butanol	<500	<500	<5000	<500	10

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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Chun
Project No.: NA
Project Name: Chun
Sample Matrix: Water
Method: EPA 8260B

AA Project No.: A57207
Date Received: 02/14/05
Date Reported: 02/24/05
Units: ug/L

Date Sampled:	**02/08/05**	**02/08/05**	**02/08/05**	**02/08/05**	
Date Analyzed:	**02/17/05**	**02/17/05**	**02/17/05**	**02/17/05**	
AA ID No.:	**182400**	**182401**	**182402**	**182403**	
Client ID No.:	**EW-14**	**EW-17**	**EW-15**	**EW-16**	
Dilution Factor:	**10.0**	**100.0**	**50.0**	**1.0**	**MRL**
Compounds:					
Benzene	**2300**	**6100**	**7800**	**32**	0.5
Di-isopropyl Ether	<20	<200	<100	<2	2
1,2-Dibromoethane (EDB)	<5	<50	<25	<0.5	0.5
1,2-Dichloroethane (EDC)	<5	<50	<25	**20**	0.5
Ethyl tert-Butyl Ether	<20	<200	<100	<2	2
Ethylbenzene	**17**	**950**	**1900**	<0.5	0.5
Methyl tert-Butyl Ether	<20	<200	<100	<2	2
Tert-Amyl Methyl Ether	<20	<200	<100	<2	2
Toluene	**220**	**4800**	**8800**	<0.5	0.5
m,p-Xylenes	**270**	**2600**	**7000**	**1.2**	1
o-Xylene	**750**	**1800**	**3200**	<0.5	0.5
tert-Butanol	<100	<1000	<500	<10	10

MRL: Method Reporting Limit J: Estimated Value

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AMERICAN ANALYTICS

LABORATORY QA/QC REPORT

Client: Chun
Project Name: Chun
Method: EPA 8015M (GRO)
Sample ID: Reagent Blank

Project No.: NA
AA Project No.: A57207
Date Analyzed: 02/15/05
Date Reported: 02/24/05

Compounds	Result mg/L	MRL
Gasoline Range Organics	<0.1	0.1

MRL: Method Reporting Limit

NOTES:

GRO : Gasoline Range Organics

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LABORATORY QA/QC REPORT

Client: Chun
Project Name: Chun
Method: EPA 8260B
Sample ID: Reagent Blank

Project No.: NA
AA Project No.: A57207
Date Analyzed: 02/17/05
Date Reported: 02/24/05

Compounds	Result ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
1,2-Dibromoethane (EDB)	<0.5	0.5
1,2-Dichloroethane (EDC)	<0.5	0.5
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5
tert-Butanol	<10	10

MRL: Method Reporting Limit

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AMERICAN ANALYTICS

LABORATORY QA/QC REPORT

Client: Chun
Project Name: Chun
Method: EPA 8015M (GRO)
Sample ID: Laboratory Control Standard
Concentration: 0.5 mg/L

Project No.: NA
AA Project No. A57207
Date Analyzed: 02/15/05
Date Reported: 02/24/05

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Gasoline Range Organics	0.432	86.0	48.0 - 152

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AMERICAN ANALYTICS

LABORATORY QA/QC REPORT

Client: Chun
Project Name: Chun
Method: EPA 8260B
Sample ID: Laboratory Control Standard
Concentration: 20 ug/L

Project No.: NA
AA Project No. A57207
Date Analyzed: 02/17/05
Date Reported: 02/24/05

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Benzene	21.3	107	50 - 150
Ethylbenzene	22.4	112	50 - 150
Methyl tert-Butyl Ether	19.2	96	50 - 150
Toluene	22.0	110	50 - 150
o-Xylene	22.0	110	50 - 150

Viorel Vasile
Project Manager

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A57207

Franklin J. Goldman
PO BOX 59, Sonoma, CA 95476
Phone: (707) 238-9979
franklingoldman@yahoo.com

CHAIN OF CUSTODY RECORD

Laboratory Analysis P.O. No._____

Laboratory Please Call Accounts Payable for P.O. No.

Date: 02/08/05 Sheet 1 of 2

Project Name: Chun

Project Number_____

Address: 2301 Santa Clara Ave, Alameda, CA

Sampler's Name: Frank Goldman

Sampler's Signature: Franklin J. Goldman

Sample Number	Location	Date	Time
MW-6	182392	02/07/05	7:15 AM
MW-4	182393		8:40 AM
MW-5	182394		10:05 AM
MW-3	182395		11:45 AM
MW-2	182396		1:10 PM
MW-1	182397		2:55 PM
MW-7	182398		4:30 PM
MW-11	182399	↓	6:05 PM
EW-14	182400	02/08/05	7:40 AM
EW-17	182401	02/08/05	9:30 AM

Parameters

TPH as Gasoline 8015/M	TPH as Diesel 8015	TPH-g/BTEX 8015/8020 & MTBE	BTEX & EPA 8020	Oil and Grease 5520	Volitile Organics (8010)	CAM Metals (17)	Pr. Pollutant Metals (13)	Base/Neu/Acids (Organic)	Pesticides 8140/8141	Method 8260b for 5 oxygenates & 2 lead scavengers		Bulk density, moisture, porosity fraction of organic carbon	SOIL SAMPLE	WATER SAMPLE
↓										X				X
										↓				↓

Laboratory Delivery Location
American Analytics, Inc.
9765 Eton Ave
Chatsworth, CA
Phone: (818) 998-5547

Phone

Turnaround Time
☐ Rush ☐ 24 Hour ☐ 48 Hour ☒ 5-Day

Repeat to: Frank

Comments
3 VOAs

'05 FEB 14 AM 9:26

Relinquished By	Date	Time	Received By	Date	Time
Franklin J. Goldman	02/12/05	10:38	Michi K	02/12/05	10:38
FED EX			Ludmila Glade	02/14/05	09:26
Dispatched By	**Date**	**Time**	**Received in Lab By**	**Date**	**Time**

Total Number of Containers this Sheet:

Method of Shipment:

Special Shipment/Handling or Storage Requirements:

Keep on Ice

approved as work order 02/14/05 1345 V. Vasil

A57207

Franklin J. Goldman
PO BOX 59, Sonoma, CA 95476
Phone: (707) 235-9979
franklingoldman1@yahoo.com

CHAIN OF CUSTODY RECORD

Laboratory Analysis P.O. No._____

Laboratory Please Call Accounts Payable for P.O. No

Date: 02/08/05 Sheet 2 of 2

Project Name Chun

Project Number_____

Address 2301 Santa Clara Ave
Alameda, CA

Sampler's Name:
Frank Goldman

Sampler's Signature: Franklin J. Goldman

Sample Number	Location	Date	Time
EW-15	182402	02/08/05	11:20 AM
EW-16	182403	02/08/05	12:55 PM

Parameters

Sample Number	TPH as Gasoline 8015M	TPH as Diesel 8015	TPH-g/BTEX 8015/8020 & MTBE	BTEX & EPA 8020	Oil and Grease 5520	Volitile Organics (8010)	CAM Metals (17)	Pr. Pollutant Metals (13)	Base/Neu/Acids (Organic)	Pesticides 8140/8141	Method 8260b for 5 oxygenates & 2 lead scavengers		Bulk density, moisture, porosity fraction of organic carbon	SOIL SAMPLE	WATER SAMPLE
EW-15	X										X				X
EW-16	X										X				X

Laboratory Delivery Location
American Analytics, Inc.
9765 Eton Ave
Chatsworth, CA
Phone: (818) 998-5547

Phone

Turnaround Time
☐ Rush ☐ 24 Hour ☐ 48 Hour ☒ 5-Day

Repeat to: Frank

Comments
3 VOAs

Relinquished By	Date	Time
Franklin J. Goldman	02/12/05	10:25 AM
FEDEX		
Dispatched By	Date	Time

Received By	Date	Time
Michi L	02/12/05	10:25 AM
Ludmila Glaz	02/14/05	0912 AM
Received in Lab By	Date	Time

Total Number of Containers this Sheet:

Method of Shipment:

Special Shipment/Handling or Storage Requirements:

Keep on Ice

approved as work order 02/14/05 1345 V. Vonzle