

# BUTTNER PROPERTIES, INC.

PROPERTY DEVELOPMENT • REAL ESTATE INVESTMENT • PROPERTY MANAGEMENT  
600 West Grand Avenue, Oakland, California 94612  
Telephone (510) 832-3456 • Facsimile (510) 465-4670  
Email: Buttner@value.net

November 14, 2011

**RECEIVED**

**11:07 am, Nov 22, 2011**

Alameda County  
Environmental Health

Alameda County Environmental Health Services  
Local Oversight Program  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Attention: Ms. Barbara Jakub, Hazardous Materials Specialist

RE: Dave's Station  
2250 Telegraph Avenue  
Oakland, California

Dear Ms. Jakub:

The "Third Quarter 2011 Groundwater Monitoring Report, 2250 Telegraph Avenue, Oakland, California dated November 14, 2011" ("Report") was prepared by our consultant, Fugro West, Inc. ("Fugro"), who we believe to be experienced and qualified to advise us in a technical area that requires a high degree of professional expertise. Therefore we have relied upon Fugro's assistance, knowledge and expertise in their preparation of the Report. I am unaware of any material inaccuracy in the information in the Report or of any violation of government guidelines that are applicable to the Report. Accordingly, I am not aware of any reason to question the conclusions and recommendations contained in the Report.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1).

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

*Marianne Robison*

Marianne Robison  
President

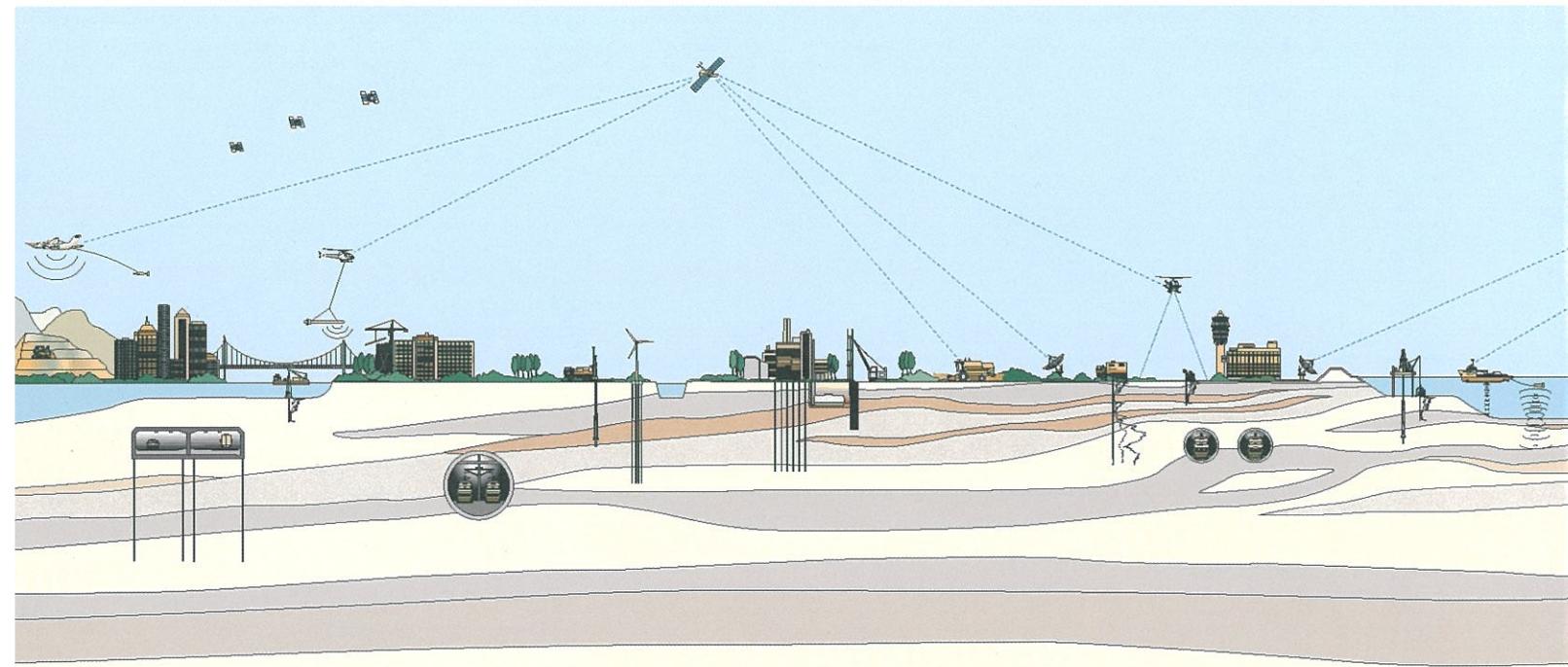
FUGRO CONSULTANTS, INC.



**THIRD QUARTER 2011 GROUNDWATER  
MONITORING REPORT  
2250 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA**

Prepared for:  
**BUTTNER PROPERTIES**

November 2011  
Fugro Project No. 04.B0609004





November 14, 2011  
Project No. 04.B0609004

1000 Broadway, Suite 440  
Oakland, California 94607  
**Tel: (510) 268-0461**  
Fax: (510) 268-0137

Buttner Properties  
600 West Grand Avenue  
Oakland, California 94612

Attention: Ms. Marianne Robison

Subject: Third Quarter 2011 Groundwater Monitoring Report,  
Fuel Leak Case No. RO0000359, GeoTracker Global ID T0600100431,  
Dave's Station, 2250 Telegraph Avenue, Oakland, California

Dear Ms. Robison:

Fugro Consultants, Inc., (Fugro) is pleased to present this report, which records the results of the Third Quarter 2011 groundwater monitoring event for the 2250 Telegraph Avenue property (Site). The groundwater monitoring program is currently being implemented in general accordance with Fugro's Technical Comments and Work Plan response letter dated October 12, 2010. During this monitoring event, Fugro conducted a quarterly event comprised of gauging accessible wells and sampling wells MW-7 and MW-8. The Site location is shown on the Vicinity Map - Plate 1, and the Site Plan is presented on Plate 2.

## BACKGROUND

Three USTs associated with the former service station were removed in 1990 under the observation of Fugro staff. Source removal activities conducted in 1990 removed about 500 cubic yards of gasoline impacted soil, and source removal activities conducted in 1994 removed about 70 cubic yards of waste-oil and gasoline impacted soils. Four monitoring wells (MW-1 through MW-4), located onsite, have been monitored since 1994. Two additional wells (MW-5 and MW-6) located in areas along West Grand Avenue, down and cross-gradient of the former UST improvements, have been monitored since 1997.

A review of soil and groundwater data collected during source removal activities, site characterization and monitoring well installation studies, and groundwater monitoring events conducted onsite since March 1994, indicates that the Site is impacted by petroleum hydrocarbon releases that occurred onsite and possibly some releases which have occurred from offsite sources. The plumes become commingled onsite. Data further suggests that the characteristics of the plumes have not changed significantly during the last seventeen years. Well MW-5 has consistently returned non-detectable results since it was installed in the parking lane along West Grand Avenue in the late 1990's. Additionally, Fugro has maintained that well MW-6 doesn't reflect groundwater contamination originating from the Site. As a result it has been Fugro's professional opinion that these two monitoring wells are situated beyond the distal limit of the onsite plume. Based on the quantity of groundwater data collected to date, we

recommended in our 2009 Site Investigation Report, the installation of two new monitoring wells (wells MW-7 and MW-8) to better define the distal limits of the groundwater plume. Fugro recently installed and sampled the two new wells as documented in our report titled Well Installation Completion Report and Second Quarter 2011 Groundwater Monitoring Report, dated September 30, 2011.

## **GROUNDWATER MONITORING – THIRD QUARTER 2011**

Fugro conducted this monitoring event on September 8 and 9, 2011. Prior to sampling, the presence of free product was checked and the depth to groundwater was measured in all onsite and offsite wells with the exception of well MW-6 due to access constraints. On September 8, 2011, well MW-8 was purged of approximately three casing volumes of water while monitoring for changes in pH, conductivity, and temperature. Well MW-8 was not sampled on September 8, due to slow recharge of the well. Fugro's field personnel returned to the Site on September 9, 2011 and purged and sampled MW-7, and sampled MW-8 with clean disposable bailers once water levels stabilized to within 80 percent of the initial measurement. Fugro also obtained a duplicate groundwater sample from well MW-8 to provide an estimate of the total sampling and laboratory analytical precision.

During this groundwater monitoring event, Fugro's field personnel noticed petroleum hydrocarbon odor during purging and sampling of Monitoring Well MW-8; however, no free product was observed. No odors were observed during purging and sampling activities conducted for well MW-7.

All groundwater 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 documentation to Curtis & Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services for hazardous waste and water testing in accordance with the approved monitoring program. A sample from each well was analyzed for the following constituents:

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

Well gauging and sampling forms and the laboratory analytical report (including chain-of-custody documentation) is presented in Appendices A and B, respectively. Groundwater elevation data is summarized in Table 1. Analytical test results are summarized in Table 2; Relative Percent Difference (RPD) calculations for assessing field collection and laboratory testing quality parameters for the duplicate water sample collected are presented in Table 3.

The historic groundwater flow directions for this Site are presented in the Rose Diagram on Plate 2. The gradient for this event was 0.01 feet/feet<sup>1</sup> directed towards the south-southeast. Based on the groundwater data presented in Table 1, the groundwater gradient remains generally consistent with previous seasonal measurements. Groundwater was generally encountered at higher elevations compared to the Second Quarter 2011 monitoring event.

## QUALITY CONTROL AND DATA VALIDATION

With this groundwater monitoring event, Fugro is documenting the QA/QC and data validation program we conduct for our environmental projects. The objectives of QA/QC and data validation are to obtain and present accurate, precise, and complete data.

To assess the completeness of the data reported by the laboratory, Fugro checked 100 percent of the laboratory report and found that all requested tests were completed. Therefore, the chemical report is considered to be complete.

To assess the accuracy of the laboratory data, Fugro reviewed the laboratory reports to confirm compliance with the laboratory's own QA/QC limits. For this sampling event Curtis and Tompkins, Ltd, QA/QC reporting indicated no exceptions to compliance with their own QA/QC limits. In general, Curtis and Tompkins, Ltd. noted no QA/QC problems for EPA Methods and their internal reporting of surrogate recovery was within their noted acceptable ranges.

To assess field procedures and laboratory testing quality, Fugro collected one duplicate groundwater sample from well MW-8 and compared the data obtained with the data obtained from the initial sample collected from well MW-8 during this event. The comparison is evaluated using the RPD. While we do expect variation to occur, our goal is to document that the RPD is less than 20%. Analysis of the duplicate groundwater sample (Dup-1) detected TVHg and TEHd concentrations with a RPD of 12 percent. Concentrations of BTEX and 1,2-dichloroethane were detected with a RPD ranging from 26 to 36 percent. Therefore, duplicate groundwater results for TPH were within Fugro's acceptable RPD criteria of 20 percent; however the duplicate groundwater results for the VOCs slightly exceed the RPD of 20 percent.

Although RPDs for VOCs exceed 20 percent, based on our review of the overall field and laboratory QA/QC protocols, data validation and findings, Fugro still judges that the samples and resulting chemical analyses are representative of site conditions.

## DISCUSSION OF RESULTS

No odors were observed during sampling of well MW-7 and analyses did not detect any of the constituents analyzed in the groundwater samples obtained from the well. Based on these results, it does not appear the plume has extended to MW-7.

<sup>1</sup> Data based on current measurements in wells MW-3 through MW-8. Wells MW-1 and MW-2 are not used in gradient determination as its conditions are not representative of onsite conditions.

Petroleum hydrocarbon odors were observed during sampling of well MW-8. Analyses detected TVHg and TEHd during this event in groundwater samples obtained from well MW-8 at concentrations of 800 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and 900  $\mu\text{g}/\text{L}$ , respectively. TEHmo was not detected in the samples analyzed from MW-8. Analysis detected benzene, toluene, ethylbenzene, and total xylenes in Well MW-8 at concentrations of 0.71  $\mu\text{g}/\text{L}$ , 0.78  $\mu\text{g}/\text{L}$ , 13  $\mu\text{g}/\text{L}$ , and 4.8  $\mu\text{g}/\text{L}$ , respectively. No MTBE concentrations or any other of the fuel oxygenates were detected. Of the two lead scavengers, only 1,2-dichloroethane was detected at a concentration of 1.4  $\mu\text{g}/\text{L}$ . In general, concentrations of the analytes detected during this sampling event are lower than the first groundwater samples obtained from this well.

## REPORTING REQUIREMENTS

In accordance with reporting requirements, Fugro has uploaded a PDF copy of this Third Quarter 2011 Groundwater Monitoring Report 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 Regional Water Quality Control Board's (RWQCB) GeoTracker database.

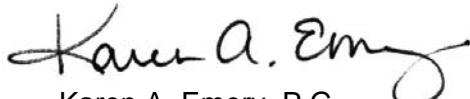
## FUTURE SITE WORK

Fugro is in the process of preparing a Corrective Action Plan (CAP) for submittal to ACEH by November 21, 2011. The purpose of the CAP is to provide a framework for remediation considering all pertinent regulatory guidance, site conditions, and probable future use of the Site. It is our understanding that Buttner Properties envisions starting procedures to relocate the existing tenant and updating the case classification in the UST Fund project approval process within six months of obtaining approval of the CAP. Once the tenant is relocated and UST Fund project approval is in place, Buttner Properties has indicated they would be positioned to implement the proposed remedy.

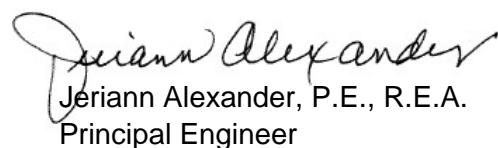
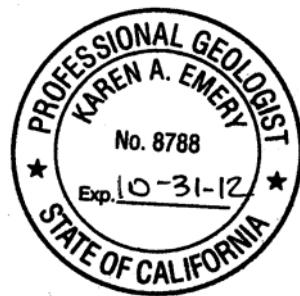
Sufficient data has been obtained over the past seventeen years to fully characterize residual contamination in soil and groundwater. Further, the existing soil and groundwater impacts have not changed significantly during this time, which suggests that additional data collected at this point will not serve a purpose or change the findings in this CAP. As such, Fugro will request on your behalf discontinuing groundwater monitoring of wells MW-1 through MW-6 until after the completion of remediation at the Site. As directed in ACEH's letter dated August 13, 2010. Fugro will complete the remaining two quarters (Fourth Quarter 2011 and First Quarter 2012) of groundwater monitoring at recently installed wells MW-7 and MW-8 and then request to discontinue groundwater sampling at these two locations until after remediation is complete. We will keep you informed of the ACEH response to this request. Based on the above, the next scheduled monitoring event for wells MW-7 and MW-8 will be conducted during December of 2011. If you have any questions, please call either of the undersigned at (510) 268-0461.

Sincerely,

Fugro CONSULTANTS, Inc.



Karen A. Emery, P.G.  
Senior Project Geologist



Jeriann Alexander, P.E., R.E.A.  
Principal Engineer



KAE/JNA:ke

- Attachments: Table 1 - Groundwater Elevation Data  
Table 2 – Summary of Chemical Concentrations – Groundwater Monitoring Wells  
Table 3 – Summary of Quality Control Sample Results  
Plate 1 - Vicinity Map  
Plate 2 - Site Plan  
  
Appendix A – Well Sampling Forms  
Appendix B – Analytical Report and Chain-of-Custody Form

Copies Submitted: (1) Addressee  
(PDF) Mr. Tim Robison, Ph.D.  
(PDF) Alameda County Environmental Health FTP website  
(PDF) Regional Water Quality Control Board GeoTracker database

## **TABLES**

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

Monitoring Well	Date	TOC Elevation (Feet MSL)	DTW (feet)	Elevation (Feet MSL)
MW-1	3/3/1994	20.55	10.39	10.16
	3/10/1994		10.54	10.01
	6/6/1994		11.36	9.19
	9/7/1994		11.92	8.63
	12/22/1994		10.83	9.72
	3/17/1995		9.73	10.82
	6/27/1995		10.51	10.04
	9/18/1995		11.12	9.43
	5/30/1996		10.49	10.06
	7/9/1997		11.79	8.76
	8/21/1998		11.00	9.55
	10/6/1998		11.84	8.71
	2/24/1999		9.74	10.81
	6/30/2000		11.28	9.27
	4/27/2001		10.56	9.99
	4/14/2005		10.12	10.43
	8/1/2005		10.56	9.99
	11/9/2005		12.53	8.02
	3/21/2006		9.71	10.84
	8/7/2006		11.40	9.15
	10/27/2006		11.39	9.16
	3/20/2007		10.94	9.61
	8/8/2007		11.21	9.34
	2/5/2008		9.52	11.03
	8/14/2008		11.00	9.55
	3/3/2009		9.69	10.86
	7/30/2009		11.10	9.45
	9/8/2009		11.77	8.78
	3/23/2010		10.15	10.40
	10/5/2010		10.98	9.57
	5/9/2011	21.03	10.17	10.86
	9/9/2011		11.11	9.92
MW-2	3/3/1994	20.03	10.37	9.66
	3/10/1994		10.53	9.50
	6/6/1994		11.15	8.88
	9/7/1994		11.72	8.31
	12/22/1994		11.27	8.76
	3/17/1995		9.85	10.18
	6/27/1995		10.70	9.33
	9/18/1995		11.67	8.36
	5/30/1996		11.56	8.47
	7/9/1997		11.52	8.51
	8/21/1998		11.91	8.12
	10/6/1998		11.57	8.46
	2/24/1999		9.91	10.12
	6/30/2000		11.16	8.87
	4/27/2001		11.32	8.71
	4/14/2005		11.00	9.03
	8/1/2005		11.67	8.36
	11/9/2005		11.54	8.49
	3/21/2006		11.02	9.01
	8/7/2006		11.84	8.19
	10/27/2006		11.92	8.11
	3/20/2007		12.52	7.51
	8/8/2007		12.82	7.21
	2/5/2008		10.39	9.64
	8/14/2008		9.10	10.93
	3/3/2009		12.31	7.72
	7/30/2009		11.41	8.62
	3/23/2010		Not Sampled	
	10/5/2010		12.32	7.71
	5/9/2011	20.53	10.53	10.00
	9/9/2011		10.96	9.57

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

Monitoring Well	Date	TOC Elevation (Feet MSL)	DTW (feet)	Elevation (Feet MSL)
MW-3	3/3/1994	18.97	9.50	9.47
	3/10/1994		9.51	9.46
	6/6/1994		10.28	8.69
	9/7/1994		10.75	8.22
	12/22/1994		9.74	9.23
	3/17/1995		8.85	10.12
	6/27/1995		9.94	9.03
	9/18/1995		10.54	8.43
	5/30/1996		9.69	9.28
	7/9/1997		10.60	8.37
	8/21/1998		10.36	8.61
	10/6/1998		10.64	8.33
	2/24/1999		8.58	10.39
	6/30/2000		10.21	8.76
	4/27/2001		9.85	9.12
	4/14/2005		9.58	9.39
	8/1/2005		10.24	8.73
	11/9/2005		10.45	8.52
	3/21/2006		8.77	10.20
	8/7/2006		10.30	8.67
	10/27/2006		10.63	8.34
	3/20/2007		9.72	9.25
	8/8/2007		10.48	8.49
	2/5/2008		8.61	10.36
	8/14/2008		10.53	8.44
	3/2/2009		8.11	10.86
	7/30/2009		10.41	8.56
	9/8/2009		10.60	8.37
	3/23/2010		8.87	10.10
	10/5/2010		10.51	8.46
	5/9/2011	19.44	9.34	10.10
	9/9/2011		10.03	9.41
MW-4	3/3/1994	19.88	10.89	8.99
	3/10/1994		11.19	8.69
	6/6/1994		11.85	8.03
	9/7/1994		12.86	7.02
	12/22/1994		12.26	7.62
	3/17/1995		10.10	9.78
	6/27/1995		11.05	8.83
	9/18/1995		11.84	8.04
	5/30/1996		10.97	8.91
	7/9/1997		12.08	7.80
	8/21/1998		11.86	8.02
	10/6/1998		12.84	7.04
	2/24/1999		10.79	9.09
	6/30/2000		12.39	7.49
	4/27/2001		11.26	8.62
	4/14/2005		12.01	7.87
	8/1/2005		11.78	8.10
	11/9/2005		12.42	7.46
	3/21/2006		10.00	9.88
	8/7/2006		11.90	7.98
	10/27/2006		12.75	7.13
	3/20/2007		11.20	8.68
	8/8/2007		12.00	7.88
	2/5/2008		10.40	9.48
	8/14/2008		11.47	8.41
	3/2/2009		11.13	8.75
	7/30/2009		11.81	8.07
	9/8/2009		12.11	7.77
	3/23/2010		9.95	9.93
	10/5/2010		11.38	8.50
	5/9/2011	20.35	10.93	9.42
	9/9/2011		11.42	8.93

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

Monitoring Well	Date	TOC Elevation (Feet MSL)	DTW (feet)	Elevation (Feet MSL)
MW-5	6/26/1997	16.02	8.44	7.58
	7/9/1997		8.48	7.54
	8/21/1998		8.32	7.70
	10/6/1998		8.51	7.51
	2/24/1999		6.86	9.16
	6/30/2000		7.63	8.39
	4/27/2001		7.60	8.42
	4/15/2005		7.20	8.82
	8/1/2005		8.16	7.86
	11/9/2005		7.92	8.10
	3/21/2006		6.58	9.44
	8/7/2006		8.27	7.75
	10/27/2006		8.48	7.54
	3/20/2007		7.67	8.35
	8/8/2007		8.43	7.59
	2/5/2008		6.76	9.26
	8/14/2008		8.31	7.71
	3/2/2009		6.20	9.82
	7/30/2009		8.13	7.89
	3/23/2010		Not Sampled	
	10/5/2010		8.18	7.84
	5/9/2011	16.49	7.44	9.05
	9/9/2011		7.85	8.64
MW-6	6/26/1997	18.36	10.89	7.47
	7/9/1997		10.98	7.38
	8/21/1998		11.00	7.36
	10/6/1998		10.79	7.57
	2/24/1999		9.32	9.04
	6/30/2000		10.37	7.99
	4/27/2001		10.10	8.26
	4/15/2005		9.55	8.81
	8/1/2005		10.54	7.82
	11/9/2005		No Access	
	3/21/2006		9.11	9.25
	8/7/2006		10.59	7.77
	10/27/2006		No Access	
	3/20/2007		10.10	8.26
	8/8/2007		10.85	7.51
	2/5/2008		9.27	9.09
	8/14/2008		10.71	7.65
	3/3/2009		8.60	9.76
	7/30/2009		No Access	
	3/23/2010		Not Sampled	
	10/5/2010		10.62	7.74
	5/9/2011	18.81	No Access	
	9/9/2011		No Access	
MW-7	5/9/2011	18.67	9.42	9.25
	9/9/2011		9.88	8.79
MW-8	8/4/2011	18.95	9.70	9.25
	9/9/2011		9.99	8.96

Notes:

TOC = Top of Casing

DTW = Depth to Water

MW-1 through MW-8: Elevation Reference: City of Oakland Benchmark, well monument  
at approximate centerline of Telegraph Avenue and 26th Street.

Benchmark Elevation = 27.54 feet (NGVD29)

\*MW-1 through MW-6: Monitoring wells re-surveyed on May 7, 2011

Table 2  
Summary of Chemical Concentrations - Groundwater Monitoring Wells  
2250 Telegraph Avenue  
Oakland, California



Well	Date	Groundwater Elevation (Feet MSL)	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	Ethylbenzene µg/L	Total 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	Chlorobenzene µg/L
		Soil Gas ESL*	NE	NE	NE	NE	540	380,000	170,000	160,000	24,000	24,000	310,000	NE	NE	NE	130,000	200	150	120	13,000
		Groundwater ESL**	100	100	100	100	1.0	40	30	20	5.0	5.0	12	NE	NE	NE	62	0.5	0.05	5.0	25
MW-1	3/3/94	10.16	300	<50	<50	<500	1.3	<0.5	2.7	3.1	--	--	--	--	--	--	<0.5	5.5	--	<0.5	<0.5
	06/06/94	9.19	430	180+	<50	<500	10	2.2	6.1	7.6	--	--	--	--	--	--	<0.5	<0.5	<0.5	--	<0.5
	09/07/94	8.63	410	<50	<50	<500	6.4	0.8	2.6	3.8	--	--	--	--	--	--	<0.5	3.8	--	<0.5	<0.5
	12/22/94	9.72	130	<50	<50	<500	0.7	<0.5	0.6	0.8	--	--	--	--	--	--	<0.5	3.4	--	<0.5	<0.5
	03/17/95	10.82	1,600	170	<50	<500	29	<0.5	9.1	6.9	--	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5
	06/27/95	10.04	1,100	<50	<50	<500	14	<0.5	7.1	5.0	--	--	--	--	--	--	<0.5	3.3	--	<0.5	<0.5
	09/18/95	9.43	370	--	110+	--	4.4	0.6	2.0	1.4	--	--	--	--	--	--	<0.5	2.4	--	<0.5	<0.5
	08/21/98	9.55	170	--	62+	--	<0.5	0.76	0.79	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	02/24/99	10.81	20	--	280+	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	--
	06/30/00	13.47	240	--	<50	--	0.7	0.8	<0.5	0.74	4.0	--	--	--	--	--	--	--	--	--	--
	04/27/01	9.99	160	--	<50	--	3.3	<0.5	0.86	<0.50	<2.0	--	--	--	--	--	--	--	--	--	--
	04/15/05	10.43	520	--	99 <sup>L</sup>	<300	3.3 <sup>c</sup>	1.8	<0.5	4.6	--	<0.5	<10	<0.5	<0.5	<0.5	--	0.6	<0.5	--	--
	08/01/05	9.99	480	--	62 <sup>L</sup>	<300	<0.5	<0.5	<0.5	2.3	--	<0.5	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
	11/09/05	8.02	290 <sup>Y</sup>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	03/21/06	10.84	390	--	97 <sup>L</sup>	<300	1.0	<0.5	0.6	<0.5	--	<0.5	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	08/07/06	9.15	720	--	130 <sup>L</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/27/06	9.16	250	--	<50	<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	--
	03/20/07	9.61	290 <sup>Y</sup>	--	74 <sup>L</sup>	<300	<0.5	<0.5	0.58	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	08/08/07	9.34	300 <sup>L</sup>	--	95 <sup>L</sup>	<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	--
	02/05/08	11.03	100 <sup>Y</sup>	--	62 <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	<0.5	<0.5	--
	08/14/08	9.55	71 <sup>Y</sup>	--	<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	--
	03/03/09	10.86	73 <sup>Y</sup>	--	93 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/30/09	9.45	160 <sup>Y</sup>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	09/08/09	8.78	56 <sup>Y</sup>	--	--	--	<0.5	<0.5	<0.5	0.56 <sup>c</sup>	--	<2.0	--	--	--	--	--	--	--	--	--
	03/24/10	10.40	82 <sup>Y</sup>	--	53 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/06/10	9.57	68 <sup>Y</sup>	--	64 <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	05/09/11	10.86	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/09/11	9.92	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/03/94	9.66	110	<50	<500	<0.5	1.7	0.58	2.7	--	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	
	06/06/94	8.88	100	<50	<500	11	<0.5	0.7	1.1	--	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	
	09/07/94	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	0.8	<0.5	<0.5	0.8	--	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	
	03/17/95	10.18	180	100	<50	<500	31	<0.5	1.0	1.8	--	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5
	06/27/95	9.33	80	<50	<50	<500	6.0	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	
	09/18/95	8.36	<50	--	<50	--	<0.5	&													

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Summary of Chemical Concentrations - Groundwater Monitoring Wells  
2250 Telegraph Avenue  
Oakland, California



Well	Date	Groundwater Elevation (Feet MSL)	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	Ethylbenzene µg/L	Total 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	Chlorobenzene µg/L
		Soil Gas ESL*	NE	NE	NE	NE	540	380,000	170,000	160,000	24,000	24,000	310,000	NE	NE	NE	130,000	200	150	120	13,000
		Groundwater ESL**	100	100	100	100	1.0	40	30	20	5.0	5.0	12	NE	NE	NE	62	0.5	0.05	5.0	25
MW-3	03/03/94	9.47	85	<50	<50	<500	<0.5	0.77	<0.5	3.7	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	06/06/94	8.69	100	110+	<50	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	2.5	0.8	--	2.1	<0.5
	09/07/94	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
	03/17/95	10.12	1,500	270	<50	<500	83	6.0	10	15	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	06/27/95	9.03	2,500	<50	<50	<500	330	8.9	8.1	20	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	09/18/95	8.43	1,500	--	770+	--	400	11	2.2	3.3	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	08/21/98	8.61	2,300	--	600+	--	410	9.3	36	25	<10	--	--	--	--	--	--	--	--	--	--
	02/24/99	10.39	55	--	110+	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	--
	06/30/00	10.83	110	--	83+	--	<0.5	<0.5	0.51	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	04/27/01	8.67	<50	--	690+	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	--
	04/14/05	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	--	--
	08/01/05	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	--	--
	11/09/05	8.73	1,100 <sup>Y</sup>	--	110 <sup>LY</sup>	<300	150	3.4	6.1	3.8	--	<0.5	13	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	03/21/06	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	--	--
	08/07/06	8.67	4,000 <sup>Y</sup>	--	280 <sup>LY</sup>	<300	630	9	31	12	--	<0.5	18	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	10/27/06	8.34	5,300	--	240 <sup>LY</sup>	<300	950	13	17	11	--	<10	<200	<10	<10	<10	--	<10	<10	--	--
	03/20/07	9.25	1,000 <sup>LY</sup>	--	180 <sup>LY</sup>	<300	100	1.5	2.1	3.3	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	08/08/07	8.49	2,100 <sup>LY</sup>	--	130 <sup>LY</sup>	<300	260	5.1	5.8	3.6	--	<2.0	<40	<2.0	<2.0	<2.0	--	<2.0	<2.0	--	--
	02/05/08	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	--	--
	08/14/08	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	--	--
	03/02/09	10.86	170 <sup>Y</sup>	--	<50	<300	16	<0.5	<0.5	2.4	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	07/30/09	8.56	360	--	71 <sup>Y</sup>	<300	14	<0.5	1.2	<1.0	--	<0.5	13	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	09/08/09	8.37	1200 <sup>Y</sup>	--	--	--	280	2.4	9.2 <sup>c</sup>	3.08 <sup>c</sup>	--	<2.0	--	--	--	--	--	--	--	--	--
	03/24/10	10.10	300	--	130 <sup>Y</sup>	<300	64	2.5	0.78	3.3	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	10/06/10	8.46	450	--	76 <sup>Y</sup>	<300	89	3.7	4.6	5.2	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	05/09/11	10.10	600	--	130 <sup>Y</sup>	<300	300	12	5.2	11.81	--	<0.5	12	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--
	09/09/11	9.41	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/03/94	8.99	4,300	<50	240	<500	220	20	7.5	17	--	--	--	--	--	--	<0.5	5.9	--	<0.5	4.4
	06/06/94	8.03	4,400	<50	800+	<500	140	<0.5	<0.5	<0.5	--	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5
	09/07/94	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
	03/17/95	9.78	2,200	380	160+	<500	<0.5	<0.5	7.9	10	--	--	--	--	--	--	<0.5	1.7	--	<0.5	4.5
	06/27/95	8.83	3,100	<50	82	<500	<0.5	<0.5	13	19	--	--	--	--	--	--	<0.5	2.3	--	<0.5	4.8
	09/18/95	8.04	3,000	--	1,231+	--	12	<0.7	6.												

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Well	Date	Groundwater Elevation (Feet MSL)	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	Ethylbenzene µg/L	Total 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	Chlorobenzene µg/L
		Soil Gas ESL*	NE	NE	NE	NE	540	380,000	170,000	160,000	24,000	24,000	310,000	NE	NE	NE	130,000	200	150	120	13,000
		Groundwater ESL**	100	100	100	100	1.0	40	30	20	5.0	5.0	12	NE	NE	NE	62	0.5	0.05	5.0	25
MW-5	06/26/97	7.58	120	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	1.6	<0.5	
	08/21/98	7.70	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	
	02/24/99	9.16	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--	
	06/30/00	8.39	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	5.1	--	--	--	--	--	--	--	--	--	
	04/27/01	8.42	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--	
	04/14/05	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	<0.5	--	
	08/01/05	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	<0.5	--	
	11/09/05	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	<0.5	--	
	03/21/06	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	<0.5	--	
	08/07/06	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	<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	<0.5	--	
	03/20/07	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	<0.5	--	
	08/08/07	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	<0.5	--	
	02/05/08	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	<0.5	--	
	08/14/08	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	<0.5	--	
	03/02/09	9.82	<50	--	<50	<300	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	07/30/09	7.89	<50	--	<50	<300	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	03/24/10	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	10/05/10	7.84	<50	--	<50	<300	<0.5	<0.5	<0.5	<1.0	--	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	05/09/11	9.05	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	09/09/11	8.64	NOT SAMPLED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	06/26/97	7.47	1,500+	--	450+	--	<0.5	<0.5	11	<0.5	-	-	--	--	--	<0.5	<0.5	--	<0.5		
	08/21/98	7.36	1,400	--	540+	--	<0.5	3.6	5.6	0.4	5.7	3.2	--	--	--	--	--	--	--	--	
	02/24/99	9.04	1,600	--	600+	--	<0.5	0.56	<0.5	--	--	2.3	--	--	--	--	--	--	--	--	
	06/30/00	8.04	1,900	--	360+	--	0.56	3.0	5.4	3.5	30	--	--	--	--	--	--	--	--	--	
	04/27/01	8.26	1,600	--	440	--	<0.5	<0.5	<0.5	<0.5	3.3	--	--	--	--	--	--	--	--	--	
	04/14/05	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	<0.5	--	
	08/01/05	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	<0.5	--	
	11/09/05	NO ACCESS	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	03/21/06	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	<0.5	--	
	08/07/06	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	<0.5	--	
	10/27/06	NO ACCESS	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	03/20/07	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	<0.5	--	
	08/08/07	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	<0.5	--	
	02/05/08	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	<0.5	--	
	08/14/08	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	<0.5	--</td	

**Table 3**  
**Summary of Quality Control Sample Results**  
**2250 Telegraph Avenue**  
**Oakland, California**

**Duplicate Groundwater Samples**

Analyte	Units	Sample ID		RPD (%)
		MW-8	Dup-1	
TVHg	µg/L	890	1,000	12
TEHd	µg/L	900	800	12
TEHmo	µg/L	ND	ND	--
Benzene	µg/L	0.71	0.92	26
Toluene	µg/L	0.78	1.1	34
Ethylbenzene	µg/L	13	18	32
Xylenes	µg/L	4.8	6.95	36
1,2-dichloroethane	µg/L	1.4	1.4	0

**Notes**

TVHg = Total Volatile Hydrocarbons as gasoline

TEHd = Total Extractable Hydrocarbons as diesel

TEHmo = Total Extractable Hydrocarbons as motor oil

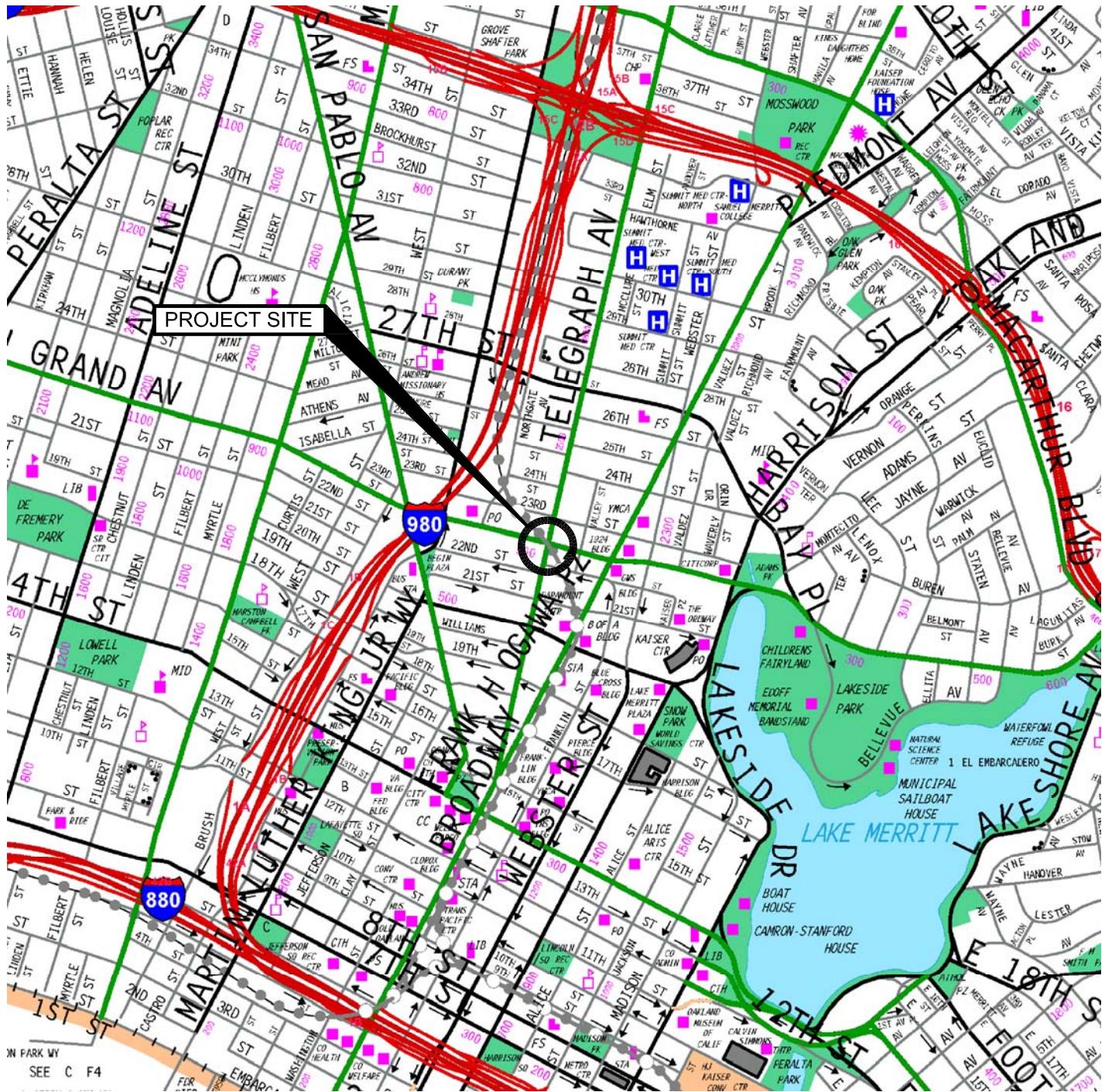
µg/L = micrograms per liter

ND = Not detected

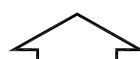
RPD = Relative percentage difference

RPD Percentage Goal = 20%

## **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.



NORTH

1500

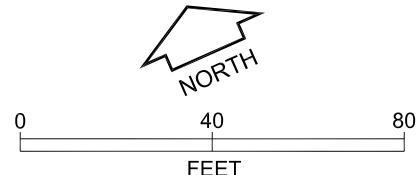
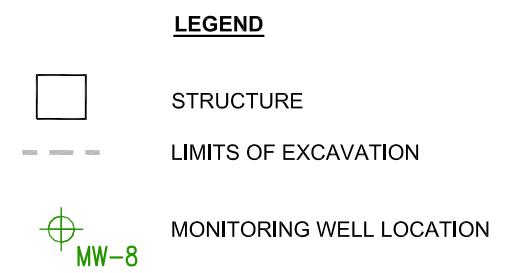
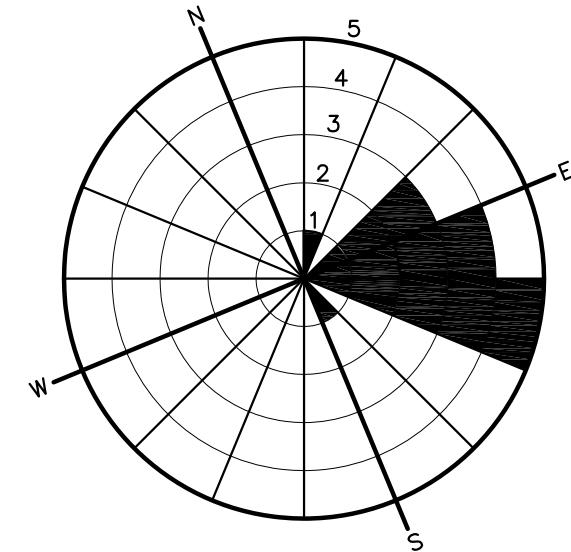
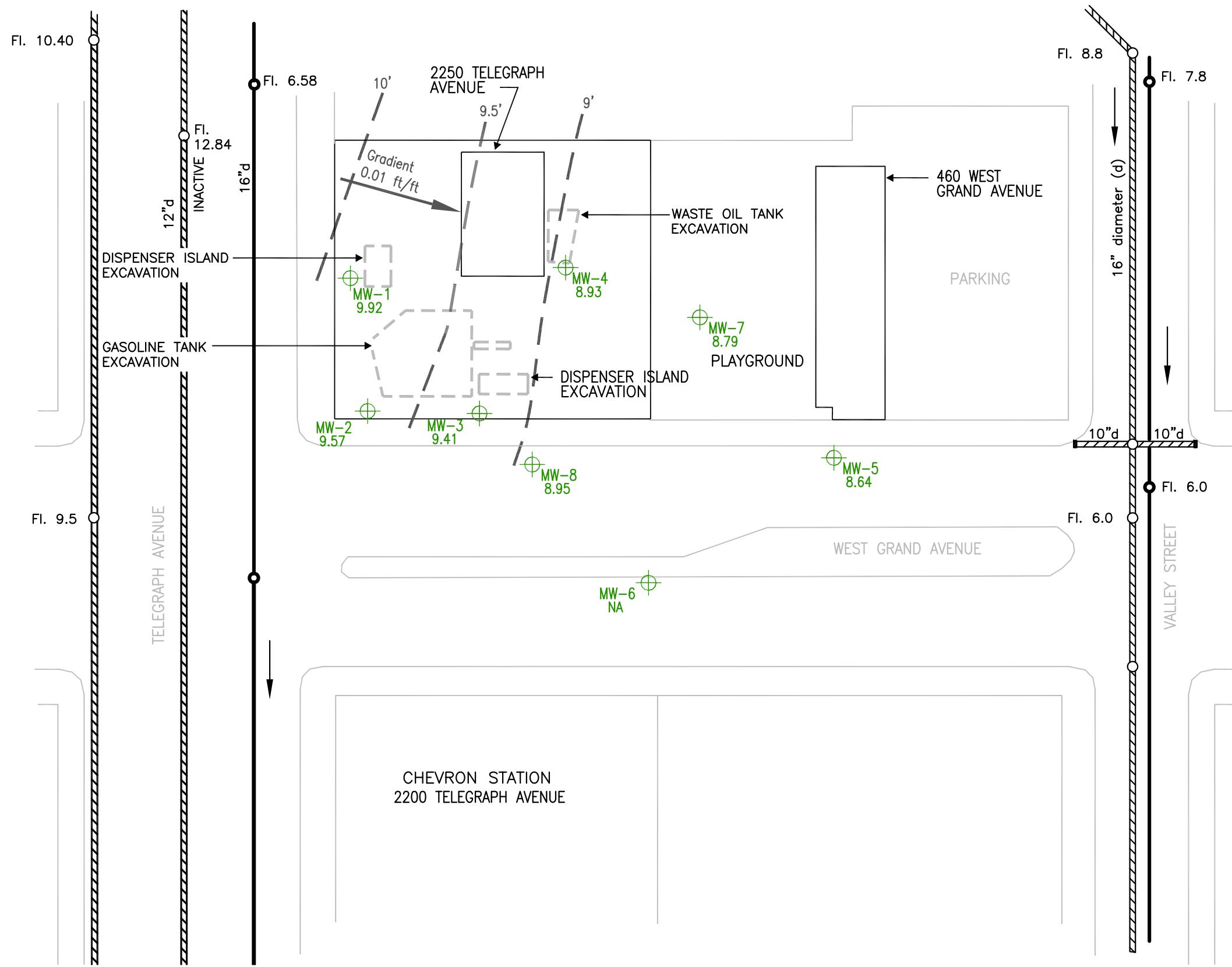
3000

0

FEET

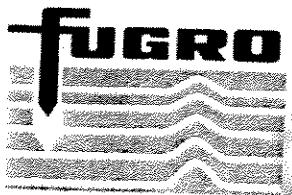
**VICINITY MAP**  
2250 Telegraph Avenue  
Oakland, California

PLATE 1



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

**APPENDIX A  
WELL SAMPLING FORMS**



## FIELD REPORT

Job No.: 609.009	Project: Butcher Prop.
Date: 9.8.11	Location: Oakland.
Client:	Contractor:
Butcher Prop	

arrived @ 9 am.

Well ID	DTW	Time
MW-1	8.49	9:02
MW-2	8.55	9:18
MW-3	10.08	9:36
MW-4	11.19	9:48
MW-5	7.88	9:17
MW-6	-	-
MW-7	9.89	9:11
MW-8	9.99	9:47

Down hole washing & pulling of MW-8 started  
@ 9:50 finished @ 10:12  
cleared up, dumped well water & Decon Water  
in drum.  
Left site @ 10:20

Hours Charged:

Weather Conditions:

Staff Engineer: M Danna

## FIELD REPORT



Job No.: 609.004	Project: Butcher Prop.
Date: 9.9.11	Location: Oakland, CA
Client:	Contractor:
Butcher Prop.	

arrived on site @	11:55	
- Opening all onsite wells to equilibrium.		
DTW	TIME	Well ID
11.15	12:04	MW-2
10.72	12:06	MW-1
10.04	12:07	MW-3
11.42	12:09	MW-4
11.07	12:11	MW-2
10.76	12:12	MW-1
10.02	12:13	MW-3
11.72	12:15	MW-4
10.99	12:17	MW-2
10.80	12:18	MW-1
10.03	12:20	MW-3
11.42	12:22	MW-4
10.96	12:24	MW-2
10.84	12:26	MW-1
10.03	12:28	MW-3
10.03	12:30	MW-3
10.96	12:33	MW-2
10.90	12:34	MW-1
10.96	12:36	MW-2
10.90	12:38	MW-1
10.92	12:40	MW-1
7.85	12:42	MW-5
10.93	12:45	MW-1
7.85	12:47	MW-5
10.96	12:49	MW-1

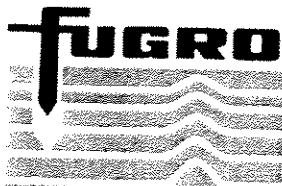
Hours Charged:

Weather Conditions:

Staff Engineer:

11.11      14.14      MW-1

## FIELD REPORT



Job No.: 609.004	Project: Butner Prop.
Date: 9.9.11	Location: Oakland, CA
Client:	Contractor:
Butner Prop.	

Sample MW-8 @ 13:05  
collected & duplicate sample @ MW-8  
Purged & sampled at MW-7  
& purge @ 13:25

Collected Down Hole readings.  
parameters during purge

Sampled @ 14:05

DTW of MW-1 @ 14:14

Cleaned up, make sure nursery was clean &  
dry.

dumped well water in drum.

Left site 14:30.

Hours Charged:

Weather Conditions:

Staff Engineer:



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: Bethany  
 PROJECT NO.: 409.004  
 SAMPLED BY: M.DANNA  
 DATE: 9.9.04  
 WEATHER: sunny

WELL NO.: MW-7  
 WELL CASING DIAMETER: 2"  
 TOC ELEVATION: 18.67

TOTAL DEPTH OF CASING (BTOC): 19.92 FEET  
 DEPTH TO GROUNDWATER (BTOC): 9.86 FEET  
 FEET OF WATER IN WELL: 10.07 FEET

CALCULATED PURGE VOLUME:  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes) 4.9 gallons

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

FREE PRODUCT:

PURGE METHOD:

Disposable Bailer

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY (µMHOES/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	13:27	21.74	6.50	869	—	556	1.93	No odor
1.6	13:33	21.5	6.77	875	—	62.5	2.57	Brown turbid
3.8	13:37	21.51	6.46	901	—	63.5	2.88	"
4.9	13:41	21.39	6.45	898	—	64.9	3.05	"
	13:44	21.45	6.73	897	—	64.2	2.92	"
				55				

CALCULATED DEPTH TO WATER @ 80% RECHARGE 11.88  
 (Total depth of casing - (feet of water in well \* 0.80))

DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 7.80

DTW GREATER THAN 80%?

(circle)

YES

NO

OKAY TO SAMPLE?

(circle)

YES

NO

SAMPLING METHOD:

disposable Bailer

TIME SAMPLED: 14:05

CONTAINERS / PRESERVATIVE:

3 / HCL  
40 ML

2 / HCL  
1 LITER ammonium

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

- TPHd, TPHmo (8015 w/ Silica gel)
- TPHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22/CAM 17 Metals (6010/7000)

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

- Lead Scallenger
- 5 Fuel Oxygenates

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		

YSL 600  
Equipment Calibrated



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: Butcher Properties  
PROJECT NO.: 609.004  
SAMPLED BY: M. D. ANNA  
DATE: 9.8.11 & 9.9.11  
WEATHER: Sunny / Sunny

WELL NO.: MW-3  
WELL CASING DIAMETER: 2"  
TOC ELEVATION: 18.95

TOTAL DEPTH OF CASING (BTOP): 20.59 FEET  
DEPTH TO GROUNDWATER (BTOP): 9.99 FEET  
FEET OF WATER IN WELL: 10.55 FEET

CALCULATED PURGE VOLUME:  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes) 29.8.2 gallons

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

FREE PRODUCT: No  
PURGE METHOD: disposable Bailev

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu\text{Mhos/cm}$ )	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	<u>9.96</u>	<u>21.90</u>	<u>6.64</u>	<u>12.20</u>	—	<u>-39.8</u>	<u>1.87</u>	—
1.7	<u>10.03</u>	<u>21.89</u>	<u>6.78</u>	<u>12.19</u>	—	<u>-59.6</u>	<u>2.86</u>	cloudy, odor
3.9	<u>10.07</u>	<u>21.95</u>	<u>6.80</u>	<u>12.23</u>	—	<u>-67.4</u>	<u>2.96</u>	clear, odor
5.1	<u>10.12</u>	<u>21.77</u>	<u>6.82</u>	<u>12.15</u>	—	<u>-52.1</u>	<u>7.74</u>	clear, odor

CALCULATED DEPTH TO WATER @ 80% RECHARGE 12.1  
(Total depth of casing - (feet of water in well \* 0.80))

DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOP): 10.00

DTW GREATER THAN 80%? (circle)  YES NO OKAY TO SAMPLE? (circle)  YES NO

SAMPLING METHOD: disposable bailev TIME SAMPLED: 13:05

CONTAINERS / PRESERVATIVE: 3 / HCL 2 / HCL  
40 ML 1 LITER Amber

Poly

OTHER

ANALYSES: (Note if any samples are field filtered)

TPHd, TPHmo (8015 w/ Silica gel)  
 TPHg, BTEX, MTBE (8015/8020)  
 VOCs (8260)  
 HVOCs (8260)  
 Title 22/CAM 17 Metals (6010/7000)

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

Leach Scavenger  
 Fuel Oxygenator

MISC FIELD OBSERVATION:

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		

YSL 600

Equip Co. calibrated.

**APPENDIX B**  
**ANALYTICAL REPORT AND CHAIN OF CUSTODY FORM**



**Curtis & Tompkins, Ltd.**

Analytical Laboratories, Since 1878



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

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

**Laboratory Job Number 230953  
ANALYTICAL REPORT**

Fugro West Inc.  
1000 Broadway  
Oakland, CA 94607

Project : 04.B0609004  
Location : Buttner Properties  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-7	230953-001
MW-8	230953-002
DUP-1	230953-003

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 signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:   
Project Manager

Date: 09/16/2011

NELAP # 01107CA

**CASE NARRATIVE**

Laboratory number: **230953**  
Client: **Fugro West Inc.**  
Project: **04.B0609004**  
Location: **Buttner Properties**  
Request Date: **09/09/11**  
Samples Received: **09/09/11**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 09/09/11. The samples were received intact.

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

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

## **ES-F10 CHAIN OF CUSTODY**

PROJECT NAME: Buttner Properties

PROJECT NO.: 04.B0609004

LAB: C&T

PROJECT CONTACT: KEmery / MDAnna

## TURNAROUND: 5 dayTAT

SAMPLED BY: MDAnna

**PAGE 1 OF 1**

**ANALYSIS REQUESTED**

CHAIN OF CUSTODY RECORD				COMMENTS & NOTES:
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	
	9-9-11 16:15		9-9-11 16:15	
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	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	

Approved by Glenn Young, AC 62 Manager, Fugro West, Inc. 10/15/07

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



**FUGRO WEST, INC.**

1000 Broadway, Suite 440

**Oakland, California 94607**

**Tel: 510.268.0461 Fax: 510.268.0545**

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 230953 Date Received 9/9/11 Number of coolers 1  
 Client FUGRO WEST, INC. Project BUTTNER PROPERTIES  
 Date Opened 9/9/11 By (print) L.Chiu (sign) l.c.  
 Date Logged in ✓ By (print) J (sign) ✓

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) \_\_\_\_\_  
 Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels
  7. Temperature documentation: \* Notify PM if temperature exceeds 6°C  
 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  NO  
 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. Did you check preservatives for all bottles for each sample?  YES  NO N/A
  16. Did you document your preservative check?  YES  NO N/A
  17. Did you change the hold time in LIMS for unpreserved VOAs?  YES  NO N/A
  18. Are bubbles > 6mm absent in VOA samples?  YES  NO N/A
  19. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO
- If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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**Total Extractable Hydrocarbons**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	04.B0609004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/09/11
Units:	ug/L	Received:	09/09/11
Diln Fac:	1.000	Prepared:	09/09/11
Batch#:	178813	Analyzed:	09/11/11

Field ID: MW-7 Lab ID: 230953-001  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
o-Terphenyl	114	68-120

Field ID: MW-8 Lab ID: 230953-002  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	900 Y	50
Motor Oil C24-C36	ND	300
<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
o-Terphenyl	117	68-120

Field ID: DUP-1 Lab ID: 230953-003  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	800 Y	50
Motor Oil C24-C36	ND	300
<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
o-Terphenyl	115	68-120

Type: BLANK Lab ID: QC608424

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300
<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
o-Terphenyl	116	68-120

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

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	04.B0609004	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC608425	Batch#:	178813
Matrix:	Water	Prepared:	09/09/11
Units:	ug/L	Analyzed:	09/11/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,518	101	61-120

Surrogate	%REC	Limits
o-Terphenyl	100	68-120



Curtis & Tompkins, Ltd.

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	04.B0609004	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	178813
MSS Lab ID:	230934-002	Sampled:	09/09/11
Matrix:	Water	Received:	09/09/11
Units:	ug/L	Prepared:	09/09/11
Diln Fac:	1.000	Analyzed:	09/11/11

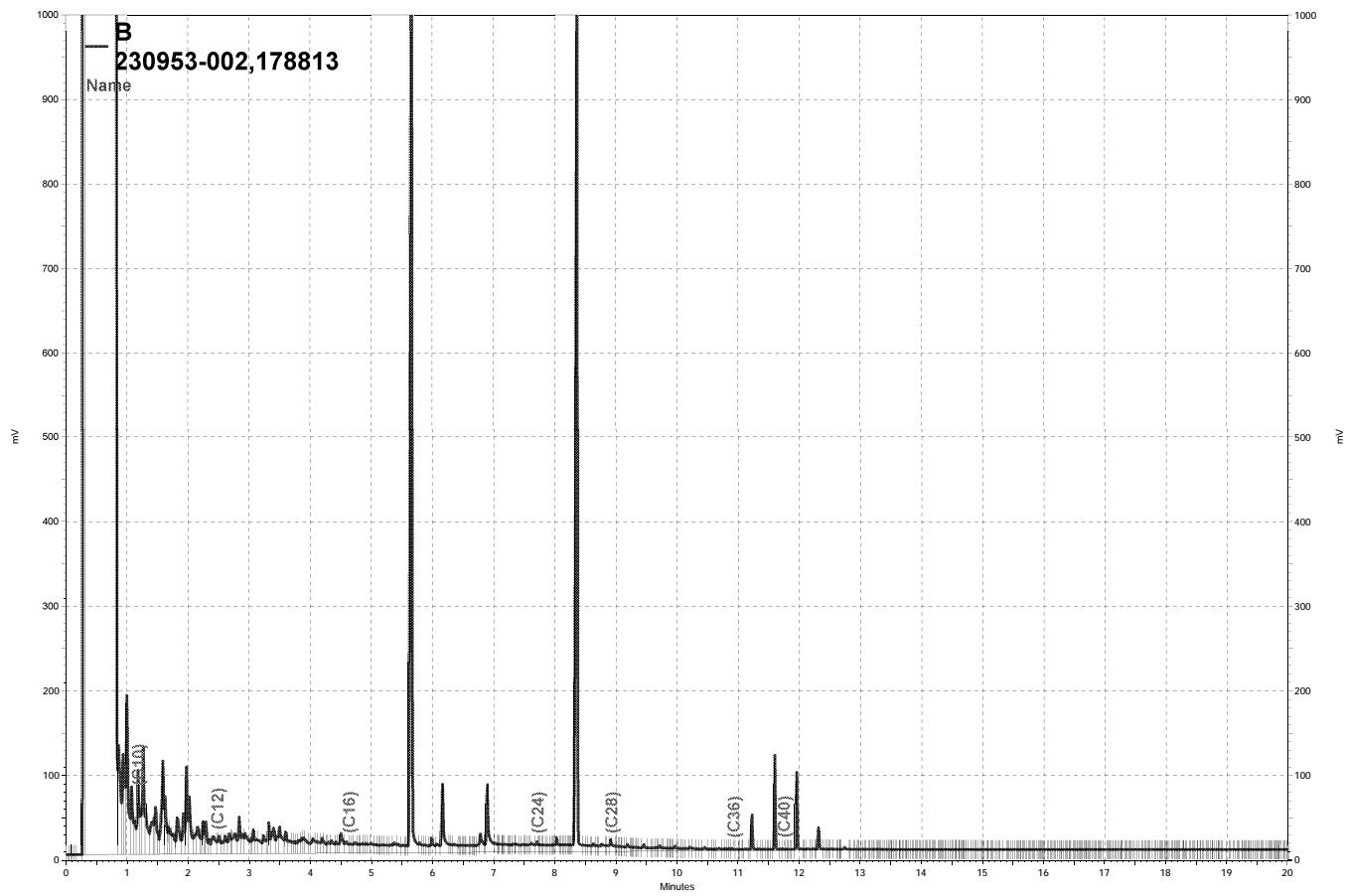
Type: MS Lab ID: QC608426

Analyte	MSS Result	Spiked	Result	%REC	Limits	
Diesel C10-C24	581.3	2,500	3,239	106	33-140	
Surrogate	%REC	Limits				
o-Terphenyl	107	68-120				

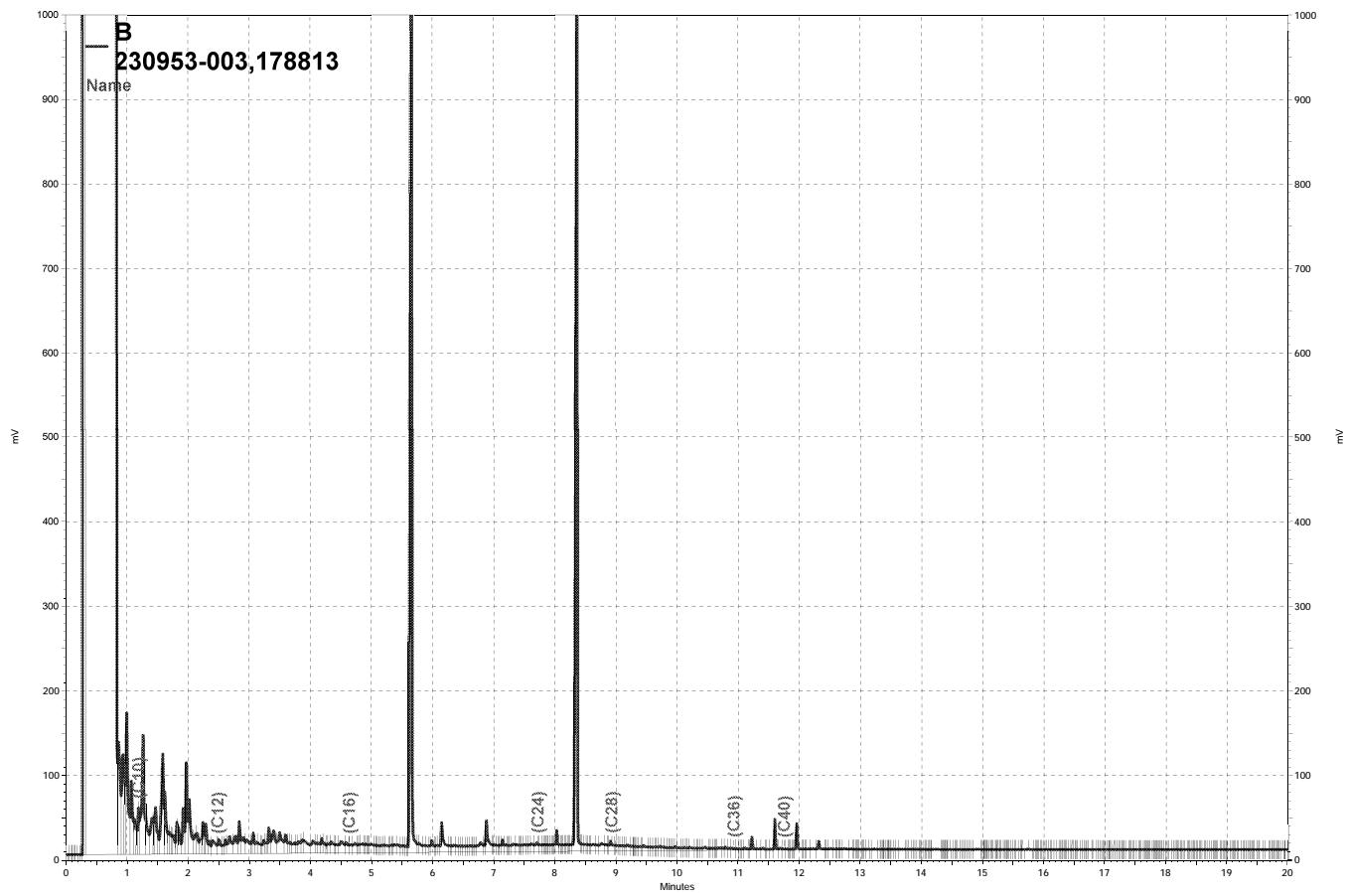
Type: MSD Lab ID: QC608427

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	3,211	105	33-140	1	30
Surrogate	%REC	Limits				
o-Terphenyl	103	68	-120			

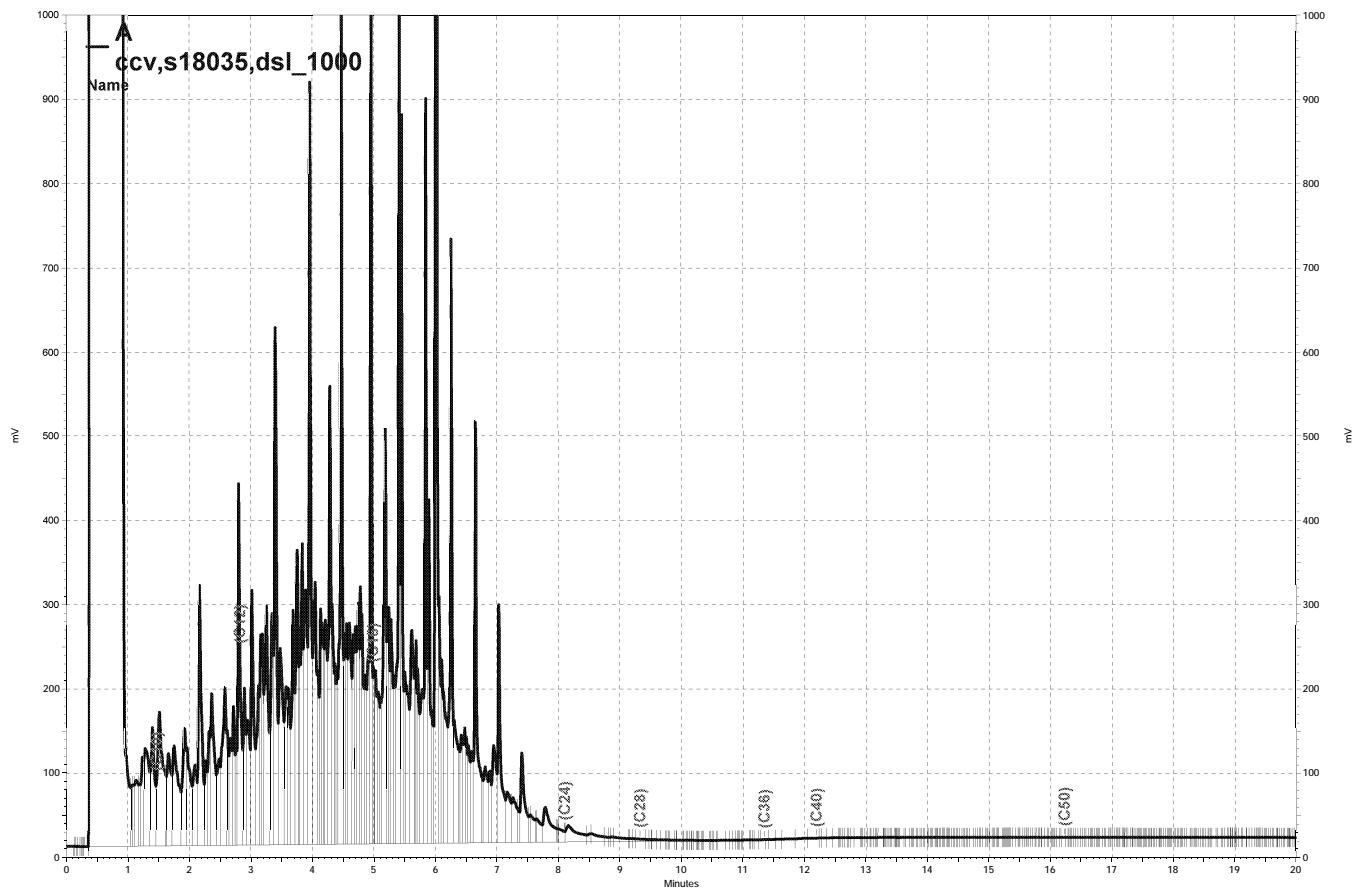
RPD= Relative Percent Difference

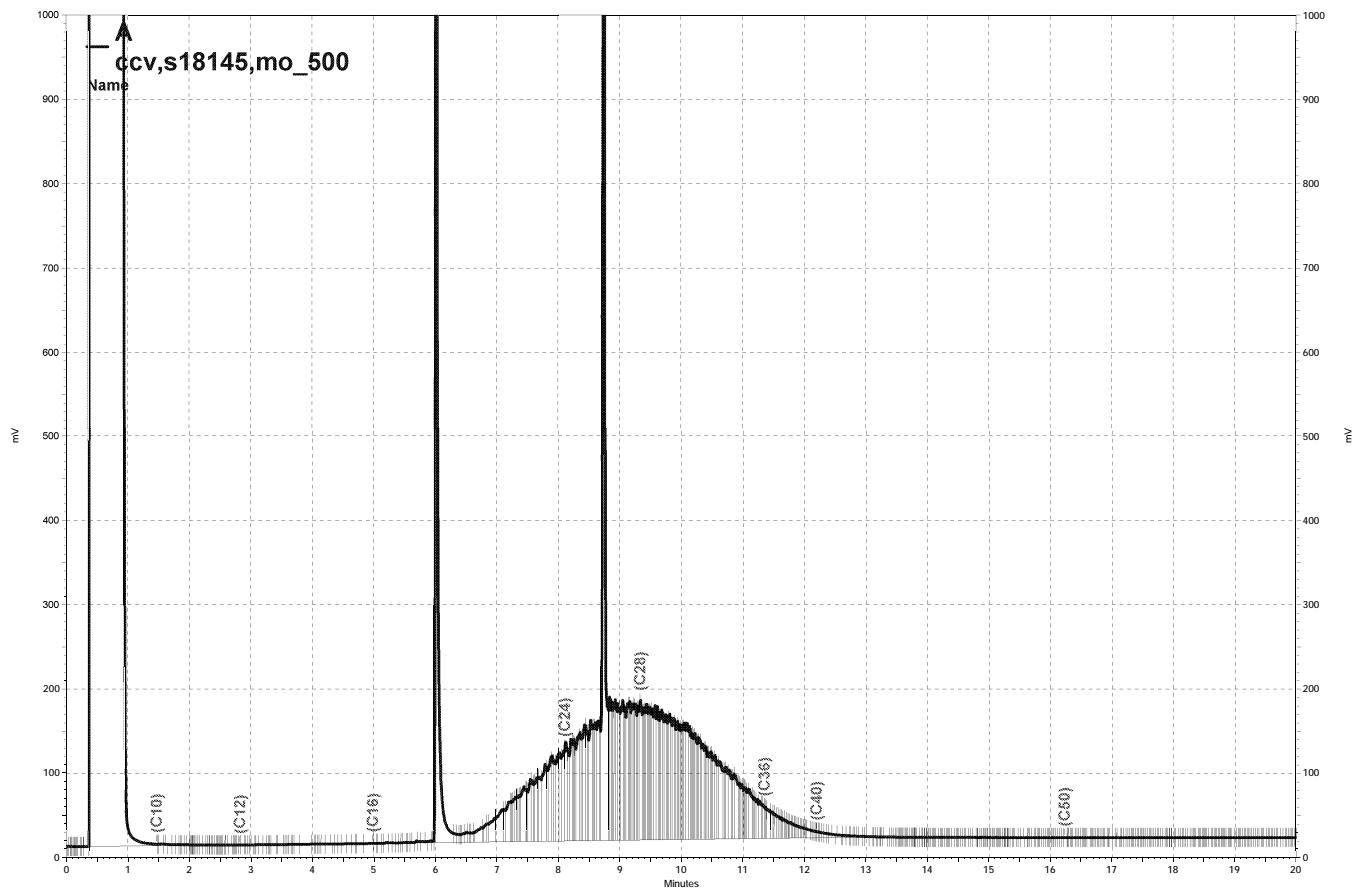


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— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\254b027, B





— \\Lims\\gdrive\\ezchrom\\Projects\\GC17A\\Data\\254a004, A

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Field ID:	MW-7	Batch#:	178890
Lab ID:	230953-001	Sampled:	09/09/11
Matrix:	Water	Received:	09/09/11
Units:	ug/L	Analyzed:	09/13/11
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	98	80-127
1,2-Dichloroethane-d4	93	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Field ID:	MW-8	Batch#:	178890
Lab ID:	230953-002	Sampled:	09/09/11
Matrix:	Water	Received:	09/09/11
Units:	ug/L	Analyzed:	09/13/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	890	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	1.4	0.50
Benzene	0.71	0.50
Toluene	0.78	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	13	0.50
m,p-Xylenes	4.8	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Field ID:	DUP-1	Batch#:	178930
Lab ID:	230953-003	Sampled:	09/09/11
Matrix:	Water	Received:	09/09/11
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,000	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	1.4	0.50
Benzene	0.92	0.50
Toluene	1.1	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	18	0.50
m,p-Xylenes	6.4	0.50
o-Xylene	0.55	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178890
Units:	ug/L	Analyzed:	09/13/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608780

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	92.16	74	46-141
Isopropyl Ether (DIPE)	25.00	18.75	75	52-139
Ethyl tert-Butyl Ether (ETBE)	25.00	19.87	79	56-131
Methyl tert-Amyl Ether (TAME)	25.00	20.52	82	65-120
MTBE	25.00	17.72	71	59-123
1,2-Dichloroethane	25.00	23.86	95	71-135
Benzene	25.00	24.84	99	80-122
Toluene	25.00	25.28	101	80-120
1,2-Dibromoethane	25.00	22.78	91	79-120
Ethylbenzene	25.00	24.77	99	80-120
m,p-Xylenes	50.00	47.02	94	80-120
o-Xylene	25.00	24.08	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC608781

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	91.94	74	46-141	0	31
Isopropyl Ether (DIPE)	25.00	18.93	76	52-139	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	20.00	80	56-131	1	20
Methyl tert-Amyl Ether (TAME)	25.00	20.21	81	65-120	2	20
MTBE	25.00	16.87	67	59-123	5	20
1,2-Dichloroethane	25.00	23.20	93	71-135	3	20
Benzene	25.00	23.98	96	80-122	4	20
Toluene	25.00	24.13	97	80-120	5	20
1,2-Dibromoethane	25.00	22.71	91	79-120	0	20
Ethylbenzene	25.00	24.49	98	80-120	1	20
m,p-Xylenes	50.00	45.73	91	80-120	3	20
o-Xylene	25.00	23.28	93	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-120

RPD= Relative Percent Difference

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## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178890
Units:	ug/L	Analyzed:	09/13/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608782

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	985.9	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	96	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC608783

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	939.2	94	80-120	5 20

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	95	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	93	80-120

RPD= Relative Percent Difference

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## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC608784	Batch#:	178890
Matrix:	Water	Analyzed:	09/13/11
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	98	80-127
1,2-Dichloroethane-d4	96	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	95	80-120

ND= Not Detected

RL= Reporting Limit

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

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178930
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608932

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	86.11	86	46-141
Isopropyl Ether (DIPE)	20.00	18.43	92	52-139
Ethyl tert-Butyl Ether (ETBE)	20.00	19.15	96	56-131
Methyl tert-Amyl Ether (TAME)	20.00	17.84	89	65-120
MTBE	20.00	16.92	85	59-123
1,2-Dichloroethane	20.00	20.00	100	71-135
Benzene	20.00	21.08	105	80-122
Toluene	20.00	21.62	108	80-120
1,2-Dibromoethane	20.00	20.10	100	79-120
Ethylbenzene	20.00	22.09	110	80-120
m,p-Xylenes	40.00	41.15	103	80-120
o-Xylene	20.00	21.41	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC608933

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	85.28	85	46-141	1	31
Isopropyl Ether (DIPE)	20.00	17.38	87	52-139	6	20
Ethyl tert-Butyl Ether (ETBE)	20.00	18.45	92	56-131	4	20
Methyl tert-Amyl Ether (TAME)	20.00	17.03	85	65-120	5	20
MTBE	20.00	15.44	77	59-123	9	20
1,2-Dichloroethane	20.00	18.79	94	71-135	6	20
Benzene	20.00	20.39	102	80-122	3	20
Toluene	20.00	19.37	97	80-120	11	20
1,2-Dibromoethane	20.00	18.63	93	79-120	8	20
Ethylbenzene	20.00	20.40	102	80-120	8	20
m,p-Xylenes	40.00	37.89	95	80-120	8	20
o-Xylene	20.00	18.84	94	80-120	13	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

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## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178930
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608934

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	871.5	109	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC608935

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	800.0	820.3	103	80-120	6 20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

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

Lab #:	230953	Location:	Buttner Properties
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	04.B0609004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC608936	Batch#:	178930
Matrix:	Water	Analyzed:	09/14/11
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	101	80-127
1,2-Dichloroethane-d4	99	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected

RL= Reporting Limit

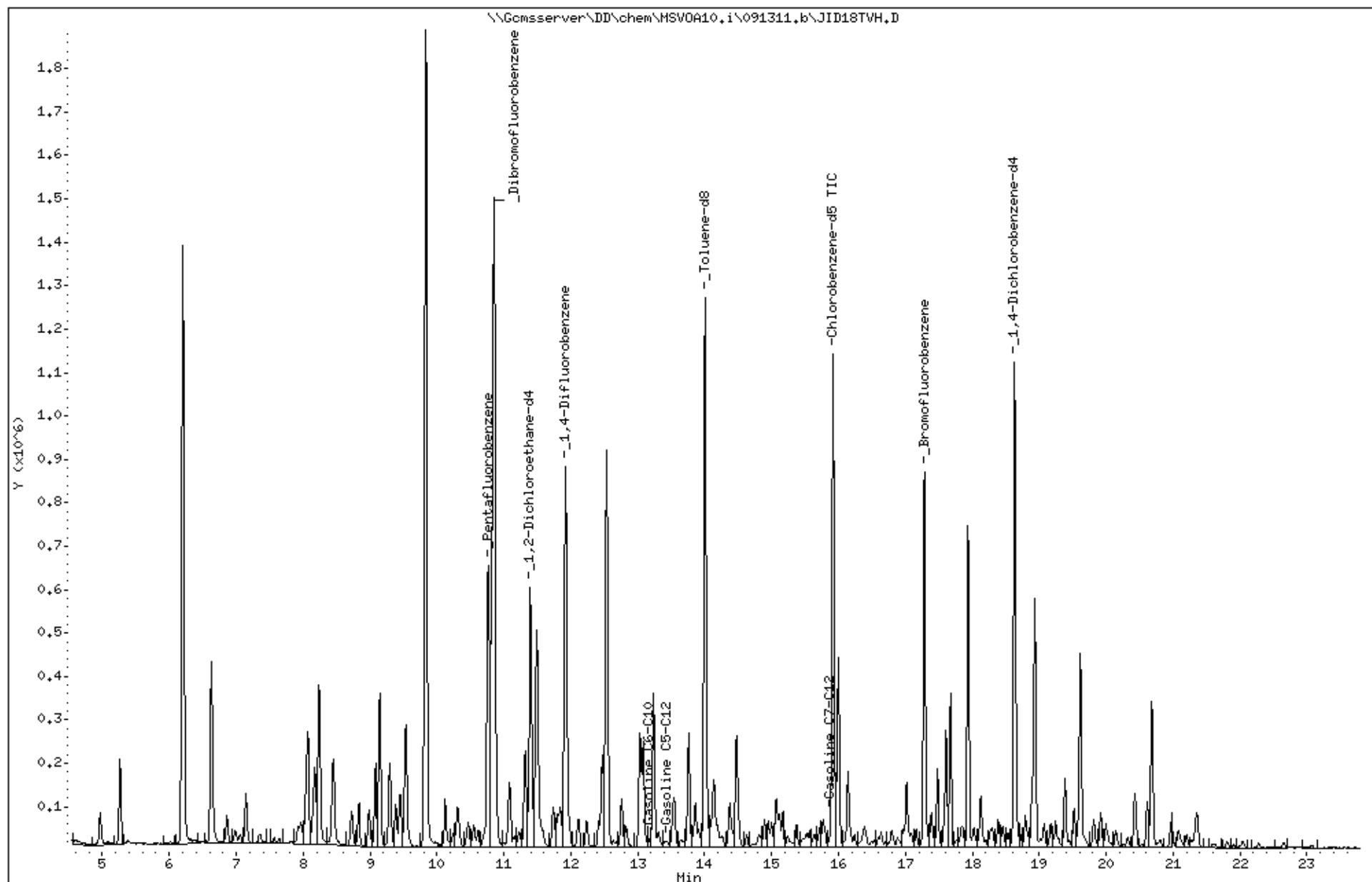
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10.0

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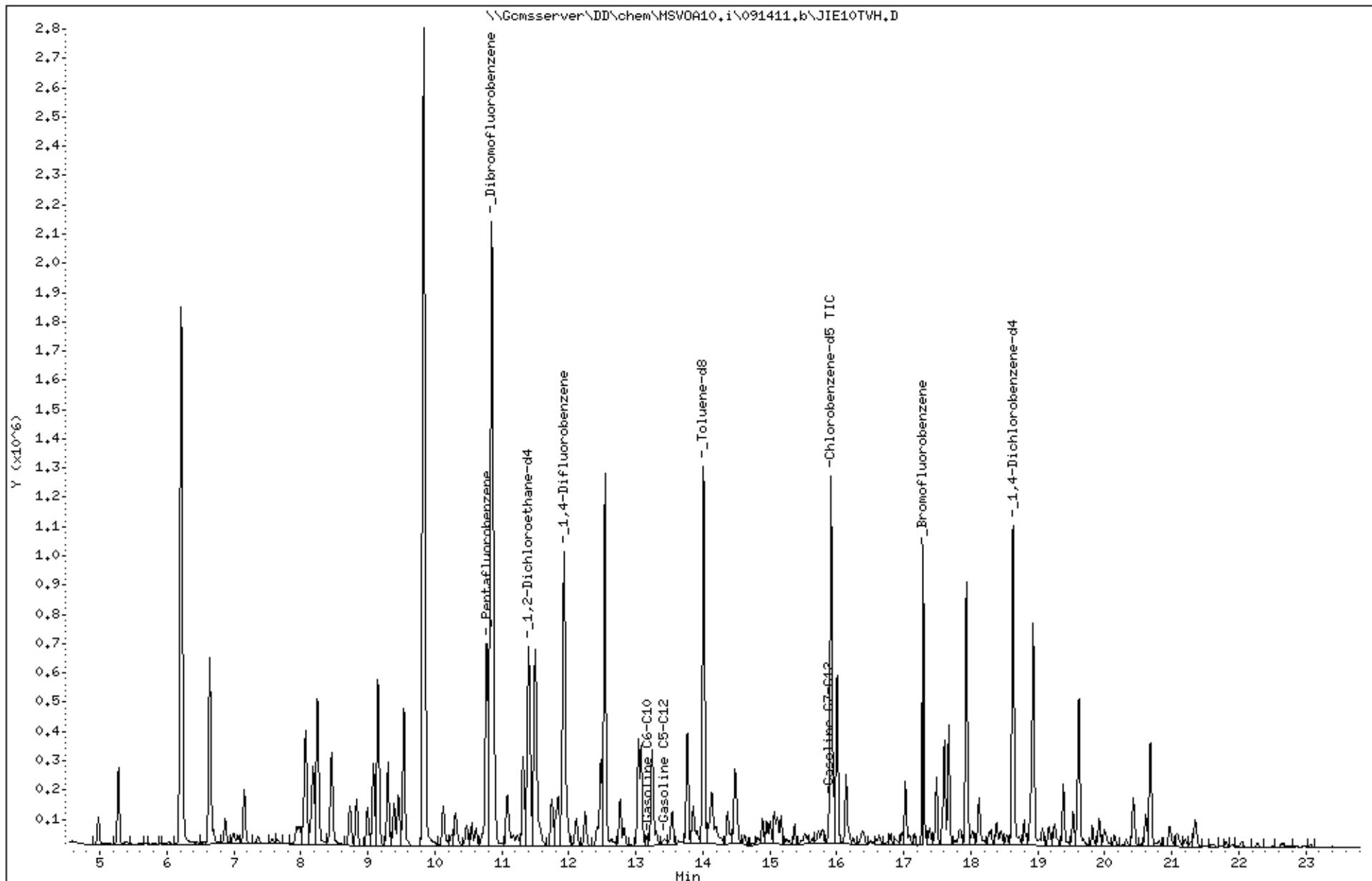
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Instrument: MSV0A10.i

Column phase:

Operator: VOA  
Column diameter: 2.00

