



Customer-Focused Solutions

April 14, 2005

ConocoPhillips Company
76 Broadway
Sacramento, California 95818

ATTN: MS. SHELBY LATHROP

SITE: 76 STATION 4186
1771 FIRST STREET
LIVERMORE, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
JANUARY THROUGH MARCH 2005

Dear Ms. Lathrop:

Please find enclosed our Quarterly Monitoring Report for 76 Station 4186, located 1771 First Street, Livermore, California. If you have any questions regarding this report, please call us at (949) 753-0101.

Sincerely,

TRC



Anju Farfan
QMS Operations Manager

CC: Mr. Dave Evans, ATC Associates Inc. (3 copies)

Enclosures
20-0400/4186R06.QMS.doc



Customer-Focused Solutions

**QUARTERLY MONITORING REPORT
JANUARY THROUGH MARCH 2005**

76 STATION 4186
1771 First Street
Livermore, California

Prepared For:

Ms. Shelby Lathrop
CONOCOPHILLIPS COMPANY
76 Broadway
Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations
April 14, 2005

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Summary of Gauging and Sampling Activities
January 2005 through March 2005
76 Station 4186
1771 First Street
Livermore, CA

Project Coordinator: **Shelby Lathrop**
Telephone: **916-558-7609**

Water Sampling Contractor: **TRC**
Compiled by: **TRC QMS Group**

Date(s) of Gauging/Sampling Event: **03/23/05**

Sample Points

Groundwater wells: **5 onsite, 2 offsite** Wells gauged: **7** Wells sampled: **7**
Purging method: **Submersible pump**
Purge water disposal: **Onyx/Rodeo Unit 100**
Other Sample Points: **0** Type: **n/a**

Liquid Phase Hydrocarbons (LPH)

Wells with LPH: **0** Maximum thickness (feet): **n/a**
LPH removal frequency: **n/a** Method: **n/a**
Treatment or disposal of water/LPH: **n/a**

Hydrogeologic Parameters

Depth to groundwater (below TOC): Minimum: **21.64 feet** Maximum: **25.45 feet**
Average groundwater elevation (relative to available local datum): **454.03 feet**
Average change in groundwater elevation since previous event: **9.08 feet**
Interpreted groundwater gradient and flow direction:
 Current event: **0.04 ft/ft, west**
 Previous event: **0.07 ft/ft, west (12/08/04)**

Selected Laboratory Results

Wells with detected **Benzene**: **3** Wells above MCL (1.0 µg/l): **3**
 Maximum reported benzene concentration: **94 µg/l (U-3)**

Wells with **TPPH 8260B** **3** Maximum: **21,000 µg/l (U-3)**
Wells with **MTBE** **5** Maximum: **6,200 µg/l (U-3)**

Notes:

TABLES

TABLE KEY

STANDARD ABBREVIATIONS

—	=	not analyzed, measured, or collected
LPH	=	liquid-phase hydrocarbons
Trace	=	less than 0.01 foot of LPH in well
µg/l	=	micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l	=	milligrams per liter (approx. equivalent to parts per million, ppm)
ND <	=	not detected at or above laboratory detection limit
TOC	=	top of casing (surveyed reference elevation)

ANALYTES

BTEX	=	benzene, toluene, ethylbenzene, and (total) xylenes
DIPE	=	di-isopropyl ether
ETBE	=	ethyl tertiary butyl ether
MTBE	=	methyl tertiary butyl ether
PCB	=	polychlorinated biphenyls
PCE	=	tetrachloroethene
TBA	=	tertiary butyl alcohol
TCA	=	trichloroethane
TCE	=	trichloroethene
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TPPH	=	total purgeable petroleum hydrocarbons
TRPH	=	total recoverable petroleum hydrocarbons
TAME	=	tertiary amyl methyl ether
1,1-DCA	=	1,1-dichloroethane
1,2-DCA	=	1,2-dichloroethane (same as EDC, ethylene dichloride)
1,1-DCE	=	1,1-dichloroethene
1,2-DCE	=	1,2-dichloroethene (cis- and trans-)

NOTES

1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
2. Groundwater elevations for wells with LPH are calculated as: $\text{Surface Elevation} - \text{Measured Depth to Water} + (\text{Dp} \times \text{LPH Thickness})$, where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
5. A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
8. Groundwater vs. Time graphs may be corrected for apparent level changes due to re-survey.

REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 4186 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
March 23, 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-1	(Screen Interval in feet: 14.0-34.0)													
03/23/05	478.27	22.47	0.00	455.80	8.70	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
U-2	(Screen Interval in feet: 13.0-34.0)													
03/23/05	477.44	22.00	0.00	455.44	7.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	1.1	--	ND<0.50	
U-3	(Screen Interval in feet: 14.0-34.0)													
03/23/05	478.46	21.64	0.00	456.82	7.49	--	21000	94	ND<50	630	1200	--	6200	
U-4	(Screen Interval in feet: 35.0-45.0)													
03/23/05	476.93	25.38	0.00	451.55	9.72	--	ND<50	ND<0.50	ND<0.50	1.3	1.2	--	0.65	
U-5	(Screen Interval in feet: 37.0-47.0)													
03/23/05	476.51	25.45	0.00	451.06	9.88	--	ND<50	ND<0.50	ND<0.50	0.51	ND<1.0	--	4.5	
U-6	(Screen Interval in feet: DNA)													
03/23/05	478.38	25.08	0.00	453.30	9.72	--	960	2.7	ND<0.50	9.6	4.8	--	2.5	
U-7	(Screen Interval in feet: DNA)													
03/23/05	478.74	24.49	0.00	454.25	10.19	--	5600	18	1.3	42	14	--	39	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-1 (Screen Interval in feet: 14.0-34.0)														
07/13/98	478.27	23.28	0.00	454.99	--	ND	--	ND	ND	ND	ND	ND	--	
10/07/98	478.27	26.43	0.00	451.84	-3.15	ND	--	ND	ND	ND	ND	ND	--	
01/15/99	478.27	30.42	0.00	447.85	-3.99	ND	--	ND	ND	ND	1.1	7.3	--	
04/14/99	478.27	24.21	0.00	454.06	6.21	ND	--	ND	ND	ND	ND	160	--	
07/19/99	478.27	27.10	0.00	451.17	-2.89	ND	--	ND	ND	ND	ND	92	--	
10/12/99	478.27	29.40	0.00	448.87	-2.30	ND	--	ND	ND	ND	ND	37	--	
01/24/00	478.27	27.90	0.00	450.37	1.50	ND	--	ND	ND	ND	ND	28	--	
04/10/00	478.27	26.16	0.00	452.11	1.74	ND	--	ND	0.930	ND	ND	ND	--	
07/17/00	478.27	28.04	0.00	450.23	-1.88	ND	--	ND	ND	ND	ND	160	--	
10/02/00	478.27	28.41	0.00	449.86	-0.37	ND	--	ND	ND	ND	ND	120	--	
01/08/01	478.27	28.68	0.00	449.59	-0.27	ND	--	ND	ND	ND	ND	103	--	
04/03/01	478.27	25.74	0.00	452.53	2.94	ND	--	ND	ND	ND	ND	55.1	--	
07/02/01	478.27	30.67	0.00	447.60	-4.93	ND	--	ND	ND	ND	ND	ND	--	
10/08/01	478.27	33.13	0.00	445.14	-2.46	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
01/03/02	478.27	27.67	0.00	450.60	5.46	160	--	ND<0.50	0.51	ND<0.50	0.69	31	--	
04/05/02	478.27	29.40	0.00	448.87	-1.73	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	60	--	
07/02/02	478.27	31.17	0.00	447.10	-1.77	--	1100	ND<0.50	1.7	0.73	130	--	35	
10/01/02	478.27	33.00	0.00	445.27	-1.83	--	120	ND<0.50	ND<0.50	ND<0.50	8.8	--	28	
12/30/02	478.27	22.03	0.00	456.24	10.97	--	ND<50	ND<0.50	ND<0.50	ND<0.50	1.2	--	90	
05/02/03	478.27	24.13	0.00	454.14	-2.10	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	50	
07/01/03	478.27	25.35	0.00	452.92	-1.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/03/03	478.27	27.24	0.00	451.03	-1.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
01/08/04	478.27	22.67	0.00	455.60	4.57	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.5	
04/15/04	478.27	25.33	0.00	452.94	-2.66	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-1 continued														
07/15/04	478.27	26.47	0.00	451.80	-1.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/08/04	478.27	31.17	0.00	447.10	-4.70	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/23/05	478.27	22.47	0.00	455.80	8.70	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
U-2 (Screen Interval in feet: 13.0-34.0)														
07/13/98	477.44	23.52	0.00	453.92	--	1200	--	130	12	62	180	1100	--	
10/07/98	477.44	25.31	0.00	452.13	-1.79	ND	--	ND	ND	ND	ND	160	--	
01/15/99	477.44	30.22	0.00	447.22	-4.91	ND	--	ND	ND	ND	ND	280	--	
04/14/99	477.44	24.50	0.00	452.94	5.72	ND	--	ND	ND	ND	ND	460	--	
07/19/99	477.44	28.54	0.00	448.90	-4.04	ND	--	ND	ND	ND	ND	220	--	
10/12/99	477.44	30.48	0.00	446.96	-1.94	ND	--	ND	ND	ND	ND	160	--	
01/24/00	477.44	24.52	0.00	452.92	5.96	ND	--	ND	ND	ND	ND	150	--	
04/10/00	477.44	23.68	0.00	453.76	0.84	ND	--	ND	ND	ND	ND	177	--	
07/17/00	477.44	28.35	0.00	449.09	-4.67	ND	--	ND	ND	ND	ND	62.7	--	
10/02/00	477.44	28.72	0.00	448.72	-0.37	ND	--	ND	ND	ND	ND	52	--	
01/08/01	477.44	29.11	0.00	448.33	-0.39	ND	--	ND	ND	ND	ND	57.3	--	
04/03/01	477.44	25.95	0.00	451.49	3.16	ND	--	ND	ND	ND	ND	30.2	--	
07/02/01	477.44	29.01	0.00	448.43	-3.06	ND	--	ND	ND	ND	ND	16	--	
10/08/01	477.44	30.94	0.00	446.50	-1.93	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	82	--	
01/03/02	477.44	27.33	0.00	450.11	3.61	260	--	7.7	11	1.7	15	42	--	
04/05/02	477.44	30.02	0.00	447.42	-2.69	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	25	--	
07/02/02	477.44	31.23	0.00	446.21	-1.21	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/01/02	477.44	32.00	0.00	445.44	-0.77	--	ND<50	ND<0.50	0.62	ND<0.50	ND<1.0	--	ND<2.0	
12/30/02	477.44	22.32	0.00	455.12	9.68	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
05/02/03	477.44	25.92	0.00	451.52	-3.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-2 continued														
07/01/03	477.44	24.99	0.00	452.45	0.93	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/03/03	477.44	25.31	0.00	452.13	-0.32	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
01/08/04	477.44	21.94	0.00	455.50	3.37	--	ND<50	ND<0.50	ND<0.50	0.51	ND<1.0	--	ND<2.0	
04/15/04	477.44	25.20	0.00	452.24	-3.26	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
07/15/04	477.44	24.45	0.00	452.99	0.75	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/08/04	477.44	29.89	0.00	447.55	-5.44	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/23/05	477.44	22.00	0.00	455.44	7.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	1.1	--	ND<0.50	
U-3 (Screen Interval in feet: 14.0-34.0)														
07/13/98	478.46	23.82	0.00	454.64	--	70000	--	3100	5500	2700	16000	7500	--	
10/07/98	478.46	25.64	0.00	452.82	-1.82	54000	--	5000	1100	3100	14000	6100	--	
01/15/99	478.46	30.92	0.00	447.54	-5.28	41000	--	3100	ND	1800	3800	15000	--	
04/14/99	478.46	24.48	0.00	453.98	6.44	33000	--	86	290	2200	7800	39000	--	
07/19/99	478.46	28.46	0.00	450.00	-3.98	48000	--	3900	2500	3600	14000	12000	16000	
10/12/99	478.46	30.39	0.00	448.07	-1.93	35000	--	4200	ND	2300	1800	22000	8300	
01/24/00	478.46	23.43	0.00	455.03	6.96	13000	--	260	ND	770	3200	53000	42000	
04/10/00	478.46	23.31	0.00	455.15	0.12	35200	--	1070	241	2820	8850	35600	40900	
07/17/00	478.46	27.53	0.00	450.93	-4.22	29000	--	3570	525	3180	5660	22500	21000	
10/02/00	478.46	28.19	0.00	450.27	-0.66	11000	--	2100	31	2000	780	25000	28000	
01/08/01	478.46	29.85	0.00	448.61	-1.66	33600	--	3060	427	3040	4190	24700	30900	
04/03/01	478.46	24.98	0.00	453.48	4.87	5390	--	660	10.8	304	356	15200	19300	
07/02/01	478.46	31.35	0.00	447.11	-6.37	13000	--	1200	58	1300	930	25000	26000	
10/08/01	478.46	32.69	0.00	445.77	-1.34	6100	--	500	ND<10	570	130	23000	22000	
01/03/02	478.46	23.73	0.00	454.73	8.96	9900	--	700	130	24	1000	14000	12000	
04/05/02	477.44	28.27	0.00	449.17	-5.56	9800	--	1100	180	220	1400	16000	30000	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-3 continued														
07/02/02	478.46	29.71	0.00	448.75	-0.42	--	ND<25000	ND<250	ND<250	ND<250	ND<500	12000	12000	
10/01/02	478.46	31.18	0.00	447.28	-1.47	--	ND<25000	ND<250	ND<250	ND<250	ND<500	12000	12000	
12/30/02	478.46	21.62	0.00	456.84	9.56	--	23000	330	170	870	4900	18000	18000	
05/02/03	478.46	23.11	0.00	455.35	-1.49	--	19000	280	ND<50	880	1500	15000	15000	
07/01/03	478.46	24.89	0.00	453.57	-1.78	--	19000	120	ND<100	180	880	22000	22000	
10/03/03	478.46	26.59	0.00	451.87	-1.70	--	20000	170	ND<50	250	730	--	16000	
01/08/04	478.46	21.92	0.00	456.54	4.67	--	17000	250	ND<100	770	1500	--	9700	
04/15/04	478.46	23.59	0.00	454.87	-1.67	--	4600	ND<25	ND<25	36	100	--	3700	
07/15/04	478.46	24.80	0.00	453.66	-1.21	--	2700	ND<25	ND<25	ND<25	ND<50	--	3400	
12/08/04	478.46	29.13	0.00	449.33	-4.33	--	12000	ND<50	ND<50	250	140	--	13000	
03/23/05	478.46	21.64	0.00	456.82	7.49	--	21000	94	ND<50	630	1200	--	6200	
U-4 (Screen Interval in feet: 35.0-45.0)														
04/03/01	476.93	31.63	0.00	445.30	--	ND	--	ND	ND	ND	ND	37.8	38.2	
07/02/01	476.93	37.96	0.00	438.97	-6.33	ND	--	ND	ND	ND	ND	ND	5.3	
10/08/01	476.93	44.24	0.00	432.69	-6.28	--	--	--	--	--	--	--	--	Not enough water to sample
01/03/02	476.93	36.15	0.00	440.78	8.09	100	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	8.5	
04/05/02	476.93	37.64	0.00	439.29	-1.49	ND<50	--	0.50	ND<0.50	ND<0.50	ND<0.50	4.1	--	
07/02/02	476.93	36.85	0.00	440.08	0.79	--	67	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	12	
10/01/02	476.93	38.54	0.00	438.39	-1.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.8	
12/30/02	476.93	32.64	0.00	444.29	5.90	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	25	
05/02/03	476.93	31.40	0.00	445.53	1.24	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.1	
07/01/03	476.93	33.60	0.00	443.33	-2.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.1	
10/03/03	476.93	37.63	0.00	439.30	-4.03	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.1	
01/08/04	476.93	29.23	0.00	447.70	8.40	--	ND<50	0.55	ND<0.50	1.6	3.7	--	2.5	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-4 continued														
04/15/04	476.93	29.80	0.00	447.13	-0.57	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
07/15/04	476.93	35.05	0.00	441.88	-5.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.1	
12/08/04	476.93	35.10	0.00	441.83	-0.05	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.0	
03/23/05	476.93	25.38	0.00	451.55	9.72	--	ND<50	ND<0.50	ND<0.50	1.3	1.2	--	0.65	
U-5 (Screen Interval in feet: 37.0-47.0)														
04/03/01	476.51	31.75	0.00	444.76	--	ND	--	ND	0.728	ND	0.993	54.8	55.4	
07/02/01	476.51	38.68	0.00	437.83	-6.93	ND	--	ND	ND	ND	ND	88	94	
10/08/01	476.51	46.31	0.00	430.20	-7.63	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	37	54	
01/03/02	476.51	36.55	0.00	439.96	9.76	ND<50	--	ND<0.50	0.59	ND<0.50	0.91	51	53	
04/05/02	476.51	37.83	0.00	438.68	-1.28	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	37	--	
07/02/02	476.51	36.92	0.00	439.59	0.91	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	43	
10/01/02	476.51	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible - truck parked over well
12/30/02	476.51	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible - car parked over well
05/02/03	476.51	31.55	0.00	444.96	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	18	
07/01/03	476.51	33.83	0.00	442.68	-2.28	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	46	
10/03/03	476.51	37.72	0.00	438.79	-3.89	--	58	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	44	
01/08/04	476.51	29.21	0.00	447.30	8.51	--	ND<50	ND<0.50	ND<0.50	1.1	2.7	--	17	
04/15/04	476.51	30.05	0.00	446.46	-0.84	--	57	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	37	
07/15/04	476.51	35.15	0.00	441.36	-5.10	--	60	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	27	
12/08/04	476.51	35.33	0.00	441.18	-0.18	--	62	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	39	
03/23/05	476.51	25.45	0.00	451.06	9.88	--	ND<50	ND<0.50	ND<0.50	0.51	ND<1.0	--	4.5	
U-6 (Screen Interval in feet: DNA)														
01/03/02	478.38	33.99	0.00	444.39	--	5000	--	36	ND<25	260	450	ND<250	ND<10	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-6 continued														
04/05/02	478.38	36.18	0.00	442.20	-2.19	1300	--	16	ND<5.0	54	ND<5.0	ND<25	--	
07/02/02	478.38	36.33	0.00	442.05	-0.15	--	1100	1.4	ND<0.50	16	ND<1.0	--	0.94	
10/01/02	478.38	37.70	0.00	440.68	-1.37	--	2000	5.4	ND<0.50	62	ND<1.0	--	2.6	
12/30/02	478.38	31.63	0.00	446.75	6.07	--	130	ND<0.50	ND<0.50	2.3	ND<1.0	--	ND<2.0	
05/02/03	478.38	31.49	0.00	446.89	0.14	--	150	ND<0.50	ND<0.50	1.8	1.7	--	82	
07/01/03	478.38	32.88	0.00	445.50	-1.39	--	190	1.8	ND<0.50	9.4	8.7	--	36	
10/03/03	478.38	36.54	0.00	441.84	-3.66	--	ND<10000	140	ND<100	940	560	--	ND<400	
01/08/04	478.38	30.45	0.00	447.93	6.09	--	3500	29	32	90	89	--	27	
04/15/04	478.38	29.48	0.00	448.90	0.97	--	2400	19	ND<2.5	91	53	--	16	
07/15/04	478.38	34.30	0.00	444.08	-4.82	--	8500	150	5.7	970	560	--	24	
12/08/04	478.38	34.80	0.00	443.58	-0.50	--	2700	16	ND<2.5	28	ND<5.0	--	10	
03/23/05	478.38	25.08	0.00	453.30	9.72	--	960	2.7	ND<0.50	9.6	4.8	--	2.5	
U-7 (Screen Interval in feet: DNA)														
01/03/02	478.74	32.43	0.00	446.31	--	3100	--	93	ND<10	35	73	140	130	
04/05/02	478.74	34.06	0.00	444.68	-1.63	630	--	22	0.53	2.6	ND<0.50	45	--	
07/02/02	478.74	35.28	0.00	443.46	-1.22	--	1100	21	ND<0.50	6.9	ND<1.0	--	60	
10/01/02	478.74	37.70	0.00	441.04	-2.42	--	1700	11	ND<0.50	3.1	ND<1.0	--	25	
12/30/02	478.74	31.93	0.00	446.81	5.77	--	4600	41	5.3	32	13	--	34	
05/02/03	478.74	31.81	0.00	446.93	0.12	--	3000	17	2.7	14	5.1	--	42	
07/01/03	478.74	33.47	0.00	445.27	-1.66	--	2300	11	0.53	8.0	1.5	--	35	
10/03/03	478.74	35.84	0.00	442.90	-2.37	--	6500	30	ND<5.0	41	ND<10	--	53	
01/08/04	478.74	30.35	0.00	448.39	5.49	--	1600	4.0	ND<1.0	4.2	8.7	--	56	
04/15/04	478.74	29.03	0.00	449.71	1.32	--	3600	22	1.3	64	40	--	57	
07/15/04	478.74	33.52	0.00	445.22	-4.49	--	4700	15	1.2	59	57	--	50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
July 1998 Through March 2005
76 Station 4186

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
U-7 continued														
12/08/04	478.74	34.68	0.00	444.06	-1.16	--	5800	26	1.9	63	27	--	52	
03/23/05	478.74	24.49	0.00	454.25	10.19	--	5600	18	1.3	42	14	--	39	

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 4186

Date Sampled	EDC (µg/l)	EDB (µg/l)	Post Purge DO (mg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8260B (µg/l)	Post Purge ORP (mV)
U-1									
10/02/00	--	--	--	--	ND	--	--	--	--
12/30/02	--	--	0.60	--	--	--	--	--	91
05/02/03	--	--	0.50	--	--	--	--	--	90
07/01/03	--	--	0.60	--	--	--	--	ND<500000	110
10/03/03	--	--	3.79	--	--	--	--	ND<500	329
01/08/04	--	--	12.36	--	--	--	--	ND<500	184
04/15/04	--	--	10.56	--	--	--	--	ND<50	213
07/15/04	--	--	6.62	--	--	--	--	ND<50	251
12/08/04	--	--	--	--	--	--	--	ND<50	--
03/23/05	--	--	3.12	--	--	--	--	ND<50	091
U-2									
10/02/00	--	--	--	--	ND	--	--	--	--
10/01/02	--	--	1.40	--	--	--	--	--	--
12/30/02	--	--	2.80	--	--	--	--	--	120
05/02/03	--	--	150.00	--	--	--	--	--	120
07/01/03	--	--	1.20	--	--	--	--	ND<500000	110
10/03/03	--	--	5.61	--	--	--	--	ND<500	321
01/08/04	--	--	12.11	--	--	--	--	ND<500	- 6
04/15/04	--	--	11.39	--	--	--	--	ND<50	259
07/15/04	--	--	7.46	--	--	--	--	ND<50	238
12/08/04	--	--	--	--	--	--	--	ND<50	--
03/23/05	--	--	4.57	--	--	--	--	730	024
U-3									
10/02/00	--	--	--	--	63000	--	--	--	--
01/08/01	ND	ND	--	ND	49300	ND	ND	ND	--
04/03/01	ND	ND	--	ND	22200	ND	ND	ND	--

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 4186

Date Sampled	EDC (µg/l)	EDB (µg/l)	Post Purge DO (mg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8260B (µg/l)	Post Purge ORP (mV)
U-3 continued									
07/02/01	ND	ND	--	ND	27000	ND	ND	ND	--
10/08/01	ND<290	ND<290	--	ND<290	33000	ND<290	ND<290	ND<140000000	--
01/03/02	ND<100	ND<100	--	ND<100	17000	ND<100	ND<100	ND<50000000	--
04/05/02	ND<100	ND<100	--	ND<100	66000	ND<100	ND<100	ND<25000000	--
07/02/02	ND<250	ND<250	--	ND<250	47000	ND<500	ND<250	ND<13000000	--
10/01/02	ND<1000	ND<1000	0.50	ND<1000	ND<50000	ND<1000	ND<1000	ND<250000000	- 47
12/30/02	ND<400	ND<400	0.20	ND<400	23000	ND<400	ND<400	ND<100000000	106
05/02/03	ND<200	ND<200	0.50	ND<200	25000	ND<200	ND<200	ND<50000000	85
07/01/03	ND<400	ND<400	0.50	ND<400	32000	ND<400	ND<400	ND<100000000	90
10/03/03	ND<200	ND<200	3.80	ND<200	39000	ND<2.0	ND<200	ND<50000	- 27
01/08/04	ND<400	ND<400	12.82	ND<400	ND<20000	ND<400	ND<400	ND<100000	133
04/15/04	ND<0.5	ND<0.5	3.11	ND<0.5	18000	ND<1.0	ND<0.5	ND<2500	24
07/15/04	ND<25	ND<25	1.90	ND<25	15000	ND<50	ND<25	ND<2500	53
12/08/04	ND<50	ND<50	--	ND<50	34000	ND<100	ND<50	ND<5000	--
03/23/05	--	--	0.52	--	--	--	--	ND<5000	-087
U-4									
04/03/01	ND	ND	--	ND	ND	ND	ND	ND	--
07/02/01	ND	ND	--	ND	ND	ND	ND	ND	--
01/03/02	ND<1.0	ND<1.0	--	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<500000	--
10/01/02	--	--	1.00	--	--	--	--	--	83
12/30/02	--	--	0.40	--	--	--	--	--	126
05/02/03	--	--	0.70	--	--	--	--	--	120
07/01/03	--	--	0.60	--	--	--	--	ND<500000	130
10/03/03	--	--	2.06	--	--	--	--	ND<500	3.05
01/08/04	--	--	11.90	--	--	--	--	ND<500	76
04/15/04	--	--	3.30	--	--	--	--	ND<50	116

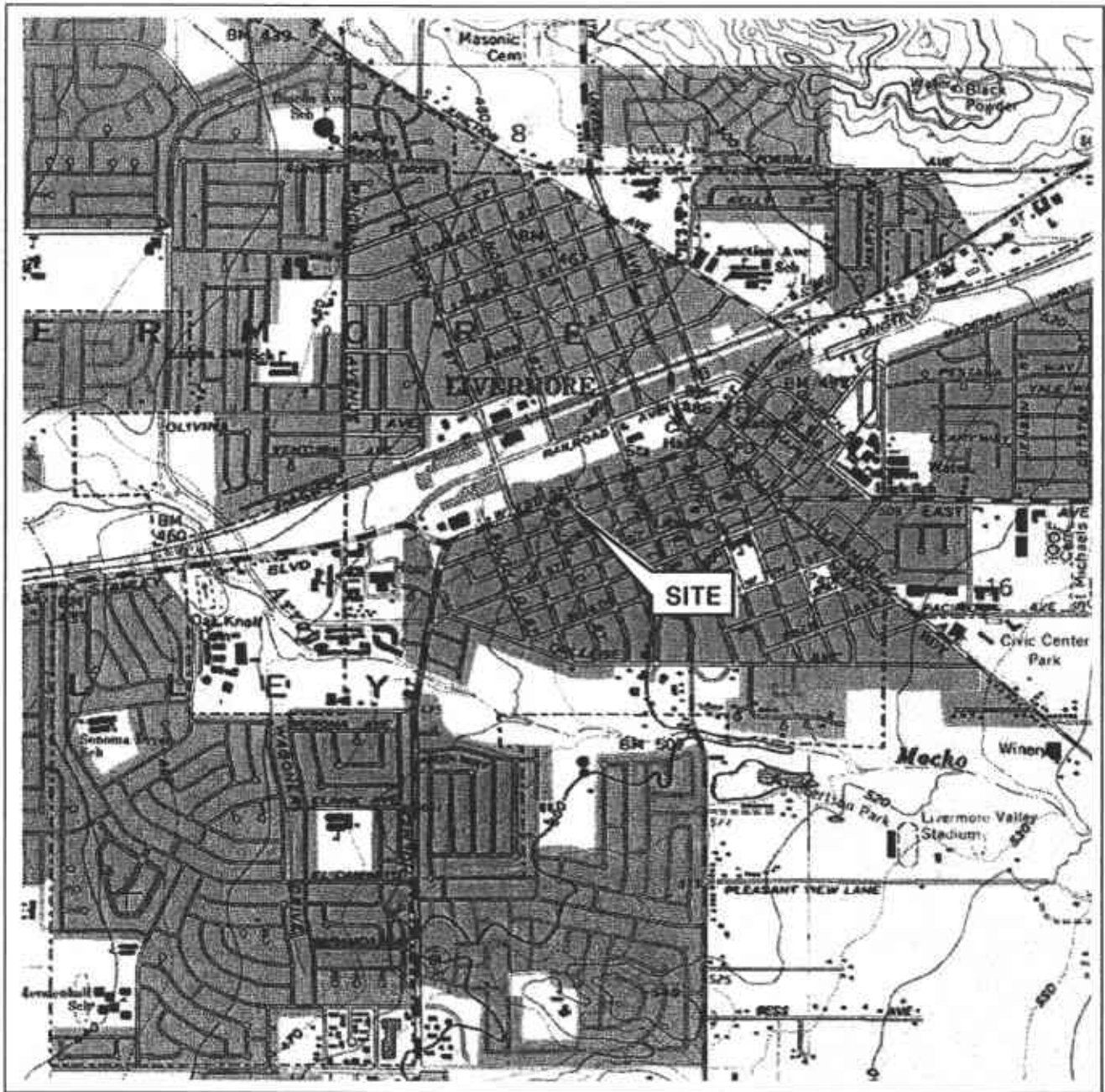
Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 4186

Date Sampled	EDC (µg/l)	EDB (µg/l)	Post Purge DO (mg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8260B (µg/l)	Post Purge ORP (mV)
U-4 continued									
07/15/04	--	--	2.50	--	--	--	--	ND<50	32
12/08/04	--	--	--	--	--	--	--	ND<50	--
03/23/05	--	--	0.04	--	--	--	--	ND<50	021
U-5									
04/03/01	ND	ND	--	ND	ND	ND	ND	ND	--
07/02/01	ND	ND	--	ND	ND	ND	ND	ND	--
10/08/01	ND<2.0	ND<2.0	--	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<1000000	--
01/03/02	ND<1.0	ND<1.0	--	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<500000	--
05/02/03	--	--	0.60	--	--	--	--	--	120
07/01/03	--	--	0.90	--	--	--	--	ND<500	145
10/03/03	--	--	2.21	--	--	--	--	ND<500	3.13
01/08/04	--	--	11.27	--	--	--	--	ND<500	104
04/15/04	--	--	3.35	--	--	--	--	ND<50	65
07/15/04	--	--	2.87	--	--	--	--	ND<50	66
12/08/04	--	--	--	--	--	--	--	ND<50	--
03/23/05	--	--	0.75	--	--	--	--	ND<50	131
U-6									
01/03/02	ND<10	ND<10	--	ND<10	ND<200	ND<10	ND<10	ND<5000000	--
10/01/02	--	--	0.90	--	--	--	--	--	--
12/30/02	--	--	0.20	--	--	--	--	--	88
05/02/03	--	--	0.90	--	--	--	--	--	145
07/01/03	--	--	0.70	--	--	--	--	ND<500000	120
10/03/03	--	--	2.26	--	--	--	--	ND<100000	12
01/08/04	--	--	11.95	--	--	--	--	ND<5000	- 37
04/15/04	--	--	3.47	--	--	--	--	ND<250	- 20
07/15/04	--	--	3.25	--	--	--	--	ND<250	- 43

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 4186

Date Sampled	EDC (µg/l)	EDB (µg/l)	Post Purge DO (mg/l)	TAME 8260B (µg/l)	TBA 8260B (µg/l)	DIPE 8260B (µg/l)	ETBE 8260B (µg/l)	Ethanol 8260B (µg/l)	Post Purge ORP (mV)
U-6 continued									
12/08/04	--	--	--	--	--	--	--	ND<250	--
03/23/05	--	--	0.55	--	--	--	--	ND<50	-077
U-7									
01/03/02	ND<1.0	ND<1.0	--	ND<1.0	30	ND<1.0	ND<1.0	ND<500000	--
10/01/02	--	--	1.80	--	--	--	--	--	- 60
12/30/02	--	--	0.10	--	--	--	--	--	121
05/02/03	--	--	0.40	--	--	--	--	--	105
07/01/03	--	--	0.50	--	--	--	--	ND<500000	95
10/03/03	--	--	2.91	--	--	--	--	ND<5000	- 21
01/08/04	--	--	11.85	--	--	--	--	ND<1000	- 51
04/15/04	--	--	4.68	--	--	--	--	ND<100	- 16
07/15/04	--	--	2.55	--	--	--	--	ND<100	- 52
12/08/04	--	--	--	--	--	--	--	ND<100	--
03/23/05	--	--	0.21	--	--	--	--	ND<100	-088

FIGURES



0 1/4 1/2 3/4 1 MILE

SCALE 1:24,000



VICINITY MAP

76 Station 4186
1771 First Street
Livermore, California

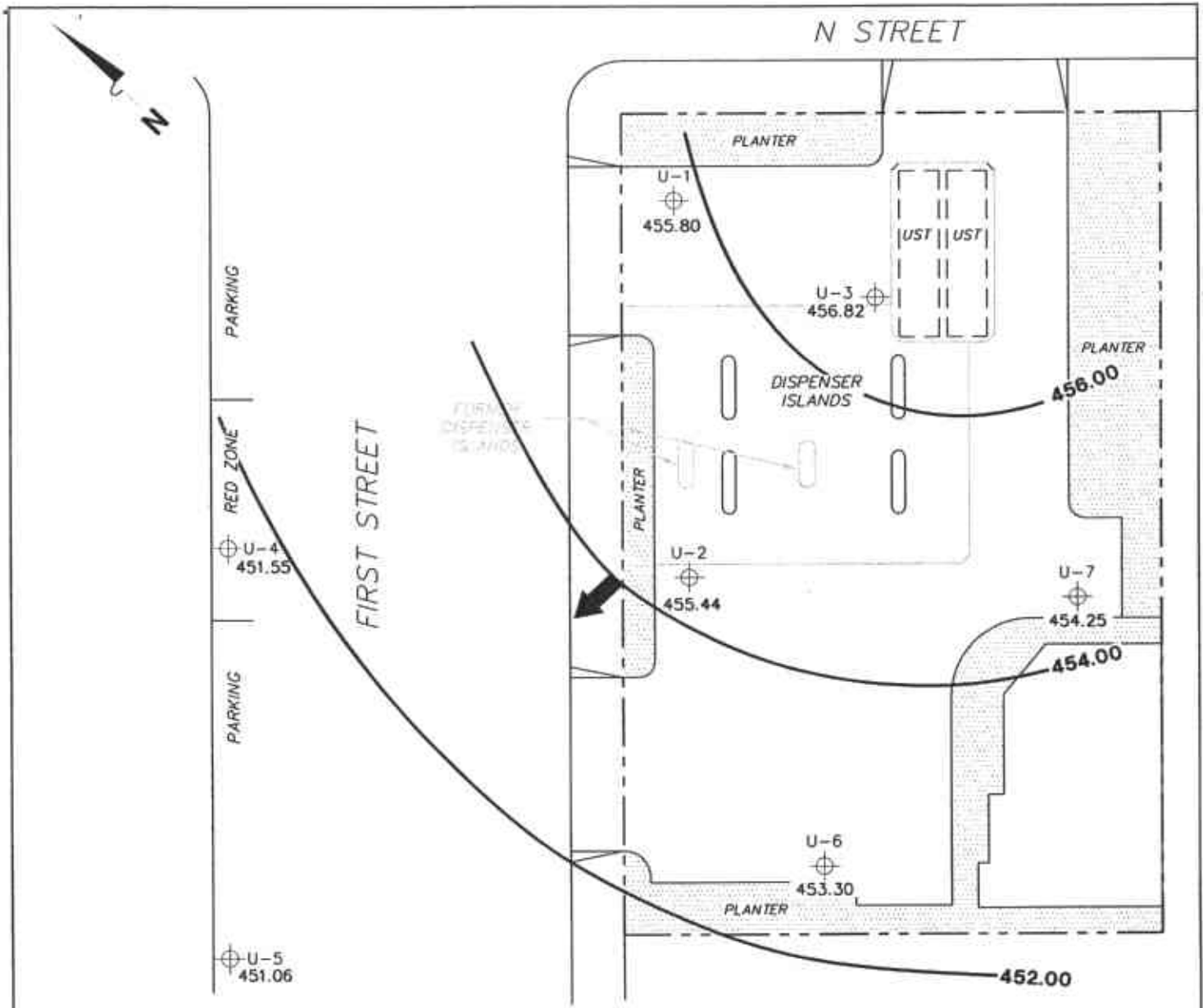
SOURCE:

United States Geological Survey
7.5 Minute Topographic Maps:
Livermore Quadrangle

FIGURE 1

TRC

P.S. = 1:1



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.

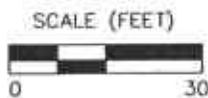
LEGEND

- U-7 Monitoring Well with Groundwater Elevation (feet)
- 456.00 — Groundwater Elevation Contour
- General Direction of Groundwater Flow

**GROUNDWATER ELEVATION
CONTOUR MAP
March 23, 2005**

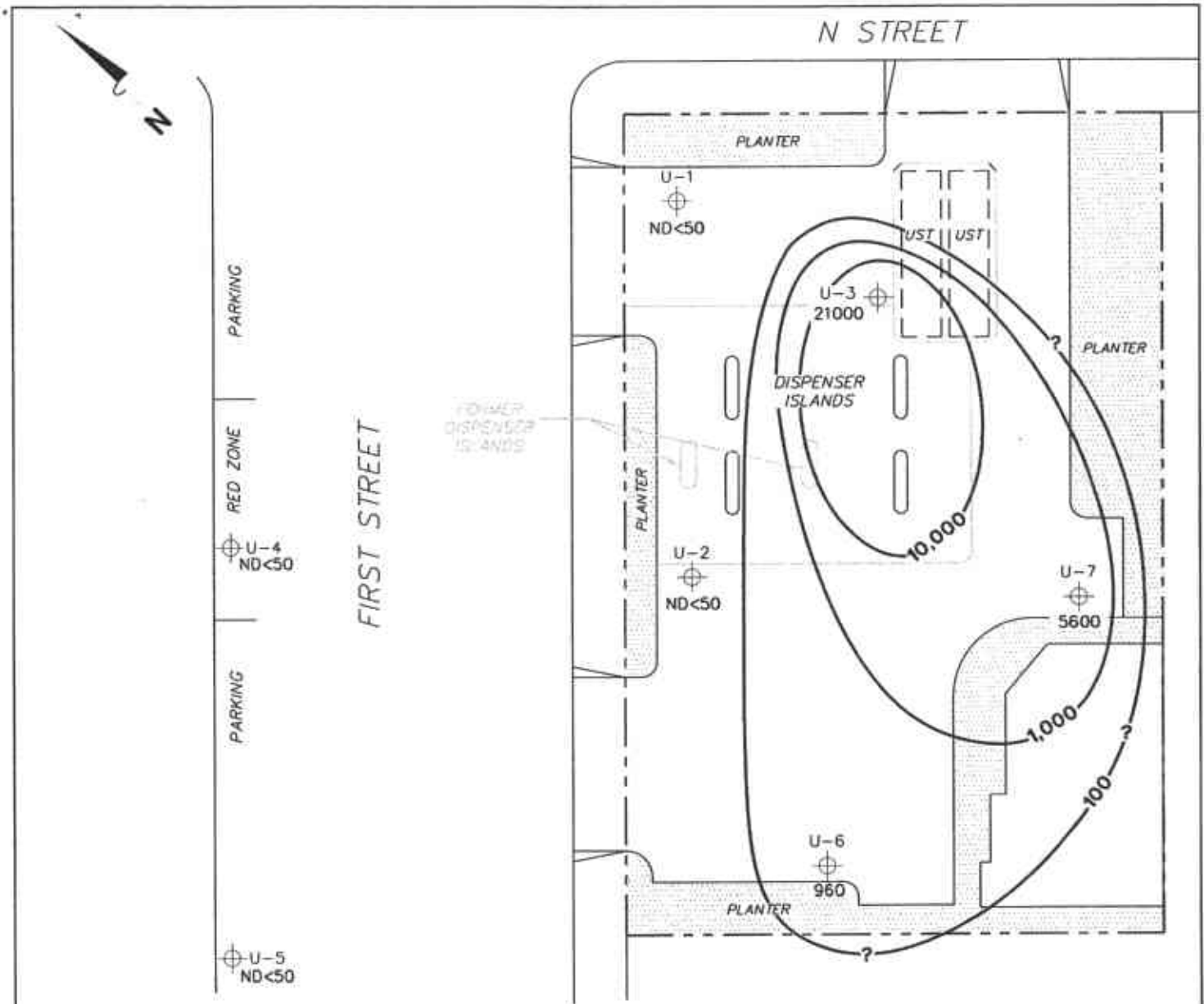
76 Station 4186
1771 First Street
Livermore, California

FIGURE 2



PS=1:1 4186-003





NOTES:

Contour lines are interpretive and based on laboratory analysis of groundwater samples. TPPH = total purgeable petroleum hydrocarbons. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. TPPH results obtained using EPA Method 8260B.

LEGEND

U-7 ⊕ Monitoring Well with Dissolved-Phase TPPH Concentrations (µg/l)

—10,000— Dissolved-Phase TPPH Contour (µg/l)

DISSOLVED PHASE TPPH CONCENTRATION MAP
March 23, 2005

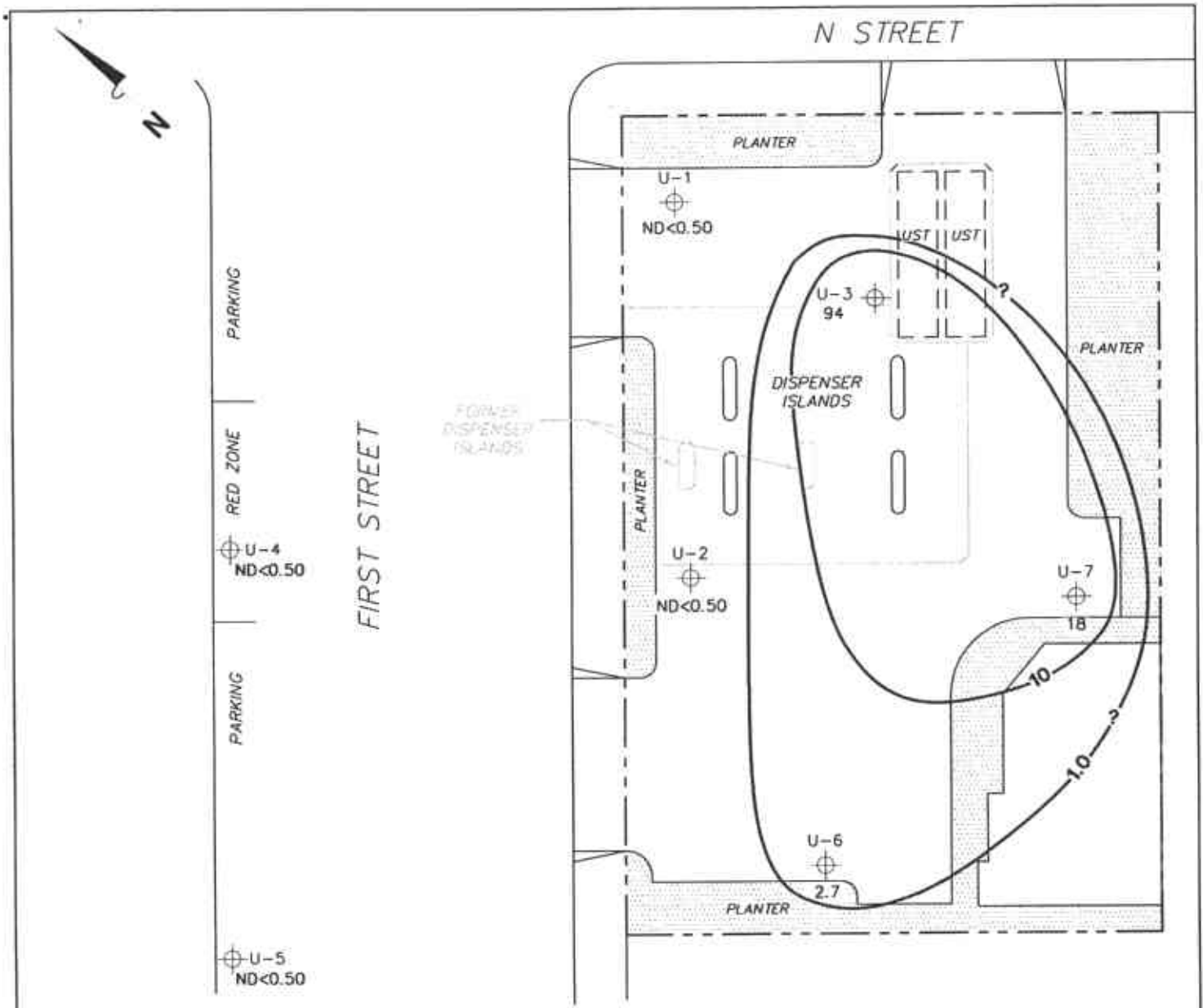
76 Station 4186
 1771 First Street
 Livermore, California



FIGURE 3

PS=1:1 4186-003





NOTES:

Contour lines are interpretive and based on laboratory analysis of groundwater samples.
 µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.
 UST = underground storage tank.

LEGEND

U-7 ⊕ Monitoring Well with Dissolved-Phase Benzene Concentrations (µg/l)

—10— Dissolved-Phase Benzene Contour (µg/l)

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
 March 23, 2005

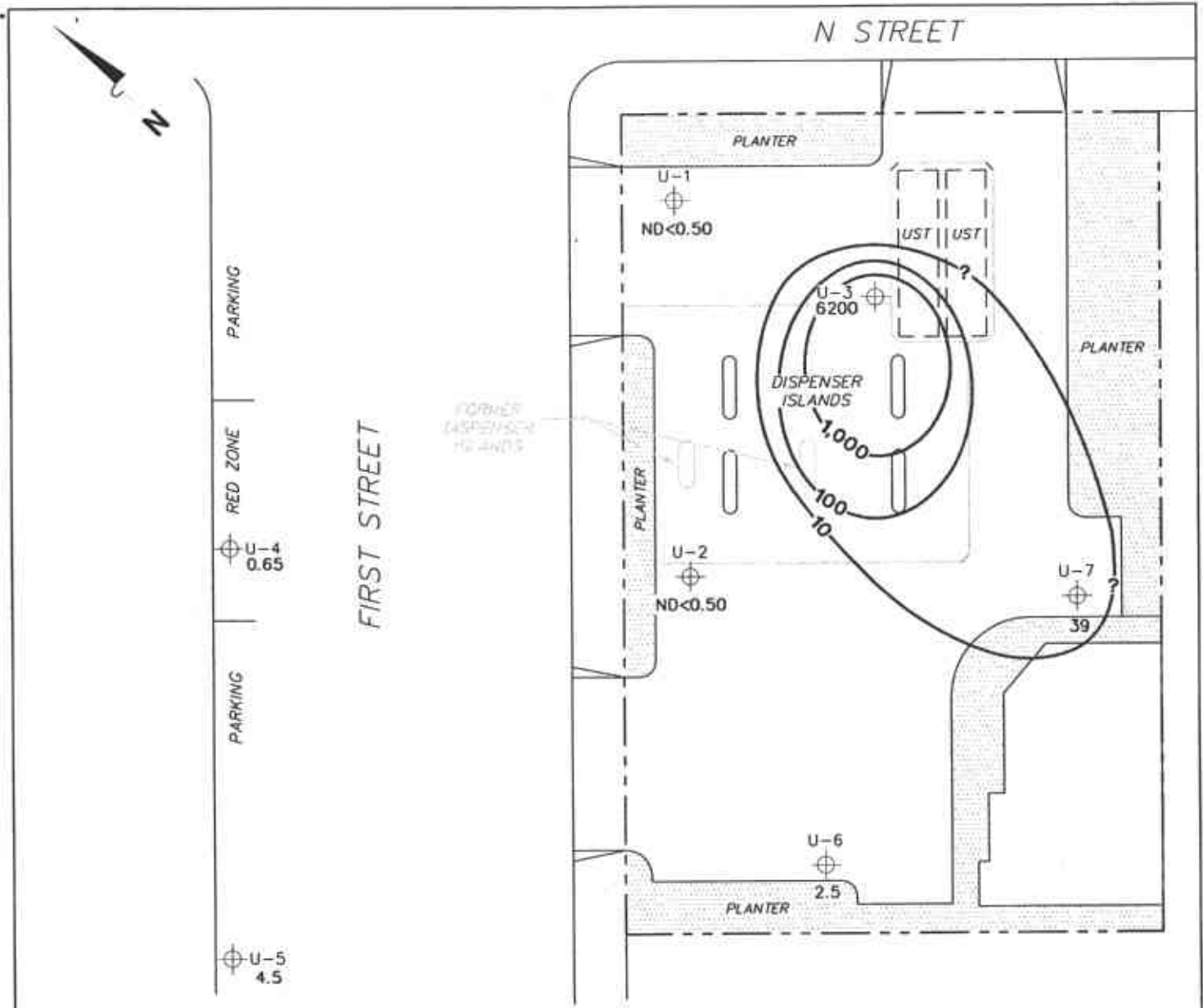
76 Station 4186
 1771 First Street
 Livermore, California



FIGURE 4

PS=1:1 4186-003





NOTES:

Contour lines are interpretive and based on laboratory analysis of groundwater samples.
 MTBE = methyl tertiary butyl ether.
 µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.
 MTBE results obtained using EPA Method 8260B.

**DISSOLVED PHASE MTBE
 CONCENTRATION MAP
 March 23, 2005**

76 Station 4186
 1771 First Street
 Livermore, California

FIGURE 5

LEGEND

U-7 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentrations (µg/l)

—1,000— Dissolved-Phase MTBE Contour (µg/l)

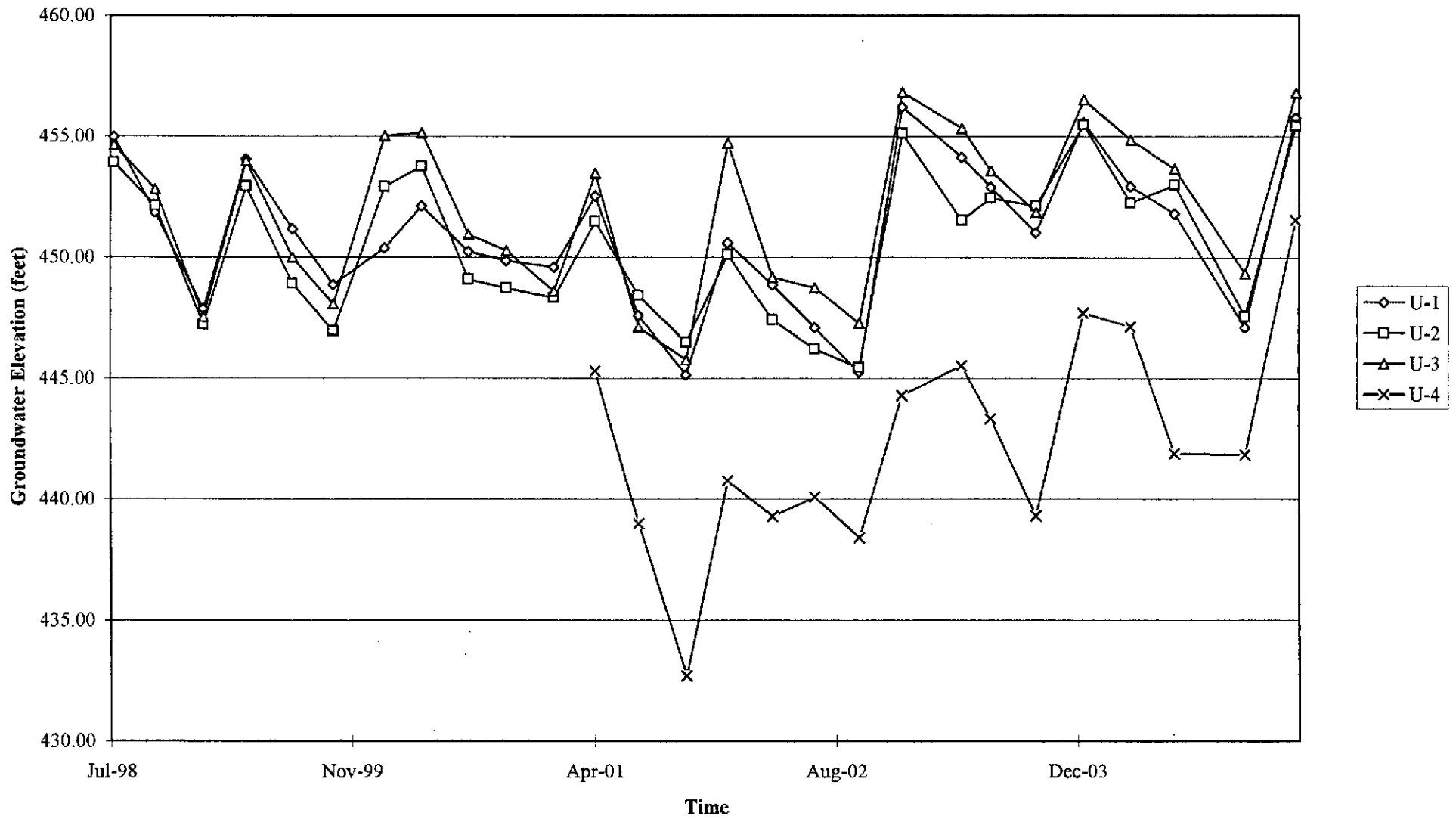


TRC

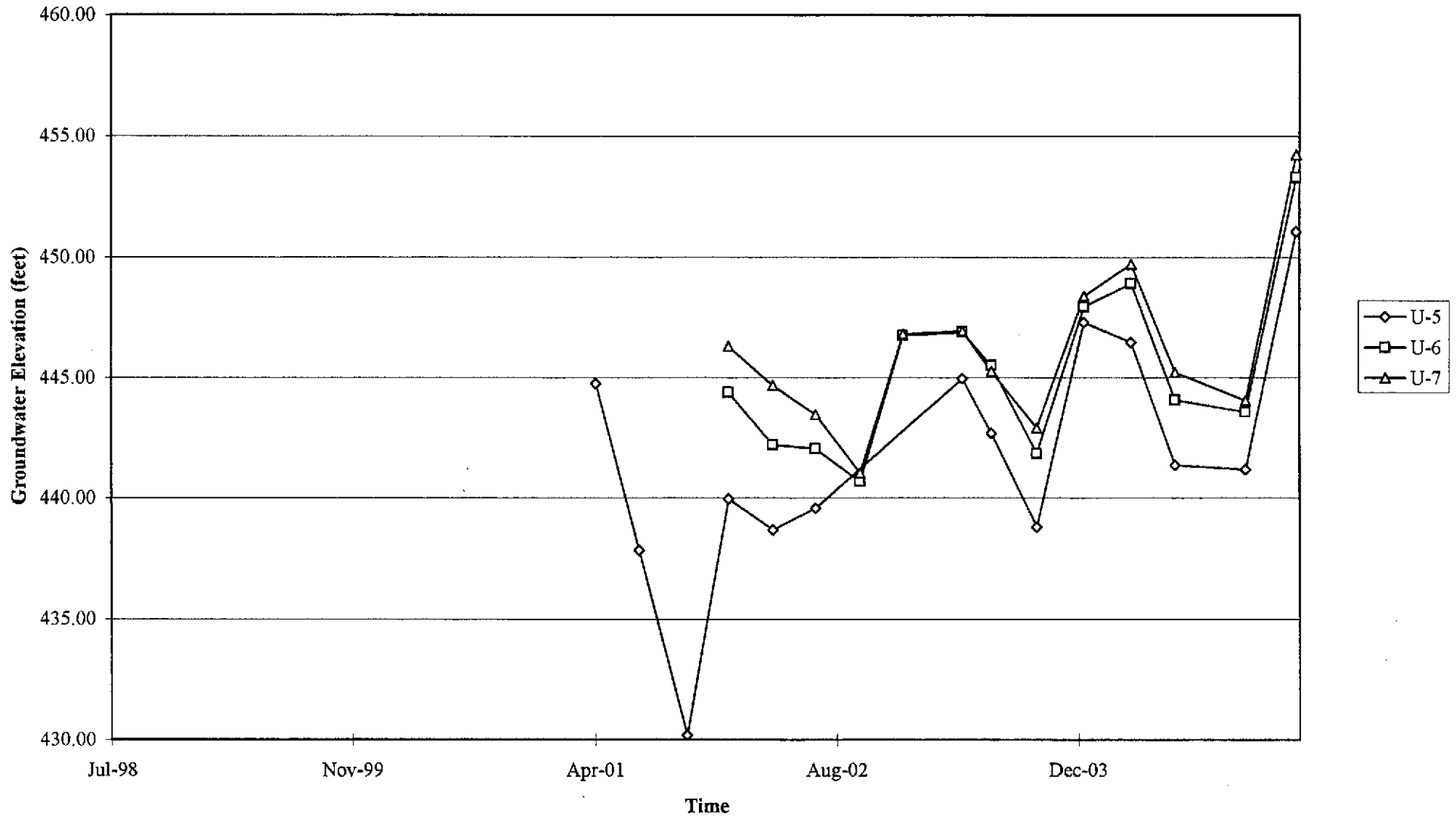
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GRAPHS

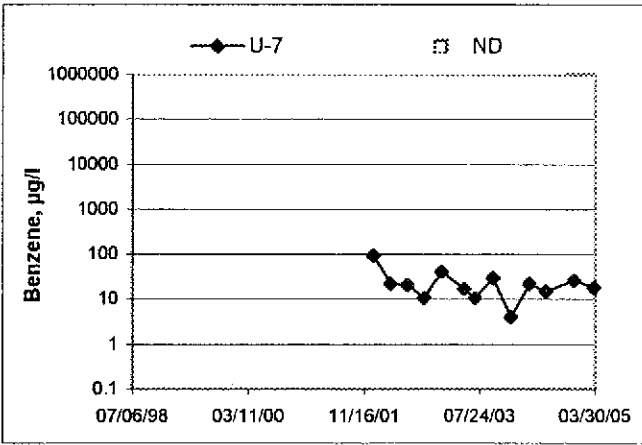
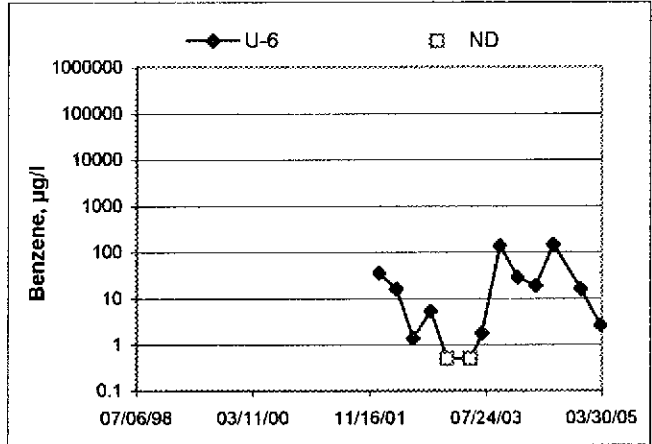
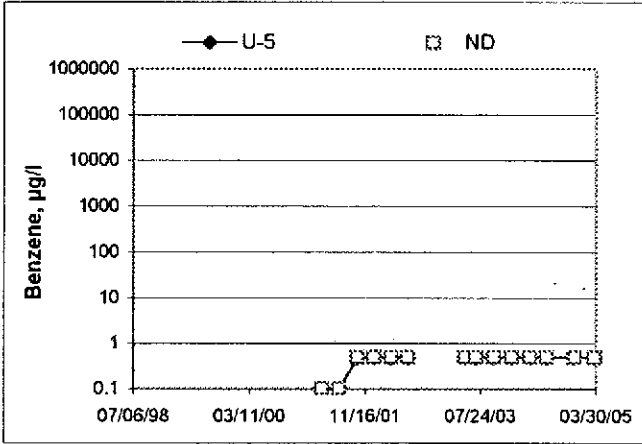
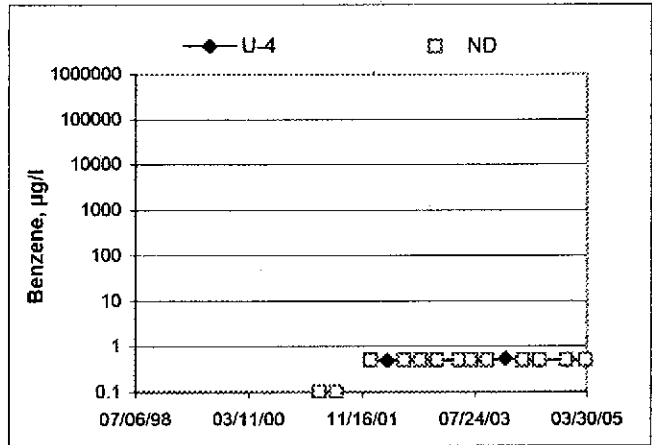
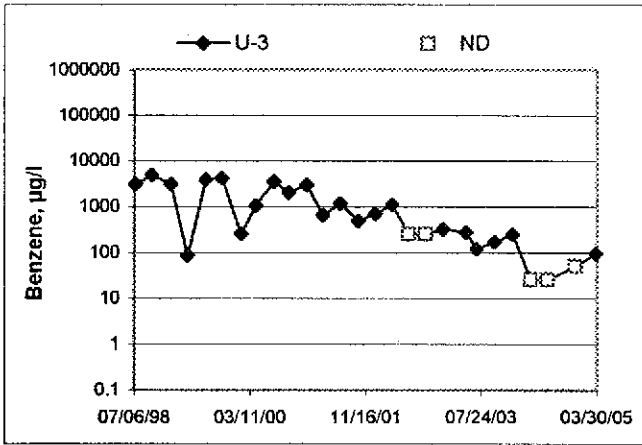
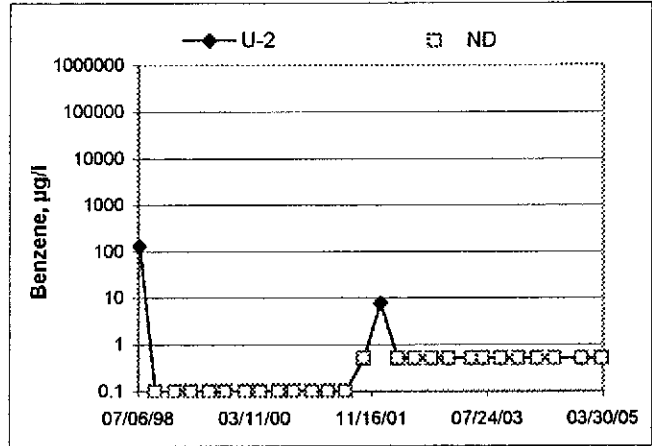
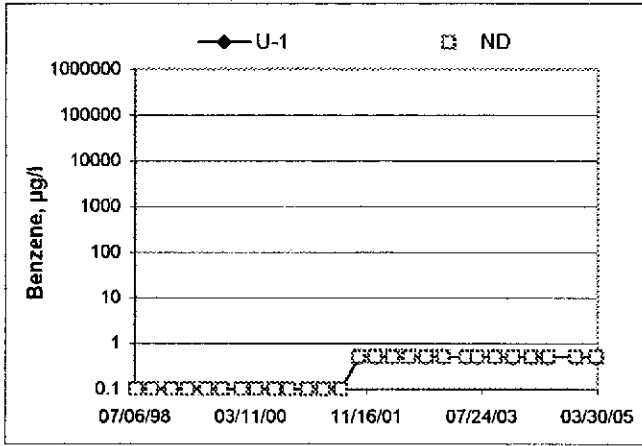
Groundwater Elevations vs. Time
76 Station 4186



Groundwater Elevations vs. Time
76 Station 4186



Benzene Concentrations vs Time 76 Station 4186



GENERAL FIELD PROCEDURES

Groundwater Monitoring and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater monitoring and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

Fluid Level Measurements

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage, or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Wells that are found to contain LPH are not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed. Bailed fluids are placed in a container separate from normal purge water, and properly disposed.

Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurement are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines.

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

After filling, all containers are labeled with project number (or site number), well designation, sample date, and the samplers initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging, and Sampling

The sequence in which monitoring activities are conducted are specified on the TSR. In general, wells are gauged beginning with the least-affected well and ending with the well that has highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected well to the most-affected well.

Decontamination

In order to reduce the possibility of cross-contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated to a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

Exceptions

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, and noted on the site TSR, are documented in field notes on the following pages.

FIELD MONITORING DATA SHEET

Technician: Rick R.

Job #/Task #: 41050001/FA20

Date: 3/23/05

Site # 4186

Project Manager A. Collins

Page 1 of 1

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
U-4	✓	0545	49.17	23.38	—	—	0921	2"(3)
U-5	✓	0553	47.09	25.45	—	—	0957	2"(3) 1 MISSING Bolt.
U-1	✓	0603	33.33	22.47	—	—	1010	2"(3) 1 MISSING Bolt.
U-2	✓	0609	33.07	22.00	—	—	1035	2"(3) 3 stripped caps
U-6	✓	0613	44.55	23.08	—	—	1044	2"(2)
U-7	✓	0617	44.38	24.49	—	—	1018	2"(2)
U-3	✓	0624	33.41	21.64	—	—	1026	2"(3) 2 MISSING Bolt. 1 stripped cap

FIELD DATA COMPLETE	QA/QC	COC	WELL BOX CONDITION SHEETS
✓	✓	✓	✓
WTT CERTIFICATE	MANIFEST	DRUM INVENTORY	TRAFFIC CONTROL
		✓	



GROUNDWATER SAMPLING FIELD NOTES

Technician: Rick R.

Site: 4186

Project No.: 41050001

Date: 3/23/05

Well No.: U-3

Purge Method: Sub

Depth to Water (feet): 21.64

Depth to Product (feet): 0

Total Depth (feet): 33.41

LPH & Water Recovered (gallons): 0

Water Column (feet): 11.77

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 23.99

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) (C)	pH	Turbidity CRP	D.O.
0755			2	964	14.4	7.07	-073	2.33
			4	731	16.3	6.84	-088	0.85
	0803		6	719	17.0	6.77	-087	0.52
Static at Time Sampled		Total Gallons Purged		Time Sampled				
23.87		6		1026				
Comments: <u>DIDNT RECOVER AFTER 2 HRS</u>								

Well No.: U-2

Purge Method: Sub

Depth to Water (feet): 22.00

Depth to Product (feet): 0

Total Depth (feet): 33.07

LPH & Water Recovered (gallons): 0

Water Column (feet): 11.07

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 24.21

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) (C)	pH	Turbidity CRP	D.O.
0813			2	801	16.2	7.01	-048	8.25
			4	520	16.2	7.14	-003	5.01
	0820		6	611	17.0	7.07	024	4.57
Static at Time Sampled		Total Gallons Purged		Time Sampled				
22.00		6		10.35				
Comments:								

GROUNDWATER SAMPLING FIELD NOTES

Technician: Rick P.

Site: 4186

Project No.: 41050001

Date: 3/23/05

Well No.: U-5

Purge Method: sub

Depth to Water (feet): 25.45

Depth to Product (feet): 0

Total Depth (feet): 47.09

LPH & Water Recovered (gallons): 0

Water Column (feet): 21.64

Casing Diameter (Inches): 2 3/8

80% Recharge Depth (feet): 29.78

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity ORP	D.O.
0935			3	751	17.2	7.06	166	0.25
			6	755	18.9	7.01	142	0.70
	0944		9	739	19.1	7.02	131	0.75
Static at Time Sampled			Total Gallons Purged		Time Sampled			
25.51			9	0957				
Comments:								

Well No.: _____

Purge Method: _____

Depth to Water (feet): _____

Depth to Product (feet): _____

Total Depth (feet): _____

LPH & Water Recovered (gallons): _____

Water Column (feet): _____

Casing Diameter (Inches): _____

80% Recharge Depth (feet): _____

1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity	D.O.
Static at Time Sampled			Total Gallons Purged		Time Sampled			
Comments:								

GROUNDWATER SAMPLING FIELD NOTES

Technician: Rick R.

Site: 4186

Project No.: 41050001

Date: 3/23/05

Well No.: U-6

Purge Method: sub

Depth to Water (feet): 25.08

Depth to Product (feet): 0

Total Depth (feet): 44.55

LPH & Water Recovered (gallons): 0

Water Column (feet): 19.47

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 28.97

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) (C)	pH	Turbidity ORP	D.O.
0831			3	878	17.1	6.91	-071	0.50
			6	859	18.0	6.91	-078	0.29
	0843		9	906	18.8	6.88	-077	0.55
Static at Time Sampled			Total Gallons Purged		Time Sampled			
25.43			9		1044			
Comments:								

Well No.: U-4

Purge Method: sub

Depth to Water (feet): 25.38

Depth to Product (feet): 0

Total Depth (feet): 45.17

LPH & Water Recovered (gallons): 0

Water Column (feet): 19.79

Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 29.34

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) (C)	pH	Turbidity ORP	D.O.
0905			3	775	17.0	7.09	-018	0.60
			6	789	18.3	7.17	003	0.35
	0916		9	784	18.9	7.16	021	0.04
Static at Time Sampled			Total Gallons Purged		Time Sampled			
29.20			9		0921			
Comments:								

GROUNDWATER SAMPLING FIELD NOTES

Technician: Rick P.

Site: 4186

Project No.: 41050001

Date: 3/23/05

Well No.: U-1
 Depth to Water (feet): 22.47
 Total Depth (feet): 33.33
 Water Column (feet): 10.86
 80% Recharge Depth (feet): 24.64

Purge Method: sub
 Depth to Product (feet): 0
 LPH & Water Recovered (gallons): 0
 Casing Diameter (Inches): 2"
 1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	Turbidity-ORP	D.O.
0712			2	1023	13.7	6.98	011	2.30
			4	820	17.5	7.00	063	3.47
	0721		6	850	17.6	7.09	091	3.12
Static at Time Sampled		Total Gallons Purged			Time Sampled			
• 26.88		6			1010			
Comments: <u>DIDNT RECOVER AFTER 2 HRS</u>								

Well No.: U-7
 Depth to Water (feet): 24.49
 Total Depth (feet): 44.38
 Water Column (feet): 19.89
 80% Recharge Depth (feet): 28.47

Purge Method: sub
 Depth to Product (feet): 0
 LPH & Water Recovered (gallons): 0
 Casing Diameter (Inches): 2"
 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	Turbidity-ORP	D.O.
0731			3	970	15.4	7.05	-081	1.99
			6	894	17.7	7.04	-092	0.60
	0743		9	929	16.6	7.07	-088	0.21
Static at Time Sampled		Total Gallons Purged			Time Sampled			
24.53		9			1018			
Comments:								

TRC Alton Geoscience- Irvine

April 08, 2005

21 Technology Drive
Irvine, CA 92718

Attn.: Anju Farfan

Project#: 41050001FA20

Project: Conoco Phillips #4186

Site: 1771 First St, Livermore

Attached is our report for your samples received on 03/24/2005 14:30

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/08/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
U-4	03/23/2005 09:21	Water	1
U-5	03/23/2005 09:57	Water	2
U-1	03/23/2005 10:10	Water	3
U-2	03/23/2005 10:35	Water	4
U-6	03/23/2005 10:44	Water	5
U-7	03/23/2005 10:18	Water	6
U-3	03/23/2005 10:26	Water	7

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/08/2005 16:16

Page 1 of 15

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-4	Lab ID: 2005-03-0823 - 1
Sampled: 03/23/2005 09:21	Extracted: 4/3/2005 14:46
Matrix: Water	QC Batch#: 2005/04/03-1A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	04/03/2005 14:46	Q6
Benzene	ND	0.50	ug/L	1.00	04/03/2005 14:46	
Toluene	ND	0.50	ug/L	1.00	04/03/2005 14:46	
Ethylbenzene	1.3	0.50	ug/L	1.00	04/03/2005 14:46	
Total xylenes	1.2	1.0	ug/L	1.00	04/03/2005 14:46	
Methyl tert-butyl ether (MTBE)	0.65	0.50	ug/L	1.00	04/03/2005 14:46	
Ethanol	ND	50	ug/L	1.00	04/03/2005 14:46	
Surrogate(s)						
1,2-Dichloroethane-d4	113.4	73-130	%	1.00	04/03/2005 14:46	
Toluene-d8	104.7	81-114	%	1.00	04/03/2005 14:46	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-5	Lab ID: 2005-03-0823 - 2
Sampled: 03/23/2005 09:57	Extracted: 4/3/2005 15:08
Matrix: Water	QC Batch#: 2005/04/03-1A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	04/03/2005 15:08	Q6
Benzene	ND	0.50	ug/L	1.00	04/03/2005 15:08	
Toluene	ND	0.50	ug/L	1.00	04/03/2005 15:08	
Ethylbenzene	0.51	0.50	ug/L	1.00	04/03/2005 15:08	
Total xylenes	ND	1.0	ug/L	1.00	04/03/2005 15:08	
Methyl tert-butyl ether (MTBE)	4.5	0.50	ug/L	1.00	04/03/2005 15:08	
Ethanol	ND	50	ug/L	1.00	04/03/2005 15:08	
Surrogate(s)						
1,2-Dichloroethane-d4	110.7	73-130	%	1.00	04/03/2005 15:08	
Toluene-d8	96.4	81-114	%	1.00	04/03/2005 15:08	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	U-1	Lab ID:	2005-03-0823 - 3
Sampled:	03/23/2005 10:10	Extracted:	4/3/2005 15:30
Matrix:	Water	QC Batch#:	2005/04/03-1A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	04/03/2005 15:30	Q6
Benzene	ND	0.50	ug/L	1.00	04/03/2005 15:30	
Toluene	ND	0.50	ug/L	1.00	04/03/2005 15:30	
Ethylbenzene	ND	0.50	ug/L	1.00	04/03/2005 15:30	
Total xylenes	ND	1.0	ug/L	1.00	04/03/2005 15:30	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/03/2005 15:30	
Ethanol	ND	50	ug/L	1.00	04/03/2005 15:30	
Surrogate(s)						
1,2-Dichloroethane-d4	112.4	73-130	%	1.00	04/03/2005 15:30	
Toluene-d8	98.6	81-114	%	1.00	04/03/2005 15:30	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	U-2	Lab ID:	2005-03-0823 - 4
Sampled:	03/23/2005 10:35	Extracted:	4/3/2005 15:52
Matrix:	Water	QC Batch#:	2005/04/03-1A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	04/03/2005 15:52	Q6
Benzene	ND	0.50	ug/L	1.00	04/03/2005 15:52	
Toluene	ND	0.50	ug/L	1.00	04/03/2005 15:52	
Ethylbenzene	ND	0.50	ug/L	1.00	04/03/2005 15:52	
Total xylenes	1.1	1.0	ug/L	1.00	04/03/2005 15:52	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/03/2005 15:52	
Ethanol	730	50	ug/L	1.00	04/03/2005 15:52	
Surrogate(s)						
1,2-Dichloroethane-d4	113.4	73-130	%	1.00	04/03/2005 15:52	
Toluene-d8	100.3	81-114	%	1.00	04/03/2005 15:52	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	U-6	Lab ID:	2005-03-0823 - 5
Sampled:	03/23/2005 10:44	Extracted:	4/4/2005 23:40
Matrix:	Water	QC Batch#:	2005/04/04-2A.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	960	50	ug/L	1.00	04/04/2005 23:40	
Benzene	2.7	0.50	ug/L	1.00	04/04/2005 23:40	
Toluene	ND	0.50	ug/L	1.00	04/04/2005 23:40	
Ethylbenzene	9.6	0.50	ug/L	1.00	04/04/2005 23:40	
Total xylenes	4.8	1.0	ug/L	1.00	04/04/2005 23:40	
Methyl tert-butyl ether (MTBE)	2.5	0.50	ug/L	1.00	04/04/2005 23:40	
Ethanol	ND	50	ug/L	1.00	04/04/2005 23:40	
Surrogate(s)						
1,2-Dichloroethane-d4	97.9	73-130	%	1.00	04/04/2005 23:40	
Toluene-d8	90.0	81-114	%	1.00	04/04/2005 23:40	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive

Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-7	Lab ID: 2005-03-0823 - 6
Sampled: 03/23/2005 10:18	Extracted: 4/3/2005 14:01
Matrix: Water	QC Batch#: 2005/04/03-1A.64
Analysis Flag: L2 (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	5600	100	ug/L	2.00	04/03/2005 14:01	
Benzene	18	1.0	ug/L	2.00	04/03/2005 14:01	
Toluene	1.3	1.0	ug/L	2.00	04/03/2005 14:01	
Ethylbenzene	42	1.0	ug/L	2.00	04/03/2005 14:01	
Total xylenes	14	2.0	ug/L	2.00	04/03/2005 14:01	
Methyl tert-butyl ether (MTBE)	39	1.0	ug/L	2.00	04/03/2005 14:01	
Ethanol	ND	100	ug/L	2.00	04/03/2005 14:01	
Surrogate(s)						
1,2-Dichloroethane-d4	105.3	73-130	%	2.00	04/03/2005 14:01	
Toluene-d8	101.4	81-114	%	2.00	04/03/2005 14:01	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111
Project: 41050001FA20
Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-3	Lab ID: 2005-03-0823 - 7
Sampled: 03/23/2005 10:26	Extracted: 4/3/2005 14:23
Matrix: Water	QC Batch#: 2005/04/03-1A.64
Analysis Flag: L2 (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	21000	5000	ug/L	100.00	04/03/2005 14:23	
Benzene	94	50	ug/L	100.00	04/03/2005 14:23	
Toluene	ND	50	ug/L	100.00	04/03/2005 14:23	
Ethylbenzene	630	50	ug/L	100.00	04/03/2005 14:23	
Total xylenes	1200	100	ug/L	100.00	04/03/2005 14:23	
Methyl tert-butyl ether (MTBE)	6200	50	ug/L	100.00	04/03/2005 14:23	
Ethanol	ND	5000	ug/L	100.00	04/03/2005 14:23	
Surrogate(s)						
1,2-Dichloroethane-d4	105.6	73-130	%	100.00	04/03/2005 14:23	
Toluene-d8	97.6	81-114	%	100.00	04/03/2005 14:23	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report

Prep(s): 5030B

Method: Blank

MB: 2005/04/03-1A.64-015

Water

Test(s): 8260B

QC Batch # 2005/04/03-1A.64

Date Extracted: 04/03/2005 10:15

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	04/03/2005 10:15	
Benzene	ND	0.5	ug/L	04/03/2005 10:15	
Toluene	ND	0.5	ug/L	04/03/2005 10:15	
Ethylbenzene	ND	0.5	ug/L	04/03/2005 10:15	
Total xylenes	ND	1.0	ug/L	04/03/2005 10:15	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/03/2005 10:15	
Ethanol	ND	50	ug/L	04/03/2005 10:15	
Surrogates(s)					
1,2-Dichloroethane-d4	104.6	73-130	%	04/03/2005 10:15	
Toluene-d8	97.6	81-114	%	04/03/2005 10:15	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2005/04/04-2A.69-036

Water

Test(s): 8260B

QC Batch # 2005/04/04-2A.69

Date Extracted: 04/04/2005 19:36

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	04/04/2005 19:36	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/04/2005 19:36	
Benzene	ND	0.5	ug/L	04/04/2005 19:36	
Toluene	ND	0.5	ug/L	04/04/2005 19:36	
Ethylbenzene	ND	0.5	ug/L	04/04/2005 19:36	
Total xylenes	ND	1.0	ug/L	04/04/2005 19:36	
Ethanol	ND	50	ug/L	04/04/2005 19:36	
Surrogates(s)					
1,2-Dichloroethane-d4	97.2	73-130	%	04/04/2005 19:36	
Toluene-d8	92.6	81-114	%	04/04/2005 19:36	

Gas/BTEX Fuel Oxygenates by 8260B

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Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/04/03-1A.64

LCS 2005/04/03-1A.64-052

Extracted: 04/03/2005

Analyzed: 04/03/2005 09:52

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	23.3		25	93.2			65-165	20		
Benzene	25.0		25	100.0			69-129	20		
Toluene	26.5		25	106.0			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	497		500	99.4			73-130			
Toluene-d8	507		500	101.4			81-114			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

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Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/04/04-2A.69

LCS 2005/04/04-2A.69-017

Extracted: 04/04/2005

Analyzed: 04/04/2005 19:17

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.4		25	105.6			65-165	20		
Benzene	24.2		25	96.8			69-129	20		
Toluene	24.5		25	98.0			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	463		500	92.6			73-130			
Toluene-d8	461		500	92.2			81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/08/2005 16:16

Gas/BTEX Fuel Oxygenates by 8260B

TRC Altan Geoscience- Irvine
Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111
Project: 41050001FA20
Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report			
Prep(s):	5030B	Test(s):	8260B
Matrix Spike (MS / MSD)	Water	QC Batch # 2005/04/03-1A.64	
MS/MSD		Lab ID:	2005-03-0783 - 001
MS: 2005/04/03-1A.64-059	Extracted: 04/03/2005	Analyzed:	04/03/2005 10:59
		Dilution:	1.00
MSD: 2005/04/03-1A.64-021	Extracted: 04/03/2005	Analyzed:	04/03/2005 11:21
		Dilution:	1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Methyl tert-butyl ether	24.5	21.3	ND	25	98.0	85.2	14.0	65-165	20		
Benzene	26.2	24.4	ND	25	104.8	97.6	7.1	69-129	20		
Toluene	27.0	24.7	ND	25	108.0	98.8	8.9	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	455	460		500	91.0	92.0		73-130			
Toluene-d8	469	481		500	93.8	96.2		81-114			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20
Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Batch QC Report			
Prep(s):	5030B	Test(s):	8260B
Matrix Spike (MS / MSD)	Water	QC Batch # 2005/04/04-2A.69	
MS/MSD		Lab ID:	2005-03-0881 - 001
MS: 2005/04/04-2A.69-025	Extracted: 04/04/2005	Analyzed:	04/04/2005 21:25
		Dilution:	1.00
MSD: 2005/04/04-2A.69-044	Extracted: 04/04/2005	Analyzed:	04/04/2005 21:44
		Dilution:	1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	23.3	26.4	ND	25	93.2	105.6	12.5	65-165	20		
Benzene	21.5	25.2	ND	25	86.0	100.8	15.8	69-129	20		
Toluene	20.9	25.1	ND	25	83.6	100.4	18.3	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	465	469		500	93.0	93.8		73-130			
Toluene-d8	440	450		500	88.0	90.0		81-114			

Gas/BTEX Fuel Oxygenates by 8260B

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Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20
Conoco Phillips #4186

Received: 03/24/2005 14:30

Site: 1771 First St, Livermore

Legend and Notes

Sample Comment

Lab ID: 2005-03-0823 -1

Siloxane peaks were found in the sample which are not believed to be gasoline related. If they be quantitated as gasoline, the concentration would be 78ug/L

Lab ID: 2005-03-0823 -2

Siloxane peaks were found in the sample which are not believed to be gasoline related. If they be quantitated as gasoline, the concentration would be 68ug/L

Lab ID: 2005-03-0823 -3

Siloxane peaks were found in the sample which are not believed to be gasoline related. If they be quantitated as gasoline, the concentration would be 110ug/L

Lab ID: 2005-03-0823 -4

Siloxane peaks were found in the sample which are not believed to be gasoline related. If they be quantitated as gasoline, the concentration would be 100ug/L

Analysis Flag

L2

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

Q6

The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.

1220 Emery Lane

Fremont, CA 94558

(925) 484-1910 (925) 484-1998 fax

Corona Phillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CORONAPHILLIPS
11 South
San Mateo

2005-03-1823

Corona Phillips Work Order Number

1237 TRC501

Corona Phillips Cost Object

DATE 3/23/05

PAGE 1 of 1

TRC		4186		T060101777	
21 Technology Drive, Irvine CA 92618		1771 First St, Livermore		Shelby Latham	
App: Farfan		Peter Thomsen, TRC		949-311-7400	
TEL: (949) 261-7440		FAX: (949) 783-0111		EMAIL: pthomsen@trcsolutions.com	
NAME OF ANALYST: Dick R.		LABORATORY TEST NUMBER: 4100001/PAGE1		REQUESTED ANALYSES	

TOXIC TOXIC TOXIC TOXIC TOXIC TOXIC TOXIC TOXIC

SPECIAL INSTRUCTIONS OR NOTES:
 "Rw 8 AXYS by 8260 ON 8260
 MTBE lit, 4-300ly"

FIELD NOTES:
 Contains Preservative
 or P20 Pickings
 or Laboratory Notes

SAMPLE NO.	Sample Identification/ Test Point		SAMPLING		ANALYST	DATE	TIME	REMARKS	FIELD NO.	FIELD NOTES
	Name	DATE	TIME	ANALYST						
U-4		3/23/05	12:30	BSW				3		2 was w/del
U-5										
U-1										
U-2										
U-6										
U-7										
U-3										

ANALYST: [Signature]
 SUPERVISOR: [Signature]
 DATE: 3/23/05 1200
 DATE: 3-24-05 1010
 DATE: 3-24-05 1430

STATEMENTS

Purge Water Disposal

Non-hazardous groundwater produced during purging and sampling of monitoring was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by Onyx Transportation, Inc., to the ConocoPhillips Refinery at Rodeo, California. Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures - Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file at TRC's Concord Office. Purge water containing a significant amount of liquid-phase hydrocarbons was accumulated separately in drums for transportation and disposal by Filter Recycling, Inc.

Limitations

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.