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Hooshang Hadjian  
2108 San Ramon Valley Blvd.  
San Ramon, CA 94583

Ms. Dilan Roe  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Dublin Auto Wash**

7240 Dublin Boulevard  
Dublin, California  
ACHCSA Case No. 304

Dear Ms. Roe:

I, Mr. Hooshang Hadjian, have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the attached report on my behalf.

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

Sincerely,



Hooshang Hadjian



May 31, 2013

**VIA ALAMEDA COUNTY FTP SITE**

Ms. Dilan Roe  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - First Half 2013**  
Dublin Auto Wash  
7240 Dublin Boulevard  
Dublin, California  
ACEH Case No. 304

Dear Ms. Roe:

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – First Half 2013*. The report describes groundwater monitoring and sampling, and other site activities.

If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,  
**Pangea Environmental Services, Inc.**

  
Bob Clark-Riddell, P.E.  
Principal Engineer

Attachment: *Groundwater Monitoring Report – First Half 2013*

cc: Mr. Hooshang Hadjian, 2108 San Ramon Valley Blvd, San Ramon, CA 94583  
Mr. Jim Lange, 6500 Dublin Blvd., Suite 202, Dublin, CA 94568  
SWRCB Geotracker (electronic copy)



## GROUNDWATER MONITORING REPORT– FIRST HALF 2013

**Dublin Auto Wash  
7240 Dublin Boulevard  
Dublin, California**

**May 31, 2013**

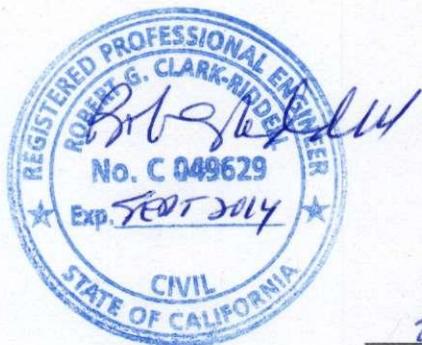
*Prepared for:*

Mr. Hooshang Hadjian  
2108 San Ramon Valley Blvd  
San Ramon, CA 94583

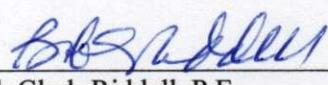
*Prepared by:*

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, California 94612

*Written by:*



  
Morgan Gillies  
Project Manager

  
Bob Clark-Riddell, P.E.  
Principal Engineer

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 Facsimile 510.836.3709 [www.pangeaenv.com](http://www.pangeaenv.com)

Groundwater Monitoring Report – First Half 2013  
7240 Dublin Boulevard  
Dublin, California  
May 31, 2013

## INTRODUCTION

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling during this period at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate groundwater flow direction and dissolved contaminant concentrations, and to inspect site wells for separate-phase hydrocarbons (SPH). Current groundwater analytical results and elevation data are shown on Figure 2. Well construction details are presented in Table 1. Current and historical data are summarized on Table 2.

## SITE BACKGROUND

The Dublin Auto Wash retail gasoline station is located at the southwest corner of Dublin Boulevard and Village Parkway in Dublin, California (Figure 1). Currently, there are three 10,000-gallon underground storage tanks (USTs) and a carwash at the site. Land use immediately surrounding the station is commercial.

### Summary of Previous Environmental Work

#### Chevron Release – 1988 to 1996

The first environmental investigation at the site was performed in early 1988 when Chevron Products Company (Chevron), the previous owner/operator, hired EA Engineering, Science, and Technology, Inc. (EA), to conduct a soil vapor investigation at the site. The results of the soil gas survey indicated elevated levels of hydrocarbons beneath the site, especially around the southern pump island. Subsequently, groundwater monitoring wells were installed and quarterly groundwater monitoring began. In February 1989, one 5,000-gallon and two 10,000-gallon underground storage tanks (USTs) were excavated and removed from the site and replaced with three new USTs. A soil vapor extraction (SVE) system was operated between March 1992 and April 1996, removing approximately 15,000 pounds of hydrocarbons. Between 1994 and 1996, additional groundwater monitoring wells were installed and added to the quarterly monitoring program. A December 1996 Risk Based Corrective Action (RBCA) report concluded that the site is a "Low Risk" soil and groundwater petroleum release site, and ACEH subsequently approved SVE system shutdown.

#### New Release – February 1997

In February 1997, a leak in a stainless steel product line flex hose was discovered and reported to ACEH. The leak location was immediately south of the north-westernmost dispenser (dispenser No. 2). During June 1997 testing, the secondary piping failed a pressure test. Subsequently, a new product delivery system was installed to replace the existing lines. During the system modifications in July 1997, Parker Environmental Services collected soil samples via hand auger at locations B-1 through B-4. About 31 cubic yards of soil were removed from the release area to a depth of 8 feet bgs. The results of subsequent groundwater monitoring events in

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December 1998 and March 1999 indicated free product was present in well MW-3. The detection of free product in MW-3 (up to 0.1 feet thick) corresponds to the historically lowest groundwater elevation observed during site monitoring activities, when the depth to groundwater in well MW-3 was 12.92 feet in December 1998.

Gettler-Ryan, Inc. (GRI), a subcontractor of Chevron, monitored the eight existing groundwater monitoring wells at the site until the first quarter of 2003. In 2003, SOMA began performing groundwater monitoring at the site on behalf of Mr. Hadjian. SOMA noted groundwater apparently flowed from offsite wells MW-4 and MW-5 toward the site in the approximate southeast direction, while groundwater at the eastern portion of the site apparently flowed in the northeast direction. SOMA believed the groundwater flow direction may have been affected by the 18" diameter vitrified clay pipe (VCP) sewer line running beneath the southern portion of Dublin Boulevard immediately north of the site. Information provided by Gettler-Ryan indicated that the top of the sanitary sewer line was approximately 16 feet below grade surface (bgs), while the depth to water in nearby wells MW-1 and MW-3 has ranged from approximately 11 to 13 ft bgs.

In 2003, SOMA also conducted further characterization and remediation activities at the site. SOMA advanced seven shallow soil borings using hand augers (B-1 through B-8), nine soil borings using a Geoprobe<sup>TM</sup> direct push rig, and one soil boring using a drill rig equipped with hollow stem augers. Initially, the Geoprobe borings were intended to be used for cone penetrometer testing (CPT) to log the borings; however, due to subsurface conditions the borings were logged using electric conductivity sensors. The direct push borings included collection of discrete depth groundwater samples to assess the vertical extent of contamination.

SOMA's investigation confirmed that contaminant concentrations were highest near the northern central portion of the site, and concluded that the 18" diameter sewer line located immediately north of the site is intercepting groundwater contamination. Fill material around the sewer line could be acting as a preferential pathway for the contamination conveyance to the east and then southeast, the sewer flow direction. SOMA also found contamination in deeper groundwater. SOMA concluded that there are three relatively higher permeability zones on the site acting as water bearing zones – Shallow (10 – 15 to 19 – 23 feet bgs), Middle (19 – 23 to 32 – 36 feet bgs), and Deep (32 – 36 to 43 – 47 feet bgs) – with an Upper Shallow zone (at approximately 2 to 6 feet bgs) noted in a few of the borings. In several locations, an insufficient amount of water was present in the potential water bearing zones, so no groundwater samples were obtained by SOMA. Since wells EA-1, EA-2, EA-3, and MW-1 are screened across the various water bearing zones at the site, SOMA recommended that these wells be destroyed to prevent them from acting as vertical conduits for the migration of the contaminants. SOMA also recommended that wells be installed in the Shallow, Middle, and Deep zones at the site to determine the groundwater flow directions in the various zones.

In November 2004, Pangea Environmental Services, Inc. (Pangea) of Oakland, California, assumed the lead role as consultant for Mr. Hadjian. During first, second and fourth quarters of 2005 and the first quarter 2006 groundwater monitoring events free product was observed in well MW-3.

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In February 2005, Pangea prepared a soil and groundwater investigation workplan, which included an evaluation of local and regional geology and hydrogeology, a review of soil and groundwater sampling data from the site (including detailed cross sections), a conduit study, and a sensitive receptor survey to assess potential impacts to wells and surface water bodies. The closest water supply well was identified approximately 1,900 feet southwest of the site, and was not considered to be potentially impacted by site contamination. The adjacent flood control channel is the only nearby surface water body that could potentially be impacted by site contamination. The workplan recommended installing borings along the sanitary sewer line in Dublin Boulevard and destruction of select wells screened across multiple water-bearing zones. The workplan also recommended installation of new monitoring wells within the multiple water-bearing zones and implementation of interim remediation using vacuum extraction to remove groundwater and free product from selected site wells. During subsequent correspondence, ACEH requested installation of a soil boring (SB-2) downgradient of the 1997 release.

During workplan implementation in March through May 2006, Pangea installed fourteen monitoring wells (MW-3A, MW-6A, MW-6B, MW-7AA, MW-7A, MW-7B, MW-7C, MW-8A, MW-9A, MW-9C, MW-10A, MW-10C and MW-11C) to help define the vertical and lateral extent of groundwater contamination. Pangea abandoned wells EA-1, EA-2, EA-3 and MW-3 to reduce the risk of vertical contaminant migration and improve the quality of monitoring data. Pangea drilled three soil borings (SB-1, SB-1A and SB-2) to help evaluate subsurface conditions downgradient of the 1997 release and north of the site, and the potential for contamination migration along the 18-inch sanitary sewer line in Dublin Boulevard. Soil borings SB-1 was located near the intersection of Dublin Boulevard and Village Parkway and boring SB-1A was located approximately 3 ft south of SB-1. Results are detailed in the August 11, 2006 Site Investigation Report prepared by Pangea.

In July 2006, Pangea conducted vacuum extraction from well MW-3A and MW-7AA using a vacuum truck. The vacuum extraction was conducted to provide cost-effective removal of source area material and additional information about subsurface conditions. The results of the vacuum extraction led Pangea to recommend conducting *short-term feasibility testing/source removal* on key site wells (MW-3A, MW-7AA, MW-7A, MW-6A) detailed in the August 11, 2006 *Site Investigation Report*. ACEH approved the proposed feasibility testing and requested a corrective action plan (CAP) in a letter dated November 9, 2007. The ACEH letter also approved discontinuance of groundwater monitoring of C-zone wells, because monitoring data suggested the C-zone was not impacted.

In November 2007, Pangea conducted a five-day dual-phase extraction (DPE) test (and interim remediation event) to evaluate the effectiveness of DPE as remedial technique and to provide additional source removal. On December 9, 2008, Pangea submitted an *Interim Remediation Report and Corrective Action Plan* (CAP) describing DPE testing and proposing short-term dual phase extraction (DPE) as the most appropriate and cost-effective technique for site remediation. In a letter dated January 16, 2009, ACEH approved short-term DPE for additional source removal to help facilitate case closure.

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In July 2009 Pangea installed two dual-phase extraction (DPE) wells to facilitate implementation of the approved DPE corrective action plan (CAP). Wells DPE-1 and DPE-2 were constructed of 4-inch diameter and screened from 9 to 14 feet bgs. Details of the DPE well installation are described in Pangea's *Remediation Well Installation Report* dated December 16, 2009.

To remediate the small localized impact area, DPE was conducted between September 15, 2010 and November 15, 2010 until low contaminant removal rates were observed. The DPE system operated for a total of about 1,189 hours (approximately 50 days). Laboratory analytical data indicates that the system removed a total of approximately 443 lbs TPHg and 3.8 lbs benzene in vapor phase, and 0.4 lbs TPHg, 0.01 lbs benzene and 0.25 lbs MTBE in aqueous phase. The DPE system was shutdown on November 15, 2010 due to low contaminant removal rates, the small localized extent of site contamination, the commencement of the winter rainy season, and cost control. DPE operation was very costly due to high energy costs, because PG&E could not provide electrical service before the rainy season and PG&E required very costly re-engineering of the existing electrical service (\$20,000 or more). The utilized DPE equipment required diesel fuel and a diesel generator to power the vacuum pump and required propane as supplementary fuel for the oxidizer.

## **GROUNDWATER MONITORING AND SAMPLING**

On February 26, 2013, groundwater monitoring and sampling was conducted at the site. The approved semi-annual groundwater monitoring program is summarized on Table A in Appendix A. The depth to water at survey point C-1 above the flood control channel was also measured.

Before well purging, the dissolved oxygen (DO) concentration was measured in each sampled well. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, a PVC bailer, an electric submersible pump, positive air displacement pump, or a peristaltic pump. During well purging, field technicians measured the pH, temperature and conductivity. Groundwater samples were collected from each well with a disposable bailer, and decanted into the appropriate containers supplied by the analytical laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4° C. All samples were transported under chain-of-custody to a State-certified analytical laboratory. Purge water was temporarily stored onsite in DOT-approved 55-gallon drums. Groundwater monitoring field data sheets are presented in Appendix B.

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## MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are described below and summarized on Table 2. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B. DO concentrations ranged from 0.97 mg/L (impacted well MW-6A) to 5.0 mg/L ('clean' well MW-7B).

### Groundwater Flow Direction

Based on depth-to-water data collected February 26, 2013 groundwater elevations in shallow and intermediate zones are shown on Figure 2 and discussed below. Groundwater flow at the site is complex due to the combined effects of a generally upward gradient, the nearby creek/flood control channel, seasonal fluctuations in flow direction, and possible influences of the city sewer line located beneath Dublin Boulevard.

**Vertical Gradient Evaluation:** A comparison of clustered well pairs screened at different depths indicates that a consistent *upward* gradient component of approximately 0.05 to 0.15 ft/ft is present between the shallow and intermediate water-bearing zones at the portion of the site north of the dispenser islands (MW-6A and 6B), and a much smaller *upward* gradient was present southwest of the dispenser islands (MW-7A and MW-7B) this event, as shown below on Table A. A *downward* gradient appears to be present between the upper shallow, AA-zone vapor wells (VW-1, VW-2 and VW-3) and the shallow A-zone monitoring wells, although this apparent gradient may be due to *perched* groundwater.

**Table A – Vertical Gradient Evaluation using Paired Monitoring Wells**

Monitoring Well Pair	Groundwater Elevation	Mean Screen Depth	Calculated Vertical Gradient
MW-6A	319.91	17.5	
MW-6B	321.49	28	
<i>Difference</i>	<i>1.58</i>	<i>10.5</i>	<i>0.15 (upwards)</i>
MW-7A	320.94	18	
MW-7B	320.99	28	
<i>Difference</i>	<i>0.05</i>	<i>10</i>	<i>0.005 (upwards)</i>

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**Horizontal Gradient Evaluation:** Depth-to-water measurements collected during this and prior groundwater monitoring events indicate that the horizontal component of groundwater flow direction north of the site has been consistently *southward to southeastward* for the *shallow* wells. However, gradient directions in the southern portion of the site have fluctuated significantly, possibly due to the influence of the nearby flood control channel and/or City sewer line beneath Dublin Boulevard. As shown on Figure 2, the horizontal component of the groundwater flow direction in the *shallow* wells at the site for the current monitoring event is primarily *southeastwards to eastwards*. The groundwater flow direction for the shallow water-bearing zone may also be affected by surface water infiltration from the onsite car wash. The horizontal component of groundwater flow in the *intermediate-depth* wells could not be determined since only two wells are screened at that depth.

**Conclusion:** The primary observation regarding the piezometric surface is that a moderately well-defined *upward* gradient is present in wells north of the dispenser islands. The horizontal gradient is complex and likely affected by many factors described above. Historical depth-to-water and groundwater elevation data for the site are presented in Table 1.

### Hydrocarbon Distribution in Groundwater

Based on recent results, hydrocarbon contamination is concentrated in the upper shallow (AA) and shallow (A) water-bearing zones in the vicinity of the fuel dispensers, as shown in Table 2 and on Figure 2. The estimated extent of TPHg and benzene are shown on Figures 3 and 4, respectively. TPHg and benzene concentration trends in key site wells are graphed on Figures 5 and 6, respectively.

During this monitoring event, the highest TPHg (9,300 µg/L) and benzene (430 µg/L) concentrations were detected in wells MW-3A and MW-6A, respectively. Well DPE-1 contained historically low concentrations of TPHg (380 µg/L) and benzene (16 µg/L).

No separate-phase hydrocarbons (SPH) were detected in site wells this quarter. SPH was previously detected in MW-3 and replacement well MW-3A, but has not been detected in MW-3A since May 2006, shortly after well installation. Hydrocarbon concentrations generally show stable to decreasing trends in all site wells, although concentrations remain elevated in select source area wells (MW-3A and MW-6A).

### Fuel Oxygenate Distribution in Groundwater

MTBE was detected above reporting limits in three of the 18 sampled wells, as shown in Table 2 and on Figure 2. MTBE concentrations in sampled wells were at or near *historic lows*. The highest MTBE concentration detected this quarter was 160 µg/L in well DPE-1, which is a *historic low* for this well. MTBE concentration trends in key wells are shown on Figure 5.

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## **OTHER SITE ACTIVITIES**

### **Agency Meeting and Low Threat Closure Policy Review**

On May 28, 2013, Pangea and ACEH met to discuss site conditions with respect to the State Water Resources Control Board's recently adopted *Low Threat Closure Policy* (LTCP). Following the meeting the ACEH issued a May 28, 2013 directive letter. The letter indicates that ACEH staff review have determined that the site fails to meet select LTCP general and media-specific criteria. As requested by the letter, Pangea will prepare an updated site conceptual model and a pilot test workplan to help identify data gaps and facilitate pursuit of case closure.

### **Groundwater Monitoring**

The semi-annual groundwater monitoring program is shown in Appendix A. The next monitoring event is scheduled for August 2013. As discussed during our May 28, 2013 meeting, Pangea may recommend modifications to the groundwater monitoring program after updating the site conceptual model.

### **Electronic Reporting**

The report, laboratory data, and other applicable information will be uploaded to the State Water Resource Control Board's Geotracker database.

## **ATTACHMENTS**

- Figure 1 – Site Location Map
- Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map – Shallow
- Figure 3 – Extent of TPHg in Shallow Groundwater
- Figure 4 – Extent of Benzene in Shallow Groundwater
- Figure 5 – TPHg Concentration Trends in Key Wells
- Figure 6 – Benzene Concentration Trends in Key Wells
- Figure 7 – MTBE Concentration Trends in Key Wells

- Table 1 – Well Construction Details
- Table 2 – Groundwater Elevation and Analytical Data

- Appendix A – Groundwater Monitoring Program
- Appendix B – Groundwater Monitoring Field Data Sheets
- Appendix C – Laboratory Analytical Results

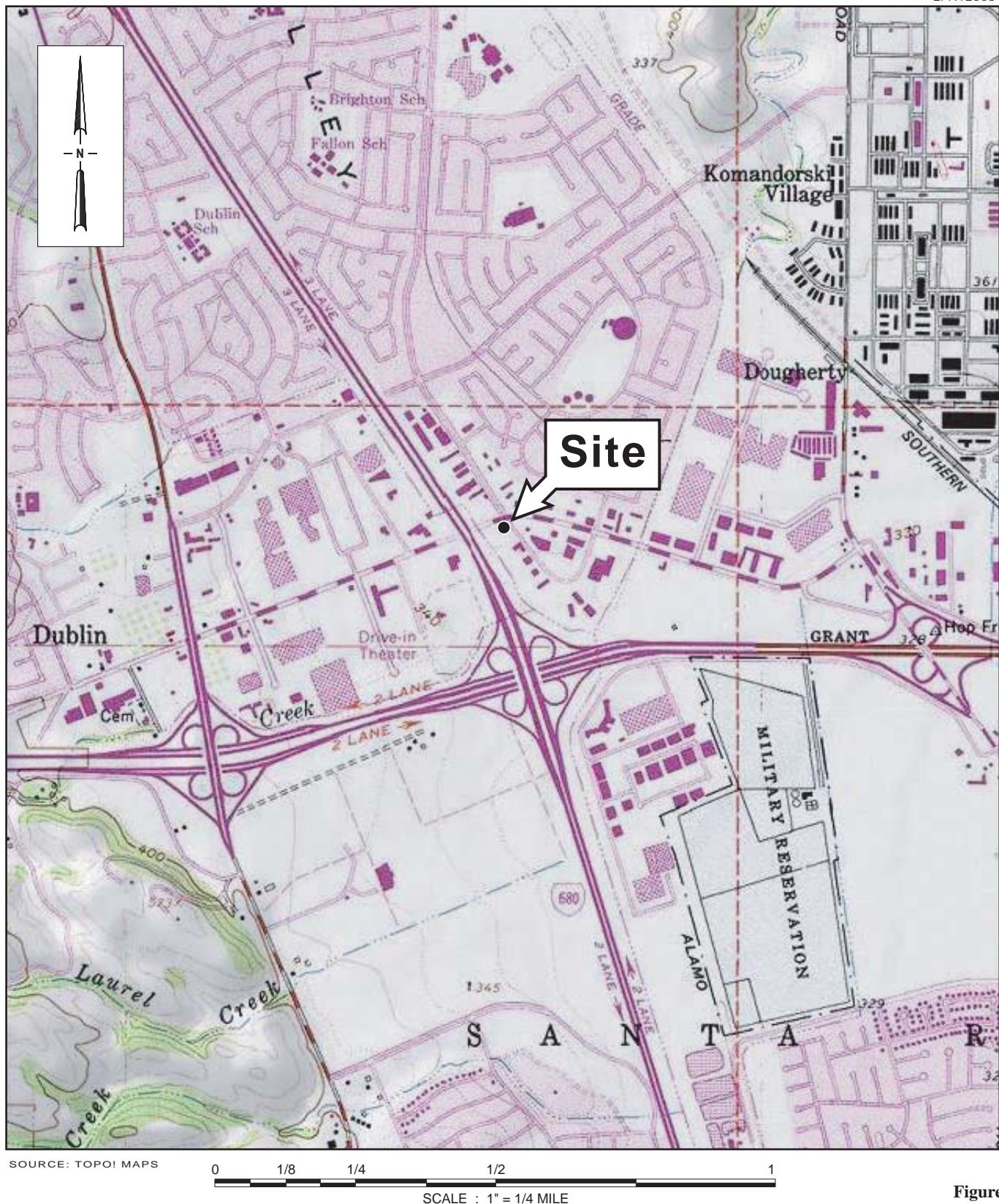
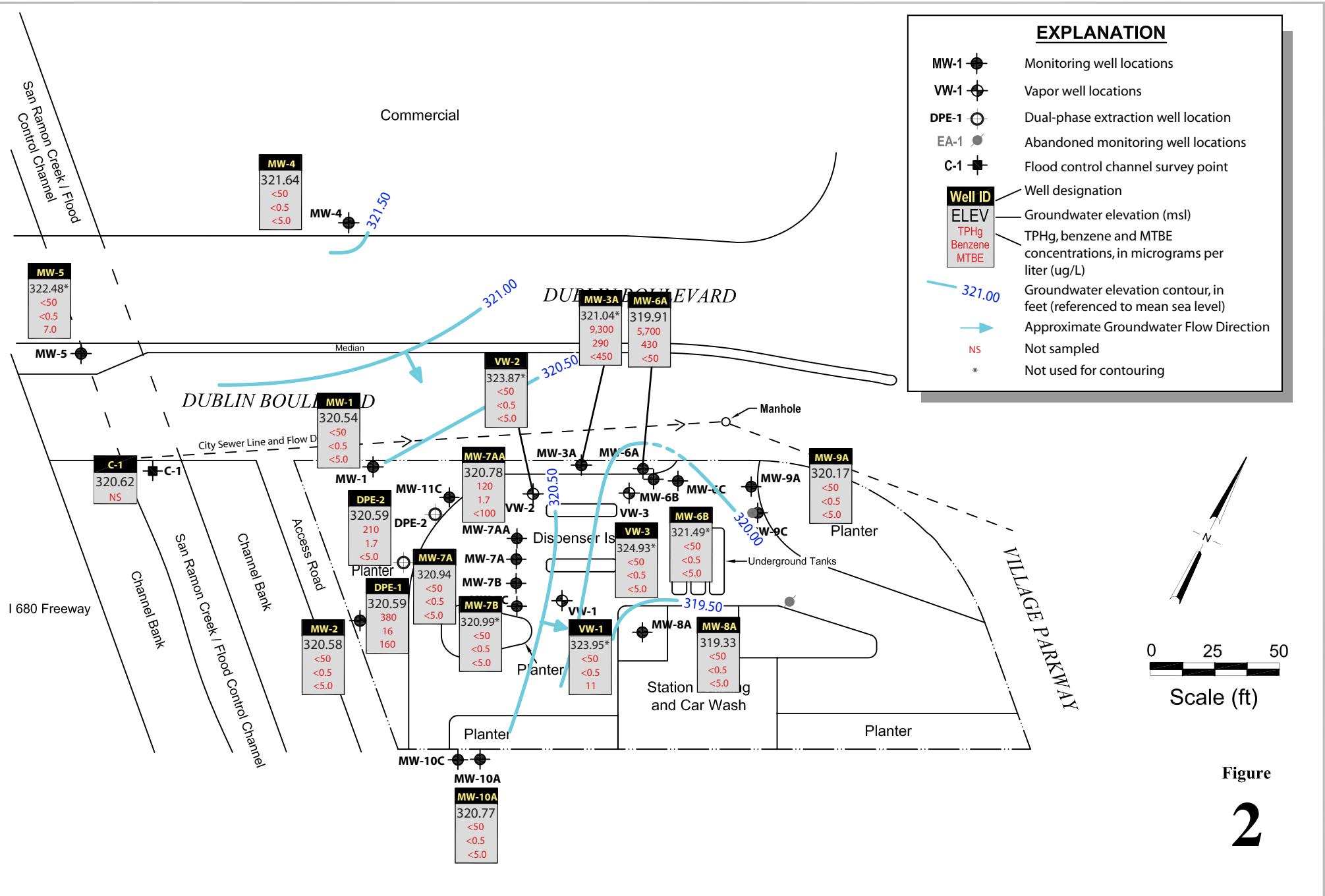


Figure  
**1**

Dublin Auto Wash  
7240 Dublin Boulevard  
Dublin, California



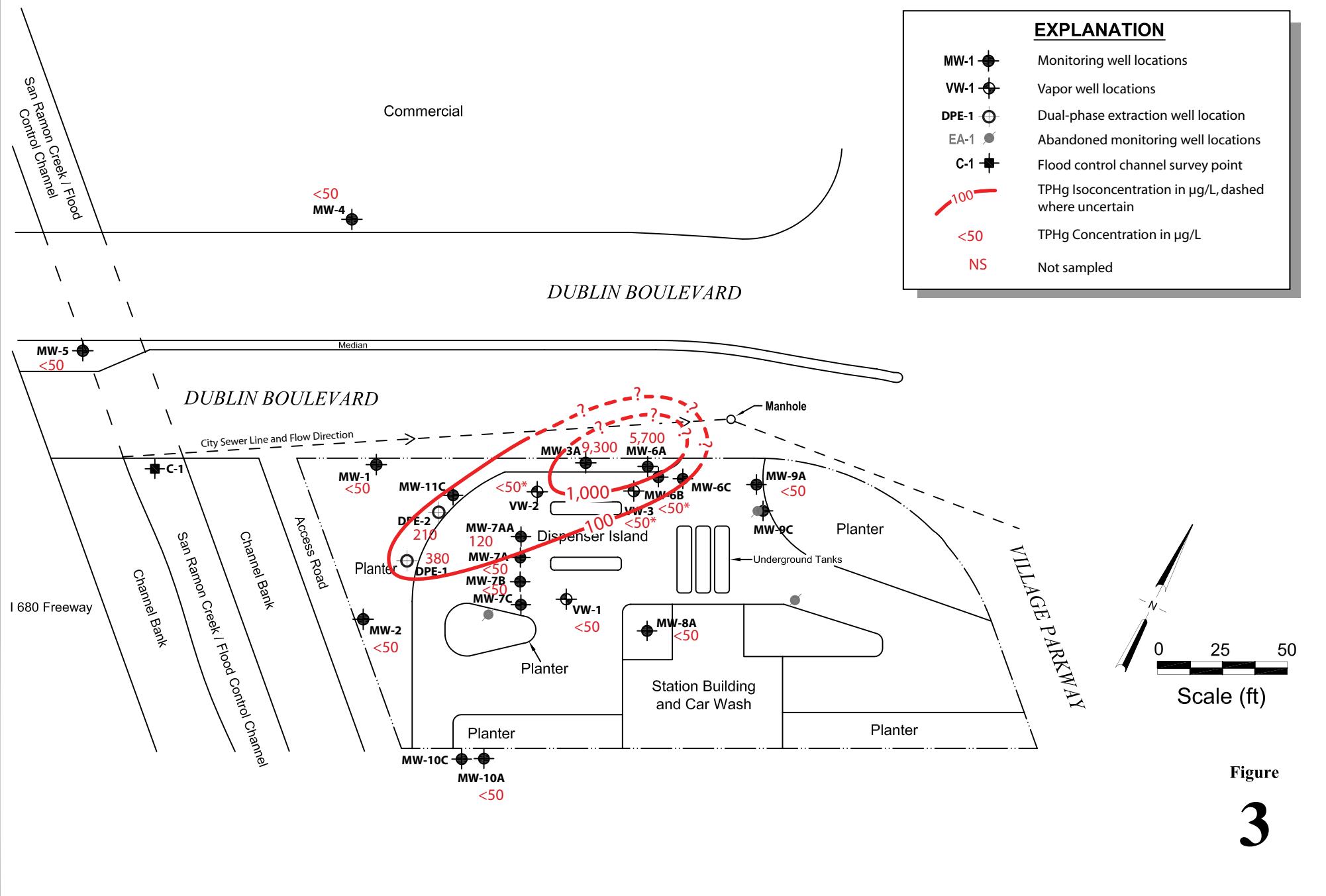
Site Location Map



Dublin Auto Wash  
7240 Dublin Boulevard  
Dublin, California



Groundwater Elevation Contour and  
Hydrocarbon Concentration Map  
February 26, 2013

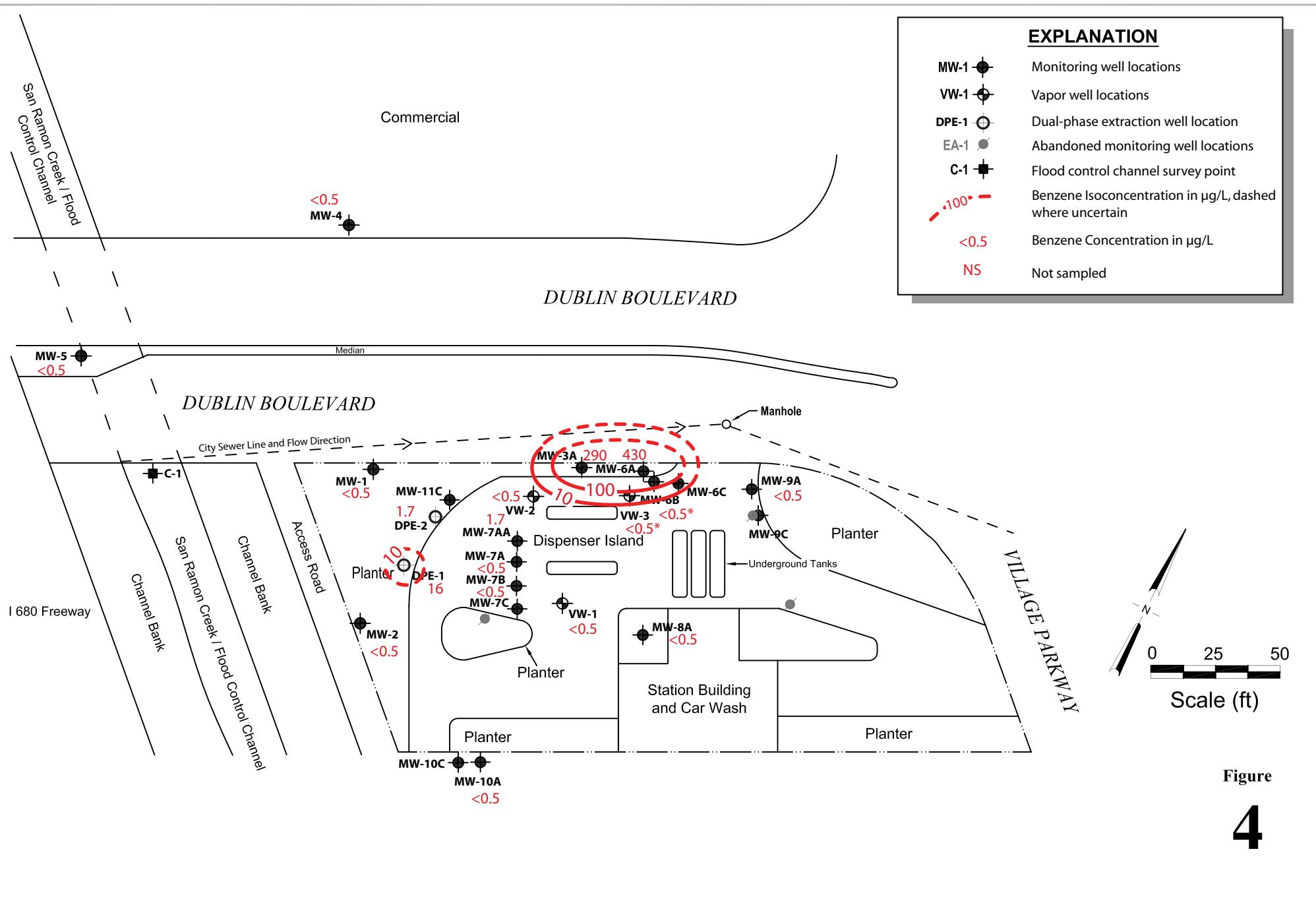


**Dublin Auto Wash**  
**7240 Dublin Boulevard**  
**Dublin, California**



# Extent of TPHg in Shallow Groundwater

February 26, 2013



**Dublin Auto Wash**  
7240 Dublin Boulevard  
Dublin, California

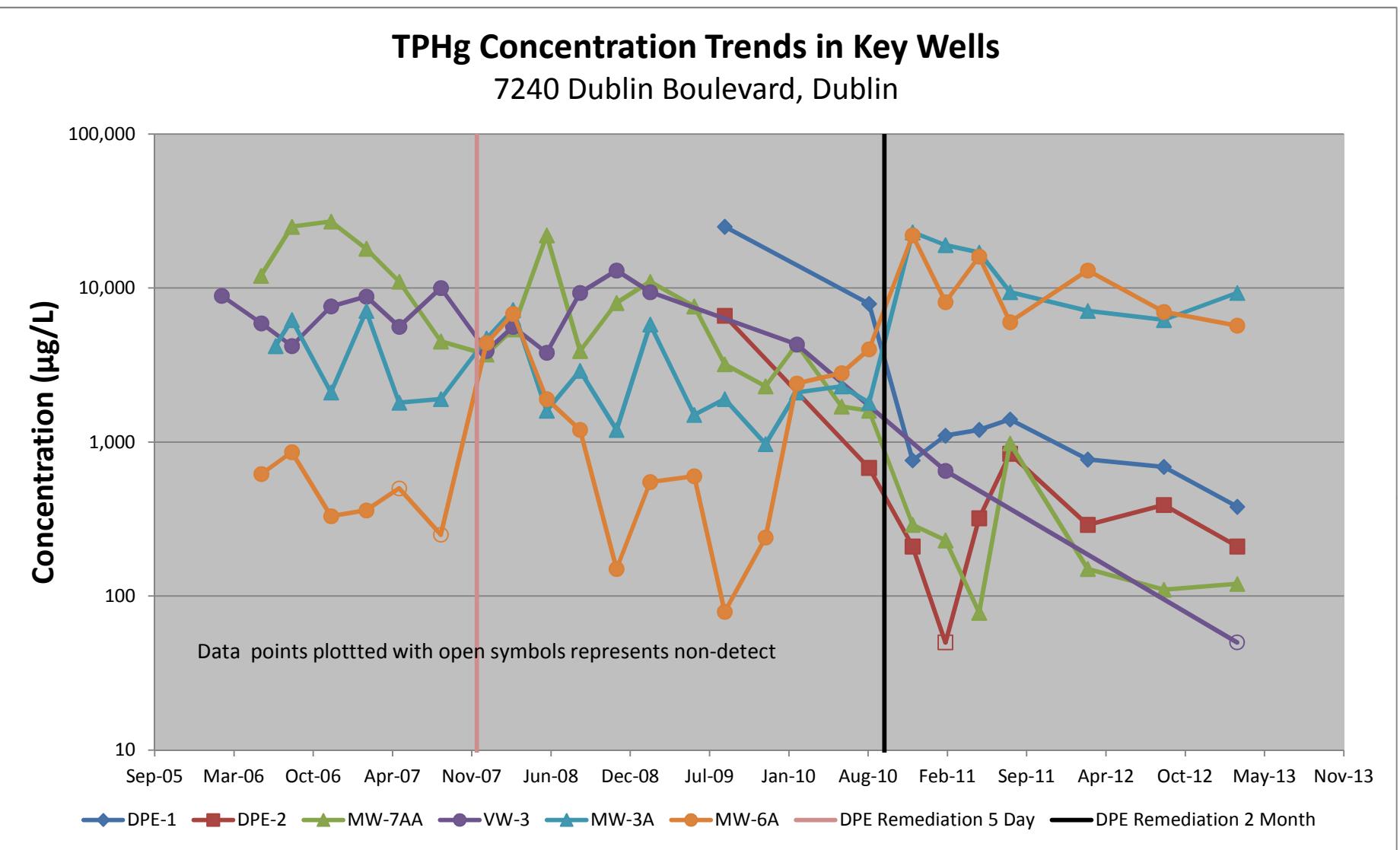


Figure 5. TPHg Concentration Trends in Key Wells

## Benzene Concentration Trends in Key Wells

7240 Dublin Boulevard, Dublin

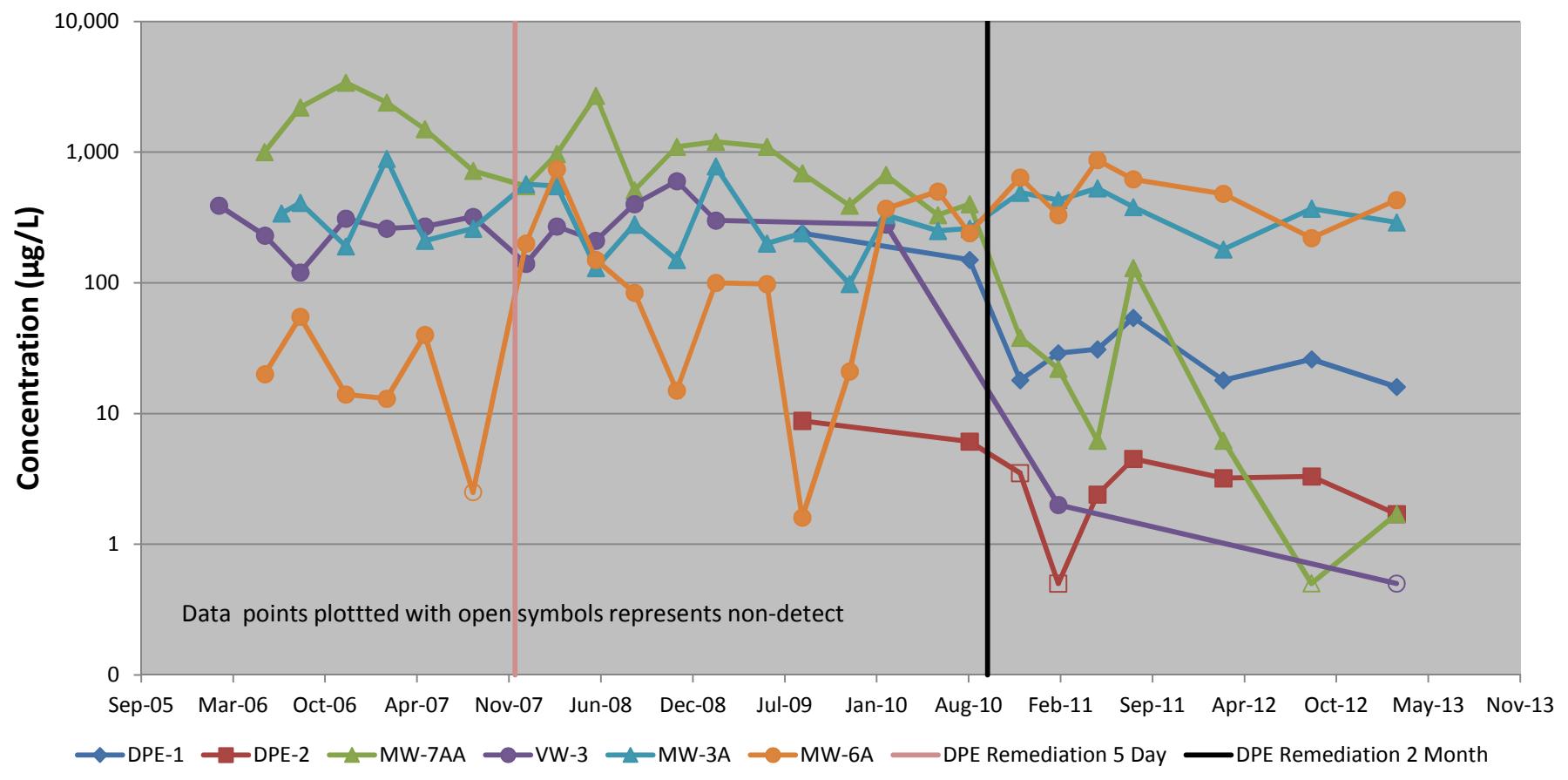


Figure 6. Benzene Concentration Trends in Key Wells

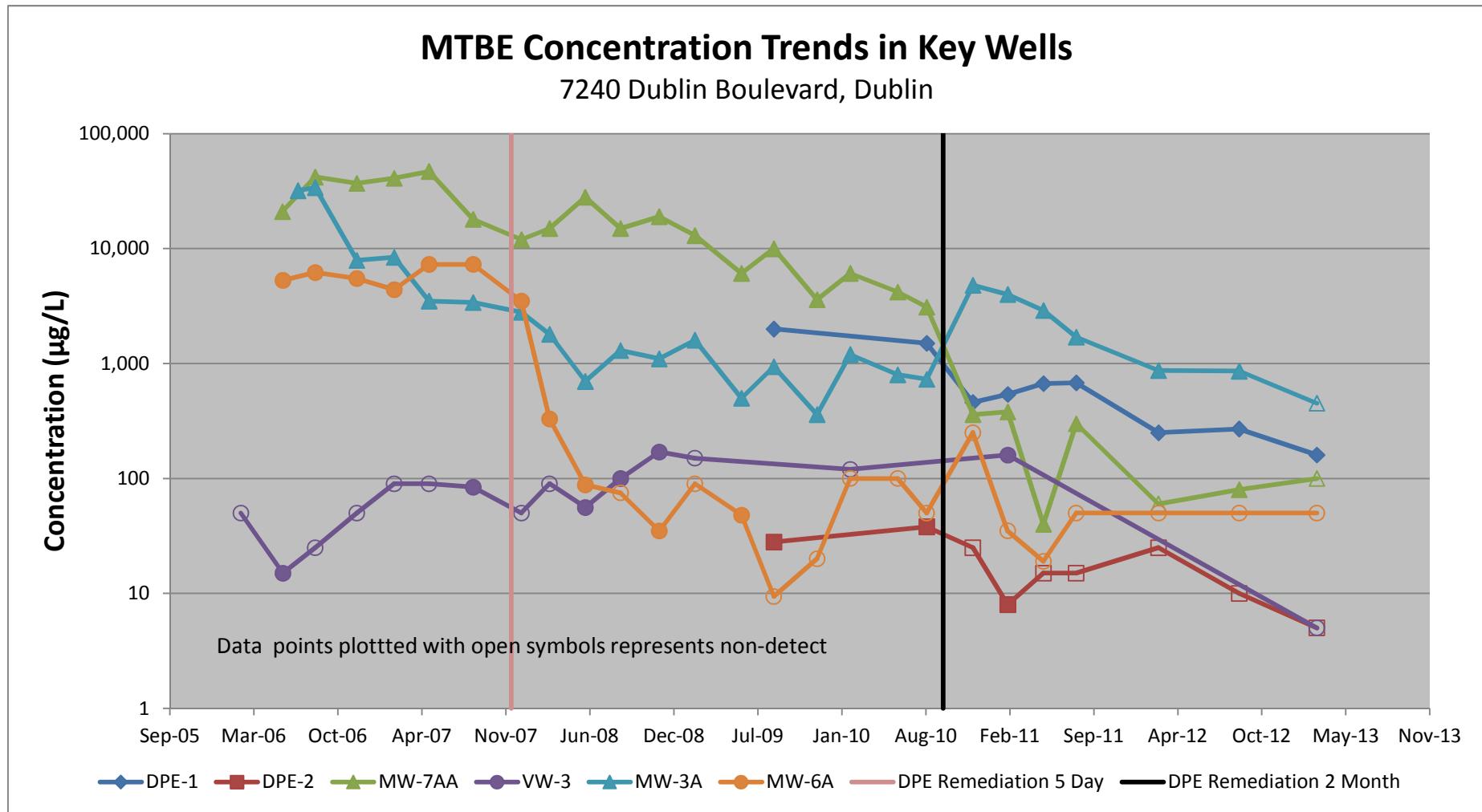


Figure 7. MTBE Concentration Trends in Key Wells

**Table 1 –Well Construction Details –7240 Dublin Blvd., Dublin, CA**

Well ID (TOC Elev)	Total Depth of Well (feet bgs)	Screened Interval (ft bgs)	Drill Hole Diameter (inches)	Casing Diameter (inches)	Surface Seal Depth (ft bgs)
DPE-1	14	9-14	10	4	0-8
DPE-2	14	9-14	10	4	0-8
MW-1	25	5-25	8	2	0-4
MW-2	20	5-20	8	2	0-4
MW-3A	17	10-17	10	4	0-9
MW-4	20	8.5-20	8	2	0-8
MW-5	21	8.5-21	8	2	0-8
MW-6A	20	15-20	10	2	0-14
MW-6B	30	26-30	8	2	0-25
MW-6C	44	34-44	8	2	0-33
MW-7AA	14	9-14	10	4	0-8
MW-7A	20	16-20	10	4	0-15
MW-7B	30	26-30	8	2	0-25
MW-7C	45	35-45	12	2	0-34
MW-8A	20	15-20	8	2	0-4
MW-9A	20	15-20	8	2	0-14
MW-9C	45	35-45	12	2	0-34
MW-10A	20	15-20	8	2	0-14
MW-10C	45	35-45	8	2	0-34
MW-11C	43.5	33.5-43.5	8	2	0-32
VW-1	9	3-9	8	2	0-2.5
VW-2	9	3-9	8	2	0-2.5
VW-3	9	3-9	8	2	0-2.5

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↔	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE →	Dissolved Oxygen mg/L	Notes
<b>Surface Water (Flood Control Channel)</b>											
<b>C-1</b> 332.89	08/17/06	11.60	321.29	--	--	--	--	--	--	--	Gauge data - flood control channel
	11/24/06	12.10	320.79	--	--	--	--	--	--	--	
	02/21/07	12.10	320.79	--	--	--	--	--	--	--	
	05/15/07	12.05	320.84	--	--	--	--	--	--	--	
	08/28/07	11.90	320.99	--	--	--	--	--	--	--	
	12/21/07	12.16	320.73	--	--	--	--	--	--	--	
	02/26/08	12.21	320.68	--	--	--	--	--	--	--	
	05/21/08	12.40	320.49	--	--	--	--	--	--	--	
	08/13/08	11.95	320.94	--	--	--	--	--	--	--	
	11/13/08	12.40	320.49	--	--	--	--	--	--	--	
	02/06/09	12.02	320.87	--	--	--	--	--	--	--	
	05/28/09	11.98	320.91	--	--	--	--	--	--	--	
	08/13/09	12.01	320.88	--	--	--	--	--	--	--	
	11/24/09	11.92	320.97	--	--	--	--	--	--	--	
	02/11/10	11.95	320.94	--	--	--	--	--	--	--	
	06/04/10	11.98	320.91	--	--	--	--	--	--	--	
	08/12/10	11.94	320.95	--	--	--	--	--	--	--	
	11/30/10	11.68	321.21	--	--	--	--	--	--	--	
	02/21/11	10.27	322.62	--	--	--	--	--	--	--	
	05/17/11	12.02	320.87	--	--	--	--	--	--	--	
	08/03/11	12.10	320.79	--	--	--	--	--	--	--	
	02/15/12	12.51	320.38	--	--	--	--	--	--	--	
	08/25/12	10.33	322.56	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>12.27</b>	<b>320.62</b>	--	--	--	--	--	--	--	
<b>Upper Shallow (AA-Zone) Wells</b>											
<b>DPE-1</b> 331.01	08/13/09	10.55	--	25,000	240	160	530	3,900	2,000	--	
	08/12/10	10.20	--	7,900	150	17	110	1,000	1,500	1.12	
	11/30/10	10.47	320.54	760	18	1.6	25	87	460	0.97	
	02/21/11	9.91	321.10	1,100	29	1.1	5.3	97	540	0.73	
	05/17/11	10.21	320.80	1,200	31	2.4	62	65	670	0.69	
	08/03/11	10.28	320.73	1,400	54	1.7	160	42	680	0.73	
	02/15/12	10.71	320.30	770	18	2.2	20	37	250	0.69	
	08/25/12	10.21	320.80	690	26	0.95	27	78	270	0.86	
	<b>02/26/13</b>	<b>10.42</b>	<b>320.59</b>	<b>380</b>	<b>16</b>	<b>2.3</b>	<b>9.8</b>	<b>49</b>	<b>160</b>	<b>2.6</b>	
<b>DPE-2</b> 331.42	08/13/09	11.06	--	6,600	8.8	<2.5	<2.5	710	28	--	
	08/12/10	10.49	--	680	6.1	4.7	<0.5	1.4	38	1.74	
	11/30/10	10.63	320.79	210	3.5	1.7	0.70	1.8	<25	1.40	
	02/21/11	9.83	321.59	<50	<0.5	<0.5	<0.5	<0.5	8.0	1.12	
	05/17/11	10.50	320.92	320	2.4	1.5	12	3.0	<15	1.34	
	08/03/11	10.62	320.80	840	4.5	3.5	24	5.4	<15	0.62	
	02/15/12	11.19	320.23	290	3.2	4.5	<0.5	1.1	<25	0.79	
	08/25/12	10.57	320.85	390	3.3	5.0	2.8	0.79	<10	0.97	
	<b>02/26/13</b>	<b>10.83</b>	<b>320.59</b>	<b>210</b>	<b>1.7</b>	<b>5.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.7</b>	
<b>MW-7AA</b> 330.67	05/31/06	9.18	321.49	12,000	1,000	410	180	1,600	23,000 (21,000)	0.44	TAME, TBA, DIPE, ETBE=ND
	07/07/06	9.15	321.52	--	--	--	--	--	--	--	
	08/17/06	8.75	321.92	25,000	2,200	210	780	1,400	36,000(42,000)	0.24	
	11/24/06	9.84	320.83	27,000	3,400	1,100	1,300	3,400	37,000	0.33	
	02/21/07	9.60	321.07	18,000	2,400	670	200	2,800	41,000	0.58	
	05/15/07	10.20	320.47	11,000	1,500	200	520	1,100	47,000	0.49	
	08/28/07	10.20	320.47	4,500	720	13	73	100	18,000	0.33	
	12/21/07	10.09	320.58	3,700	550	32	74	330	12,000	0.58	
	02/26/08	8.96	321.71	5,400	970	7.2	320	100	15,000	0.74	
	05/21/08	10.28	320.39	22,000	2,700	19	940	440	28,000	0.71	
	08/13/08	10.38	320.29	3,900	510	<5.0	150	42	15,000	0.77	
	11/13/08	10.35	320.32	8,000	1,100	20	290	280	19,000	0.80	
	02/06/09	10.31	320.36	11,000	1,200	37	500	800	13,000	0.79	
	05/28/09	10.05	320.62	7,600	1,100	34	390	870	6,100	0.73	
	08/13/09	10.15	320.52	3,200	690	5.4	54	92	10,000	0.87	
	11/24/09	10.06	320.61	2,300	390	7.2	50	150	3,600	0.81	
	02/11/10	9.56	321.11	4,300	670	9.0	73	240	6,100	0.64	
	06/04/10	9.51	321.16	1,700	330	3.7	<1.7	120	4,200	0.61	
	08/12/10	9.63	321.04	1,600	400	3.0	50	7.0	3,100	0.70	After 2 months DPE.
	11/30/10	9.70	320.97	290	38	0.95	6.1	19	360	0.89	
	02/21/11	8.57	322.10	230	22	<0.5	<0.5	7.2	380	0.54	
	05/17/11	9.51	321.16	78	6.2	1.1	<0.5	<0.5	40	1.31	
	08/03/11	9.71	320.96	980	130	1.4	49	53	300	0.83	
	02/15/12	10.42	320.25	150	6.2	1.7	<0.5	<0.5	<60	0.86	
	08/25/12	9.74	320.93	110	<0.5	1.8	<0.5	<0.5	80	0.49	
	<b>02/26/13</b>	<b>9.89</b>	<b>320.78</b>	<b>120</b>	<b>1.7</b>	<b>2.1</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;100</b>	<b>2.5</b>	
<b>VW-1</b> 330.43	02/21/06	7.95	322.48	860	120	1.4	32	4.4	390 (440)	1.97	
	06/01/06	7.89	322.54	1,100	92	2.2	11	1.4	600 (550)	0.11	TAME=12µg/L, TBA,DIPE,ETBE=ND
	07/07/06	7.71	322.72	--	--	--	--	--	--	--	
	08/17/06	7.65	322.78	--	--	--	--	--	--	0.07	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↖	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE ↗	Dissolved Oxygen mg/L	Notes
VW-1 (cont'd)	11/24/06	7.75	322.68							0.48	
	02/21/07	7.81	322.62	620	52	4.3	<0.5	2.7	340	0.22	
	05/15/07	7.94	322.49	2,000	270	6.4	1.2	15	720	0.10	
	08/28/07	8.07	322.36	2,400	400	4.6	<0.5	23	610	0.27	
	12/21/07	8.20	322.23								Insufficient Water to Sample
	02/26/08	8.20	322.23								Insufficient Water to Sample
	05/21/08	8.21	322.22								Insufficient Water to Sample
	08/13/08	8.27	322.16								Insufficient Water to Sample
	11/13/08	5.97	324.46	<50	<0.5	<0.5	<0.5	<0.5	46	1.10	
	02/06/09	6.04	324.39	<50	<0.5	<0.5	<0.5	<0.5	80	0.97	
	05/28/09	6.30	324.13	--	--	--	--	--	--	--	
	08/13/09	6.61	323.82	--	--	--	--	--	--	--	
	11/24/09	6.99	323.44	--	--	--	--	--	--	--	
	02/11/10	7.30	323.13	<50	<0.5	<0.5	<0.5	<0.5	29	1.16	
	06/04/10	6.00	324.43	--	--	--	--	--	--	--	
	08/12/10	6.30	324.13	--	--	--	--	--	--	--	
	11/30/10	6.95	323.48	--	--	--	--	--	--	--	
	02/21/11	7.25	323.18	<50	<0.5	<0.5	<0.5	<0.5	15	0.93	
	05/17/11	5.72	324.71	--	--	--	--	--	--	--	
	08/03/11	7.08	323.35	--	--	--	--	--	--	--	
	02/15/12	7.22	323.21	<50	<0.5	<0.5	<0.5	<0.5	13	1.03	
	08/25/12	7.85	322.58	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>6.48</b>	<b>323.95</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>11</b>	<b>1.7</b>	
VW-2 330.17	02/21/06	6.01	324.16	1,600	150	2.7	55	20	1,700 (1,600)	1.97	
	06/01/06	6.17	324.00	1,500	140	3.3	24	19	1,600 (1,600)	0.29	TAME, TBA, DIPE, ETBE=ND
	07/07/06	7.02	323.15	--	--	--	--	--	--	--	
	08/17/06	7.23	322.94	--	--	--	--	--	--	0.14	
	11/24/06	5.55	324.62	<50	5.7	<0.5	<0.5	<0.5	260	0.20	
	02/21/07	6.22	323.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.42	
	05/15/07	7.54	322.63	430	40	1.5	<0.5	1.0	470	0.28	
	08/28/07	7.82	322.35	1,200	170	5.0	<0.5	20	160	0.35	
	12/21/07	4.44	325.73	<50	<0.5	<0.5	<0.5	<0.5	100	0.70	
	02/26/08	4.56	325.61	<50	<0.5	<0.5	<0.5	<0.5	21	0.75	
	05/21/08	7.65	322.52	300	28	1.7	<0.5	0.97	<45	0.71	
	08/13/08	7.92	322.25							1.58	Insufficient Water to Sample
	11/13/08	5.96	324.21	<50	8.0	<0.5	<0.5	<0.5	53	0.97	
	02/06/09	6.06	324.11	<50	<0.5	<0.5	<0.5	<0.5	38	0.95	
	05/28/09	6.90	323.27	--	--	--	--	--	--	--	
	08/13/09	7.52	322.65	--	--	--	--	--	--	--	
	11/24/09	6.28	323.89	--	--	--	--	--	--	--	
	02/11/10	5.65	324.52	<50	<0.5	<0.5	<0.5	<0.5	39	0.91	
	06/04/10	5.72	324.45	--	--	--	--	--	--	--	
	08/12/10	1.50	328.67	--	--	--	--	--	--	--	
	11/30/10	2.46	327.71	--	--	--	--	--	--	--	
	02/21/11	4.06	326.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.03	
	05/17/11	3.58	326.59	--	--	--	--	--	--	--	
	08/03/11	7.01	323.16	--	--	--	--	--	--	--	
	02/15/12	4.62	325.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.62	
	08/25/12	6.89	323.28	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>6.30</b>	<b>323.87</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.7</b>	
VW-3 330.49	02/21/06	6.10	324.39	8,900	390	29	490	650	<50	2.28	
	06/01/06	6.22	324.27	5,900	230	4.5	270	63	<35 (15)	0.21	TAME, TBA, DIPE, ETBE=ND
	07/07/06	4.44	326.05	--	--	--	--	--	--	--	
	08/17/06	4.40*	326.09	4,200	120	1.7	39	30	<25	0.10	
	11/24/06	6.15	324.34	7,600	310	9.9	270	420	<50	0.21	
	02/21/07	6.87	323.62	8,800	260	5.1	130	160	<90	0.29	
	05/15/07	7.13	323.36	5,600	270	6.9	110	110	<90	0.36	
	08/28/07	7.41	323.08	10,000	320	5.9	150	140	84	0.39	
	12/21/07	6.28	324.21	3,900	140	1.9	54	29	<50	0.66	
	02/26/08	6.09	324.40	5,600	270	4.5	68	130	<90	0.69	
	05/21/08	6.46	324.03	3,800	210	3.0	32	47	56	0.77	
	08/13/08	6.93	323.56	9,300	400	4.8	87	60	100	0.59	
	11/13/08	7.45	323.04	13,000	600	9.6	220	120	170	2.79	
	02/06/09	7.41	323.08	9,400	300	9.1	140	230	<150	2.16	
	05/28/09	5.93	324.56	--	--	--	--	--	--	--	
	08/13/09	6.40	324.09	--	--	--	--	--	--	--	
	11/24/09	6.75	323.74	--	--	--	--	--	--	--	
	02/11/10	6.08	324.41	4,300	280	3.7	52	80	<120	1.77	
	06/04/10	6.41	324.08	--	--	--	--	--	--	--	
	08/12/10	6.51	323.98	--	--	--	--	--	--	--	
	11/30/10	8.22	322.27	--	--	--	--	--	--	--	
	02/21/11	7.45	323.04	650	2.0	<0.5	<0.5	87	160	1.25	
	05/17/11	7.51	322.98	--	--	--	--	--	--	--	
	08/03/11	7.36	323.13	--	--	--	--	--	--	--	
	02/15/12	--	--					Well Dry			
	08/25/12	8.36	322.13	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>5.56</b>	<b>324.93</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>1.1</b>	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↔	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE →	Dissolved Oxygen mg/L	Notes
<b>Shallow (A-Zone) Wells</b>											
<b>MW-1</b> <i>333.66</i>	10/04/94	12.8	320.76	2,100	150	170	61	320	--		
	11/30/94	12.38	321.18	1,500	210	17	73	130	--		
	03/02/95	12.88	320.68	2,600	510	<10	160	<10	--		
	06/07/95	12.58	320.98	710	160	<2.0	45	<2.0	<10		
	09/26/95	13.15	320.41	1,100	140	1.4	92	1.8	<5.0		
	12/28/95	13.09	320.47	750	96	2.5	61	7.4	37		
	02/29/96	12.17	321.39	250	17	<0.5	18	0.81	9		
	06/27/96	12.95	320.61	710	72	<2.0	92	2.2	<10		
	09/12/96	13.11	320.55	300	53	<0.5	32	0.65	21		
	03/31/97	12.99	320.67	<200	4.1	<2.0	4.8	<2.0	640		
	12/23/98	13.87	319.79	<50	<50	<0.5	<0.5	<0.5	3,200		
	03/25/99	12.01	321.65	<50	<0.5	<0.5	<0.5	<0.5	5,200 (5,200)		
	02/03/00	11.91	321.75	<500	<5.0	<5.0	<5.0	<5.0	3,180 (3,350)		
	01/23/01	12.57	321.09	<50.0	<0.5	<0.5	<0.5	<0.5	4,420		
	05/01/01	12.6	321.06						SAMPLED SEMI-ANNUALLY		
	08/28/01	12.74	320.92	<50	<0.5	<0.5	<0.5	<0.5	4,800		
	11/27/01	12.7	320.96	<50	<0.5	<0.5	<0.5	<1.5	1,400		
	02/28/02	12.7	320.96	<50	<0.5	<0.5	<0.5	<1.5	1,400		
	05/22/02	12.38	321.28						SAMPLED SEMI-ANNUALLY		
	08/20/02	12.57	321.09	<50	<0.5	<0.5	<0.5	<1.5	1,400		
	11/11/02	11.31	322.35						SAMPLED SEMI-ANNUALLY		
	05/08/03	11.85	321.81	<50	<0.5	<0.5	<0.5	<0.5	1,300 (1,200)		
	12/15/04	12.80	320.86	<50	<0.5	<0.5	<0.5	<0.5	1,700 (1,900)		
	02/21/05	11.81	321.85	<100	<1.0	<1.0	<1.0	<1.0	3,000 (3,800)	0.82	
	05/17/05	12.51	321.15	<120	<1.2	<1.2	<1.2	<1.2	3,400 (4,400)	0.75	
	08/17/05	12.35	321.31	<170	<1.7	<1.7	<1.7	<1.7	4,500 (4,900)	0.77	
	11/27/05	13.18	320.48	<170	<1.7	<1.7	<1.7	<1.7	5,400 (4,400)	0.90	
	02/21/06	12.61	321.05	<170	<1.7	<1.7	<1.7	<1.7	5,000 (5,400)	0.29/0.71	
<i>333.69</i>	06/01/06	12.47	321.22	<250	<2.5	<2.5	<2.5	<2.5	6,400 (6,300)	0.46	TAME, TBA, DIPE, ETBE=ND
	07/07/06	12.60	321.09	--	--	--	--	--	--	--	
	08/17/06	11.93	321.76	<250	<2.5	<2.5	<2.5	<2.5	7,700 (9,100)	0.43	
	11/24/06	13.01	320.68	<250	<2.5	<2.5	<2.5	<2.5	8,400	0.29	
	02/21/07	12.91	320.78	<50	<0.5	<0.5	<0.5	<0.5	3,600	0.24	
	05/15/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	2,500	0.29	
	08/28/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	170	0.40	
	12/21/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68	
	02/26/08	12.60	321.09	<50	<0.5	<0.5	<0.5	<0.5	7.0	0.86	
	05/21/08	13.45	320.24	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.94	
	08/13/08	13.37	320.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91	
	11/13/08	13.50	320.19	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.94	
	02/06/09	13.67	320.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.87	
	05/28/09	13.25	320.44	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.71	
	08/13/09	13.26	320.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.77	
	11/24/09	13.28	320.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.80	
	02/11/10	13.04	320.65	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.81	
	06/04/10	12.93	320.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.94	
	08/12/10	12.80	320.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.77	
	11/30/10	13.08	320.61	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.72	
	02/21/11	12.38	321.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91	
	05/17/11	12.82	320.87	---	---	---	---	---	---	---	
	08/03/11	12.88	320.81	---	---	---	---	---	---	---	
	02/15/12	13.42	320.27	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.83	
	08/25/12	12.77	320.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.73	
	<b>02/26/13</b>	<b>13.15</b>	<b>320.54</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.8</b>	
<b>MW-2</b> <i>329.29</i>	10/04/94	8.56	320.62	2300	160	280	96	480	--		
	11/30/94	8.33	320.85	1,600	170	16	110	120	--		
	03/02/95	8.35	320.83	1,200	220	5.6	140	36	--		
	06/07/95	8.62	320.56	160	25	<0.5	16	<0.5	240		
	09/26/95	8.71	320.47	150	15	<0.5	7.2	<0.5	120		
	12/28/95	8.78	320.4	400	34	1.3	26	5.1	170		
	02/29/96	7.82	321.36	120	29	<0.5	<0.5	<0.5	790		
	06/27/96	8.72	320.46	150	13	<0.5	7	<0.5	850		
	09/12/96	8.81	320.48	<1,000	18	<10	<10	<10	3,100		
	03/31/97	8.65	320.64	<500	<5.0	<5.0	<5.0	<5.0	1,400		
	12/23/98	8.32	320.97	<50	<0.5	<0.5	<0.5	<1.5	900		
	03/25/99	7.89	321.4	<50	2.6	<0.5	<0.5	<0.5	1,100 (670)		
	02/03/00	7.53	321.76	<125	<1.25	<1.25	<1.25	<1.25	1,020 (1,100)		
	01/23/01	8.18	321.11	<50.0	<0.5	<0.5	<0.5	<0.5	642		
	05/01/01	8.43	320.86	70.8	<0.5	<0.5	<0.5	<0.5	342		
	08/28/01	8.39	320.9	<50	<0.5	<0.5	<0.5	<0.5	530		
	11/27/01	8.46	320.83	210	<0.5	<0.5	<0.5	<1.5	260		
	02/28/02	8.48	320.81	<50	<0.5	<0.5	<0.5	<1.5	180		
	05/22/02	8.14	321.15	<50	<0.5	<0.5	<0.5	<1.5	180		
	08/20/02	8.24	321.05	<50	<0.5	<0.5	<0.5	<1.5	160		
	11/11/02	8.06	321.23	<50	<0.5	<0.5	<0.5	<1.5	130		
	05/08/03	7.86	321.43	<50	<0.5	<0.5	<0.5	<0.5	180 (160)		
	12/15/04	8.60	320.69	<50	<0.5	<0.5	<0.5	<0.5	1,400 (1,600)		
	02/21/05	7.55	321.74	<50	<0.5	<0.5	<0.5	<0.5	800 (1,100)	1.35	
	05/17/05	8.52	320.77	<50	<0.5	<0.5	<0.5	<0.5	160 (210)	1.06	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↖	Dissolved				Notes
					Benzene	Toluene	Ethylbenzene µg/L	Xylenes	
<b>MW-2 (cont'd)</b>  <b>329.48</b>	08/17/05	8.16	321.13	<50	<0.5	<0.5	<0.5	<0.5	190 (210) 0.90
	11/27/05	9.00	320.29	<50	<0.5	<0.5	<0.5	<0.5	200 (210) 0.92
	02/21/06	8.51	320.78	<50	<0.5	<0.5	<0.5	<0.5	240 (270) 0.33/0.46
	06/01/06	8.50	320.98	<50	<0.5	<0.5	<0.5	<0.5	120 (110) 0.38
	07/07/06	8.57	320.91	--	--	--	--	--	--
	08/17/06	8.21	321.27	<50	<0.5	<0.5	<0.5	<0.5	230(230) 0.30
	11/24/06	8.87	320.61	<50	<0.5	<0.5	<0.5	<0.5	760 0.24
	02/21/07	8.80	320.68	<50	<0.5	<0.5	<0.5	<0.5	1,100 0.21
	05/15/07	8.94	320.54	<50	<0.5	<0.5	<0.5	<0.5	1,400 0.25
	08/28/07	8.83	320.65	<50	<0.5	<0.5	<0.5	<0.5	1,800 0.33
	12/21/07	8.93	320.55	<50	<0.5	<0.5	<0.5	<0.5	1,700 0.49
	02/26/08	8.49	320.99	<50	<0.5	<0.5	<0.5	<0.5	590 0.51
	05/21/08	9.06	320.42	<50	<0.5	<0.5	<0.5	<0.5	230 0.67
	08/13/08	8.89	320.59	<50	<0.5	<0.5	<0.5	<0.5	190 0.77
	11/13/08	9.16	320.32	<50	<0.5	<0.5	<0.5	<0.5	77 0.86
	02/06/09	9.39	320.09	<50	<0.5	<0.5	<0.5	<0.5	20 0.81
	05/28/09	8.86	320.62	<50	<0.5	<0.5	<0.5	<0.5	12 0.74
	08/13/09	8.81	320.67	<50	<0.5	<0.5	<0.5	<0.5	10 0.69
	11/24/09	9.04	320.44	<50	<0.5	<0.5	<0.5	<0.5	13 0.80
	02/11/10	7.50	321.98	<50	<0.5	<0.5	<0.5	<0.5	7.8 0.76
	06/04/10	8.80	320.68	<50	<0.5	<0.5	<0.5	<0.5	6.5 0.82
	08/12/10	8.61	320.87	<50	<0.5	<0.5	<0.5	<0.5	8.0 0.85
	11/30/10	8.99	320.49	<50	<0.5	<0.5	<0.5	<0.5	6.8 0.93
	02/21/11	8.46	321.02	<50	<0.5	<0.5	<0.5	<0.5	7.5 0.95
	05/17/11	8.58	320.90	--	--	--	--	--	--
	08/03/11	8.82	320.66	--	--	--	--	--	--
	02/15/12	9.09	320.39	<50	<0.5	<0.5	<0.5	<0.5	7.2 1.31
	08/25/12	8.72	320.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.74
	<b>02/26/13</b>	<b>8.90</b>	<b>320.58</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0 2.1</b>
<b>MW-3A</b>  <b>331.39</b>	05/29/06	10.13	321.28	--	--	--	--	--	0.03 SPH
	07/07/06	10.15	321.24	4,200	340	27	75	79	32,000 --
	08/17/06	9.56	321.83	6,200	410	68	100	650	28,000(34,000) 0.19
	11/24/06	10.73	320.66	2,100	190	11	72	220	7,900 0.10
	02/21/07	10.52	320.87	7,100	890	28	440	470	8,400 0.17
	05/15/07	11.46	319.93	1,800	210	11	96	88	3,500 0.25
	08/28/07	11.62	319.77	1,900	260	6.9	110	74	3,400 0.28
	12/21/07	11.33	320.06	4,700	570	160	120	970	2,800 0.54
	02/26/08	10.25	321.14	7,200	550	32	440	690	1,800 0.49
	05/21/08	11.52	319.87	1,600	130	2.9	40	94	700 0.55
	08/13/08	11.62	319.77	2,900	280	3.4	52	56	1,300 0.52
	11/13/08	11.55	319.84	1,200	150	3.5	22	31	1,100 0.64
	02/06/09	11.70	319.69	5,800	780	25	260	390	1,600 0.69
	05/28/09	11.30	320.09	1,500	200	9.0	57	190	500 0.70
	08/13/09	11.40	319.99	1,900	240	6.3	29	72	940 0.81
	11/24/09	11.22	320.17	970	98	5.2	25	41	360 0.79
	02/11/10	10.87	320.52	2,100	330	8.6	27	34	1,200 0.72
	06/04/10	10.60	320.79	2,300	250	31	40	330	800 0.69
	08/12/10	10.75	320.64	1,800	260	9.2	50	120	730 0.63
	11/30/10	10.61	320.78	23,000	490	140	220	5,800	4,800 0.80
	02/21/11	9.59	321.80	19,000	430	33	160	3,500	4,000 0.74
	05/17/11	10.56	320.83	17,000	530	27	390	3,000	2,900 0.43
	08/03/11	10.68	320.71	9,400	380	13	380	730	1,700 0.56
	02/15/12	11.46	319.93	7,100	180	15	89	360	870 0.62
	08/25/12	10.76	320.63	6,200	370	10	39	80	860 0.92
	<b>02/26/13</b>	<b>10.35</b>	<b>321.04</b>	<b>9,300</b>	<b>290</b>	<b>37</b>	<b>290</b>	<b>1,600</b>	<b>&lt;450 1.0</b>
Naphthalene = 240 µg/L									
<b>MW-4</b>  <b>332.63</b>	03/01/96	9.9	322.74	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	04/02/96	9.77	322.87	--	--	--	--	--	--
	06/27/96	10	322.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/12/96	11.67	320.96	<50	<0.5	<0.5	<0.5	<0.5	3.5
	03/31/97	10.59	322.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/23/98	10.37	322.26	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	03/25/99	9.91	322.72	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	02/03/00	10.32	322.31	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0 (3)
	01/23/01	10.54	322.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	05/01/01	10.32	322.31						SAMPLED ANNUALLY
	08/28/01	10.57	322.06						SAMPLED ANNUALLY
	11/27/01	10.29	322.34						SAMPLED ANNUALLY
	02/28/02	10.3	322.33	<50	<0.5	<0.5	<0.5	<1.5	SAMPLED ANNUALLY
	05/22/02	10.12	322.51						SAMPLED ANNUALLY
	08/20/02	10.43	322.2						SAMPLED ANNUALLY
	11/11/02	9.89	322.74						SAMPLED ANNUALLY
	05/08/03	9.79	322.84	<50	<0.5	<0.5	<0.5	<0.5	<2
	12/15/04	10.56	322.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	02/21/05	9.50	323.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0 (<0.5) 1.60
	05/17/05	10.20	322.43						SAMPLED ANNUALLY 1.29
	08/17/05	10.50	322.13						SAMPLED ANNUALLY 1.10
	11/27/05	11.07	321.56						SAMPLED ANNUALLY 1.01
	02/21/06	10.53	322.10	<50	<0.5	<0.5	<0.5	<0.5	0.14/0.90
	05/29/06	10.33	322.31						--

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↖	Benzene	Toluene	Ethylbenzene μg/L	Xylenes	MTBE ↗	Dissolved Oxygen mg/L	Notes
<b>MW-4 (cont'd)</b>											
	07/07/06	10.52	322.12	--	--	--	--	--	--	--	--
	08/17/06	10.45	322.19	--	--	--	--	--	--	--	--
	11/24/06	10.95	321.69	--	--	--	--	--	--	0.22	
	02/21/07	10.71	321.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.40	
	05/15/07	11.24	321.40	--	--	--	--	--	--	--	
	08/28/07	11.42	321.22	--	--	--	--	--	--	0.52	
	12/21/07	11.26	321.38	--	--	--	--	--	--	0.81	
	02/26/08	10.12	322.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.06	
	05/21/08	11.30	321.34	--	--	--	--	--	--	0.98	
	08/13/08	11.23	321.41	--	--	--	--	--	--	0.71	
	11/13/08	10.93	321.71	--	--	--	--	--	--	--	
	02/06/09	10.98	321.66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.67	
	05/28/09	10.96	321.68	--	--	--	--	--	--	--	
	08/13/09	11.23	321.41	--	--	--	--	--	--	--	
	11/24/09	11.15	321.49	--	--	--	--	--	--	--	
	02/11/10	10.17	322.47	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.69	
	06/04/10	10.52	322.12	--	--	--	--	--	--	--	
	08/12/10	10.72	321.92	--	--	--	--	--	--	--	
	11/30/10	10.75	321.89	--	--	--	--	--	--	--	
	02/21/11	9.29	323.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.61	
	05/17/11	10.37	322.27	--	--	--	--	--	--	--	
	08/03/11	10.49	322.15	--	--	--	--	--	--	--	
	02/15/12	11.18	321.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.89	
	08/25/12	10.83	321.81	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>11.00</b>	<b>321.64</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>1.7</b>	
<b>MW-5</b> <i>333.47</i>	03/01/96	10.62	322.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	04/02/96	10.14	323.06	--	--	--	--	--	--	--	
	06/27/96	10.22	322.98	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/12/96	10.85	322.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	03/31/97	10.44	322.6	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	12/23/98	10.21	322.83	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	03/25/99	9.92	323.12	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	02/03/00	9.63	323.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.03		
	01/23/01	10.35	322.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	05/01/01	10.34	322.7								SAMPLED ANNUALLY
	08/28/01	10.44	322.6								SAMPLED ANNUALLY
	11/27/01	10.17	322.87								SAMPLED ANNUALLY
	02/28/02	10.2	322.84	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	05/22/02	10.38	322.66								SAMPLED ANNUALLY
	08/20/02	10.36	322.68								SAMPLED ANNUALLY
	11/11/02	10.03	323.01								SAMPLED ANNUALLY
	05/08/03	9.56	323.48	<50	<0.5	<0.5	<0.5	<0.5	3.4/<0.5		
	12/15/04	10.08	322.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	02/21/05	9.90	323.14	<50	<0.5	<0.5	<0.5	<0.5	<5.0 (0.54)	1.62	
	05/17/05	10.33	322.71								SAMPLED ANNUALLY
	08/17/05	10.40	322.64								SAMPLED ANNUALLY
	11/27/05	10.43	322.61								SAMPLED ANNUALLY
	02/21/06	10.32	322.81	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.48/0.76	
	05/29/06	10.41	322.72								SAMPLED ANNUALLY
	07/07/06	10.46	322.67	--	--	--	--	--	--	--	
	08/17/06	10.49	324.19	--	--	--	--	--	--	--	
	11/24/06	10.92	322.21	--	--	--	--	--	--	0.27	
	02/21/07	10.90	322.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.73	
	05/15/07	10.97	322.16	--	--	--	--	--	--	--	
	08/28/07	11.07	322.06	--	--	--	--	--	--	0.55	
	12/21/07	10.80	322.33	--	--	--	--	--	--	0.97	
	02/26/08	10.38	322.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.01	
	05/21/08	10.97	322.16	--	--	--	--	--	--	0.95	
	08/13/08	10.98	322.15	--	--	--	--	--	--	0.99	
	11/13/08	11.01	322.12	--	--	--	--	--	--	--	
	02/06/09	11.05	322.08	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.82	
	05/28/09	10.80	322.33	--	--	--	--	--	--	--	
	08/13/09	10.90	322.23	--	--	--	--	--	--	--	
	11/24/09	10.96	322.17	--	--	--	--	--	--	--	
	02/21/10	10.50	322.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.80	
	06/04/10	10.68	322.45	--	--	--	--	--	--	--	
	08/12/10	10.61	322.52	--	--	--	--	--	--	--	
	11/30/10	10.68	322.45	--	--	--	--	--	--	--	
	02/21/11	10.35	322.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.78	
	05/17/11	10.56	322.57	--	--	--	--	--	--	--	
	08/03/11	10.66	322.47	--	--	--	--	--	--	--	
	02/15/12	10.82	322.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.02	
	08/25/12	10.70	322.43	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>10.65</b>	<b>322.48</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>7.0</b>	<b>2.7</b>	
<b>MW-6A</b> <i>331.81</i>	06/01/06	10.38	321.43	620	20	<2.5	<2.5	43	5,700 (5,300)	0.73	TAME, TBA, DIPE, ETBE=ND
	07/07/06	10.15	321.66	--	--	--	--	--	--	--	
	08/17/06	9.69	322.12	860	55	3.1	31	41	5,300 (6,200)	0.49	
	11/24/06	11.10	320.71	330	14	<2.5	11	3.4	5,500	0.37	
	02/21/07	10.72	321.09	360	13	1.8	16	34	4,400	0.50	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Dissolved					Notes	
				TPHg ↔	Benzene	Toluene	Ethylbenzene µg/L	Xylenes		
<b>MW-6A (cont'd)</b>	05/15/07	11.69	320.12	<500	40	5.3	11	16	7,300	0.52
	08/28/07	11.98	319.83	<250	<2.5	<2.5	<2.5	<2.5	7,300	0.39
	12/21/07	11.31	320.50	4,400	200	45	50	550	3,500	0.45
	02/26/08	10.15	321.66	6,800	740	130	290	600	330	0.61
	05/21/08	11.60	320.21	1,900	150	8.1	44	100	88	0.63
	08/13/08	11.91	319.90	1,200	84	3.7	36	18	<75	0.42
	11/13/08	11.73	320.08	150	15	1.4	3.0	4.2	35	0.44
	02/06/09	11.66	320.15	550	100	9.3	22	34	<90	0.48
	05/28/09	11.45	320.36	600	98	14	21	42	48	0.55
	08/13/09	11.49	320.32	79	1.6	1.5	0.66	0.76	9.4	0.69
	11/24/09	11.15	320.66	240	21	3.7	5.8	20	<20	0.72
	02/11/10	10.80	321.01	2,400	370	65	47	320	<100	0.55
	06/04/10	10.44	321.37	2,800	500	85	87	500	<100	0.68
	08/12/10	10.65	321.16	4,000	240	39	160	770	<50	0.72
	11/30/10	10.69	321.12	22,000	640	210	940	4,300	<250	0.89
	02/21/11	9.79	322.02	8,100	330	93	340	1,700	<35	0.62
	05/17/11	10.78	321.03	16,000	870	75	780	2,500	<19	0.83
	08/03/11	10.92	320.89	6,000	620	24	340	830	<50	0.47
	02/15/12	11.95	319.86	13,000	480	49	580	1,300	<50	0.78
	08/25/12	11.20	320.61	7,000	220	34	200	840	<50	0.47
	<b>02/26/13</b>	<b>11.90</b>	<b>319.91</b>	<b>5,700</b>	<b>430</b>	<b>31</b>	<b>190</b>	<b>730</b>	<b>&lt;50</b>	<b>0.97</b>
										<b>Naphthalene = 310 µg/L</b>
<b>MW-7A</b> <i>330.71</i>	05/31/06	9.19	321.52	<50	1.3	<0.5	0.79	0.82	760 (770)	0.40
	07/07/06	9.17	321.54	--	--	--	--	--	--	--
	08/17/06	8.68	322.03	60	1.1	<0.5	<0.5	1.1	930 (1,400)	0.29
	11/24/06	9.88	320.83	<50	<0.5	<0.5	<0.5	<0.5	260	0.20
	02/21/07	9.59	321.12	<50	4.6	<0.5	0.62	2.2	270	0.35
	05/15/07	10.15	320.56	<50	<0.5	<0.5	<0.5	<0.5	45	0.40
	08/28/07	10.09	320.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.42
	12/21/07	10.00	320.71	3,200	180	38	100	410	890	0.68
	02/26/08	8.78	321.93	1,300	150	1.8	59	99	410	0.90
	05/21/08	10.16	320.55	200	18	<0.5	3.3	<0.5	30	0.75
	08/13/08	10.27	320.44	<50	<0.5	<0.5	<0.5	<0.5	24	0.81
	11/13/08	10.27	320.44	<50	<0.5	<0.5	<0.5	<0.5	30	0.85
	02/06/09	10.22	320.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.83
	05/28/09	9.91	320.80	--	--	--	--	--	--	--
	08/13/09	9.98	320.73	--	--	--	--	--	--	--
	11/24/09	9.93	320.78	--	--	--	--	--	--	--
	02/11/10	9.39	321.32	360	75	0.83	4.8	62	200	0.90
	06/04/10	9.43	321.28	--	--	--	--	--	--	--
	08/12/10	9.50	321.21	--	--	--	--	--	--	--
	11/30/10	9.73	320.98	--	--	--	--	--	--	--
	02/21/11	8.37	322.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.87
	05/17/11	9.33	321.38	--	--	--	--	--	--	--
	08/03/11	9.58	321.13	--	--	--	--	--	--	--
	02/15/12	10.54	320.17	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.85
	08/25/12	9.66	321.05	--	--	--	--	--	--	--
	<b>02/26/13</b>	<b>9.77</b>	<b>320.94</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>3.0</b>
<b>MW-8A</b> <i>331.19</i>	05/29/06	9.55	321.64	<50	<0.5	<0.5	<0.5	<0.5	20 (18)	0.39
	07/07/06	9.20	321.99	--	--	--	--	--	--	--
	08/17/06	8.73	322.46	<50	<0.5	<0.5	<0.5	<0.5	19 (26)	0.26
	11/24/06	9.80	321.39	<50	<0.5	<0.5	<0.5	<0.5	34	0.21
	02/21/07	9.81	321.38	<50	<0.5	<0.5	<0.5	<0.5	16	0.29
	05/15/07	10.05	321.14	<50	<0.5	<0.5	<0.5	<0.5	13	0.33
	08/28/07	9.83	321.36	<50	<0.5	<0.5	<0.5	<0.5	19	0.35
	12/21/07	10.36	320.83	<50	<0.5	<0.5	<0.5	<0.5	16	0.61
	02/26/08	8.33	322.86	<50	<0.5	<0.5	<0.5	<0.5	38	0.77
	05/21/08	9.99	321.20	<50	<0.5	<0.5	<0.5	<0.5	13	0.81
	08/13/08	10.49	320.70	<50	<0.5	<0.5	<0.5	<0.5	68	0.65
	11/13/08	10.39	320.80	<50	<0.5	<0.5	<0.5	<0.5	110	0.68
	02/06/09	10.42	320.77	<50	<0.5	<0.5	<0.5	<0.5	75	0.70
	05/28/09	9.90	321.29	<50	<0.5	<0.5	<0.5	<0.5	36	0.66
	08/13/09	9.78	321.41	<50	<0.5	<0.5	<0.5	<0.5	68	0.74
	11/24/09	9.76	321.43	<50	<0.5	<0.5	<0.5	<0.5	66	0.71
	02/11/10	9.33	321.86	<50	<0.5	<0.5	<0.5	<0.5	56	0.63
	06/04/10	8.95	322.24	<50	<0.5	<0.5	<0.5	<0.5	30	0.69
	08/12/10	9.24	321.95	<50	<0.5	<0.5	<0.5	<0.5	28	0.75
	11/30/10	13.19	318.00	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.69
	02/21/11	12.65	318.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68
	05/17/11	9.44	321.75	--	--	--	--	--	--	--
	08/03/11	9.14	322.05	--	--	--	--	--	--	--
	02/15/12	9.33	321.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.91
	08/25/12	13.25	317.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.40
	<b>02/26/13</b>	<b>11.86</b>	<b>319.33</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>4.3</b>
<b>MW-9A</b> <i>331.17</i>	05/29/06	10.13	321.04	<50	<0.5	<0.5	<0.5	<0.5	210 (210)	0.46
	07/07/06	9.96	321.21	--	--	--	--	--	--	--
	08/17/06	9.40	321.77	150	<0.5	1.3	<0.5	<0.5	79(100)	0.53
	11/24/06	11.02	320.15	200	<0.5	2.4	<0.5	<0.5	31	0.38
	02/21/07	10.53	320.64	<50	<0.5	<0.5	<0.5	<0.5	21	0.33

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↔	Dissolved					Notes
					Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE →	
<i>MW-9A (cont'd)</i>	05/15/07	10.81	320.36	86	<0.5	<0.5	<0.5	<0.5	31	0.45
	08/28/07	11.11	320.06	95	<0.5	1.4	<0.5	<0.5	10	0.38
	12/21/07	10.76	320.41	120	<0.5	2.9	<0.5	0.51	9.5	0.50
	02/26/08	9.71	321.46	120	<0.5	1.2	<0.5	<0.5	9.5	0.86
	05/21/08	10.75	320.42	86	<0.5	<0.5	<0.5	<0.5	6.3	0.84
	08/13/08	11.31	319.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.76
	11/13/08	11.14	320.03	52	<0.5	<0.5	<0.5	<0.5	5.5	0.63
	02/06/09	11.16	320.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.61
	05/28/09	10.75	320.42	--	--	--	--	--	--	--
	08/13/09	10.65	320.52	--	--	--	--	--	--	--
	11/24/09	10.48	320.69	--	--	--	--	--	--	--
	02/11/10	10.16	321.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.63
	06/04/10	9.80	321.37	--	--	--	--	--	--	--
	08/12/10	10.08	321.09	--	--	--	--	--	--	--
	11/30/10	10.10	321.07	--	--	--	--	--	--	--
	02/21/11	9.45	321.72	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.73
	05/17/11	10.07	321.10	--	--	--	--	--	--	--
	08/03/11	10.38	320.79	--	--	--	--	--	--	--
	02/15/12	11.52	319.65	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.73
	08/25/12	10.78	320.39	--	--	--	--	--	--	--
	<b>02/26/13</b>	<b>11.00</b>	<b>320.17</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.0</b>
<b>MW-10A</b> <i>329.93</i>	05/29/06	11.60	318.33	<50	<0.5	<0.5	<0.5	0.67	5.3 (4.7)	0.68
	07/07/06	9.78	320.15	--	--	--	--	--	--	--
	08/17/06	8.80	321.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.47
	11/24/06	12.61	317.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.26
	02/21/07	8.96	320.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.25
	05/15/07	9.22	320.71	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.30
	08/28/07	8.44	321.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.35
	12/21/07	8.81	321.12	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.47
	02/26/08	7.34	322.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70
	05/21/08	9.22	320.71	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.64
	08/13/08	9.25	320.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.61
	11/13/08	9.47	320.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70
	02/06/09	9.50	320.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68
	05/28/09	9.11	320.82	--	--	--	--	--	--	--
	08/13/09	9.21	320.72	--	--	--	--	--	--	--
	11/24/09	9.26	320.67	--	--	--	--	--	--	--
	02/11/10	8.35	321.58	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.64
	06/04/10	8.73	321.20	--	--	--	--	--	--	--
	08/12/10	8.85	321.08	--	--	--	--	--	--	--
	11/30/10	9.02	320.91	--	--	--	--	--	--	--
	02/21/11	7.78	322.15	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70
	05/17/11	11.61	318.32	--	--	--	--	--	--	--
	08/03/11	11.39	318.54	--	--	--	--	--	--	--
	02/15/12	9.68	320.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.26
	08/25/12	9.11	320.82	--	--	--	--	--	--	--
	<b>02/26/13</b>	<b>9.16</b>	<b>320.77</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>3.0</b>

### Intermediate-Depth (B-zone) Wells

<b>MW-6B</b> <i>330.9</i>	06/01/06	8.41	322.49	<50	<0.5	<0.5	<0.5	<0.5	18 (16)	0.34	TAME, TBA, DIPE, ETBE=ND
	07/07/06	8.55	322.35	--	--	--	--	--	--	--	
	08/17/06	8.66	322.24	<50	<0.5	<0.5	<0.5	<0.5	8.5(9.6)	0.40	
	11/24/06	9.25	321.65	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.31	
	02/21/07	8.80	322.10	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.37	
	05/15/07	9.21	321.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.31	
	08/28/07	9.60	321.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51	
	12/21/07	9.42	321.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.82	
	02/26/08	7.87	323.03	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.80	
	05/21/08	9.37	321.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.87	
	08/13/08	9.70	321.20	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.81	
	11/13/08	9.62	321.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.78	
	02/06/09	9.53	321.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.71	
	05/28/09	9.23	321.67	--	--	--	--	--	--	--	
	08/13/09	9.63	321.27	--	--	--	--	--	--	--	
	11/24/09	9.63	321.27	--	--	--	--	--	--	--	
	02/11/10	8.41	322.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68	
	06/04/10	8.72	322.18	--	--	--	--	--	--	--	
	08/12/10	9.10	321.80	--	--	--	--	--	--	--	
	11/30/10	9.02	321.88	--	--	--	--	--	--	--	
	02/21/11	8.11	322.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.66	
	05/17/11	8.83	322.07	--	--	--	--	--	--	--	
	08/03/11	9.16	321.74	--	--	--	--	--	--	--	
	02/15/12	9.83	321.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91	
	08/25/12	9.81	321.09	--	--	--	--	--	--	--	
	<b>02/26/13</b>	<b>9.41</b>	<b>321.49</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.1</b>	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Dissolved					Notes
				TPHg ←	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	
<b>MW-7B</b> <i>330.69</i>	05/31/06	9.05	321.64	<50	0.79	<0.5	<0.5	0.75	6.4 (6.6) 0.17 TAME, TBA, DIPE, ETBE=ND
	07/07/06	9.03	321.66	--	--	--	--	--	--
	08/17/06	8.62	322.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.22
	11/24/06	9.75	320.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.27
	02/21/07	9.44	321.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.29
	02/21/07	9.44	321.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.29
	05/15/07	9.97	320.72	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.33
	08/28/07	9.96	320.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.51
	12/21/07	9.87	320.82	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.53
	02/26/08	8.64	322.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.59
	05/21/08	10.05	320.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.56
	08/13/08	10.17	320.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.51
	11/13/08	10.15	320.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.53
	02/06/09	10.18	320.51	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.55
	05/28/09	9.80	320.89	--	--	--	--	--	--
	08/13/09	9.89	320.80	--	--	--	--	--	--
	11/24/09	9.85	320.84	--	--	--	--	--	--
	02/11/10	9.24	321.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.81
	06/04/10	9.35	321.34	---	---	---	---	---	---
	08/12/10	9.37	321.32	---	---	---	---	---	---
	11/30/10	9.80	320.89	---	---	---	---	---	---
	02/21/11	8.69	322.00	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.85
	05/17/11	9.23	321.46	---	---	---	---	---	---
	08/03/11	9.42	321.27	---	---	---	---	---	---
	02/15/12	10.18	320.51	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.73
	08/25/12	9.64	321.05	--	--	--	--	--	--
<b>02/26/13</b>	<b>9.70</b>	<b>320.99</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>5.0</b>

## Deep (C-Zone) Wells

<b>MW-6C</b> <i>330.88</i>	06/01/06	8.21	322.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.29 TAME, TBA, DIPE, ETBE=ND
	07/07/06	8.41	322.47	--	--	--	--	--	--
	08/17/06	8.56	322.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.21
	11/24/06	9.12	321.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.28
	02/21/07	8.62	322.26	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.21
<b>MW-7C</b> <i>330.74</i>	05/31/06	8.65	322.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.12 TAME, TBA, DIPE, ETBE=ND
	07/07/06	8.70	322.04	--	--	--	--	--	--
	08/17/06	8.52	322.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.17
	11/24/06	9.42	321.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.19
	02/21/07	9.01	321.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.31
<b>MW-9C</b> <i>331.48</i>	05/29/06	16.59	314.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.28 TAME, TBA, DIPE, ETBE=ND
	07/07/06	8.85	322.63	--	--	--	--	--	--
	08/17/06	9.20	322.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.21
	11/24/06	9.61	321.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.33
	02/21/07	8.94	322.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.46
<b>MW-10C</b> <i>329.66</i>	05/29/06	7.28	322.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.16 TAME, TBA, DIPE, ETBE=ND
	07/07/06	7.28	322.38	--	--	--	--	--	--
	08/17/06	7.29	322.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.22
	11/24/06	10.75	318.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.33
	02/21/07	7.69	321.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.39
<b>MW-11C</b> <i>331.61</i>	05/31/06	9.90	321.71	<50	<0.5	<0.5	<0.5	<0.5	11 (11) 0.29 TAME, TBA, DIPE, ETBE=ND
	07/07/06	10.02	321.59	--	--	--	--	--	--
	08/17/06	9.60	322.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.22
	11/24/06	10.60	321.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.28
	02/21/07	10.30	321.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0 0.43

## Destroyed Wells

<b>MW-3</b> <i>332.86</i>	10/04/94	12.06	320.67	6,300	610	750	68	670	--
	11/30/94	11.38	321.35	17	3,600	490	430	610	--
	03/02/95	11.97	320.76	8,500	2,200	<50	240	<50	64,000
	06/07/95	11.54	321.19	3,000	710	18	220	44	3,100
	09/26/95	12.36	320.37	<10,000	230	<100	130	<100	64,000
	12/28/95	12.07	320.66	<12,500	760	<125	<125	<125	100,000
	02/29/96	11.01	321.72	1,600	380	<10	84	17	33,000
	06/27/96	11.93	320.8	1,400	<2.5	4.3	130	4	96,000
	09/12/96	12.26	320.6	<10,000	560	<100	110	<100	100,000
	03/31/97	12.04	320.82	<25,000	1,200	370	<250	380	130,000
	12/23/98	12.92	319.94	--	--	--	--	--	0.1' SPH; 0.079 gal SPH removed
	03/25/99	12.56	320.3	--	--	--	--	--	0.05' SPH; 0.05 gal SPH removed
	02/03/00	11.12	321.74	92,100	4,780	11,400	2,270	15,800	137,000 (162,000)
	1/23/2001	11.78	321.08	60,600	4,810	7,500	1,870	11,000	148,000
	5/1/2001	10.66	322.2	56,000	3,760	5,640	<2,500	8,740	136,000
	8/28/2001	11.79	321.07	32,000	3,800	2,600	1,200	7,500	160,000
	11/27/2001	11.98	320.88	110,000	1,300	2,400	1,500	9,400	90,000

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↖	Dissolved					Notes
					Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE ↗	
<b>MW-3 (cont'd)</b>	02/28/02	11.81	321.05	24,000	1,900	820	520	3,100	90,000	
	05/22/02	11.6	321.26	110,000	4,000	3,200	2,800	18,000	140,000	
	08/20/02	11.81	321.05	37,000	2,600	1,500	890	4,800	110,000	
	11/11/02	11.63	321.23	81,000	2,900	2,100	2,100	14,000	110,000	
	05/08/03	10.91	321.95	5,700	770	69	130	365	76,000 (70,000)	
	12/15/04	11.97	320.89	33,000	1,700	430	1,300	7,000	70,000 (89,000)	
	02/21/05	10.81	322.06	--	--	--	--	--	--	1.29 0.01 SPH
	05/17/05	11.63	321.29	--	--	--	--	--	--	1.06 0.08 SPH
	08/17/05	10.83	322.03	39,000	1,500	260	780	2,700	42,000 (47,000)	0.93
	11/27/05	12.29	320.72	--	--	--	--	--	--	0.19 SPH
	02/21/06	11.73	321.28	--	--	--	--	--	--	0.19 SPH
	03/30/06	--	--	--	<b>Well Destroyed</b>					Well Destroyed
<b>EA-1</b>	10/17/88	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	
<i>331.21</i>	10/24/88	10.64	322.77	--	--	--	--	--	--	
	11/02/88	10.69	322.72	--	--	--	--	--	--	
	12/20/88	10.51	322.9	<50	<0.5	<0.5	<0.5	<0.5	--	
	03/28/89	9.87	323.54	<250	<0.5	<0.5	<0.5	<0.5	--	
	08/02/89	10.34	323.07	<50	<0.1	<0.1	<0.1	<0.1	--	
	11/06/89	10.65	322.76	<500	<3.0	<5.0	<5.0	<5.0	--	
	01/25/90	10.6	322.81	<50	<0.5	<0.5	<0.5	<0.5	--	
	04/23/90	10.58	322.83	71	2	5	3	8	--	
	08/01/90	10.88	322.53	300	86	21	10	33	--	
	10/24/91	11.12	322.29	280	69	13	11	16	--	
	01/31/91	11.16	322.25	460	160	11	17	17	--	
	08/21/91	10.8	322.61	2,400	400	220	44	120	--	
	08/21/91	10.8	322.61	2,300	390	210	42	120	--	Duplicate
	10/07/91	10.79	322.62	--	--	--	--	--	--	
	01/28/92	10.79	322.62	3,600	320	360	110	310	--	
	01/28/92	10.79	322.62	3,000	290	320	99	270	--	Duplicate
	06/05/92	10.84	322.57	1,700	290	89	61	130	--	
	09/30/92	11.06	322.35	2,100	160	260	80	350	--	
	12/30/92	10.15	323.26	3,200	240	180	110	310	--	
	03/29/93	9.42	323.99	23,000	700	3,000	610	3,000	--	
	06/25/93	10.42	322.99	2.7	130	590	130	590	--	
	09/16/93	10.66	322.75	3.9	410	830	220	890	--	
	12/20/93	10.6	322.81	27	1,200	2,600	1,100	4,200	--	
	03/29/94	10.41	323	6.3	250	700	200	830	--	
	06/22/94	10.4	323.01	4.1	71	240	110	460	<30	
	09/20/94	10.37	323.04	8,500	1,200	1,300	370	1,400	--	
	10/04/94	10.34	323.07	7,600	97	360	150	620	--	
	11/30/94	9.46	323.95	8,800	180	490	240	900	--	
	03/02/95	9.96	321.07	6.9	82	570	210	970	--	
	06/15/95	9.8	321.23	4.8	44	210	160	620	<25	
	09/26/95	10.48	320.55	13,000	150	620	370	1,400	<125	
	12/28/95	10.14	320.89	11,000	74	250	200	750	79	
	02/29/96	8.74	322.29	17,000	59	480	350	1,600	<125	
	06/27/96	10.21	320.82	3,600	22	130	130	49	46	
	09/12/96	10.49	320.72	2,000	20	<10	18	44	<50	
	03/31/97	10.19	321.02	17,000	87	230	330	1,200	310	
	12/23/98	9.83	321.38	290	20	0.88	1.1	16	<2.5	
	03/25/99	9.13	322.08	500	21	<0.5	21	<0.5	18	
	02/03/00	9.05	322.16	2,310	35.7	90	21.8	147	1,280 (365)	
	01/23/01	--	--	--	--	--	--	--	--	Inaccessible
	05/01/01	9.82	321.39	7,710	19.9	12.6	22.3	64	31.8	
	08/28/01	10.04	321.17	4,800	69	<25	50	140	160	
	11/27/01	10.05	321.16	5,300	25	<5.0	30	120	<20	
	02/28/02	--	--	--	--	--	--	--	--	Inaccessible
	05/22/02	9.05	322.16	110	<1.0	<0.50	1	<1.5	<2.5	
	08/20/02	9.21	322	410	2.6	<0.50	8.5	29	<5.0	
	11/11/02	9.01	322.2	3,800	<0.50	1.3	17	47	<5.0	
	05/08/03	8.23	322.98	1,700	11	0.97	63	161	<2.0	
	12/15/04	--	--	--	--	--	--	--	--	Inaccessible
	02/21/05	--	--	--	--	--	--	--	--	Inaccessible
	05/17/05	--	--	--	--	--	--	--	--	Inaccessible
	08/17/05	--	--	--	--	--	--	--	--	Inaccessible
	11/27/05	--	--	--	--	--	--	--	--	Inaccessible
	02/21/06	--	--	--	--	--	--	--	--	Inaccessible
	03/31/06	--	--	--	<b>Well Destroyed</b>					-- Well Destroyed
<b>EA-2</b>	10/17/88	--	--	<50	<0.5	<0.5	<0.5	1.2	--	
<i>330.41</i>	10/24/88	9.7	322.89	--	--	--	--	--	--	
	11/02/88	10.03	322.56	--	--	--	--	--	--	
	12/20/88	9.98	322.61	<50	<0.5	<0.5	<0.5	<0.5	--	
	03/28/89	8.8	323.79	<250	<2	<0.5	<0.5	<0.5	--	
	08/02/89	9.44	323.15	<50	<0.1	<0.1	<0.1	<0.1	--	
	11/06/89	9.53	323.06	<500	<3.0	<5.0	<5.0	<5.0	--	
	01/25/90	9.27	323.32	<50	<0.5	<0.5	<0.5	<0.5	--	
	04/23/90	9.35	323.24	<50	0.6	0.8	<0.5	2	--	
	08/01/90	9.71	322.88	<50	<0.5	<0.5	<0.5	<0.5	--	
	10/24/90	10.08	322.51	<50	<0.5	<0.5	<0.5	<0.5	--	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↔	Dissolved					Notes
					Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE →	
EA-2 (cont'd)	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--	
	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--	Duplicate
	08/21/91	9.8	322.79	<50	<0.5	<0.5	<0.5	<0.5	--	
	10/07/91	9.98	322.61	--	--	--	--	--	--	
	01/28/92	9.81	322.78	<50	0.8	<0.5	<0.5	<0.5	--	
	06/05/92	9.86	322.73	<50	<0.5	<0.5	<0.5	<0.5	--	
	09/30/92	10.6	321.99	66	1	3.2	1.3	7.4	--	
	12/30/92	9.11	323.48	<50	<0.5	<0.5	<0.5	<0.5	--	
	03/29/93	7.73	324.86	<50	<0.5	<0.5	<0.5	<1.5	--	
	06/25/93	9.22	323.37	<50	<0.5	<0.5	<0.5	<1.5	--	
	09/16/93	10	322.59	<50	<0.5	<0.5	<0.5	<1.5	--	
	12/20/93	9.38	323.21	<50	<0.5	<0.5	<0.5	<0.5	--	
	03/29/94	9.3	323.29	<50	<0.5	0.6	<0.5	<0.5	--	
	06/22/94	9.49	323.1	<50	<0.5	<0.5	<0.5	<0.5	--	
	09/26/94	9.72	322.87	<50	<0.5	<0.5	<0.5	<0.5	--	
	10/04/94	9.58	323.01	<50	<0.5	<0.5	<0.5	<0.5	--	
	11/30/94	8.7	323.89	<50	<0.5	<0.5	<0.5	<0.5	--	
	03/02/95	8.54	321.67	<50	<0.5	<0.5	<0.5	<0.5	--	
	06/07/95	8.42	321.79	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	09/26/95	9.34	320.87	540	6.8	<0.5	47	29	13	
	12/28/95	8.84	321.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	02/29/96	7.44	322.77	<50	<0.5	<0.5	<0.5	1.5	<2.5	
	06/27/96	8.83	321.38	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	09/12/96	9.4	321.01	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	03/31/97	9.11	321.3	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	12/23/98	8.91	321.5	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	03/25/99	8.1	322.31	<50	<0.5	<0.5	<0.5	<0.5	2.7	
	02/03/00	8.36	322.05	<50	<0.5	<0.5	<0.5	<0.5	<2.5 (<2.0)	
	01/23/01	9.08	321.33	441 (1)	1.27	0.542	40.3	31	72.9	
	05/01/01	8.87	321.54	SAMPLED ANNUALLY						
	08/28/01	9.45	320.96	SAMPLED ANNUALLY						
	11/27/01	9.5	320.91	SAMPLED ANNUALLY						
	02/28/02	9.05	321.36	<50	<0.50	<0.50	<0.5	<1.5	74	
	05/22/02	9.04	321.37	SAMPLED ANNUALLY						
	08/20/02	9	321.41	SAMPLED ANNUALLY						
	11/11/02	9.03	321.38	SAMPLED ANNUALLY						
	05/08/03	7.26	323.15	<50	<0.5	<0.5	<0.5	<0.5	2.2/0.9	
	12/15/04	8.96	321.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	02/21/05	7.20	323.21	<50	<0.5	<0.5	<0.5	<0.5	13 (11)	0.64
	05/17/05	8.21	322.20	SAMPLED ANNUALLY						0.77
	08/17/05	7.97	322.44	SAMPLED ANNUALLY						0.85
	11/27/05	9.83	320.58	SAMPLED ANNUALLY						0.84
	02/21/06	8.78	321.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51/0.68
	03/28/06	--	--	Well Destroyed					--	-- Well Destroyed
EA-3 331.5	10/17/88	--	--	<50	1.8	<0.5	<0.5	3	--	
	10/24/88	11.03	322.61	--	--	--	--	--	--	
	11/02/88	11.03	322.61	--	--	--	--	--	--	
	12/20/88	10.96	322.68	240	90	1.2	13	3.3	--	
	03/28/89	9.77	323.87	2,300	380	130	240	910	--	
	08/02/89	10.65	322.99	<50	<0.1	<0.1	<0.1	<0.1	--	
	11/06/89	10.78	322.86	<500	<3.0	<5.0	<5.0	<5.0	--	
	01/25/90	10.66	322.98	<50	<0.5	<0.5	<0.5	<0.5	--	
	04/23/90	10.68	322.96	<50	0.8	<0.5	0.9	<0.5	--	
	08/01/90	11.03	322.61	<50	<0.5	<0.5	<0.5	<0.5	--	
	10/24/90	11.35	322.29	<50	<0.5	<0.5	<0.5	<0.5	--	
	01/31/91	11.52	322.12	<50	<0.5	<0.5	<0.5	<0.5	--	
	08/21/91	--	--	--	--	--	--	--	--	
	10/07/91	11.15	322.49	180	40	20	4.7	8.4	--	
	10/7/1991	--	--	200	43	17	4.1	6.7	--	Duplicate
	01/28/92	11.08	322.56	640	69	85	13	46	--	
	06/05/92	10.98	322.66	250	63	8.3	3	9.5	--	
	09/30/92	11.38	322.26	330	120	33	6.3	22	--	
	12/30/92	10.48	323.16	58	7.6	1.3	2.5	5.4	--	
	03/29/93	9.3	324.34	120	11	4.5	6.2	13	--	
	06/25/93	10.46	323.18	<50	<0.5	<0.5	<0.5	<1.5	--	
	09/16/93	10.9	322.74	85	3.9	8.8	4.5	22	--	
	12/20/93	10.66	322.98	190	12	12	13	50	--	
	03/29/94	10.5	323.14	<50	<0.5	1.2	<0.5	0.9	--	
	06/22/94	10.64	323	<50	<0.5	<0.5	<0.5	<0.5	<3.0	
	09/26/94	10.72	322.92	<50	<0.5	<0.5	<0.5	<0.5	--	
	10/04/94	10.68	322.96	<50	<0.5	<0.5	<0.5	0.7	--	
	11/30/94	9.66	323.98	170	6.1	3	6.5	28	--	
	03/02/95	9.92	321.38	<50	<0.5	<0.5	<0.5	<0.5	--	
	06/07/95	9.72	321.58	<50	<0.5	<0.5	<0.5	<0.5	3.2	
	09/26/95	10.6	320.7	2,000	140	<5.0	<5.0	190	280	
	12/28/95	9.82	321.48	<50	<0.5	<0.5	<0.5	<0.5	26	
	02/29/96	8.28	323.02	<50	2.1	<0.5	2.5	6	31	
	06/27/96	9.91	321.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
	09/12/96	10.59	320.91	13,000	<20	<20	<20	<20	48	
	03/31/97	--	--	--	--	--	--	--	Inaccessible	

# Pangea

**Table 2. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA**

Well ID TOC Elev (ft)	Date Measured	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ↔	Dissolved				Notes
					Benzene	Toluene	Ethylbenzene	Xylenes	
EA-3 (cont'd)	04/15/97	10.25	321.25	<125	2	<1.2	<1.2	<1.2	680
	--	--	--	--	--	--	--	--	Inaccessible
	03/25/99	--	--	--	--	--	--	--	Inaccessible
	02/03/00	--	--	--	--	--	--	--	Inaccessible
	01/23/01	10.31	321.19	862 (1)	3.97	1.15	18.9	48.6	289
	05/01/01	10.15	321.35			SAMPLER SEMI-ANNUALLY			
	08/28/01	10.56	320.94	<50	<0.5	<0.5	<0.5	<0.5	37
	11/27/01	10.65	320.85			SAMPLER SEMI-ANNUALLY			
	02/28/02	10.37	321.13	<50	1.3	<0.50	2	1.8	90
	05/22/02	10.27	321.23			SAMPLER SEMI-ANNUALLY			
	08/20/02	10.3	321.2	<50	<0.50	<0.50	<0.50	<1.5	40
	11/11/02	9.05	322.45			SAMPLER SEMI-ANNUALLY			
	05/08/03	8.83	322.67	<50	<0.5	<0.5	<0.5	<0.5	39/37
	12/15/04	10.39	321.11	<50	<0.5	<0.5	<0.5	<0.5	18 (17)
	02/21/05	8.80	322.70	<50	<0.5	<0.5	2.3	1.4	180 (290) 0.69
	05/17/05	9.57	321.93	140	0.68	<0.5	6.6	0.94	250 (340) 0.86
	08/17/05	9.23	322.27	3,800	11	3.7	110	24	200 (200) 0.99
	11/27/05	11.05	320.45	150	<0.5	1.8	2.4	0.56	88 (85) 0.81
	02/21/06	10.10	321.40	83	<0.5	0.72	1.7	<0.5	40 (49) 0.38/0.65
	04/03/06	--	--	--	<b>Well Destroyed</b>				-- Well Destroyed

## Grab Groundwater Analytical Data

SB-1A-W	05/18/06	11.20	NA	170	1.5	1.5	1.2	5.9	570 (500) -- TAME=90µg/L, TBA,DIPE,ETBE=ND
DPB-1	05/01/03	16-20	NA	12,000	25	440	440	2,180	8,100 --
DPB-2	04/22/03	NA	NA	710	1.1	<1	18	74	540 --
DPB-3	04/17/03	16-20	NA	48,000	400	5,800	1,500	9,500	8,900 --
DPB-3	04/17/03	27-31	NA	62,000	700	9,900	1,300	7,900	4,200 --
	04/17/03	39-43	NA	27,000	210	3,200	640	4,100	7,700 --
DPB-4	04/17/03	32-36	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
DPB-5	04/30/03	7-11	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
	04/17/03	11-15	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
	04/30/03	26-30	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
	04/17/03	36-40	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
DPB-6	04/18/03	15-19	NA	7,700	18	77	170	640	5.9 --
	04/18/03	26-30	NA	4,700	21	76	160	650	6.2 --
	04/18/03	35-39	NA	2,900	8.8	24	54	249	100 --
DPB-7	04/18/03	15-19	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
	04/18/03	20-24	NA	7,000	42	640	190	990	300 --
	04/18/03	35-39	NA	150	<0.5	1.8	0.8	5.7	<0.5 --
DPB-8	05/01/03	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5 --
DPB-S	04/18/03	14-18	NA	20,000	<170	<170	380	6,600	53,000 --
	04/18/03	26-30	NA	1,500	7.1	<3.1	7.4	170	760 --
	04/18/03	35-39	NA	4,300	<63	<63	<63	910	42,000 --

## ABBREVIATIONS AND NOTES:

SPH = Separate-phase hydrocarbons; calculated groundwater elevation corrected for SPH by the relation: Groundwater Elevation = Well Elevation - Depth to Water +(0.8xSPH Thickness)

Groundwater monitoring data and laboratory analytical results prior to December 14, 2004, were scanned from a report by SOMA.

(ft) = Feet

(msl) = Mean sea level

TOC Elev. (ft) = Top of casing elevation

µg/L = Micrograms per liter - approximately equal to parts per billion = ppb

mg/L = Milligrams per liter - approximately equal to parts per million = ppm

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020/8021.

MTBE = Methyl tertiary butyl ether by EPA Method 8020/8021. (Concentrations in parentheses are by EPA Method 8260B).

1,2-DCA = 1,2-Dichloroethane

TAME = Tertiary amyl methyl ether by EPA Method 8260B

TBA = Tertiary butyl alcohol by EPA Method 8260B

DIPE = Diisopropyl ether by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether by EPA Method 8260B

-- = Not Measured/Not Analyzed

1 Laboratory report indicates weathered gasoline C6-C12

Dissolved oxygen concentrations measured downhole pre-purge or pre-purge/post-purge

\* = Cap loose, sprinkler runoff entering well

**APPENDIX A**

**Groundwater Monitoring Program**

**Table A. Semi-Annual Groundwater Monitoring Program - 7240 Dublin Boulevard, Dublin, CA**

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency <sup>1,2</sup>	Naphthalene <sup>3</sup>
<b>Surface Water</b>							
C-1*	Gauging Point	--	W, Flood Control Channel	--	1st, 3rd	---	---
<b>Upper Shallow AA-Zone Wells</b>							
DPE-1	DPE	9-14	W Intermediate	4	1st, 3rd	1st, 3rd	---
DPE-2	DPE	9-14	W Intermediate	4	1st, 3rd	1st, 3rd	---
MW-7AA	Mon (Proposed DPE)	9-14	Source	4	1st, 3rd	1st, 3rd	---
VW-1	Mon+SVE (Proposed DPE)	3-9	Source	2	1st, 3rd	1st	---
VW-2	Mon+SVE (Proposed DPE)	3-9	Source	2	1st, 3rd	1st	---
VW-3	Mon+SVE (Proposed DPE)	3-9	Source	2	1st, 3rd	1st	---
<b>Shallow A-Zone Wells</b>							
MW-1	Mon	5-25	W, Adjacent SS	2	1st, 3rd	1st, 3rd	---
MW-2	Mon	5-20	W, Adjacent Flood Channel	2	1st, 3rd	1st, 3rd	---
MW-3A	Mon (Proposed DPE)	10-17	N Source, Adjacent SS	4	1st, 3rd	1st, 3rd	1st, 3rd
MW-4	Mon	8.5-20	NW Upgradient, Offsite	2	1st, 3rd	1st	---
MW-5	Mon	8.5-21	W Upgradient, Offsite	2	1st, 3rd	1st	---
MW-6A	Mon (Proposed DPE)	15-20	N Source, Adjacent SS	4	1st, 3rd	1st, 3rd	1st, 3rd
MW-7A	Mon (Proposed DPE)	16-20	Source	4	1st, 3rd	1st	---
MW-8A	Mon	15-20	S, Adjacent Building	2	1st, 3rd	1st, 3rd	---
MW-9A	Mon	15-20	NE Perimeter	2	1st, 3rd	1st	---
MW-10A	Mon	15-20	S Perimeter	2	1st, 3rd	1st	---
<b>Intermediate Depth B-Zone Wells</b>							
MW-6B	Mon	26-30	N Source, Adjacent SS	2	1st, 3rd	1st	---
MW-7B	Mon	26-30	Source	2	1st, 3rd	1st	---
<b>Deep C-Zone Wells</b>							
MW-6C	Mon	34-44	N Source, Adjacent SS	2	---	---	---
MW-7C	Mon	35-45	Source	2	---	---	---
MW-9C	Mon	35-45	NE Perimeter	2	---	---	---
MW-10C	Mon	35-45	S Perimeter	2	---	---	---
MW-11C	Mon	33.5-43.5	W Intermediate	2	---	---	---

**Notes and Abbreviations:**

1 = Summary: 6 wells sampled 3rd quarter, 16 wells sampled 1st quarter. 5 C-zone wells not sampled.

2 = Sample Analytes: Total Petroleum Hydrocarbons as Gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B.

3 = Naphthalene by EPA Method 8260B.

1st = 1st quarter, typically February

3rd = 3rd quarter, typically August

Mon = Groundwater Monitoring Only

SVE = Soil Vapor Extraction

DPE = Dual Phase Extraction

N, S, W, E = Cardinal directions North, South, West, East and other directions (e.g., Northeast = NE)

SS = Sanitary Sewer beneath Dublin Blvd

\* = Surface water level gauging point, not a well.

-- = Not gauged or sampled.

## **APPENDIX B**

Groundwater Monitoring Field Data Sheets

## Equipment Calibration Log

**Notes/comments:**

Well Gauging Data Sheet

Project Task #: 111-130226			Project Name: Dublin Auto Wash				
Address: 7240 Dublin Blvd			Date: 7/26/13				
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
DPE-1	910	4			10.42	13.73	TOP
DPE-2	907	4			10.83	13.73	
VW-1	839	2			6.48	8.38	
VW-2	836	2			6.30	8.30	
VW-3	908	2			5.56	8.65	
MW-1	848	2			13.15	25.30	
MW-2	850	2			8.90	20.00	
MW-3A	911	4			10.35	16.80	
MW-4	900	2			11.00	19.75	
MW-5	915	2			10.65	20.50	
MW-6A	834	2			11.90	19.35	

Comments:

Removed all caps prior to gauging

Well Gauging Data Sheet

Project Task #M1-130226		Project Name: Dublin Auto Wash					
Address: 7240 Dublin Blvd				Date: 2/26/13			
Name: B. Myres			Signature: 				
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-6B	2	832			9.41	29.70	T0C
MW-7A	4	836			9.77	19.50	
MW-7AA	4	905 <del>836</del>			9.89	13.83	
MW-7B	2	837			9.70	28.20	
MW-8A	2	842			11.86	19.00	
MW-9A	2	830			11.00	19.65	
MW-10A	2	845			9.14	19.50	
C-1	—	920			12.27	—	

Comments:

Removed all caps prior to gauging

## MONITORING FIELD DATA SHEET

Well ID: DPE-1

Project Task #: M1-130220	Project Name: Dublin Auto Wash						
Address: 7240 Dublin Blvd, Dublin							
Date: 2/26/13	Weather: <u>WARM</u>						
Well Diameter: <u>4</u>	Volume/ft.	<u>1" = 0.04</u>	<u>3" = 0.37</u>				
		<u>2" = 0.16</u>	<u>4" = 0.65</u>				
		<u>radius<sup>2</sup> * 0.163</u>					
Total Depth (TD): <u>13.73</u>	Depth to Product:						
Depth to Water (DTW): <u>10.42</u>	Product Thickness:						
Water Column Height: <u>3.31</u>	1 Casing Volume: <u>2.1</u> gallons						
Reference Point: NTOC	<u>3</u> Casing Volumes: <u>6.3</u> gallons						
Purging Device: <u>Disp</u>							
Sampling Device: Disposable bailer							
Time	Temp (C)	pH	Cond ( $\mu\text{s}$ )				Vol(gal)
1328	17.2	7.0	2924				2.1
1331	17.3	6.9	2905				(3.4.2)
<u>well dewatered @ 4.5 gallons</u>							
<u>DTW = 12.41</u>							
<u>not @ 80% - site departure</u>							
1430	17.0	7.2	2639				

**Comments:**

pre purge DO: 7.4 mg/l

Sample ID: MW-DPE-1	Sample Time: 1430
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

MONITORING FIELD DATA SHEET

Well ID: DPE-2

Project Task #: M1-130226	Project Name: Dublin Auto Wash							
Address: 7240 Dublin Blvd, Dublin								
Date: 2/26/13	Weather: WCR w/							
Well Diameter: 4	Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius <sup>2</sup> * 0.163							
Total Depth (TD): 13.73	Depth to Product:							
Depth to Water (DTW): 10.83	Product Thickness:							
Water Column Height: 2.90	1 Casing Volume: 1.9 gallons							
Reference Point: NTOC	3 Casing Volumes: 5.7 gallons							
Purging Device: Disp								
Sampling Device: Disposable bailer								
Time	Temp (C)	pH	Cond ( $\mu\text{s}$ )				Vol(gal)	
1317	16.6	7.1	2657				2	
1318	16.6	7.1	2625				4	
<i>Well diameter = 4 inches</i>								
<i>DTW = 12.70</i>								
<i>not at 80% site depth</i>								
1415	18.8	7.0	2620				—	
Comments:				pre purge DO: 2.7 mg/l				

Sample ID: MW-DPE-2	Sample Time: 1415
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: V1021

**Comments:**

pre purge DO: 1.7 mg/l

Sample ID: MW-111	Sample Time: 12:35
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

**Pangea**  
ENVIRONMENTAL SERVICES, INC.

## MONITORING FIELD DATA SHEET

Well ID: Vw-2

Comments: pre purge DO: 27 mg/l

Sample ID: MW_Vw2	Sample Time: 1120
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: V<sub>K</sub>J-3

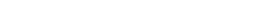
Comments: pre purge DO: 11 mg/l

Sample ID: MW-1w-3	Sample Time: 1045
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: *AB-1*

Comments: pre-purge DO: 2.8 mg/l

Sample ID: MW- /	Sample Time: 1310
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: Mw-2

Comments: pre purge DO: 2.1 mg/l

Sample ID: MW- 2	Sample Time: 1252
Laboratory: McCampbell Analytical	Sample Date: 2/20/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: Hw3A

Comments: pre purge DO: 0.0 mg/l

Sample ID: MW- 3A	Sample Time: 1110
Laboratory: McCampbell Analytical	Sample Date: 2/24/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: *pw4*

Comments: pre purge DO: 1.7 mg/l

Sample ID: MW- 4	Sample Time: 935
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

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ENVIRONMENTAL SERVICES, INC.

## MONITORING FIELD DATA SHEET

Well ID: Mw-5

**Comments:**

pre purge DO: 3.7 mg/l 2.7 mg/l

Sample ID: MW- 5	Sample Time: 955
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: H1-1A

Comments: pre purge DO: 0.97 mg/l

Sample ID: MW- <u>1A</u>	Sample Time: <u>1055</u>
Laboratory: McCampbell Analytical	Sample Date: <u>2/20/13</u>
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: MWE3

Comments: pre purge DO: 2 / mg/l

Sample ID: MW- <i>LB</i>	Sample Time: <i>1035</i>
Laboratory: McCampbell Analytical	Sample Date: <i>2/26/13</i>
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: <i>B. Myers</i>

**Pangea**  
ENVIRONMENTAL SERVICES, INC.

## MONITORING FIELD DATA SHEET

Well ID: Mw7A

**Comments:**

pre purge DO: 3.0 mg/l

Sample ID: MW- 7A	Sample Time: 12:40
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

**Pangea**  
ENVIRONMENTAL SERVICES, INC.

## MONITORING FIELD DATA SHEET

Well ID: Hw-7AB

**Comments:**

pre purge DO: 25 mg/l

Sample ID: MW-7A	Sample Time: 1155
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: *MW-7B*

**Comments:**

pre purge DO: 5.0 mg/l

Sample ID: MW- 7B	Sample Time: 12:14
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: MW-8A

Comments: pre purge DO: 4.3 mg/l

Sample ID: MW- 8A	Sample Time: 1225
Laboratory: McCampbell Analytical	Sample Date: 2/20/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: Mw-9A

Comments: pre purge DO: 20 mg/l

Sample ID: MW-9A	Sample Time: 10:15
Laboratory: McCampbell Analytical	Sample Date: 2/26/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: NW-10A

Comments: pre purge DO: 3.0 mg/l

Sample ID: MW- 10A	Sample Time: 13:15
Laboratory: McCampbell Analytical	Sample Date: 3/24/13
Containers/Preservative: HCl VOA's	
Analyzed for: TPHg, BTEX, Oxygenates(5)	
Sampler Name: B Myers	Signature: 

## **APPENDIX C**

### Laboratory Analytical Results



## Analytical Report

Pangea Environmental Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: #MI-130226; 7240 Dublin Blvd, Dublin  Client Contact: Tina De La Fuente  Client P.O.:	Date Sampled: 02/26/13  Date Received: 02/26/13  Date Reported: 03/04/13  Date Completed: 03/01/13
---	---	--

**WorkOrder: 1302727**

March 04, 2013

Dear Tina:

Enclosed within are:

- 1) The results of the **18** analyzed samples from your project: **#MI-130226; 7240 Dublin Blvd, Dublin,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing  
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McCampbell Analytical, Inc.

***The analytical results relate only to the items tested.***

# Chain of Custody

1302727

Page 1 of 2

Project Name: 7240 Dublin Blvd, Dublin

Job Number: MI-1302727

TAT: STANDARD  5 DAY  2 DAY  24 HOUR  OTHER:

Lab: McCampbell Address: 1534 Willow Pass Rd, Pittsburg, CA 94565 Contact: Phone/ Fax: 925-252-9262				Site Address: 7240 Dublin Blvd, Dublin California Global ID No.: T0608100975 Include EDF w/ Report: Yes No Consultant / PM: Pangea / Tina Delafuente Phone / Fax: 510-759-8000				Confluence PM: Jason Brown Phone / Fax: 916-760-7641 / 916-473-8617 Confluence Log Code: CESC Report to: Tina Delafuente Invoice to: Pangea							
Sample ID	Time	Date	Matrix	Laboratory No.	Preservative				Requested Analysis				Notes and Comments		
					No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	TPH-G, BTEX, MTBE (8015Cm/8021B)	Naphthalene (8260)			
X DPE-1	1430	2/24	X		2				2			X			
X DPE-2	1415		X		1				1			X			
X VW-1	1235		X		1				1			X			
X VW-2	1120		X		1				1			X			
X VW-3	1045		X		1				1			X			
X MW-1	1310		X		1				1			X			
X MW-2	1225		X		1				1			X			
X MW3A	1110		X		4				4			X X			
X MW4	0935		X		2				2			X			
X MW5	0955		X		2				2			X			
Sampler's Name: B. Myers				Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation				Date	Time
Sampler's Company: Confluence Environmental				<i>[Signature]</i>				2/24/13	1505	<i>[Signature]</i>				2/26/13	1505
Shipment Date:															
Snipment Method:															
Special Instructions:				Upon sample receipt please email pdf copy of COC to Jason Brown [jbrown@confluence-env.com]											



Confluence Environmental, Inc.  
3308 El Camino Ave, Suite 300 # 148  
Sacramento, CA 95821  
916-760-7641 - main  
916-473-8617 - fax  
[www.confluence-env.com](http://www.confluence-env.com)

# Chain of Custody

Page 2 of 2

Project Name: 7240 Dublin Blvd, Dublin  
Job Number: WTF-130226  
TAT: STANDARD 5 DAY 2 DAY 24 HOUR OTHER:

Lab: McCampbell Address: 1534 Willow Pass Rd, Pittsburg, CA 94565 Contact: Phone/ Fax: 925-252-9262				Site Address: 7240 Dublin Blvd, Dublin California Global ID No.: T0608100975 Include EDF w/ Report: Yes No Consultant / PM: Pangea / Tina Delafuente Phone / Fax: 510-759-8000				Confluence PM: Jason Brown Phone / Fax: 916-760-7641 / 916-473-8617 Confluence Log Code: CESC Report to: Tina Delafuente Invoice to: Pangea							
Sample ID	Time	Date	Matrix	Laboratory No.	No. of Containers	Preservative				Requested Analysis				Notes and Comments	
						Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	TPH-G, BTEX, MTBE 8015Cm/8021B)	Naphthalene (8260)			
Mw-6A	1055	12/26	X		4			4		X	X				
Mw-6B	1055		X		2			2		X	X				
Mw-7A	1140		X		1			1		X	X				
Mw-7AA	1155		X							X					
Mw-7B	1210		X							X					
Mw-8A	1225		X							X					
Mw-9A	1615		X							X					
Mw-10A	1345		X							X					
Sampler's Name: <u>B. Alyes</u>				Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation				Date	Time
Sampler's Company: Confluence Environmental				<u>B. Alyes</u>				2/24/13	1525	<u>B. Alyes</u>				2/24/13	1525
Shipment Date:															
Shipment Method:															
Special Instructions:				Upon sample receipt please email pdf copy of COC to Jason Brown [ <a href="mailto:jbrown@confluence-env.com">jbrown@confluence-env.com</a> ]											



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1302727

ClientCode: PEO

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Tina De La Fuente  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612  
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com  
cc:  
PO:  
ProjectNo: #MI-130226; 7240 Dublin Blvd, Dublin

## Bill to:

Bob Clark-Riddell  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612

Requested TAT: 5 days

Date Received: 02/26/2013  
Date Printed: 02/26/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1302727-001	DPE-1	Water	2/26/2013 14:30	<input type="checkbox"/>		A											
1302727-002	DPE-2	Water	2/26/2013 14:15	<input type="checkbox"/>		A											
1302727-003	VW-1	Water	2/26/2013 12:35	<input type="checkbox"/>		A											
1302727-004	VW-2	Water	2/26/2013 11:20	<input type="checkbox"/>		A											
1302727-005	VW-3	Water	2/26/2013 10:45	<input type="checkbox"/>		A											
1302727-006	MW-1	Water	2/26/2013 13:10	<input type="checkbox"/>		A											
1302727-007	MW-2	Water	2/26/2013 12:50	<input type="checkbox"/>		A											
1302727-008	MW-3A	Water	2/26/2013 11:10	<input type="checkbox"/>	B	A											
1302727-009	MW-4	Water	2/26/2013 9:35	<input type="checkbox"/>		A											
1302727-010	MW-5	Water	2/26/2013 9:55	<input type="checkbox"/>		A											
1302727-011	MW-6A	Water	2/26/2013 10:55	<input type="checkbox"/>	B	A											
1302727-012	MW-6B	Water	2/26/2013 10:35	<input type="checkbox"/>		A											
1302727-013	MW-7A	Water	2/26/2013 11:40	<input type="checkbox"/>		A											
1302727-014	MW-7AA	Water	2/26/2013 11:55	<input type="checkbox"/>		A											

Test Legend:

1	8260VOC_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

## Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1302727

ClientCode: PEO

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Tina De La Fuente  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612  
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com  
cc:  
PO:  
ProjectNo: #MI-130226; 7240 Dublin Blvd, Dublin

**Bill to:**

Bob Clark-Riddell  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612

**Requested TAT:****5 days****Date Received:** 02/26/2013**Date Printed:** 02/26/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1302727-015	MW-7B	Water	2/26/2013 12:10	<input type="checkbox"/>		A										
1302727-016	MW-8A	Water	2/26/2013 12:25	<input type="checkbox"/>		A										
1302727-017	MW-9A	Water	2/26/2013 10:15	<input type="checkbox"/>		A										
1302727-018	MW-10A	Water	2/26/2013 13:45	<input type="checkbox"/>		A										

**Test Legend:**

1	8260VOC_W
6	
11	

2	G-MBTEX_W	3		4		5	
7		8		9		10	
12							

**Prepared by:** Jena Alfaro**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



## Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/26/2013 3:15:23 PM**

Project Name: **#MI-130226; 7240 Dublin Blvd, Dublin**

Login Reviewed by: **Jena Alfaro**

WorkOrder N°: **1302727**

Matrix: Water

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |  |                             |   |
|---|--|-----------------------------|---|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |   |
| Container/Temp Blank temperature                    | Cooler Temp: 3.4°C NA <input type="checkbox"/> |                             |   |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |   |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>                   | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |   |

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

Comments:



McCampbell Analytical, Inc.  
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #MI-130226; 7240 Dublin Blvd, Dublin	Date Sampled: 02/26/13
		Date Received: 02/26/13
	Client Contact: Tina De La Fuente	Date Extracted 02/28/13
	Client P.O.:	Date Analyzed 02/28/13

## **Volatile Organics by P&T and GC/MS\***

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 1302727

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.



Pangea Environmental Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: #MI-130226; 7240 Dublin Blvd, Dublin	Date Sampled: 02/26/13
		Date Received: 02/26/13
	Client Contact: Tina De La Fuente	Date Extracted: 02/26/13-02/28/13
	Client P.O.:	Date Analyzed: 02/26/13-02/28/13

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1302727

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	DPE-1	W	380	160	16	2.3	9.8	49	1	127	d1
002A	DPE-2	W	210	ND	1.7	5.5	ND	ND	1	--#	d1
003A	VW-1	W	ND	11	ND	ND	ND	ND	1	108	
004A	VW-2	W	ND	ND	ND	ND	ND	ND	1	99	
005A	VW-3	W	ND	ND	ND	ND	ND	ND	1	94	
006A	MW-1	W	ND	ND	ND	ND	ND	ND	1	101	
007A	MW-2	W	ND	ND	ND	ND	ND	ND	1	103	
008A	MW-3A	W	9300	ND<450	290	37	290	1600	10	126	d1
009A	MW-4	W	ND	ND	ND	ND	ND	ND	1	96	
010A	MW-5	W	ND	7.0	ND	ND	ND	ND	1	108	
011A	MW-6A	W	5700	ND<50	430	31	190	730	10	111	d1
012A	MW-6B	W	ND	ND	ND	ND	ND	ND	1	98	
013A	MW-7A	W	ND	ND	ND	ND	ND	ND	1	101	
014A	MW-7AA	W	120	ND<100	1.7	2.1	ND	ND	1	109	d1
015A	MW-7B	W	ND	ND	ND	ND	ND	ND	1	93	
016A	MW-8A	W	ND	ND	ND	ND	ND	ND	1	95	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:  
d1) weakly modified or unmodified gasoline is significant



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<http://www.mccampbell.com> / E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

Pangea Environmental Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: #MI-130226; 7240 Dublin Blvd, Dublin	Date Sampled:	02/26/13
		Date Received:	02/26/13
	Client Contact: Tina De La Fuente	Date Extracted:	02/26/13-02/28/13
	Client P.O.:	Date Analyzed:	02/26/13-02/28/13

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1302727

Reporting Limit for DF=1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:  
d1) weakly modified or unmodified gasoline is significant



## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 75114

WorkOrder: 1302727

EPA Method: SW8260B	Extraction: SW5030B							Spiked Sample ID: 1302754-001A		
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
		µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	20	92.3	101	8.94	102	70 - 130	20	70 - 130	70 - 130
Benzene	ND	20	96.8	104	7.14	92.3	70 - 130	20	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	80	81.4	89	8.89	95.1	70 - 130	20	70 - 130	70 - 130
Chlorobenzene	ND	20	89.9	97.5	8.09	91	70 - 130	20	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	20	93.4	104	11.2	104	70 - 130	20	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	20	89.3	95	6.17	91.3	70 - 130	20	70 - 130	70 - 130
1,1-Dichloroethene	ND	20	95.6	97.9	2.44	89.2	70 - 130	20	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	20	103	114	10.2	104	70 - 130	20	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	20	99.4	110	10.1	103	70 - 130	20	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	20	92	101	9.67	99.8	70 - 130	20	70 - 130	70 - 130
Toluene	ND	20	89.3	95.5	6.48	90.3	70 - 130	20	70 - 130	70 - 130
Trichloroethene	ND	20	93.2	97.2	4.22	89.4	70 - 130	20	70 - 130	70 - 130
%SS1:	106	25	107	107	0	110	70 - 130	20	70 - 130	70 - 130
%SS2:	104	25	102	102	0	103	70 - 130	20	70 - 130	70 - 130
%SS3:	89	2.5	98	100	1.40	104	70 - 130	20	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

### BATCH 75114 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1302727-008B	02/26/13 11:10 AM	02/28/13	02/28/13 5:17 PM	1302727-011B	02/26/13 10:55 AM	02/28/13	02/28/13 5:57 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



## QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 75081

WorkOrder: 1302727

EPA Method: SW8021B/8015Bm		Extraction: SW5030B		Spiked Sample ID: 1302707-009A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) <sup>E</sup>	ND	60	107	99.9	6.73	96.1	70 - 130	20	70 - 130	
MTBE	ND	10	107	96.9	9.88	87.1	70 - 130	20	70 - 130	
Benzene	ND	10	101	97.8	3.47	88.6	70 - 130	20	70 - 130	
Toluene	ND	10	101	102	0.827	86.2	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	104	98.6	5.32	87.2	70 - 130	20	70 - 130	
Xylenes	ND	30	103	98	5.36	86.3	70 - 130	20	70 - 130	
%SS:	97	10	93	93	0	94	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 75081 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1302727-001A	02/26/13 2:30 PM	02/27/13	02/27/13 4:59 AM	1302727-002A	02/26/13 2:15 PM	02/28/13	02/28/13 5:08 AM
1302727-003A	02/26/13 12:35 PM	02/28/13	02/28/13 5:37 AM	1302727-004A	02/26/13 11:20 AM	02/26/13	02/26/13 9:34 PM
1302727-005A	02/26/13 10:45 AM	02/26/13	02/26/13 10:04 PM	1302727-006A	02/26/13 1:10 PM	02/28/13	02/28/13 6:07 AM
1302727-007A	02/26/13 12:50 PM	02/28/13	02/28/13 6:36 AM	1302727-008A	02/26/13 11:10 AM	02/27/13	02/27/13 5:28 AM
1302727-009A	02/26/13 9:35 AM	02/26/13	02/26/13 11:04 PM	1302727-010A	02/26/13 9:55 AM	02/28/13	02/28/13 7:06 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

<sup>E</sup> TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



## QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 75119

WorkOrder: 1302727

EPA Method: SW8021B/8015Bm		Extraction: SW5030B		Spiked Sample ID: 1302727-012A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) <sup>E</sup>	ND	60	100	109	8.89	91.9	70 - 130	20	70 - 130	
MTBE	ND	10	91.4	102	9.74	88.9	70 - 130	20	70 - 130	
Benzene	ND	10	103	106	3.09	92.6	70 - 130	20	70 - 130	
Toluene	ND	10	101	105	4.14	90.1	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	104	108	4.27	92.4	70 - 130	20	70 - 130	
Xylenes	ND	30	102	106	3.68	91.1	70 - 130	20	70 - 130	
%SS:	98	10	95	95	0	96	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 75119 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1302727-011A	02/26/13 10:55 AM	02/28/13	02/28/13 7:10 AM	1302727-012A	02/26/13 10:35 AM	02/27/13	02/27/13 10:15 PM
1302727-013A	02/26/13 11:40 AM	02/28/13	02/28/13 3:12 AM	1302727-014A	02/26/13 11:55 AM	02/28/13	02/28/13 3:41 AM
1302727-015A	02/26/13 12:10 PM	02/28/13	02/28/13 9:55 PM	1302727-016A	02/26/13 12:25 PM	02/28/13	02/28/13 5:11 AM
1302727-017A	02/26/13 10:15 AM	02/28/13	02/28/13 5:40 AM	1302727-018A	02/26/13 1:45 PM	02/28/13	02/28/13 6:10 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

<sup>E</sup> TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.