Ro 58



76 Broadway Sacramento, CA 95818 phone 916,558,7676 fax 916,558,7639

Alomedo County

Aliconnentol Health

August 5, 2005

Mr. Don Hwang Alameda County Health Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Document Transmittal

Fuel Leak Case No. RO0000058
76 Station 6129
3420 35th Avenue
Oakland, California

Dear Mr. Hwang:

Please find attached ATC's Quarterly Summary Report, dated 7/20/05, and TRC's Quarterly Monitoring Report, dated 7/6/05 for the above referenced site. I declare, under penalty of perjury, that to the best of my knowledge the information and/or recommendations contained in the attached proposal or report are true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Thomas H. Kosel

Site Manger, Risk Management and Remediation

fourth Hosel

ConocoPhillips

76 Broadway, Sacramento, CA 95818

Attachment

cc: Dave Evans, ATC



6602 Owens Dr. Suite 100 Pleasanton, California 94588 www.atc-enviro.com 925.460.5300 Fax 925.463.2559

Envionnental Health

July 20, 2005

Mr. Donald Hwang Alameda County Department of Public Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Re: Quarterly Summary Report - Second Quarter 2005

76 Service Station No. 6129 / WNO 4583 3420 35th Avenue

Oakland, CA

Dear Mr. Hwang:

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

Sincerely,

ATC ASSOCIATES INC.

David A. Evans

Senior Project Manager

Janine Weber-Band, PhD, CEG #2286

Senior Geologist

Attachment: Sit

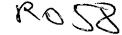
Site Plan

Tables - Groundwater Monitoring and Analytical

Groundwater Monitoring Report, prepared by TRC (July 6, 2005)

Cc: Mr. Thomas Kosel – ConocoPhillips (electronic copy only)

for Dave Evans



Quarterly Summary Report - Second Quarter 2005 76 Station 6129 3420 35th Avenue Oakland, CA

April 29, 2005 Page 2 of 4

#### **QUARTERLY SUMMARY REPORT Second Quarter 2005**

76 Service Station No. 6129 / WNO 4583 3420 35th Avenue Oakland, CA

City/County ID#

Case No. RO# 000058

County:

Alameda

#### **BACKGROUND & ACTIVITY**

Alomedo County

Environmental Health According to Kaprealian Engineering, Inc. (KEI), in 1989, two 10,000-gallon gasoline USTs and one 550-gallon waste oil UST were removed from the site. Analytical results of soil samples collected beneath the former gasoline USTs, used-oil UST and product piping indicated that low concentrations of petroleum hydrocarbons were present in each of the sampling areas. Three groundwater monitoring wells (MW-1 through MW-3) were installed in 1989 to depths of approximately 44 feet below ground surface (bgs).

In 1990, four soil borings (EB1 through EB4) were drilled at the site in the vicinity of MW-3 in an attempt to define the hydrocarbon impact to soil. Based on the results of the soil sampling, approximately 230 cubic yards of soil were excavated from an area between the dispenser islands and around well MW-3 in 1991. Excavation was performed so as to not destroy well MW-3. Analytical results from confirmation soil samples indicated that the majority of the impacted soil had been removed.

On November 12 and 13, 2003, as part of a due diligence investigation, four soil borings (SB-1 and SB-3 through SB-5) were drilled to total depths of approximately 31.5 to 36.5 feet bgs. Proposed boring SB-2 was unable to be installed due to the presence of subsurface utilities and/or structures, Groundwater was encountered in the borings at a depth of approximately 35 feet bgs. Methyl tertiary butyl ether (MtBE) was reported at concentrations varying from 0.37 to 0.41 milligrams per kilogram (mg/kg) in the soil samples collected between 26 and 31 feet bgs. All other constituents were reported below the laboratory reporting limit for the soil samples analyzed. The three existing groundwater wells were sampled on November 13, 2003, and the analytical results indicated the presence of MtBE at concentrations between 240 and 3,700 micrograms per liter (ug/l), with the most elevated concentrations occurring in wells MW-2 (2,100 ug/l) and MW-3 (3,700 ug/l).

#### SENSITIVE RECEPTORS

A 1,000 foot radius well search was completed as requested on September 28, 2004 by the Alameda County Public Works Agency (ACPWA). The results indicated a 6-inch diameter irrigation well located at 3397 Arkansas St, 800 feet west-northwest of the site drilled in August 1977 to a total depth of 62 feet (water level at 18 feet) owned by Arthur Smith as reported by the Alameda County Health Care Services updated July 30, 1984.

#### MONITORING AND SAMPLING

Groundwater monitoring and sampling activities were conducted at the site from January 1990 through May 1991. Sampling activities were re-initiated during the third quarter 2004. The monitoring well network is scheduled to be sampled on a quarterly basis.

During the most recent groundwater monitoring event, conducted on May 17, 2005, depth to groundwater ranged from 24.53 feet (MW-2) to 26.56 feet (MW-1) below top of casing (TOC). The groundwater flow direction was toward the west at a gradient of 0.03 ft/ft, consistent with historic events. During the May 2005 sampling event, maximum detectable hydrocarbon concentrations were as follows: TPPH (<1,000 ug/l in MW-3), benzene (<0.50 ug/L in all wells), and MtBE (1,200 ug/l in MW-3). The concentration of dissolved MtBE is decreasing in MW-1 and MW-2. The concentration of dissolved MtBE is fluctuating in MW-3.

#### **REMEDIATION STATUS**

In 1991, based on the results from borings EB1 through EB4, approximately 230 cubic yards of soil were excavated from the area between the dispensers and the pumps islands around MW-3.

Remediation is not currently being conducted at the site.

#### **CHARACTERIZATION STATUS**

Hydrocarbon concentrations in the soil and groundwater have not been delineated. MtBE in soil and groundwater are above ESL's. Additional assessment activity has been proposed to delineate both the vertical and horizontal extent (up and down gradient) of the MtBE plumes.

Compound	Groundwater ESL (ug/l)	Wells Exceeding ESL	Soil ESL Residential (mg/kg)	Wells Exceeding ESL	Soil ESL Commercial (mg/kg)	Wells Exceeding ESL
Benzene	1.0		0.044		0.044	
Toluene	40		2.9		2.9	
Ethyl benzene	30		3.3		3.3	
Xylenes	20		2.3		2.3	
MtBE	5.0	MW-1, MW-2, MW-3	0.023	SB1, SB3, SB4, SB5	0.023	
TPH-g	100		100		100	

#### RECENT CORRESPONDENCE

1. ATC prepared a Work Plan titled *Work Plan Addendum – Site Assessment Activity*, dated June 13, 2005, to the Alameda County Department of Public Health recommending four monitor wells be installed in addition to three soil borings.

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

1. TRC performed the quarterly monitoring and sampling event at the site.

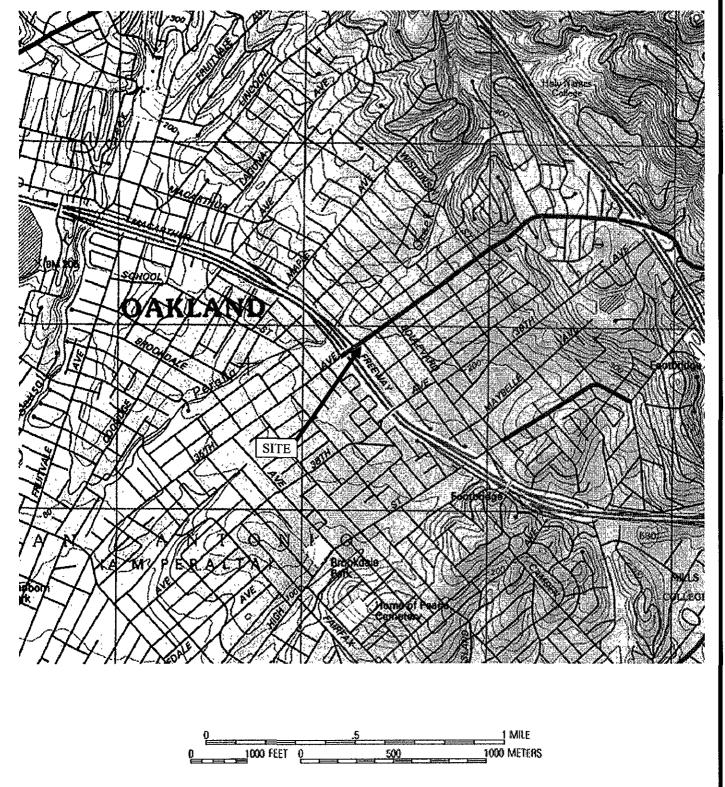
#### WASTE DISPOSAL SUMMARY

No waste was generated during the quarter.

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

- 1. TRC will conduct the quarterly groundwater monitoring and sampling event at the site.
- 2. Upon approval of the Work Plan dated June 13, 2005, ATC will complete four monitor wells and three soil borings.

**CONSULTANT:** ATC Associates Inc.



**SOURCE**: USGS OAKLAND WEST QUADRANGLE, CALIFORNIA (7.5 MINUTE SERIES) TOPOGRAPHIC MAP. OBTAINED FROM THE 2000 NATIONAL GEOGRAPHIC TOPO! SOFTWARE.



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

PROJECT NO: 75.75118.4583

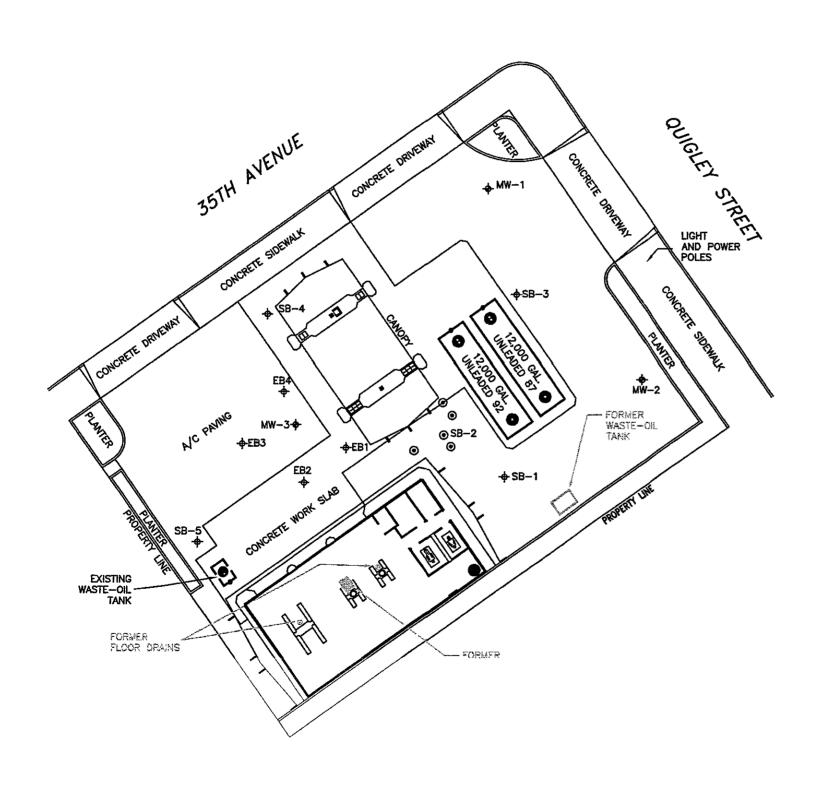
DESIGNED BY: DE SCALE:N/A REVIEWED BY: DE

DRAWN BY: EC DATE: 03/05 FILE: 6129 SITE VIC

FIGURE 1

#### SITE VICINITY MAP

76 STATION 6129 3420 35<sup>th</sup> AVENUE OAKLAND, CALIFORNIA



MW−3 ← GROUNDWATER MONITORING WELL

SB-5 - SOIL BORING LOCATIONS (2003)

SB-2 

● ATTEMPTED SOIL BORING

EB1 + SOIL BORING LOCATIONS (1990)

GASOLINE UNDERGROUND STORAGE TANK

DISPENSER ISLAND

∜ HOIST

Approximate Scale

0 30 feet Subject to Surveyors verification

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	DRAWING DATE	ACAD FILE
AS SHOWN	03/25/05	6129-site plan

## SITE MAP

CLIENT	CONC	COPH'LLIPS	PM DAE	
LOCATION	3420	TATION 6129 35th AVENUE D, CALIFORNIA	PE OA	
DESIGNED	DRAWN BY: EC	PROJECT NO. 75.75118.4583	FIGURE 2	

#### Table 2

#### HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS 76 Station 6129 3420 35 Ave, Oakland

Well No	Monitoring Date	Depth to Water	LPH Thickness	Ground- water Elevation	Surface Elevation	Depth of Well	Depth to Screen	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-G	MTBE 8260B	DIPE 8260B	TPPH 8260B
		(fcct)	(fcet)	(fect)	(fcct)	(feet)	(feet)	(µe/l)	(µ2/l)	(µg/I)	(µg/l)	(µе/Т)	(µg/l)	(pg/I)	(µe/l)
MW-1	01/05/90	_			_	45	25	ND	ND	ND	ND	ND	I		~
10211-7	05/11/90					45	25	ND	7.1	ND	ND	ND			
	08/09/90					45	25	ND	ND	ND	ND	ND	-		
	11/14/90		-	_		45	25	ND	ND	ND	ND	ND			
	02/12/91	-	_	-	-	45	25	0 32	ND	ND	ND	ND			
	05/09/91	-	_		_	45	25	ND	ND	ND	ND	ND			-
	11/13/03					45	25	<1.0	⊴.0	<1.0	<0		240	<4.0	180
	08/27/04	30.65	0	71 59	102 24	45	25	<0.50	<0.50	<0.50	<10		<0.50	<1.0	<50
	11/23/04	29.35	0	72 89	102 24	45	25	<0.50	<0.50	<0.50	<10		<0.50	<1.0	<50
j	02/09/05	26 89	0	75 35	102 24	45	25	<0.50	<0.50	<0.50	<10		9.3	<0.50	<50
	05/17/05	26.56	0	75,68	102 24	45	25	<0.50	<0.50	<0.50	<10		1.9	=	<50
												T			
MW-2	01/05/90	_	_ :		_	45	25	ND	ND	ND	ND	ND	_		_
	05/11/90	••			••	45	25	ND	ND	ND	ND	ND			~
	08/09/90		-	-	1	45	25	Ð	ND	ND	ИD	ИD			
	11/14/90					45	25	ND	ND	ND	ND	ND			
	02/12/91	_	-	-	1	45	25	ND	0 42	ND	0.51	ND	-	-	-
	05/09/91	••		••	••	45	25	ND	ND	ND	ND	ND	-	**	-
	11/13/03		~	-	-	45	25	<20	<20	<20	<40	••	2100	<80	<2000
	08/27/04	30.28	0	71.88	102.16	45	25	<5.0	<50	<50	<10		1400	24	950
	11/23/04	28,75	0	73 41	102 16	45	25	<0.50	<0.50	<0.50	<1.0	-	4.2	18	53
	02/09/05	26 08	0	76.08	102 16	45	25	<0.50	<0.50	<0.50	<10	**	400	19	<500
	05/17/05	24 53	0	77.63	102.16	45	25	<0.50	<0.50	<0.50	<10	=	330		<50
3.571.0	24 (25/22		<u> </u>				2.5						<u> </u>	<u> </u>	
MW-3	01/05/90 05/11/90		0			45 45	25 25	ND ND	ND ND	ND ND	ND ND	ND ND			<del></del>
	08/09/90		-			45	25	ND	ND	ND	ND	ND		<del>-</del> -	
	11/14/90	_				45	25	ND	ND	ND	ND	ND			
	02/12/91		-			45	25	ND	ND	ND	ND	ND		<del></del>	
	05/09/91			••		45	25	ND	ND	ND	ND	ND		-	_
	11/13/03		-			45	25	<20	<20	<20	<40		3700	<80	2600
	08/27/04	29.61	О	70.39	100	45	25	⊲10	⊲0	<10	<20	_	2600	<20	1700
	11/23/04	28 48	C	71.52	100	45	25	<10	<10	<10	<20	-	1800	<20	1500
	02/09/05	26 45	0	73 55	100	45	25	<0.50	<0.50	<0.50	<10		2100	<10	<1000
	05/17/05	25 61	0	74.39	100	45	25	<0.50	<0.50	<0.50	<10	-	1200	-	<1000

#### LEGEND

TPH-G total petroleum hydrocarbons with gasolinedistinction total petroleum hydrocarbons with diesel distinction total purgeable petroleum hydrocarbons not analyzed, measured, or collected – LPH liquid-phase hydrocarbons less than 0.01 foot of LPH in well Trace µg/l mg/l ND micrograms per liter TRPH total recoverable petroleum hydrocarbons milligrams per liter MTBE methyl tertiary butyl ether

benzene, toluene, ethylbenzene, and (total) xylenes not detected BTEX

not detected at or above laboratory detection limit DIPE di-isopropyl ether

< TOC top of casing



July 6, 2005

ConocoPhillips Company 76 Broadway Sacramento, CA 94563

ATTN: MR. THOMAS KOSEL

SITE: 76 STATION 6129

3420 35<sup>TH</sup> AVENUE

OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT

**APRIL THROUGH JUNE 2005** 

Dear Mr. Kosel:

Please find enclosed our Quarterly Monitoring Report for 76 Station 6129, located at 3420 35<sup>th</sup> Avenue, Oakland, 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. (2 copies)

Enclosures:

20-0400/6129R04.QMS



#### QUARTERLY MONITORING REPORT APRIL THROUGH JUNE 2005

76 Station 6129 3420 35<sup>th</sup> Avenue Oakland, California

Prepared For:

Mr. Thomas Kosel
CONOCOPHILLIPS COMPANY
76 Broadway
Sacramento, CA 94563

By:

Senior Project Geologist, Irvine Operations July 1, 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 MTBE 8260B 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 6129 3420 35th Ave. Oakland, CA

Project Coordinator: <b>Thomas Kosel</b> Telephone: <b>916-558-7666</b>	Water Sampling Contractor: <i>TRC</i> Compiled by: <b>Tim Simpkins</b>
Date(s) of Gauging/Sampling Event: <b>05/17/05</b>	. ,
Sample Points	
Groundwater wells: 3 onsite, 0 offsite Purging method: <b>Diaphragm/submersible pump</b> Purge water disposal: <b>Onyx/Rodeo Unit 100</b> Other Sample Points: <b>0</b> Type: <b>n/a</b>	Wells gauged: 3 Wells sampled: 3
Liquid Phase Hydrocarbons (LPH)	
Wells with LPH: <b>0</b> Maximum thickness (feet): LPH removal frequency: <b>n/a</b> Treatment or disposal of water/LPH: <b>n/a</b>	n/a Method: <b>n/a</b>
Hydrogeologic Parameters	
Depth to groundwater (below TOC): Minimum: 2 Average groundwater elevation (relative to available Average change in groundwater elevation since previous formula provided in the street of the street	ious event: 0.91 feet
Selected Laboratory Results	
Wells with detected <b>Benzene: 0</b> W Maximum reported benzene concentration: <b>n/a</b>	/ells above MCL (1.0 μg/l): <b>n/a</b>
Wells with TPPH 8260B 0	
Wells with MTBE 3 M	aximum: 1,200 μg/l (MW-3)

# **TABLES**

#### TABLE KEY

#### STANDARD ABREVIATIONS

-- = 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. e3quivalent 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: Surface Elevation Measured Depth to Water + (Dp x 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 76 Station 6129 in August 2004.

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
May 17, 2005
76 Station 6129

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8260B	(	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)		
<b>MW-1</b> 05/17/0	5 102.24	26.56	0.00	75.68	0.33		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1.9		
<b>MW-2</b> 05/17/0	5 102.16	24.53	0.00	77.63	1.55		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	330		
<b>MW-3</b> 05/17/0	5 100.00	25.61	0.00	74.39	0.84		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1200		

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
January 1990 Through May 2005
76 Station 6129

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	
MW-1													
01/05/9				***		ND		ND	ND	ND	ND		
05/11/9			***			ND		ND	7.1	ND	ND		
08/09/9						ND		ND	ND	ND	ND		
11/14/9	0			••		ND		ND	ND	ND	ND		
02/12/9	1	~~				ND		0.32	ND	ND	ND		
05/09/9	1	**				ND		ND	ND	ND	ND		
11/13/0	3						180	ND<1.0	ND<1.0	ND<1.0	ND<2.0	240	
08/27/0	4 102.24	30.65	0.00	71.59			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	
11/23/0	4 102.24	1 29.35	0.00	72.89	1.30		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	
02/09/0	5 102.24	26.89	0.00	75.35	2.46		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	9.3	
05/17/0	5 102.24	1 26.56	0.00	75.68	0.33		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1.9	
MW-2													
01/05/9	0			***		ND		ND	ND	ND	ND		
05/11/9	0					ND		ND	ND	ND	ND		
08/09/9	0				***	ND		ND	ND	ND	ND		
11/14/9	0					ND		ND	ND	ND	ND		
02/12/9	1					ND		ND	0.42	ND	0.51		
05/09/9	1					ND		ND	ND	ND	ND		
11/13/0	3						ND<2000	ND<20	ND<20	ND<20	ND<40	2100	
08/27/0	4 102.16	30.28	0.00	71.88			950	ND<5.0	ND<5.0	ND<5.0	ND<10	1400	
11/23/0	4 102.16			73.41	1.53		53		ND<0.50	ND<0.50	ND<1.0	4.2	
02/09/0	5 102.16			76.08	2.67		ND<500		ND<0.50	ND<0.50	ND<1.0	400	
05/17/0				77.63	1.55		ND<50			ND<0.50		330	
							1.2 00			1.2 0.30	112 -110	330	

MW-3

Page 1 of 2

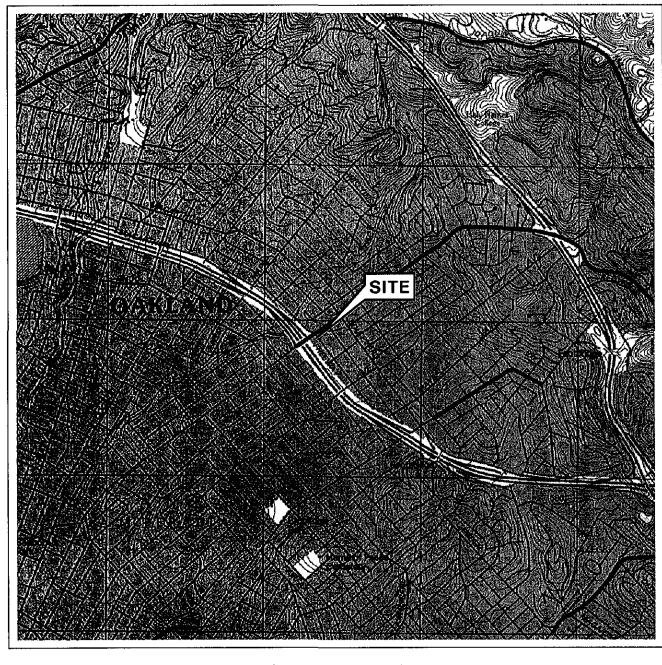
Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
January 1990 Through May 2005
76 Station 6129

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	ТРН-G	TPPH <b>82</b> 60B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-3	continued												
01/05/9	0		0.00			ND		ND	ND	ND	ND		
05/11/9	0					ND		ND	ND	ND	ND		
08/09/9	0					ND		ND	ND	ND	ND		
11/14/9	0					ND		ND	ND	ND	ND		
02/12/9	1					ND		ND	ND	ND	ND	• **	
05/09/9	1					ND		ND	ND	ND	ND		
11/13/0	3						2600	ND<20	ND<20	ND<20	ND<40	3700	
08/27/0	4 100.00	29.61	0.00	70.39			1700	ND<10	ND<10	ND<10	ND<20	2600	
11/23/0	4 100.00	28.48	0.00	71.52	1.13		1500	ND<10	ND<10	ND<10	ND<20	1800	
02/09/0	5 100.00	26.45	0.00	73.55	2.03		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	2100	
05/17/0	5 100.00	25.61	0.00	74.39	0.84		ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1200	

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 6129

Date Sampled	EDC	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8260B
	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)
MW-1							
11/13/03	ND<4.0	ND<4.0	ND<4.0	ND<200	ND<4.0	ND<4.0	ND<1000
08/27/04	ND<0 50	ND<0 50	ND<0 50	ND<5.0	ND<1.0	ND<0 50	ND<50
11/23/04	ND<0 50	ND<0 50	ND<0 50	ND<5.0	ND<1.0	ND<0 50	ND<50
02/09/05	ND<0 50	ND<0,50	ND<0 50	ND<5.0	ND<0 50	ND<0.50	ND<50
05/17/05	ND<0.50	ND<0,50	ND<0 50	ND<5.0	ND<0 50	ND<0 50	ND<50
MW-2							
11/13/03	ND<80	ND<80	ND<80	ND<4000	ND<80	ND<80	ND<20000
08/27/04	ND<5.0	ND<5.0	ND<5.0	ND<50	24	ND<5.0	ND<500
11/23/04	ND<0.50	ND<0 50	ND<0.50	ND<5.0	18	ND<0.50	ND<50
02/09/05	ND<5.0	ND<5.0	ND<5.0	ND<50	19	ND<5.0	ND<500
05/17/05	ND<0 50	ND<0,50	ND<0 50	ND<5.0	12	ND<0.50	ND<50
M/NS/ 2							
<b>MW-3</b> 11/13/03	ND<80	ND<80	ND<80	ND<4000	ND<80	ND<80	ND<20000
08/27/04	ND<10	ND<10	ND<10	ND<100	ND<20	ND<10	ND<1000
11/23/04	ND<10	ND<10	ND<10	ND<100	ND<20	ND<10	ND<1000
02/09/05	ND<10	ND<10	ND<10	130	ND<10	ND<10	ND<1000
05/17/05	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<1000

Page 1 of 1



1/4 1/2 3/4 1 MILE

SCALE 1:24,000

SOURCE:

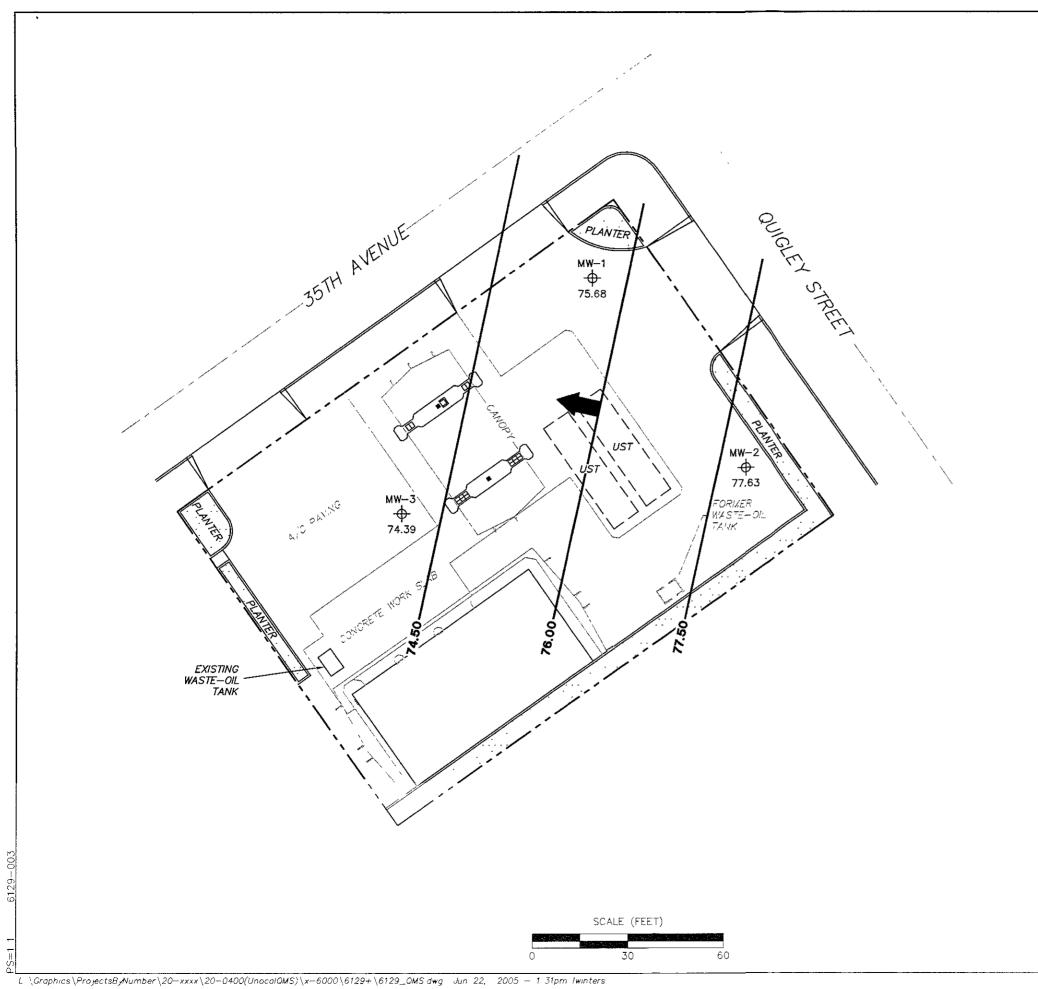
United States Geological Survey 7.5 Minute Topographic Map: Oakland East Quadrangle

TRC



**VICINITY MAP** 

76 Station 6129 3420 35th Avenue Oakland, California





77.50 — Groundwater Elevation Contour



General Direction of Groundwater Flow

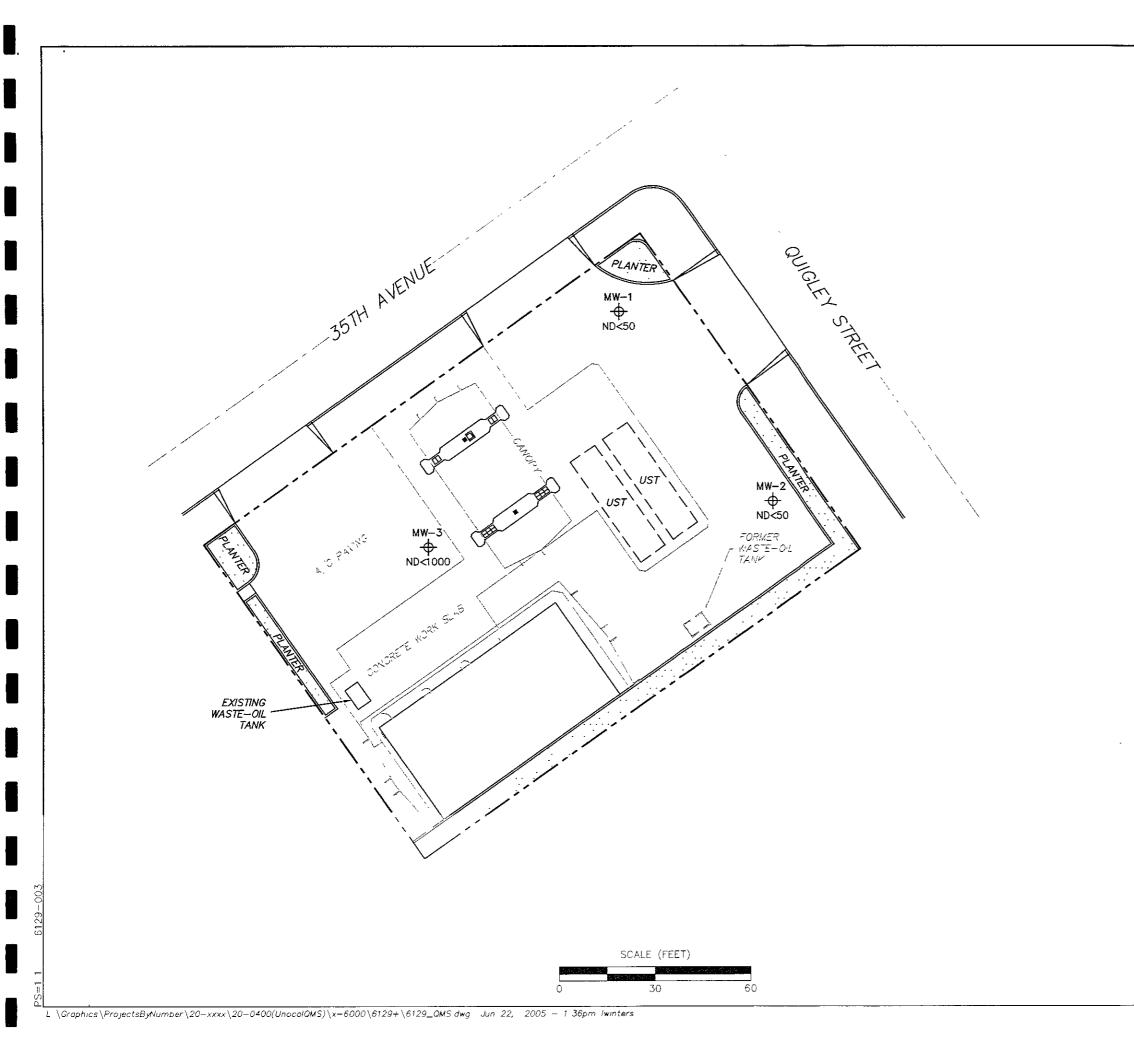
#### NOTES:

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

**GROUNDWATER ELEVATION** CONTOUR MAP May 17, 2005

> 76 Station 6129 3420 35th Avenue Oakland, California







MW-3 + Monitoring Well with
Dissolved-Phase TPPH
Concentration (μg/I)

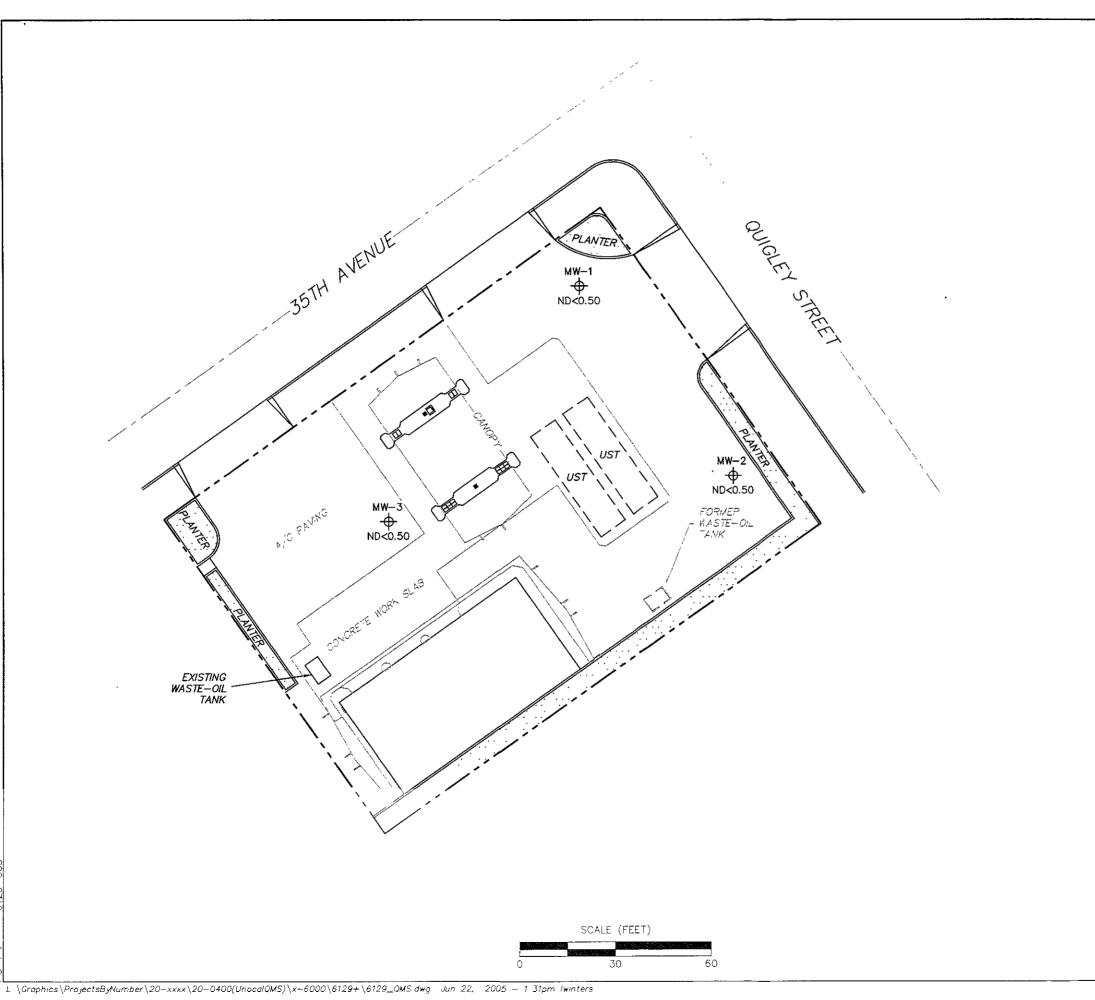
#### NOTES:

TPPH = total purgeable petroleum hydrocarbons. 
µg/l = micrograms per liter. ND = not detected 
at limit indicated on official laboratory report. 
UST = underground storage tank. Results obtained 
using EPA Method 8260B.

DISSOLVED-PHASE TPPH CONCENTRATION MAP May 17, 2005

> 76 Station 6129 3420 35th Avenue Oakland, California







Concentration (µg/l)

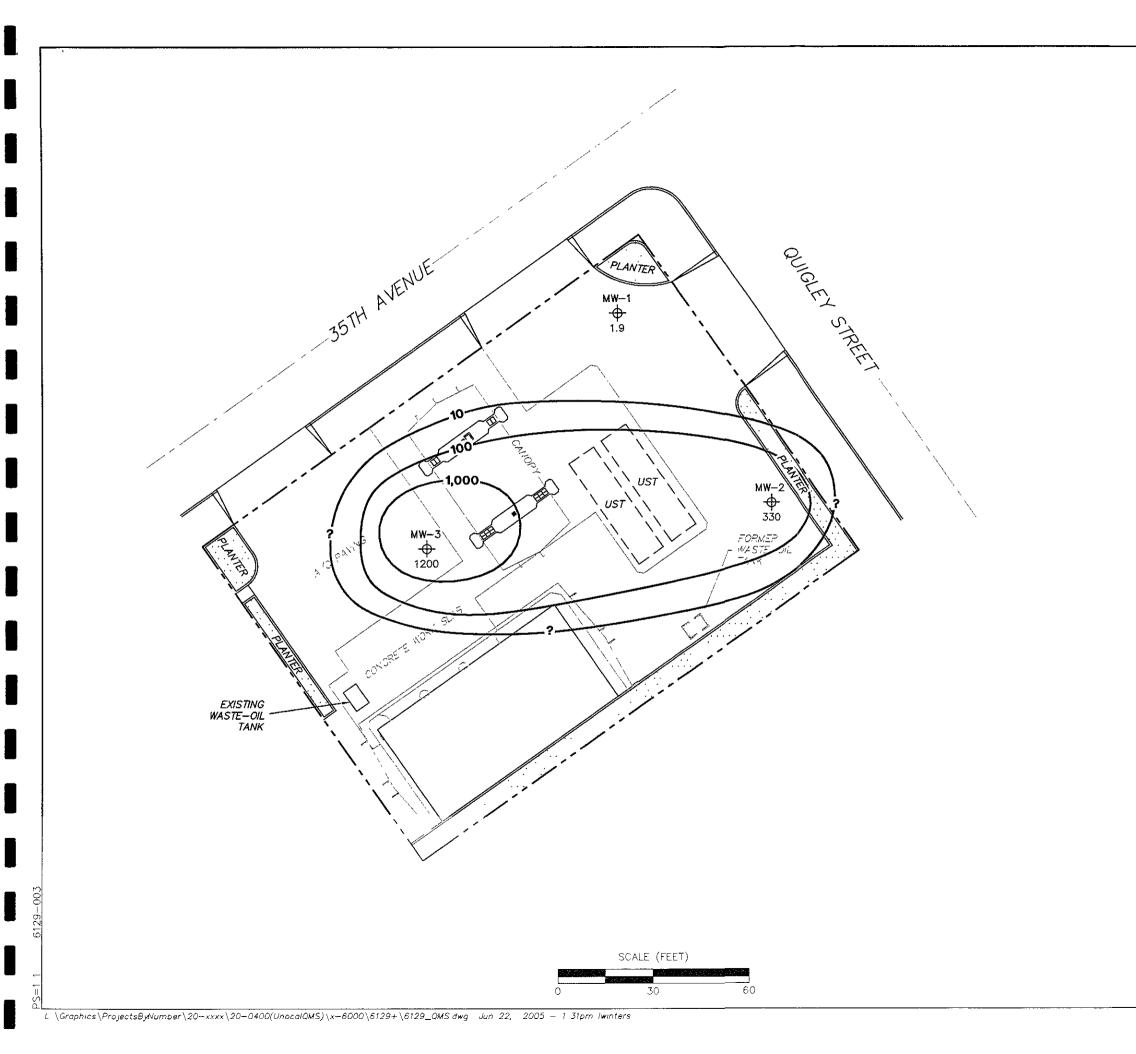
#### NOTES:

 $\mu$ g/I = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.

DISSOLVED-PHASE BENZENE CONCENTRATION MAP May 17, 2005

> 76 Station 6129 3420 35th Avenue Oakland, California







MW-3 

→ Monitoring Well with
Dissolved—Phase MTBE
Concentration (µg/l)

\_\_\_\_\_\_Dissolved—Phase MTBE Contour (µg/I)

#### NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples.

MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. UST = underground storage tank. Results obtained using EPA Method 8260B.

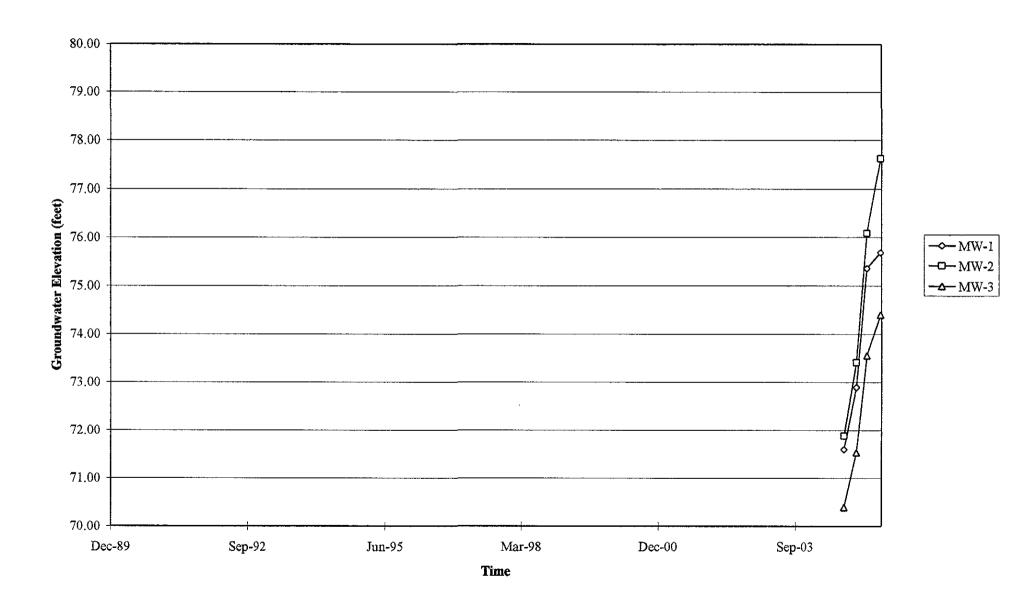
DISSOLVED-PHASE MTBE CONCENTRATION MAP May 17, 2005

> 76 Station 6129 3420 35th Avenue Oakland, Colifornia



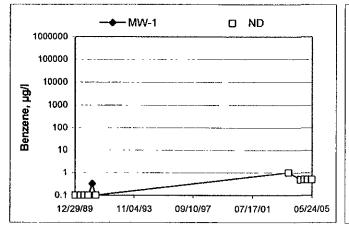
# **GRAPHS**

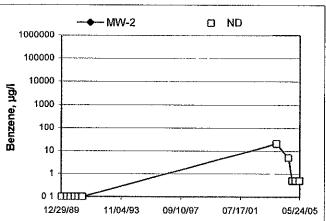
# Groundwater Elevations vs. Time 76 Station 6129

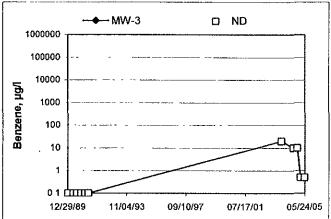


#### **Benzene Concentrations vs Time**

76 Station 6129

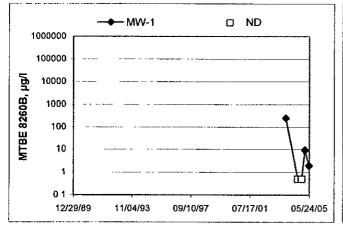


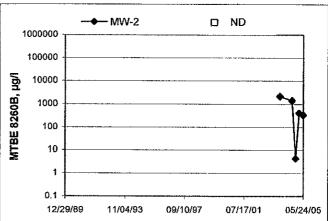


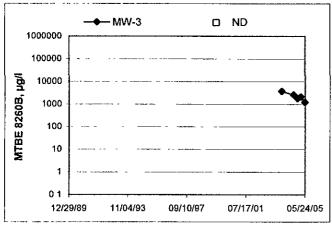


#### MTBE 8260B Concentrations vs Time

76 Station 6129







#### 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.

1/5/04 version

## FIELD MONITORING DATA SHEET

Technician: Pick P.	Job #/Task#: 4105000/FA20	Date: <u>05/17/05</u>
Site # <u>6129</u>	Project Manager A. Collins	Page of
	Depth Depth Product	

Meil #   TOC   Gauged   Depth   Water   Product   (feet)   Sampled   Misc. Well Notes			Time	Total	Depth to	Depth to	Product Thickness	Time	
MW-2 / 1212 1359 24.53 — 1330 2 (2) NO BOLTS  MW-3 / 1216 42.62 25.61 — 1338 2 (2) NO BOLTS  MW-3 / 1216 42.62 25.61 — 1338 2 (2) NO BOLTS  FIELD DATA COMPLETE QAQC COC WELL BOX CONDITION SHEETS	Well#	TOC					i i		Misc. Well Notes
MW-2 / 1212 1357 24.53 — 1330 2°(2) NO BOHS  WW-2 / 1216 42.62 25.61 — 1338 2°(2) NO BOHS  WW-2 / 1216 42.62 25.61 — 1338 2°(2) NO BOHS  FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS	MW-1	V_	1508	43.46	26.56			1323	2'(2) NO ROlts
MAW-3 / 1216 42.62 25.61 — 1338 2°(2) NO POLTS	MW-2							1330	2 (2) NO BOHS
FIELD DATA COMPLETE GA/QC COC WELL BOX CONDITION SHEETS	MW-S	/	1216	42.62	25.61			1338	2 (2) NO Bolts
							<del> </del>		
		•							
			<u> </u>					·	
						· · · · · · · · · · · · · · · · · · ·			
			<u> </u>						
		- · · · ·							
		001:5	<u> </u>	04:0=					
WTT CERTIFICATE MANIFEST DRUM INVENTORY TRAFFIC CONTROL	FIELD DATA	COMPLI	EIE	_QA/QC	<u>, – – – – – – – – – – – – – – – – – – –</u>	COC	WI	LL BOX CO	ONDITION SHEETS
WATT CENTIFICATE WATTEST DISCOVERY EXPORT TRAFFIC CONTROL	WOLL CEDIL	V ICATE		MANUECO		DDIMAIN	/ENTAIDY		FEIC CONTROL
	WIICEKII	ICATE		MANICES	<u> </u>	DLOM IM	ENVORT	IRAF	TIC CONTROL

## GROUNDWATER SAMPLING FIELD NOTES

Site:_612		Ţ	echnician ⊆	Dick R				
-	29		Project No.:	410900	201	D	ate: <u>05</u> /	17/0
Vell No.:	M1W-1			Purge Method	OTA	Sulv		
Depth to Water (feet): 26.56				Depth to Produ	ct (feet):			
Total Depth (feet): 43.46				LPH & Water P	lecovered (gallo	ns): 0		
Water Column (feel): 16.90				Casing Diamete	er (Inches):			
0% Recharge	e Depth (feet):_	29.94		1 Well Volume	(gallons):3	·		
Time	Time	Depth	Volume	Conduc-	Temperature		Trachidita	D.O.
Start	Stóp .	To Water (feet)	Purged (gallons)	tivity (uS/cm)	(F, <b>C</b> )	рH	Turbidity	<b>0</b> .0.
1000		(1001)	3	724	22.5	6.96		
1200			,	734	21.9	6.93		
	1060		<u> </u>	714	22.2			
	1250			1719	00.0	6.91		
							Ti C	
	ic at Time Sam	oled	Total Gallons Purged			Time Sampled		
	26.57		7	<u> </u>		2003		
Well No.:	•	<u></u>		Purge Method		<u>- Sul</u>	Δ	
Depth to Wate	er (leet): <u>24</u> eet): <u>43.5</u>	<u>.00</u>			uct (feet): 😥 Recovered (gall		<del></del>	
rotal Depth (fi	eet): <u>45.                                    </u>	06		Casion Diame	ter (Inches):	) ``		
80% Recharg	e Depth (feet):	28,34		1 Well Volume	e (gallons):	>		
	Time	Depth	Volume	Conduc-	Temperature	<u> </u>		
Time	l :				3			200
Time Start	Stop	To Water (feet)	Purged (gallons)	tivity (uS/cm)	(F <b>/C</b> )	pΗ	Turbidity	D.O.
Start	l :	To Water (feet)	_	(uS/cm)	1FC) 21.5		f arbidry	D.O.
	l :	ĺ	(gallons)	1 '	21.6	6.82		D.O.
Start	l :	ĺ	(gallons)	(us/cm)	21.5			D.O.
Start	Stop	ĺ	(gallons)	(uS/cm) 862 751	21.6	6.90		D.O.
Stan 1269	1303	(feet)	(gallons) 3 6	(us/cm) 862 751 755	21.5	6.90		·
Stan	N303	(feet)	(gallons) 3 6	(uS/cm) 862 751	21.5	6.82 6.90 6.84	1	·

## GROUNDWATER SAMPLING FIELD NOTES

			Technician:	Dick 1	<u> </u>				
Site: 6129			Project No.:	411050	001	-	Date: 05/17/05		
Well No.: Mw-3				Purge Method	1: 01 <b>%</b>				
Depth to Wate	er (feet): 25	3.61			luct (feet): $\theta$	<u></u>			
Total Depth (f	eel): 42.1	o2		LPH & Water	Recovered (gal	lons): 🖰			
Water Columi	n (feet): 17	.01	Casing Diameter (Inches):						
	e Depth (feet):_			1 Well Volume	e (gallons): 3	·			
Time Start	Time Stop	Depth To Water	Volume Purged	Conduc- tivity	Temperature	pH	Turbidity	D.O.	
		(feet)	(gallons)	(uS/cm)	(F,(C)				
1310			3	649	21.6	6.98			
			6	638	21.7	7.02			
<del></del>	1314		9	653	21.9	7.01		<del></del>	
<del></del>				0.00	<i>(</i> , , , )	1.01			
Ctot	ic at Time Sam	nlod	T	otal Gallons Pu	roed		Time Sample		
	27.49	pieu	_1				338		
Depth to Wate	er (feet)			Depth to Prod	i luct (feet): Recovered (gal				
	Water Column (feet): 80% Recharge Depth (feet):		Casing Diameter (Inches):  1 Well Volume (gallons):						
oo /o riccilary	s Deptit (icet)			V VVCII VOIGIJI	c (ganoris)				
Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	PH	Turbidity	D.O.	
							-	-	
								· · · · · · · · · · · · · · · · · · ·	
		1	,						
Static at Time Sampled			Total Gallons Purged Time Sampled						
Comments:		<u>L</u>		<u> </u>		<del> </del>			
	· · · · · · · · · · · · · · · · · · ·								



Submission#: 2005-05-0552

#### TRC Alton Geoscience-Irvine

May 31, 2005

21 Technology Drive Irvine, CA 92718

Attn.:

Anju Farfan

Project#: 41050001/FA20

Project:

Conoco Phillips #6129

Site:

3420 35th Ave., Oakland

Attached is our report for your samples received on 05/18/2005 16:30 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 07/02/2005 unless you have requested otherwise.

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

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

Dimple Sharma **Project Manager** 

haema



Submission: 2005-05-0552

#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

#### Samples Reported

Sample Name	🐴 🔭 Date Sampled 😘	Sadel Matrix (Cale	Lab#
MW-1	05/17/2005 13:23	Water	1
MW-2	05/17/2005 13:30	Water	2
MW-3	05/17/2005 13:38	Water	3



Submission: 2005-05-0552

#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

2005-05-0552 - 1

Prep(s): 5030B

Sample ID: MW-1

Sampled: 05/17/2005 13:23

Matrix: Water QC Batch#: 2005/05/25-2B.66

pH: <2

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	05/26/2005 02:13	
Benzene	ND	0.50	ug/L	1.00	05/26/2005 02:13	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 02:13	
Ethylbenzene	ND	0.50	ug/L	1.00	05/26/2005 02:13	
Total xylenes	ND	1.0	ug/L	1.00	05/26/2005 02:13	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	05/26/2005 02:13	
Methyl tert-butyl ether (MTBE)	1.9	0.50	ug/L	1.00	05/26/2005 02:13	
Di-isopropyl Ether (DIPE)	ND	0.50	ug/L	1.00	05/26/2005 02:13	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	05/26/2005 02:13	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	05/26/2005 02:13	
1,2-DCA	ND	0.50	ug/L	1.00	05/26/2005 02:13	
EDB	ND	0.50	ug/L	1.00	05/26/2005 02:13	
Ethanol	ND	50	ug/L	1.00	05/26/2005 02:13	
Surrogate(s)						
1,2-Dichloroethane-d4	93.2	73-130	%	1.00	05/26/2005 02:13	
Toluene-d8	102.0	81-114	%	1.00	05/26/2005 02:13	



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

Sample ID: MW-2 2005-05-0552 - 2

Sampled: 05/17/2005 13:30 Extracted: 5/26/2005 02:39

Matrix: QC Batch#: 2005/05/25-2B.66

2005/05/31-1A.66

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

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	1.00	05/26/2005 02:39	Ì
Benzene	ND	0.50	ug/L	1.00	05/26/2005 02:39	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 02:39	
Ethylbenzene	ND	0.50	ug/L	1.00	05/26/2005 02:39	
Total xylenes	ND	1.0	ug/L	1.00	05/26/2005 02:39	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	05/26/2005 02:39	
Methyl tert-butyl ether (MTBE)	330	1.0	ug/L	2.00	05/31/2005 11:52	
Di-isopropyl Ether (DIPE)	12	0.50	ug/L	1.00	05/26/2005 02:39	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	05/26/2005 02:39	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	05/26/2005 02:39	
1,2-DCA	ND	0.50	ug/L	1.00	05/26/2005 02:39	
EDB	ND	0.50	ug/L	1.00	05/26/2005 02:39	-
Ethanol	ND	50	ug/L	1.00	05/26/2005 02:39	
Surrogate(s)						
1,2-Dichloroethane-d4	107.3	73-130	%	2.00	05/31/2005 11:52	
1,2-Dichloroethane-d4	92.7	73-130	%	1.00	05/26/2005 02:39	
Toluene-d8	98.1	81-114	%	2.00	05/31/2005 11:52	
Toluene-d8	97.6	81-114	%	1.00	05/26/2005 02:39	



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

Prep(s): 5030B

Sample ID: MW-3 2005-05-0552-3

Sampled: 05/17/2005 13:38 Extracted: 5/26/2005 03:04

5/28/2005 15:49

Matrix: Water 905/05/25-2B.66

2005/05/28-1A.64

Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	1000	ug/L	20.00	05/26/2005 03:04	
Benzene	ND	0.50	ug/L	1.00	05/28/2005 15:49	
Toluene	ND	0.50	ug/L	1.00	05/28/2005 15:49	
Ethylbenzene	ND	0.50	ug/L	1.00	05/28/2005 15:49	
Total xylenes	ND	1.0	ug/L	1.00	05/28/2005 15:49	
tert-Butyl alcohol (TBA)	ND	100	ug/L	20.00	05/26/2005 03:04	
Methyl tert-butyl ether (MTBE)	1200	10	ug/L	20.00	05/26/2005 03:04	
Di-isopropyl Ether (DIPE)	ND	10	ug/L	20.00	05/26/2005 03:04	
Ethyl tert-butyl ether (ETBE)	ND	10	ug/L	20.00	05/26/2005 03:04	
tert-Amyl methyl ether (TAME)	ND	10	ug/L	20.00	05/26/2005 03:04	
1,2-DCA	ND	10	ug/L	20.00	05/26/2005 03:04	
EDB	ND	10	ug/L	20.00	05/26/2005 03:04	
Ethanol	ND	1000	ug/L	20.00	05/26/2005 03:04	
Surrogate(s)						
1,2-Dichloroethane-d4	87.6	73-130	%	1.00	05/28/2005 15:49	
1,2-Dichloroethane-d4	92.9	73-130	%	20.00	05/26/2005 03:04	
Toluene-d8	96.9	81-114	%	1.00	05/28/2005 15:49	
Toluene-d8	98.7	81-114	%	20.00	05/26/2005 03:04	



# Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Prep(s): 5030B

MB: 2005/05/25-2B:66-027

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

Batch QC Re	port 1				4
				Test(s): 8260B	Se 14 14 15
Water	Principal Control	QC	Batch # 20	105/05/25-2B.66	

Date Extracted: 05/25/2005 18:27

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/25/2005 18:27	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	05/25/2005 18:27	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/25/2005 18:27	
Di-isopropyl Ether (DIPE)	ND	0.5	ug/L	05/25/2005 18:27	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	05/25/2005 18:27	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	05/25/2005 18:27	
1,2-DCA	ND	0.5	ug/L	05/25/2005 18:27	
EOB	ND	0.5	ug/L	05/25/2005 18:27	
Benzene	ND	0.5	ug/L	05/25/2005 18:27	
Toluene	ND	0.5	ug/L	05/25/2005 18:27	
Ethylbenzene	ND	0.5	ug/L	05/25/2005 18:27	
Total xylenes	ND	1.0	ug/L	05/25/2005 18:27	
Ethanol	ND	50	ug/L	05/25/2005 18:27	
Surrogates(s)					
1,2-Dichloroethane-d4	90.8	73-130	%	05/25/2005 18:27	
Toluene-d8	95.6	81-114	%	05/25/2005 18:27	



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

		Batch G	C Report	i. Principacin G. V.II.	kanaga adalah dikeriak da belah dalah di Belah belah kanagariak da belah dalah di	
Prep(s): 5030B Method Blank MB: 2005/05/28-1A.64-0	)52 · · · · · · · · · · · · · · · · · · ·				Test(s QC Batch # 2005/05/ te Extracted: 05/28/20	1043 P. W.
		1				_

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/28/2005 08:52	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	05/28/2005 08:52	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/28/2005 08:52	
Di-isopropyl Ether (DIPE)	ND	0.5	ug/L	05/28/2005 08:52	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	05/28/2005 08:52	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	05/28/2005 08:52	
1,2-DCA	ND	0.5	ug/L	05/28/2005 08:52	
EDB	ND	0.5	ug/L	05/28/2005 08:52	
Benzene	ND	0.5	ug/L	05/28/2005 08:52	
Toluene	ND	0.5	ug/L	05/28/2005 08:52	
Ethylbenzene	ND	0.5	ug/L	05/28/2005 08:52	
Total xylenes	ND	1.0	ug/L	05/28/2005 08:52	
Ethanol	ND	50	ug/L	05/28/2005 08:52	
Surrogates(s)		-			
1,2-Dichloroethane-d4	88.0	73-130	%	05/28/2005 08:52	
Toluene-d8	96.2	81-114	%	05/28/2005 08:52	



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

	Batch C	C Report			
Prep(s): 5080B Method Blank MB: 2005/05/31-1A.66-025		ator	Alle Marie Company	Test(s <b>2005/05/3</b> : 05/31/200	Sha lella Charlela aba
	T _	m.			

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/31/2005 07:25	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	05/31/2005 07:25	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/31/2005 07:25	
Di-isopropyl Ether (DIPE)	ND	0.5	ug/L	05/31/2005 07:25	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	05/31/2005 07:25	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	05/31/2005 07:25	
1,2-DCA	ND	0.5	ug/L	05/31/2005 07:25	
EDB	ND	0.5	ug/L	05/31/2005 07:25	
Benzene	ND	0.5	ug/L	05/31/2005 07:25	
Toluene	ND	0.5	ug/L	05/31/2005 07:25	
Ethylbenzene	ND	0.5	ug/L	05/31/2005 07:25	
Total xylenes	ND	1.0	ug/L	05/31/2005 07:25	
Ethanol	ND	50	ug/L	05/31/2005 07:25	
Surrogates(s)					
1,2-Dichloroethane-d4	88.2	73-130	%	05/31/2005 07:25	
Toluene-d8	101.8	81-114	%	05/31/2005 07:25	



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

			ி, 😭 🕍 Batch QC	Report	
Prep(s):	5030B			De Ber De Bereg (* 1998) De Ber De Be	Test(s): 8260B
Laborato	ory Control	Spike	W	ater 42 Pagasa Sangasa Sangasan Bangasan	QC Batch # 2005/05/25-2B.66
LCS	2005/05/25	5-2B.66-002	Extracte	d: 05/25/2005 🗎 🕒	Analyzed: 05/25/2005 18:02
LCSD					

Compound	Conc.	Conc. ug/L Exp.Conc		. Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE) Benzene Toluene	24.0 23.4 27.1		25 25 25	96.0 93.6 108.4			65-165 69-129 70-130	20 20 20		
Surrogates(s) 1,2-Dichloroethane-d4 Toluene-d8	411 506		500 500	82.2 101.2			73-130 81-114			



# Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

	Batch	QC Report	
Prep(s). 5030B			Test(s): 8260B
Laboratory Control S	pike	when the discussion of the second sec	QC Batch # 2005/05/28-1'A.64
LCS 2005/05/28	-1A.64-028	cted: 05/28/2005	Analyzed: 05/28/2005 08:28

Compound	Conc.	ug/L	Exp.Conc.	Reco	very %	RPD	Ctrl.Lin	nits %	Fla	igs
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE) Benzene Toluene	27.0 27.3 29.5		25 25 25	108.0 109.2 118.0			65-165 69-129 70-130	20 20 20		
Surrogates(s) 1,2-Dichloroethane-d4 Toluene-d8	418 481		500 500	83.6 96.2			73-130 81-114			



# Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

.Prep(s): 5030B

Laboratory Control Spike

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

| Water: 1997   QC Batch # 2005/05/31-1A.6   | The Thi | Ğ,  | 2 | 2000 | 1 | \$2000. | 3     | 2000 | ž    | 200 | 333 | : X | 200 | 30       | 1 |          | Action Spins |               | 1228 | STATE OF | , X2, X2, |  | × × × × | Š                 | 44.6                                   | ****   | 25                      | 300 M                                     | * 62 Part 1 |  | #<br>**<br>**   
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TOTAL VALUE AND THE PROPERTY OF THE PROPERTY O		100		200		î	5,6,6

LCS 2005/05/31-1A.66-000 Extracted 05/31/2005

d: 05/31/2005 Analyzed: 05/31/2005 07:00

LCSD

Compound	Conc.	ug/L	Exp.Conc.	Recov	ery %	RPD	Ctrl.Lin	nits %	Fla	ags
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.3		25	93.2			65-165	20		
Benzene	23.3		25	93.2	}		69-129	20		
Toluene	26.7		25	106.8			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	421		500	84.2			73-130			
Toluene-d8	506		500	101.2			81-114			



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Batch QC Report	as my harangayariya
Prep(s): 5030B	Test(s): 8260B
Matrix Spike ( MS / MSD )	QC Batch # 2005/05/25-2B.66
MS/MSD	Lab ID: 2005-05-0559 - 001
MS: 2005/05/25-2B.66-031 Extracted: 05/25/2005	Analyzed: 05/25/2005 19:31
	Dilution 1.00
and the first factories. A little factories are considered and and the first factories in the considered and	Analyzed: 05/25/2005 19:56
	Dilution: 1.00

Compound	Conc.	uç	J/L	Spk.Leve	F	ecovery	%	Limit	s %	FIFI	ags
	MS	MSD	Sample	ug/L	мѕ	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether Benzene Toluene	28.5 20.0 22.3	29.1 21.2 23.0	6.52 ND ND	25 25 25	87.9 80.0 89.2	90.3 84.8 92 0	2.7 5.8 3.1	65-165 69-129 70-130	20 20 20		
Surrogate(s) 1,2-Dichloroethane-d4 Toluene-d8	432 509	440 484		500 500	86.4 101.8	88.0 96.8		73-130 81-114			



# Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

ž.	Batch	QC Report		
Prep(s): 5030B		The state of the s	out of the control of	Test(s): 8260B
Matrix Spike ( MS / MS	D)	Vater 1500	QC Batch # 2	005/05/28-1A.64
MS/MSD		ion i komungar, pagagana	Lab ID: 20	05-05-0667 - 003
MS: 2005/05/28-1A.64	I-024 Extracted 0	5/28/2005	Analyzed:	05/28/2005 11:24
* ,			Dilution:	1.00
MSD: 2005/05/28-1A.64	-048 Extracted 0	5/28/2005	Analyzed:	05/28/2005 11:48
			Dilution:	1.00

Compound	Conc.	U	g/L	Spk.Level	R	ecovery	%	Limit	s %	FI	ags
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	28.9	27.2	0.503	25	113.6	106.8	6.2	65-165	20		
Benzene	26.6	26.4	3.08	25	94.1	93.3	0.9	69-129	20		
Toluene	25.8	25.6	ND	25	103.2	102.4	0.8	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	430	413		500	85.9	82.7		73-130			
Toluene-d8	443	437		500	88.6	87.5		81-114			



# Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Prep(s): 5030B	940564
Matrix Spike ( MS / MSD ) Water QC Batch # 2005/05/3	s): 8260B 1-1A.66
MS/MSD Lab ID 2005-05-06  MS: 2005/05/31-1A.66-046 Extracted: 05/31/2005 Analyzed 05/31/20	52 - 005 05 09:46
Dilution:  MSD: 2005/05/31-1A.66-011	5.00 05 10:11 -

Compound	Сопс.	u	g/L	Spk.Leve	F	Recovery	%	Limit	s %	FI	ags
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec	RPD	MS	MSD
Methyl tert-butyl ether	107	117	ND	125	85 6	93.6	8.9	65-165	20		
Benzene	108	129	19.7	125	70.6	87 4	21.3	69-129	20		R1
Toluene	156	165	50.5	125	84.4	91.6	8.2	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	456	461		500	91.2	92 2		73-130			
Toluene-d8	482	467		500	96,4	93 4		81-114			



#### Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001/FA20

Conoco Phillips #6129

Received: 05/18/2005 16:30

Site: 3420 35th Ave., Oakland

#### Legend and Notes

#### **Analysis Flag**

L2

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

#### **Result Flag**

R1

Analyte RPD was out of QC limits.

# STL San Francisco

TL San Francisco S:	ample Receipt Ch	ecklis	it.	
Submission #:2005-		2 m/ m/s 2 m/		and the second s
Checklist completed by:	7	<b>1962</b>	DATE	LE 146 100°
Courier: STL SF	Courier   Feitex UPS	Other	1	Climit 17
Log-In Detà		Yes	S No.	Comments
Custody seals intact on shipping con	tainer/samples		1	* ** * * *
Chain of custody present?		1		
Chain of custody signed when relinq	uished and received?			Pick of Arc at Secure Listableri Chambiguned will at the emerica bick-up. "
All samples checked when COC relin	quished			,
Chain of custody agrees with sample	: labels?			
Samples in proper container/bottle?	,			
Sample containers intact?				and the first the contract of the
8. Sufficient sample volume for indicat	ed lest?		,	
All samples received within holding	time?		<u> </u>	
	Cooler Temperature Com	pliance Ch	eck	
Temperature Blank Reading	Il no imp stank a nationalist Individual temperaturas must the laten as per SUP	12	19/3	Prefure Average    Average
Reason for Elevated Temp		<u> </u>	≥>`oanii	resouthment of comments.
Samp. in boxes Sampled < 4h				* * * * * * * * * * * * * * * * * * * *
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Are bubbles present in any of the VOA				
Water - pH acceptable upon receipt?	Yes: Now		Sampl	es with Unacceptable pH
D pH adjusted~ Preservative used:		. □ NaOH		
	Comment	š: <u> </u>	.0825	A State to the state of the sta
Water - pH acceptable upon receipt? ☐ pH adjusted - Preservetive used:	Yes: No Financial Hyso Comment	O NaOH	□ ZnOA	es with Unacceptable PH
Project Management [Routing for Insti	}			A STATE OF THE STA
Project Manager: (initials) Summary of discussion:		Cii	ient con	tacted: Yel M
Corrective Action (per PM/Client):	,			2008 Churchina Par. I.S

#### STL-San Francisco

# ConocoPhillips Chain Of Custody Record

1220 Quarry Lane Pleasanton, CA 94566

ConocoPhillips Site Manager: INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS Attn: Dee Hutchinson 3611 South Hathor, Suite 200 4983 TRLGOI ConocoPhillips.Cost Object

CongcoPhillips Work Order Number

DATE: 05/17/05

(925) 484-1919 (925) 484-1096 fax GLOBALIE NO. TRC TD6001014165 ADC REES. 21 Technology Drive, Irvine CA 92618 th Ave. OALLAND PROJECT CONFACT (Hardcopy or POF Report to). Anju Farfan TELEPHONE. E-MAIL: Peter Thomson, TRC 949-341-7408 949-341-7440 949-753-0111 afarfan@ircsolutions.com pthomson@tresolutions.com CAMPLEANCE MESS) (Porce) nerwin toekert fraterdo REQUESTED ANALYSES 410S0001/FA20 TURNAHOUND TIME [CALENDAR DAYS] 8 ठरप्ट 8260B - TPHI I BTEX / 8 Oxygenate: ☐ LA DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 46 HOURS ☐ 74 HOURS ☐ EESS THAN 24 HOURS FIELD NOTES: SPECIAL INSTRUCTIONS OR NOTES: B250B - TPHBIBTEXIMBE CHECK BOX IF EDD IS NEEDED M BTEX# Container/Preservative CISTLC 8270C - Semi-Voladius or PID Readings SALO or Laboratory Hotes Official \* Field Point name only required if different from Sample (D Sample Identification/Field Point SAMPLING 160, 13¢ EAMPENATURE ON RECEIPT OF CONT. DATE | TIME Name\* COST. V

#### **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.