



**Shaw™ Shaw Environmental, Inc.**

4005 Port Chicago Hwy  
Concord, California 94520

Mr. Jerry Wickham  
Alameda County Health Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502

Re: **Report Transmittal  
Quarterly Report  
Second Quarter – 2005  
76 Service Station #4186  
1771 First Street  
Livermore, CA**

Dear Mr. Wickham:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call me at (916) 558-7609.

Sincerely,

**Shelby Suzanne Lathrop**  
Project Manager  
Shaw Environmental, Inc.  
Approved service provider of ConocoPhillips -Risk Management & Remediation  
Cell: 707-592-1146

Client Contact Information:  
**ConocoPhillips**  
76 Broadway  
Sacramento, California 95818  
Client office: 916-558-7609  
Client fax: 916-558-7639

Attachment

cc: Liz Sewell, ConocoPhillips



6602 Owens Dr. Suite 100  
Pleasanton, California 94588  
+  
925.460.5300  
Fax 925.463.2559

July 29, 2005

Mr. Jerry Wickham  
Alameda County Health Care Services  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

**Re: Quarterly Summary Report – Second Quarter 2005**  
76 Service Station No. 4186 / CoP No. WNO 1237  
1771 First Street  
Livermore, California

Dear Mr. Wickham:

On behalf of ConocoPhillips Company (ConocoPhillips), ATC Associates Inc. (ATC) is forwarding the quarterly summary report for the above referenced facility.

Sincerely,  
ATC ASSOCIATES INC.

A handwritten signature in black ink, appearing to read 'David A. Evans'.

David A. Evans  
Senior Project Manager

*for David Evans*

A handwritten signature in black ink, appearing to read 'Janine Weber-Band'.

Janine Weber-Band, PhD, CEG #2286  
Senior Geologist

Attachment: Site Plan  
Tables – Groundwater Monitoring and Analytical  
Quarterly Monitoring Report, prepared by TRC  
Quarterly Remedial Performance Summary Second Quarter 2005 report,  
prepared by Secor (July 12, 2005)

Cc: Ms. Shelby Lathrop, ConocoPhillips (electronic copy only)

R0436

Quarterly Summary Report – Second Quarter  
76 Service Station 4186  
1771 First Street  
Livermore, California

July 29, 2005  
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**QUARTERLY SUMMARY REPORT**  
**Second Quarter 2005**

76 Service Station No. 4186 / CoP No. WNO 1237  
1771 First Street  
Livermore, California

City/County ID#:      Livermore  
County:                      Alameda

**SITE BACKGROUND AND ACTIVITY**

This site is an operating Union 76 service station located at Second Street between N Street and O Street in Livermore, California. The facility property contains the station building, four product dispenser islands, and two gasoline underground storage tanks (UST).

On June 6, 1996, six soil samples were collected from beneath the fuel dispensers and along the product delivery piping during dispenser and piping replacement activities. Analytical results were reported as not detected (ND) for Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and total xylenes (BTEX) for all samples collected beneath the dispenser islands and product delivery piping.

On September 10, 1997, a soil gas survey was conducted as part of a baseline site evaluation associated with the property transfer from Unocal Corporation to Tosco. Six soil gas probes were advanced and samples collected at 3 or 15 feet bgs in the vicinity of the UST complex, dispenser islands, and product lines. Analytical results ranged from 41 to 4,500 parts per billion by volume (ppb-v) of TPHg, ND to 110 ppb-v of benzene and ND to 8,000 ppb-v of MtBE. The area of highest soil vapor concentration was reported to be localized around the UST complex.

On April 8, 1998, the Alameda County Zone 7 Water Agency files were reviewed to identify water supply wells located within a one half mile radius from the site. Two municipal wells were identified approximately 1,500 and 1,800 feet northwest of the site, and two domestic wells were located approximately 1,900 and 2,800 feet southwest and west of the site.

On June 16, 1998, three 2-inch diameter groundwater monitor wells (U-1 through U-3) were installed. The wells were installed to a depth of approximately 34 feet bgs. Soil samples collected from the three wells were reported as non-detect for TPHg, benzene, and MtBE.

In May of 2000, a site conceptual model (SCM) was completed for the site. In the SCM, a groundwater flow velocity was calculated to determine the plume travel time to the nearest receptor. Ground water velocity was calculated at 46 feet per year. The SCM concluded that hydrocarbon impact to groundwater appears to fluctuate with the historical rise and fall of the groundwater surface beneath the site.

On February 21, 2001, two 2-inch diameter offsite groundwater monitor wells (U-4 and U-5) were installed at the locations shown on Figure 2. The wells were installed to a depth of approximately 47 feet bgs. TPHg, BTEX or MtBE were not detected in any of the soil samples

analyzed. TPHg and benzene were non-detectable in the groundwater samples analyzed from wells U-4 and U-5. Other than MtBE, fuel oxygenates were also non-detectable. MtBE was detected in groundwater samples from both wells U-4 and U-5 at concentrations of 38.2 and 55.4 µg/l, respectively. Groundwater monitoring and sampling of the wells was initiated in July of 1998, and has continued on a quarterly basis to the present time. Historically, groundwater flow directions have varied from north to southwest. Depth to groundwater has varied from approximately 23 to 46 feet below top of casing.

On December 5 – 7, 2001, two monitor wells (U-6 and U-7) and eight ozone microsparge points (SP-1 through SP-8) were installed. The monitor wells were installed to 46 feet bgs using 8-inch diameter hollow stem augers. Borings SP-1 through SP-8 were completed as sparge points with the installation of 2-inch diameter KVA sparge points attached to ¾-inch diameter blank schedule 80 PVC casing through the hollow-stem augers. The sparge points are composed of 30-inch long microporous plastic. Sparge points SP-1 through SP-4 were installed to a depth of 45 feet bgs. Sparge points SP-6S and SP-7S were installed to a depth of 25 feet bgs. The remaining two sparge locations contained nested sparge points (SP-5, SP-5S, SP-8 and SP-8S) installed to 25 and 45 feet bgs in each boring, respectively. Upon completion of the sparge point installation, an interim remedial measure system was installed consisting of a K-V Associates, Inc. (KVA) "C-Sparge" ozone microsparge system.

#### **SENSITIVE RECEPTORS**

A Sensitive Receptor Survey conducted from the Alameda County Zone 7 Water Agency. Two municipal wells were identified approximately 1,500 and 1,800 feet northwest of the site, and two domestic wells were located approximately 1,900 and 2,800 feet southwest and west of the site.

#### **GROUNDWATER MONITORING AND SAMPLING**

Groundwater is currently monitored and sampled on a quarterly basis each year. During the June 28, 2005 monitoring and sampling event, groundwater depths ranging from 24.57 feet (U-3) to 28.90 feet (U-5) below top of casing (TOC). The groundwater flow direction was reported towards the southwest at a gradient of 0.06 ft/ft. Maximum dissolved groundwater concentrations were present as follows: TPPH (12,000 µg/L in U-6), benzene (120 µg/L in U-6), and methyl tertiary butyl ether (MtBE) (4,700 µg/L in U-3).

Over the past three quarters the overall MtBE concentrations seem to be decreasing in monitor wells U-3 and U-4. The MtBE concentrations are fluctuating in monitor wells U-5, U-6, and U-7.

#### **REMEDIATION STATUS**

The ozone sparge system, manufactured by KVA, was placed into operation on December 19, 2001 and is designed to cycle the ozone/oxygen injection between 8 sparge points. A typical injection schedule for this site was designed to operate at 18 times a day at 5 and 15 minutes per point per cycle. The system's current cycle frequency is 7 minutes.

For the second quarter 2005, the ozone sparge system operated at 19% of the programmed run time, 230 hours, and injected 2.1 pounds of ozone. System operation and maintenance activity is conducted on a monthly basis.

The system was found to be non-operational during a site visit by Secor on April 29, 2005 when a tripped circuit breaker was noted by Secor. The system was started and on May 13, it was found

to be non-operational due to a damaged wire in the compressor unit. The wire was repaired and the system successfully restarted. Upon the next site visit by Secor, on June 6, the system was found to be non-operational due to a trip in the ozone sensor and a leak in one of the compression fittings. The system was repaired and restarted.

O&M visits are scheduled to be more frequent during the third quarter of 2005. ATC will communicate with SECOR to determine best methods of optimizing system performance.

#### **CHARACTERIZATION STATUS**

Based on current and historic data, the dissolved MtBE plume is not defined in the upgradient direction. The furthest up-gradient monitor well, U-3, contained 4,700 µg/l MtBE during the second quarter 2005 sampling event. The offsite furthest down-gradient well, U-5, contained 40 µg/l of MtBE this quarter. A slight increase in MtBE and TPH concentration was observed in the data for U-6, (21 µg/l and 12,000 µg/l respectively), this may be attributed to an observed 3 feet (on average) water table increase since the last reporting period. Monitor well U-3 showed a slight decrease in MtBE and TPH concentrations this quarter (4,700 µg/l and 6,600 µg/l respectively)

#### **RECENT CORRESPONDENCE**

1. ATC submitted a Work Plan dated May 23, 2005 titled *Work Plan – Site Assessment* to the Alameda County Health Care Services Agency, proposing the installation of one monitor well in the up-gradient direction.

#### **THIS QUARTER ACTIVITIES (Second Quarter 2005)**

1. TRC performed quarterly monitoring and sampling at the site.
2. Secor performed system operation and maintenance activities at the site.
3. A Work Plan was submitted by ATC to the Alameda County Health Care Services Agency proposing the installation of one additional monitor well in the up-gradient direction. The agency has responded (letter dated July 15, 2005) requesting a revised Work Plan with specific additions to be submitted by August 30, 2005.

#### **WASTE DISPOSAL SUMMARY**

No waste was generated this quarter.

June 1996 - A total of 25 cubic yards of soils was excavated and disposed.

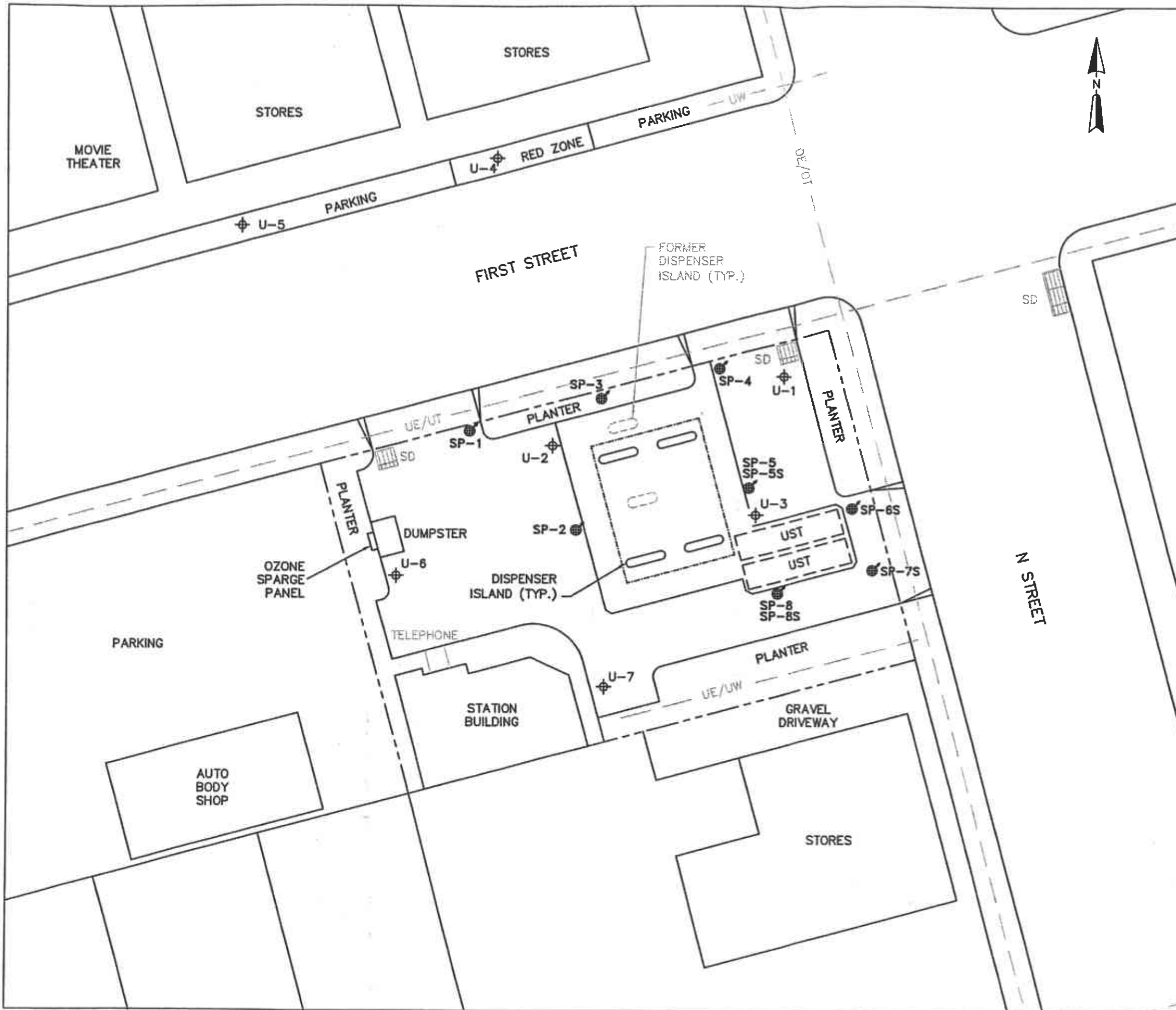
#### **NEXT QUARTER ACTIVITIES (Third Quarter 2005)**

1. Upon approval, one monitor well will be installed in the up-gradient direction. Per the agency request of July 15, 2005, a revised Work Plan will be submitted. In addition, remediation system performance will be reviewed with SECOR to maximize system up time.

2. Secor will continue operation and maintenance on the ozone/oxygen sparge system at the site.
3. TRC will sample and monitor the well network.

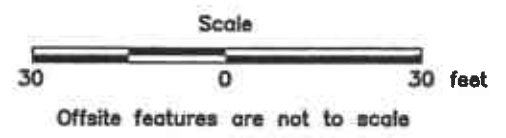
**CONSULTANT:** ATC Associates Inc.





**LEGEND**

- APPROXIMATE PROPERTY LINE
- U-7 ⊕ GROUNDWATER MONITOR WELL
- SP-1 ⊕ OZONE SPARGE POINT
- SD [hatched] STORM DRAIN
- UE — UNDERGROUND ELECTRIC
- UT — UNDERGROUND TELEPHONE
- UW — UNDERGROUND WATER
- OE — OVERHEAD ELECTRIC
- OT — OVERHEAD TELEPHONE



BASE MAP REFERENCE:  
MODIFIED FROM SITE PLAN SUPPLIED BY  
MILLER BROOKS, ENVIRONMENTAL, INC.



6602 Owens Drive, Suite 100  
Pleasanton, CA 94588  
(925) 460-5300

SCALE AS SHOWN	DRAWING DATE 06/24/05	ACAD FILE 4186-site plan
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**SITE MAP**

CLIENT CONOCOPHILLIPS	PM DAE		
LOCATION 76 STATION 4186 1771 FIRST STREET LIVERMORE, CALIFORNIA	PE DA		
DESIGNED	DRAWN BY: EC	PROJECT NO. 75.75118.1237	FIGURE 2



Table 1

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS  
76 Station 4186  
1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)
U-1	07/13/98	23.28	0	454.99	478.27	34	14	ND	ND	ND	ND	ND	ND	--	--
	10/07/98	26.43	0	451.84	478.27	34	14	ND	ND	ND	ND	ND	ND	--	--
	01/15/99	30.42	0	447.85	478.27	34	14	ND	ND	ND	1.1	ND	7.3	--	--
	04/14/99	24.21	0	454.06	478.27	34	14	ND	ND	ND	ND	ND	160	--	--
	07/19/99	27.1	0	451.17	478.27	34	14	ND	ND	ND	ND	ND	92	--	--
	10/12/99	29.4	0	448.87	478.27	34	14	ND	ND	ND	ND	ND	37	--	--
	01/24/00	27.9	0	450.37	478.27	34	14	ND	ND	ND	ND	ND	28	--	--
	04/10/00	26.16	0	452.11	478.27	34	14	ND	0.93	ND	ND	ND	ND	--	--
	07/17/00	28.04	0	450.23	478.27	34	14	ND	ND	ND	ND	ND	160	--	--
	10/02/00	28.41	0	449.86	478.27	34	14	ND	ND	ND	ND	ND	120	--	--
	01/08/01	28.68	0	449.59	478.27	34	14	ND	ND	ND	ND	ND	103	--	--
	04/03/01	25.74	0	452.53	478.27	34	14	ND	ND	ND	ND	ND	55.1	--	--
	07/02/01	30.67	0	447.6	478.27	34	14	ND	ND	ND	ND	ND	ND	--	--
	10/08/01	33.13	0	445.14	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	ND<5.0	--	--
	01/03/02	27.67	0	450.6	478.27	34	14	ND<0.50	0.51	ND<0.50	0.69	160	31	--	--
	04/05/02	29.4	0	448.87	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	60	--	--
	07/02/02	31.17	0	447.1	478.27	34	14	ND<0.50	1.7	0.73	130	--	--	35	1100
	10/01/02	33	0	445.27	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	8.8	--	--	28	120
	12/30/02	22.03	0	456.24	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	1.2	--	--	90	ND<50
	05/02/03	24.13	0	454.14	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	50	ND<50
	07/01/03	25.35	0	452.92	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	10/03/03	27.24	0	451.03	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	01/08/04	22.67	0	455.6	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	5.5	54
	04/15/04	25.33	0	452.94	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	07/15/04	26.47	0	451.8	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	12/08/04	31.17	0	447.1	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	03/23/05	22.47	0	455.8	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	06/28/05	25.37	0	452.9	478.27	34	14	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
U-2	07/13/98	23.52	0	453.92	477.44	34	13	130	12	62	180	1200	1100	--	--
	10/07/98	25.31	0	452.13	477.44	34	13	ND	ND	ND	ND	ND	160	--	--

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HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS  
76 Station 4186  
1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)
	01/15/99	30.22	0	447.22	477.44	34	13	ND	ND	ND	ND	ND	280	--	--
	04/14/99	24.5	0	452.94	477.44	34	13	ND	ND	ND	ND	ND	460	--	--
	07/19/99	28.54	0	448.9	477.44	34	13	ND	ND	ND	ND	ND	220	--	--
	10/12/99	30.48	0	446.96	477.44	34	13	ND	ND	ND	ND	ND	160	--	--
	01/24/00	24.52	0	452.92	477.44	34	13	ND	ND	ND	ND	ND	150	--	--
	04/10/00	23.68	0	453.76	477.44	34	13	ND	ND	ND	ND	ND	177	--	--
	07/17/00	28.35	0	449.09	477.44	34	13	ND	ND	ND	ND	ND	62.7	--	--
	10/02/00	28.72	0	448.72	477.44	34	13	ND	ND	ND	ND	ND	52	--	--
	01/08/01	29.11	0	448.33	477.44	34	13	ND	ND	ND	ND	ND	57.3	--	--
	04/03/01	25.95	0	451.49	477.44	34	13	ND	ND	ND	ND	ND	30.2	--	--
	07/02/01	29.01	0	448.43	477.44	34	13	ND	ND	ND	ND	ND	16	--	--
	10/08/01	30.94	0	446.5	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	82	--	--
	01/03/02	27.33	0	450.11	477.44	34	13	7.7	11	1.7	15	260	42	--	--
	04/05/02	30.02	0	447.42	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	25	--	--
	07/02/02	31.23	0	446.21	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	10/01/02	32	0	445.44	477.44	34	13	ND<0.50	0.62	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	12/30/02	22.32	0	455.12	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	05/02/03	25.92	0	451.52	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	07/01/03	24.99	0	452.45	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	10/03/03	25.31	0	452.13	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<2.0	ND<50
	01/08/04	21.94	0	455.5	477.44	34	13	ND<0.50	ND<0.50	0.51	ND<1.0	--	--	ND<2.0	ND<50
	04/15/04	25.2	0	452.24	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	07/15/04	24.45	0	452.99	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	12/08/04	29.89	0	447.55	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
	03/23/05	22	0	455.44	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	1.1	--	--	ND<0.50	ND<50
	06/28/05	25.3	0	452.9	477.44	34	13	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	ND<0.50	ND<50
U-3	07/13/98	23.82	0	454.64	478.46	34	14	3100	5500	2700	16000	70000	7500	--	--
	10/07/98	25.64	0	452.82	478.46	34	14	5000	1100	3100	14000	54000	6100	--	--
	01/15/99	30.92	0	447.54	478.46	34	14	3100	ND	1800	3800	41000	15000	--	--
	04/14/99	24.48	0	453.98	478.46	34	14	86	290	2200	7800	33000	39000	--	--

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76 Station 4186  
1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)
	07/19/99	28.46	0	450	478.46	34	14	3900	2500	3600	14000	48000	12000	16000	--
	10/12/99	30.39	0	448.07	478.46	34	14	4200	ND	2300	1800	35000	22000	8300	--
	01/24/00	23.43	0	455.03	478.46	34	14	260	ND	770	3200	13000	53000	42000	--
	04/10/00	23.31	0	455.15	478.46	34	14	1070	241	2820	8850	35200	35600	40900	--
	07/17/00	27.53	0	450.93	478.46	34	14	3570	525	3180	5660	29000	22500	21000	--
	10/02/00	28.19	0	450.27	478.46	34	14	2100	31	2000	780	11000	25000	28000	--
	01/08/01	29.85	0	448.61	478.46	34	14	3060	427	3040	4190	33600	24700	30900	--
	04/03/01	24.98	0	453.48	478.46	34	14	660	10.8	304	356	5390	15200	19300	--
	07/02/01	31.35	0	447.11	478.46	34	14	1200	58	1300	930	13000	25000	26000	--
	10/08/01	32.69	0	445.77	478.46	34	14	500	ND<10	570	130	6100	23000	22000	--
	01/03/02	23.73	0	454.73	478.46	34	14	700	130	24	1000	9900	14000	12000	--
	04/05/02	28.27	0	449.17	477.44	34	14	1100	180	220	1400	9800	16000	30000	--
	07/02/02	29.71	0	448.75	478.46	34	14	ND<250	ND<250	ND<250	ND<500	--	12000	12000	ND<25000
	10/01/02	31.18	0	447.28	478.46	34	14	ND<250	ND<250	ND<250	ND<500	--	12000	12000	ND<25000
	12/30/02	21.62	0	456.84	478.46	34	14	330	170	870	4900	--	18000	18000	23000
	05/02/03	23.11	0	455.35	478.46	34	14	280	ND<50	880	1500	--	15000	15000	19000
	07/01/03	24.89	0	453.57	478.46	34	14	120	ND<100	180	880	--	22000	22000	19000
	10/03/03	26.59	0	451.87	478.46	34	14	170	ND<50	250	730	--	--	16000	20000
	01/08/04	21.92	0	456.54	478.46	34	14	250	ND<100	770	1500	--	--	9700	17000
	04/15/04	23.59	0	454.87	478.46	34	14	ND<25	ND<25	36	100	--	--	3700	4600
	07/15/04	24.8	0	453.66	478.46	34	14	ND<25	ND<25	ND<25	ND<50	--	--	3400	2700
	12/08/04	29.13	0	449.33	478.46	34	14	ND<50	ND<50	250	140	--	--	13000	12000
	03/23/05	21.64	0	456.82	478.46	34	14	94	ND<50	630	1200	--	--	6200	21000
	06/28/05	24.57	0	453.89	478.46	34	14	24	0.64	150	70	--	--	4700	6600
U-4	04/03/01	31.63	0	445.3	476.93	45	35	ND	ND	ND	ND	ND	37.8	38.2	--
	07/02/01	37.96	0	438.97	476.93	45	35	ND	ND	ND	ND	ND	ND	5.3	--
	10/08/01	44.24	0	432.69	476.93	45	35	--	--	--	--	--	--	--	--
	01/03/02	36.15	0	440.78	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<0.50	100	10	8.5	--
	04/05/02	37.64	0	439.29	476.93	45	35	0.5	ND<0.50	ND<0.50	ND<0.50	ND<50	4.1	--	--
	07/02/02	36.85	0	440.08	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	12	67

Table 1

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS  
76 Station 4186  
1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)
	10/01/02	38.54	0	438.39	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	9.8	ND<50
	12/30/02	32.64	0	444.29	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	25	ND<50
	05/02/03	31.4	0	445.53	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	4.1	ND<50
	07/01/03	33.6	0	443.33	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	2.1	ND<50
	10/03/03	37.63	0	439.3	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	9.1	ND<50
	01/08/04	29.23	0	447.7	476.93	45	35	0.55	ND<0.50	1.6	3.7	--	--	2.5	ND<50
	04/15/04	29.8	0	447.13	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	5.2	ND<50
	07/15/04	35.05	0	441.88	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	5.1	ND<50
	12/08/04	35.1	0	441.83	476.93	45	35	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	3	ND<50
	03/23/05	25.38	0	451.55	476.93	45	35	ND<0.50	ND<0.50	1.3	1.2	--	--	0.65	ND<50
	06/28/05	28.67	0	448.26	476.93	45	35	ND<0.50	0.15	ND<0.50	ND<1.0	--	--	0.23	34
U-5	04/03/01	31.75	0	444.76	476.51	47	37	ND	0.728	ND	0.993	ND	54.8	55.4	--
	07/02/01	38.68	0	437.83	476.51	47	37	ND	ND	ND	ND	ND	88	94	--
	10/08/01	46.31	0	430.2	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	37	54	--
	01/03/02	36.55	0	439.96	476.51	47	37	ND<0.50	0.59	ND<0.50	0.91	ND<50	51	53	--
	04/05/02	37.83	0	438.68	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<50	37	--	--
	07/02/02	36.92	0	439.59	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	43	ND<50
	10/01/02	--	--	--	476.51	47	37	--	--	--	--	--	--	--	--
	12/30/02	--	--	--	476.51	47	37	--	--	--	--	--	--	--	--
	05/02/03	31.55	0	444.96	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	18	ND<50
	07/01/03	33.83	0	442.68	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	46	73
	10/03/03	37.72	0	438.79	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	44	58
	01/08/04	29.21	0	447.3	476.51	47	37	ND<0.50	ND<0.50	1.1	2.7	--	--	17	ND<50
	04/15/04	30.05	0	446.46	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	37	57
	07/15/04	35.15	0	441.36	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	27	60
	12/08/04	35.33	0	441.18	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	39	62
	03/23/05	25.45	0	451.06	476.51	47	37	ND<0.50	ND<0.50	0.51	ND<1.0	--	--	4.5	ND<50
	06/28/05	28.9	0	447.61	476.51	47	37	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	40	73

Table 1

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS  
76 Station 4186  
1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)
U-6	01/03/02	33.99	0	444.39	478.38	45	35	36	ND<25	260	450	5000	ND<250	ND<10	--
	04/05/02	36.18	0	442.2	478.38	45	35	16	ND<5.0	54	ND<5.0	1300	ND<25	--	--
	07/02/02	36.33	0	442.05	478.38	45	35	1.4	ND<0.50	16	ND<1.0	--	--	0.94	1100
	10/01/02	37.7	0	440.68	478.38	45	35	5.4	ND<0.50	62	ND<1.0	--	--	2.6	2000
	12/30/02	31.63	0	446.75	478.38	45	35	ND<0.50	ND<0.50	2.3	ND<1.0	--	--	ND<2.0	130
	05/02/03	31.49	0	446.89	478.38	45	35	ND<0.50	ND<0.50	1.8	1.7	--	--	82	150
	07/01/03	32.88	0	445.5	478.38	45	35	1.8	ND<0.50	9.4	8.7	--	--	36	190
	10/03/03	36.54	0	441.84	478.38	45	35	140	ND<100	940	560	--	--	ND<400	ND<10000
	01/08/04	30.45	0	447.93	478.38	45	35	29	32	90	89	--	--	27	3500
	04/15/04	29.48	0	448.9	478.38	45	35	19	ND<2.5	91	53	--	--	16	2400
	07/15/04	34.3	0	444.08	478.38	45	35	150	5.7	970	560	--	--	24	8500
	12/08/04	34.8	0	443.58	478.38	45	35	16	ND<2.5	28	ND<5.0	--	--	10	2700
	03/23/05	25.08	0	453.3	478.38	45	35	2.7	ND<0.50	9.6	4.8	--	--	2.5	960
	06/28/05	28.75	0	449.63	478.38	45	35	120	4.9	930	780	--	--	21	12000
U-7	01/03/02	32.43	0	446.31	478.74	45	35	93	ND<10	35	73	3100	140	130	--
	04/05/02	34.06	0	444.68	478.74	45	35	22	0.53	2.6	ND<0.50	630	45	--	--
	07/02/02	35.28	0	443.46	478.74	45	35	21	ND<0.50	6.9	ND<1.0	--	--	60	1100
	10/01/02	37.7	0	441.04	478.74	45	35	11	ND<0.50	3.1	ND<1.0	--	--	25	1700
	12/30/02	31.93	0	446.81	478.74	45	35	41	5.3	32	13	--	--	34	4600
	05/02/03	31.81	0	446.93	478.74	45	35	17	2.7	14	5.1	--	--	42	3000
	07/01/03	33.47	0	445.27	478.74	45	35	11	0.53	8	1.5	--	--	35	2300
	10/03/03	35.84	0	442.9	478.74	45	35	30	ND<5.0	41	ND<10	--	--	53	6500
	01/08/04	30.35	0	448.39	478.74	45	35	4	ND<1.0	4.2	8.7	--	--	56	1600
	04/15/04	29.03	0	449.71	478.74	45	35	22	1.3	64	40	--	--	57	3600
	07/15/04	33.52	0	445.22	478.74	45	35	15	1.2	59	57	--	--	50	4700
	12/08/04	34.68	0	444.06	478.74	45	35	26	1.9	63	27	--	--	52	5800
	03/23/05	24.49	0	454.25	478.74	45	35	18	1.3	42	14	--	--	39	5600
	06/28/05	28.83	0	449.91	478.74	45	35	16	1.1	35	10	--	--	45	5400

Table 1

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS  
 76 Station 4186  
 1771 First Street, Livermore, CA

Well No.	Monitoring Date	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Surface Elevation (feet)	Depth of Well (feet)	Depth of Screen (feet)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	TPH-G (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	TPPH 8260B (µg/l)

LEGEND

-	not analyzed, measured, or collected	PCE	tetrachloroethene
LPH	liquid-phase hydrocarbons	TBA	tertiary butyl alcohol
Trace	less than 0.01 foot of LPH in well	TCA	trichloroethane
µg/l	micrograms per liter	TCE	trichloroethene
mg/l	milligrams per liter	TPH-G	total petroleum hydrocarbons with gasoline distinction
ND	not detected	TPH-D	total petroleum hydrocarbons with diesel distinction
<	not detected at or above laboratory detection limit	TPPH	total purgeable petroleum hydrocarbons
TOC	top of casing	TRPH	total recoverable petroleum hydrocarbons
BTEX	benzene, toluene, ethylbenzene, and (total) xylenes	TAME	tertiary amyl methyl ether
DIPE	di-isopropyl ether	1,1-DCA	1,1-dichloroethane
ETBE	ethyl tertiary butyl ether	1,2-DCA	1,1-dichloroethane (same as EC, ethylene dichloride)
MTBE	methyl tertiary butyl ether	1,1-DCE	1,1-dichloroethene
PCB	polychlorinated biphenyls	1,2-DCE	1,2-dichloroethene (cis- and trans-)



Customer-Focused Solutions

July 21, 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  
APRIL THROUGH JUNE 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  
20-0400/4186R07.QMS.doc



Customer-Focused Solutions

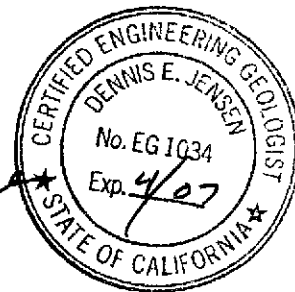
**QUARTERLY MONITORING REPORT  
APRIL THROUGH JUNE 2005**

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  
July 20, 2005



### LIST OF ATTACHMENTS

Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Table 1: Current Fluid Levels and Selected Analytical Results Table 2: Historic Fluid Levels and Selected Analytical Results Table 3: Additional Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPPH Concentration Map Figure 4: Dissolved-Phase Benzene Concentration Map Figure 5: Dissolved-Phase MTBE Concentration Map
Graphs	Groundwater Elevations vs. Time Benzene Concentrations vs. Time
Field Activities	General Field Procedures Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

**Summary of Gauging and Sampling Activities**  
**April 2005 through June 2005**  
**76 Station 4186**  
**1771 First Street**  
**Livermore, CA**

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

Water Sampling Contractor: **TRC**  
Compiled by: **Tim Simpkins**

Date(s) of Gauging/Sampling Event: **06/28/05**

**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: **24.57 feet**      Maximum: **28.9 feet**  
Average groundwater elevation (relative to available local datum): **450.62 feet**  
Average change in groundwater elevation since previous event: **-3.41 feet**  
Interpreted groundwater gradient and flow direction:  
    Current event: **0.06 ft/ft, southwest**  
    Previous event: **0.04 ft/ft, west (03/23/05)**

**Selected Laboratory Results**

Wells with detected **Benzene**: **3**      Wells above MCL (1.0 µg/l): **3**  
    Maximum reported benzene concentration: **120 µg/l (U-6)**  
  
Wells with **TPPH 8260B**      **5**      Maximum: **12,000 µg/l (U-6)**  
Wells with **MTBE**      **5**      Maximum: **4,700 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**  
**June 28, 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
		<b>(Screen Interval in feet: 14.0-34.0)</b>												
U-1 06/28/05	478.27	25.37	0.00	452.90	-2.90	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
		<b>(Screen Interval in feet: 13.0-34.0)</b>												
U-2 06/28/05	477.44	25.30	0.00	452.14	-3.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
		<b>(Screen Interval in feet: 14.0-34.0)</b>												
U-3 06/28/05	478.46	24.57	0.00	453.89	-2.93	--	6600	24	0.64	150	70	--	4700	
		<b>(Screen Interval in feet: 35.0-45.0)</b>												
U-4 06/28/05	476.93	28.67	0.00	448.26	-3.29	--	34J	ND<0.50	0.15J	ND<0.50	ND<1.0	--	0.23J	
		<b>(Screen Interval in feet: 37.0-47.0)</b>												
U-5 06/28/05	476.51	28.90	0.00	447.61	-3.45	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	40	
		<b>(Screen Interval in feet: DNA)</b>												
U-6 06/28/05	478.38	28.75	0.00	449.63	-3.67	--	12000	120	4.9	930	780	--	21	
		<b>(Screen Interval in feet: DNA)</b>												
U-7 06/28/05	478.74	28.83	0.00	449.91	-4.34	--	5400	16	1.1	35	10	--	45	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**July 1998 Through June 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
<b>U-1 (Screen Interval in feet: 14.0-34.0)</b>														
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 June 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)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>U-1 continued</b>														
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	
06/28/05	478.27	25.37	0.00	452.90	-2.90	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>U-2 (Screen Interval in feet: 13.0-34.0)</b>														
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	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**July 1998 Through June 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
<b>U-2 continued</b>														
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	
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	
06/28/05	477.44	25.30	0.00	452.14	-3.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>U-3 (Screen Interval in feet: 14.0-34.0)</b>														
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	



**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**July 1998 Through June 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
<b>U-3 continued</b>														
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	
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	
06/28/05	478.46	24.57	0.00	453.89	-2.93	--	6600	24	0.64	150	70	--	4700	
<b>U-4 (Screen Interval in feet: 35.0-45.0)</b>														
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	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**July 1998 Through June 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
<b>U-4 continued</b>														
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	
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	
06/28/05	476.93	28.67	0.00	448.26	-3.29	--	34J	ND<0.50	0.15J	ND<0.50	ND<1.0	--	0.23J	
<b>U-5 (Screen Interval in feet: 37.0-47.0)</b>														
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	

**Table 2**  
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**July 1998 Through June 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)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
<b>U-5 continued</b>														
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	
06/28/05	476.51	28.90	0.00	447.61	-3.45	--	73	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	40	
<b>U-6 (Screen Interval in feet: DNA)</b>														
01/03/02	478.38	33.99	0.00	444.39	--	5000	--	36	ND<25	260	450	ND<250	ND<10	
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	
06/28/05	478.38	28.75	0.00	449.63	-3.67	--	12000	120	4.9	930	780	--	21	
<b>U-7 (Screen Interval in feet: DNA)</b>														
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	

**Table 2**  
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**July 1998 Through June 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
<b>U-7 continued</b>														
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	
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	
06/28/05	478.74	28.83	0.00	449.91	-4.34	--	5400	16	1.1	35	10	--	45	

**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)
<b>U-1</b>									
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
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-2</b>									
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
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-3</b>									
10/02/00	--	--	--	--	63000	--	--	--	--

**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)
<b>U-3 continued</b>									
01/08/01	ND	ND	--	ND	49300	ND	ND	ND	--
04/03/01	ND	ND	--	ND	22200	ND	ND	ND	--
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
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-4</b>									
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

**Table 3**  
**ADDITIONAL ANALYTICAL RESULTS**  
**76 Station 4186**

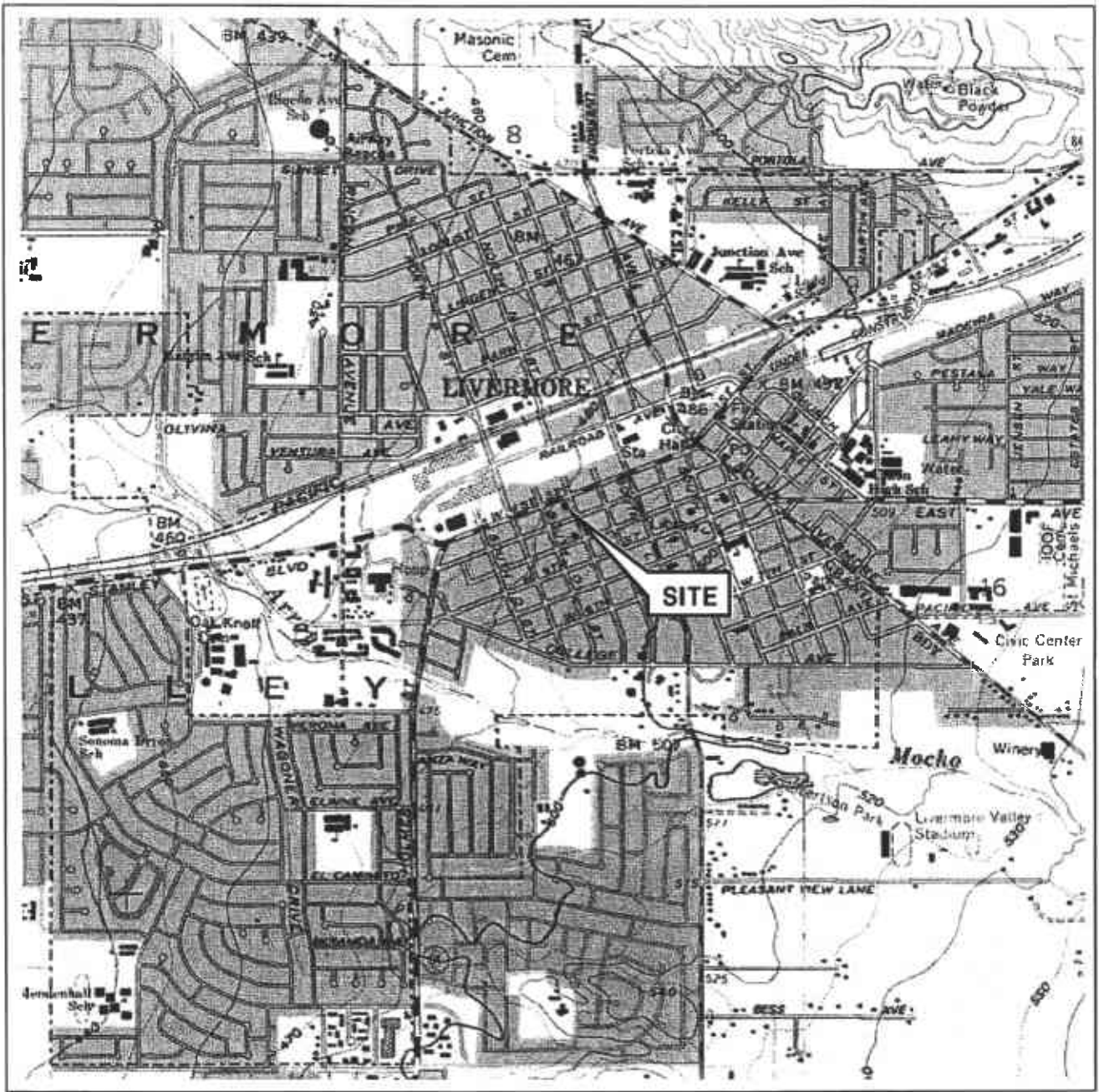
Date Sampled	EDC	EDB	Post Purge DO	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8260B	Post Purge ORP
	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mV)
<b>U-4 continued</b>									
10/03/03	--	--	2.06	--	--	--	--	ND<500	3.05
01/08/04	--	--	11.90	--	--	--	--	ND<500	76
04/15/04	--	--	3.30	--	--	--	--	ND<50	116
07/15/04	--	--	2.50	--	--	--	--	ND<50	32
12/08/04	--	--	--	--	--	--	--	ND<50	--
03/23/05	--	--	0.04	--	--	--	--	ND<50	021
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-5</b>									
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
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-6</b>									
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

**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)
<b>U-6 continued</b>									
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
12/08/04	--	--	--	--	--	--	--	ND<250	--
03/23/05	--	--	0.55	--	--	--	--	ND<50	-077
06/28/05	--	--	--	--	--	--	--	ND<1000	--
<b>U-7</b>									
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
06/28/05	--	--	--	--	--	--	--	ND<1000	--



# FIGURES



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



SCALE 1:24,000



**VICINITY MAP**

76 Station 4186  
 1771 First Street  
 Livermore, California

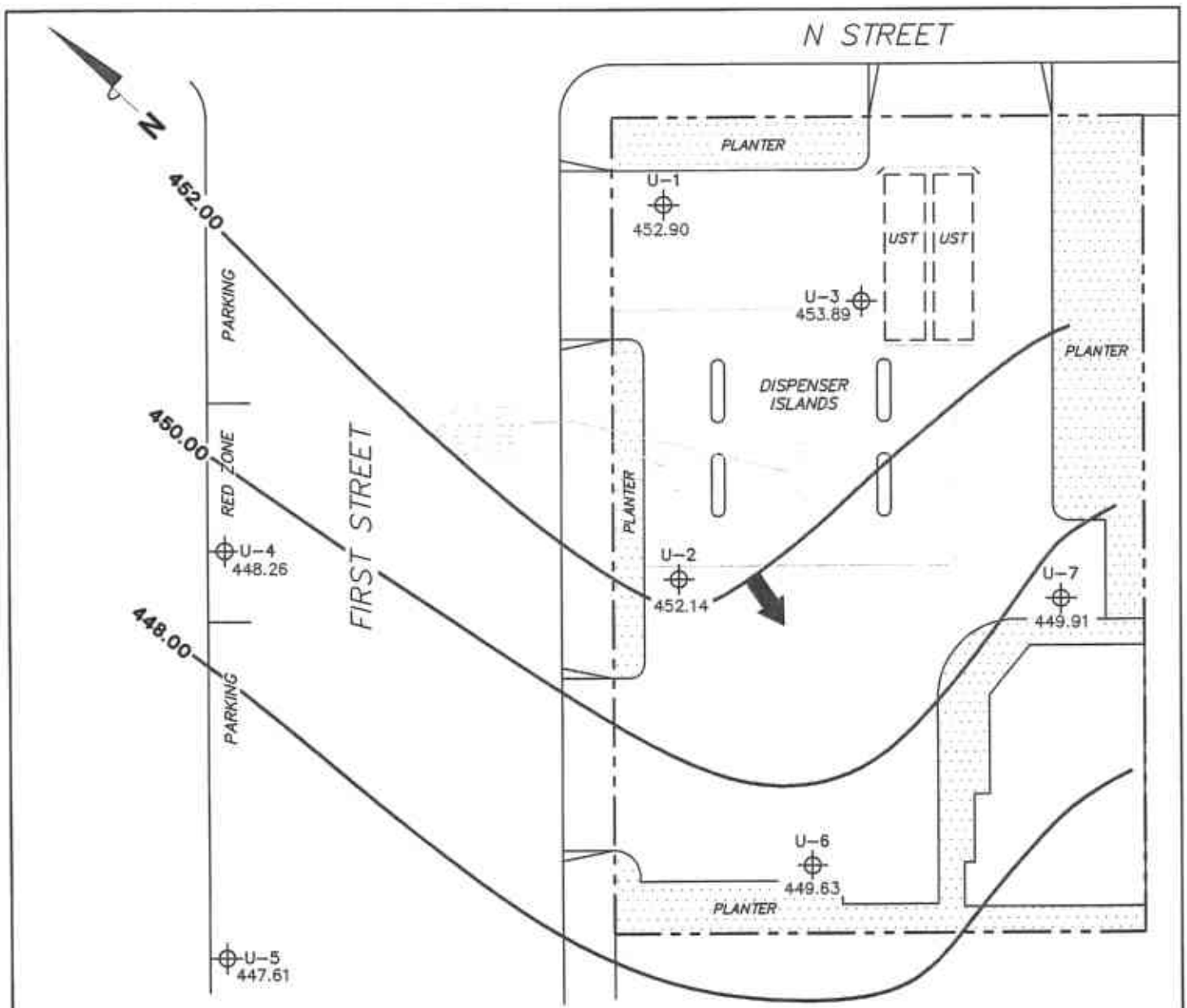
**SOURCE:**

United States Geological Survey  
 7.5 Minute Topographic Maps:  
 Livermore Quadrangle

**TRC**

**FIGURE 1**

PS = 1:1



**NOTES:**

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

**LEGEND**

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

**GROUNDWATER ELEVATION  
CONTOUR MAP  
June 28, 2005**

76 Station 4186  
1771 First Street  
Livermore, California

**FIGURE 2**

PS=1:1 4186--003





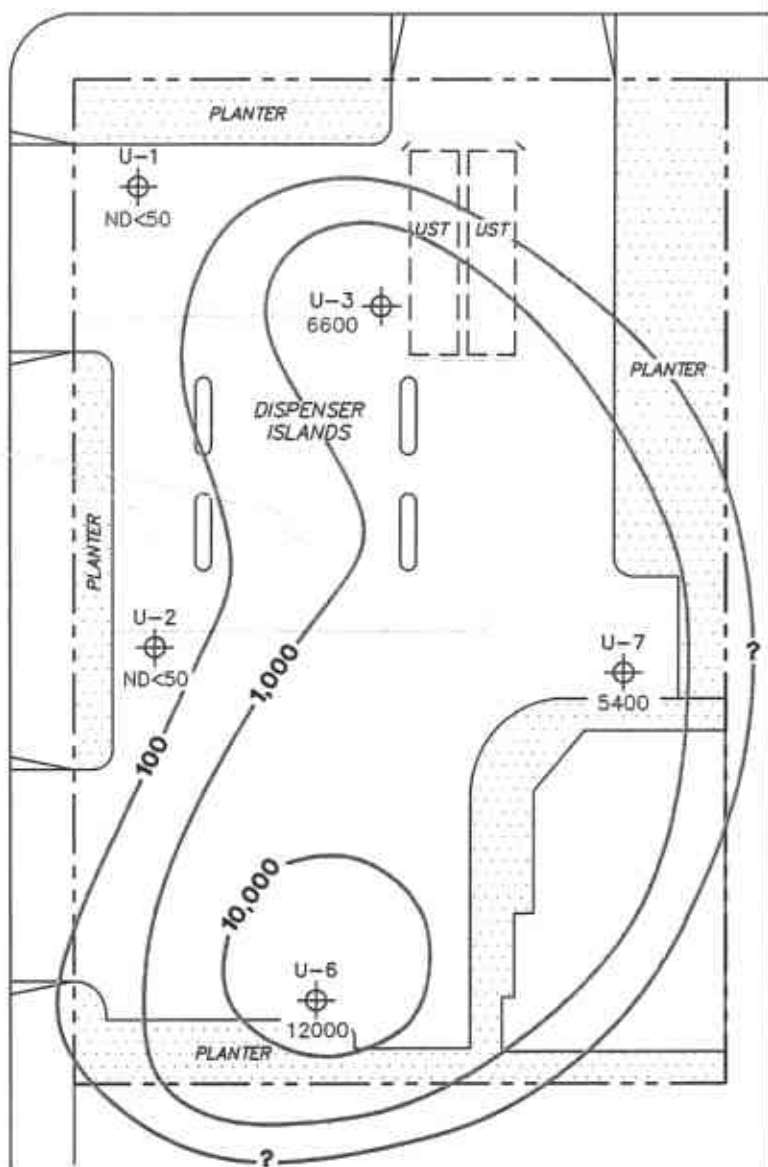
PARKING

RED ZONE

PARKING

FIRST STREET

N STREET



**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.  
 J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL). TPPH results obtained using EPA Method 8260B.

**LEGEND**

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

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

**DISSOLVED PHASE TPPH CONCENTRATION MAP**  
**June 28, 2005**

76 Station 4186  
 1771 First Street  
 Livermore, California

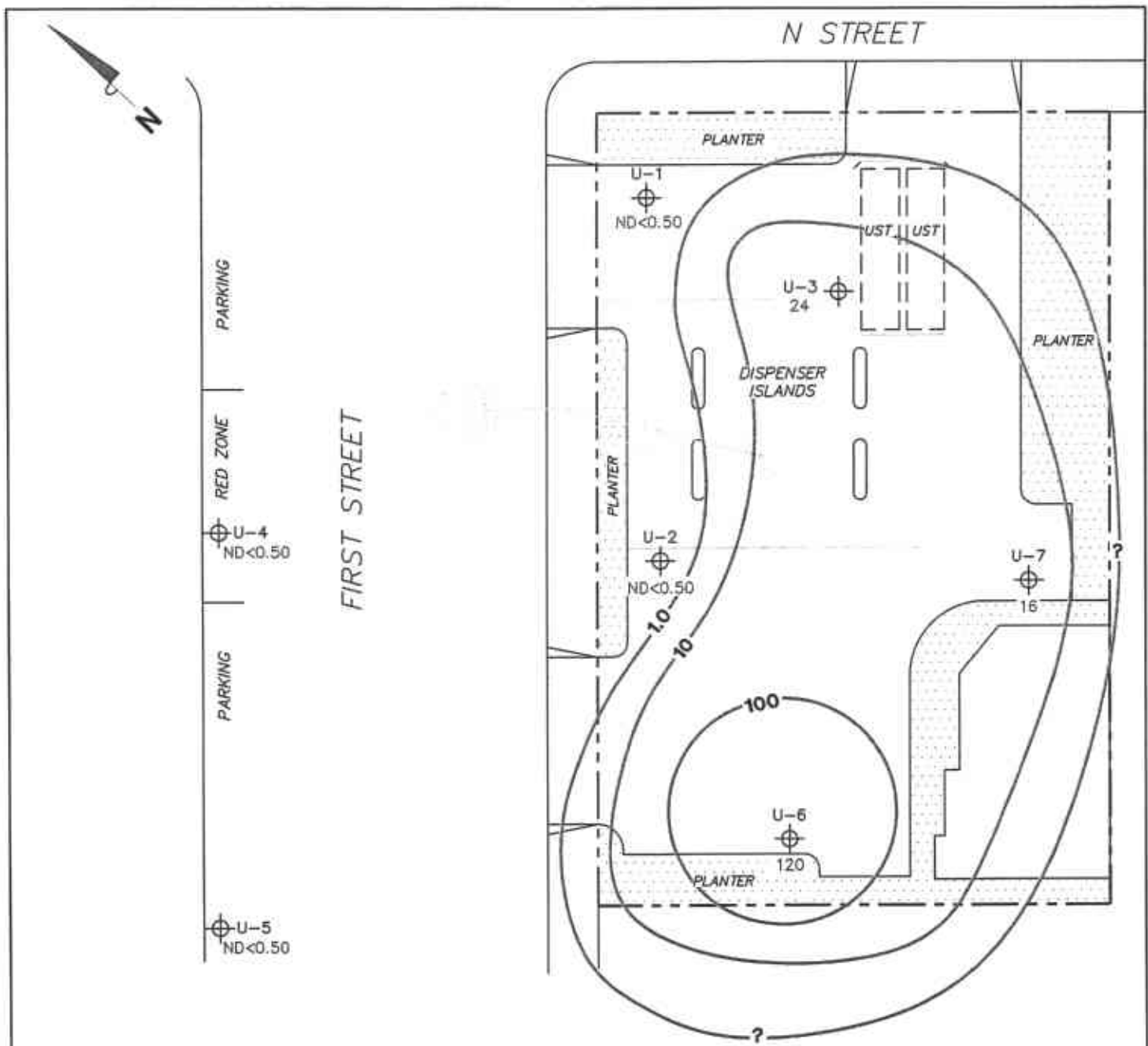
**TRC**

SCALE (FEET)



**FIGURE 3**

PS=1:1 4186-003



**NOTES:**

Contour lines are interpretive and based on laboratory analysis of groundwater samples.  
 $\mu\text{g/l}$  = 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 Concentration ( $\mu\text{g/l}$ )

100 Dissolved-Phase Benzene Contour ( $\mu\text{g/l}$ )

**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**  
 June 28, 2005

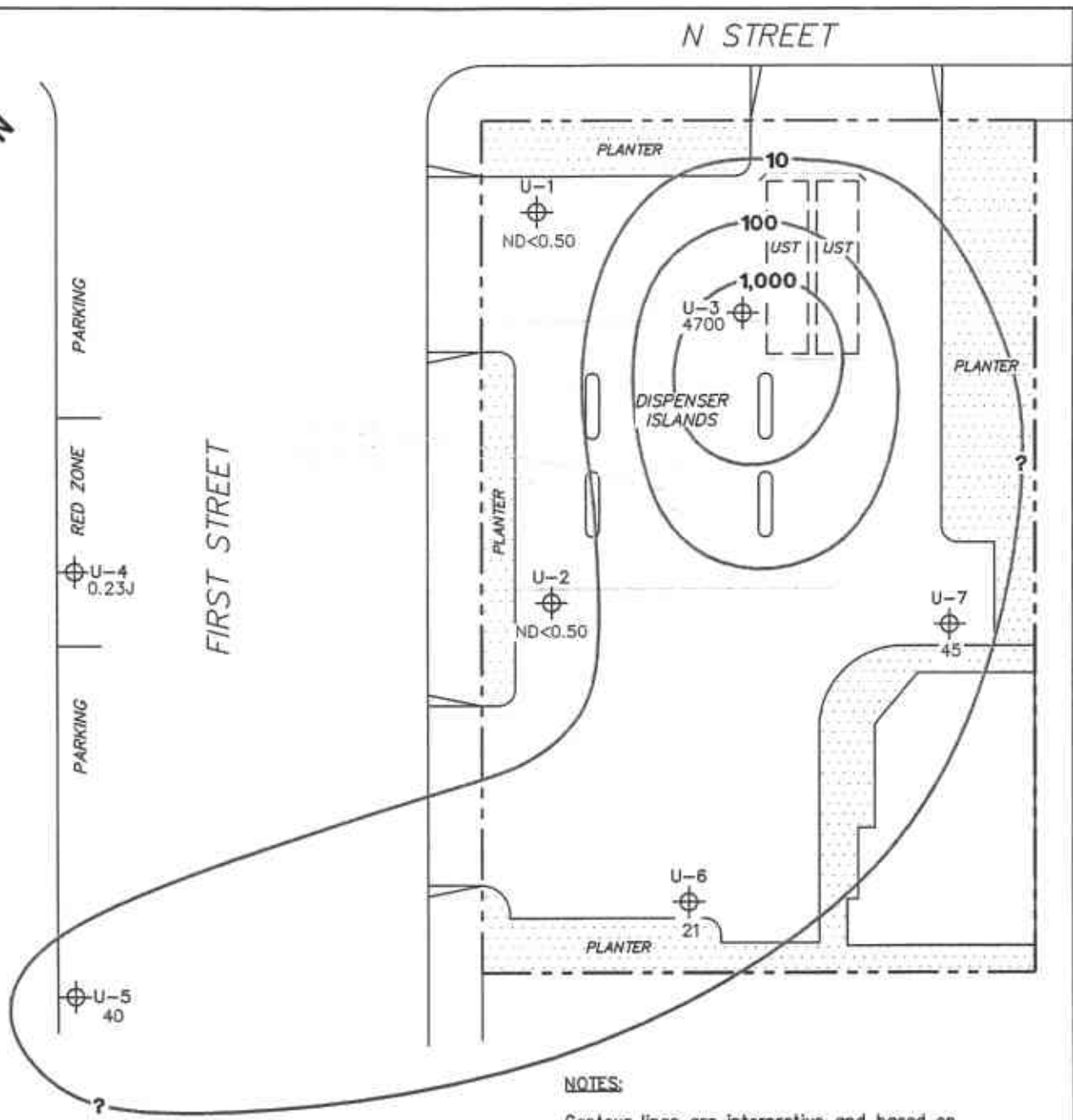
76 Station 4186  
 1771 First Street  
 Livermore, California

**FIGURE 4**

SCALE (FEET)



**TRC**



**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. J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL). MTBE results obtained using EPA Method 8260B.

**LEGEND**

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

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

**DISSOLVED PHASE MTBE  
CONCENTRATION MAP  
June 28, 2005**

76 Station 4186  
1771 First Street  
Livermore, California

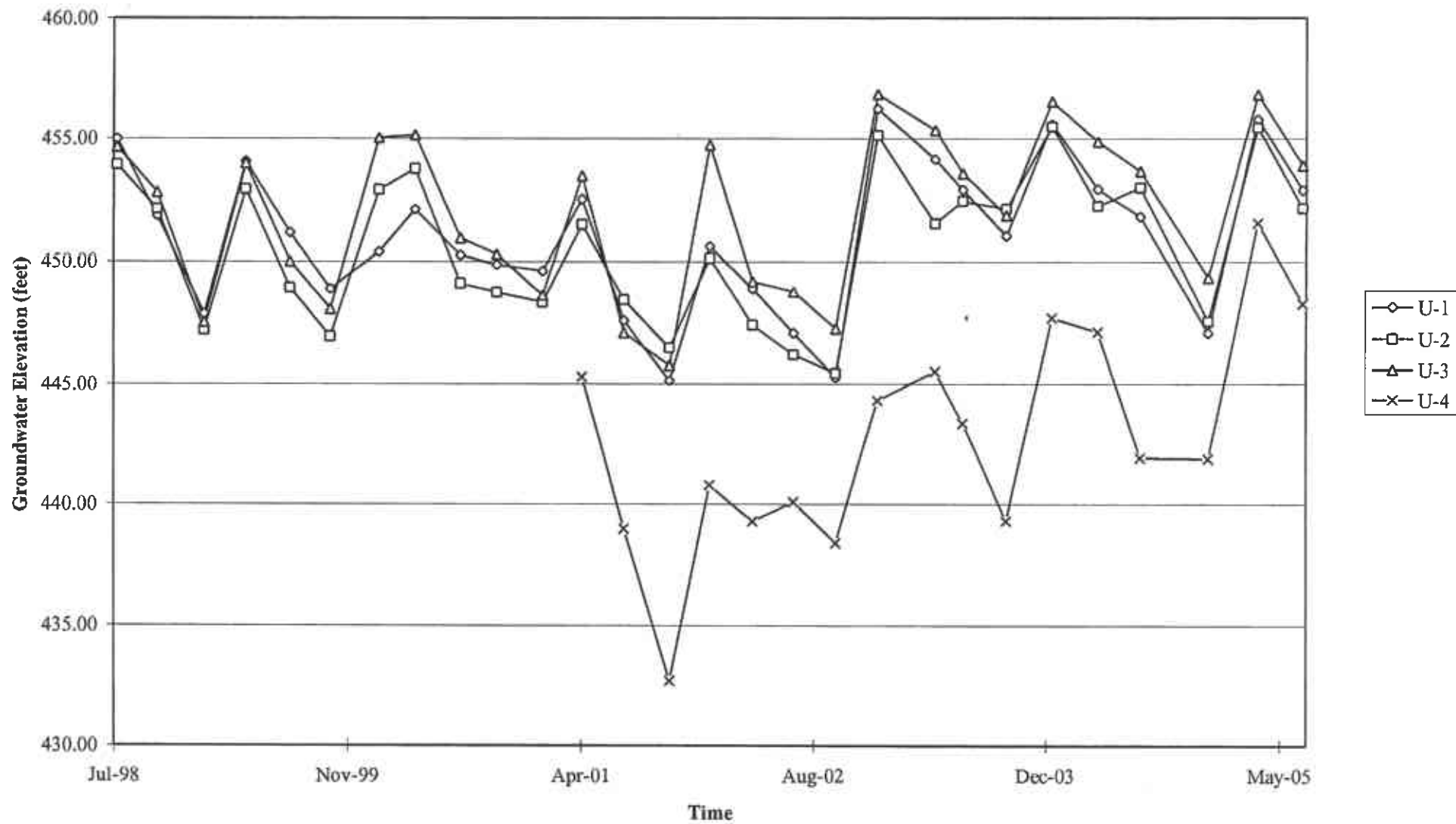
**FIGURE 5**

PS=1:1 4186-003



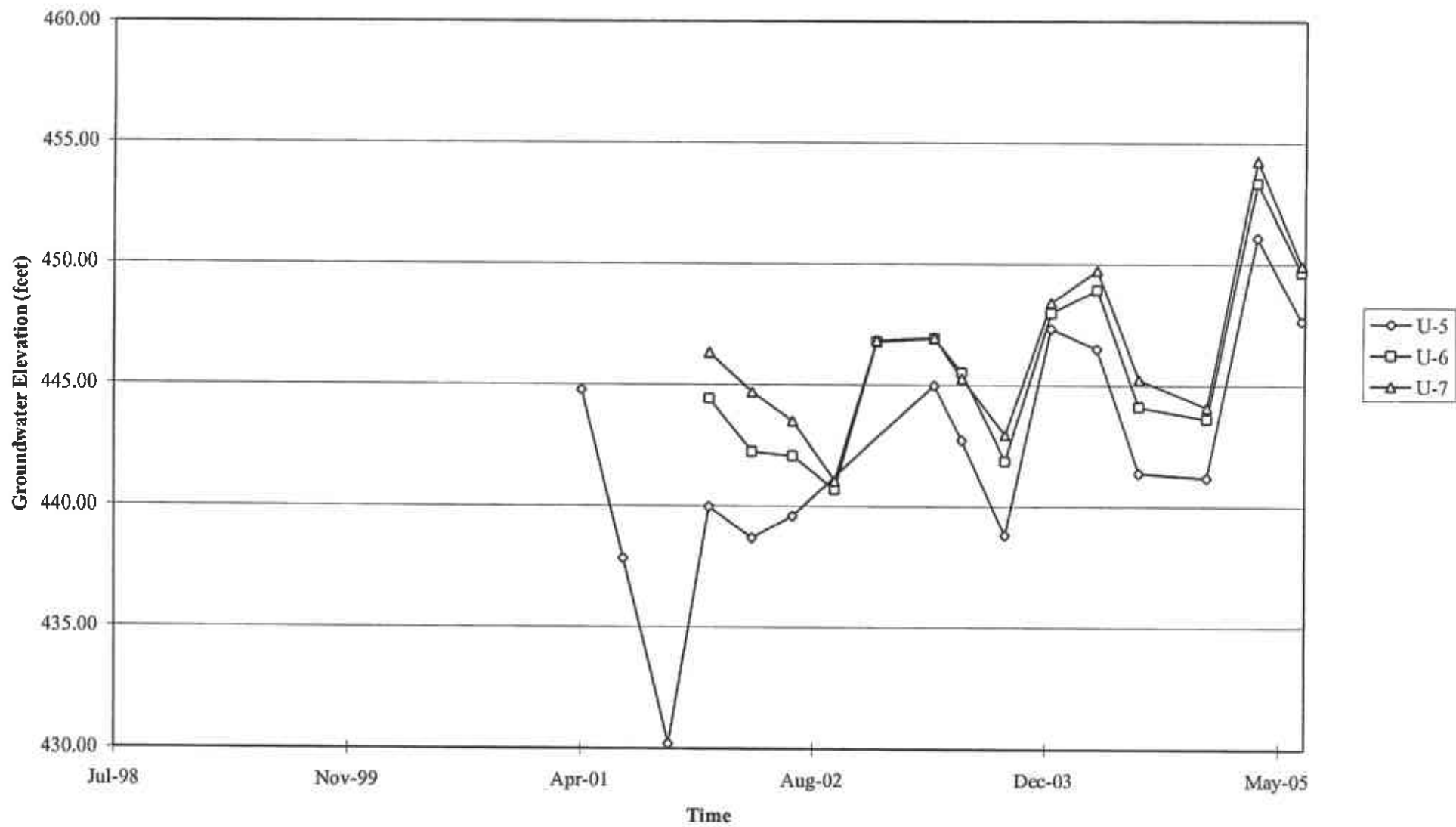
GRAPHS

Groundwater Elevations vs. Time  
76 Station 4186

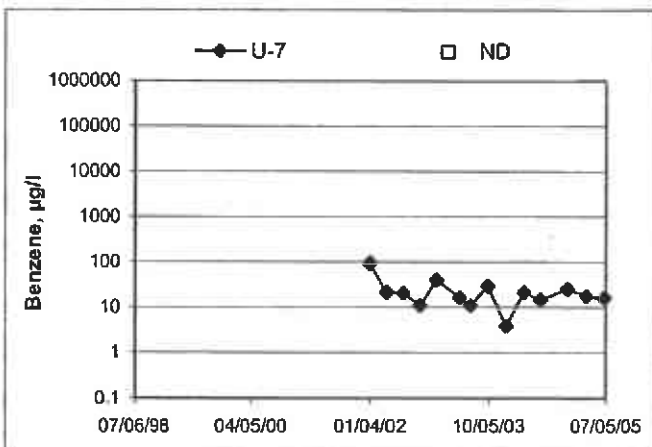
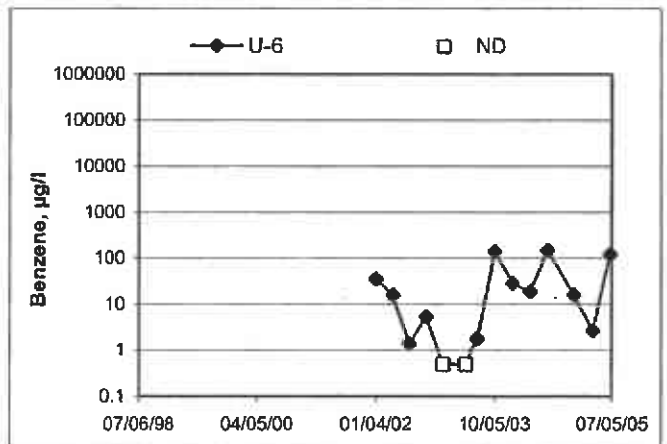
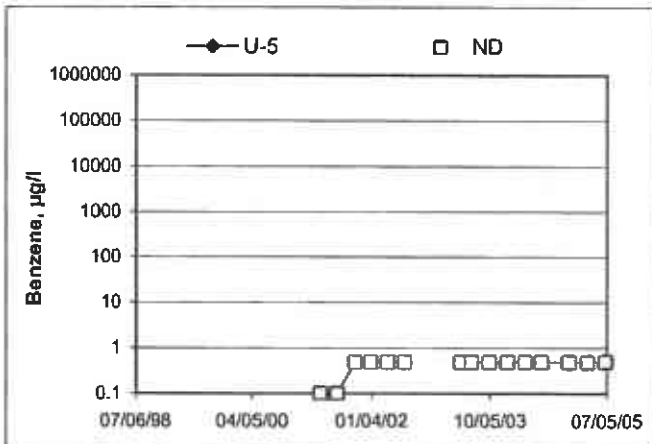
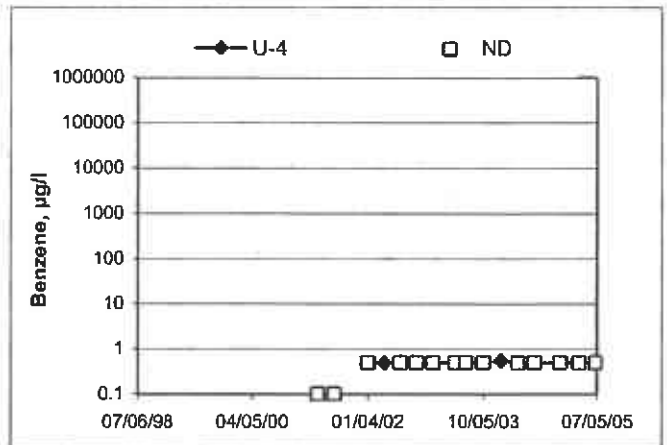
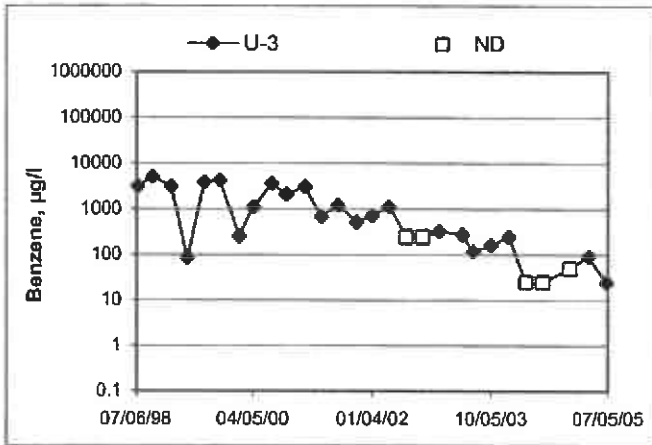
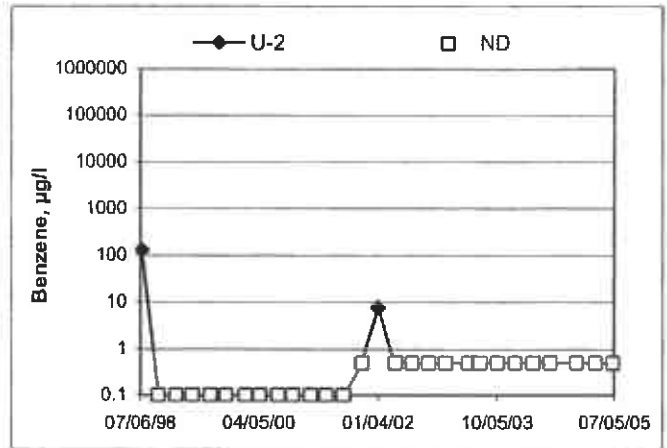
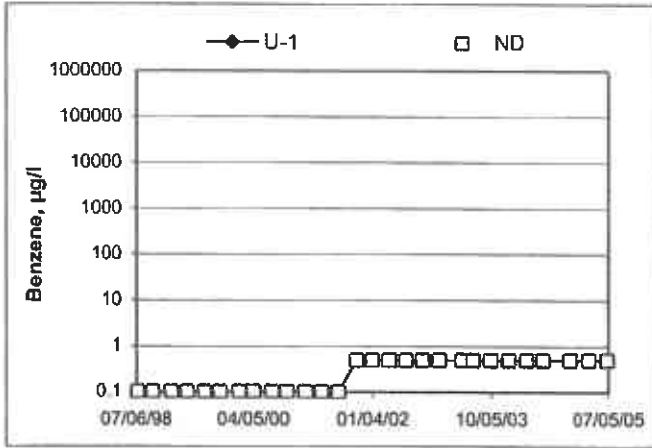




Groundwater Elevations vs. Time  
76 Station 4186



### 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.



GROUNDWATER SAMPLING FIELD NOTES

Technician: ALEX  
 Site: 4186 Project No.: 445001 Date: 06-28-05

Well No.: U-4 Purge Method: JWS  
 Depth to Water (feet): 28.67 Depth to Product (feet): 6  
 Total Depth (feet): 45.10 LPH & Water Recovered (gallons): 6  
 Water Column (feet): 12.43 Casing Diameter (Inches): 2.1  
 80% Recharge Depth (feet): 31.95 1 Well Volume (gallons): 6

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temperature (F. °)	pH	Turbidity ORP	D.O.
0723			3	1136	14.2	7.13	119	4.59
			6	1205	16.4	7.10	124	2.29
	0726		9	1247	17.3	7.14	120	2.24
Static at Time Sampled		Total Gallons Purged			Time Sampled			
29.42		9			0728			
Comments:								

Well No.: U-5 Purge Method: SUB  
 Depth to Water (feet): 28.90 Depth to Product (feet): 6  
 Total Depth (feet): 47.08 LPH & Water Recovered (gallons): 6  
 Water Column (feet): 16.18 Casing Diameter (Inches): 2.1  
 80% Recharge Depth (feet): 32.53 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temperature (F. °)	pH	Turbidity ORP	D.O.
0744			3	1244	16.3	7.03	090	3.61
			6	1265	17.1	6.99	104	2.15
	0754		9	1243	17.0	7.01	103	2.29
Static at Time Sampled		Total Gallons Purged			Time Sampled			
29.48		9			0934			
Comments:								

GROUNDWATER SAMPLING FIELD NOTES

Technician: AW  
 Project No.: 4105001

Site: 4186

Date: 06-28-85

Well No.: U-6  
 Depth to Water (feet): 28.75  
 Total Depth (feet): 44.52  
 Water Column (feet): 15.77  
 80% Recharge Depth (feet): 31.90

Purge Method: PO  
 Depth to Product (feet): 6  
 LPH & Water Recovered (gallons): 6  
 Casing Diameter (Inches): 2 1/2  
 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temperature (F. C)	pH	Turbidity ORP	D.O.
0804			3	1550	16.1	6.76	-024	1.24
			6	1586	16.7	6.73	-113	0.87
	0816		9	1597	16.9	6.75	-129	0.86
Static at Time Sampled			Total Gallons Purged		Time Sampled			
29.78			9		0945			
Comments:								

Well No.: U-7  
 Depth to Water (feet): 28.83  
 Total Depth (feet): 44.35  
 Water Column (feet): 15.52  
 80% Recharge Depth (feet): 31.93

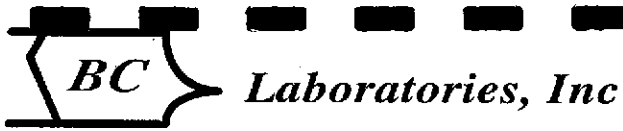
Purge Method: SUB  
 Depth to Product (feet): 6  
 LPH & Water Recovered (gallons): 6  
 Casing Diameter (Inches): 2 1/2  
 1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temperature (F. C)	pH	Turbidity ORP	D.O.
0825			2	1687	16.9	6.76	-147	1.95
			4	1586	16.4	6.97	-101	0.95
	0832		6	1544	16.5	7.03	-100	1.32
Static at Time Sampled			Total Gallons Purged		Time Sampled			
30.04			6		0900			
Comments:								









Date of Report: 07/07/2005

Anju Farfan

TRC Alton Geoscience

21 Technology Drive  
Irvine, CA 92618-2302

RE: 4186

BC Lab Number: 0506372

Enclosed are the results of analyses for samples received by the laboratory on 06/28/05 22:36. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Vanessa Surratt", written over a horizontal line.

Contact Person: Vanessa Surratt

Client Service Rep

A handwritten signature in black ink, written over a horizontal line.

Authorized Signature

TRC Alton Geoscience  
21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
0506372-01	<b>COC Number:</b> --- <b>Project Number:</b> 4186 <b>Sampling Location:</b> U-1 <b>Sampling Point:</b> U-1 <b>Sampled By:</b> Alex of TRCI	<b>Receive Date:</b> 06/28/05 22:36 <b>Sampling Date:</b> 06/28/05 09:14 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order (LabW):</b> Global ID: T0600101777 <b>Matrix:</b> W <b>Sample QC Type (SACode):</b> CS <b>Cooler ID:</b>
0506372-02	<b>COC Number:</b> --- <b>Project Number:</b> 4186 <b>Sampling Location:</b> U-2 <b>Sampling Point:</b> U-2 <b>Sampled By:</b> Alex of TRCI	<b>Receive Date:</b> 06/28/05 22:36 <b>Sampling Date:</b> 06/28/05 09:05 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order (LabW):</b> Global ID: T0600101777 <b>Matrix:</b> W <b>Sample QC Type (SACode):</b> CS <b>Cooler ID:</b>
0506372-03	<b>COC Number:</b> --- <b>Project Number:</b> 4186 <b>Sampling Location:</b> U-4 <b>Sampling Point:</b> U-4 <b>Sampled By:</b> Alex of TRCI	<b>Receive Date:</b> 06/28/05 22:36 <b>Sampling Date:</b> 06/28/05 09:28 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order (LabW):</b> Global ID: T0600101777 <b>Matrix:</b> W <b>Sample QC Type (SACode):</b> CS <b>Cooler ID:</b>
0506372-04	<b>COC Number:</b> --- <b>Project Number:</b> 4186 <b>Sampling Location:</b> U-5 <b>Sampling Point:</b> U-5 <b>Sampled By:</b> Alex of TRCI	<b>Receive Date:</b> 06/28/05 22:36 <b>Sampling Date:</b> 06/28/05 09:34 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order (LabW):</b> Global ID: T0600101777 <b>Matrix:</b> W <b>Sample QC Type (SACode):</b> CS <b>Cooler ID:</b>
0506372-05	<b>COC Number:</b> --- <b>Project Number:</b> 4186 <b>Sampling Location:</b> U-6 <b>Sampling Point:</b> U-6 <b>Sampled By:</b> Alex of TRCI	<b>Receive Date:</b> 06/28/05 22:36 <b>Sampling Date:</b> 06/28/05 09:45 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order (LabW):</b> Global ID: T0600101777 <b>Matrix:</b> W <b>Sample QC Type (SACode):</b> CS <b>Cooler ID:</b>

TRC Alton Geoscience  
 21 Technology Drive  
 Irvine CA, 92618-2302

 Project: 4186  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 07/07/05 11:48

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
0506372-06	COC Number:	---	
	Project Number:	4186	Receive Date: 06/28/05 22:36
	Sampling Location:	U-7	Sampling Date: 06/28/05 09:56
	Sampling Point:	U-7	Sample Depth: ---
	Sampled By:	Alex of TRCI	Sample Matrix: Water
			Delivery Work Order (LabW): Global ID: T0600101777 Matrix: W Sample QC Type (SACode): CS Cooler ID:
0506372-07	COC Number:	---	
	Project Number:	4186	Receive Date: 06/28/05 22:36
	Sampling Location:	U-3	Sampling Date: 06/28/05 10:47
	Sampling Point:	U-3	Sample Depth: ---
	Sampled By:	Alex of TRCI	Sample Matrix: Water
			Delivery Work Order (LabW): Global ID: T0600101777 Matrix: W Sample QC Type (SACode): CS Cooler ID:



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21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

### Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0506372-01 Client Sample Name: 4186, U-1, U-1, 6/28/2005 9:14:00AM, Alex

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50	0.12	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Ethylbenzene	ND	ug/L	0.50	0.13	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Methyl t-butyl ether	ND	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Toluene	ND	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Total Xylenes	ND	ug/L	1.0	0.40	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	23	EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008	ND	
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008		
Toluene-d8 (Surrogate)	96.3	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	93.7	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:21	svm	MS-V4	1	BOG0008		

TRC Alton Geoscience  
 21 Technology Drive  
 Irvine CA, 92618-2302

 Project: 4186  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0506372-02		Client Sample Name: 4186, U-2, U-2, 6/28/2005 9:05:00AM, Alex											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50	0.12	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Ethylbenzene	ND	ug/L	0.50	0.13	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Methyl t-butyl ether	ND	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Toluene	ND	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Total Xylenes	ND	ug/L	1.0	0.40	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	23	EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008	ND	
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008		
Toluene-d8 (Surrogate)	92.2	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	90.6	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 19:50	svm	MS-V4	1	BOG0008		



BC Laboratories, Inc

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Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

### Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0506372-03 Client Sample Name: 4186, U-4, U-4, 6/28/2005 9:28:00AM, Alex

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50	0.12	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	
Ethylbenzene	ND	ug/L	0.50	0.13	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	
Methyl t-butyl ether	0.23	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	J
Toluene	0.15	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	J
Total Xylenes	ND	ug/L	1.0	0.40	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	J
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	34	ug/L	50	23	EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008	ND	J
1,2-Dichloroethane-d4 (Surrogate)	109	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008		
Toluene-d8 (Surrogate)	98.0	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	93.1	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:20	svm	MS-V4	1	BOG0008		

BC Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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21 Technology Drive  
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Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0506372-04		Client Sample Name: 4186, U-5, U-5, 6/28/2005 9:34:00AM, Alex											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50	0.12	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Ethylbenzene	ND	ug/L	0.50	0.13	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Methyl t-butyl ether	40	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Toluene	ND	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Total Xylenes	ND	ug/L	1.0	0.40	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	73	ug/L	50	23	EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008	ND	
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008		
Toluene-d8 (Surrogate)	97.3	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	92.4	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 20:49	svm	MS-V4	1	BOG0008		



TRC Alton Geoscience  
 21 Technology Drive  
 Irvine CA, 92618-2302

 Project: 4186  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

**BCL Sample ID:** 0506372-05    **Client Sample Name:** 4186, U-6, U-6, 6/28/2005 9:45:00AM, Alex

Constituent	Result	Units	PQL	MDL	Method	Prep	Run	Analyst	Instru- ment ID	Dilution	QC	MB	Lab
						Date	Date/Time				Batch ID	Bias	Quals
Benzene	120	ug/L	25	6.0	EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008	ND	A01
Ethylbenzene	930	ug/L	25	6.5	EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008	ND	A01
Methyl t-butyl ether	21	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008	ND	
Toluene	4.9	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008	ND	
Total Xylenes	780	ug/L	50	20	EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008	ND	A01
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	12000	ug/L	2500	1200	EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	110	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008		
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008		
Toluene-d8 (Surrogate)	98.6	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008		
Toluene-d8 (Surrogate)	108	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	98.1	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 17:57	svm	MS-V4	50	BOG0008		
4-Bromofluorobenzene (Surrogate)	103	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 21:18	svm	MS-V4	1	BOG0008		

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21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0506372-06		Client Sample Name: 4186, U-7, U-7, 6/28/2005 9:56:00AM, Alex											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	16	ug/L	0.50	0.12	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Ethylbenzene	35	ug/L	0.50	0.13	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Methyl t-butyl ether	45	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Toluene	1.1	ug/L	0.50	0.15	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Total Xylenes	10	ug/L	1.0	0.40	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Ethanol	ND	ug/L	1000	110	EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008	ND	
Total Purgeable Petroleum Hydrocarbons	5400	ug/L	2500	1200	EPA-8260	07/01/05	07/05/05 18:26	svm	MS-V4	50	BOG0008	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008		
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 18:26	svm	MS-V4	50	BOG0008		
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 18:26	svm	MS-V4	50	BOG0008		
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008		
4-Bromofluorobenzene (Surrogate)	93.6	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/05/05 18:26	svm	MS-V4	50	BOG0008		
4-Bromofluorobenzene (Surrogate)	97.4	%	86 - 115 (LCL - UCL)		EPA-8260	07/01/05	07/01/05 22:47	svm	MS-V4	1	BOG0008		



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Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample ID	QC Sample Type	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits	
										RPD	Percent Recovery Lab Quals
Benzene	BOG0008	BOG0008-MS1	Matrix Spike	ND	21.070	25.000	ug/L		84.3		70 - 130
		BOG0008-MSD1	Matrix Spike Duplicate	ND	19.870	25.000	ug/L	5.86	79.5	20	70 - 130
Toluene	BOG0008	BOG0008-MS1	Matrix Spike	ND	22.990	25.000	ug/L		92.0		70 - 130
		BOG0008-MSD1	Matrix Spike Duplicate	ND	21.130	25.000	ug/L	8.50	84.5	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BOG0008	BOG0008-MS1	Matrix Spike	ND	10.600	10.000	ug/L		106		76 - 114
		BOG0008-MSD1	Matrix Spike Duplicate	ND	10.650	10.000	ug/L		106		76 - 114
Toluene-d8 (Surrogate)	BOG0008	BOG0008-MS1	Matrix Spike	ND	9.8100	10.000	ug/L		98.1		88 - 110
		BOG0008-MSD1	Matrix Spike Duplicate	ND	10.040	10.000	ug/L		100		88 - 110
4-Bromofluorobenzene (Surrogate)	BOG0008	BOG0008-MS1	Matrix Spike	ND	10.170	10.000	ug/L		102		86 - 115
		BOG0008-MSD1	Matrix Spike Duplicate	ND	9.9500	10.000	ug/L		99.5		86 - 115

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21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits		Lab Quals
										Percent Recovery	RPD	
Benzene	BOG0008	BOG0008-BS1	LCS	22.600	25.000	0.50	ug/L	90.4		70 - 130		
Toluene	BOG0008	BOG0008-BS1	LCS	24.200	25.000	0.50	ug/L	96.8		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BOG0008	BOG0008-BS1	LCS	10.580	10.000		ug/L	106		76 - 114		
Toluene-d8 (Surrogate)	BOG0008	BOG0008-BS1	LCS	9.9200	10.000		ug/L	99.2		88 - 110		
4-Bromofluorobenzene (Surrogate)	BOG0008	BOG0008-BS1	LCS	9.8900	10.000		ug/L	98.9		86 - 115		



TRC Alton Geoscience  
21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

### Volatile Organic Analysis (EPA Method 8260) Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BOG0008	BOG0008-BLK1	ND	ug/L	0.50	0.12	
Ethylbenzene	BOG0008	BOG0008-BLK1	ND	ug/L	0.50	0.13	
Methyl t-butyl ether	BOG0008	BOG0008-BLK1	ND	ug/L	0.50	0.15	
Toluene	BOG0008	BOG0008-BLK1	ND	ug/L	0.50	0.15	
Total Xylenes	BOG0008	BOG0008-BLK1	ND	ug/L	1.0	0.40	
Ethanol	BOG0008	BOG0008-BLK1	ND	ug/L	1000	110	
1,2-Dichloroethane-d4 (Surrogate)	BOG0008	BOG0008-BLK1	102	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BOG0008	BOG0008-BLK1	97.9	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BOG0008	BOG0008-BLK1	92.4	%	86 - 115 (LCL - UCL)		



TRC Alton Geoscience  
21 Technology Drive  
Irvine CA, 92618-2302

Project: 4186  
Project Number: [none]  
Project Manager: Anju Farfan

Reported: 07/07/05 11:48

Notes and Definitions

- J Estimated value
- A39 Sample received at pH greater than 2.
- A01 PQL's and MDL's are raised due to sample dilution.
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Submission #: 0510372

Project Code:                     

TB Batch #                     

SHIPPING INFORMATION

Federal Express  UPS  Hand Delivery   
BC Lab Field Service  Other  (Specify)                     

SHIPPING CONTAINER

Ice Chest  None   
Box  Other  (Specify)                     

Refrigerant: Ice  Blue Ice  None  Other  Comments:                     

Custody Seals: Ice Chest  Containers  None  Comments:                       
Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  
 YES  NO

Ice Chest ID PLW  
Temperature: 1.7 °C  
Thermometer ID: 48

Emissivity .95  
Container VOA

Date/Time 6/28/05 23:36  
Analyst Init NVI

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
PT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
20L NITRATE / NITRITE										
10ml TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3	A 3			
PT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
10ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
PT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
10ml EPA 531.1										
PT EPA 548										
QT EPA 549										
PT EPA 632										
PT EPA 8015M										
QT QA/QC										
PT AMBER										
8 OZ. JAR										
32 OZ. JAR										
PT SLEEVE										
PT VIAL										
PLASTIC BAG										
PT FERROUS IRON										
PT CORE										

Comments:                       
Sample Numbering Completed By: NVI

Date/Time: 6/28/05 23:45





## 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.



SECOR  
INTERNATIONAL  
INCORPORATED

www.secor.com  
3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
916-861-0400 TEL  
916-861-0430 FAX

July 12, 2005

Ms. Shelby Lathrop  
ConocoPhillips  
76 Broadway  
Sacramento, CA 95818

RE: **Quarterly Remedial Performance Summary-Second Quarter 2005**  
76 Service Station No. 4186  
1771 Second Street  
Livermore, CA  
SECOR Project No.: 77CP.60004.04.4186

Dear Ms. Lathrop:

This letter, prepared by SECOR International Incorporated (SECOR) on behalf of ConocoPhillips, presents a remedial action performance summary for the ozone injection system operating at the site referenced above. Included in this report are tables and figures summarizing the system operation during the current quarter. Field data sheets and laboratory reports are included as Attachments A and B, respectively. A brief site background and the status of recent remedial activities are presented below.

#### **SITE BACKGROUND**

The site is an operating 76 service station located at Second Street between N and O Streets in Livermore, California. The current station configuration consists of a service station building, four product dispenser islands, and two underground storage tanks (USTs). There is an ozone injection remediation system on the sites that injects a mixture of ozone and air to ten sparge points. The system was put into operation on December 19, 2001. SECOR took over operation of the system in September 2003.

#### **REMEDIAL PERFORMANCE SUMMARY**

##### **Ozone Injection Operation**

The ozone injection system consists of a panel mounted KVA C-Sparge™ System that produces up to 4 grams per hour (0.009 pounds per hour) of ozone. The system supplies ozone to ten sparge points in eight wells for seven minutes per well, 18 cycles per day. Operation of the ozone injection system was initiated on December 19, 2001. The system operated for 19% of the programmed runtime during the second quarter 2005. On April 29 the system was found to be non-operation due to the circuit breaker having tripped. The system was restarted and the programmed runtime was increased to 100% in an effort to stop the breaker from tripping. On May 13 the system was again found to be non-operational due to the wire to the compressor being damaged. The wire was repaired and the system restarted. On June 6 the system was non-operational due to the ozone sensor having tripped; a leak was found in one of the compression fittings, which was replaced and the system restarted. Operational data is provided in Table 1.

# SECOR

Quarterly Remedial Performance Summary  
July 12, 2005  
Page 2

## Ozone Injection Performance

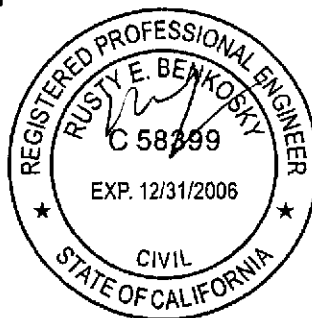
Monthly groundwater samples are collected from monitoring wells U-3 and U-6 and analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert-butyl ether (MtBE). Results of monthly groundwater sampling events are summarized in Table 2. Concentration versus time graphs for dissolved TPHg, benzene, and MtBE in monitoring wells U-3 and U-6 are provided in Figures 2 and 3. Field data sheets are presented in Attachment A. Certified laboratory analytical reports and chain-of-custody documentation for the groundwater monitoring events conducted during the current quarter are provided in Attachment B.

If you have any questions, please contact us at (916) 861-0400.

Sincerely,  
**SECOR International Incorporated**

  
Amy Draffan  
Project Engineer

  
Rusty E. Benkosky, P.E.  
Principle Engineer



Attachments: Figure 1 – Site Plan  
Figure 2 – U-3 TPHg, Benzene, and MtBE Groundwater Concentrations  
Figure 3 – U-6 TPHg, Benzene, and MtBE Groundwater Concentrations  
  
Table 1 – System Operation Data  
Table 2 – Groundwater Analytical Data  
  
Attachment A – Field Data Sheets  
Attachment B – Certified Laboratory Analytical Reports and Chain of Custody Documentation

cc: Mr. Dan Truzzolino, ConocoPhillips

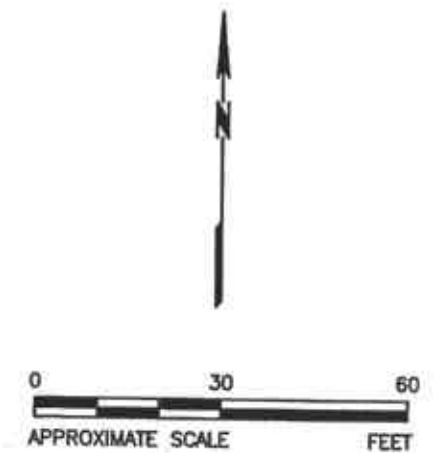
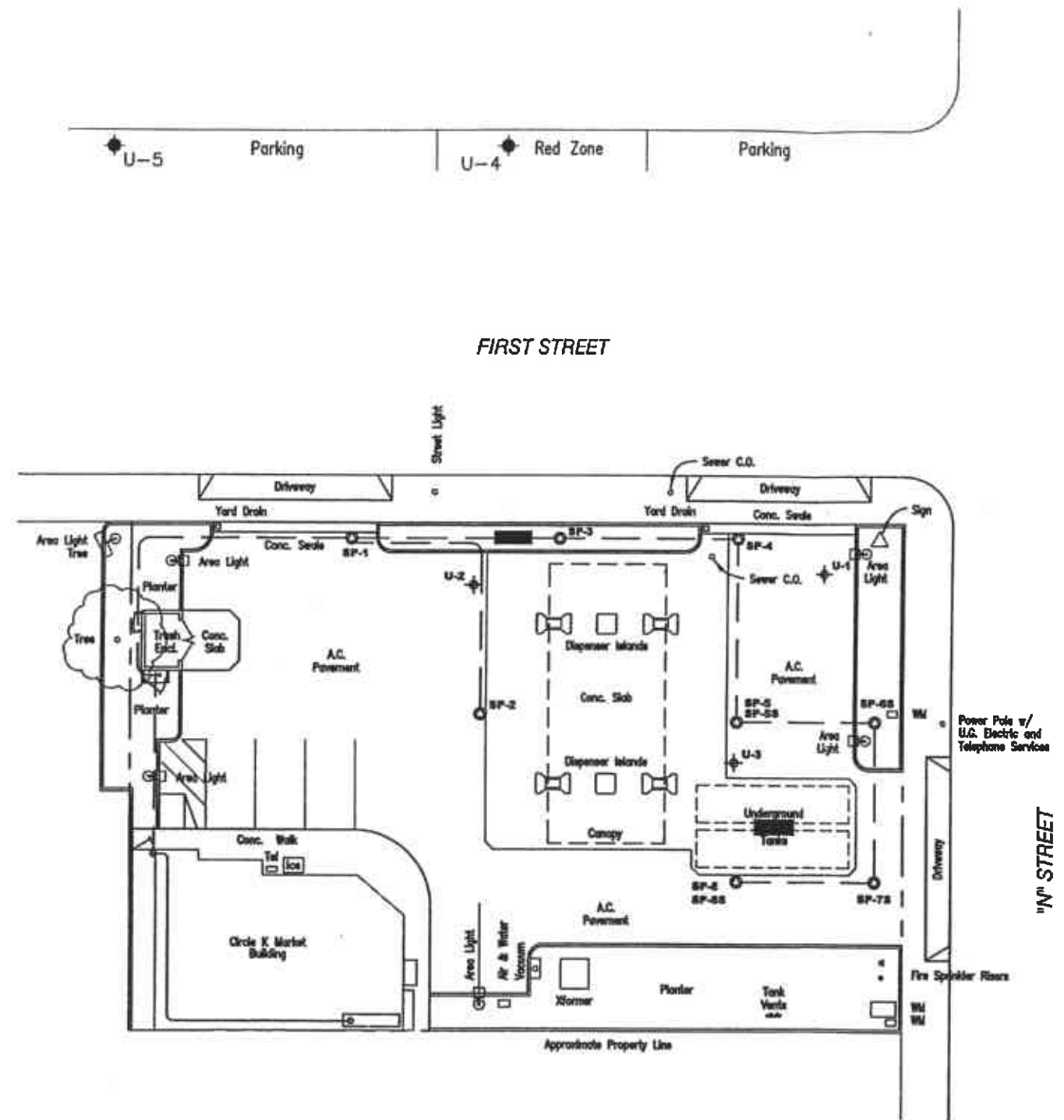
RB/ad

**LEGEND**


⊕ GROUNDWATER MONITORING WELL

⊙ OZONE SPARGE POINT

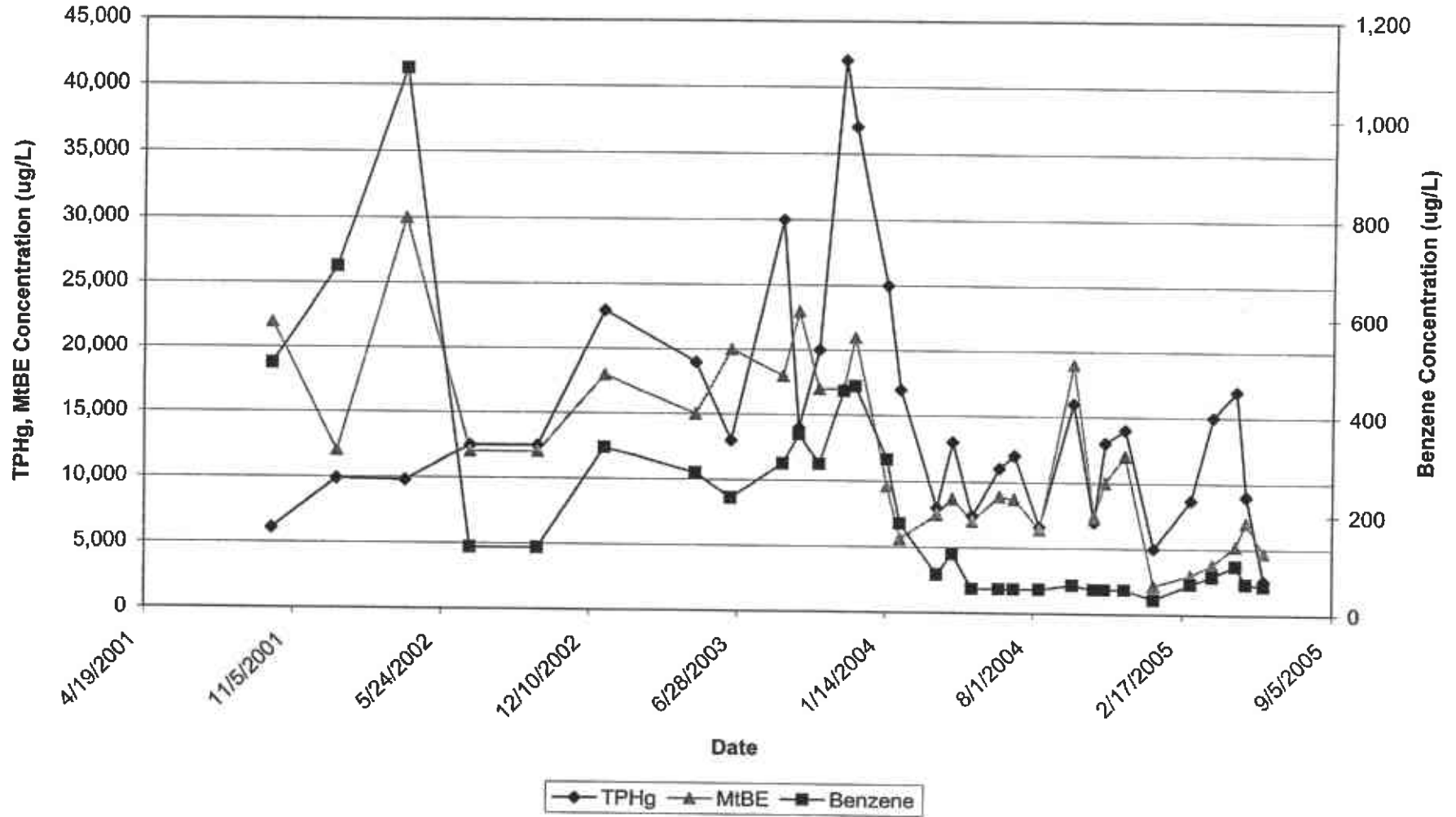
— UNDERGROUND OZONE SPARGE LINE



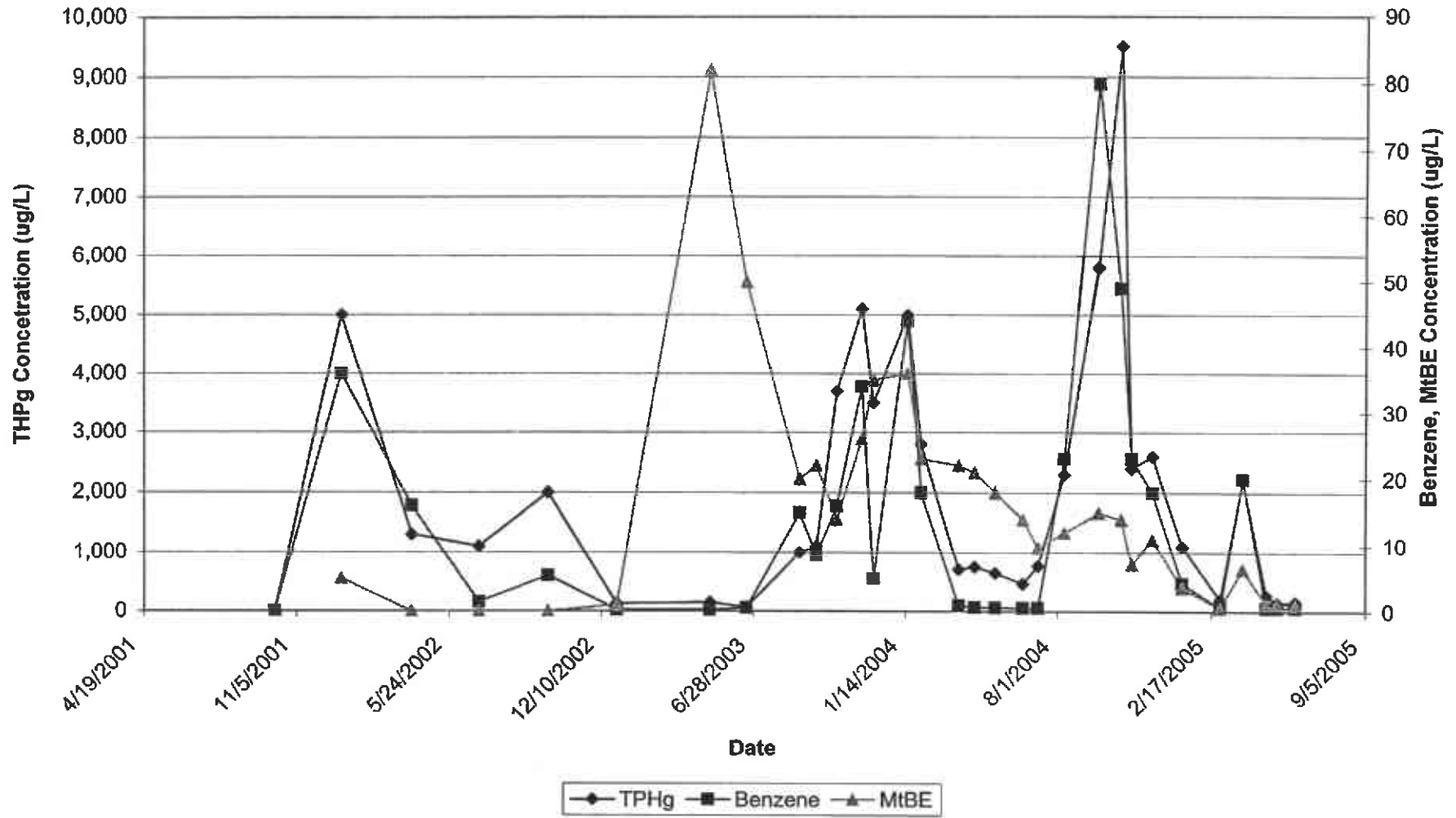
REFERENCE: THIS FIGURE IS BASED ON A "SITE PLAN" PROVIDED BY GETTLER-RYAN INC., DATED JULY 2001, AND IS INTENDED FOR ILLUSTRATION ONLY.

DRAWN BY: DWR CHECKED: AD APPROVED: AD DATE: 4/2/04 JOB NO.: 77CP_60004.01.4186 CAD FILE: CP-SITEPLAN	PREPARED BY:  <b>SECOR</b> 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CA 95670	PREPARED FOR: <b>CONOCOPHILLIPS</b> <b>STATION NO. 4186</b>  1771 FIRST STREET LIVERMORE, CALIFORNIA	<b>FIGURE 1</b>  SITE PLAN
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**Figure 2**  
**U-3 TPHg, Benzene, and MtBE Groundwater Concentrations**  
 76 Service Station No. 4186  
 1771 First Street, Livermore, California



**Figure 3**  
**U-6 TPHg, Benzene, and MtBE Groundwater Concentrations**  
 76 Service Station No. 4186  
 171 First Street, Livermore, California



**Table 1**  
**Ozone Injection - System Operation Data**  
 75 Service Station No. 4188  
 1771 First Street, Livermore, California

Date	Notes	OZONE SPARGE SYSTEM					OZ-1	OZ-2	OZ-3	OZ-4	OZ-5	OZ-6	OZ-7	OZ-8	OZ-9	OZ-10
		System Status on Arrival (On/Off)	System Status on Departure (On/Off)	Hourmeter Reading	Periodic Online Factor	Cumulative Online Factor	Pressure (psl)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)	Pressure (psi)
06/18/03		On	On	6997.92	--	--	30	24	22	28	33	28	30	32	35	29
07/30/03		On	On	NM	--	--	40	35	42	38	36	39	22	20	26	45
08/28/03		Off	On	7127.87	0.08	0.09	36	48	22	42	37	33	35	40	50	35
09/19/03		On	On	7131.66	0.01	0.07	35.2	36.1	23.7	36.0	34.9	31.1	34.8	36.0	49.3	32.2
10/16/03		On	On	7146.57	0.03	0.06	35.0	40.0	24.2	38.2	16.5	31.4	35.1	36.6	45.8	34
11/18/03		On	Off	7152.34	0.01	0.05	37.0	36.5	26.0	35.0	16.0	33.0	38.0	19.0	52.0	35.0
12/03/03		Off	On	7153.15	0.00	0.04	38.0	38.2	26.5	39.2	40.9	33.8	39.1	40.0	48.2	36.8
01/16/04		Off	--	7499.58	0.37	0.11	44.0	49.0	27.5	46.0	39.0	37.0	--	43.0	54.0	40.0
02/06/04	a	Off	Off	7541.66	0.10	0.11	40.0	38.5	--	--	--	--	--	--	--	--
02/17/04		Off	On	7542.14	0.00	0.11	39.0	38.5	26.5	38.5	38.0	37.0	39.2	40.0	53.0	35.8
03/24/04	b	Off	On	7997.07	0.52	0.16	42.0	38.2	27.5	42.0	38.0	38.0	39.7	41.5	60.0	36.0
04/07/04		Off	On	8008.40	0.24	0.16	--	--	--	--	--	--	--	--	--	--
04/09/04		On	On	8047.53	0.83	0.17	--	--	--	--	--	--	--	--	--	--
04/14/04		Off	On	8053.53	0.06	0.17	40.8	38.3	27.2	41.2	37.8	37.0	37.1	40.4	60.0	36.1
04/16/04		On	On	8088.36	0.83	0.17	--	--	--	--	--	--	--	--	--	--
04/20/04	c	On	Off	8167.64	0.94	0.18	--	--	--	--	--	--	--	--	--	--
04/21/04		Off	On	8167.78	0.01	0.18	38.6	36.9	27.2	41.2	37.6	38.1	37.1	40.7	60.0	36.2
04/23/04		On	On	8204.68	0.68	0.19	37.9	34.0	29.1	34.8	35.2	35.2	36.3	25.8	60.0	34.5
05/11/04	b	Off	On	8253.45	0.13	0.18	40.8	45.3	27.0	40.2	24.8	36.2	25.0	23.0	56.3	35.8
05/13/04		On	On	8291.84	0.91	0.19	--	--	--	--	--	--	--	--	--	--
05/21/04		On	On	8441.19	0.89	0.20	37.7	35.2	27.5	35.0	25.2	34.9	24.8	23.5	60.0	35.8
06/16/04	b	On	On	8505.37	0.12	0.20	41.2	41.5	27.8	43.0	24.8	37.2	25.6	24.5	60.0	37.6
07/06/04	b,d	Off	On	8554.82	0.13	0.19	40	44	27	40	24	36	24	24	Off	36
08/09/04	b,d,e	Off	On	9002.71	0.78	0.24	40	Off	26	44	23	36	26	24	Off	36
09/23/04	b,d,e	Off	On	9012.63	0.01	0.22	39	Off	29	43	24	35	25	24	Off	34
10/22/04	b,d,e	Off	On	9164.00	0.31	0.23	31	Off	21	34	18	28	19	18	Off	28
11/05/04	f	Off	Off	9165.08	0.00	0.22	30	Off	20	31	18	29	19	18	Off	26
12/02/04	g	Off	Off	9165.08	0.00	0.21	--	--	--	--	--	--	--	--	--	--
01/10/05	h	Off	Off	9165.15	0.00	0.19	--	--	--	--	--	--	--	--	--	--
02/28/05	i,d	Off	On	9165.26	0.00	0.18	41	44	27	45	23	38	24	22	Off	36
03/29/05	b	Off	On	9171.71	0.01	0.17	42	46	27	46	22	39	24	22	Off	35
04/29/05	b,l	Off	On	9191.99	0.04	0.16	41	44	26	44	22	39	23	21	Off	34
05/13/05	k	Off	On	9226.71	0.10	0.16	42	46	28	43	23	40	25	23	50	35.5
06/06/05	f	Off	On	9402.13	0.30	0.17	41	40	28	42	23	30	24	23	Off	36.0
Spurge time per cycle (min)							7	7	7	7	7	7	7	7	0	7
Reporting Period: Second Quarter 2005 (03/29/05 to 06/06/05)																
Total Hours Operational: 9,402																
Total Pounds Ozone Injected: 85																
Period Hours Operational: 230																
Period Percent Operational: 19%																
Period Pounds Ozone Injected: 2.1																
<b>Definitions:</b>																
psi Pounds per square inch																
- Data not available																
NA Not applicable																
<b>Notes:</b>																
System cycles program 18 times per day, for 87.5% utilization																
a = GFI switch would not reset																
b = System's 16amp breaker was tripped																
c = Installing Generator																
d = OZ-9 offline due to high pressure																
e = OZ-2 offline due to leaking check valve																
f = System shutdown due to ozone sensor switch																
g = System off due to leaking compressor, no readings																
h = Compressor not in panel, being repaired / replaced																
i = Reinstalled compressor after installing new piston rebuild kit & new check valve on line # 2																
j = System runtime increased to 100%																
k = Lead to spurge blower was burnt, repaired and restarted.																



**Table 2**  
**Ozone Injection - Groundwater Monitoring Data**  
 76 Service Station No. 4186  
 1771 First Street, Livermore, California

Date	Notes	Monitoring Well: U-3								Monitoring Well: U-6							
		ORP (mV)	DO (mg/l)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (total) (µg/L)	MtBE (µg/L)	ORP (mV)	DO (mg/l)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (total) (µg/L)	MtBE (µg/L)
10/8/2001	a	NM	NM	6100	500	--	--	--	22,000	NM	NM	--	--	--	--	--	--
1/3/2002	a	NM	NM	9900	700	--	--	--	12,000	NM	NM	5,000	36	--	--	--	5.0
4/5/2002	a	NM	NM	9800	1,100	--	--	--	30,000	NM	NM	1,300	16	--	--	--	12.5
7/2/2002	a	NM	NM	12500	125	--	--	--	12,000	NM	NM	1,100	1.4	--	--	--	0.94
10/1/2002	a	NM	NM	12500	125	--	--	--	12,000	NM	NM	2,000	5.4	--	--	--	2.6
12/30/2002	a	NM	NM	23000	330	--	--	--	18,000	NM	NM	130	0.25	--	--	--	1.0
5/2/2003	a	NM	NM	19000	280	--	--	--	15,000	NM	NM	150	0.25	--	--	--	82
6/19/2003	a	NM	NM	13,000	230	<100	220	1,600	20,000	NM	NM	68	<0.50	<0.50	<0.50	<1.0	50
8/28/2003	a	NM	NM	30,000	300	<100	1,000	1,600	18,000	NM	NM	1,000	15	<1.0	76	11	20
9/19/2003		NM	NM	14,000	360	120	340	2,400	23,000	NM	NM	1,100	9	<2.5	25	<5.0	22
10/16/2003		NM	NM	20,000	300	93	250	1,800	17,000	NM	NM	3,700	16	<2.5	90	29	14
11/18/2003		NM	NM	42,000	450	140	1,500	5,100	17,000	NM	NM	5,100	34	2.8	190	150	26
12/3/2003		NM	NM	37,000	460	100	1,500	5,800	21,000	NM	NM	3,500	<5.0	<5.0	8.6	<10	35
1/16/2004		NM	NM	25,000	310	<100	110	2,900	9,600	NM	NM	5,000	44	5.6	100	52	36
2/3/2004		NM	NM	17,000	180	<20	670	1,900	5,600	NM	NM	2,800	18	<5.0	49	12	23
3/24/2004	b	-58	NM	8,000	78	<25	340	1,200	7,500	78	NM	710	0.92	<0.50	0.83	<1.0	22
4/14/2004		-4	NM	13,000	120	<50	470	1,400	8,700	37	NM	750	0.64	<0.50	<0.50	<1.0	21
5/11/2004		-79	NM	7,400	<50	<50	170	450	7,000	-40	NM	650	0.58	<0.50	0.95	<1.0	18
6/16/2004		-81	1.42	11,000	<50	<50	190	450	8,900	-51	1.35	470	<0.50	<0.50	<0.50	<1.0	14
7/6/2004	b	-54	5.81	12,000	<50	<50	290	550	8,700	-77	3.01	770	<0.50	<0.50	<0.50	<1.0	9.7
8/9/2004		-64	5.80	6,600	<50	<50	65	370	6,400	-73	5.81	2,300	23	3.0	72	54	12
9/23/2004		-64	c	16,000	59	<50	290	970	19,000	-74	c	5,800	80	<2.5	250	19	15
10/22/2004		-51	3.20	7,000	50	<25	210	270	7,400	-76	1.46	9,500	49	<5.0	92	<10	14
11/5/2004		-60	2.38	13,000	<50	<50	190	370	10,000	-56	2.88	2,400	23	0.75	42	1.5	7.2
12/2/2004		-57	5.73	14,000	<50	<50	290	160	12,000	-60	4.58	2,600	18	0.70	45	1.3	11
1/10/2005		7	3.61	<5,000	30	<0.50	3.8	180	2,200	-18	1.95	1,100	4.3	<0.50	12	2.5	3.6
2/28/2005	e	-55	5.09	8,700	62	<13	260	580	3,000	165	5.41	200	<0.50	<0.50	<0.50	<1.0	<0.50
3/29/2005		-48	6.91	15,000	78	<50	400	1,100	3,800	135	7.34	2,200	20	1.20	85	96	6.4
4/29/2005		-40	4.85	17,000	99	<50	560	770	5,200	197	5.31	270	<0.50	<0.50	<0.50	<1.0	1.1
5/13/2005		-62	0.76	9,000	63	<5.0	380	760	7,000	161	1.50	140	<0.50	0.81	<0.50	<1.0	1.1
6/6/2005		-77	0.91	2,600	59	<5.0	450	760	4,700	-72	1.71	160	<0.50	<0.50	<0.50	<1.0	1.0

**Definitions:**

TPHg = Total petroleum hydrocarbons as gasoline  
 MtBE = Methyl tert-butyl ether  
 µg/L = Micrograms per liter  
 ORP = Oxidation Reduction Potential  
 mV = Millivolts  
 DO = Dissolved Oxygen  
 mg/l = Milligrams per liter

**Notes:**

NM Not Measured  
 -- Data not available  
 a Sampled by Gettler-Ryan, Inc.  
 b Hydrocarbon in gasoline range does not match laboratory gasoline standard.  
 c Data not recorded due to instrumentation malfunction  
 d Data not available at time of reporting  
 e Quantity of unknown hydrocarbon(s) in sample based on gasoline in well U-6.

S E C O R

**ATTACHMENT A  
FIELD DATA SHEETS**

Quarterly Remedial Performance Summary  
76 Service Station No. 4186  
1771 Second Street  
Livermore, CA  
SECOR Project No.: 77CP.60004.01.4186

Field Data Sheet  
Ozone Sparge System

ConocoPhillips Site # 4186  
1771 First Street  
Livermore, California

Requested By: Amy Draffan  
Lab: STL

Initials	Date	Time In	System Status on Arrival On/Off	Electrical Meter Reading	Ozone Meter		Hourmeter	Ozone Readings			
					Brand	Range		Outside Compound (ppm)	Inside Compound (ppm)	Inside Shed/Panel (ppm)	Secondary Containment (ppm)
J	01/005	11:00	off	N/A			09165.15	No	Readings		
J	02/28/05	08:40	off	N/A	Ecosensor	0-10 ppm	09165.26	0.02	0.02	0.02	0.02
J	03/29/05	12:40	off	N/A	Ecosensor	0-10 ppm	09171.71	0.02	0.02	0.02	0.02
J	04/29/05	11:00	off	N/A	Ecosensor	0-10 ppm	09191.99	0.02	0.02	0.02	0.02

Initials	Date	Well Data																			
		OZ-1		OZ-2		OZ-3		OZ-4		OZ-5		OZ-6		OZ-7		OZ-8		OZ-9		OZ-10	
		Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>	Press	O <sub>3</sub>
J	01/005	Compressor NOT in panel being repaired/replaced																			
J	02/28/05	41	0.02	44	0.02	27	0.02	45	0.02	23	0.02	38	0.02	24	0.02	22	0.02	off	36	0.02	
J	03/29/05	42	0.02	46	0.02	27	0.02	46	0.02	22	0.02	39	0.02	24	0.02	22	0.02	off	35	0.02	
J	04/29/05	41	0.02	44	0.02	26	0.02	44	0.02	22	0.02	39	0.02	23	0.02	21	0.02	off	34	0.02	
Units:		psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm	psi	ppm

Initials	Date	Weather Conditions (estimated) Wind Dir.   Wind Speed		Temp in Ozone Panel	Monthly Sampling				Time Out	System Status on Departure On/Off	Ozone Badge Color (White/Tan/Brown)
					U-3		U-6				
					ORP (mV)	DO (ug/l)	ORP (mV)	DO (ug/l)			
J	01/005	S	0-5	40	<del>36</del>	3.61	-78	1.95	12:00	off	
J	02/28/05	S	0-5	45	-55	5.09	165	5.41	11:00	ON	blue
J	03/29/05	S	5-10	55	-48	6.91	135	7.34	14:45	ON	blue
J	04/29/05	S	0-5	60	-40	4.85	197	5.31	12:30	ON	blue

Frequency	Item to Inspect or Maintain	Date Performed					
Monthly	Check integrity of all hoses, fittings, piping, and valves	02-28-05	03-29-05	04-29-05			
Monthly	Measure Blower Running Amperage	10.4	9.6	10.0			
Monthly	Inspect electrical fittings and tighten as needed	02-28-05	03-29-05	04-29-05			
Monthly	Check controller operation	02-28-05	03-29-05	04-29-05			
As-Needed	Adjust controller program						
Monthly	Gross particle filter-visually inspect	02-28-05					
As-Needed	Gross particle filter-replace as necessary						
Monthly	Check flow and pressure on assemblies (system and wells)	02-28-05	03-29-05	04-29-05			
Monthly	Take ozone readings at compound and well boxes	02-28-05	03-29-05	04-29-05			
Monthly	Check wellhead connections						
Monthly	Check/test all safety override systems						
As-Needed	Sparge blower-repair as necessary						
As-Needed	Sparge blower-replace as necessary						

NOTES AND DESCRIPTION OF ACTIVITIES ON SITE

02-28-05; Reinstalled compressor after installing new piston rebuild kit  
 also installed new check valve on line #2  
 #9 left off pressure too high > 50 doesn't break through

03-29-05; System off; 16amp circuit breaker tripped

04-29-05; System off; 16amp circuit breaker tripped; increased run time to 100%



Frequency	Item to Inspect or Maintain	Date Performed					
Monthly	Check integrity of all hoses, fittings, piping, and valves	5/13					
Monthly	Measure Blower Running Amperage	9.18					
Monthly	Inspect electrical fittings and tighten as needed	5/13					
Monthly	Check controller operation	5/13					
As-Needed	Adjust controller program	—					
Monthly	Gross particle filter-visually inspect	5/13					
As-Needed	Gross particle filter-replace as necessary	—					
Monthly	Check flow and pressure on assemblies (system and wells)	5/13					
Monthly	Take ozone readings at compound and well boxes	5/13					
Monthly	Check wellhead connections	5/13					
Monthly	Check/test all safety override systems	5/13					
As-Needed	Sparge blower-repair as necessary	5/13					
As-Needed	Sparge blower-replace as necessary	—					

**NOTES AND DESCRIPTION OF ACTIVITIES ON SITE**

Everything was on except the sparge blower. Found sparge blower hot lead at the terminal strip burnt. Cut off burnt ends and spliced together with a crimp splice. Sparge blower works now. Lubricated sparge blower with dry silicone.



Frequency	Item to Inspect or Maintain	Date Performed					
Monthly	Check integrity of all hoses, fittings, piping, and valves						
Monthly	Measure Blower Running Amperage	9.5					
Monthly	Inspect electrical fittings and tighten as needed						
Monthly	Check controller operation						
As-Needed	Adjust controller program						
Monthly	Gross particle filter-visually inspect						
As-Needed	Gross particle filter-replace as necessary						
Monthly	Check flow and pressure on assemblies (system and wells)						
Monthly	Take ozone readings at compound and well boxes						
Monthly	Check wellhead connections						
Monthly	Check/test all safety override systems						
As-Needed	Sparge blower-repair as necessary						
As-Needed	Sparge blower-replace as necessary						

System Down for O<sub>3</sub> Leak

NOTES AND DESCRIPTION OF ACTIVITIES ON SITE

Lubed O<sub>3</sub> Compressor with VCI Film Solution  
 Repaired Line to Check Valve Under Unit. Line From Solenoid 3  
 had leak at O<sub>2</sub> generator cut out fittings. Found fittings missing  
 & fell, installed 1/4" ferrule to fittings



**ATTACHMENT B**  
**CERTIFIED LABORATORY ANALYTICAL REPORTS AND**  
**CHAIN-OF-CUSTODY DOCUMENTATION**

Quarterly Remedial Performance Summary  
76 Service Station No. 4186  
1771 Second Street  
Livermore, CA

SECOR Project No.: 77CP.60004.01.4186

SECOR-Sacramento

May 16, 2005

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670

Attn.: Amy Draffan

Project#: 77CP.60004.01.4186

Project: Conoco Philips Site #4186

Site: 1771 First Street, Livermore, California

Attached is our report for your samples received on 04/29/2005 15:22

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 06/13/2005 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: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
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](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
U-3	04/29/2005 11:40	Water	1
U-6	04/29/2005 11:15	Water	2

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
 Rancho Cordova, CA 95670  
 Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
 Conoco Phillips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

Prep(s): 5030B Test(s): 8260B  
 Sample ID: U-3 Lab ID: 2005-05-0016 - 1  
 Sampled: 04/29/2005 11:40 Extracted: 5/13/2005 01:21  
 Matrix: Water QC Batch#: 2005/05/12-2B.69  
 Analysis Flag: L2, pH: <2 ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	17000	5000	ug/L	100.00	05/13/2005 01:21	
Benzene	99	50	ug/L	100.00	05/13/2005 01:21	
Toluene	ND	50	ug/L	100.00	05/13/2005 01:21	
Ethylbenzene	560	50	ug/L	100.00	05/13/2005 01:21	
Total xylenes	770	100	ug/L	100.00	05/13/2005 01:21	
Methyl tert-butyl ether (MTBE)	5200	50	ug/L	100.00	05/13/2005 01:21	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	104.5	73-130	%	100.00	05/13/2005 01:21	
Toluene-d8	102.6	81-114	%	100.00	05/13/2005 01:21	

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

05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
 Rancho Cordova, CA 95670  
 Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
 Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-6	Lab ID: 2005-05-0016 - 2
Sampled: 04/29/2005 11:15	Extracted: 5/13/2005 18:17
Matrix: Water	QC Batch#: 2005/05/13-2F.68
pH: <2	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	270	50	ug/L	1.00	05/13/2005 18:17	
Benzene	ND	0.50	ug/L	1.00	05/13/2005 18:17	
Toluene	ND	0.50	ug/L	1.00	05/13/2005 18:17	
Ethylbenzene	ND	0.50	ug/L	1.00	05/13/2005 18:17	
Total xylenes	ND	1.0	ug/L	1.00	05/13/2005 18:17	
Methyl tert-butyl ether (MTBE)	1.1	0.50	ug/L	1.00	05/13/2005 18:17	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	90.2	73-130	%	1.00	05/13/2005 18:17	
Toluene-d8	91.2	81-114	%	1.00	05/13/2005 18:17	

Severn Trent Laboratories, Inc.

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

05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/05/12-2B.69-039

Water

Test(s): 8260B

QC Batch # 2005/05/12-2B.69

Date Extracted: 05/12/2005 19:39

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/12/2005 19:39	
Benzene	ND	0.5	ug/L	05/12/2005 19:39	
Toluene	ND	0.5	ug/L	05/12/2005 19:39	
Ethylbenzene	ND	0.5	ug/L	05/12/2005 19:39	
Total xylenes	ND	1.0	ug/L	05/12/2005 19:39	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/12/2005 19:39	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	100.4	73-130	%	05/12/2005 19:39	
Toluene-d8	102.4	81-114	%	05/12/2005 19:39	

Severn Trent Laboratories, Inc.

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05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

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3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/05/13-2F.68-047

Water

Test(s): 8260B

QC Batch # 2005/05/13-2F.68

Date Extracted: 05/13/2005 17:47

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/13/2005 17:47	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/13/2005 17:47	
Benzene	ND	0.5	ug/L	05/13/2005 17:47	
Toluene	ND	0.5	ug/L	05/13/2005 17:47	
Ethylbenzene	ND	0.5	ug/L	05/13/2005 17:47	
Total xylenes	ND	1.0	ug/L	05/13/2005 17:47	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	93.0	73-130	%	05/13/2005 17:47	
Toluene-d8	92.0	81-114	%	05/13/2005 17:47	

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/05/12-2B.69

LCS 2005/05/12-2B.69-019

Extracted: 05/12/2005

Analyzed: 05/12/2005 19:19

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.9		25	99.6			65-165	20		
Benzene	26.0		25	104.0			69-129	20		
Toluene	25.8		25	103.2			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	485		500	97.0			73-130			
Toluene-d8	538		500	107.6			81-114			



**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

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3017 Kilgore Road, Suite 100  
 Rancho Cordova, CA 95670  
 Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
 Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/05/13-2F.68**

LCS 2005/05/13-2F.68-030

Extracted: 05/13/2005

Analyzed: 05/13/2005 17:30

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	18.3		25	73.2			65-165	20		
Benzene	20.8		25	83.2			69-129	20		
Toluene	21.0		25	84.0			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	390		500	78.0			73-130			
Toluene-d8	460		500	92.0			81-114			

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

05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/12-2B.69**

MS/MSD

Lab ID: 2005-05-0026 - 007

MS: 2005/05/12-2B.69-025

Extracted: 05/12/2005

Analyzed: 05/12/2005 22:25

Dilution: 1.00

MSD: 2005/05/12-2B.69-044

Extracted: 05/12/2005

Analyzed: 05/12/2005 22:44

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	30.1	35.9	ND	25	120.4	143.6	17.6	65-165	20		
Benzene	31.8	33.4	ND	25	127.2	133.6	4.9	69-129	20		M4
Toluene	31.2	31.9	ND	25	124.8	127.6	2.2	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	565	650		500	113.0	130.0		73-130			
Toluene-d8	521	512		500	104.2	102.4		81-114			

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05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

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Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/13-2F.68**

MS/MSD

Lab ID: 2005-05-0112 - 003

MS: 2005/05/13-2F.68-044

Extracted: 05/13/2005

Analyzed: 05/13/2005 19:44

Dilution: 25.00

MSD: 2005/05/13-2F.68-001

Extracted: 05/13/2005

Analyzed: 05/13/2005 20:01

Dilution: 25.00

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	810	1060	151	625	105.4	145.4	31.9	65-165	20		M3,R1
Benzene	8510	10500	7590	625	147.2	465.6	103.	69-129	20	M3	M3,R1
Toluene	697	863	47.8	625	103.9	130.4	22.6	70-130	20		M3,R1
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	468	502		500	93.6	100.4		73-130			
Toluene-d8	490	470		500	98.0	94.0		81-114			

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05/16/2005 16:26

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 04/29/2005 15:22

Site: 1771 First Street, Livermore, California

---

**Legend and Notes**

---

**Analysis Flag**

L2

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

**Result Flag**

M3

Sample > 4x spike concentration.

M4

MS/MSD spike recoveries were above acceptance limits.  
See blank spike (LCS).

R1

Analyte RPD was out of QC limits.

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

# ConocoPhillips Chain Of Custody Record

114663

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
San Francisco, CA 94134

2005-05-0014

ConocoPhillips Work Order Number

1237SEC700

ConocoPhillips Cost Object

WNO, 1237

DATE: 04-29-05

PAGE: 1 of 1

SAMPLING COMPANY: <b>SECOR International Inc</b>		Value Value ID:	CONOCOPHILLIPS SITE NUMBER <b>4186</b>		GLOBAL ID NO.: <b>T0600101493</b>
ADDRESS: <b>3017 Kilgore Rd Suite 100, Rancho Cordova, CA 95870</b>		SITE ADDRESS (Street and City): <b>1771 First Street, Livermore, California</b>			CONOCOPHILLIPS SITE MANAGER: <b>Thomas Kosel</b>
PROJECT CONTACT (hardcopy or PDF Report to): <b>Amy Draffan</b>		PDF DELIVERABLE TO (if not Onsite): <b>Amy Draffan</b>		PHONE NO.: <b>(916) 861-0400 ext 235</b>	EMAIL: <b>adraffan@secor.com</b>
TELEPHONE: <b>(916) 861-0400 x 235</b>	FAX: <b>(916) 861-0430</b>	E-MAIL: <b>adraffan@secor.com</b>	LAB USE ONLY		
SAMPLER NAME(S) (Print): <b>James Patton</b>		CONSULTANT PROJECT NUMBER: <b>77CP.60004.01.4186</b>		REQUESTED ANALYSES	

TURNAROUND TIME (CALENDAR DAYS):  
 14 DAYS  7 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED

\* Field Point name only required if different from Sample ID

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATERIAL	NO. OF CONT.	6015m - TPHd Extractable	8280B - TPHg/BTEX/MIBE	8280B - TPHg / BTEX / B	Oxygenates	8280B - TPHg / BTEX / B oxygenates + methanol (801SM)	8280B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MIBE	Lead	OTotal	CSTLC	DTCLP	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	TEMPERATURE ON RECEIPT °C
		DATE	TIME																
	U-3	04/29/05	11:40	Water	3		X												12
	U-6	04/29/05	11:15	Water	3		X												

Requested by (Signature): <i>[Signature]</i>	Received by (Signature): <i>Joan Miller</i>	Date: 4-29-05	Time: 1522
Requested by (Signature):	Received by (Signature):	Date:	Time:
Requested by (Signature):	Received by (Signature):	Date:	Time:

**SECOR-Sacramento**

May 31, 2005

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670

Attn.: Amy Draffan

Project#: 77CP.60004.01.4186

Project: Conoco Phillips Site #4186

Site: 1771 First Street, Livermore, California

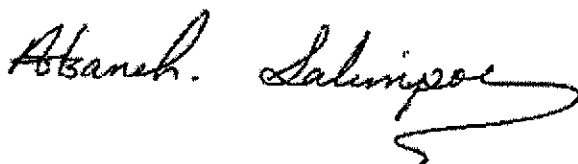
Attached is our report for your samples received on 05/13/2005 12:40  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
06/27/2005 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: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
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](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
U-3	05/13/2005 09:55	Water	1
U-6	05/13/2005 09:50	Water	2

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-3	Lab ID: 2005-05-0415 - 1
Sampled: 05/13/2005 09:55	Extracted: 5/23/2005 09:07 5/25/2005 14:41
Matrix: Water	QC Batch#: 2005/05/23-1A.68 2005/05/25-3A.69

Analysis Flag: L2, pH: <2 ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	9000	500	ug/L	10.00	05/23/2005 09:07	
Benzene	63	5.0	ug/L	10.00	05/23/2005 09:07	
Toluene	ND	5.0	ug/L	10.00	05/23/2005 09:07	
Ethylbenzene	380	5.0	ug/L	10.00	05/23/2005 09:07	
Total xylenes	760	10	ug/L	10.00	05/23/2005 09:07	
Methyl tert-butyl ether (MTBE)	7000	25	ug/L	50.00	05/25/2005 14:41	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	101.4	73-130	%	10.00	05/23/2005 09:07	
1,2-Dichloroethane-d4	116.5	73-130	%	50.00	05/25/2005 14:41	
Toluene-d8	94.9	81-114	%	10.00	05/23/2005 09:07	
Toluene-d8	105.2	81-114	%	50.00	05/25/2005 14:41	

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

05/26/2005 18:14



**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

Prep(s): 5030B	Test(s): 8260B
Sample ID: U-6	Lab ID: 2005-05-0415 - 2
Sampled: 05/13/2005 09:50	Extracted: 5/21/2005 19:08
Matrix: Water	QC Batch#: 2005/05/21-2A.64
pH: <2	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	140	50	ug/L	1.00	05/21/2005 19:08	
Benzene	ND	0.50	ug/L	1.00	05/21/2005 19:08	
Toluene	0.81	0.50	ug/L	1.00	05/21/2005 19:08	
Ethylbenzene	ND	0.50	ug/L	1.00	05/21/2005 19:08	
Total xylenes	ND	1.0	ug/L	1.00	05/21/2005 19:08	
Methyl tert-butyl ether (MTBE)	1.1	0.50	ug/L	1.00	05/21/2005 19:08	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	119.5	73-130	%	1.00	05/21/2005 19:08	
Toluene-d8	104.9	81-114	%	1.00	05/21/2005 19:08	

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

05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/05/21-2A.64-054

Water

Test(s): 8260B

QC Batch # 2005/05/21-2A.64

Date Extracted: 05/21/2005 18:31

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/21/2005 18:31	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/21/2005 18:31	
Benzene	ND	0.5	ug/L	05/21/2005 18:31	
Toluene	ND	0.5	ug/L	05/21/2005 18:31	
Ethylbenzene	ND	0.5	ug/L	05/21/2005 18:31	
Total xylenes	ND	1.0	ug/L	05/21/2005 18:31	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	115.2	73-130	%	05/21/2005 18:31	
Toluene-d8	105.2	81-114	%	05/21/2005 18:31	

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

05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/05/23-1A.68-005

Water

Test(s): 8260B

QC Batch # 2005/05/23-1A.68

Date Extracted: 05/23/2005 07:05

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/23/2005 07:05	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/23/2005 07:05	
Benzene	ND	0.5	ug/L	05/23/2005 07:05	
Toluene	ND	0.5	ug/L	05/23/2005 07:05	
Ethylbenzene	ND	0.5	ug/L	05/23/2005 07:05	
Total xylenes	ND	1.0	ug/L	05/23/2005 07:05	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	91.4	73-130	%	05/23/2005 07:05	
Toluene-d8	96.6	81-114	%	05/23/2005 07:05	

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05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/05/25-3A.69-039

Water

Test(s): 8260B

QC Batch # 2005/05/25-3A.69

Date Extracted: 05/25/2005 11:39

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/25/2005 11:39	
Benzene	ND	0.5	ug/L	05/25/2005 11:39	
Toluene	ND	0.5	ug/L	05/25/2005 11:39	
Ethylbenzene	ND	0.5	ug/L	05/25/2005 11:39	
Total xylenes	ND	1.0	ug/L	05/25/2005 11:39	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/25/2005 11:39	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	108.6	73-130	%	05/25/2005 11:39	
Toluene-d8	106.0	81-114	%	05/25/2005 11:39	

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05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/05/21-2A.64**

LCS 2005/05/21-2A.64-009

Extracted: 05/21/2005

Analyzed: 05/21/2005 18:09

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	28.3		25	113.2			65-165	20		
Benzene	22.7		25	90.8			69-129	20		
Toluene	27.6		25	110.4			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	547		500	109.4			73-130			
Toluene-d8	513		500	102.6			81-114			

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05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/05/23-1A.68

LCS 2005/05/23-1A.68-048  
LCSD

Extracted: 05/23/2005

Analyzed: 05/23/2005 06:48

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %			Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.2		25	92.8			65-165	20			
Benzene	25.2		25	100.8			69-129	20			
Toluene	25.4		25	101.6			70-130	20			
<b>Surrogates(s)</b>											
1,2-Dichloroethane-d4	401		500	80.2			73-130				
Toluene-d8	478		500	95.6			81-114				

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/05/25-3A.69**

LCS 2005/05/25-3A.69-020

Extracted: 05/25/2005

Analyzed: 05/25/2005 11:20

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	19.1		25	76.4			65-165	20		
Benzene	20.0		25	80.0			69-129	20		
Toluene	19.7		25	78.8			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	487		500	97.4			73-130			
Toluene-d8	542		500	108.4			81-114			

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05/28/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/21-2A.64**

U-6 >> MS

Lab ID: 2005-05-0415 - 002

MS: 2005/05/21-2A.64-031

Extracted: 05/21/2005

Analyzed: 05/21/2005 19:31

Dilution: 1.00

MSD: 2005/05/21-2A.64-053

Extracted: 05/21/2005

Analyzed: 05/21/2005 19:53

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	27.4	27.8	1.1	25	105.2	106.8	1.5	65-165	20		
Benzene	24.6	24.9	ND	25	98.4	99.6	1.2	69-129	20		
Toluene	28.4	28.2	0.812	25	110.4	109.6	0.7	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	575	582		500	115.0	116.5		73-130			
Toluene-d8	521	518		500	104.1	103.6		81-114			

Severn Trent Laboratories, Inc.

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

05/26/2005 18:14



**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/23-1A.68**

MS/MSD

Lab ID: 2005-05-0500 - 001

MS: 2005/05/23-1A.68-001

Extracted: 05/23/2005

Analyzed: 05/23/2005 10:01

Dilution: 1.00

MSD: 2005/05/23-1A.68-018

Extracted: 05/23/2005

Analyzed: 05/23/2005 10:18

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	24.3	28.6	0.62	25	94.7	114.4	18.8	65-165	20		
Benzene	24.7	25.6	ND	25	98.8	102.4	3.6	69-129	20		
Toluene	25.8	27.3	ND	25	103.2	109.2	5.6	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	420	429		500	83.9	85.8		73-130			
Toluene-d8	472	465		500	94.4	93.0		81-114			

Severn Trent Laboratories, Inc.

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05/26/2005 18:14

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B Test(s): 8260B

**Matrix Spike ( MS / MSD )** **Water** **QC Batch # 2005/05/25-3A.69**

MS/MSD		Lab ID: 2005-05-0532 - 004
MS: 2005/05/25-3A.69-050	Extracted: 05/25/2005	Analyzed: 05/25/2005 15:50
		Dilution: 1.00
MSD: 2005/05/25-3A.69-009	Extracted: 05/25/2005	Analyzed: 05/25/2005 16:09
		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	21.5	24.2	ND	25	86.0	96.8	11.8	65-165	20		
Benzene	20.4	21.6	ND	25	81.6	86.4	5.7	69-129	20		
Toluene	19.9	22.3	ND	25	79.6	89.2	11.4	70-130	20		
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	481	494		500	96.2	98.8		73-130			
Toluene-d8	508	520		500	101.6	104.0		81-114			

Gas/BTEX/MTBE by 8260B

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 05/13/2005 12:40

Site: 1771 First Street, Livermore, California

---

Legend and Notes

---

**Sample Comment**

Lab ID: 2005-05-0415 -2

The result reported for Toluene reflects possible laboratory contamination.

**Analysis Flag**

L2

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

# ConocoPhillips Chain Of Custody Record

115085

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA 92704

2005-05-0415

ConocoPhillips Work Order Number

1237SEC700

ConocoPhillips Cost Object

WNO 1237

DATE: \_\_\_\_\_

PAGE: \_\_\_\_\_ of \_\_\_\_\_

SAMPLER COMPANY: <b>SECOR International Inc</b>		Vial Value ID:		CONOCOPHILLIPS SITE NUMBER: <b>4186</b>		GLOBAL ID NO.: <b>T0600101493</b>	
ADDRESS: <b>3017 Kilgore Rd Suite 100, Rancho Cordova, CA 95670</b>				SITE ADDRESS (Street and City): <b>1771 First Street, Livermore, California</b>		CONOCOPHILLIPS SITE MANAGER: <b>Thomas Kosal</b>	
PROJECT CONTACT PERSON or POC Report to: <b>Amy Draffan</b>				ECP DELIVERABLE TO (RP or Designer): <b>Amy Draffan</b>		PHONE NO.: <b>(916) 861-0400 ext 235</b>	EMAIL: <b>adraffan@secor.co</b>
TELEPHONE: <b>(916) 861-0400 x.235</b>		FAX: <b>(916) 861-0430</b>		E-MAIL: <b>adraffan@secor.com</b>		LAB USE ONLY	
SAMPLER NAME(S) (P/N): <i>Sean Schoeneman</i>		CONSULTANT PROJECT NUMBER: <b>77CP.60004.01.4186</b>		<b>REQUESTED ANALYSES</b>			

TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS				<b>FIELD NOTES:</b> Contain/Preservative or PID Readings or Laboratory Notes			
SPECIAL INSTRUCTIONS OR NOTES: _____							

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015M - TPHd Extractable	8269B - TPHg/BTEX/MIBE	8269B - TPHg/BTEX/8	8269B - TPHg/BTEX/8 + methanol (8015M)	8269B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M + 8021B - TPHg/BTEX/MIBE	Lead	Total	DSTLC	DTCLP	TEMPERATURE ON RECEIPT C*
		DATE	TIME														
	U-3	5/13	0955	Water	3		X										
	U-6	5/13	0950	Water	3		X										

Released by: (Signature) <i>Sean Schoeneman</i>	Received by: (Signature) <i>Joan Miller</i>	Date: <b>5-13-05</b>	Time: <b>12:40</b>
Released by: (Signature)	Received by: (Signature)	Date:	Time:
Released by: (Signature)	Received by: (Signature)	Date:	Time:

**SECOR-Sacramento**

June 22, 2005

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670

Attn.: Amy Draffan

Project#: 77CP.60004.01.4186

Project: Conoco Phillips Site #4186

Site: 1771 First Street, Livermore, California

Attached is our report for your samples received on 06/06/2005 15:13

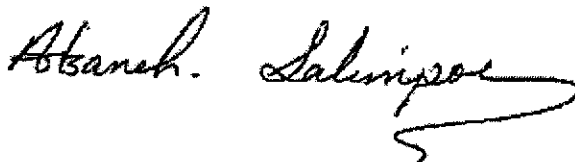
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 07/21/2005 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: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
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](http://www.stl-inc.com) \* CA DHS ELAP# 2496

Gas/BTEX/MTBE by 8260B

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
U-3	06/06/2005 14:40	Water	1
U-6	06/06/2005 14:50	Water	2

**Gas/BTEX/MTBE by 8260B**

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Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

Prep(s):	5030B	Test(s):	8260B
Sample ID:	U-3	Lab ID:	2005-06-0132 - 1
Sampled:	06/06/2005 14:40	Extracted:	6/16/2005 10:55 6/18/2005 11:38
Matrix:	Water	QC Batch#:	2005/06/16-1A.64 2005/06/18-1A.62

Analysis Flag: L2, pH: <2 ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	2600	2500	ug/L	50.00	06/18/2005 11:38	
Benzene	59	5.0	ug/L	10.00	06/16/2005 10:55	
Toluene	ND	5.0	ug/L	10.00	06/16/2005 10:55	
Ethylbenzene	450	5.0	ug/L	10.00	06/16/2005 10:55	
Total xylenes	760	10	ug/L	10.00	06/16/2005 10:55	
Methyl tert-butyl ether (MTBE)	4700	25	ug/L	50.00	06/18/2005 11:38	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	95.1	73-130	%	10.00	06/16/2005 10:55	
1,2-Dichloroethane-d4	111.8	73-130	%	50.00	06/18/2005 11:38	
Toluene-d8	97.6	81-114	%	10.00	06/16/2005 10:55	
Toluene-d8	100.0	81-114	%	50.00	06/18/2005 11:38	

Severn Trent Laboratories, Inc.

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

06/22/2005 12:10

Gas/BTEX/MTBE by 8260B

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

Prep(s): 5030B Test(s): 8260B  
Sample ID: U-6 Lab ID: 2005-06-0132 - 2  
Sampled: 06/06/2005 14:50 Extracted: 6/18/2005 12:04  
Matrix: Water QC Batch#: 2005/06/18-1A.62  
pH: <2

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	160	50	ug/L	1.00	06/18/2005 12:04	
Benzene	ND	0.50	ug/L	1.00	06/18/2005 12:04	
Toluene	ND	0.50	ug/L	1.00	06/18/2005 12:04	
Ethylbenzene	ND	0.50	ug/L	1.00	06/18/2005 12:04	
Total xylenes	ND	1.0	ug/L	1.00	06/18/2005 12:04	
Methyl tert-butyl ether (MTBE)	1.0	0.50	ug/L	1.00	06/18/2005 12:04	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	120.4	73-130	%	1.00	06/18/2005 12:04	
Toluene-d8	104.6	81-114	%	1.00	06/18/2005 12:04	



**Gas/BTEX/MTBE by 8260B**

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Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/06/16-1A.64-026

Water

Test(s): 8260B

QC Batch # 2005/06/16-1A.64

Date Extracted: 06/16/2005 07:26

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	06/16/2005 07:26	
Benzene	ND	0.5	ug/L	06/16/2005 07:26	
Toluene	ND	0.5	ug/L	06/16/2005 07:26	
Ethylbenzene	ND	0.5	ug/L	06/16/2005 07:26	
Total xylenes	ND	1.0	ug/L	06/16/2005 07:26	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/16/2005 07:26	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	95.4	73-130	%	06/16/2005 07:26	
Toluene-d8	98.8	81-114	%	06/16/2005 07:26	

Severn Trent Laboratories, Inc.

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06/22/2005 12:10

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

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3017 Kilgore Road, Suite 100  
 Rancho Cordova, CA 95670  
 Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
 Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2005/06/18-1A.62-038

Water

Test(s): 8260B

QC Batch # 2005/06/18-1A.62

Date Extracted: 06/18/2005 07:38

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	06/18/2005 07:38	
Benzene	ND	0.5	ug/L	06/18/2005 07:38	
Toluene	ND	0.5	ug/L	06/18/2005 07:38	
Ethylbenzene	ND	0.5	ug/L	06/18/2005 07:38	
Total xylenes	ND	1.0	ug/L	06/18/2005 07:38	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/18/2005 07:38	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	103.8	73-130	%	06/18/2005 07:38	
Toluene-d8	102.6	81-114	%	06/18/2005 07:38	

**Gas/BTEX/MTBE by 8260B**

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Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/06/16-1A.64**

LCS 2005/06/16-1A.64-002

Extracted: 06/16/2005

Analyzed: 06/16/2005 07:02

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.8		25	99.2			65-165	20		
Benzene	22.4		25	89.6			69-129	20		
Toluene	25.6		25	102.4			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	492		500	98.4			73-130			
Toluene-d8	510		500	102.0			81-114			

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

Attn.: Amy Draffan

3017 Kilgore Road, Suite 100  
Rancho Cordova, CA 95670  
Phone: (916) 861-0400 Fax: (916) 861-0430

Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/06/18-1A.62**

LCS 2005/06/18-1A.62-012

Extracted: 06/18/2005

Analyzed: 06/18/2005 07:12

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.1		25	96.4			65-165	20		
Benzene	25.4		25	101.6			69-129	20		
Toluene	27.6		25	110.4			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	470		500	94.0			73-130			
Toluene-d8	499		500	99.8			81-114			

Severn Trent Laboratories, Inc.

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06/22/2005 12:10

**Gas/BTEX/MTBE by 8260B**

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Project: 77CP.60004.01.4186  
Conoco Phillips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/06/16-1A.64**

MS/MSD

Lab ID: 2005-06-0111 - 004

MS: 2005/06/16-1A.64-019

Extracted: 06/16/2005

Analyzed: 06/16/2005 09:19

Dilution: 1.00

MSD: 2005/06/16-1A.64-043

Extracted: 06/16/2005

Analyzed: 06/16/2005 09:43

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	23.6	24.7	2.08	25	86.1	90.5	5.0	65-165	20		
Benzene	21.8	23.7	ND	25	87.2	94.8	8.4	69-129	20		
Toluene	23.4	25.2	ND	25	93.6	100.8	7.4	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	482	476		500	96.4	95.2		73-130			
Toluene-d8	511	510		500	102.2	102.0		81-114			

**Gas/BTEX/MTBE by 8260B**

SECOR-Sacramento

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Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/06/18-1A.62**

MS/MSD

Lab ID: 2005-06-0145 - 004

MS: 2005/06/18-1A.62-035

Extracted: 06/18/2005

Analyzed: 06/18/2005 08:35

Dilution: 1.00

MSD: 2005/06/18-1A.62-001

Extracted: 06/18/2005

Analyzed: 06/18/2005 09:01

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	23.7	23.6	ND	25	94.8	94.4	0.4	65-165	20		
Benzene	24.2	24.2	ND	25	96.8	96.8	0.0	69-129	20		
Toluene	26.8	25.9	ND	25	107.2	103.6	3.4	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	516	528		500	103.2	105.6		73-130			
Toluene-d8	513	505		500	102.6	101.0		81-114			

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06/22/2005 12:10

Gas/BTEX/MTBE by 8260B

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Project: 77CP.60004.01.4186  
Conoco Philips Site #4186

Received: 06/06/2005 15:13

Site: 1771 First Street, Livermore, California

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Legend and Notes

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Analysis Flag

L2

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

1220 Quarry Lane  
Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

GONOCOPHILLIPS  
Attn: Dee Hutchinson  
3811 South Harbor, Suite 200  
Livermore, CA 94550

2005-06-0132

ConocoPhillips Work Order Number

1237SEC700

ConocoPhillips Cost Object

WNO:1237

115623

DATE: 6/6/05

PAGE: 1 of 1

SAMPLING COMPANY: SECOR International Inc		Void Value ID:	CONOCOPHILLIPS SITE NUMBER 4188		GLOBAL WNO: T0600101493
ADDRESS: 3017 Klugore Rd Suite 100, Rancho Cordova, CA 95670			SITE ADDRESS (Sheet and City): 1771 First Street, Livermore, California		CONOCOPHILLIPS SITE MANAGER: Thomas Kosel
PROJECT CONTACT (Hardcopy or PDF Report to): Amy Draffan			EDF DELIVERABLES (PP or Design): Amy Draffan		PHONE NO.: (916) 861-0400 ext 235
TELEPHONE: (916) 861-0400 x 235	FAX: (916) 861-0430	EMAIL: adraffan@secor.com	CONSULTANT PROJECT NUMBER 77CP.60004.01.4186		LAB USE ONLY
SAMPLER NAME(S) (Photo): <i>Brian Hutchinson</i>			REQUESTED ANALYSES		

TURNAROUND TIME (CALENDAR DAYS):  
 14 DAYS  7 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ CHECK BOX IF ECD IS NEEDED

\* Field Point name only required if different from Sample ID

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8240B - TPHg/BTEX/MBE	8260B - TPHg/BTEX/MBE	8260B - TPHg/BTEX/MBE	8260B - TPHg/BTEX/MBE + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TP-Hg/BTEX/MBE	Lead DTotd DTCLC DTCLP	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	TEMPERATURE ON RECEIPT °C
		DATE	TIME													
	U-3	6/6/05	1440	Water	3		X									
	U-6	6/6/05	1450	Water	3		X									

Relinquished by: (Signature) <i>Brian Hutchinson</i>	Received by: (Signature) <i>Frank B. ...</i>	Date: 6/6/05	Time: 15:13
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:



Ozone Sparge System-Operations and Maintenance  
Field Data Sheet

ConocoPhillips Site #4598  
544 Carmel Rancho Boulevard  
Carmel, California

Initials	Date	Arrival Time	Departure Time	System Status on Arrival On/Off	System Status on Departure On/Off	Hour Meter Reading (at time)	Electrical Meter Reading
RJS	4/22/05	1230	1345	01	01	5265.36	—

Initials	Date	Weather Conditions (estimated)		Temp in Ozone Panel
		Wind Dir.	Wind Speed	
RJS	4/22	W	2	72

Initials	Date	Ozone Meter		Ozone Readings				Ozone Badge Color (White/Tan/Brown)
				Outside Compound (ppm)	Inside Compound (ppm)	Inside Shed/Panel (ppm)	Secondary Containment (ppm)	
		Brand	Range					
RJS	4/22	ECO	101 - 110	101	.01	.01	.01	





Frequency	Item to Inspect or Maintain	Date Performed				
Monthly	Check integrity of all hoses, fittings, piping, and valves	4/15/05				
Monthly	Measure Blower Running Amperage	4/15/05				
Monthly	Inspect electrical fittings and tighten as needed	4/15/05				
Monthly	Check controller operation	4/15/05				
As-Needed	Adjust controller program	4/15/05				
Monthly	Gross particle filter-visually inspect	4/15/05				
As-Needed	Gross particle filter-replace as necessary					
Monthly	Check flow and pressure on assemblies (system and wells)					
Monthly	Take ozone readings at compound and well boxes	4/15/05				
Monthly	Check wellhead connections					
Monthly	Check/test all safety override systems					
As-Needed	Sparge blower-repair as necessary					
As-Needed	Sparge blower-replace as necessary					

NOTES AND DESCRIPTION OF ACTIVITIES ON SITE

SECOR TECHNICIAN WAS ONSITE TO OBSERVE AND RECORD SPARGES SYSTEM DATA AND ADJUST PROGRAM PER AMY DRAFFAN. SYSTEM RUNNING SMOOTHLY WITH ALL HOSES, FITTINGS, PIPING AND VALVES IN GOOD SHAPE AT PANNEL.

SAMPLED WATER FROM MW-1 AND MW-4 WITH SAMPLES DROPED OFF AT SAN LUIS ORISPO OFFICE.

CHRIS RUNNERT  
4/15/05