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July 30, 2008

VIA ALAMEDA COUNTY FTP SITE

Mr. Paresh Khatri
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - Second Quarter 2008**
Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California
ACEH Case No. 304

Dear Mr. Khatri:

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Second Quarter 2008*. The report describes groundwater monitoring, sampling, and other site activities.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring Report – Second Quarter 2008*

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)

PANGEA Environmental Services, Inc.

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GROUNDWATER MONITORING REPORT – SECOND QUARTER 2008

Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California

July 30, 2008

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.

INTRODUCTION

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling activities during this quarter 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. Current and historical data are summarized on Table 1.

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.

From approximately 1988 to 1997, Chevron Products Company performed assessment and remediation of the site. A soil vapor extraction (SVE) system was operated at the site from December 1992 through June 1995. Mr. Hadjian is the responsible party for an unauthorized release from a leaking stainless steel flex-hose near the northernmost dispenser island in February 1997. Subsequently, a new product delivery system was installed and about 31 cubic yards of contaminated soil was removed from the release area. Gettler-Ryan, Inc. monitored the eight existing groundwater wells at the site until 2003, when SOMA Environmental Engineering, Inc., took over groundwater monitoring and conducted further characterization of the site using electrical conductivity logging to identify potential water-bearing zones. In November 2004, Pangea commenced coordination of groundwater monitoring and corrective action for the site. To delineate the contamination detected during SOMA's investigation, Pangea in 2006 installed additional monitoring wells with shorter screen lengths in identified water-bearing zones.

The site subsurface consists primarily of clay, sandy clay, and clayey sand. The shallower soil (<34 ft bgs) is predominantly clay and sandy clay with thin lenses of clayey sand, while the deeper soil (>34 ft bgs) contains clayey sand units of apparently higher permeability than shallower materials. In March, April and May, 2006, Pangea installed fourteen monitoring wells to help define the vertical and lateral extent of groundwater contamination in the identified water-bearing zones. Wells with shorter screen lengths than existing wells were installed in the upper shallow (AA) zone from approximately 9 to 14 ft bgs (MW-7AA), the shallow (A) zone from approximately 15 to 20 ft bgs (MW-3A, MW-6A, MW-7A, MW-8A, MW-9A and MW-10A), the middle (B) zone from approximately 25 to 30 ft bgs (MW-6B and MW-7B), and the deep (C) zone from approximately 34 to 45 ft bgs (MW-6C, MW-7C, MW-9C, MW-10C and MW-11C). The well screen in MW-3A was installed at a shallower depth than the other A-zone wells to intercept the SPH previously observed in abandoned well MW-3.

The shallower (AA, A and B) water-bearing zones primarily consist of thin lenses of clayey sand within sandy clay, while higher permeability silty sand and clayey sand are the predominant soil types constituting the deeper (C) water-bearing zone. Vapor wells VW-1 through VW-3 are screened from approximately 3 to 9 ft bgs above the upper shallow seasonal water-bearing zone, which appears to be a perched zone. In late March and early April 2006, wells EA-1, EA-2, EA-3 and MW-3 were abandoned to reduce the risk of vertical contaminant migration and improve the quality of contaminant concentration and groundwater elevation data. To compare the elevation of surface water in the flood control channel with site groundwater, point C-1 was surveyed on the roadway overpass above the channel. Well construction details are presented in Table 2.

An interim remedial action was conducted by Pangea in July 2006 by extracting approximately 40 gallons of impacted liquid from wells MW-3A and MW-7AA with a vacuum truck. In November 2007, Pangea conducted a five-day dual-phase extraction (DPE) test/removal event to evaluate the effectiveness of DPE as remedial technique and to provide additional source removal.

GROUNDWATER MONITORING AND SAMPLING

On May 21, 2008, groundwater monitoring and sampling was conducted at the site. All well caps were removed the day before monitoring to allow water levels to stabilize. Groundwater samples were obtained from groundwater monitoring wells MW-1, MW-2, MW-3A, MW-6A, MW-6B, MW-7AA, MW-7A, MW-7B, MW-8A, MW-9A and MW-10A, and from two (VW-2 and VW-3) of the three vapor wells. Vapor well VW-1 contained insufficient water for sampling this quarter. Sampling of the vapor wells was initially requested in a February 9, 2006 letter from Alameda County Environmental Health (ACEH). The depth to water at survey point C-1 above the flood control channel was also measured. Monitoring and sampling of deep monitoring wells MW-6C, MW-7C, MW-9C, MW-10C and MW-11C was discontinued starting the second quarter 2007, as approved by Barney Chan of ACEH in a May 14, 2007 telephone conversation, because no significant contamination had been detected in these deeper site wells during four consecutive quarters.

Before well purging, the dissolved oxygen (DO) concentration was measured in each 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, 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 A.

MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are described below and summarized on Table 1. 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 0.55 mg/L (well MW-3A) to 0.98 mg/L (well MW-4).

Groundwater Flow Direction

Based on depth-to-water data collected May 21, 2008, 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 0.13 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 significantly smaller upward gradient is present southwest of the dispenser islands (MW-7A and MW-7B), as shown below on Table A. A downward gradient appears to be present between the shallow vapor wells (VW-1, VW-2 and VW-3) and the shallow 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	320.21	17.5	
MW-6B	321.53	28	
<i>Difference</i>	<i>1.32</i>	<i>10.5</i>	<i>0.13 (upwards)</i>
MW-7A	320.55	18	
MW-7B	320.64	28	
<i>Difference</i>	<i>0.09</i>	<i>10</i>	<i>0.009(upwards)</i>

Horizontal Gradient Evaluation: Depth-to-water measurements collected during prior monitoring events indicate that the horizontal component of the groundwater flow direction to the north of the site has been consistently southward to southeastward for the *shallow* wells, but gradient directions in the southern portion of the site have fluctuated significantly, possibly due to the influence of the nearby flood control channel. 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 appears to converge to the northeast along Dublin Boulevard and is possibly influenced by permeable backfill around the sanitary sewer line beneath Dublin Boulevard. 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. Future monitoring and analysis will help define the consistency and magnitude of this upward gradient. Historical depth-to-water and groundwater elevation data for the site are presented in Table 1.

Hydrocarbon Distribution in Groundwater

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. A brief interim remedial action conducted on July 7, 2006, and consisting of removal of approximately 40 gallons of impacted liquid from well MW-3A using a vacuum truck, may have improved site conditions near well MW-3A.

Hydrocarbon contamination is concentrated in the upper shallow (AA) and shallow (A) water-bearing zones in the vicinity of the fuel dispensers, as shown on Table 1 and Figure 2. Monitoring well MW-7AA, located west of the dispenser islands, had the highest TPHg (22,000 µg/L) and benzene (2,700µg/L) concentrations of all sampled wells. Petroleum hydrocarbon concentrations detected this quarter were within historic limits in all wells, except for historic low TPHg and benzene concentrations in well MW-3A (1,600 and 130 µg/L, respectively), and a historic low TPHg concentration in vapor well VW-3 (3,800 µg/L). No petroleum hydrocarbons were detected above reporting limits in either of the two sampled intermediate (B) depth wells.

Fuel Oxygenate Distribution in Groundwater

MTBE was detected above reporting limits in several wells, as shown on Table 1 and Figure 2. The highest MTBE concentration was in source area well MW-7AA (28,000 µg/L). Historic low MTBE concentrations were detected in wells MW-3A (700 µg/L), MW-6A (88 µg/L) and MW-9A (6.3 µg/L). MTBE concentrations in other sampled wells were within historic limits.

MTBE concentrations in well MW-1 had been steadily increasing over a three-year period before reaching a historic high of 8,400 µg/L during the fourth quarter 2006 monitoring event, but have decreased substantially since then (<5.0 µg/L this quarter). The concentration reductions in well MW-1 may be due to MTBE migration from the area or due to natural attenuation.

OTHER SITE ACTIVITIES

Upcoming Monitoring

Pangea will continue quarterly monitoring and sampling of all shallow and intermediate-depth onsite groundwater monitoring wells on the site. Upgradient offsite wells MW-4 and MW-5 will be sampled annually during the first quarter of each year. All monitored wells will be gauged for depth to water and inspected for SPH. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B. Pangea has discontinued sampling of all deep groundwater monitoring wells (MW-6C, MW-7C, MW-9C, MW-10C and MW-11C) with ACEH approval.

The upcoming monitoring will also include the following activities:

- To evaluate shallow conditions at the site, Pangea will continue to gauge vapor wells VW-1 through VW-3 and sample these wells if they contain sufficient water, as directed by the ACEH.
- To compare surface water and groundwater elevation and help evaluate the potential for groundwater to impact the flood control channel, Pangea will measure the depth to water at survey point C-1 at the overpass of the flood control channel.
- To address apparently non-representative prior water level measurements for some site wells due to slow recovery, Pangea will continue to open well caps the day prior to monitoring for future monitoring events. (Note that well caps will not be opened in advance of sampling if significant water is present in a given well vault, or if precipitation is forecast).

Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

Additional Site Remediation

In a letter dated November 9, 2007, the ACEH approved short-term remediation activities proposed in Pangea's *Site Investigation Report* dated August 11, 2006. Between November 27 and December 1, 2007, Pangea performed DPE pilot testing at select site wells to evaluate whether DPE could effectively remove residual hydrocarbons and MTBE from beneath the site. The pilot testing also provided additional source removal. As requested in the November 9 letter, Pangea is currently preparing an *Interim Remediation Report and Corrective Action Plan*, describing short-term remediation activities and results, and proposing remedial action for the site.

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

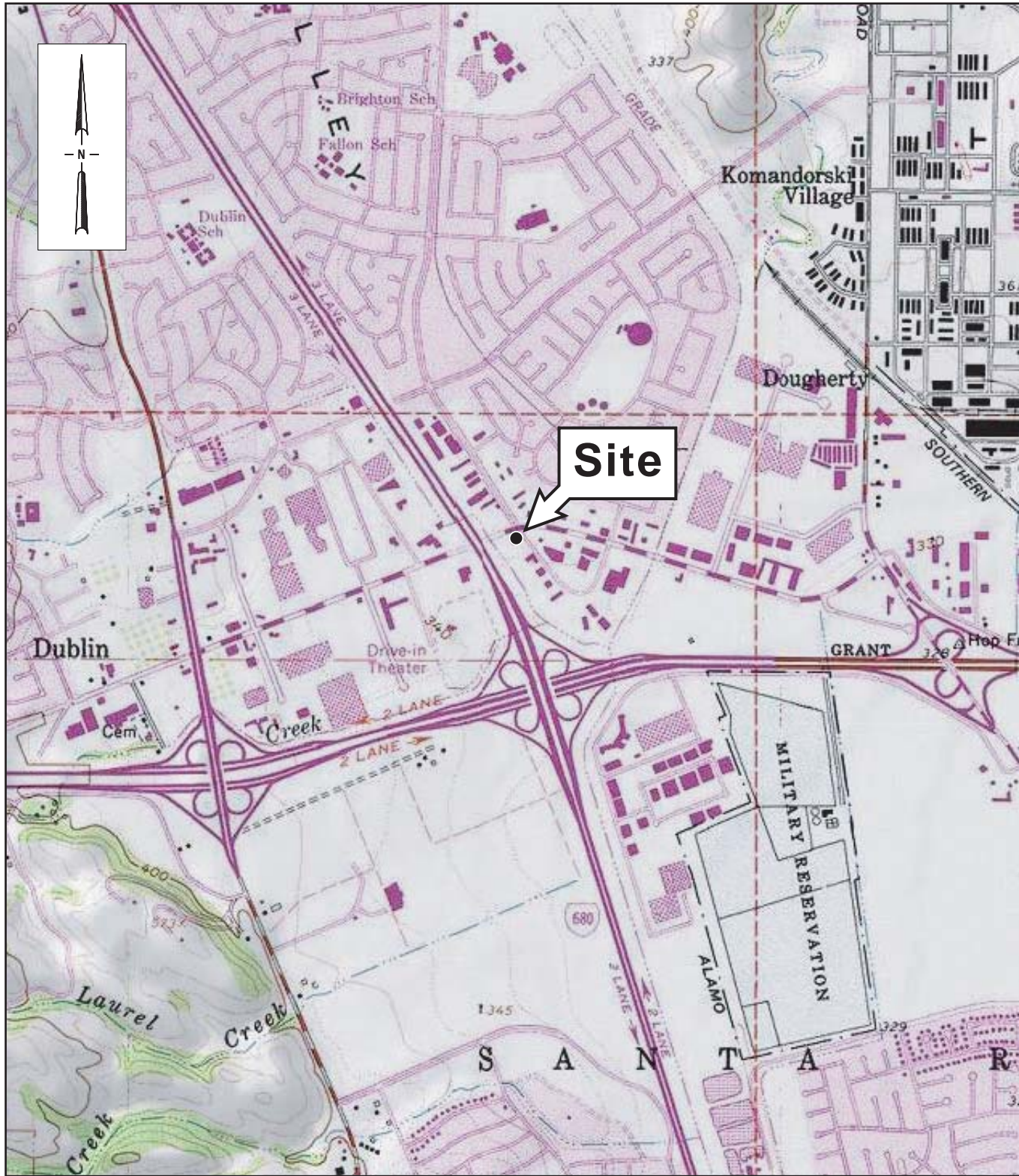
Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map – Shallow

Table 1 – Groundwater Elevation and Analytical Data

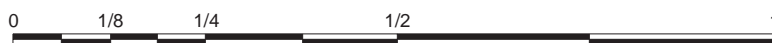
Table 2 – Well Construction Details

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Laboratory Analytical Results



SOURCE: TOPOI MAPS



SCALE : 1" = 1/4 MILE

Figure 1

Dublin Auto Wash
 7240 Dublin Boulevard
 Dublin, California



Site Location Map

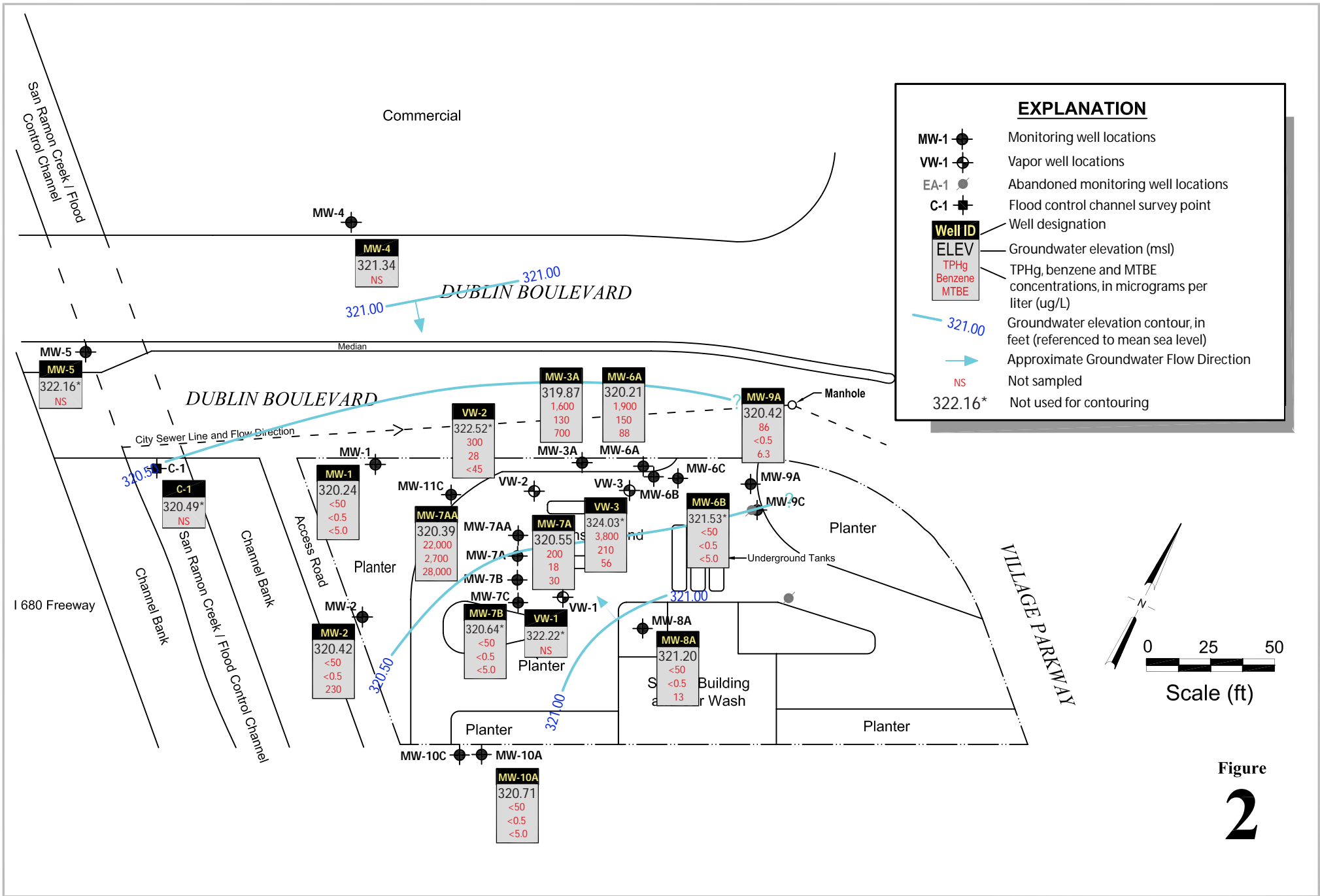


Figure
2

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID <i>TOC Elev (ft)</i>	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	←————— μg/L —————→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
EA-1 <i>331.21</i>	10/17/88	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	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	<0.5	--	
	03/28/89	9.87	323.54	<250	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	08/02/89	10.34	323.07	<50	<0.1	<0.1	<0.1	<0.1	<0.1	--	
	11/06/89	10.65	322.76	<500	<3.0	<5.0	<5.0	<5.0	<5.0	--	
	01/25/90	10.6	322.81	<50	<0.5	<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	--	--	Duplicate
	08/21/91	10.8	322.61	2,300	390	210	42	120	--	--	
	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	--	--	--	--	--	--	--	--	--	Well Abandoned	
EA-2 <i>330.41</i>	10/17/88	--	--	<50	<0.5	<0.5	<0.5	1.2	--		
	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	--		
	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	--		
	08/21/91	9.8	322.79	<50	<0.5	<0.5	<0.5	<0.5	--	Duplicate	
	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	--		

Pangea

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID	Date	Depth	Groundwater							Dissolved	Notes	
			TOC Elev (ft)	Sampled	to Water (ft)	Elevation (ft, msl)	TPHg	Benzene	Toluene			Ethylbenzene
EA-2 <i>(cont'd)</i>	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 Abandoned	
	EA-3 <i>331.5</i>	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	
04/15/97		10.25	321.25	<125	2	<1.2	<1.2	<1.2	680			
12/23/98		--	--	--	--	--	--	--	--		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			SAMPLED 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			SAMPLED 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			SAMPLED 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			SAMPLED 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	--	--	--	--	--	--	--	--	--	Well Abandoned		
MW-1 <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			

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Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID	Date	Depth	Groundwater	Groundwater						Dissolved	Notes	
				TOC Elev (ft)	Sampled	to Water (ft)	Elevation (ft, msl)	TPHg	Benzene			Toluene
MW-1 <i>(cont'd)</i>	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	3200			
	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			SAMPLED SEMI-ANNUALLY						
	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		
	333.69	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		
MW-2 329.29		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		
	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			
329.48	06/01/06	8.50	320.98	<50	<0.5	<0.5	<0.5	<0.5	120 (110)	0.38	TAME, TBA, DIPE, ETBE=ND	
	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		
	MW-3 332.86	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	<50	2,200	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	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID TOC Elev (ft)	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ←	Benzene	Toluene	Ethylbenzene μg/L	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes	
												→
MW-3 <i>(cont'd)</i>	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	--	Absorbent sock in well	
	5/1/2001	10.66	322.2	56,000	3,760	5,640	<2,500	8,740	136,000	--	Absorbent sock in well	
	8/28/2001	11.79	321.07	32,000	3,800	2,600	1,200	7,500	160,000	--	Absorbent sock in well	
	11/27/2001	11.98	320.88	110,000	1,300	2,400	1,500	9,400	90,000	--	Absorbent sock removed	
	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	--	--	--	--	--	--	--	--	--	--	Well Abandoned
	MW-3A 331.39	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		
MW-4 332.63	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	--	--	--	--	--	--	--		
	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	<2.5	--		
	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	<5.0	0.14/0.90		
332.64	05/29/06	10.33	322.31	--	--	--	SAMPLED ANNUALLY	--	--	--		
	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		
	MW-5 333.47	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	--	--	1.47		

Pangea

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID <i>TOC Elev (ft)</i>	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	←----- μg/L -----→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-5 (cont'd) 333.13</i>	08/17/05	10.40	322.64							1.18	
	11/27/05	10.43	322.61							1.19	
	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							--	
	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		--	--	--	--	--	--	0.95	
	<i>MW-6A 331.81</i>	06/01/06	10.38	321.43	620	20	<2.5	<2.5	43	5,700 (5,300)	0.73
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	
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	
<i>MW-6B 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	
<i>MW-6C 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	
<i>MW-7AA 330.67</i>	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	
<i>MW-7A 330.71</i>	05/31/06	9.19	321.52	<50	1.3	<0.5	0.79	0.82	760 (770)	0.40	TAME, TBA, DIPE, ETBE=ND
	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	
<i>MW-7B 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		
<i>MW-7C 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	
<i>MW-8A 331.19</i>	05/29/06	9.55	321.64	<50	<0.5	<0.5	<0.5	<0.5	20 (18)	0.39	TAME, TBA, DIPE, ETBE=ND
	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	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID <i>TOC Elev (ft)</i>	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg ←	Benzene	Toluene	Ethylbenzene μg/L	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
MW-8A <i>(cont'd)</i>	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	
MW-9A <i>331.17</i>	05/29/06	10.13	321.04	<50	<0.5	<0.5	<0.5	<0.5	210 (210)	0.46	TAME, TBA, DIPE, ETBE=ND
	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	
	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	0.75	6.3	0.84	
MW-9C <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	
MW-10A <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	TAME, TBA, DIPE, ETBE=ND
	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	
MW-10C <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	
MW-11C <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	
VW-1 <i>330.43</i>	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	
	11/24/06	7.75	322.68	--	--	Insufficient Water to Sample			--	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			--	--	
VW-2 <i>330.17</i>	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	
VW-3 <i>330.49</i>	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	4.4 *	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	

Pangea

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID	Date	Depth	Groundwater	TPH _g						Dissolved	Notes
				TOC Elev	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
(ft)	Sampled	to Water	Elevation	← μg/L →						mg/L	
(ft)		(ft)	(ft, msl)								
C-1 332.89	08/17/06	11.60	321.29	--	--	--	--	--	--	--	Flood control channel location.
	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	--	--	--	--	--	--	--	

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

TPH_g = 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

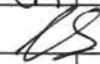
Table 2 –Well Construction Details –7240 Dublin Blvd., Dublin, CA

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)
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	4	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

APPENDIX A


Groundwater Monitoring Field Data Sheets

Well Gauging Data Sheet

Project Task #: 1001.001215			Project Name: Dublin Car Wash				
Address: 7420 Dublin Boulevard, Dublin, CA			Date: 5/21/08				
Name: Sanjiv Gill			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-1	2"	9:05			13.45	25.32	TOC
MW-2	2"	9:14			9.06	20.00	
MW-3A	4"	9:30			11.52	16.78	
MW-4	2"	8:38			11.30	19.78	
MW-5	2"	8:41			10.97	20.56	
MW-6A	2"	9:25			11.60	19.13	
MW-6B	2"	9:00			9.37	29.73	
MW-7AA	4"	9:40			10.28 [✓]	13.84	
MW-7A	4"	9:23			10.16	19.53	
MW-7B	2"	8:57			10.05	28.42	
MW-8A	2"	8:51			9.99	19.01	

Comments: DO = mg/L MW-4 = 0.98 , MW5 = 0.95

Well Gauging Data Sheet

Project Task #: 1001.001 215				Project Name: Dublin Car Wash			
Address: 7420 Dublin Boulevard, Dublin, CA						Date: 5/21/08	
Name: Sanjiv Gill				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-9A	2"	9:10			10.75	19.66	TOC
MW-10A	2"	8:47			9.22	19.51	
VW-1	2"	9:17			8.21	8.40	
VW-2	2"	9:20			7.65	8.30	
VW-3	2"	9:35			6.46	8.40	
C-1	-	9:45			12.40	-	TOC

Comments:

MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2"</u>	Volume/ft.	1" = 0.04 2" = 0.16	3" = 0.37 4" = 0.65 radius ² * 0.163					
Total Depth (TD): <u>25.32</u>	Depth to Product:							
Depth to Water (DTW): <u>13.45</u>	Product Thickness:							
Water Column Height: <u>11.87</u>	1 Casing Volume: <u>1.89</u>		gallons					
Reference Point: TOC	<u>3</u> Casing Volumes: <u>5.69</u>		gallons					
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>12:15</u>	<u>17.1</u>	<u>7.42</u>	<u>2509</u>				<u>2</u>	
<u>12:20</u>	<u>16.9</u>	<u>7.50</u>	<u>2614</u>				<u>4</u>	
<u>12:25</u>	<u>16.8</u>	<u>7.46</u>	<u>2552</u>				<u>5.5</u>	

Comments: YSI 550A ~~DO~~ DO meter pre purge DO = 0.94 mg/l
post purge DO = mg/l

very turbid

Sample ID: <u>MW-1</u>	Sample Time: <u>12:30</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: <u>Voac/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: Sanjiv Gill	Signature: 


MONITORING FIELD DATA SHEET

Well ID: MW-2

Project.Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2"</u>		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius ² * 0.163						
Total Depth (TD): <u>20.00</u>		Depth to Product:						
Depth to Water (DTW): <u>9.06</u>		Product Thickness:						
Water Column Height: <u>10.94</u>		1 Casing Volume: <u>1.75</u> gallons						
Reference Point: TOC		<u>3</u> Casing Volumes: <u>5.25</u> gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, What Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>12:45</u>	<u>18.6</u>	<u>7.52</u>	<u>1892</u>				<u>1.5</u>	
<u>12:50</u>	<u>18.8</u>	<u>7.51</u>	<u>1885</u>				<u>3</u>	
<u>12:55</u>	<u>18.8</u>	<u>7.52</u>	<u>1879</u>				<u>5</u>	

Comments: YSI 55A ~~on~~ DO meter pre purge DO = 0.67 mg/l
 post purge DO = mg/l

very turbid

Sample ID: <u>MW-2</u>	Sample Time: <u>1:00</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-3A

Project Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>4"</u>	Volume/ft.		1" = 0.04					
			3" = 0.37					
			6" = 1.47					
			2" = 0.16					
			4" = 0.65					
			radius ² * 0.163					
Total Depth (TD): <u>16.78</u>		Depth to Product:						
Depth to Water (DTW): <u>11.52</u>		Product Thickness:						
Water Column Height: <u>5.26</u>		1 Casing Volume: <u>3.41</u> gallons						
Reference Point: TOC		<u>3</u> Casing Volumes: <u>10.23</u> gallons						
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
8:40	17.9	7.20	2007				3.5	
9:05	17.8	7.21	1947				7	
9:35	17.9	7.24	1920				10	

Comments: YSI 550A DO meter pre purge DO = 0.55 mg/l
 post purge DO = mg/l

for bid

Sample ID: <u>MW-3A</u>	Sample Time: <u>10:05</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/20/08</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 


MONITORING FIELD DATA SHEET

Well ID: MW-6A

Project.Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2''</u>	Volume/ft.	1" = 0.04	3" = 0.37					
		2" = 0.16	4" = 0.65					
Total Depth (TD): <u>19.13</u>		Depth to Product:						
Depth to Water (DTW): <u>11.60</u>		Product Thickness:						
Water Column Height: <u>7.53</u>		1 Casing Volume: <u>1.20</u> gallons						
Reference Point: TOC		<u>3</u> Casing Volumes: <u>3.60</u> gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>8:00</u>	<u>18.8</u>	<u>7.02</u>	<u>2165</u>				<u>1.0</u>	
<u>8:05</u>	<u>18.7</u>	<u>6.95</u>	<u>2152</u>				<u>2.0</u>	
<u>8:10</u>	<u>18.6</u>	<u>7.03</u>	<u>2167</u>				<u>3.5</u>	

Comments: YSI550A ~~DO~~ DO meter pre purge DO = 0.63 mg/l
 post purge DO = mg/l

very turbid, silty

Sample ID: <u>MW-6A</u>	Sample Time: <u>8:15</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/22/08</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-6B

Project Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2"</u>		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius ² * 0.163						
Total Depth (TD): <u>29.73</u>		Depth to Product:						
Depth to Water (DTW): <u>9.37</u>		Product Thickness:						
Water Column Height: <u>20.36</u>		1 Casing Volume: <u>3.25</u> gallons						
Reference Point: TOC		<u>3</u> Casing Volumes: <u>9.75</u> gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>7:30</u>	<u>18.6</u>	<u>7.50</u>	<u>3441</u>				<u>3.5</u>	
<u>7:35</u>	<u>18.9</u>	<u>7.43</u>	<u>3432</u>				<u>7</u>	
<u>7:40</u>	<u>18.8</u>	<u>7.47</u>	<u>3405</u>				<u>10</u>	

Comments: YSI 550A ~~on~~ DO meter pre purge DO = 0.87 mg/l
 post purge DO = mg/l

Sample ID: <u>MW-6B</u>	Sample Time: <u>7:45</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/22/08</u>
Containers/Preservative: <u>Voac/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-7AA

Project.Task #: 1001.001 215				Project Name: Dublin Car Wash				
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08				Weather: <u>Sunny</u>				
Well Diameter: <u>4"</u>				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
					2" = 0.16	4" = 0.65	radius ² * 0.163	
Total Depth (TD): <u>13.84</u>				Depth to Product:				
Depth to Water (DTW): <u>10.28</u>				Product Thickness:				
Water Column Height: <u>3.56</u>				1 Casing Volume: <u>2.31</u>		gallons		
Reference Point: TOC				<u>3</u> Casing Volumes: <u>6.93</u>		gallons		
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>7:00</u>	<u>16.8</u>	<u>7.21</u>	<u>1944</u>				<u>2.5</u>	
<u>7:05</u>	<u>17.6</u>	<u>7.18</u>	<u>1952</u>				<u>5</u>	
<u>7:10</u>	<u>17.4</u>	<u>7.19</u>	<u>1950</u>				<u>7</u>	

Comments: YSI 550A DO meter pre purge DO = 0.71 mg/l
 post purge DO = mg/l


Sample ID: <u>MW-7AA</u>	Sample Time: <u>7:15</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/22/08</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-7A

Project Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>4"</u>		Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47			
			2" = 0.16	4" = 0.65	radius ² * 0.163			
Total Depth (TD): <u>19.53</u>		Depth to Product:						
Depth to Water (DTW): <u>10.16</u>		Product Thickness:						
Water Column Height: <u>9.37</u>		1 Casing Volume: <u>6.09</u>				gallons		
Reference Point: TOC		3 Casing Volumes: <u>18.27</u>				gallons		
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , What Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>6:35</u>	<u>17.9</u>	<u>7.54</u>	<u>1361</u>				<u>6</u>	
<u>6:40</u>	<u>18.4</u>	<u>7.48</u>	<u>1395</u>				<u>12</u>	
<u>6:45</u>	<u>18.2</u>	<u>7.50</u>	<u>1398</u>				<u>18</u>	

Comments: ~~YSI550A~~ DO meter pre purge DO = 0.75 mg/l
 post purge DO = mg/l
very turbid, silty

Sample ID: <u>MW-7A</u>	Sample Time: <u>6:50</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-7B

Project.Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2"</u>		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius** 0.163						
Total Depth (TD): <u>28.42</u>		Depth to Product:						
Depth to Water (DTW): <u>10.05</u>		Product Thickness:						
Water Column Height: <u>18.37</u>		1 Casing Volume: <u>2.93</u> gallons						
Reference Point: TOC		<u>3</u> Casing Volumes: <u>8.79</u> gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>6:00</u>	<u>18.9</u>	<u>7.60</u>	<u>1038</u>				<u>3</u>	
<u>6:10</u>	<u>18.7</u>	<u>7.68</u>	<u>1040</u>				<u>6</u>	
<u>6:20</u>	<u>18.7</u>	<u>7.70</u>	<u>1061</u>				<u>9</u>	

Comments: YSI 550A ~~DO~~ DO meter pre purge DO = 0.56 mg/l
 post purge DO = mg/l
turbid

Sample ID: <u>MW-7B</u>	Sample Time: <u>6:25</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: 5/22/08
Containers/Preservative: Voal/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MU-8A

Project Task #: 1001.001 215		Project Name: Dublin Car Wash	
Address: 7420 Dublin Boulevard, Dublin, CA			
Date: 5/21/08		Weather: <u>Sunny</u>	
Well Diameter: <u>2"</u>	Volume/ft.	1" = 0.04	3" = 0.37
		2" = 0.16	4" = 0.65
Total Depth (TD): <u>19.01</u>		Depth to Product:	
Depth to Water (DTW): <u>9.99</u>		Product Thickness:	
Water Column Height: <u>9.02</u>		1 Casing Volume: <u>1.44</u> gallons	
Reference Point: TOC		<u>3</u> Casing Volumes: <u>4.32</u> gallons	
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump			
Sampling Device: <u>Disposable Bailer</u>			
Time	Temp @	pH	Cond (µs)
<u>11:00</u>	<u>18.4</u>	<u>7.36</u>	<u>1869</u>
<u>11:05</u>	<u>18.0</u>	<u>7.35</u>	<u>1882</u>
<u>11:10</u>	<u>17.9</u>	<u>7.37</u>	<u>1895</u>

Comments: YSI 550A ~~YSI 550A~~ DO meter pre purge DO = 0.81 mg/l
 post purge DO = mg/l
turbid

Sample ID: <u>MU-8A</u>	Sample Time: <u>11:15</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: Sanjiv Gill	Signature: 


MONITORING FIELD DATA SHEET

Well ID: MW-9A

Project Task #: 1001.001 215				Project Name: Dublin Car Wash				
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08				Weather: <u>Sunny</u>				
Well Diameter: <u>2"</u>		Volume/ft.		1" = 0.04	3" = 0.37	6" = 1.47		
				2" = 0.16	4" = 0.65	radius* 0.163		
Total Depth (TD): <u>19.66</u>				Depth to Product:				
Depth to Water (DTW): <u>10.75</u>				Product Thickness:				
Water Column Height: <u>8.91</u>				1 Casing Volume: <u>1.42</u>		gallons		
Reference Point: TOC				3 Casing Volumes: <u>4.26</u>		gallons		
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>10:30</u>	<u>20.6</u>	<u>7.31</u>	<u>807</u>				<u>1.5</u>	
<u>10:35</u>	<u>20.1</u>	<u>7.34</u>	<u>833</u>				<u>3</u>	
<u>10:40</u>	<u>20.1</u>	<u>7.31</u>	<u>844</u>				<u>4</u>	

Comments: YSI 550A DO meter pre purge DO = 0.84 mg/l
post purge DO = mg/l

very turbid, silty

Sample ID: <u>MW-9A</u>	Sample Time: <u>10:45</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-10A

Project Task #: 1001.001 215		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 5/21/08		Weather: <u>Sunny</u>						
Well Diameter: <u>2"</u>	Volume/ft.							
	1" = 0.04	3" = 0.37	6" = 1.47					
	2" = 0.16	4" = 0.65	radius ² * 0.163					
Total Depth (TD): <u>19.51</u>	Depth to Product:							
Depth to Water (DTW): <u>9.22</u>	Product Thickness:							
Water Column Height: <u>10.29</u>	1 Casing Volume: <u>1.64</u>	gallons						
Reference Point: TOC	<u>3</u> Casing Volumes: <u>4.92</u>	gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>11:30</u>	<u>19.5</u>	<u>7.10</u>	<u>2679</u>				<u>1.5</u>	
<u>11:35</u>	<u>19.8</u>	<u>7.14</u>	<u>2632</u>				<u>3</u>	
<u>11:55</u>	<u>20.1</u>	<u>7.16</u>	<u>2621</u>				<u>5</u>	

Comments: YSI 550A ~~YSI 550A~~ DO meter pre purge DO = 0.64 mg/l
 post purge DO = mg/l
turbid

Sample ID: <u>MW-10A</u>	Sample Time: <u>12:00</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/21/08</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021</u>	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: VJ-1


Project.Task #: 1001.001 215		Project Name: Dublin Car Wash	
Address: 7420 Dublin Boulevard, Dublin, CA			
Date: 5/21/08		Weather:	
Well Diameter: 2"		Volume/ft.	1" = 0.04 2" = 0.16
		3" = 0.37 4" = 0.65	6" = 1.47 radius ² * 0.163
Total Depth (TD): 8.40		Depth to Product:	
Depth to Water (DTW): 8.21		Product Thickness:	
Water Column Height: 0.19		1 Casing Volume: 0.03 gallons	
Reference Point: TOC		3 Casing Volumes: 0.09 gallons	

Purging Device: Disposable Bailer, 3" PVC Bailer, What Pump

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
Insufficient water								

Comments: ~~C~~ 555504 on DO meter pre purge DO = mg/l
post purge DO = mg/l

Sample ID: 	Sample Time:
Laboratory: McCampbell Analytical, INC.	Sample Date: 5/21/08
Containers/Preservative: Voal/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: VW-2

Project Task #: 1001.001 215		Project Name: Dublin Car Wash					
Address: 7420 Dublin Boulevard, Dublin, CA							
Date: 5/21/08				Weather: <u>Sunny</u>			
Well Diameter: <u>2"</u>				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
				2" = 0.16	4" = 0.65	radius ² * 0.163	
Total Depth (TD): <u>8.30</u>				Depth to Product:			
Depth to Water (DTW): <u>7.65</u>				Product Thickness:			
Water Column Height: <u>0.65</u>				1 Casing Volume: <u>0.10</u>		gallons	
Reference Point: TOC				3 Casing Volumes: <u>0.30</u>		gallons	
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump							
Sampling Device: <u>Disposable Bailer</u>							
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)
<u>1:15</u>		<u>De-water red</u>					<u>.10</u>

Comments: YS75507A ~~on~~ DO meter pre purge DO = 0.71 mg/l
 post purge DO = mg/l
very turbid, silty, roots in well

Sample ID: <u>VW-2</u>	Sample Time: <u>10:20</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>5/22/08</u>
Containers/Preservative: <u>Voac/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

APPENDIX B

Laboratory Analytical Results



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #100.1001; Dublin Car Wash	Date Sampled: 05/21/08-05/21/09
	Client Contact: Stewart Dalie	Date Received: 05/23/08
	Client P.O.:	Date Reported: 05/29/08
		Date Completed: 05/29/08

WorkOrder: 0805632

May 29, 2008

Dear Stewart:

Enclosed within are:

- 1) The results of the **13** analyzed samples from your project: **#100.1001; Dublin Car Wash,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

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 McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805632

ClientCode: PEO

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Stewart Dalie
 Pangea Environmental Svcs., Inc.
 1710 Franklin Street, Ste. 200
 Oakland, CA 94612
 (510) 836-3700 FAX (510) 836-3709

Email: sdalie@pangeaenv.com;btaylor@pang
cc:
PO:
ProjectNo: #100.1001; Dublin Car Wash

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

Requested TAT: **5 days**
Date Received: **05/23/2008**
Date Printed: **05/23/2008**

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	
0805632-001	MW-1	Water	5/21/2008 12:30	<input type="checkbox"/>	A												
0805632-002	MW-2	Water	5/21/2008 13:00	<input type="checkbox"/>	A												
0805632-003	MW-3A	Water	5/22/2008 10:05	<input type="checkbox"/>	A												
0805632-004	MW-6A	Water	5/22/2008 8:15	<input type="checkbox"/>	A												
0805632-005	MW-6B	Water	5/22/2008 7:45	<input type="checkbox"/>	A	A											
0805632-006	MW-7AA	Water	5/22/2008 7:15	<input type="checkbox"/>	A												
0805632-007	MW-7A	Water	5/22/2008 6:25	<input type="checkbox"/>	A												
0805632-008	MW-7B	Water	5/22/2008 6:25	<input type="checkbox"/>	A												
0805632-009	MW-8A	Water	5/21/2008 11:15	<input type="checkbox"/>	A												
0805632-010	MW-9A	Water	5/21/2009 10:45	<input type="checkbox"/>	A												
0805632-011	MW-10A	Water	5/21/2008 12:00	<input type="checkbox"/>	A												
0805632-012	VW-2	Water	5/22/2008 10:20	<input type="checkbox"/>	A												
0805632-013	VW-3	Water	5/22/2008 10:30	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

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: **5/23/2008 3:04:07 PM**

Project Name: **#100.1001; Dublin Car Wash**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **0805632** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 4.9°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #100.1001; Dublin Car Wash	Date Sampled: 05/21/08-05/21/09
		Date Received: 05/23/08
	Client Contact: Stewart Dalie	Date Extracted: 05/23/08-05/28/08
	Client P.O.:	Date Analyzed 05/23/08-05/28/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0805632

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	101
002A	MW-2	W	ND	230	ND	ND	ND	ND	1	98
003A	MW-3A	W	1600,a	700	130	2.9	40	94	5	102
004A	MW-6A	W	1900,a	88	150	8.1	44	100	3.3	116
005A	MW-6B	W	ND	ND	ND	ND	ND	ND	1	93
006A	MW-7AA	W	22,000,a	28,000	2700	19	940	440	20	105
007A	MW-7A	W	200,a	30	18	ND	3.3	ND	1	105
008A	MW-7B	W	ND	ND	ND	ND	ND	ND	1	98
009A	MW-8A	W	ND	13	ND	ND	ND	ND	1	100
010A	MW-9A	W	86,m	6.3	ND	ND	ND	ND	1	99
011A	MW-10A	W	ND	ND	ND	ND	ND	ND	1	103
012A	VW-2	W	300,a	ND<45	28	1.7	ND	0.97	1	109
013A	VW-3	W	3800,a	56	210	3.0	32	47	3.3	98

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	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0805632

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 35834			Spiked Sample ID: 0805632-008A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	90.1	97.2	7.59	91.7	98.1	6.73	70 - 130	20	70 - 130	20
MTBE	ND	10	110	115	4.74	98.7	95.8	3.05	70 - 130	20	70 - 130	20
Benzene	ND	10	94.1	91.7	2.53	106	106	0	70 - 130	20	70 - 130	20
Toluene	ND	10	104	102	2.24	95.7	96.5	0.868	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	101	100	0.630	106	106	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	111	112	0.902	103	105	2.06	70 - 130	20	70 - 130	20
%SS:	98	10	92	93	0.919	96	98	1.61	70 - 130	20	70 - 130	20

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

BATCH 35834 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805632-001A	05/21/08 12:30 PM	05/27/08	05/27/08 9:05 PM	0805632-002A	05/21/08 1:00 PM	05/27/08	05/27/08 9:35 PM
0805632-003A	05/22/08 10:05 AM	05/27/08	05/27/08 10:35 PM	0805632-004A	05/22/08 8:15 AM	05/27/08	05/27/08 11:04 PM
0805632-005A	05/22/08 7:45 AM	05/24/08	05/24/08 12:14 AM	0805632-006A	05/22/08 7:15 AM	05/23/08	05/23/08 10:14 PM
0805632-006A	05/22/08 7:15 AM	05/27/08	05/27/08 11:34 PM	0805632-007A	05/22/08 6:25 AM	05/24/08	05/24/08 1:14 AM
0805632-008A	05/22/08 6:25 AM	05/24/08	05/24/08 4:13 AM	0805632-009A	05/21/08 11:15 AM	05/24/08	05/24/08 5:12 AM
0805632-010A	05/21/09 10:45 AM	05/28/08	05/28/08 9:36 PM	0805632-011A	05/21/08 12:00 PM	05/24/08	05/24/08 6:12 AM
0805632-012A	05/22/08 10:20 AM	05/24/08	05/24/08 6:41 AM	0805632-013A	05/22/08 10:30 AM	05/28/08	05/28/08 1:43 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.

£ 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.