

FUGRO WEST, INC.



RECEIVED

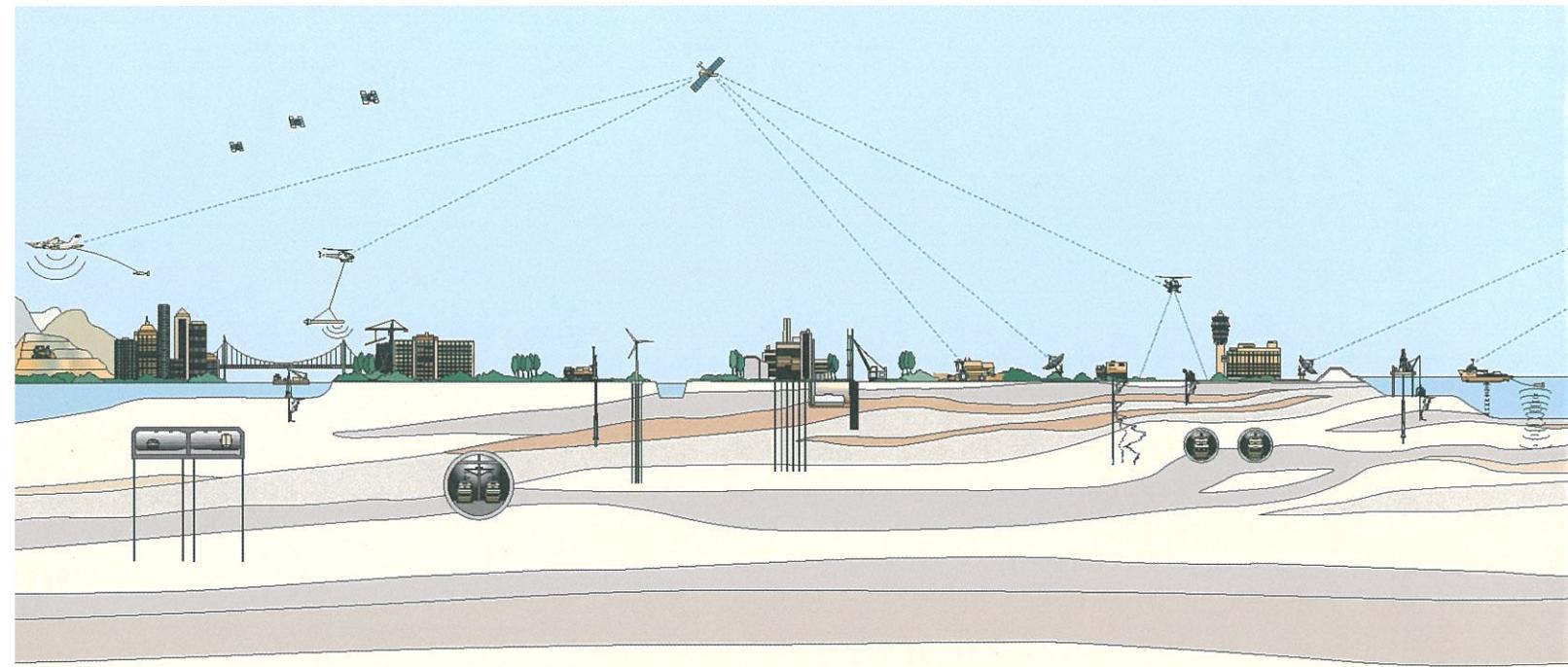
2:19 pm, Dec 24, 2008

Alameda County  
Environmental Health

## SUMMER 2008 GROUNDWATER MONITORING REPORT 2250 TELEGRAPH AVENUE OAKLAND, CALIFORNIA

Prepared for:  
BUTTNER PROPERTIES

December 2008  
Fugro Project No. 609.004





## FUGRO WEST, INC.

December 23, 2008  
Project No. 609.004

1000 Broadway, Suite 440  
Oakland, California 94607  
Tel: (510) 268-0461  
Fax: (510) 268-0545

Buttner Properties  
600 West Grand Avenue  
Oakland, California 94612

Attention: Ms. Marianne Robison

Subject: Summer 2008 Groundwater Monitoring Report, 2250 Telegraph Avenue,  
Oakland, California

Dear Ms. Robison:

Fugro West, Inc., (Fugro) is pleased to present this report, which records the results of the Summer 2008 groundwater monitoring event conducted in August 2008, for the 2250 Telegraph Avenue property (Site). The groundwater monitoring program has been implemented in general accordance with a February 2004 Work Plan and addendums to the Work Plan dated August 5, 2004 and October 14, 2005. The Site location is shown on the Vicinity Map - Plate 1, and the Site Plan is presented on Plate 2.

Monitoring is currently conducted on a semi-annual basis. During this monitoring event, Fugro sampled the four wells located onsite (MW-1, MW-2, MW-3, and MW-4), as well as two wells located offsite (MW-5 located to the south, within a parking lane and MW-6 located to the south, in the eastbound lanes of the heavily traveled West Grand Avenue).

### BACKGROUND

In August 1990, a 10,000-gallon gasoline underground gasoline storage tank (UST) and one 280-gallon waste oil UST were removed from the Site. Approximately 500 cubic yards of gasoline-impacted soil was excavated from the former UST and pump island areas, and with concurrence from Alameda County Environmental Health (ACEH), the contaminated soil was aerated onsite and disposed at a Class III sanitary landfill. The excavations were backfilled with clean imported materials, placed and compacted under engineering supervision, and the area was resurfaced with asphalt pavement.

In February 1994, contaminated soils near the former waste oil tank were over-excavated and removed from the Site. Four groundwater monitoring wells (MW-1 through MW-4) were installed onsite and a groundwater monitoring program was implemented. In May 1996, five temporary well points were installed and grab groundwater samples were obtained as part of a supplemental investigation to assist in determining locations for two offsite monitoring wells. Wells MW-5 and MW-6 were installed at offsite locations, downgradient from the former UST excavations in June 1997. Groundwater monitoring events conducted in August 1998, February 1999, and April 2001 showed no significant changes in the onsite plume.



In their letter dated January 16, 2002, ACEH recommended a risk assessment and sensitive receptor survey be conducted to determine whether the Site might qualify as a "low risk site." While in the process of conducting these activities, a subsequent letter from ACEH dated April 4, 2003, was received by the property owner. The April 2003 letter requested that additional source and site characterization studies, a preferential pathway study, and a well survey be conducted. In response to these requests, Fugro prepared a Preferential Pathway and Preliminary Risk Evaluation report dated February 19, 2004. Fugro conducted research to identify the location of preferential pathways in the immediate vicinity and evaluated the presence of sensitive receptors in the area. Fugro also compared detected concentrations to the Environmental Screening Levels established by the Regional Water Quality Control Board (RWQCB) for classification of impacted sites. These Site studies indicated the following:

- Source material has been removed from the Site and the Site has been restored to allow continued use of the Site;
- Residual concentrations of Total Petroleum Hydrocarbons (TPH) in soil beneath the onsite structure and concentrations in groundwater do not pose an immediate or significant risk to human health or the environment, considering the current commercial use of the Site;
- Groundwater below West Grand Avenue is impacted by commingled petroleum hydrocarbon releases from various sources;
- No drinking water wells exist within a half-mile radius of the Site;
- No storm drain or sanitary sewer utility corridors were located on or offsite, which would create a preferential migration pathway for contaminants of concern. City infrastructure maps indicate that storm and sanitary sewer mainlines do not extend below West Grand Avenue, they extend below Telegraph Avenue, situated along the upgradient side of the Site, and below Valley Street further to the east. Only one shallow storm drain connector extends from the southeast corner of the Site to Valley Street, and the connector is located above the groundwater surface;
- Shallow groundwater in the downtown Oakland area is not considered nor currently used as a potable water source; and
- With the exception of possible upward migration of soil gas vapors, no exposure pathways currently exist. Given the current commercial use of the Site, as well as the fact that the Site is completely paved and/or covered by concrete slabs, soil vapor migration is not a completed exposure pathway.

Fugro developed a scope of work (Work Plan, February 2004, and Work Plan Addendum, August 2004) to define the lateral extent of onsite soil and groundwater impacts, and to evaluate the potential for soil gas vapors to impact current and future occupants considering that the Site would be redeveloped in the future. In their letter dated August 19, 2005, ACEH requested further clarification for the proposed scope of services. Fugro provided responses to ACEH comments in the Groundwater Monitoring Report and Supplemental Work Plan Addendum dated October 15, 2005. In their letter, dated July 31, 2008, the ACEH approved the scope of work, however in subsequent discussions with Ms. Barbara Jakub of ACEH in late October and November 2008, ACEH has requested that the scope of work be

revised. A new scope of work will be submitted to ACEH for comment and review in January 2009.

## GROUNDWATER MONITORING – SUMMER 2008

Fugro conducted this monitoring event on August 14, 2008. City permits were obtained and a traffic control plan was submitted and approved to allow work within the street right-of-way. Prior to sampling, the presence of free product was checked and the depth to groundwater was measured in all six wells. Fugro's field personnel noticed hydrocarbon odor during purging and sampling of monitoring wells MW-1, MW-3, MW-4 and MW-6; however, no free product was observed. Each well was then purged of approximately three casing volumes of water while monitoring for changes in pH, conductivity, and temperature. Once the water levels stabilized, the wells were sampled with clean disposable bailers. Samples were retained in glass containers pre-cleaned by the laboratory in accordance with Environmental Protection Agency (EPA) protocols. The containers were placed in an ice-filled cooler and kept chilled, pending delivery to the laboratory.

The samples for this event were submitted under chain-of-custody documents to Curtis & Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services for hazardous waste and water testing. A sample from each well was analyzed for the following constituents:

- Total volatile hydrocarbons as gasoline (TVHg), EPA Methods 5030/8015;
- Total extractable hydrocarbons as diesel and motor oil (TEHd and mo), EPA Methods 8015m, using silica gel cleanup;
- Lead scavengers including: dichloroethane and dibromoethane;
- Five fuel oxygenates by EPA Methods 8260 including; Methyl tert butyl ether (MTBE), TBA, DIPE, ETBE, and TAME; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Well sampling forms, chain-of-custody documents, and the analytical test reports are presented in Appendix A. Groundwater elevation data are summarized in Table 1. Analytical test results are summarized in Table 2.

The historic groundwater flow directions for this Site are presented in the Rose Diagram on Plate 2. The gradient for this event was 0.05 feet/foot<sup>1</sup> directed towards the northeast. Based on the groundwater elevation data presented in Table 1, the groundwater gradient remains generally consistent with previous measurements. Groundwater was generally encountered at lower elevations compared to the February 2008 event, which is expected given that the previous event was conducted during the rainy season.

<sup>1</sup> Data based on current measurements in wells MW-1, MW-2, MW-3, and MW-4. Data from wells MW-5 and MW-6 are not judged to be representative of site conditions.

TVHg was detected during this event in samples from wells MW-1 (71 µg/l), MW-3 (1,400 µg/l), MW-4 (1,900 µg/l) and MW-6 (1,100 µg/l). TEHd was detected in samples from wells MW-3 (200 µg/l), MW-4 (370 µg/l) and MW-6 (390 µg/l). TEHmo was not detected in any of the groundwater samples collected. Concentrations of the analytes detected during this sampling event are generally within the historic range of data.

Analysis detected benzene at concentrations of 510 µg/l and 1.4 µg/l in monitoring wells MW-3 and MW-4, respectively. Total xylenes were also detected in these wells at concentrations of 7.2 µg/l and 0.85 µg/l, respectively. Concentrations of benzene and total xylenes are significantly higher in MW-3 than in the previous three sampling events, however within the historic data range, particularly during monitoring events when the groundwater elevation is 8 to 9 feet below ground surface. No concentrations of benzene, toluene, ethylbenzene, or total xylenes were detected in any of the remaining samples tested.

No MTBE concentrations were detected in any of the samples tested during this event. None of the lead scavengers or fuel oxygenates were detected in any of the samples analyzed.

#### **UPDATE ON PREFERENTIAL PATHWAY STUDY**

In accordance with a request from ACEH (July 2008) for additional information with respect to the potential presence of water conveyance pipelines, which may act as preferential migration pathways, Fugro contacted East Bay Municipal Utility District (EBMUD), the local water district for the Site vicinity, and reviewed historic groundwater depth information collected at the Site since 1994. Fugro met with EBMUD engineers and reviewed a number of blueprints and historic pipeline installation data, which suggest that all EBMUD pipelines adjacent to the Site are situated above the groundwater table. Excluding discrete areas where short runs of pipelines were installed below City of Oakland infrastructures, EBMUD pipelines were generally embedded at depths ranging from approximately 3.5 to 9.5 feet below the existing grade on the north side of West Grand Avenue, and approximately 4.0 to 5.5 feet below the existing grade of Valley Street situated 165 feet to the east of the Site. The as-built maps and field data notes, which provide pipeline details, do not indicate the type of trench bedding used. Many of the original pipelines were installed in the early 1920s to 1930's. Based on data collected for the Site wells (MW-1 through MW-4) since 1994, the depth to groundwater has fluctuated between approximate depths of 8.5 to 12.5 feet below the existing ground surface. Fugro will provide additional review of preferential pathways in the Site vicinity in a subsequent site investigation report.

#### **REPORTING REQUIREMENTS**

In accordance with reporting requirements, Fugro has uploaded PDF copies of our 2005 through 2008 Groundwater Monitoring Reports to the ACEH ftp website. We have also sent electronic copies of all attached tables in a Microsoft excel format to ACEH. Copies of required reports, tables and site plans have also been uploaded to the Geotracker database.

## FUTURE SITE INVESTIGATION

The next scheduled monitoring event will be conducted during the first quarter of 2009. A revised scope of work for Additional Site Assessment will be submitted to ACEH for review during the first week in January 2009. The property owner has been requested by the UST Cleanup FUND to submit a long range (18 month) investigation schedule inclusive of agency approval of required studies for their review by Jan 30, 2009. As such, we will be respectively requesting an expedited review of the revised scope of work.

The scope of work will be revised to include work only on the existing property. Future work on the adjacent property, if needed would be conducted during a subsequent phase of work. Completion of the field work will be slated for sometime in the summer to fall 2009 time frame to ensure that all approvals are received from ACEH and the UST Cleanup FUND and to provide sufficient time for the existing tenant to prepare the site for ease of access.

If you have any questions, please call either of the undersigned at (510) 268-0461.

Sincerely,  
FUGRO WEST, INC.



Hanako Zeidenberg  
Staff Engineer

  
Jeriann N. Alexander, P.E., R.E.A.  
Project Manager  
Civil Engineer 40469 (exp. 3/31/09)  
REA 03130 (exp. 7/09)

HZ/JNA:rh

Attachments:    Table 1 - Groundwater Elevation Data  
                  Table 2 - Chemical Concentrations in Groundwater  
                  Plate 1 - Vicinity Map  
                  Plate 2 - Site Plan with Groundwater Rose Diagram  
                  Appendix A - Well Sampling Forms, Analytical Test Report  
                  and Chain of Custody Form

Copies Submitted:    (1) Addressee  
                          (pdf) Mr. Tim Robison, Ph.D.  
                          (pdf) Ms. Helen Robison  
                          (pdf) Alameda County Environmental Health FTP site

## **TABLES**

**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
	<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>
MW-1		3/3/1994	20.55	10.39
		3/10/1994		10.54
		6/6/1994		11.36
		9/7/1994		11.92
		12/22/1994		10.83
		3/17/1995		9.73
		6/27/1995		10.51
		9/18/1995		11.12
		5/30/1996		10.49
		7/9/1997		11.79
		8/21/1998		11.00
		10/6/1998		11.84
		2/24/1999		9.74
		6/30/2000		11.28
		4/27/2001		10.56
		4/14/2005		10.12
		8/1/2005		10.56
		11/9/2005		12.53
		3/21/2006		9.71
		8/7/2006		11.40
		10/27/2006		11.39
		3/20/2007		10.94
		8/8/2007		11.21
		2/5/2008		9.52
		8/14/2008		11.00
				9.55
MW-2		3/3/1994	20.03	10.37
		3/10/1994		10.53
		6/6/1994		11.15
		9/7/1994		11.72
		12/22/1994		11.27
		3/17/1995		9.85
		6/27/1995		10.70
		9/18/1995		11.67
		5/30/1996		11.56
		7/9/1997		11.52
		8/21/1998		11.91
		10/6/1998		11.57
		2/24/1999		9.91
		6/30/2000		11.16
		4/27/2001		11.32
		4/14/2005		11.00
		8/1/2005		11.67
		11/9/2005		11.54
		3/21/2006		11.02
		8/7/2006		11.84
		10/27/2006		11.92
		3/20/2007		12.52
		8/8/2007		12.82
		2/5/2008		10.39
		8/14/2008		9.10
				10.93

**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
	<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>
MW-3		3/3/1994	18.97	9.50
		3/10/1994		9.51
		6/6/1994		10.28
		9/7/1994		10.75
		12/22/1994		9.74
		3/17/1995		8.85
		6/27/1995		9.94
		9/18/1995		10.54
		5/30/1996		9.69
		7/9/1997		10.60
		8/21/1998		10.36
		10/6/1998		10.64
		2/24/1999		8.58
		6/30/2000		10.21
		4/27/2001		9.85
		4/14/2005		9.58
		8/1/2005		10.24
		11/9/2005		10.45
		3/21/2006		8.77
		8/7/2006		10.30
		10/27/2006		10.63
		3/20/2007		9.72
		8/8/2007		10.48
		2/5/2008		8.61
		8/14/2008		10.53
				8.44
MW-4		3/3/1994	19.88	10.89
		3/10/1994		11.19
		6/6/1994		11.85
		9/7/1994		12.86
		12/22/1994		12.26
		3/17/1995		10.10
		6/27/1995		11.05
		9/18/1995		11.84
		5/30/1996		10.97
		7/9/1997		12.08
		8/21/1998		11.86
		10/6/1998		12.84
		2/24/1999		10.79
		6/30/2000		12.39
		4/27/2001		11.26
		4/14/2005		12.01
		8/1/2005		11.78
		11/9/2005		12.42
		3/21/2006		10.00
		8/7/2006		11.90
		10/27/2006		12.75
		3/20/2007		11.20
		8/8/2007		12.00
		2/5/2008		10.40
		8/14/2008		11.47
				8.41

**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
	<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>
MW-5		6/26/1997	16.02	8.44
		7/9/1997		8.48
		8/21/1998		8.32
		10/6/1998		8.51
		2/24/1999		6.86
		6/30/2000		7.63
		4/27/2001		7.60
		4/15/2005		7.20
		8/1/2005		8.16
		11/9/2005		7.92
		3/21/2006		6.58
		8/7/2006		8.27
		10/27/2006		8.48
		3/20/2007		7.67
		8/8/2007		8.43
		2/5/2008		6.76
		8/14/2008		8.31
MW-6		6/26/1997	18.36	10.89
		7/9/1997		10.98
		8/21/1998		11.00
		10/6/1998		10.79
		2/24/1999		9.32
		6/30/2000		10.37
		4/27/2001		10.10
		4/15/2005		9.55
		8/1/2005		10.54
		11/9/2005		NA
		3/21/2006		9.11
		8/7/2006		10.59
		NA		NA
		3/20/2007		10.10
		8/8/2007		10.85
		2/5/2008		9.27
		8/14/2008		10.71

TOC = Top of Casing

DTW = Depth to Water

Elevation Reference: USGS benchmark W1197, 1969 with a reported

elevation of +21.06 feet MSL datum.

NA = Not Accessible During This Sampling Event

**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics														
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l	Chloro-Benzene µg/l
			NV	NV	NV	NE	540	380,000	170,000	160,000	24,000	24,000	NV	NE	NE	NE	130,000	200	150	120	13,000
			100	100	100	100	1	40	30	20	5	5	NE	NE	NE	NE	200	0.5	0.05	5	5
Temp. Well 1	5/31/96	--	<b>13,000</b>	--	<b>37,000</b>	--	<50	<50	<50	<b>380</b>	--	--	--	--	--	--	<1	<1	--	<1	<1
Temp. Well 2	5/30/96	--	<b>250</b>	--	<50	--	<0.5	<0.5	13	<b>3.4</b>	--	--	--	--	--	--	<1	<1	--	<1	<1
Temp. Well 3	5/30/96	--	<50	--	<b>83</b>	--	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<1	<b>20</b>	--	<1	<1
Temp. Well 4	5/31/96	--	<b>11,000</b>	--	<b>1,900</b>	--	<b>130</b>	<b>66</b>	<b>340</b>	<b>260</b>	--	--	--	--	--	--	<1	<1	--	<1	<1
Temp. Well 5	5/30/96	--	<b>70</b>	--	<b>180</b>	--	<0.5	<0.5	<0.5	--	--	--	--	--	--	<1	<1	<1	--	<1	
MW-1	3/3/94	10.16	<b>300</b>	<50	<50	<500	<b>1.3</b>	<0.5	<b>2.7</b>	<b>3.1</b>	--	--	--	--	--	--	<0.5	<b>5.5</b>	--	<0.5	<0.5
	6/6/94	9.19	<b>430</b>	<b>180+</b>	<50	<500	<b>10</b>	<b>2.2</b>	<b>6.1</b>	<b>7.6</b>	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	9/7/94	8.63	<b>410</b>	<50	<50	<500	<b>6.4</b>	<b>0.8</b>	<b>2.6</b>	<b>3.8</b>	--	--	--	--	--	--	<0.5	<b>3.8</b>	--	<0.5	<0.5
	12/22/94	9.72	<b>130</b>	<50	<50	<500	<b>0.7</b>	<0.5	<b>0.6</b>	<b>0.8</b>	--	--	--	--	--	--	<0.5	<b>3.4</b>	--	<0.5	<0.5
	3/17/95	10.82	<b>1,600</b>	<b>170</b>	<50	<500	<b>29</b>	<0.5	<b>9.1</b>	<b>6.9</b>	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	6/27/95	10.04	<b>1,100</b>	<50	<50	<500	<b>14</b>	<0.5	<b>7.1</b>	<b>5.0</b>	--	--	--	--	--	--	<0.5	<b>3.3</b>	--	<0.5	<0.5
	9/18/95	9.43	<b>370</b>	--	<b>110+</b>	--	<b>4.4</b>	<b>0.6</b>	<b>2.0</b>	<b>1.4</b>	--	--	--	--	--	--	<0.5	<b>2.4</b>	--	<0.5	<0.5
	8/21/98	9.55	<b>170</b>	--	<b>62+</b>	--	<0.5	<b>0.76</b>	<b>0.79</b>	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	2/24/99	10.81	<b>20</b>	--	<b>280+</b>	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	--
	6/30/00	13.47	<b>240</b>	--	<50	--	<b>0.7</b>	<b>0.8</b>	<0.5	<b>0.74</b>	<b>4.0</b>	--	--	--	--	--	--	--	--	--	--
	4/27/01	9.99	<b>160</b>	--	<50	--	<b>3.3</b>	<0.5	<b>0.86</b>	<0.50	<2.0	--	--	--	--	--	--	--	--	--	--
	4/15/05	10.43	<b>520</b>	--	<b>99 LY</b>	<300	<b>3.3<sup>c</sup></b>	<b>1.8</b>	<b>&lt;0.5</b>	<b>4.6</b>	--	<0.5	<10	<0.5	<0.5	<0.5	--	<b>0.6</b>	<0.5	--	--
	8/1/05	9.99	<b>480</b>	--	<b>62 LY</b>	<300	<0.5	<0.5	<0.5	<b>2.3</b>	--	<0.5	<b>18</b>	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	11/9/05	8.02	<b>290<sup>Y</sup></b>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<b>14</b>	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	3/21/06	10.84	<b>390</b>	--	<b>97 LY</b>	<300	<b>1.0</b>	<0.5	<b>0.6</b>	<0.5	--	<0.5	<b>16</b>	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/7/06	9.15	<b>720</b>	--	<b>130 LY</b>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<b>18</b>	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	10/27/06	9.16	<b>250</b>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<b>12</b>	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	3/20/07	9.61	<b>290<sup>Y</sup></b>	--	<b>74 LY</b>	<300	<0.5	<0.5	<b>0.58</b>	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/8/07	9.34	<b>300<sup>LY</sup></b>	--	<b>95 LY</b>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	2/5/08	11.03	<b>100<sup>Y</sup></b>	--	<b>62<sup>Y</sup></b>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/14/08	9.55	<b>71<sup>Y</sup></b>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
MW-2	3/3/94	9.66	<b>110</b>	<50	<500	<0.5	<b>1.7</b>	<b>0.58</b>	<b>2.7</b>	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	6/6/94	8.88	<b>100</b>	<50	<50	<500	<b>11</b>	<0.5	<b>0.7</b>	<b>1.1</b>	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	
	9/7/94	8.31	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	12/22/94	8.76	<50	<50	<500	<0.5	<b>0.8</b>	<0.5	<0.5	<b>0.8</b>	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	3/17/95	10.18	<b>180</b>	<b>100</b>	<50	<500	<b>31</b>	<0.5	<b>1.0</b>	<b>1.8</b>	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	6/27/95	9.33	<b>80</b>	<50	<50	<500	<b>6.0</b>	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	9/18/95	8.36	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	8/21/9																				

**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics														
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l	Chloro-Benzene µg/l
			NV	NV	NV	NE	540	380,000	170,000	160,000	24,000	24,000	NV	NE	NE	NE	130,000	200	150	120	13,000
			100	100	100	100	1	40	30	20	5	5	NE	NE	NE	NE	200	0.5	0.05	5	5
MW-3	3/3/94	9.47	85	<50	<50	<500	<0.5	0.77	<0.5	3.7	--	--	--	--	--	<0.5	<0.5	0.8	--	<0.5	<0.5
	6/6/94	8.69	100	110+	<50	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	2.5	0.8	--	2.1	<0.5	
	9/7/94	8.22	220	<50	<50	<500	11	1.8	2.6	3.5	--	--	--	--	--	<0.5	<0.5	--	0.6	<0.5	
	12/22/94	9.23	130	95+	<50	<500	3.8	0.5	0.6	1.2	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	3/17/95	10.12	1,500	270	<50	<500	83	6.0	10	15	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	6/27/95	9.03	2,500	<50	<50	<500	330	8.9	8.1	20	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	9/18/95	8.43	1,500	--	770+	--	400	11	2.2	3.3	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	8/21/98	8.61	2,300	--	600+	--	410	9.3	36	25	<10	--	--	--	--	--	--	--	--	--	
	2/24/99	10.39	55	--	110+	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	
	6/30/00	10.83	110	--	83+	--	<0.5	<0.5	0.51	<0.5	<2.0	--	--	--	--	--	--	--	--	--	
	4/27/01	8.67	<50	--	690+	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	
	4/14/05	9.12	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	8/1/05	9.39	410	--	150 <sup>HLY</sup>	750	17	<0.5	0.87c	1.4	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	11/9/05	8.73	1,100 <sup>Y</sup>	--	110 <sup>L</sup> Y	<300	150	3.4	6.1	3.8	--	<0.5	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	3/21/06	10.20	100	--	61 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	8/7/06	8.67	4,000 <sup>Y</sup>	--	280 <sup>L</sup> Y	<300	630	9	31	12	--	<0.5	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	10/27/06	8.34	5,300	--	240 <sup>L</sup> Y	<300	950	13	17	11	--	<10	<200	<10	<10	<10	<10	<10	<10	<10	
	3/20/07	9.25	1,000 <sup>L</sup> Y	--	180 <sup>L</sup> Y	<300	100	1.5	2.1	3.3	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	8/8/07	8.49	2,100 <sup>L</sup> Y	--	130 <sup>L</sup> Y	<300	260	5.1	5.8	3.6	--	<2.0	<40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
	2/5/08	10.36	100	--	50 <sup>Y</sup>	<300	7.6	<0.5	<0.5	0.5	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	8/14/08	8.44	1,400	--	200 <sup>Y</sup>	<300	510	8.2	22	7.2	--	<3.6	<71	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	
MW-4	3/3/94	8.99	4,300	<50	240	<500	220	20	7.5	17	--	--	--	--	--	<0.5	5.9	--	<0.5	4.4	
	6/6/94	8.03	4,400	<50	800+	<500	140	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	
	9/7/94	7.02	10,000	490+	280+	<500	84	<0.5	42	69	--	--	--	--	--	<0.5	4.4	--	0.5	4.3	
	12/22/94	7.62	2,400	450+	54+	<500	11	<0.5	7.1	11	--	--	--	--	--	<0.5	3.6	--	3.6	<0.5	
	3/17/95	9.78	2,200	380	160+	<500	<0.5	<0.5	7.9	10	--	--	--	--	--	<0.5	1.7	--	<0.5	4.5	
	6/27/95	8.83	3,100	<50	82	<500	<0.5	<0.5	13	19	--	--	--	--	--	<0.5	2.3	--	<0.5	4.8	
	9/18/95	8.04	3,000	--	1,231+	--	12	<0.7	6.9	8.3	--	--	--	--	--	<0.5	1.9	--	<0.5	4.0	
	8/21/98	8.02	1,700	--	600+	--	8.2	12	13	5.2	<2.0	--	--	--	--	--	--	--	--	--	
	2/24/99	9.09	2,700	--	2,100+	--	4.3	0.64	<0.5	0.54	--	<2.0	--	--	--	--	--	--	--	--	
	6/30/00	11.74	6,700	--	3,200+	--	3.1	1.7	11	16.7	27	--	--	--	--	--	--	--	--	--	
	4/27/01	8.62	1,900	--	710	--	<0.5	<0.5	<0.5	14	--	--	--	--	--	--	--	--	--	--	
	4/14/05	7.87	2,900	--	2,200 <sup>HLY</sup>	2,500	<0.5	<0.5	<0.5	5.1	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	8/1/05	8.10	2,000	--	2,100 <sup>HLY</sup>	3400L	<0.5	<0.5	<0.5	5.8c	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	11/9/05	7.46	2,000Y	--	1,900 <sup>HLY</sup>	2,300L	1.2	<0.5	<0.5	0.8	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	3/21/06	9.88	2,200	--	2,800 <sup>HLY</sup>	4,000L	1.2	<0.5	<0.5	0.7	--	<0.5	<10</td								

**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



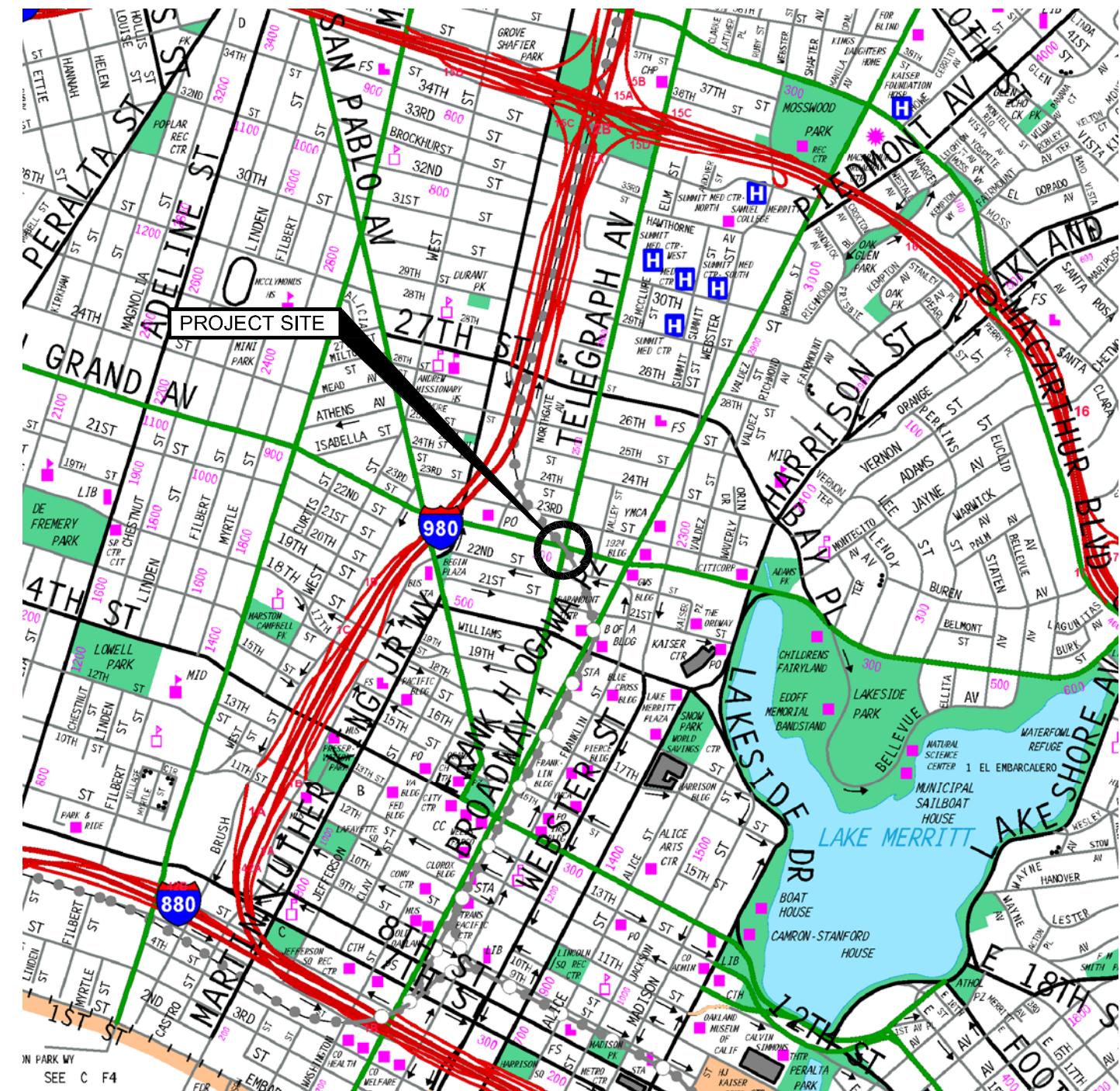
Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics														
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil ug/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l	Chloro-Benzene µg/l
			NV	NV	NV	NE	540	380,000	170,000	160,000	24,000	24,000	NV	NE	NE	NE	130,000	200	150	120	13,000
		Soil Gas ESL*	100	100	100	100	1	40	30	20	5	5	NE	NE	NE	NE	200	0.5	0.05	5	5
		Groundwater ESL**																			
MW-5	6/26/97	7.58	120	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	<0.5	--	1.6	<0.5
	8/21/98	7.70	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	2/24/99	9.16	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	--
	6/30/00	8.39	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	5.1	--	--	--	--	--	--	--	--	--	--
	4/27/01	8.42	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	4/14/05	8.82	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/1/05	7.86	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	11/9/05	8.10	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	3/21/06	9.44	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/7/06	7.75	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	10/27/06	7.54	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	3/20/07	8.35	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/8/07	7.59	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	2/5/08	9.26	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/14/08	7.71	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
MW-6	6/26/97	7.47	1,500+	--	450+	--	<0.5	<0.5	11	<0.5	--	--	--	--	--	<0.5	<0.5	<0.5	--	<0.5	1.7
	8/21/98	7.36	1,400	--	540+	--	<0.5	3.6	5.6	0.4	5.7	3.2	--	--	--	--	--	--	--	--	--
	2/24/99	9.04	1,600	--	600+	--	<0.5	<0.5	0.56	<0.5	--	2.3	--	--	--	--	--	--	--	--	--
	6/30/00	8.04	1,900	--	360+	--	0.56	3.0	5.4	3.5	30	--	--	--	--	--	--	--	--	--	--
	4/27/01	8.26	1,600	--	440	--	<0.5	<0.5	<0.5	<0.5	3.3	--	--	--	--	--	--	--	--	--	--
	4/14/05	8.81	2,100	--	890 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	5.9	--	0.7	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/1/05	7.82	2,100	--	670 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	11/9/05	NA	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/21/06	9.25	1,900	--	850 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/7/06	7.77	2,200 <sup>Y</sup>	--	940 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	10/27/06	NA	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/07	8.26	2,000 <sup>Y</sup>	--	670L <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/8/07	7.51	2,100 <sup>HY</sup>	--	680 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	2/5/08	9.09	1,400	--	560 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	8/14/08	7.65	1,100 <sup>Y</sup>	--	390 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--

Notes:

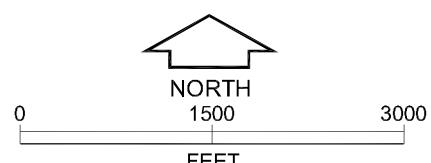
TVH = Total Volatile Hydrocarbons  
 TEH = Total Extractable Hydrocarbons  
 DCA = Dichloroethane  
 DBA = Dibromoethane  
 TCA = Trichloroethane  
 PCE = Tetrachloroethene  
 MTBE = tert-Butyl methyl ether  
 TBA = Tert butyl alcohol  
 DIPE = Isopropyl Ether  
 ETBE = Ethyl tert butyl ether  
 TAME = Methyl tert amyl ether  
 -- = Chemical not tested for  
 NR = Hydrocarbon range not reported by laboratory  
 + = Uncategorized hydrocarbons quantified in ranges specified

µg/l = micrograms per liter = parts per billion  
 <1 = Chemical not present at a concentration greater than the laboratory detection limit shown or stated on test reports  
 C = Presence Confirmed, but RPD between columns exceeds 40%  
 Y = Sample exhibits chromatographic pattern which does not resemble standard  
 H = Heavier hydrocarbon contributed to the quantitation  
 L = Lighter hydrocarbon contributed to the quantitation  
 \* = Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board Table E-1 Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns  
 \*\* = Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board Table F-1a Groundwater Screening Levels (groundwater is a current potential drinking water resource)  
 NA = Not Accessible During This Sampling Event  
 NE = Not Evaluated  
 NV = No Value

## **PLATES**

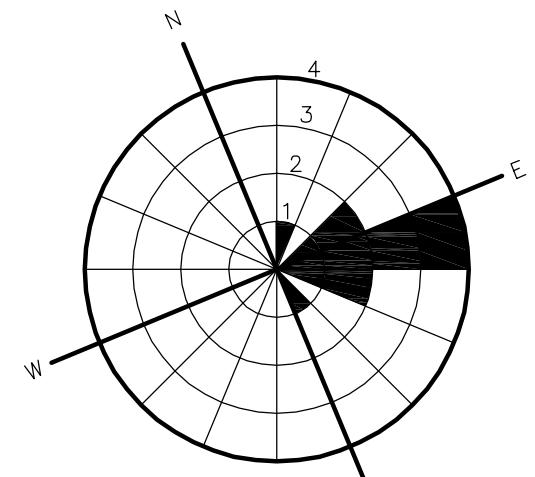
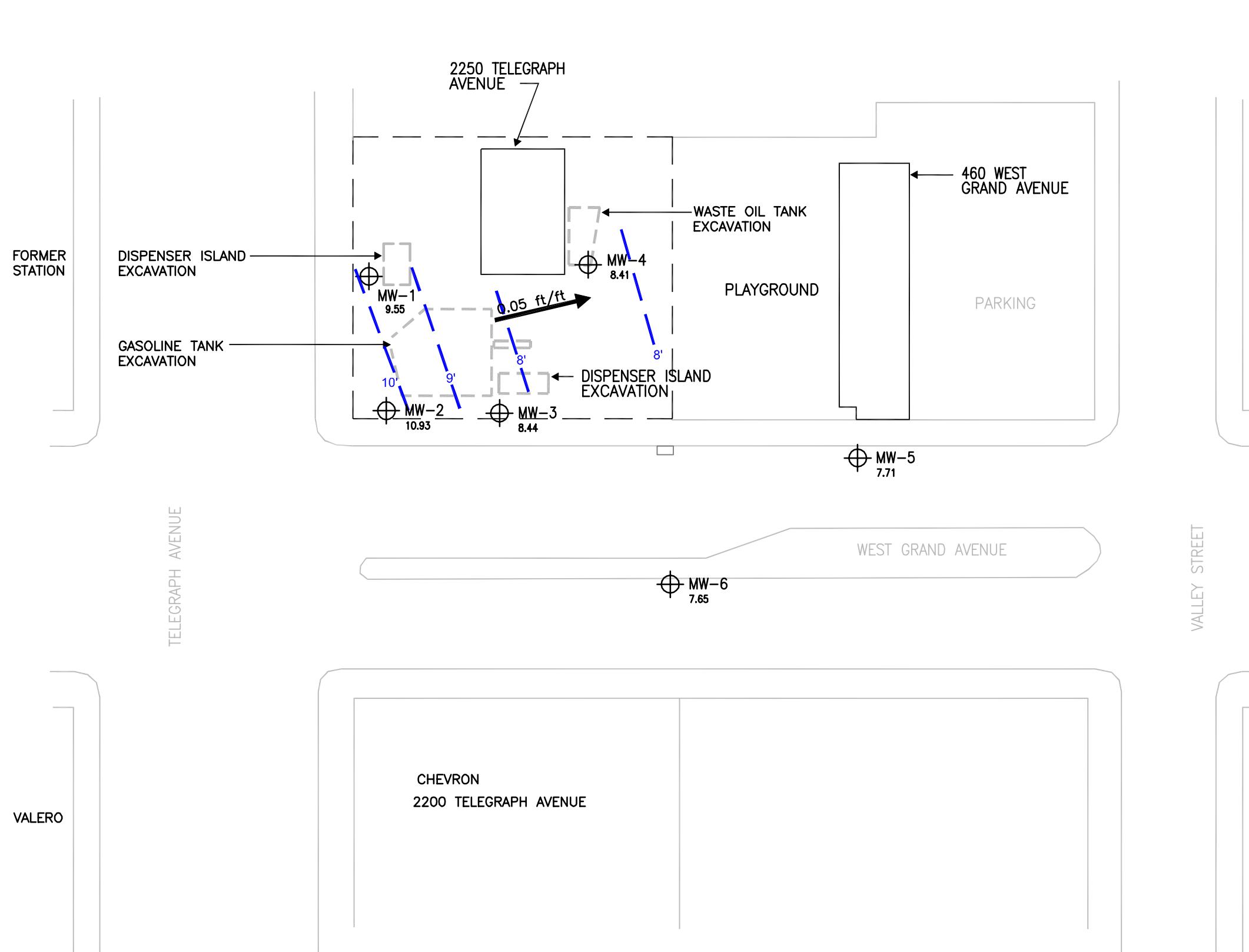


SOURCE: This Site Vicinity Map is based on The Thomas Guide Digital Edition 2003, Bay Area Metro, Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara Counties.



VICINITY MAP  
2250 Telegraph Avenue  
Oakland, California

PLATE 1



EXPLANATION

- EXISTING STRUCTURE
- - - LIMITS OF EXCAVATIONS
- MONITORING WELL LOCATION
- 8.44 GROUNDWATER ELEVATION
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- - - GROUNDWATER ELEVATION CONTOUR

**SITE PLAN**  
2250 Telegraph Avenue  
Oakland, California

**APPENDIX A**  
**WELL SAMPLING FORMS, ANALYTICAL TEST REPORT**  
**AND CHAIN OF CUSTODY FORM**



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: 22 So Telegraph Ave.  
PROJECT NO.: 669-004  
SAMPLED BY: H. Zuid  
DATE: 6/14/08  
WEATHER: warm, sunny, slight breeze

WELL NO.: MU-  
WELL CASING DIAMETER: 2'  
TOC ELEVATION: 10.55

TOTAL DEPTH OF CASING (BTOP): 18.3 FEET

CALCULATED PURGE VOLUME:  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes) 18.3 ft = 256 gallons

DEPTH TO GROUNDWATER (BTOP): 11.6 FEET

FREE PRODUCT:

FEET OF WATER IN WELL: 7.1 FEET

PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu\text{MHOS}/\text{CM}$ )	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	12:38	20.9	7.0	139	374	-3.1	11.3	clear, no odor
	12:49	21.3	6.97	112	3723	-9.4	16.92	
	12:54	21.3	6.92	110	3722	-9.6	17.42	Faint grassy odor
	12:59	21.5	6.83	110	3722	-3.5	17.92	

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOP):

13.0

TIME SAMPLED: 14:55

SAMPLING METHOD

disposable tank

CONTAINERS / PRESERVATIVE:

6/170  
40 MIL

LITER

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCS (8260)
- Title 22 Metals (6010/9000)

Pesticides (8080)

PCBs (8080)

Sulfate (300.0)

Nitrate (300.0)

Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

Was 100% full and was 100% vibration to 80%

Equipment	Serial No.	Calibration
Conductivity	Y1-600 series	Equipment Cert.
pH		
Turbidity		
Temperature		



## ES-F50 WELL SAMPLING FORM

2256  
PROJECT NAME: Telegraph Ave.  
PROJECT NO.: 689.1039  
SAMPLED BY: H.E.T.  
DATE: 6/24/08  
WEATHER: sunny, warm, slight breeze

TOTAL DEPTH OF CASING (BTOC): 16.85 FEET

DEPTH TO GROUNDWATER (BTOC): 7.70 FEET

FEET OF WATER IN WELL: 7.75 FEET

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

CALCULATED PURGE VOLUME: 3.79 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

FREE PRODUCT:

PURGE METHOD:

none  
disposable trailer

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu\text{MHO}/\text{CM}$ )	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	12:54	70.7	6.95	5.96	0.386	21.3	9.76	clear (up to 5 gal)
1.0	12:58	70.7	7.11	6.25	0.403	23.3	14.07	to light brown, no odor
2.0	13:05	71.3	7.01	6.91	8.395	23.1	9.45	
4.0	13:03	71.0	7.61	6.97	8.394	27.4	8.62	

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):

9.85

TIME SAMPLED: 13:55

SAMPLING METHOD

disposable trailer

CONTAINERS / PRESERVATIVE:

40 ML

LITER

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		
	YSI 600 series	Equipment Cert.



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: 7250 Telegraph Ave.  
 PROJECT NO.: 1609.004  
 SAMPLED BY: #1010  
 DATE: 8/14/08  
 WEATHER: Sunny, slight breeze, warm

WELL NO.: MW-3  
 WELL CASING DIAMETER: 18.3"  
 TOC ELEVATION: 18.97

TOTAL DEPTH OF CASING (BTOP): 16.30 FEET  
 DEPTH TO GROUNDWATER (BTOP): 10.83 FEET  
 FEET OF WATER IN WELL: 5.77 FEET  
 CALCULATED PURGE VOLUME:  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes) 2.82 gallons  
 FREE PRODUCT: none  
 PURGE METHOD: disposable tinter

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu$ MHOES/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	3:18	61.9	6.54	1190	8.776	-60.6	7.40	clear, pH neutral water
	3:20	60.58	6.65	1095	8.776	-59.3	6.66	
	3:21	60.50	6.70	1102	8.779	-58.0	6.77	
	3:32	60.43	6.62	1115	8.727	-53.2	6.48	↓

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOP): 10.00

TIME SAMPLED: 1415

SAMPLING METHOD: disposable tinter

CONTAINERS / PRESERVATIVE: 6 HTL

40 ML

LITER

/

/

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCS (8260)
- Title 22 Metals (6010/9000)

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity	<u>451-600</u>	<u>Sample Cert</u>
pH	<u>451-600</u>	
Turbidity		
Temperature		



## ES-F50 WELL SAMPLING FORM

PROJECT NAME:

PROJECT NO.:

SAMPLED BY:

DATE:

WEATHER:

7250 Telegraph

609204

8/14/08

Sunny, slight breeze, warm

WELL NO.: MU-4

WELL CASING DIAMETER: 2"

TOC ELEVATION: 19.88

TOTAL DEPTH OF CASING (BTOP): 18.30 FEET

CALCULATED PURGE VOLUME: 3.34 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOP): 11.47 FEET

FREE PRODUCT:

FEET OF WATER IN WELL: 6.83 FEET

PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

None

disposable barrier

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu$ MHO/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	12:10	23.54	6.37	110.8	0.725	-38.2	8.37	clear, colorless, odor
1.5	12:15	21.16	6.75	90.8	0.590	-107.1	10.09	
2.5	12:18	21.08	6.75	92.5	0.620	-102.2	5.96	turbid grey, odor
3.5	12:21	21.04	6.75	93.2	0.611	-102.1	5.31	

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOP): 14.24

TIME SAMPLED: 14:30

SAMPLING METHOD

disposable barrier

CONTAINERS / PRESERVATIVE:

40 ML

1/Amber LITER

Poly

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

OTHER

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

takes at least a few hours to recharge  
(DTW = 14.11' & DT = 13.40')

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		

YSI 600 series

Equipment Certification



### ES-F50 WELL SAMPLING FORM

PROJECT NAME: 7750 Tel. Ave  
 PROJECT NO.: 009.004  
 SAMPLED BY: JZ  
 DATE: 8/14/08  
 WEATHER: Sunny, slight breeze

WELL NO.: Aus-5  
 WELL CASING DIAMETER: 27"  
 TOC ELEVATION: 16.02

TOTAL DEPTH OF CASING (BTOC): 17.40 FEET

CALCULATED PURGE VOLUME: 445 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 8.31 FEET

FREE PRODUCT:

FEET OF WATER IN WELL: 9.09 FEET

PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

#### FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu$ Mhos/cm)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	1054	70.4	6.40	477	0.316	52.4	1.79	brown, no odor
	1059	71.21	6.41	476	0.290	50.7	4.32	
	1071	71.6	6.43	446	0.290	48.9	4.48	
	1107	71.3	6.41	442	0.290	49.3	4.12	

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):

8.31

TIME SAMPLED: 11:10

SAMPLING METHOD

Disposable barrier

CONTAINERS / PRESERVATIVE:

40 ML

LITER

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity	<u>81500</u>	<u>Multimeter - 5 years</u>
pH		
Turbidity		
Temperature	<u>Spill</u>	<u>Calibration certificate</u>



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: 2240 Telegraph  
 PROJECT NO.: 100915  
 SAMPLED BY: WY  
 DATE: 6/16/08  
 WEATHER: Sunny, slight breeze

TOTAL DEPTH OF CASING (BTOC): 12.95 FEETCALCULATED PURGE VOLUME:  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)DEPTH TO GROUNDWATER (BTOC): 10.7 FEETWELL NO.: 100915  
WELL CASING DIAMETER: 6.5"  
TOC ELEVATION: 635FEET OF WATER IN WELL: 8.24 FEET

FREE PRODUCT:

PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

none  
Disposable bailer

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu$ MHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	0747	72.04	6.78	112	0.749	-64.7	13.15	clear, diesel odor
1.5	0750	72.86	6.93	1067	0.694	-90.6	41.32	
2	0753	72.86	6.93	1079	0.698	-91.6	26.00	slight tanish stain
4	0953	72.10	6.91	1077	0.700	-90.2	7.67	diesel odor
								V

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):

10.79TIME SAMPLED: 0957

SAMPLING METHOD

disposable bailed

CONTAINERS / PRESERVATIVE:

50 ml1/4 AmberPolyOTHER

ANALYSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/14/08
Units:	ug/L	Received:	08/15/08
Diln Fac:	1.000	Prepared:	08/19/08
Batch#:	141591		

Field ID: MW-1 Analyzed: 08/21/08  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 205357-001

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

Surrogate	%REC	Limits
Hexacosane	104	63-130

Field ID: MW-2 Analyzed: 08/21/08  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 205357-002

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

Surrogate	%REC	Limits
Hexacosane	94	63-130

Field ID: MW-3 Analyzed: 08/21/08  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 205357-003

Analyte	Result	RL
Diesel C10-C24	200 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	93	63-130

Field ID: MW-4 Analyzed: 08/21/08  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 205357-004

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

Surrogate	%REC	Limits
Hexacosane	93	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard  
ND= Not Detected

RL= Reporting Limit

**Total Extractable Hydrocarbons**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/14/08
Units:	ug/L	Received:	08/15/08
Diln Fac:	1.000	Prepared:	08/19/08
Batch#:	141591		

Field ID: MW-5 Analyzed: 08/21/08  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 205357-005

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

Surrogate	%REC	Limits
Hexacosane	109	63-130

Field ID: MW-6 Analyzed: 08/21/08  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 205357-006

Analyte	Result	RL
Diesel C10-C24	390 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	109	63-130

Type: BLANK Analyzed: 08/20/08  
 Lab ID: QC456343 Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
Hexacosane	96	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Total Extractable Hydrocarbons**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC456344	Batch#:	141591
Matrix:	Water	Prepared:	08/19/08
Units:	ug/L	Analyzed:	08/20/08

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,869	75	61-120

Surrogate	%REC	Limits
Hexacosane	92	63-130

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	141591
MSS Lab ID:	205344-004	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Prepared:	08/19/08
Diln Fac:	1.000	Analyzed:	08/20/08

Type: MS Cleanup Method: EPA 3630C  
 Lab ID: QC456345

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	16.31	2,500	2,096	83	58-126

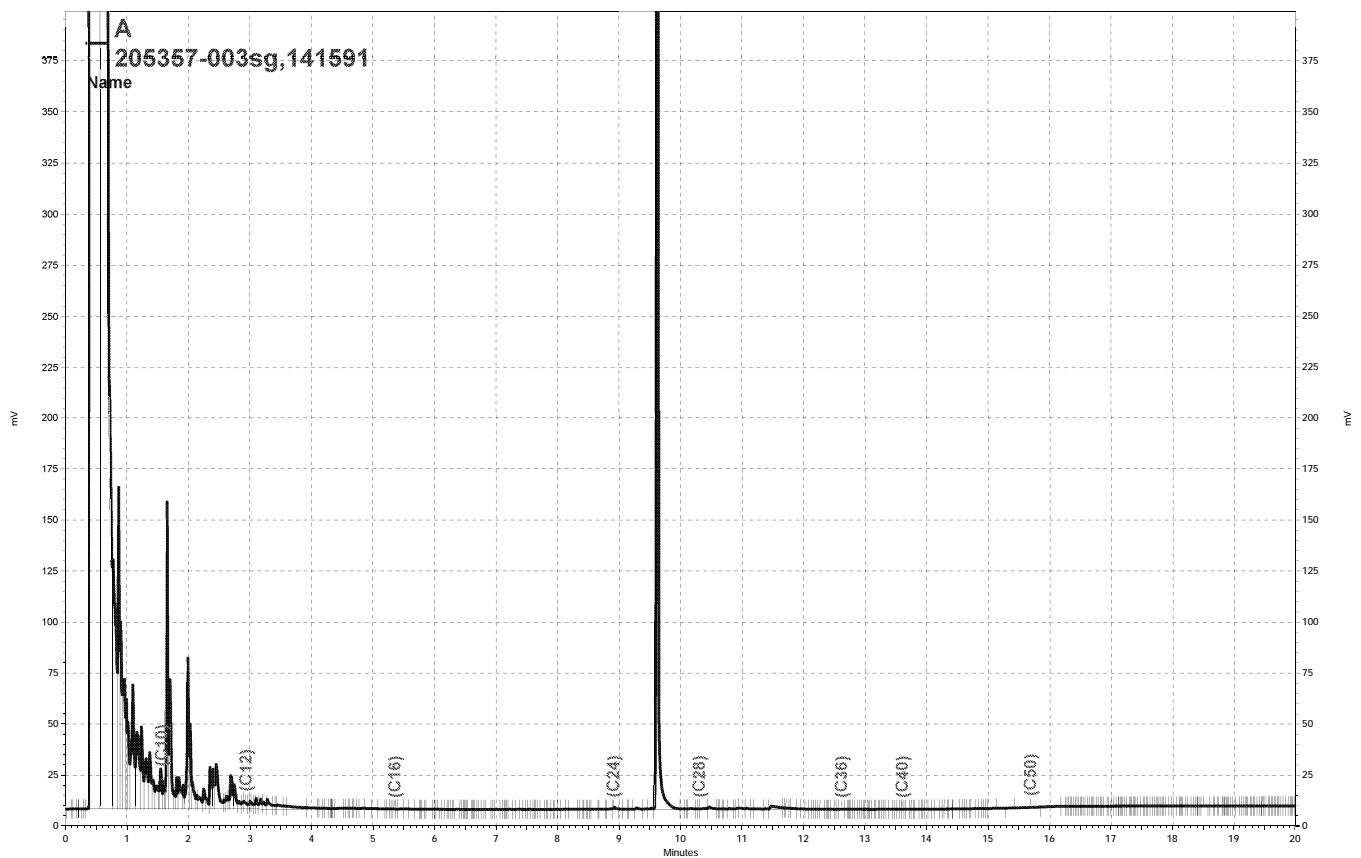
Surrogate	%REC	Limits
Hexacosane	97	63-130

Type: MSD Cleanup Method: EPA 3630C  
 Lab ID: QC456346

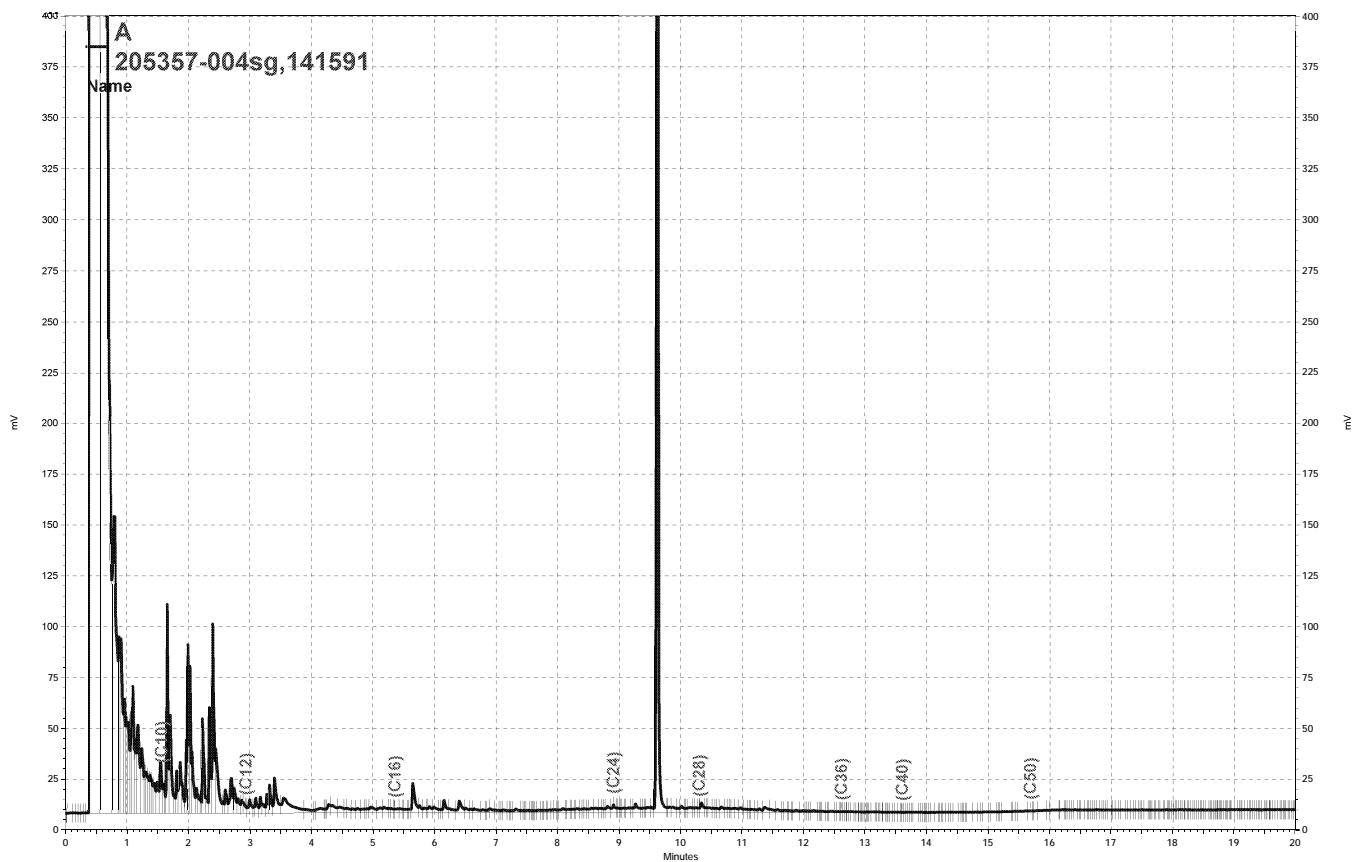
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,908	76	58-126	9	31

Surrogate	%REC	Limits
Hexacosane	90	63-130

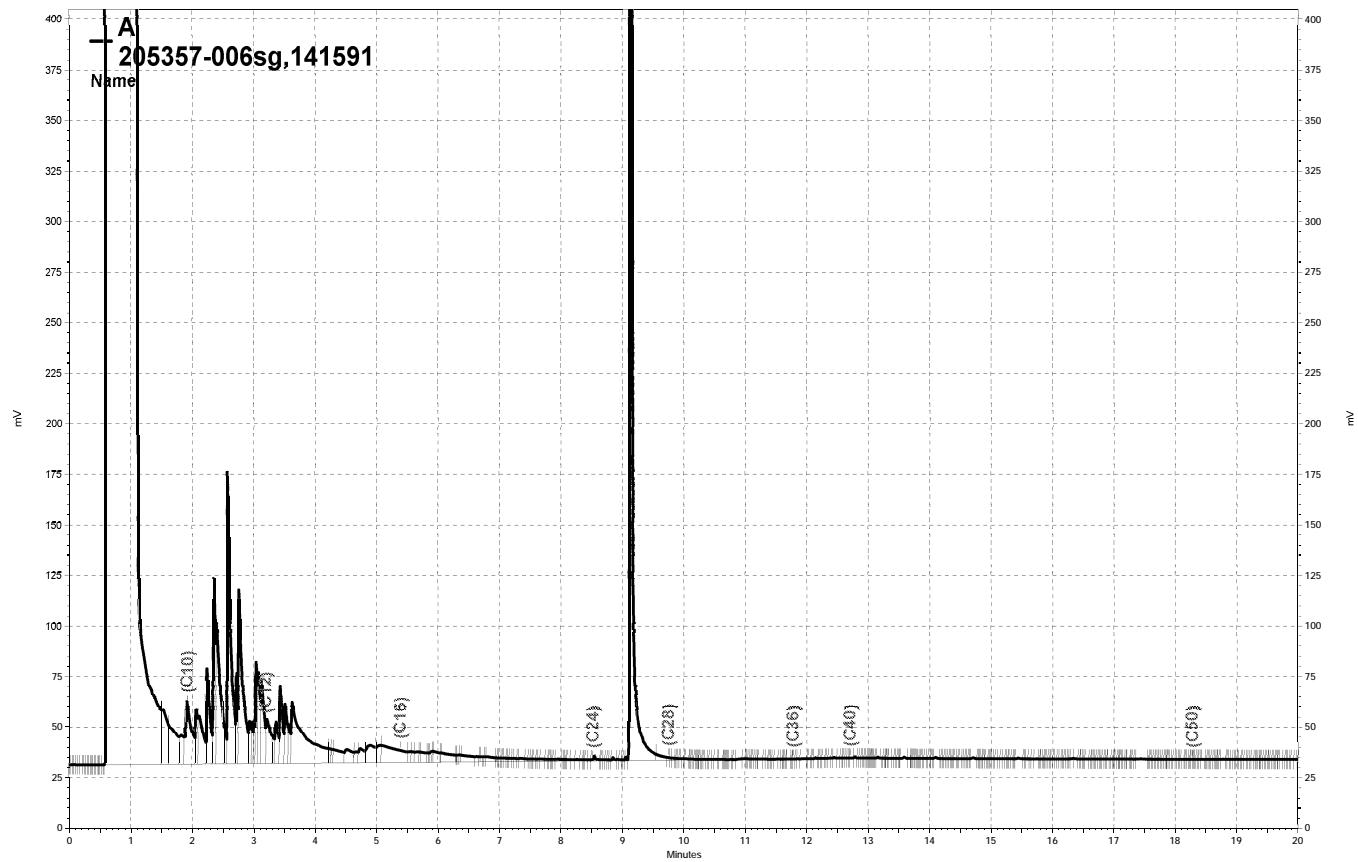
RPD= Relative Percent Difference



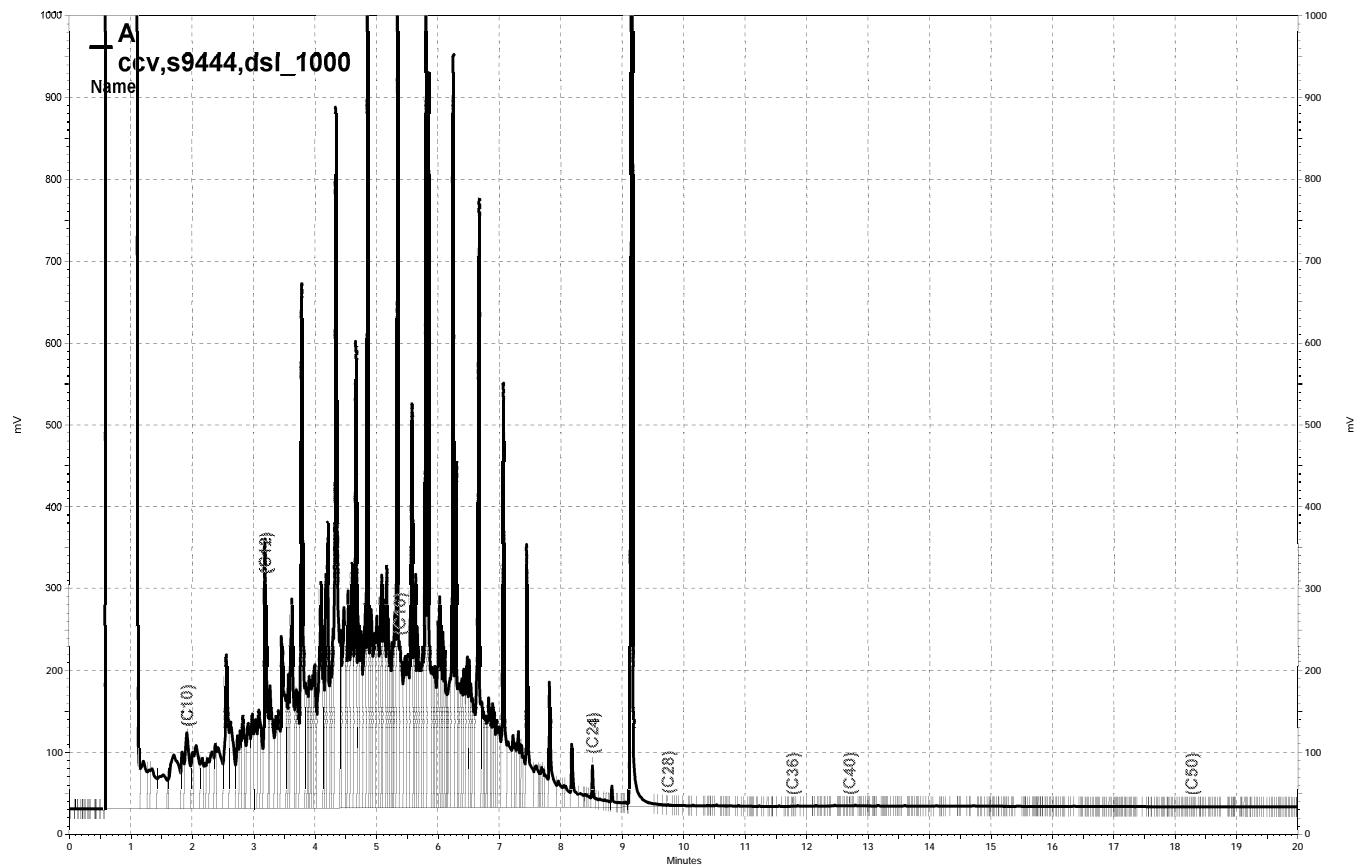
— \\Lims\\gdrive\\ezchrom\\Projects\\GC26\\Data\\234a016, A



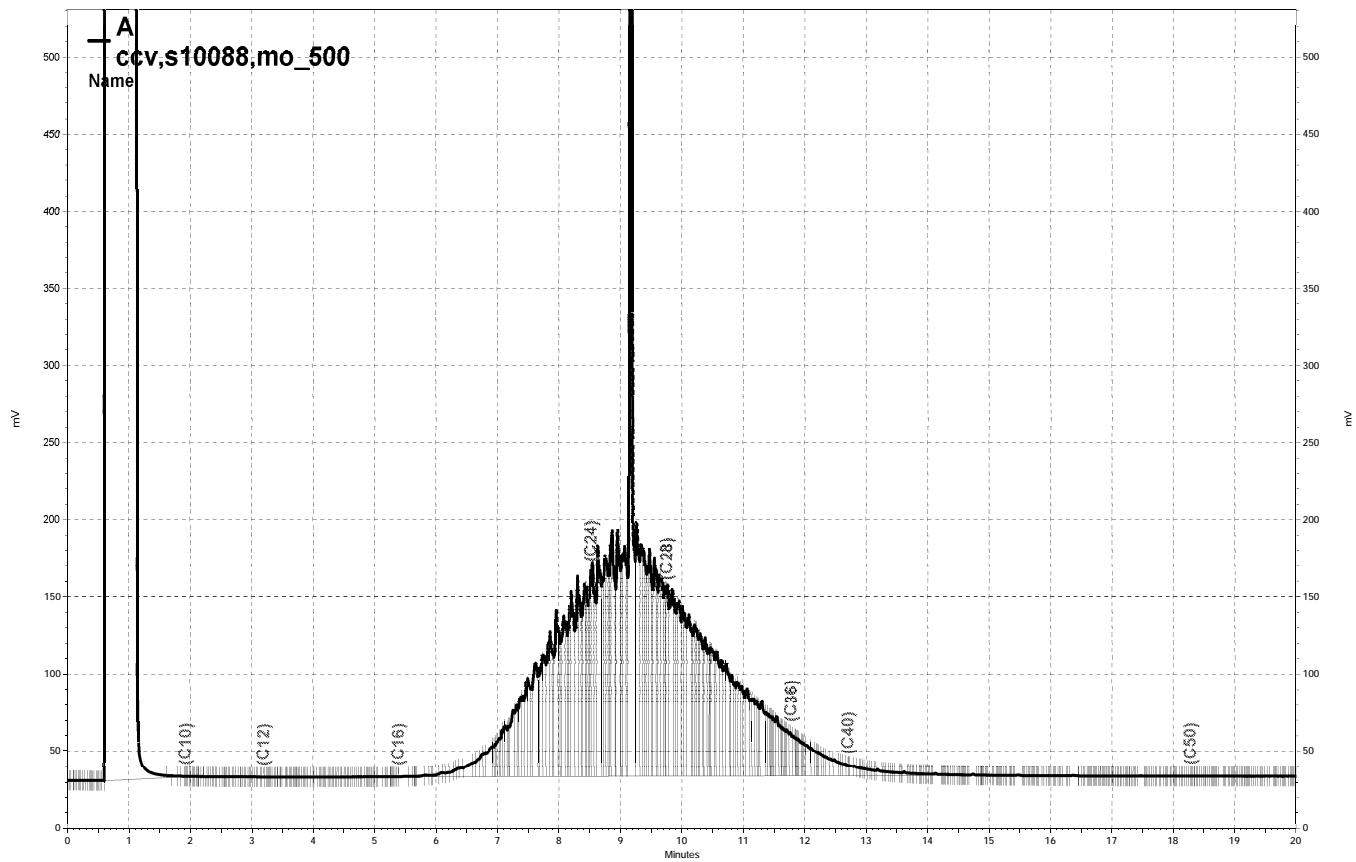
— \\Lims\\gdrive\\ezchrom\\Projects\\GC26\\Data\\234a017, A



— \\Lims\\gdrive\\ezchrom\\Projects\\GC11A\\Data\\233a046, A



— \\Lims\\gdrive\\ezchrom\\Projects\\GC11A\\Data\\233a041, A



— \\Lims\\gdrive\\ezchrom\\Projects\\GC11A\\Data\\233a042, A

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	141619
Lab ID:	205357-001	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	71 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	93	76-138
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	141619
Lab ID:	205357-002	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	95	76-138
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	141619
Lab ID:	205357-003	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	7.143		

Analyte	Result	RL
Gasoline C7-C12	1,400	360
tert-Butyl Alcohol (TBA)	ND	71
Isopropyl Ether (DIPE)	ND	3.6
Ethyl tert-Butyl Ether (ETBE)	ND	3.6
Methyl tert-Amyl Ether (TAME)	ND	3.6
MTBE	ND	3.6
1,2-Dichloroethane	ND	3.6
Benzene	510	3.6
Toluene	8.2	3.6
1,2-Dibromoethane	ND	3.6
Ethylbenzene	22	3.6
m,p-Xylenes	7.2	3.6
o-Xylene	ND	3.6

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-123
1,2-Dichloroethane-d4	85	76-138
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	141619
Lab ID:	205357-004	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,900 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	1.4	0.50
Toluene	0.59	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.85	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-123
1,2-Dichloroethane-d4	91	76-138
Toluene-d8	100	80-120
Bromofluorobenzene	108	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	141619
Lab ID:	205357-005	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-123
1,2-Dichloroethane-d4	91	76-138
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-6	Batch#:	141619
Lab ID:	205357-006	Sampled:	08/14/08
Matrix:	Water	Received:	08/15/08
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,100 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-123
1,2-Dichloroethane-d4	88	76-138
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC456450	Batch#:	141619
Matrix:	Water	Analyzed:	08/20/08
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	93	76-138
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	141619
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Type: BS Lab ID: QC456451

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	138.0	110	55-158
Isopropyl Ether (DIPE)	25.00	23.58	94	63-122
Ethyl tert-Butyl Ether (ETBE)	25.00	23.18	93	62-133
Methyl tert-Amyl Ether (TAME)	25.00	24.70	99	69-137
MTBE	25.00	23.67	95	60-136
1,2-Dichloroethane	25.00	21.94	88	77-125
Benzene	25.00	23.07	92	80-120
Toluene	25.00	24.03	96	80-121
1,2-Dibromoethane	25.00	23.46	94	80-120
Ethylbenzene	25.00	24.18	97	80-124
m,p-Xylenes	50.00	48.14	96	80-128
o-Xylene	25.00	24.23	97	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-123
1,2-Dichloroethane-d4	94	76-138
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

Type: BSD Lab ID: QC456452

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	123.0	98	55-158	11	20
Isopropyl Ether (DIPE)	25.00	24.29	97	63-122	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	23.56	94	62-133	2	20
Methyl tert-Amyl Ether (TAME)	25.00	25.36	101	69-137	3	20
MTBE	25.00	23.86	95	60-136	1	20
1,2-Dichloroethane	25.00	22.60	90	77-125	3	20
Benzene	25.00	24.58	98	80-120	6	20
Toluene	25.00	25.33	101	80-121	5	20
1,2-Dibromoethane	25.00	23.91	96	80-120	2	20
Ethylbenzene	25.00	25.72	103	80-124	6	20
m,p-Xylenes	50.00	52.33	105	80-128	8	20
o-Xylene	25.00	25.91	104	80-123	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	92	76-138
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

Page 1 of 1

## Batch QC Report

**Gasoline by GC/MS**

Lab #:	205357	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	141619
Units:	ug/L	Analyzed:	08/20/08
Diln Fac:	1.000		

Type: BS Lab ID: QC456453

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	898.1	90	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	91	76-138
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC456454

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	877.2	88	80-120	2 20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-123
1,2-Dichloroethane-d4	90	76-138
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-120

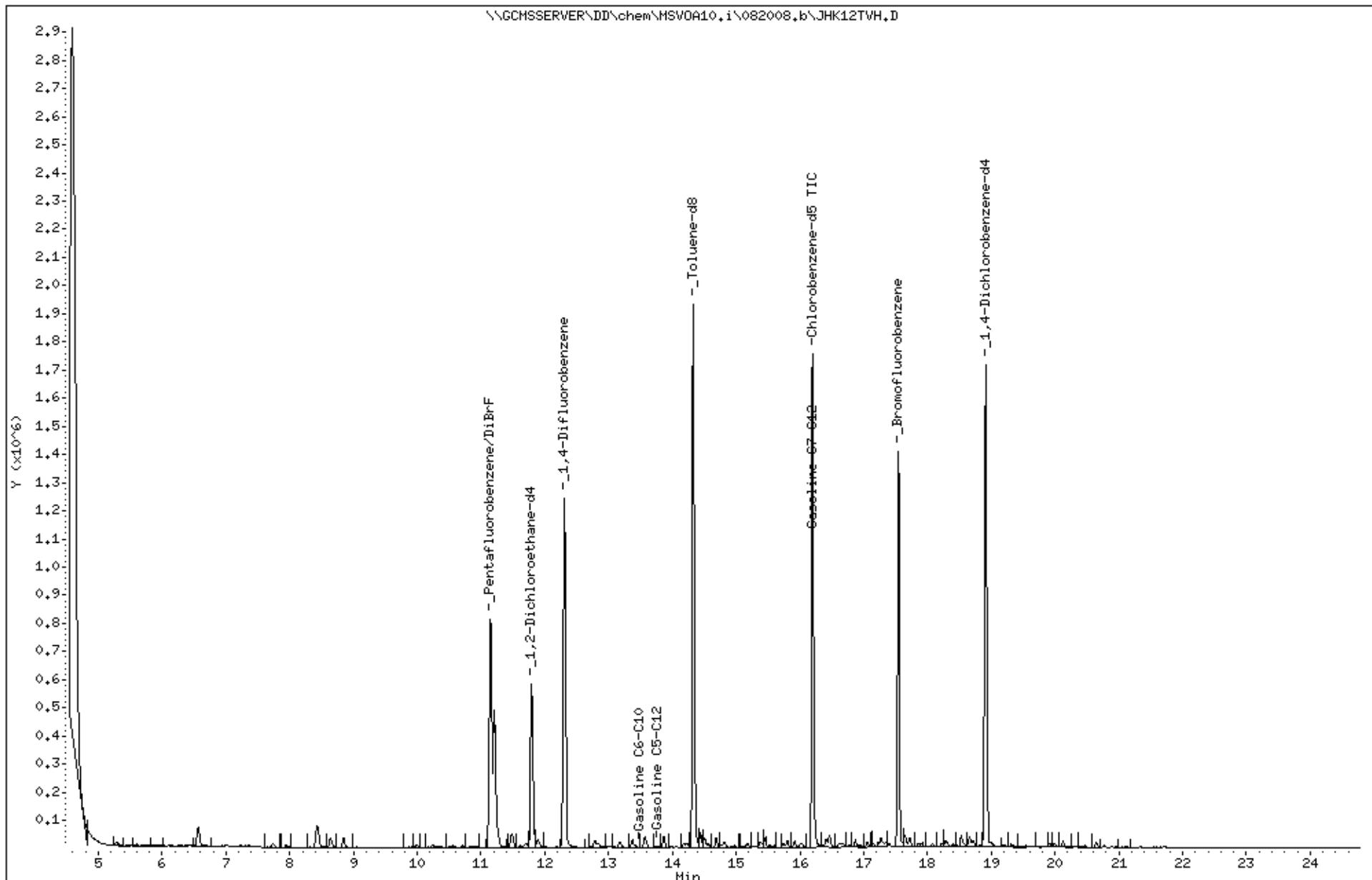
RPD= Relative Percent Difference

Data File: \\GCHSSERVER\\DD\\chem\\MSV0A10.i\\082008.b\\JHK12TVH.D  
Date : 20-AUG-2008 15:46  
Client ID: DYNAP&T  
Sample Info: S,205357-001

Column phase:

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

Page 2

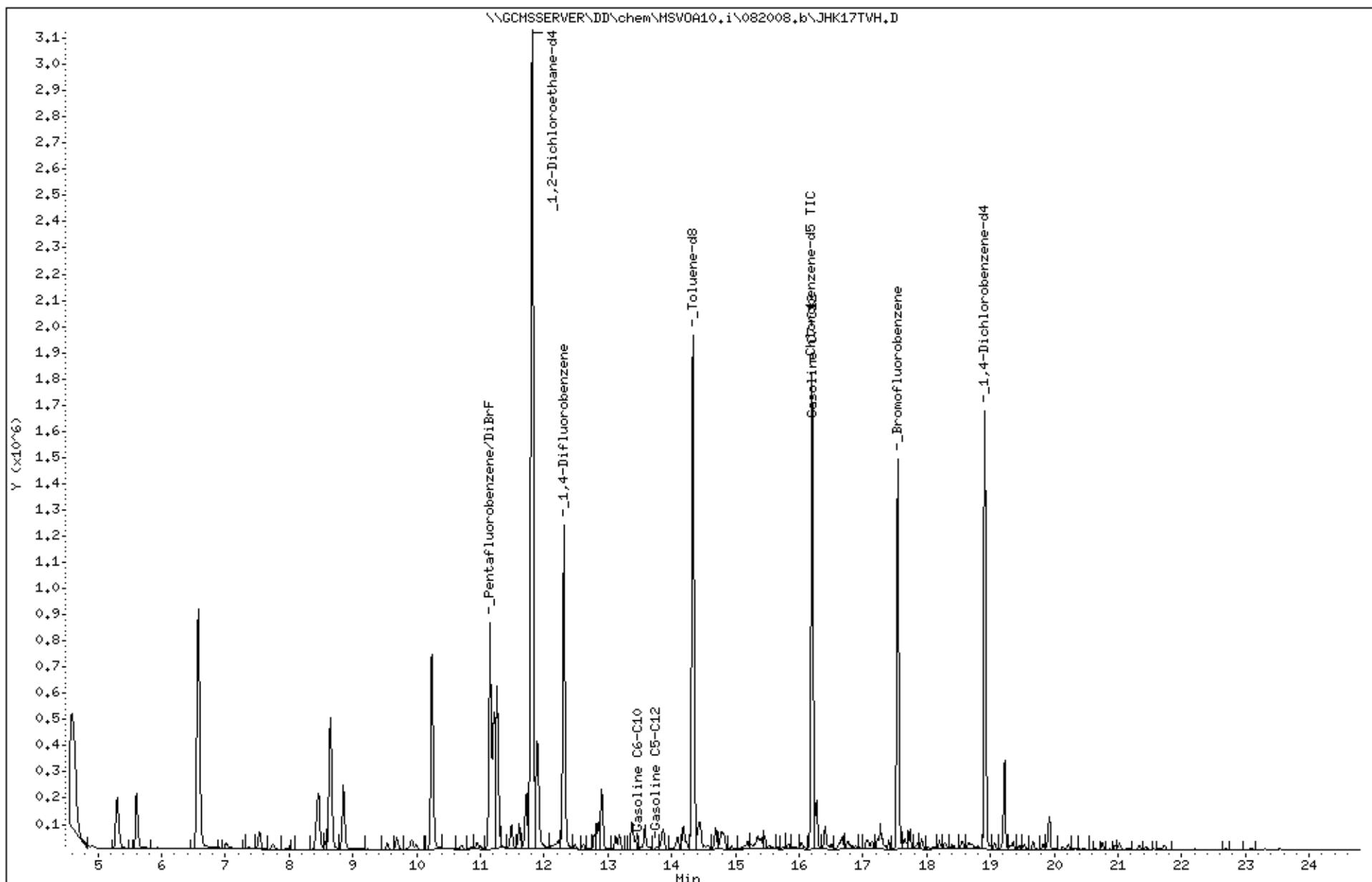


Data File: \\GCHSSERVER\\DD\\chem\\MSV0A10.i\\082008.b\\JHK17TVH.D  
Date : 20-AUG-2008 18:43  
Client ID: DYNAP&T  
Sample Info: S,205357-003

Page 2

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

Column phase:

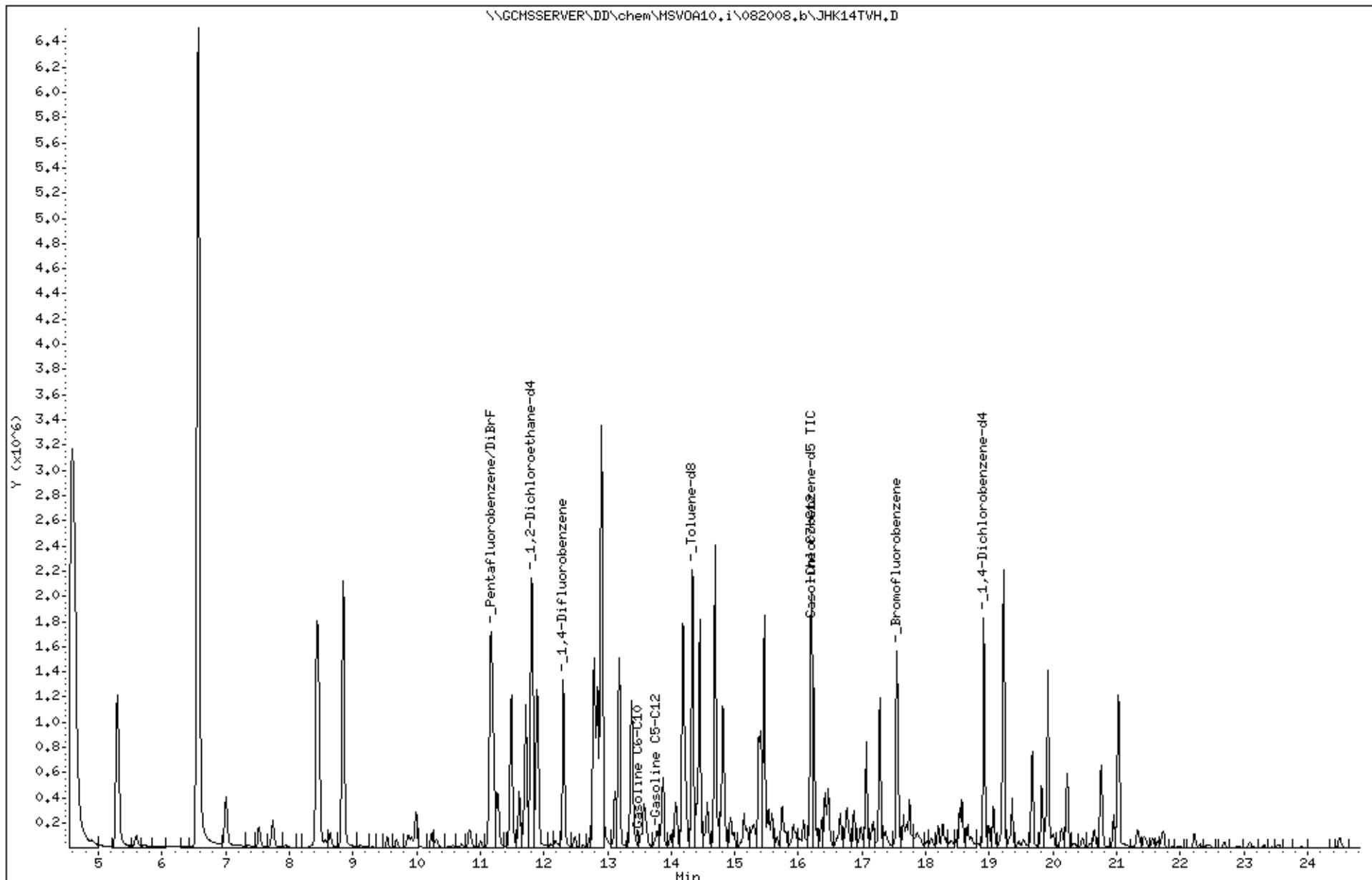


Data File: \\GCHSSERVER\\DD\\chem\\MSV0A10.i\\082008.b\\JHK14TVH.D  
Date : 20-AUG-2008 16:57  
Client ID: DYNAP&T  
Sample Info: S,205357-004

Column phase:

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

Page 2

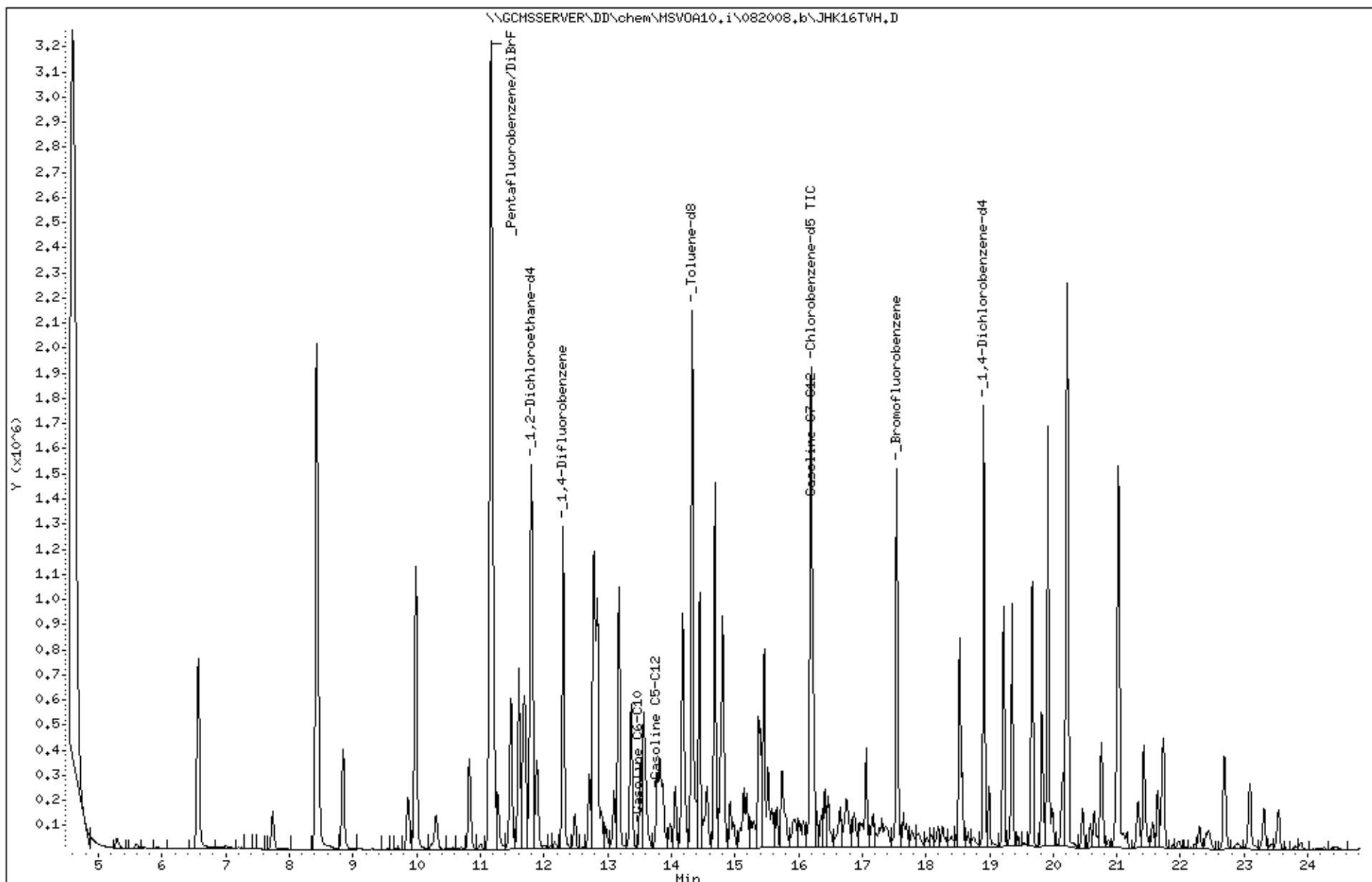


Data File: \\GCHSSERVER\\DD\\chem\\MSV0A10.i\\082008.b\\JHK16TVH.D  
Date : 20-AUG-2008 18:07  
Client ID: DYNAP&T  
Sample Info: S,205357-006

Page 2

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

Column phase:



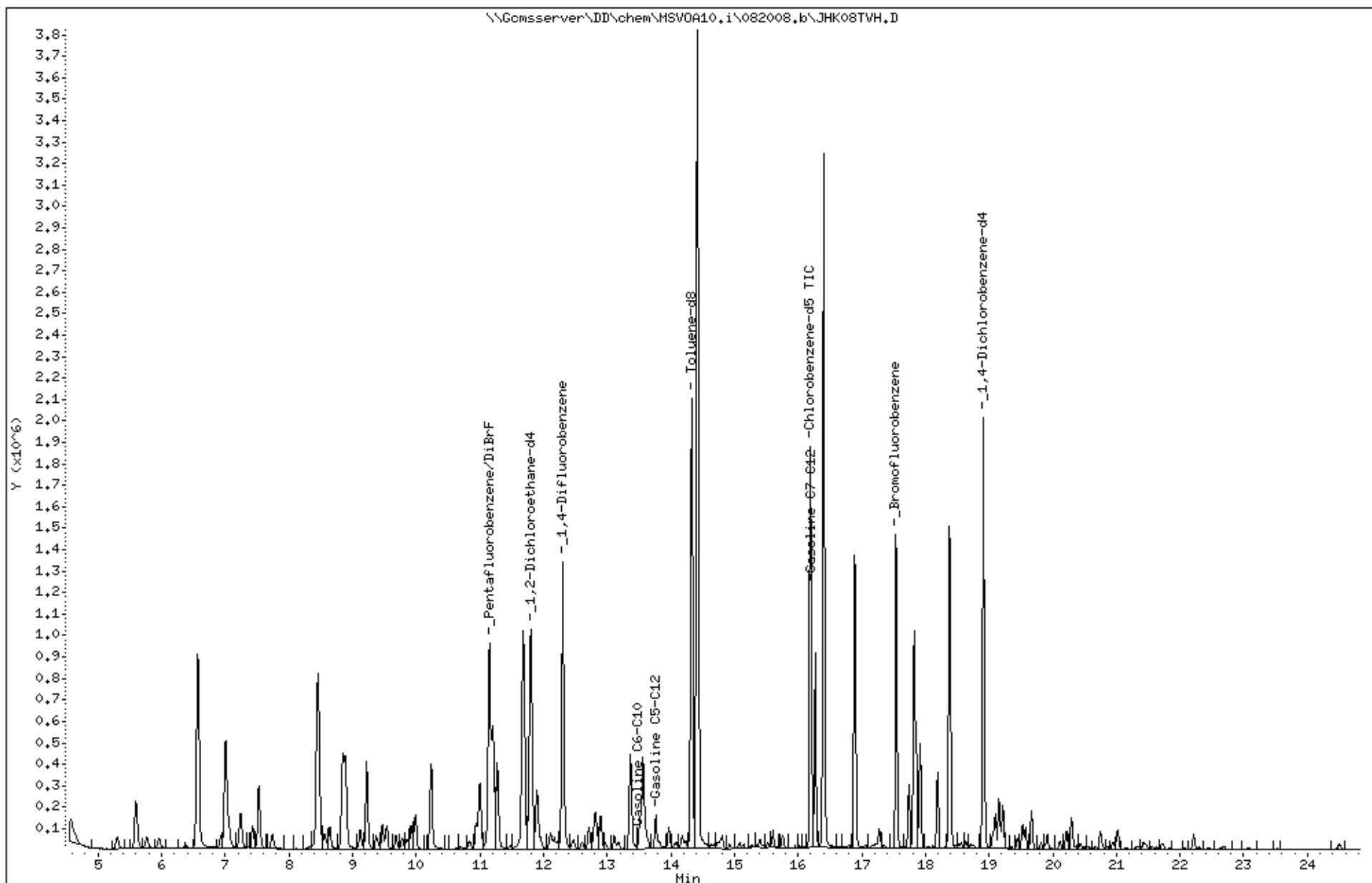
Data File: \\Gomsserver\DD\chem\MSV0A10.i\082008.b\JHK08TVH.D  
Date : 20-AUG-2008 13:25  
Client ID: DYNAP&T  
Sample Info: CCV/BS, QC456453

Page 2

Instrument: MSV0A10.i

Column phase:

Operator: VOA  
Column diameter: 2.00



**ES-F10 CHAIN OF CUSTODY**

PAGE 1 OF 1

205357

PROJECT NAME: 2250 Telegraph Avenue

PROJECT NO.: 609.004

LAB: C&T

PROJECT CONTACT: Jeri Alexander

TURNAROUND: Standard

SAMPLED BY: Hanako Zeidenberg

**ANALYSIS REQUESTED**

LABORATORY I.D. NUMBER	FIELD SAMPLE I.D.	MATRIX			CONTAINERS			PRESERVATIVE			SAMPLING DATE				NOTES					
		WATER	SOIL	AIR	VOA	LITER	PINT	TUBE	HCL (Voas)	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	OTHER	NONE (Amber)	MONTH	DAY	YEAR	TIME		
1	MW-1	X			6	1			X			X	X		0	8	1	4	0	TPHg (8260)
2	MW-2	X			6	1			X		X	X			0	8	1	4	0	TPHd and mo (8015m w/silica)
3	MW-3	X			6	1			X		X	X			0	8	1	4	0	BTPEX, MTBE, 5 Fuel Oxygenates (8260)
4	MW-4	X			6	1			X		X	X			0	8	1	4	0	Lead Scavengers (8260)
5	MW-5	X			6	1			X		X	X			0	8	1	4	1	EDD
6	MW-6	X			6	1			X		X	X			0	8	1	4	0	

**CHAIN OF CUSTODY RECORD**

**COMMENTS & NOTES:**

RELINQUISHED BY: (Signature)

DATE/TIME

8/15-08 | 9:06

RECEIVED BY: (Signature)

DATE/TIME

8/15/08 | 9:06

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME



**FUGRO WEST, INC.**

1000 Broadway, Suite 200

Oakland, California 94607

Tel: 510.268.0461 Fax: 510.268.0137

Approved by Glenn Young, AC 62 Manager, Fugro West, Inc. 10/13/06

Note: If this is a printed copy, please check the online QMS to ensure that it is the latest version.

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 265357 Date Received 8/15/08 Number of coolers 1  
 Client Eugene Project 2260 Telegraph Ave

Date Opened 8/15 By (print) K Wellbrook (sign) K Wellbrook  
 Date Logged in V By (print) V (sign) V

1. Did cooler come with a shipping slip (airbill, etc)? ..... YES  NO  
 Shipping info \_\_\_\_\_

2A. Were custody seals present? .....  YES (circle) on cooler  on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

2B. Were custody seals intact upon arrival? ..... YES  NO  N/A

3. Were custody papers dry and intact when received? .....  YES  NO

4. Were custody papers filled out properly (ink, signed, etc)? .....  YES  NO

5. Is the project identifiable from custody papers? (If so fill out top of form) .....  YES  NO

6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

<input type="checkbox"/> Bubble Wrap	<input type="checkbox"/> Foam blocks	<input checked="" type="checkbox"/> Bags	<input type="checkbox"/> None
<input type="checkbox"/> Cloth material	<input type="checkbox"/> Cardboard	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Paper towels

7. Temperature documentation:

Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ..... YES   
 If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? .....  YES  NO

10. Are samples in the appropriate containers for indicated tests? .....  YES  NO

11. Are sample labels present, in good condition and complete? .....  YES  NO

12. Do the sample labels agree with custody papers? .....  YES  NO

13. Was sufficient amount of sample sent for tests requested? .....  YES  NO

14. Are the samples appropriately preserved? .....  YES  NO N/A

15. Are bubbles > 6mm absent in VOA samples? .....  YES  NO N/A

16. Was the client contacted concerning this sample delivery? ..... YES  NO

If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

---



---



---



---



---



---



---



---



---



---



---



---



---



---