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December 18, 2006

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC c/o Ms. Mary Schroeder, McMorgan & Company LLC One Bush Street, Suite 800 San Francisco, California 94104

RE: Fourth Quarter 2006 Groundwater Monitoring Report 300 Hegenberger Road, Oakland, California *ACC Project No.6748-017-00* 

Dear Ms. Schroeder:

Enclosed is the Fourth Quarter Groundwater Monitoring Report describing the groundwater monitoring activities conducted for all monitoring wells at 300 Hegenberger Road, Oakland, California. On your behalf, ACC will send an electronic copy of this Report to Mr. Barney Chan at Alameda County Environmental Health.

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109.

Sincerely,

David R. DeMent, PG, REA II Environmental Division Manager

/lmb:drd

**Enclosures** 



# FOURTH QUARTER 2006 GROUNDWATER MONITORING REPORT

Subject Property 300 Hegenberger Road Oakland, California

ACC Project Number 6748-017-00

# Prepared for:

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC c/o Ms. Mary Schroeder, McMorgan & Company LLC One Bush Street, Suite 800
San Francisco, California 94104

December 18, 2006

Prepared By:

Lorena Benitez Staff Geologist

Reviewed By:

David DeMent, PG, REA II Division Manager / Senior Geologist

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- 2 Analytical Results and Chain of Custody Record

# FOURTH QUARTER 2006 GROUNDWATER MONITORING REPORT

# 300 Hegenberger Road Oakland, California

#### 1.0 INTRODUCTION

This Fourth Quarter 2006 Groundwater Monitoring Report was prepared by ACC Environmental Consultants, Inc., (ACC) at the request of McMorgan & Company LLC on behalf of The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF. Work was performed at the subject property located at 300 Hegenberger Road, Oakland, California (Site). The project objectives were to: 1) measure the groundwater levels in each well and calculate the groundwater elevation, gradient, and flow direction; 2) obtain representative water samples from the seven existing groundwater monitoring wells and analyze the water samples for petroleum hydrocarbon constituents as gasoline and/or diesel; and 3) report the findings.

The general goal of this groundwater monitoring and sampling event was to determine current groundwater conditions, evaluate the changes in concentrations of constituents of concern, and obtain current groundwater quality data to further develop a Conceptual Site Model (CSM).

#### 2.0 BACKGROUND

The Site is located at 300 Hegenberger Road in the southeast corner of the intersection of Hegenberger Road and Hegenberger Loop. The rectangular lot is approximately 250 feet long by 200 feet wide and is approximately 9 feet above mean sea level.

The available data indicate that a series of subsurface investigations have been conducted at the Site since 1997. A site assessment in April 1997 indicated the presence of petroleum hydrocarbons in soils and groundwater beneath the Site but no reportable concentrations of methyl tertiary butyl ether (MTBE). A subsequent investigation conducted in July and October 1997 confirmed previous investigation findings and that no underground storage tanks (USTs) remained at the Site.

Tetra Tech EM Inc. (Tetra Tech) installed five 2-inch-diameter groundwater monitoring wells in November 1998. The five monitoring wells were screened from 5 to 20 feet below ground surface (bgs). Well MW-1 was subsequently destroyed in December 1999 and well MW-6 was installed in the estimated downgradient direction of the former waste oil tank. Well MW-6 was screened from 10 to 20 feet bgs. In December 2000, Tetra Tech installed offsite wells MW-7 and MW-8 estimated to be in the downgradient direction of the Site. Wells MW-7 and MW-8 were screened from 5 to 20 feet bgs. Groundwater monitoring was performed periodically from December 1998 to October 2001 in the existing wells.

Tetra Tech reported the findings of a Sensitive Receptor Survey in its March 8, 2001 Fourth Quarter Groundwater Monitoring Report, December 2000. According to the California Department of Water resources, 40 monitoring wells and two irrigation wells were located at 11 sites within the search distance. One irrigation well is reportedly located approximately 500 feet

cross gradient from the Site and a second irrigation well is located approximately 2,800 feet crossgradient of the Site.

#### 2.1 Subsurface Conditions

Soil boring logs from wells MW-7 and MW-8, included in the March 8, 2001 Fourth Quarter Groundwater Monitoring Report, December 2000, indicate that clay and silty clay is present from the surface to the minimum depth of 11.5 feet bgs and sandy gravels and sands are present from approximately 12 to 15 feet bgs to 20.5 feet bgs, the total depth of the soil borings. Silty clays logged at 10 to 10.5 feet bgs are described as dry to moist, medium plasticity, and medium stiff. Sandy gravels logged from 15 to 16 feet bgs are described as saturated, coarse to fine grained sand, and fine to medium grained gravel.

The data summarized in the soil boring logs directly contradicts other conclusions presented in the March 8, 2001 Fourth Quarter Groundwater Monitoring Report, December 2000. In the Subsurface Soil Conditions and Hydrology section of the report, Tetra Tech states that "Groundwater is usually encountered within five feet bgs," and in the Preferential Pathways section "the utility trenches may act as preferential pathways and could allow for movement of petroleum hydrocarbons to the north and west beyond the site." Saturated permeable soils are not logged shallower than 12 feet bgs. Utility trenches in the vicinity of the Site likely exist no deeper than seven feet bgs, therefore, interception or preferential movement of groundwater along utility trenches is highly unlikely. Groundwater elevations are typically measured approximately 5 feet bgs in the monitoring wells due to semi-confined aquifer conditions.

#### 3.0 GROUNDWATER MONITORING AND SAMPLING

ACC conducted groundwater monitoring on November 16, 2006. Work at the Site included measuring depth to water, subjectively evaluating groundwater in the wells, purging and sampling the wells, and submitting the samples to a state-certified laboratory for analysis.

## 3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride well casing using a Solinst water level meter. Well elevation data reported by Tetra Tech indicate the groundwater monitoring wells were resurveyed relative to mean sea level in December 2000. ACC measured depth to water using an electronic Solinst meter and the water level measurements were recorded to the nearest 0.01 foot. Information regarding well elevations and groundwater depths is summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

		(1)		
Well No.	Date Sampled	Well Elevation <sup>(1)</sup>	Depth to	Groundwater
		(above MSL)	Groundwater	Elevation
MW-1	12/02/98	100.74	2.90	97.84
	03/08/99		3.43	97.31
	07/01/99		3.81	96.93
	08/18/99		3.62	97.12
	09/15/99		3.69	97.05
	12/27/99		3.81	96.93
	12/99		Well Destroyed	Well Destroyed
MW-2	12/02/98	102.44	4.61	97.83
	03/08/99		5.16	97.28
	07/01/99		5.91	96.53
	08/18/99		5.53	96.91
	09/15/99		5.55	96.89
	12/27/99		5.55	96.89
	03/24/00		5.44	97.00
	06/09/00	0.07(2)	 5.00	FP
	12/14/00	$9.05^{(2)}$	5.00	4.05
	05/07/01		5.69	3.36
	10/04/01		5.60	3.45
	02/09/05		5.00	4.05
	05/16/05		3.98	5.07
	11/16/05		5.23	3.82
	02/09/06		4.77	4.28
	05/19/06		5.51 5.32	3.54 3.73
	08/17/06 11/16/06		3.32 4.77	4.28
MW-3	12/02/98	102.00	4.77	97.76
IVI VV - 3	03/08/99	102.00	4.90	97.10
	07/01/99		5.35	96.65
	08/18/99		5.21	96.79
	09/15/99		5.26	96.74
	12/27/99		5.42	96.58
	03/24/00		5.81	96.19
	06/09/00		5.43	96.57
	12/14/00	$8.60^{(2)}$	4.85	3.75
	05/07/01		5.37	3.23
	10/04/01		5.27	3.33
	02/09/05		4.45	4.15
	05/16/05		3.81	4.79
	11/16/05		4.90	3.70
	02/09/06		4.41	4.19
	05/19/06		5.35	3.25
	08/17/06		4.10	4.50
	11/16/06		4.43	4.17
MW-4	12/02/98	100.00	2.20	97.80
	03/08/99		2.80	97.20
	07/01/99		5.23	64.77
	08/18/99		5.00	95.00
	09/15/99		4.99	95.01
	12/27/99		5.23	94.77
	03/24/00		5.39	94.61

Well No.	Date Sampled	Well Elevation <sup>(1)</sup>	Depth to	Groundwater
		(above MSL)	Groundwater	Elevation
MW-4	06/09/00		5.24	94.76
cont	12/14/00	$8.50^{(2)}$	4.60	3.90
	05/07/01		5.20	3.30
	10/04/01		5.08	3.42
	02/09/05		4.45	4.05
	05/16/05		3.98	4.52
	11/16/05		4.72	3.78
	02/09/06		4.24	4.26
	05/19/06		5.02	3.48
	08/17/06		5.76	2.74
	11/16/06		4.26	4.24
MW-5	12/02/98	102.22	4.59	97.63
1,1,1,0	03/08/99	102.22	5.20	97.02
	07/01/99		5.59	96.63
	08/18/99		5.37	96.85
	09/15/99		5.55	96.67
	12/27/99		5.48	96.74
	03/24/00		6.02	96.20
	06/09/00		5.59	96.63
	12/14/00	8.84 <sup>(2)</sup>	5.10	3.74
	05/07/01	0.01	5.52	3.32
	10/04/01		5.45	3.39
	02/09/05		4.90	3.94
	05/16/05		3.92	4.92
	11/16/05		5.10	3.74
	02/09/06		4.60	4.24
	05/19/06		4.35	4.49
	08/17/06		4.16	4.68
	11/16/06		4.61	4.23
MW-6	03/24/00	102.58	5.49	97.09
IVI VV -O	06/09/00	102.36	5.87	96.71
	12/14/00	$9.19^{(2)}$	5.13	4.06
	05/07/01	9.19	5.89	3.30
	10/04/01		5.71	3.48
	02/09/05		5.20	3.46
	05/16/05		3.98	5.21
	11/16/05		5.34	3.85
	02/09/06		3.34 4.92	3.83 4.27
	05/19/06		5.71	3.48
	08/17/06		5.41	3.78
	11/16/06		5.41 4.94	3.78 4.25
MW-7		8.10 <sup>(2)</sup>	3.48	
IVI W - /	12/14/00	8.10		4.62
	05/07/01		5.13	2.97
	10/04/01		4.87	3.23
	02/09/05		4.15	3.95
	05/16/05		3.79	4.31
	11/16/05		4.55	3.55
	02/09/06		4.92	3.18
	05/19/06			2.40
	08/17/06		4.61	3.49
	11/16/06		4.57	3.53

Well No.	Date Sampled	Well Elevation <sup>(1)</sup> (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-8	12/14/00 05/07/01 10/04/01 02/09/05 05/16/05 11/16/05 02/09/06 05/19/06 08/17/06 11/16/06	8.68 <sup>(2)</sup>	5.10 5.74 5.52 4.80 3.41 5.28 4.58  5.12 3.98	3.58 2.94 3.16 3.88 5.27 3.40 4.10  3.56 4.70

Notes: All measurements in feet

# 3.2 Groundwater Gradient

The calculated groundwater flow direction and gradient, as determined from monitoring well data obtained on November 16, 2006, is illustrated on Figure 3. The calculated groundwater gradient averaged 0.004 foot per foot to the northwest. Historical groundwater gradients and calculated flow directions are summarized in Table 2.

TABLE 2 – GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Gradient (foot/foot)	Direction
12/02/98	0.00091	West
03/08/99	0.00086	Southwest
07/01/99	0.0011	Southwest
08/18/99	0.0013	West
09/15/99	$0.04089^{(1)}$	North <sup>(1)</sup>
	$0.00125^{(5)}$	West
12/27/99	$0.0010^{(5)}$	West <sup>(5)</sup>
	$0.0489^{(1)}$	North <sup>(1)</sup>
03/29/00	$0.0469^{(1)}$	Northwest
	$0.0131^{(2)}$	West-Southwest
06/09/00	$0.03^{(3)}$	North
	$0.0011^{(2)}$	South-southwest
12/14/00	$0.003^{(1)}$	North
	$0.006^{(4)}$	North
05/07/01	0.0014	Northwest
	$0.0025^{(6)}$	Northwest
10/04/01	0.0013	Northwest
	$0.001^{(6)}$	Northwest
02/09/05	0.001	Southwest
05/16/05	0.004	West-Northwest
11/16/05	0.002	Northwest
02/09/06	0.001	Northwest
05/19/06	0.003	Northwest
08/17/06	$0.008^{(7)}$	Northwest

<sup>(1)</sup>Well elevation measured to top of casing

<sup>(2)</sup> Well elevation relative to established City of Oakland Benchmark (feet above sea level)

Date Monitored	Gradient (foot/foot)	Direction		
11/16/06	0.004	Northwest		

Notes:

- (1) Flow component from MW-2 to MW-4
- (2) Flow component from MW-6 to area of MW-5
- (3) Flow component from MW-2, MW-3, and MW-4 and from MW-6 to MW-4
- (4) Flow component from MW-7 to MW-8
- (5) Flow component among wells MW-2, MW-3, and MW-5
- (6) Flow component from MW-3 to MW-7
- (7) Flow component among wells MW-3, MW-5, MW-7, and MW-8

### 3.3 Groundwater Sampling

Before groundwater sampling, each well was purged using a disposable polyethylene bailer. Groundwater samples were collected after four well casing volumes of water were measured for temperature and dissolved oxygen (DO), and removed. Following purging, each well was allowed to recharge before sampling. When recovery to 80 percent of the static water level was observed, a sample was collected for analysis. Groundwater conditions monitored during purging and sampling were recorded on monitoring well worksheets, included as Appendix 1.

Wells were sampled using disposable polyethylene bailers attached to a new rope for each well. From each monitoring well, approved, laboratory-supplied sample vials were filled to overflowing and sealed to eliminate trapped air in the vial. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled with self adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to Curtis & Tompkins, a state-certified analytical laboratory, for analysis.

Water purged during the development and sampling of the monitoring wells was temporarily stored onsite in Department of Transportation approved 55-gallon drums pending laboratory analysis and proper disposal.

#### 4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from each well were submitted to Curtis & Tompkins following chain of custody protocol. All groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 3510/8015M, TPH as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and MTBE by EPA Method 8260B. A copy of the chain of custody record and laboratory analytical reports is included as Appendix 2. A summary of the groundwater results obtained from each monitoring well is presented in Table 3.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well No.	Date Sampled	TPHd (µg/L)	TPHg (μg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)
MW-1	12/02/98	<50	<50		< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,1	03/08/99	190	<50		< 0.3	<0.3	<0.3	<0.3
	07/01/99	<50	<50		< 0.5	< 0.5	< 0.5	< 0.5
	08/18/99	<50	3,100		< 0.5	9.6	12	12
	09/15/99	<50	<50		< 0.5	<0.5	< 0.5	< 0.5
	12/27/99							
	Destroyed							
MW-2	12/02/98	99	<50		4.6	0.85	0.57	5
	03/08/99	210	180		200	0.74	1.3	2.3
	07/01/99	< 50	1,100		190	13	33	36
	08/18/99							
	09/15/99	100	990		330	9.7	11	19
	12/27/99	< 50	1,000		260	7.2	1.3	10
	03/24/00	31,000	1,900		110	4.8	9.5	12
	06/09/00							
	12/14/00	470	1,600	<2	450	18	61	26
	05/07/01	300	950		120	5.8	8.5	32
	10/04/01	170	370		55	2.8	17	4.2
	02/09/05	< 50	160	< 0.50	69	1.2	1.3	<1.0
	05/16/05	140	650	< 0.50	96	4.7	15	7.5
	11/16/05	160 <sup>1</sup>	54 <sup>1</sup>	< 0.50	19	< 0.5	< 0.5	< 0.5
	02/09/06	230 1	250	< 0.50	160	4.0	3.9	2.1
	05/19/06	210 1	< 50	< 0.50	7.8	< 0.50	< 0.50	< 0.50
	08/17/06	460 1,2,3	500	< 2.0	220	14	17	28.1
	11/16/06	370 <sup>1,3</sup>	190	19	20	1.1	0.58	0.72
MW-3	12/02/98	300	970		160	6.5	16	9
	03/08/99	1,400	2,600		1,800	30	67	26
	07/01/99	150	3,000		1	< 0.5	32	36
	08/18/99							
	09/15/99	110	1,100		350	8.3	5.4	10
	12/27/99	70	560		170	2.1	7.6	3.1
	03/24/00	1,000	8,400		4100	71	190	75
	06/09/00	320	2,700		1,100	17	18	<10
	12/14/00	<100	710	< 0.5	140	2.2	3.3	1.2
	05/07/01	<400	1,500		270	7.9	11	5.6
	10/04/01	< 50	140 7.700	 -5 O	45 670	<0.3	1.3	< 0.6
	02/09/05 05/16/05		7,700	<5.0 <5.0	670	16 20	83	36 49
	11/16/05	55 <sup>1</sup>	7,100 270 <sup>1</sup>	<5.0 <0.5	1,200 30	0.61	110 <0.5	<0.5
	02/09/06	3,000 <sup>1</sup>	3,700	<0.5 <0.50	720	12	<0.5 50	29.9
	02/09/06	510 <sup>1</sup>	1,700	<0.30	300	4.2	17	29.9 11
	03/19/06	$430^{1,2,3}$	650	<0.50	78	1.2	1.2	1.4
	11/16/06	<50	170	2.7	12	< 0.50	< 0.50	< 0.50
MW-4	12/02/98	620	<50	2.1	1.1	0.37	<0.30	2
1V1 VV -4	03/08/99	<50	1,300		1,900	9.4	1.2	11
	07/01/99	<50	610		1,900	<0.5	<0.5	< 0.5
	08/18/99						<0.5 	
	09/15/99	59	830		320	6.5	1.7	<2.0

Wall No	Data	TPHd	TDII	MTBE	D	Та1	E4b1	Total
Well No.	Date		TPHg		Benzene	Toluene	Ethyl-	Total
	Sampled	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	benzene	Xylenes
							(µg/L)	(µg/L)
	12/27/99	<50	55		5.8	<0.5	< 0.5	<0.5
	03/24/00	77	430		240	3.3	0.98	1.5
	06/09/00	< 50	220		91	0.93	< 0.5	< 0.5
	12/14/00	< 50	96	< 0.5	15	< 0.5	< 0.5	< 0.5
	05/07/01	<100	380		130	2.5	1.7	2.5
	10/04/01	< 50	76		21	< 0.3	< 0.3	< 0.6
	02/09/05		2,000	< 2.5	440	12	9.3	7.6
	05/16/05		2,400	< 2.5	610	16	11	8.0
	11/16/05	520 <sup>1</sup>	490 1	<1.0	170	4.5	3.3	2.3
	02/09/06	2,000 1	1,500	<1.0	630	16	10	9.3
	05/19/06	< 50	220	< 0.71	120	2.4	< 0.71	1.0
	08/17/06	$1,500^{1,2,3}$	1,300	<3.1	480	13	9.4	6.5
	11/16/06	4301,2	6,100	< 2.0	1,300	48	53	27
MW-5	12/02/98	620	< 50		1.1	0.37	< 0.3	2
	03/08/99	< 50	58		23	0.31	< 0.3	1.8
	07/01/99	64	1,900		160	10	13	22
	08/18/99							
	09/15/99	< 50	410		64	2.1	1.3	2.7
	12/27/99	< 50	130		15	0.73	< 0.5	< 0.5
	03/24/00	460	2,500		560	57	18	87
	06/09/00	140	2,600		770	63	15	71
	12/14/00	< 50	220	< 0.5	17	0.63	1.7	1.1
	05/07/01	<200	3,200		450	44	54	66
	10/04/01	< 50	< 50		3.6	< 0.3	< 0.3	< 0.6
	02/09/05	57	1,100	0.58	160	14	50	9.6
	05/16/05	340	4,700	<10	730	79	340	36
	11/16/05	<50	120 1	0.57	18	< 0.5	< 0.5	< 0.5
	02/09/06	100 1	180	< 0.50	33	2.2	2.1	1.8
	05/19/06	<50	1,400	<5.0	630	55	79 5.2	19.1
	08/17/06	270 <sup>1,2,3</sup>	280	0.52	41	1.9	5.3	0.79
MANA	11/16/06	<50	76	<2.0	4.8	<0.50	<0.50	<0.50
MW-6	03/24/00 06/09/00	470	2,400		430	16	340	73
		<50	540		190	1.2	3.7	4.5
	12/14/00 05/07/01	<50 <50	<50 <50	< 0.5	0.51 4.4	<0.5 <0.5	<0.5 <0.5	0.94 <0.5
	10/04/01	<50 <50	<50 <50		<0.3	<0.3	<0.3	<0.5
	02/09/05	<50 <50	<50 <50	< 0.50	0.94	< 0.50	<0.50	<1.0
	05/16/05	<50 <50	<50 <50	< 0.50	0.55	< 0.50	< 0.50	<1.0
	11/16/05	270	<50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
	02/09/06	65 1	<50	< 0.50	0.64	< 0.50	< 0.50	< 0.50
	05/19/06	390 <sup>1</sup>	600	<1.3	180	15	35	20.4
	08/17/06	150 1	<50	< 0.50	1.1	< 0.50	< 0.50	< 0.50
	11/16/06	<50	<50	<2.0	< 0.50	< 0.50	< 0.50	< 0.50
MW-7	12/14/00	< 50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	05/07/01	<50	<50		< 0.5	< 0.5	< 0.5	< 0.5
	10/04/01	<50	<50		< 0.3	< 0.3	< 0.3	< 0.6
	02/09/05		< 50	0.55	< 0.50	< 0.50	< 0.50	<1.0
	05/16/05		< 50	< 0.50	< 0.50	< 0.50	< 0.50	<1.0
	11/16/05	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	02/09/06	81 1	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/19/06							

Well No.	Date Sampled	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)
	08/17/06	110 1	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	11/16/06	< 50	< 50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50
MW-8	12/14/00	< 50	< 50	0.52	< 0.5	< 0.5	< 0.5	< 0.5
	05/07/01	< 50	< 50		< 0.5	< 0.5	< 0.5	< 0.5
	10/04/01	< 50	< 50		< 0.3	< 0.3	< 0.3	< 0.6
	02/09/05		< 50	< 0.50	< 0.50	< 0.50	< 0.50	<1.0
	05/16/05		< 50	< 0.50	< 0.50	< 0.50	< 0.50	<1.0
	11/16/05	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	02/09/06	72 1	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/19/06							
	08/17/06	120 <sup>1</sup>	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.51
	11/16/06	<83	< 50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50

Notes: ug/L = micrograms per liter (approximately equivalent to ppb)

--- = analysis not performed

Select data flags have been removed from the previously reported data table

#### 5.0 DISCUSSION

The calculated groundwater flow direction is towards the northwest at a gradient of 0.004 foot per foot. These values are generally consistent with historical trends and should be expected based on local topography and surface water drainage pathways. ACC used groundwater data from wells MW-2, 3, 4, and 7 only because: 1) using all monitoring well data resulted in an anomalous groundwater flow direction to the southeast; and 2) the established groundwater flow direction trend has been to the northwest.

Reported TPHd, TPHg, and BTEX concentrations increased in well MW-4 and decreased in wells MW-2, MW-3, MW-5, MW-6, MW-7, and MW-8. Reported TPHg and benzene concentrations in monitoring well MW-4 were 6,100  $\mu$ g/L and 1,300  $\mu$ g/L, respectively. TPHd, TPHg, BTEX, and MTBE were not detected above their respective laboratory reporting limits in wells MW-6, MW-7, and MW-8.

In comparison to the August 2006 sampling event, TPHd, TPHg, and BTEX concentrations generally decreased in monitoring wells MW-2, MW-3, MW-5, MW-6, MW-7, and MW-8. Periodic groundwater monitoring results obtained since December 1998 have demonstrated that a residual source of petroleum hydrocarbon impact to groundwater appears to exist in soil in the vicinity of and/or upgradient of perimeter monitoring wells MW-3 and MW-4. This residual soil impact to groundwater continues to fluctuate but is generally decreasing with time in most of the monitoring wells.

Sometime following this sampling event, well MW-8 was destroyed by the property owner under permit from the Alameda County Public Works Agency (ACPWA). Monitoring well MW-8 was apparently installed without an access agreement and the well owner was not on record with the ACPWA.

<sup>&</sup>lt;sup>1</sup> Chromatographic pattern does not resemble standard

<sup>&</sup>lt;sup>2</sup> Lighter hydrocarbons contributed to the quantitation

<sup>&</sup>lt;sup>3</sup> Heavier hydrocarbons contributed to the quantitation

#### 6.0 CONCLUSIONS

Based on findings of this well monitoring and sampling event, and comparison to historical well monitoring and sampling data, ACC concludes the following:

- The calculated groundwater flow direction and gradient is generally consistent with historical trends and reflects the flat local topography and local surface drainage to San Francisco Bay;
- TPHd, TPHg, and BTEX concentrations continue to fluctuate, however reported concentrations do not indicate a significant source of petroleum hydrocarbon impact to groundwater;
- TPHd, TPHg, BTEX, and MTBE were not reported in downgradient monitoring wells MW-7 and MW-8 and upgradient monitoring well MW-6;
- TPHd concentrations were not detected above their respective laboratory reporting limits in wells MW-3 and MW-5; and
- Natural attenuation processes are preferentially degrading BTEX and reported petroleum hydrocarbon concentrations indicate that no significant concentrations are migrating off the property.

#### 7.0 RECOMMENDATIONS

Based on our review of historical site investigation findings and the results of recently completed groundwater monitoring, ACC recommends the following:

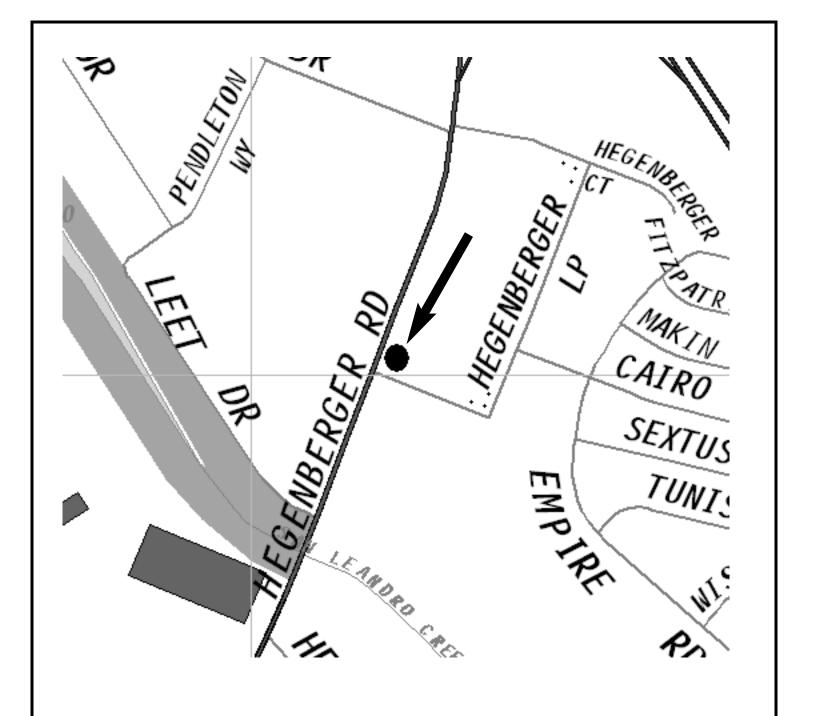
- Requesting temporarily ceasing groundwater monitoring and sampling pending review of ACC's December 2006 Subsurface Investigation Report and completion of any recommended remedial action;
- Prepare and submit a Remedial Action Plan (RAP) to implement active source removal; and
- Request evaluating the Site for full regulatory closure as a "low risk fuel case" following successful completion of the recommended remedial action, revising the Site Conceptual Model (SCM) accordingly, and obtaining acceptable confirmation sidewall soil sample analytical results.

### 8.0 LIMITATIONS

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

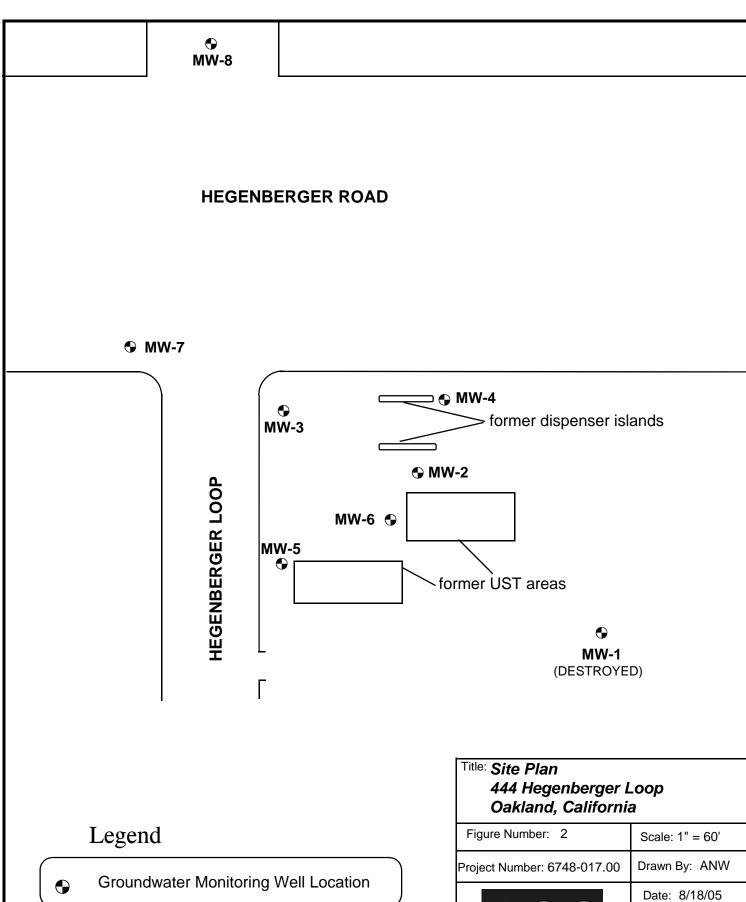
ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.



Source: The Thomas Guide, Bay Area, 2004

# Title: Location Map 444 Hegenberger Loop

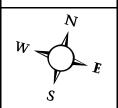
Oakiand, California	a
Figure Number: 1	Scale: None
Project Number: 6748-017.00	Drawn By: ANW
A.C.C	Date: 06/18/05
ENVIRONMENTAL CONSULTANTS	$W \longrightarrow W$
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404	S E

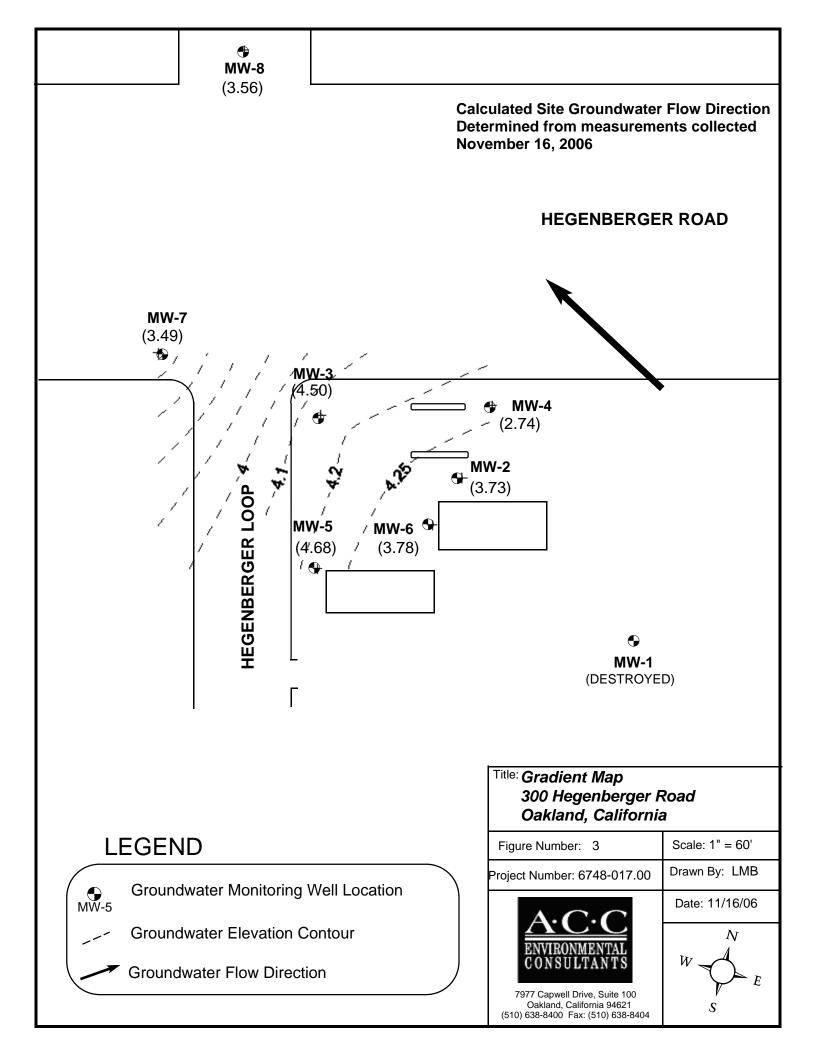


**Groundwater Monitoring Well Location** 



7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404







# ACC MONITORING WELL WORKSHEET

The state of the s				· · · · · · · · · · · · · · · · · · ·				7100 1013	
JOB NAME:					PURGE METHOD: MANUAL RAIL				
SITE ADDRESS: 300 HEGENBERGER					D BY:	LM			
JOB#: 6748-617.00					TORY:				
· ·					IS: TP	Hd.	TPHg.	BTEX. MTBE	
Onsite Drum Inventory SOIL:	-			MONITO			0	DEVELOPING []	
EMPTY: WATER: /@/	20%	104	10%	BAMPLIN	10 12K		. '		
	:DIJReis								
	<b>9</b> (0)		PURGI	z derecte	ri iraniya	oligieis)		GIBISERWATIONS	
WELLS MW-2	(Gal)	На	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth	
DEPTH OF BORING: /9.35	2.5							Sheen	
DEPTH TO WATER: 4.77	5.0							Odor Type FUEL	
WATER COLUMN: 14.58	7.5							Free Product	
<b>WELL</b> DIAMETER: 2"	10.0		66.2				2.6	AmountType	
WELL VOLUME: 2.5								Other	
COMMENTS:							÷		
							-		
			ļ.						
WELL: MW-3	(Gal)	pН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth	
DEPTH OF BORING: /6.35	2.6		<u>.</u>					Sheen	
DEPTH TO WATER: 4.43	4.0					<u></u>		Odor Type FUEL	
WATER COLUMN: 11.92	6.0			·				Free Product	
WELL DIAMETER: 2"	8.0	<u> </u>	65.9				2.3	AmountType	
WELL VOLUME: 2.0			ļ			<b> </b>	<u> </u>	Other	
COMMENTS:						-	<u> </u>		
		ļ							
			ļ						
WELL: MW-4	(Gal)	pH-	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth	
DEPTH OF BORING: 19.33	2.5							Sheen	
DEPTH TO WATER: 4.16	5.0	<u>                                     </u>	<u> </u>		<u> </u>			X Odor Type FUEL	
WATER COLUMN: /5.07	7.5		<u>  ·                                     </u>					Free Product	
WELL DIAMETER: 2"	10.0		65.7				2.1	Amount Type	
WELL VOLUME: 2,5								Other •	
COMMENTS:	_ 1								
•									
		1	1		1	<del>                                     </del>	1	7	



# ACC MONITORING WELL WORKSHEET

A COMPANY AND A COMPANY	***************************************		T				·	146t2 of 5
JOB NAME:					•		AUVA	L BAIL
SITE ADDRESS: 300 HEGENBERGER					D BY:	LMF	3	
JOB#: 6748-017.00					TORY:	<del></del>		
DATE: 11/16/2006		·		ANALYE	ois: Te	Hol,	TPHq	· BTEX · MTBE
Onsite Drum Inventory SOIL:				MONITO			•	DEVELOPING []
EMPTY: WATER:		**********	· ;	SAMPLIN	10 DZ			
	PURGE							
	((0))		purte	DOMENTAL	rurge)iyi	)iğleje		OBSERVATIONS
WELL MW-S	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 19.55	2.5							Sheen
DEPTH TO WATER: 4.6/	5.0							Odor Type
WATER COLUMN: 14.94	:1.5							Free Product
WELL DIAMETER: 2"	10,0		66.3				2,2	Amount Type
WELL VOLUME: 2.5								Other
COMMENTS:								**
WELL: NW-6	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 15,75	118							Sheen
DEPTH TO WATER: 4,94	3.6							Odor Type
WATER COLUMN: 10,81	3.4							Free Product
WELL DIAMETER: 2"	7.2		65.3			·	3.0	AmountType
WELL VOLUME: 1.8						<u> </u>	· .	Other
COMMENTS:								
					·			
WELL: MW-7	(Gal)	рH-	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 19.63	2.5							Sheen
DEPTH TO WATER: 4.51	5,0							Odor Type
WATER COLUMN: 15,06	7:S		1.		1			Free Product
WELL DIAMETER: 2"	10,0		64.7				3.7	7 Amount Type
WELL VOLUME: 2.5	75,5		1		1		1	Other
		-	-	-	-		-	- CHICI
COMMENTS:	- '	<del> </del>	-	<del> </del>	-		<del> </del>	-
		<del> </del>				-		-
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# ACC MONITORING WELL WORKSHEET

								146E 3 OF 5
JOB NAME:				PURGE METHOD: MANUAL BAIL				
SITE ADDRESS: 300 HEGEN	JRERG	ER		SAMPLED BY: LMB  LABORATORY: C 2 T				
JOB#: 6748-017.00		,						
DATE: 11/16/2006				ANALY8	IS: T	PHd.	TPHa	· BTEX · MTBE
Onsite Drum Inventory SOIL:				MONITOR				DEVELOPING
EMPTY: WATER:				SAMPLIN	G 🕱			
	PURGIC							
	(6)		puke	e legalité	MREAN	ongeje		GESERVATIONS
WELL:	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O.	Froth
DEPTH OF BORING: 20,34	2.8	,						Sheen
DEPTH TO WATER: 3.98	5.6							Odor Type
WATER COLUMN: 16.36	8.4							Free Product
WELL DIAMETER: 2"	11.2		63.8		,		2.8	AmountType
WELL VOLUME: 2.8								Other
COMMENTS:					<u> </u>			
				·,				
WELL:	(Gal)	рН	Temp.(C)	Cond.	Sal.	Turb.	D.O	Froth
DEPTH OF BORING:								Sheen
DEPTH TO WATER:					:			Odor Type
WATER COLUMN:			ļ	·,		ļ	<u> </u>	Free Product
WELL DIAMETER:			ļ	ļ		<del>                                     </del>		AmountType
WELL VOLUME:							<u> </u>	Other
COMMENTS:			<del> </del>				ļ	
		<del></del>	-			<del> </del>	<u> </u>	
			<u> </u>			ļ		
WELL:	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	0.0.	Froth
DEPTH OF BORING:				<u> </u>	<u> </u>		ļ	Sheen
DEPTH TO WATER:				·		<u> </u>	ļ	Odor Type
WATER COLUMN:			<u>  ·                                     </u>					Free Product
WELL DIAMETER:	. ,					<u> </u>		_AmountType
WELL VOLUME:		,						Other
COMMENTS:	- 1							1
							1	
•		1		1	1	<b>—</b>		7



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

#### ANALYTICAL REPORT

Prepared for:

ACC Environmental Consultants
7977 Capwell Drive
Suite 100
Oakland, CA 94621

Date: 11-DEC-06 Lab Job Number: 190967

Project ID: 6748-017.00

Location: 444 Hegenberger Loop

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

Project Manager

Reviewed by:

Operations Manager

This package may be reproduced only in its entirety.

NELAP # 01107CA

Page 1 of \_\_\_\_\_



#### CASE NARRATIVE

Laboratory number: 190967

Client: ACC Environmental Consultants

Project: 6748-017.00

Location: 444 Hegenberger Loop

Request Date: 11/17/06 Samples Received: 11/17/06

This hardcopy data package contains sample and QC results for seven water samples, requested for the above referenced project on 11/17/06. The samples were received cold and intact.

### TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

MW-4 (lab # 190967-005) was analyzed with more than 1 mL of headspace in the VOA vial. No other analytical problems were encountered.

#### TPH-Extractables by GC (EPA 8015B):

MW-8 (lab # 190967-001) has higher reporting limits as a result of different volumes extracted. No analytical problems were encountered.



Curtis & Tompkins Laboratories Analytical Report 190967 ACC Environmental Consultants 6748-017.00 Lab #: 444 Hegenberger Loop EPA 5030B Location: Client: Prep: Project#: Matrix: Water Sampled: 11/16/06 Units: ug/L 119666 Received: 11/17/06 Batch#:

Field ID:

MW-8 SAMPLE Diln Fac: Analyzed: 1.000 11/21/06

Type: Lab ID: 190967-001

Analyte	Result	RL	Analysis	
Gasoline C7-C12	ND	50	EPA 8015B	
MTBE	ND	2.0	EPA 8021B	
Benzene	ND	0.50	EPA 8021B	
Toluene	ND	0.50	EPA 8021B	
Ethylbenzene	ND	0.50	EPA 8021B	
m,p-Xylenes	ND	0.50	EPA 8021B	
o-Xylene	ND	0.50	EPA 8021B	

Surrogate	%RE	C Limits	A	nalysis
Trifluorotoluene (FID)	95	69-137	EPA 801	SB
Bromofluorobenzene (FID)	103	80-133	EPA 801	5B
Trifluorotoluene (PID)	86	64-132	EPA 8023	LB
Bromofluorobenzene (PID)	96	80-120	EPA 8023	LB

Field ID: Type: Lab ID:

MW - 7 SAMPLE 190967-002

Diln Fac: Analyzed: 1.000 11/21/06

Analyte Result RL Analysis Gasoline C7-C12 EPA 8015B ND 50 MTBE ND 2.0 EPA 8021B Benzene ND 0.50 EPA 8021B Toluene ND 0.50 EPA 8021B Ethylbenzene ND 0.50 EPA 8021B m,p-Xylenes o-Xylene ND 0.50 EPA 8021B ND 0.50 EPA 8021B

Surrogate	%REC	Limits	Analysis	
Trifluorotoluene (FID)	98	69-137	EPA 8015B	
Bromofluorobenzene (FID)	113	80-133	EPA 8015B	
Trifluorotoluene (PID)	86	64-132	EPA 8021B	
Bromofluorobenzene (PID)	102	80-120	EPA 8021B	

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit

Page 1 of 4



Curtis & Tompkins Laboratories Analytical Report 444 Hegenberger Loop EPA 5030B Lab #: 190967 Location: Client: ACC Environmental Consultants Prep: Project#: 6748-017.00 Sampled: Received: 11/16/06 11/17/06 Water Matrix: ug/L 119666 Units: Batch#:

Field ID: MW-6 Diln Fac: 1.000 Type: Lab ID: SAMPLE Analyzed: 11/21/06

190967-003

Analyte	Result	RL		Analysis
Gasoline C7-C12	ND	50	EPA	8015B
MTBE	ND	2.0	EPA	8021B
Benzene	ND	0.50	EPA	8021B
Toluene	ND	0.50	EPA	8021B
Ethylbenzene	ND	0.50	EPA	8021B
m,p-Xylenes	ND	0.50	EPA	8021B
o-Xylene	ND	0.50	EPA	8021B

Surrogate	%RE	C Limits	Analysis	
Trifluorotoluene (FID)	91	69-137	EPA 8015B	
Bromofluorobenzene (FID)	96	80-133	EPA 8015B	1
Trifluorotoluene (PID)	82	64-132	EPA 8021B	1
Bromofluorobenzene (PID)	86	80-120	EPA 8021B	

Field ID: MW-2Diln Fac: 1.000 SAMPLE 190967-004 Type: Lab ID: Analyzed: 11/21/06

Analyte	Result	RL	Analysis
Gasoline C7-C12	190	50	EPA 8015B
MTBE	19	2.0	EPA 8021B
Benzene	20	0.50	EPA 8021B
Toluene	1.1 C	0.50	EPA 8021B
Ethylbenzene	0.58	0.50	EPA 8021B
m,p-Xylenes	0.72	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

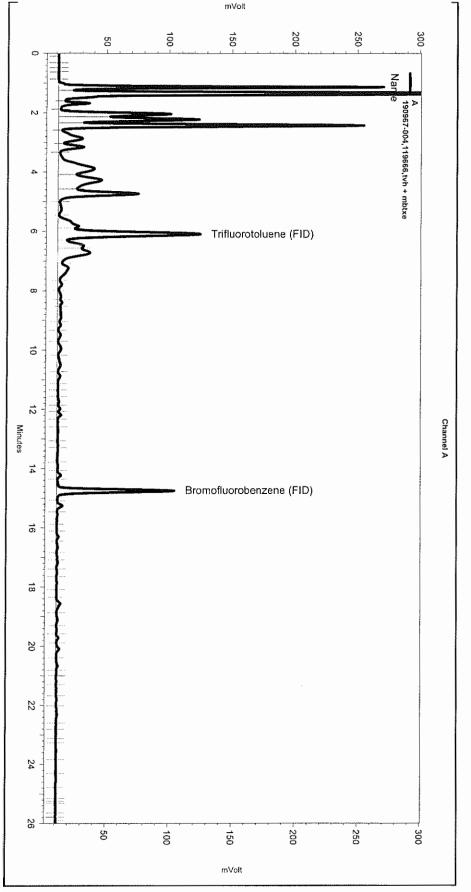
Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	69-137	EPA 8015B
Bromofluorobenzene (FID)	102	80-133	EPA 8015B
Trifluorotoluene (PID)	90	64-132	EPA 8021B
Bromofluorobenzene (PID)	93	80-120	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

Sequence File: \Lims\gdrive\ezchrom\Projects\GC04\Sequence\324.seq Sample Name: 190967-004,119666,tvh + mbtxe Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324\_023 \
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe318.met Software Version 3,1,7 Run Date: 11/21/2006 2:18:13 AM

Analysis Date: 11/21/2006 10:31:08 AM Sample Amount: 5 Multiplier: 5 Vial & pH or Core ID: b1.3



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No items selected for this se	ection				
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No items selected for this se	ection				
ntegration Events					
	Start	Sto	n		
Enabled Event Type		(Minu		/linutes)	Value
Yes Width		0	0	0	
Yes Threshold		0	0	10	
Manual Integration Fixes					
Data File: \\Lims\gdrive\ez	chrom\f Start			I\Data\3	24_023
Enabled Event Type		(Minut	es) (N	Ainutes)	Value
None					



Curtis & Tompkins Laboratories Analytical Report Lab #: 190967 Client: ACC Environmental Consultants Project#: 6748-017.00 Location: 444 Hegenberger Loop Prep: EPA 5030B 11/16/06 Matrix: Water Sampled: ug/L 119666 Units: Received: 11/17/06 Batch#:

Field ID: MW - 4 Lab ID: 190967-005 SAMPLE Type: Analyzed: 11/21/06

Analyte	Result	RL	Diln Fa	c Analysis
Gasoline C7-C12	6,100	50	1.000	EPA 8015B
MTBE	ND	2.0	1.000	EPA 8021B
Benzene	1,300	10	20.00	EPA 8021B
Toluene	48 C	0.50	1.000	EPA 8021B
Ethylbenzene	53	0.50	1.000	EPA 8021B
m,p-Xylenes	22	0.50	1.000	EPA 8021B
o-Xylene	5.0	0.50	1.000	EPA 8021B

Surrogate	%REC	Limits	Diln	Fac Analysis
Trifluorotoluene (FID)	108	69-137	1.000	EPA 8015B
Bromofluorobenzene (FID)	106	80-133	1.000	EPA 8015B
Trifluorotoluene (PID)	121	64-132	1.000	EPA 8021B
Bromofluorobenzene (PID)	99	80-120	1.000	EPA 8021B

Field ID: MW - 3Diln Fac: 1.000 Type: Lab ID: SAMPLE Analyzed: 11/21/06

190967-006

Analyte	Result	RT.	Analysis	***************************************
Gasoline C7-C12	170	50	EPA 8015B	>0;0000000;0;0000
MTBE	2.7	2.0	EPA 8021B	
Benzene	12	0.50	EPA 8021B	ļ
Toluene	ND	0.50	EPA 8021B	
Ethylbenzene	ND	0.50	EPA 8021B	
m,p-Xylenes	ND	0.50	EPA 8021B	
o-Xylene	ND	0.50	EPA 8021B	

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	69-137	EPA 8015B
Bromofluorobenzene (FID)	98	80-133	EPA 8015B
Trifluorotoluene (PID)	90	64-132	EPA 8021B
Bromofluorobenzene (PID)	92	80-120	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit

Page 3 of 4

Sequence File: \Lims\gdrive\ezchrom\Projects\GC04\Sequence\324.seq Sample Name: 190967-005,119666,tvh + mbtxe Data File: \Lims\gdrive\ezchrom\Projects\GC04\Data\324\_024 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe318.met

Software Version 3.1.7 Run Date: 11/21/2006 2:54:55 AM Analysis Date: 11/21/2006 10:31:12 AM Sample Amount: 5 Multiplier: 5 Vial & pH or Core ID: b1.3

--- General Method Parameters >-----No items selected for this section No items selected for this section Integration Events Stop (Minutes) (Minutes) Value Enabled Event Type Yes Width 0 o Yes Threshold Manual Integration Fixes Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324\_024 Start Stop Start (Minutes) (Minutes) Value

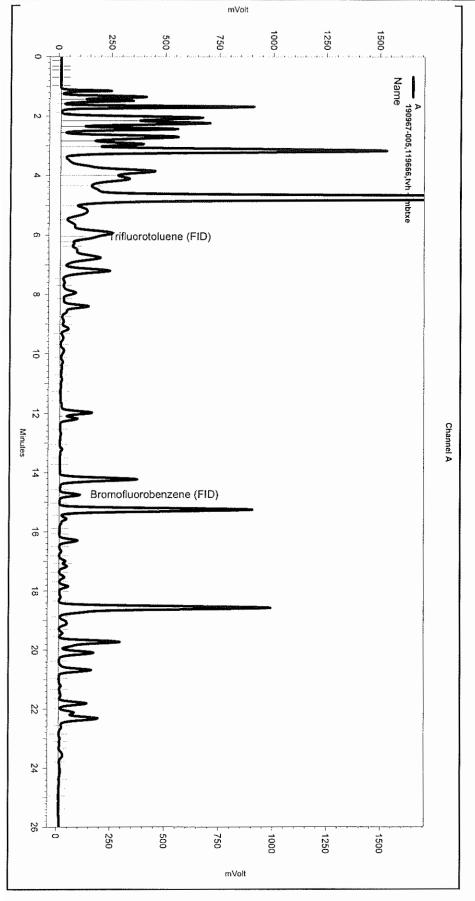
6.056

Enabled Event Type

Split Peak

Split Peak

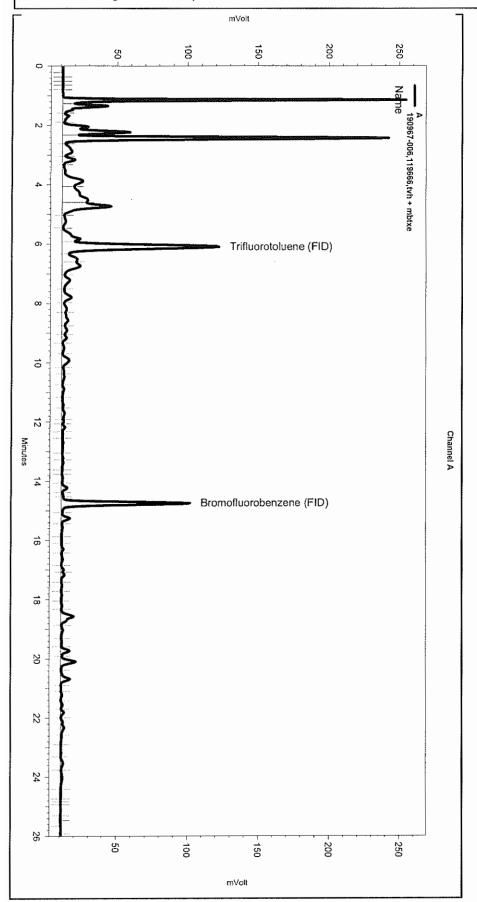
Yes



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\324.seq Sample Name: 190967-006,119666,tvh + mbtxe Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324\_025 \
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe318.met

Software Version 3.1.7 Run Date: 11/21/2006 3:31:35 AM Analysis Date: 11/21/2006 11:33:36 AM Sample Amount: 5 Multiplier: 5

Vial & pH or Core ID: b1,3



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Manual Integration Fixes
Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324_025 Start Stop
Enabled Event Type (Minutes) (Minutes) Value
Yes Split Peak 14.534 0 0



	Curtis &	Tompkins Lab	oratories Anal	ytical Report
Lab #:	190967 ACC Environmental	Consultants	Location:	444 Hegenberger Loop EPA 5030B
Project#:	6748-017.00	Consultants	Prep:	
Matrix:	Water		Sampled: Received:	11/16/06 11/17/06
Units: Batch#:	ug/L 119666		Received:	11/17/06

MW-5 SAMPLE Field ID: Type: Lab ID: Diln Fac: 1.000 11/21/06 Analyzed: 190967-007

Analyte	Result	RL	Analysis	
Gasoline C7-C12	76	50	EPA 8015B	
MTBE	ND	2.0	EPA 8021B	
Benzene	4.8	0.50	EPA 8021B	
Toluene	ND	0.50	EPA 8021B	
Ethylbenzene	ND	0.50	EPA 8021B	
m,p-Xylenes	ND	0.50	EPA 8021B	
o-Xylene	ND	0.50	EPA 8021B	

Surrogate	%REC	Limits	Analysis	
Trifluorotoluene (FID)	97	69-137	EPA 8015B	
Bromofluorobenzene (FID)	105	80-133	EPA 8015B	i
Trifluorotoluene (PID)	88	64-132	EPA 8021B	
Bromofluorobenzene (PID)	98	80-120	EPA 8021B	

Type: Lab ID: Diln Fac: 1.000 BLANK 11/20/06 QC365461 Analyzed:

Analyte	Result	RL	Analysis	
Gasoline C7-C12	ND	50	EPA 8015B	
MTBE	ND	2.0	EPA 8021B	
Benzene	ND	0.50	EPA 8021B	
Toluene	ND	0.50	EPA 8021B	
Ethylbenzene	ND	0.50	EPA 8021B	
m,p-Xylenes	ND	0.50	EPA 8021B	
o-Xylene	ND	0.50	EPA 8021B	

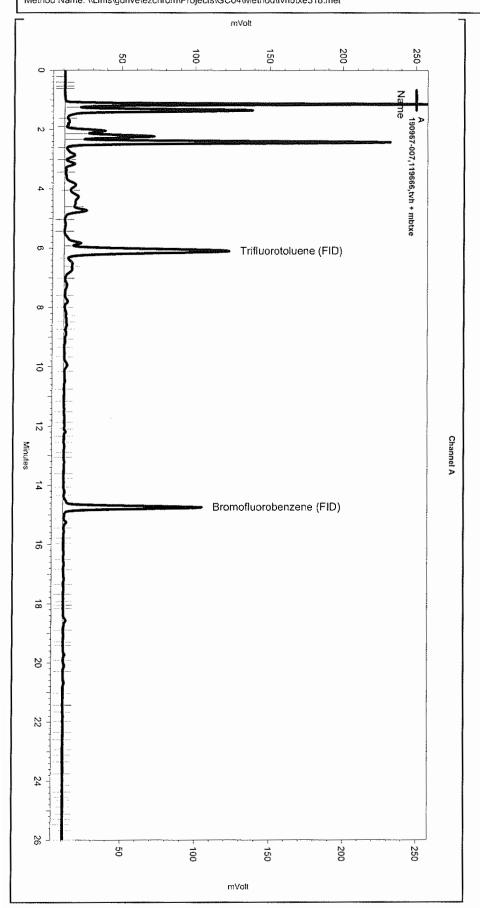
Surrogate	%REC	Limits	Analysis	
Trifluorotoluene (FID)	97	69-137	EPA 8015B	
Bromofluorobenzene (FID)	97	80-133	EPA 8015B	
Trifluorotoluene (PID)	84	64-132	EPA 8021B	
Bromofluorobenzene (PID)	85	80-120	EPA 8021B	

2.0

C= Presence confirmed, but RPD between columns exceeds 40% ND= Not Detected

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\324.seq Sample Name: 190967-007,119666,tvh + mbtxe
Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324\_026
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe318.met

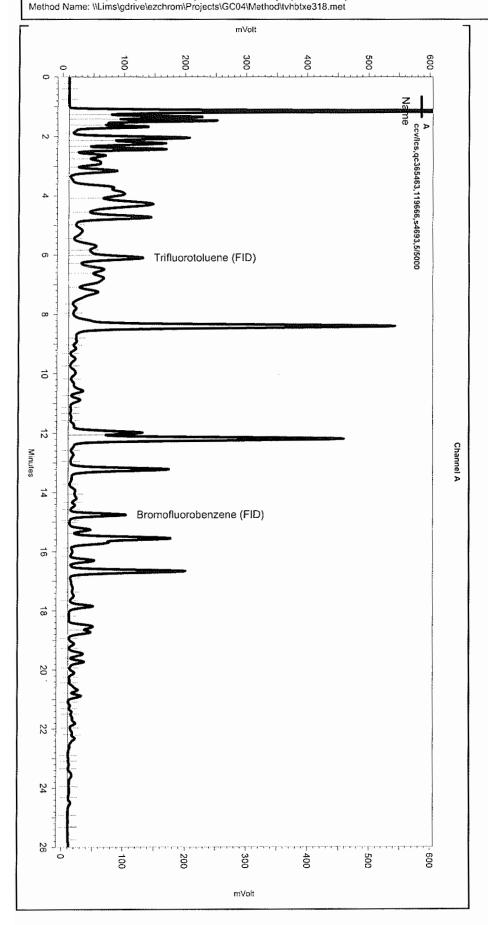
Software Version 3.1.7
Run Date: 11/21/2006 4:08:12 AM
Analysis Date: 11/21/2006 10:31:21 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: b1.3



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Enabled Event Type	Start Stop (Minutes) (Minutes) Value
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Manual Integration Fixes	
Data File; \\Lims\qdrive\o	ezchrom\Projects\GC04\Data\324_026
	Start Stop

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\324.seq Sample Name: ccv/lcs,qc365463,119666,s4693,5/5000 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324\_003 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Software Version 3.1.7 Run Date: 11/20/2006 11:34:28 AM Analysis Date: 11/21/2006 10:29:38 AM Sample Amount: 5 Multiplier: 5 Vial & pH or Core ID: {Data Description}



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Integration Events						
Start Slop Enabled Event Type (Minutes) (Minutes) Va	alue					
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Manual Integration Fixes						
Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\324_003 Start Stop						
Enabled Event Type (Minutes) (Minutes) Va	lue					
Yes Split Peak 6.018 0 0 Yes Split Peak 14.951 0 0						



	Curtis &	Tompkins L	aboratories Analy	tical Report
Lab #:	190967		Location:	444 Hegenberger Loop
Client:	ACC Environmental	Consultants	Prep:	EPA 5030B
Project#:	6748-017.00		Analysis:	EPA 8021B
Type:	LCS		Diln Fac:	1.000
Lab ID:	QC365462		Batch#:	119666
Matrix:	Water		Analyzed:	11/20/06
Units:	ug/L			

Analyte	Spiked	Result	%REC	' Limits
MTBE	20.00	21.58	108	72-124
Benzene	20.00	20.30	101	80-120
Toluene	20.00	19.64	98	80-120
Ethylbenzene	20.00	19.84	99	80-120
m,p-Xylenes o-Xylene	20.00	19.71	99	80-120
o-Xylene	20.00	19.83	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	90	64-132
Bromofluorobenzene (PID)	91	80-120

Page 1 of 1



	Curtis &	· Tompkins La	boratories Anal	ytical Report
Lab #:	190967		Location:	444 Hegenberger Loop
Client:	ACC Environmental	Consultants	Prep:	EPA 5030B
Project#:	6748-017.00		Analysis:	EPA 8015B
Type:	LCS		Diln Fac:	1.000
Lab ID:	QC365463		Batch#:	119666
Matrix:	Water		Analyzed:	11/20/06
Units:	ug/L			

Analyte	Spiked	Result	%REC	C Limits
Gasoline C7-C12	2,000	1,844	92	80-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	101	69-137	
Bromofluorobenzene (FID)	106	80-133	

Page 1 of 1



	Curtis &	Tompkins	Laboratories Analy	tical Report
Lab #:	190967		Location:	444 Hegenberger Loop
Client:	ACC Environmental	Consultants	Prep:	EPA 5030B
Project#:	6748-017.00		Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ		Batch#:	119666
MSS Lab ID	190952-002		Sampled:	11/16/06
Matrix:	Water		Received:	11/17/06
Units:	ug/L		Analyzed:	11/20/06
Diln Fac:	1.000			

Type:

MS

Lab ID: QC365464

Analyte	MSS Result	Spiked	Result	%RE	C Limits
Gasoline C7-C12	27.52	2,000	1,746	86	80-120

Surrogate	%REC	! Limits
Trifluorotoluene (FID)	98	69-137
Bromofluorobenzene (FID)	102	80-133

Type:

MSD

Lab ID:

QC365465

Analyte	Spiked	Result	%RE	C Limits	RPI	) Lim
Gasoline C7-C12	2,000	1,912	94	80-120	. 9	20
Surrogate	%REC Limits					

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	69-137
Bromofluorobenzene (FID)	110	80-133



Total Extractable Hydrocarbons 190967 Lab #: Location: 444 Hegenberger Loop Client: ACC Environmental Consultants Prep: EPA 3520C EPA 8015B 11/16/06 11/17/06 Project#: 6748-017.00 Analysis: Matrix: Water Sampled: Units: ug/L Received: Diln Fac: 1.000 11/21/06 Prepared: Batch#: 119713 Analyzed: 11/22/06

Field ID: Type:

8 – WM

SAMPLE

Lab ID: Cleanup Method:

190967-001 EPA 3630C

Analyte Result RT. Diesel C10-C24 ND 83 Motor Oil C24-C36 ND 500

Surrogate Limits Hexacosane 65-130

Field ID: Type:

MW - 7 SAMPLE Lab ID:

190967-002

Cleanup Method: EPA 3630C

ŔĹ Result Analyte Diesel C10-C24 ND 50 Motor Oil C24-C36 ND 300

Surrogate %REC Limits Hexacosane 80 65-130

Field ID:

Type:

MW-6 SAMPLE Lab ID:

190967-003

Cleanup Method: EPA 3630C

Result Analyte RL Diesel C10-C24 ND 50 Motor Oil C24-C36 300 ND

Surrogate

%REC Limits 31 65-130 Hexacosane 81

Field ID: Type:

MW-2SAMPLE Lab ID:

190967-004

Cleanup Method: EPA 3630C

Result Analyte Diesel C10-C24 370 H Y 50 300 Motor Oil C24-C36 ND

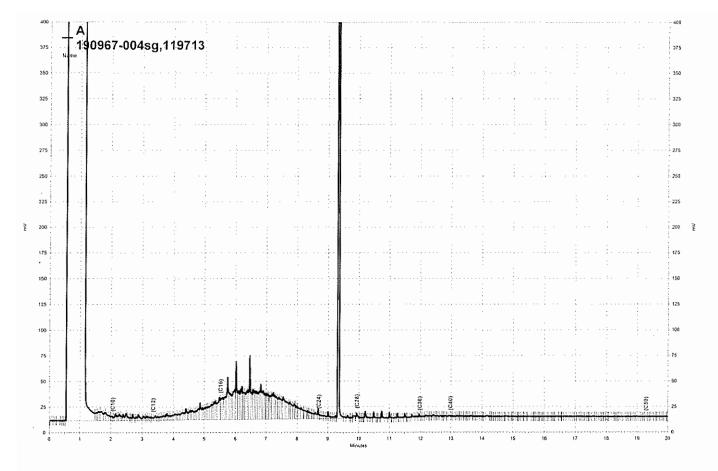
Surrogate %REC Limits Hexacosane 90 65-130

H= Heavier hydrocarbons contributed to the quantitation L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected RL= Reporting Limit

Page 1 of 2



-\Lims\gdrive\ezchrom\Projects\GC17A\Data\325a069, A



Total Extractable Hydrocarbons Lab #: 190967 Location: 444 Hegenberger Loop ACC Environmental Consultants EPA 3520C Client: Prep: Analysis: Sampled: EPA 8015B 11/16/06 Project#: 6748-017.00 Water Matrix: ug/L 11/17/06 Units: Received: 11/21/06 1.000 Diln Fac: Prepared: Batch#: 119713 Analyzed: 11/22/06

Field ID: Type: MW-4 SAMPLE Lab ID:

Cleanup Method:

190967-005 EPA 3630C

Analyte Diesel C10-C24 Motor Oil C24-C36 
 Result
 RL

 430 L Y
 50

 ND
 300

Surrogate %REC Limits
Hexacosane 86 65-130

Field ID: Type: MW-3 SAMPLE Lab ID:

190967-006

Cleanup Method:

EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits	
Hexacosane	101	65-130	

Field ID: Type: MW-5 SAMPLE Lab ID:

190967-007

Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

	Surrogate	%REC	Limits	
T	Hexacosane	95	65-130	

Type: Lab ID: BLANK QC365647 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits	
Hexacosane	73	65-130	

 $\mbox{\sc H=}$  Heavier hydrocarbons contributed to the quantitation  $\mbox{\sc L=}$  Lighter hydrocarbons contributed to the quantitation

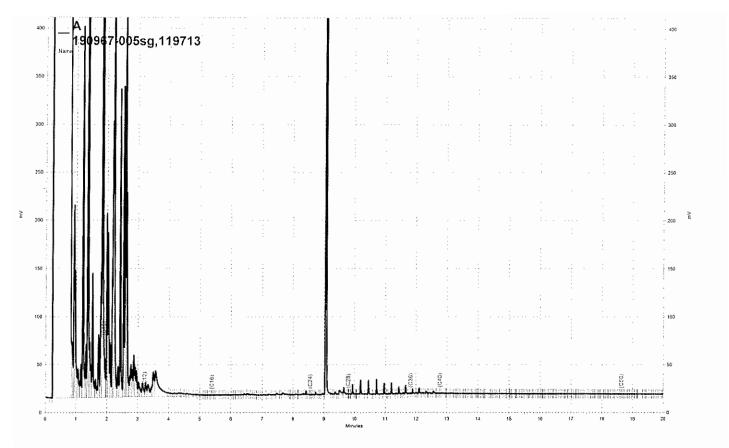
Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

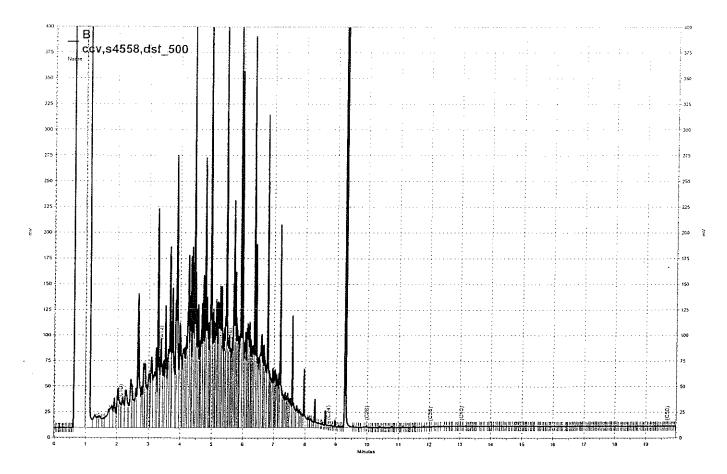
RL= Reporting Limit

Page 2 of 2

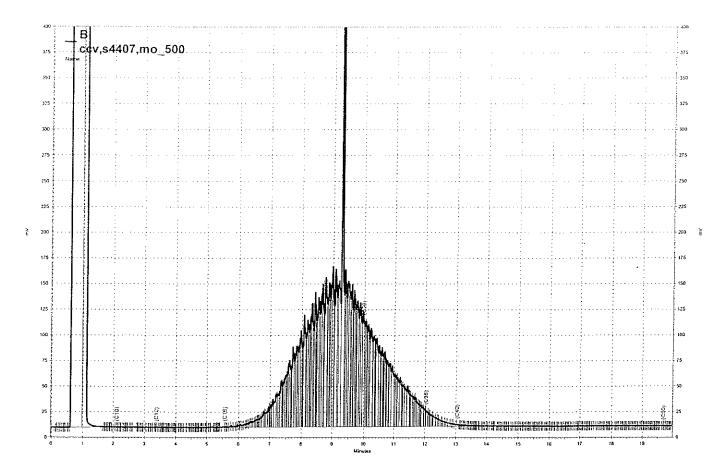
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\Lims\gdrive\ezchrom\Projects\GC15B\Data\325b004, B



		Total Extrac	table Hydrocar	bons
Lab #:	190967		Location:	444 Hegenberger Loop
Client:	ACC Environmental	Consultants	Prep:	EPA 3520C
Project#:	6748-017.00		Analysis:	EPA 8015B
Matrix:	Water		Batch#:	119713
Units:	ug/L		Prepared:	11/21/06
Diln Fac:	1.000		Analyzed:	11/22/06

Type:

BS

Cleanup Method: EPA 3630C

Lab ID:

QC365648

Analyte	Spiked	Result	%REC		
Diesel Cl0-C24	2,500	1,999	80	61-133	

Surrogate	%REC	Limits	
Hexacosane	70	65-130	

Type:

BSD

Cleanup Method: EPA 3630C

Lab ID:

QC365649

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,037	81	61-133	2	31

Surrogate	%REC		
Hexacosane	71	65-130	

# CHAIN OF CUSTODY

Curtis	&	Tom	pkir	ıs, l	_td.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN# 190967

Sampler: Lorena Benitez

Project Number: 6748-017.00 Report To: Lorena Benitez/Dave DeMent

, MTBE w/ 8260B Project Name: 300 Hegenberger Road Company: ACC Environmental Consultants, Inc

Project P.O.: Telephone: (510) 638-8400 ext. 127

**Turnaround Time: Standard 5 Working Days** Fax: (510) 638-8404

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Lab No.	Sample Identity	Sampling Time		Soil	Waste	# of Containers	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO3	ICE		TPHg, B		TPHd by			71.00	770		WWY a feet		
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-3	MW - 6	11/16/2006	10:40	Х		4	х			х		х		x		<b>—</b>						
-4	MW - 2	11/16/2006	10:45	х		4	х			х		х		x								$\top$
-5	MW - 4	11/16/2006	10:50	х		4	х			Х		х		x								_
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Gel Cleanup

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intect cold Rc