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Revised Soil and Groundwater Investigation Work Plan

Atlantic Richfield Company Station # 6041
7249 Village Parkway
Dublin, California
ACEH Case # RO0000452

ENVIRONMENT

"I declare that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Date:
June 25, 2010

Submitted by:

Contact:
Hollis E. Phillips

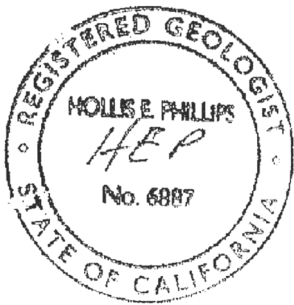
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Our ref:
GP09BPNA.C039



Imagine the result

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

Subject:

Revised Soil and Groundwater Investigation Work Plan

Atlantic Richfield Company Station # 6041
7249 Village Parkway
Dublin, California
ACEH Case # RO0000452

Dear Mr. Khatri:

ARCADIS has prepared this *Revised Soil and Groundwater Investigation Work Plan* (Work Plan) for the ARCO Service Station No. 6041 (Site) located at 7249 Village Parkway in Dublin, California (Figure 1). On February 26, 2010, ARCADIS submitted a *Soil and Groundwater Investigation Work Plan* with a single cone penetrometer (CPT) test proposed to further characterize soil and groundwater concentrations downgradient of the source area. This revised work plan addresses comments received by ACEH on May 6, 2010, asking for multiple CPT borings to form a transect downgradient of the source area and the collection of additional soil samples within the source area. Because ACEH has requested soil samples be collected ARCADIS is now proposing to use direct push technology (GeoProbe) instead of CPT. Continuous lithology can be obtained and depth discrete groundwater samples collected with the GeoProbe rig. Additionally it is easier to collect soil samples with a GeoProbe rig than with a CPT rig.

Site Background

Site Description

The Site is currently an active Atlantic Richfield Company (ARCO) gasoline station. The Site includes two gasoline underground storage tanks (USTs) believed to have been installed between 2001 and 2003, eight fuel dispenser islands, and a convenience store building (Figure 2). The majority of the Site surface is paved with asphalt and concrete.

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The Site is bound by Village Parkway to the west-southwest and Amador Valley Boulevard to the east-southeast. Three other former or currently active retail stations are located south, southwest, and west of the site across Village Parkway and Amador Valley Boulevard.

Site Geology

The Site is located in the northwestern end of the Livermore Valley, within the Coast Ranges Geomorphic Province of Northern California. The Livermore Valley is approximately 13 miles long oriented in an east-west direction, approximately 4 miles wide, and is surrounded by hills of the Diablo Range. In the vicinity of the site, the valley floor slopes gently to the south-southeast. Soil in the vicinity of the subject site is mapped as Holocene alluvium that consists of unconsolidated, moderately to poorly sorted silt and clay rich in organic material interfingering with and graded into coarser grained stream deposits towards higher elevations. (EJ Helly, KR Lajoie, W.E Spange and M.L. Blair, 1979) Holocene alluvium (10-50 feet thick) overlies Pleistocene alluvium consisting of weakly consolidated poorly sorted, irregular interbedded clay, silt, sand and gravel, and older sedimentary deposits. The Calaveras Fault is approximately ½-mile west of the Site. (RESNA, 1992)

The Livermore Valley groundwater basin is divided into subbasins on the basis of fault traces or other hydrogeologic discontinuities (California Department of Water Resources, 1974). The groundwater system in Livermore Valley is a multi-layered system with an unconfined aquifer overlying a sequence of leaky or semiconfined aquifers. The subject site is located within the Dublin groundwater subbasin. The groundwater in the subbasin has been reported to be at depths ranging from 10 to 60 feet below ground surface (bgs). (Alameda County Flood Control and Water Conservation District, Zone 7 [ACFCWCD], 1991) The groundwater gradient is generally toward the south-southeast (ACFCWCD, Zone 7, 1991). The principal streams in the vicinity of the site are Alamo Canal which flows 0.6 miles southeast of the Site, and Dublin Creek which connects with Alamo Canal 0.6 miles south of the site. (RESNA, 1992)

Based on geologic cross sections and soil boring logs from previous consultants, the site consists primarily of sandy to silty clay interbedded with clayey to silty sand. A layer of sandy clay lies immediately below the baserock to depths of approximately 3 to 6 feet below ground surface (vadose zone). Below this sandy clay a layer of dry silty to medium grained sand is present to depths of approximately 6.5 to 9.5 feet. This silty to medium grained sand is underlain by silty clay, which extends to depths

of approximately 9.5 to 12.5 feet (capillary fringe zone). Groundwater is usually encountered at depths of approximately 10 to 18 feet in the clayey sand layer. Groundwater encountered in this clayey sand stratum appears to be present in a relatively thin (2 to 5.5 feet thick) layer and confined by the overlying silty clay layer, as evidenced by water levels stabilizing at approximately 9.5 to 11.5 feet below ground surface (bgs). A stratum of sandy clay with some gravel, which may be a perching or confining layer, is located beneath the water-bearing clayey sand between depths of approximately 18.5 to 20 feet bgs. (RESNA, 1992; RESNA, 1993a; RESNA, 1993b; RESNA, 1994)

Groundwater flow direction at the site is has been observed in the east-northeast direction and in the east-southeast direction with a hydraulic gradient which has ranged from 0.001 ft/ft to 0.024 ft/ft. Predominant groundwater flow direction in recent monitoring events has been in the northeast direction.

Previous Site Investigations

On June 6 and 7, 1990, one 550-gallon waste-oil tank of single wall steel construction was excavated and removed from its location adjacent to the northern wall of the station building at the site. The location of the former station building is shown in Figure 2. Applied Geosystems observed no signs of leakage on the tank at the time of excavation. Analysis of soil samples collected from the waste-oil tank pit reported non-detectable levels of Halogenated Volatile Organic Compounds (HVOCs), Total Oil and Grease (TOG), Total Petroleum Hydrocarbons as Gasoline (TPHg), Total Petroleum Hydrocarbons as Diesel (TPHd), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). Results of laboratory analysis of the composite sample collected from the stockpiled soil indicated TOG at 110 ppm, TPHd at 180 ppm, TPHg at 10 ppm, total xylenes at 0.25 ppm, and non-detectable concentrations of organic lead, benzene, toluene, and ethylbenzene. Based on the results of these samples, Applied Geosystems concluded no further excavation around the tank pit was necessary. On July 6, 1990 the tank pit was backfilled with 25 tons of ¾ inch aggregate base, and the area was repaved. (Applied Geosystems, 1990).

On September 25, 1990, an unauthorized fuel spill reportedly occurred near the southeastern service island. On September 12 and 13, 1991, RESNA observed the advancement of three soil borings (B-1 through B-3). Gasoline hydrocarbon concentrations over 100 ppm were not reported in the soil samples collected from these borings with the exception of one sample from a depth of 9.5 feet in B-1(150 ppm TPHg) located near the northwestern service islands. (RESNA, 1992) TPHg

was also detected above the detection limit at 4.5 and 9.5 feet in B-2 and 9.5 feet in B-3 at concentrations of 2.5, 6.3, and 52 ppm, respectively. The soil in the vicinity of the southeastern service islands, where the fuel spill reportedly occurred, appears to be impacted by low levels of TPHg (less than 10 ppm) as evidenced by analytical results from soil samples collected from boring B-2. (RESNA, 1992) Boring B-3 was located downgradient of the four underground storage tanks. Borings B-1 through B-3 were converted to monitoring wells MW-1 through MW-3, respectively. The wells were completed with four-inch-diameter schedule 40 polyvinyl chloride (PVC) casing. Well casings were set in the wells to the depths of approximately 14 to 17.5 feet bgs. The screened casings for the monitoring wells consisted of 4-inch-diameter, 0.020 machine-slotted PVC set from the total depth of the wells to approximately 10.5 to 14 feet below the ground surface. Blank PVC casing was set from the top of the screened casing to within a few inches below the ground surface. (RESNA, 1992) RESNA concluded that the fuel spill which occurred on September 25, 1990, did not appear to be the sole sources of gasoline hydrocarbons detected beneath the site.

On October 26 and 27, 1992, RESNA performed a subsurface investigation to further delineate the extent of gasoline hydrocarbon impacts in the soil and groundwater at the subject site. Additionally, the work was completed to prepare for a vapor extraction test (VET) to be performed on November 10, 1992. During this investigation, RESNA observed the advancement of seven soil borings (B-4 through B-10). RESNA concluded the presence of gasoline-impacted soil appeared to be limited to the southern portion of the site, particularly in the southeastern vicinity of the existing underground storage tanks, and in the southern vicinity of the northwestern service islands, directly above the local water table within the capillary fringe (approximately 7 to 12 feet bgs). The soil at the shallower depths (approximately 3 to 7 feet below the ground surface) appeared to contain low levels of gasoline hydrocarbons (1.6 mg/kg to 16 mg/kg). (RESNA, 1993a)

Soil borings B-4 through B-10 were converted to three monitoring wells (MW-4 through MW-6) and four vapor extraction wells (VW-1 through VW-4), respectively. Both the monitoring wells and vapor extraction wells were completed with 4-inch diameter, Schedule 40, PVC casing. Well casings were set in the groundwater monitoring wells (MW-4 through MW-6) to depths of approximately 15-18 feet bgs, and in the vapor extraction wells (VW-1 through VW-4) to depths of approximately 9.5 feet bgs. The screened casings for the groundwater monitoring wells (MW-4 through MW-6) consisted of 4-inch diameter, 0.020 inch-wide machine-slotted PVC set from the total depths of the wells to approximately 8.5 to 11 feet bgs. The screened casings for the vapor extraction wells (VW-1 through VW-4) consist of 4-

inch diameter 0.10 inch-wide machine-slotted PVC set from the total depths of the wells to approximately 4 feet bgs. (RESNA, 1993a) Using results from the vapor extraction test performed on the site, RESNA indicated vapor extraction could be a viable soil remediation alternative for the Site.

As a result of this investigation, RESNA concluded that the lateral extent of the TPHg impacts in the soil at the subject site had been delineated to non-detectable levels (less than 1 ppm), with the exception of the southeastern portion of the site. The vertical extent of TPHg impacts in the soil at the site had been delineated to non-detectable levels at depths of approximately 10 to 19.5 feet bgs. Additionally, RESNA concluded that the lateral extent of TPHg in groundwater had been delineated to less than 50 parts per billion (ppb) with the exception of the southern and southwestern portions of the site. (RESNA, 1993a) On August 11, 1993, six soil test holes (B-11 through B-16) were cored at the Site to depths between 16 and 22 feet to evaluate potential onsite sources of gasoline hydrocarbons to aid in the design of an air sparge test and an interim air sparge and vapor extraction remediation system. B-11 through B-13 were located in the central portion of the site at the northern end of the gasoline USTs, B-14 and B-15 were in the vicinity of the Western service islands, and B-16 was located in the vicinity of the southeastern service islands. (RESNA, 1993b)

On October 12, 1993, RESNA performed an Air Sparge Pilot Test (AST) and a combination Air Sparge/Vapor Extraction Test (ASVET). Work for this investigation included the drilling of three soil borings (B-17 through B-19) and the installation of two air sparge wells (AS-1 and AS-2) and one vapor extraction well (VW-5). Vapor extraction well VW-5 was constructed using 4-inch diameter, Schedule 40 PVC with 0.10-inch machine slots, and was screened from 5 to 15 feet. Air sparge wells AS-1 and AS-2 were constructed in the bottom of the borings using 2-inch-diameter, Schedule 40 PVC pipe, with 2 feet of 2-inch-diameter, 0.020-inch machine slots at the bottom of the borings. As a result of this test, RESNA concluded air sparging was not a feasible method for remediating groundwater beneath the site. (RESNA, 1994)

On June 13, 2000, ARCO was notified by the Alameda County Environmental Health Services Agency that groundwater sampled in March 2000 contained higher concentrations of methyl tertiary butyl ether (MTBE) than in any other previous sampling even since August 1995, when analysis for MTBE was initiated. These results indicated a more recent fuel release may have occurred. ARCO was required to evaluate all monitoring records to determine if the UST system was tight. Monthly

statistical analyses of the manual inventory records provided by the station owner/operator showed the UST system was tight. (Cambria, 2000) In addition Alameda County Environmental Health Services also required a workplan be developed for off-site groundwater monitoring installation to fully delineate the contaminant plume. (Alameda County, 2000a)

On August 25, 2000, Cambria proposed incorporating monitoring wells MW-6 and MW-7 from the former Shell service station located on the opposite corner from the Site, into the groundwater monitoring program. In addition, Cambria also proposed implementing dual-phase vacuum extraction (DVE) from source area wells to remove dissolved phase hydrocarbons. Alameda County approved these proposed monitoring and remedial actions on September 13, 2000. (Alameda County, 2000b)

On July 27, 2001, three USTs were removed from the site. A total of 4,150 tons (approximately 3,192 cubic yards) of soil was removed during the over-excavation activities and approximately 25,600 gallons of impacted groundwater were removed from the site. Figure 2 shows the limits of excavation for these activities. Soil samples were obtained on the sidewalls of the former, UST cavity. Maximum detected concentrations of TPHg and Benzene were 8,300 mg/kg and 64 mg/kg in SW-6 at 8 feet bgs, respectively. (Cambria, 2001) Results of these soil samples are presented in Tables 1 and 2. Additionally the retail station at the Site was relocated and rebuilt. Two USTs and eight dispenser islands replaced the existing three USTs and four dispenser islands at the Site. In the fourth quarter of 2001, groundwater monitoring wells MW-7 and MW-8 were constructed. Vapor Well VW-2 was abandoned prior to December 21, 2001. Shell monitoring wells MW-6 and MW-7 were abandoned on September 27, 2002.

Periodic Groundwater Monitoring

Monthly groundwater monitoring at the Site was initiated by RESNA in October 1991 and quarterly groundwater monitoring began in the fourth quarter of 1992.

Monitoring wells MW-2, MW-3, and MW-8 are sampled on a semi-annual basis in the second and fourth quarter. Monitoring wells MW-4 through MW-6 are sampled annually in the fourth quarter. Monitoring well MW-7 has been dry since the fourth quarter 2003 sampling event. The wells containing the highest concentrations of contaminants of concern (COCs) are MW-3 and MW-8 with recent concentrations of TPHg at 330 and 420 micrograms per liter ($\mu\text{g/L}$), benzene at 11 $\mu\text{g/L}$ and below the detection limit, and MTBE at 38 $\mu\text{g/L}$ and 3.8 $\mu\text{g/L}$, respectively. (Broadbent, 2010)

Appendix A presents historical groundwater analytical data. Current well construction details are presented in Table 3.

Proposed Scope of Work

ARCADIS proposes to advance up to three (based on one day of field work) GeoProbes to obtain lithologic data and depth discrete groundwater samples. The proposed locations for GeoProbe-1 (GP-1), GP-2, and GP-3 are between monitoring wells MW-4 and MW-5 on the eastern portion of the Site (Figure 2). The exact locations will be based on field conditions.

In addition, ARCADIS proposes to collect three soil samples (SB-1, SB-2, and SB-3) around the perimeter of the former UST cavity to further assess the extent of soil impacts in the former source area.

Site Health and Safety Plan

As required by the Occupational Health and Safety Administration (OSHA) "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120), ARCADIS will prepare a site specific Health and Safety Plan (HASP). The field staff and contractors will review the HASP prior to beginning field operations at the site.

Permitting

Following approval of this Work Plan, an Application for the Drilling Permit will be submitted to Alameda County Environmental Health.

Underground Utility Clearance

Underground Service Alert (USA) will be notified at least 48 hours before proposed drilling activities to identify public utilities in the vicinity of the proposed boring. In conjunction with USA, a private utility locating company will be utilized to further evaluate the potential presence of underground utilities in the vicinity of the proposed CPT boring location. The soil boring location may require field modifications due to onsite utility locations and/or field conditions. Prior to installation, the proposed CPT location will be cleared either by air knife or hand augered to 5 feet bgs to identify potential underground utility conflicts.

GeoProbe and Depth Discrete Groundwater Sampling

GP-1, GP-2, and GP-3 will be advanced to 25 ft bgs on-site between monitoring wells MW-4 and MW-5. Clear acetate sleeves will be placed inside the GeoProbe drill rods and advanced. After the rods are retracted the acetate sleeve will be removed and soil within the sleeve lithologically logged by a geologist. Soil will also be screened with a photoionization detector (PID). Once the entire borehole has been logged groundwater sample locations will be chosen based on the lithology. Up to three groundwater samples from each location will be collected using Hydropunch™ technology. Hollow push rods will be advanced to the bottom of the boring. The push rods will then be retracted, exposing an encased filter screen and allowing groundwater to infiltrate hydrostatically from the formation into the inlet screen. A small diameter bailer will be lowered through the push rods into the screen section for sample collection. Once the bailer is filled, the bailer will be retrieved and the groundwater will be transferred into the appropriate laboratory-supplied sample containers. Upon completion of the sample collection, the equipment will be retrieved to the ground surface and decontaminated. The borehole will be brought to grade with neat cement grout.

The groundwater samples will be analyzed for the following constituents by a California-certified laboratory:

- TPH-GRO (C6-C10) by USEPA Method 8015 Modified

Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), MTBE, 1,2-dichloroethane (1,2-DCA), ethanol, diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), t-butyl alcohol (TBA) and 1,2-dibromoethane (EDB) by USEPA Method 8260B. Upon completion of the soil borings, the boreholes will be brought to grade with neat cement grout.

Investigation-Derived Waste

Investigation-derived waste will be containerized in 55-gallon Department of Transportation (DOT)-approved drums and temporarily stored on the subject property pending transport by Belshire Environmental Services Inc. (BESI) disposal contractor to an appropriate disposal or treatment facility.

Soil Sampling

Three soil samples will be obtained around the perimeter of the former UST cavity (SB-1, SB-2, and SB-3). Proposed soil sample locations are shown in Figure 2. Locations were chosen to further assess the extent of soil impacts in the former source area based on samples collected from the sidewalls of the former UST cavity in 2001. The highest concentrations of TPHg benzene, and ethylbenzene were detected in SW-6; the highest concentration of xylenes was detected in SW-4; the highest concentration of MTBE was detected in SW-8; toluene was not detected,

The proposed samples will be collected using a GeoProbe rig. Clear acetate sleeves will be placed inside the GeoProbe drill rods and advanced at 4-foot increments. After the rods are retracted the acetate sleeve will be removed and logged by a geologist. Soil will also be screened with a PID. The acetate sleeves will be cut at the desired sample depth. The ends will be sealed with end-caps, labeled, placed in a zip-lock bag and stored in an ice-filled cooler chilled to 4 degrees Celsius (°C). The samples will be shipped or couriered to State-certified laboratory, under proper chain-of-custody protocol.

Soil samples will be selected for laboratory analyses based on:

- Location above first-encountered groundwater
- Areas where the presence of hydrocarbons are suspected (either by use of a PID, or observed sheen)
- At 5-foot intervals and/or change in stratigraphic units

Soil samples will be analyzed for the following constituents by a California-certified Laboratory:

- TPH-GRO (C6-C10) by USEPA Method 8015 Modified
- Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), MTBE, 1,2-dichloroethane (1,2-DCA), ethanol, diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), t-butyl alcohol (TBA) and 1,2-dibromoethane (EDB) by USEPA Method 8260B
- Upon completion of the soil borings, the boreholes will be brought to grade with neat cement grout.

Reporting

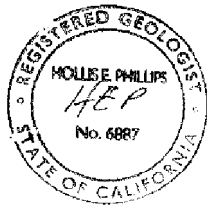
Data collected from the CPTs and soil samples will be summarized and presented in the *Soil and Groundwater Investigation Report*. The report will include results of the investigation, field activities, required permits, and laboratory analytical reports with a copy of the chain-of-custody.

Schedule

ARCADIS is prepared to initiate soil and groundwater investigation activities immediately upon approval of this work plan. If you have any questions or comments, please contact Hollis Phillips by telephone at 415.374.2744 ext. 13 or by e-mail at Hollis.Phillips@arcadis-us.com.

Sincerely,

ARCADIS



Leigh Neary
Environmental Engineer

Hollis Phillips
Project Manager

Enclosures:

- | | |
|------------|--|
| Table 1 | UST, Piping and Dispenser Island Soil Sample Results |
| Table 2 | Waste Oil Over-Excavation Soil Sampling Results |
| Table 3 | Well Construction Details |
| Figure 1 | Site Location Map |
| Figure 2 | Site Map with Proposed Boring Location |
| Appendix A | Historical Groundwater Analytical Data |

References

- Alameda County Environmental Health Services Agency, 2000a. *Letter: QMR and Plume Delineation for ARCO Station #6041, 7249 Village Parkway, Dublin, CA.* June 13, 2000.
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Tables

Table 1
 UST, Piping, and Dispenser Island Soil Sampling Results
 37099
 ARCO Service Station 6041
 7249 Village Parkway, Dublin, CA

Sample ID	Depth Sampled (fbg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)
Former UST Cavity								
SW-1	8	220	1.70	<.5	<.5	0.500	<.5	<4.85
SW-2	8	4,500	12.0	<10.	63.0	300	<10.	<4.85
SW-3	8	1,300	<2.5	<2.5	22.0	130	4.40	<4.85
SW-4	8	4,700	11.0	<10.	43.0	320	<10.	5.16
SW-5	8	13	0.093	<.025	1.00	0.180	1.90	<4.95
SW-6	8	8,300	64.0	<25.	180	310	<25.	<4.95
SW-7	8	1,500	8.00	<.5	26.0	22.0	<.5	<.5
SW-8	8	2,400	7.40	<.5	37.0	220	6.00	<.5
New UST Cavity								
UST-1	13	0	<.005	<.005	<.005	<.005	0.0550	13.3
Dispenser Islands								
Disp-1	5	70	<.12	<.12	0.570	0.950	0.410	<4.85
Disp-2	3	1,200	3.20	9.30	18.0	87.0	<1.2	4.77
Disp-3	3	4.0	0.0250	<.025	0.0650	0.052	0.210	<4.81
Disp-4	3	7.8	0.0430	<.025	0.120	0.0340	0.0830	<4.85
Disp-5	4	55	<.12	<.12	0.580	0.820	0.360	<4.95
Disp-6	4	580	1.80	<.5	12.0	52.0	<1.2	<4.85
Product Piping								
Pipe-1	4	4.2	0.0380	0.0320	0.150	0.0590	0.360	<4.81
Pipe-2	4	1.4	0.0120	0.00730	0.0700	0.00800	0.0490	<4.81

Notes
 fbg = feet below grade
 mg/kg = milligrams per kilogram
 TPHg = total petroleum hydrocarbons as gasoline
 MTBE = methyl tertiary butyl ether

Table 2
Waste Oil Over-Excavation Soil Sampling Results
37098
ARCO Service Station 6041
2747 Pinole Valley Road, Pinole, California

Sample ID	Depth Sampled (fbg)	TPHg (mg/kg)	TOG (mg/kg)	VOCs (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
OV-1	6	<.05	<9.9	<49.5	ND	0.182	12.3	15.4	15.8
OV-2	6	<.05	<9.9	<49.5	ND	0.132	10.6	14.5	14.5

Notes

ND = None detected

fbg = feet below grade

mg/kg = milligrams per kilogram

TPHg = total petroleum hydrocarbons as gasoline

TPHd = total petroleum hydrocarbons as diesel

TOG = total oil and grease

VOCs = volatile organic compounds

Table 3
Soil Boring and Well Construction Details
 ARCO Station #6041
 7249 Village Parkway
 Dublin, California

Soil Boring or Well ID	Installation Date	Decommissioned Date	Boring Depth (feet bgs)	Well Diameter (inches)	Screen Top (feet bgs)	Well Bottom (feet bgs)	Screen Length (feet)	TOC Elevation (msl)
Soil Borings								
B-1	9/12/1991	--	22.5	--	--	--	--	--
B-2	9/13/1991	--	16.5	--	--	--	--	--
B-3	9/12/1991	--	20.5	--	--	--	--	--
B-4	10/26/1992	--	18	--	--	--	--	--
B-5	10/26/1992	--	20.5	--	--	--	--	--
B-6	10/26/1992	--	19.5	--	--	--	--	--
B-7	10/27/1992	--	11	--	--	--	--	--
B-8	10/27/1992	--	11	--	--	--	--	--
B-9	10/27/1992	--	11	--	--	--	--	--
B-10	10/27/1992	--	11	--	--	--	--	--
B-11	8/11/1993	--	19	--	--	--	--	--
B-12	8/11/1993	--	19	--	--	--	--	--
B-13	8/11/1993	--	22	--	--	--	--	--
B-14	8/11/1993	--	19	--	--	--	--	--
B-15	8/11/1993	--	16	--	--	--	--	--
B-16	8/11/1993	--	19	--	--	--	--	--
Groundwater Monitoring Wells								
TP-1	NA	--	NA	6	NA	15	NA	NA
TP-2	NA	--	NA	6	NA	15	NA	NA
MW-1	9/12/1991	--	22.5	4	14	17.5	3.5	336.56
MW-2	9/13/1991	--	16.5	4	10.5	14	3.5	334.80
MW-3	9/12/1991	--	20.5	4	12	15	3	335.53
MW-4	10/26/1992	--	18	4	8.5	15	6.5	334.22
MW-5	10/26/1992	--	20.5	4	11	18	7	335.87
MW-6	10/26/1992	--	19.5	4	10	16	6	335.84
MW-7	NA	NA	NA	NA	--	8	--	338.62
MW-8	NA	--	NA	NA	--	12.6	--	338.27
VW-1	10/27/1992	--	11	4	4	9.5	5.5	335.91
VW-2	10/27/1992	12/13/2000	11	4	4	9.5	5.5	336.14
VW-3	10/27/1992	--	11	4	4	9.5	5.5	335.99
VW-4	10/27/1992	--	11	4	4	9.5	5.5	335.47
VW-5	10/12/1993	--	14.5	4	5	14.5	9.5	NA
AS-1	10/12/1993	--	25.5	2	17.5	19.5	2	NA
AS-2	10/12/1993	--	21	2	16.5	18.5	2	NA

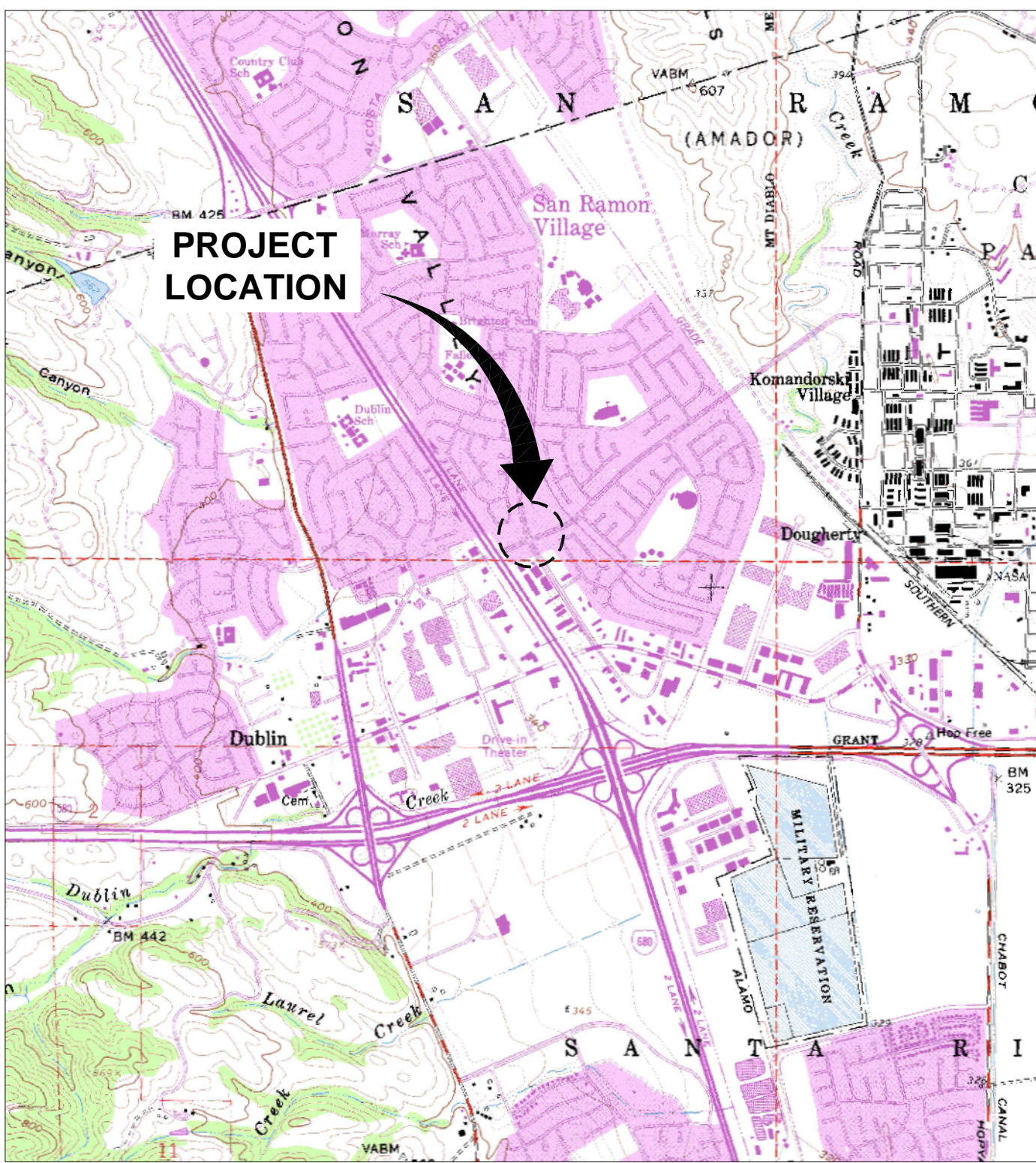
Explanation:

bgs = below ground surface
 msl = mean sea level
 NA = not available
 VW = vapor well
 TOC = top of casing
 -- = not applicable

ARCADIS

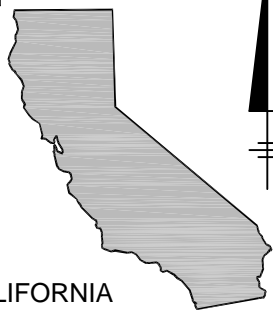
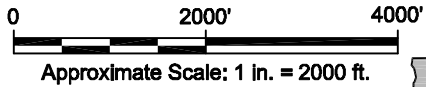
Figures

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: PIC: RM: H. PHILLIPS TM: L. NEARY LYR: (ONION)*OFF*REF
 C:\Documents and Settings\jpharris\Desktop\CAD\GIS\BPN\A_038_C00000\GIS\BPN\A_038_C00000\G038C00000.dwg LAYOUT: TSAVE: 1/19/2010 4:14 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: SETUP1PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 1/19/2010 10:11 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: Dublin.tif PROJECTNAME: ---



**PROJECT
LOCATION**

REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., DUBLIN, CALIFORNIA, 1961, PHOTOREVISED 1980.



CALIFORNIA

STATION #6041
 7249 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA
**SOIL AND GROUNDWATER INVESTIGATION
 WORK PLAN**

SITE LOCATION MAP



FIGURE
1

Appendix A

Historical Groundwater Analytical
Data

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
02/15/1995	--		336.56	14.00	17.50	8.53	328.03	820	15	<1	5.2	1.4	--	--	--
05/24/1995	--		336.56	14.00	17.50	9.00	327.56	640	12	<1	7.3	<1	--	--	--
08/25/1995	--		336.56	14.00	17.50	10.30	326.26	780	2	<1	2	2	2,500	--	--
11/28/1995	--		336.56	14.00	17.50	11.01	325.55	570	2.2	<0.5	1.4	0.9	--	--	--
02/26/1996	--		336.56	14.00	17.50	7.35	329.21	1,100	28	<7	13	7	3,400	--	--
05/23/1996	--		336.56	14.00	17.50	8.73	327.83	560	8.5	<1	1.1	<1	3,900	--	--
08/23/1996	--		336.56	14.00	17.50	10.25	326.31	860	<1	<1	<4	2	5,600	--	--
03/21/1997	--		336.56	14.00	17.50	9.35	327.21	520	12	<0.5	2.7	1.5	6,200	--	--
08/20/1997	--		336.56	14.00	17.50	10.75	325.81	<5,000	<50	<50	<50	<50	7,400	--	--
11/21/1997	--		336.56	14.00	17.50	11.10	325.46	<5,000	<50	<50	<50	<50	8,500	--	--
02/12/1998	P		336.56	14.00	17.50	7.05	329.51	210	<0.5	<0.5	<0.5	<0.5	8,900	1.71	--
07/31/1998	P		336.56	14.00	17.50	10.04	326.52	<20,000	<200	<200	<200	<200	18,000	2.43	--
02/17/1999	--		336.56	14.00	17.50	8.50	328.06	<20,000	<200	<200	<200	<200	16,000	1.0	--
08/24/1999	P		336.56	14.00	17.50	10.40	326.16	190	<0.5	4.4	<0.5	1.1	15,000	--	--
03/01/2000	P		336.56	14.00	17.50	8.85	327.71	310	20	0.5	7.6	4.0	80,000	1.57	--
08/18/2000	P		336.56	14.00	17.50	9.35	327.21	<10,000	<100	<100	<100	<100	48,400/63,700	1.50	--
12/27/2000	P		336.56	14.00	17.50	10.81	325.75	<10,000	309	<100	<100	289	44,400	0.51	--
02/09/2001	P		336.56	14.00	17.50	10.65	325.91	2,820	368	<25.0	116	176	23,300	0.58	--
02/09/2001	--	i	336.56	14.00	17.50	--	--	3,490	432	9.56	146	235	31,800	--	--
04/17/2001	--	i	336.56	14.00	17.50	--	--	2,600	70.1	<20.0	32.7	30.6	45,400	--	--
04/17/2001	P		336.56	14.00	17.50	11.09	325.47	2,900	66.0	<10.0	33.2	25.1	46,500	0.63	--
07/17/2001	P		336.56	14.00	17.50	11.07	325.49	<10,000	<100	<100	130	520	42,000	0.69	--
12/21/2001	--	k	--	14.00	17.50	--	--	--	--	--	--	--	--	--	--
MW-2															
02/15/1995	--		334.80	10.50	14.00	6.75	328.05	730	110	1.7	25	66	--	--	--
05/24/1995	--		334.80	10.50	14.00	6.88	327.92	370	110	<1	17	1.9	--	--	--
08/25/1995	--		334.80	10.50	14.00	7.91	326.89	150	6	<1	<1	<1	2,700	--	--
11/28/1995	--		334.80	10.50	14.00	9.06	325.74	<50	<0.5	<0.5	<0.5	0.8	--	--	--
02/26/1996	--		334.80	10.50	14.00	6.65	328.15	350	66	<0.5	11	1.7	<3	--	--
05/23/1996	--		334.80	10.50	14.00	6.90	327.90	540	140	<2.5	13	<2.5	4,600	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-2 Cont.															
08/23/1996	--		334.80	10.50	14.00	8.45	326.35	180	0.8	2	0.7	2.6	4,000	--	--
03/21/1997	--		334.80	10.50	14.00	7.28	327.52	410	90	<1	14	4	3,800	--	--
08/20/1997	--		334.80	10.50	14.00	8.87	325.93	<5,000	<50	<50	<50	<50	3,100	--	--
11/21/1997	--		334.80	10.50	14.00	9.28	325.52	<2,000	<20	<20	<20	<20	2,600	--	--
02/12/1998	P		334.80	10.50	14.00	5.90	328.90	310	54	<0.5	6.2	1.1	3,800	3.76	--
07/31/1998	P		334.80	10.50	14.00	8.12	326.68	6,100	52	220	110	1,100	7,700	2.96	--
02/17/1999	P		334.80	10.50	14.00	7.18	327.62	<5,000	<50	<50	<50	<50	4,200	1.0	--
08/24/1999	P		334.80	10.50	14.00	8.68	326.12	200	1.8	16	3.0	32	3,100	--	--
03/01/2000	P		334.80	10.50	14.00	7.02	327.78	760	24	12	13	59	6,300	1.92	--
08/18/2000	P		334.80	10.50	14.00	7.75	327.05	<500	<5.00	<5.00	<5.00	<5.00	1,610/1,980	2.03	--
12/27/2000	--		334.80	10.50	14.00	8.85	325.95	--	--	--	--	--	--	--	--
02/09/2001	P		334.80	10.50	14.00	8.50	326.30	<50.0	<0.500	<0.500	<0.500	<0.500	9.11	0.53	--
04/17/2001	--		334.80	10.50	14.00	9.12	325.68	--	--	--	--	--	--	--	--
07/17/2001	--	i	334.80	10.50	14.00	--	--	3,500	<10	<10	<10	<10	3,500	--	--
07/17/2001	P		334.80	10.50	14.00	8.99	325.81	1,200	<10	<10	<10	<10	4,200	0.69	--
12/21/2001	NP		334.80	10.50	14.00	8.65	326.15	65	<0.50	1.2	0.61	6.7	11/6.5	0.48	--
03/06/2002	NP		334.80	10.50	14.00	8.61	326.19	<50	<0.50	<0.50	<0.50	1.8	31	0.35	--
04/26/2002	NP		334.80	10.50	14.00	8.20	326.60	92	<0.5	<0.50	<0.50	0.64	98/180	0.19	--
09/23/2002	P	a, d	334.80	10.50	14.00	8.50	326.30	250	<1.2	<1.2	<1.2	<1.2	1,500	2.1	7.3
12/27/2002	P	a, d	334.80	10.50	14.00	7.15	327.65	440	<2.5	<2.5	<2.5	<2.5	790	1.4	6.9
03/12/2003	P	f, g	334.80	10.50	14.00	7.33	327.47	<50	1.6	<0.50	<0.50	1.2	11	2.7	7.0
06/28/2003	P	h	337.29	10.50	14.00	7.49	329.80	<50	<0.50	<0.50	<0.50	<0.50	1.2	2.0	7.4
09/30/2003	P		337.29	10.50	14.00	8.20	329.09	<50	<0.50	<0.50	<0.50	<0.50	5.2	2.2	7.0
12/05/2003	NP		337.29	10.50	14.00	7.73	329.56	<50	<0.50	<0.50	<0.50	<0.50	2.6	4.3	7.3
03/10/2004	P		337.29	10.50	14.00	6.70	330.59	<500	<5.0	<5.0	<5.0	<5.0	5.6	2.1	6.4
06/21/2004	P		337.29	10.50	14.00	7.71	329.58	160	<1.0	<1.0	<1.0	<1.0	1.5	3.1	6.9
09/17/2004	P		337.29	10.50	14.00	7.45	329.84	<100	<1.0	<1.0	<1.0	<1.0	1.0	3.8	7.0
12/13/2004	P		337.29	10.50	14.00	7.04	330.25	<50	<0.50	<0.50	<0.50	<0.50	0.54	3.2	6.8
03/03/2005	P		337.29	10.50	14.00	6.18	331.11	<500	<5.0	<5.0	<5.0	<5.0	<5.0	3.0	--
06/23/2005	P	n	337.29	10.50	14.00	6.51	330.78	<50	<0.50	<0.50	<0.50	<0.50	4.3	2.6	7.0
09/16/2005	P		337.29	10.50	14.00	7.65	329.64	<100	<1.0	<1.0	<1.0	<1.0	2.0	1.2	6.8

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-2 Cont.															
12/27/2005	P		337.29	10.50	14.00	7.29	330.00	<250	<2.5	<2.5	<2.5	<2.5	<2.5	1.37	7.3
03/02/2006	P		337.29	10.50	14.00	6.51	330.78	<250	<2.5	<2.5	<2.5	<2.5	5.8	1.38	6.8
6/23/2006	P		337.29	10.50	14.00	6.75	330.54	<250	<2.5	<2.5	<2.5	<2.5	4.2	1.38	6.9
9/19/2006	P		337.29	10.50	14.00	7.30	329.99	<50	<0.50	<0.50	<0.50	<0.50	4.0	2.42	7.0
12/19/2006	P		337.29	10.50	14.00	6.93	330.36	<50	<0.50	<0.50	<0.50	<0.50	0.70	4.86	7.23
3/29/2007	P		337.29	10.50	14.00	6.61	330.68	<50	<0.50	<0.50	<0.50	<0.50	1.3	3.22	7.23
6/5/2007	P		337.29	10.50	14.00	7.12	330.17	<50	<0.50	<0.50	<0.50	<0.50	0.94	3.75	7.35
9/25/2007	P		337.29	10.50	14.00	7.77	329.52	<50	<0.50	<0.50	<0.50	<0.50	0.56	3.60	7.07
12/26/2007	P		337.29	10.50	14.00	7.40	329.89	<50	<0.50	<0.50	<0.50	<0.50	0.64	5.68	7.17
3/25/2008	P		337.29	10.50	14.00	6.45	330.84	<50	<0.50	<0.50	<0.50	<0.50	7.1	4.87	8.14
6/10/2008	P		337.29	10.50	14.00	7.22	330.07	<50	<0.50	<0.50	<0.50	<0.50	3.2	2.93	7.11
9/9/2008	P		337.29	10.50	14.00	7.69	329.60	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.01	7.38
12/4/2008	P		337.29	10.50	14.00	7.74	329.55	<50	<0.50	<0.50	<0.50	<0.50	0.53	5.73	7.03
3/5/2009	P		337.29	10.50	14.00	6.16	331.13	<50	<1.0	<1.0	<1.0	<1.0	2.7	5.64	6.72
6/2/2009	P		337.29	10.50	14.00	7.11	330.18	<50	<1.0	<1.0	<1.0	<1.0	1.3	2.53	7.35
10/26/2009	P		337.29	10.50	14.00	7.37	329.92	<50	<0.50	<0.50	<0.50	<1.0	0.90	--	6.90
MW-3															
02/15/1995	--		335.53	12.00	15.00	8.55	326.98	100	14	<0.5	6.3	<0.5	--	--	--
05/24/1995	--		335.53	12.00	15.00	8.17	327.36	110	8	<0.5	2.7	<0.5	--	--	--
08/25/1995	--		335.53	12.00	15.00	9.27	326.26	210	3.6	<0.5	2.9	0.6	20,000	--	--
11/28/1995	--		335.53	12.00	15.00	9.91	325.62	81	1.5	<0.5	1.4	<0.5	15,000	--	--
02/26/1996	--		335.53	12.00	15.00	8.42	327.11	16,000	1,600	1,200	300	2,000	9,500	--	--
05/23/1996	--		335.53	12.00	15.00	7.70	327.83	6,500	690	<10	120	14	8,600	--	--
08/23/1996	--		335.53	12.00	15.00	9.25	326.28	1,700	85	2.1	61	5.3	11,000	--	--
03/21/1997	--		335.53	12.00	15.00	8.72	326.81	100	2	<1	1	<1	6,600	--	--
08/20/1997	--		335.53	12.00	15.00	9.73	325.80	<5,000	<50	<50	<50	<50	7,700	--	--
11/21/1997	--		335.53	12.00	15.00	10.10	325.43	<5,000	<50	<50	<50	<50	9,700	--	--
02/12/1998	P		335.53	12.00	15.00	6.68	328.85	110	11	<0.5	<0.5	1.9	10,000	1.02	--
07/31/1998	P		335.53	12.00	15.00	7.98	327.55	<10,000	<100	<100	<100	<100	13,000	2.59	--
02/17/1999	P		335.53	12.00	15.00	8.40	327.13	<20,000	<200	<200	<200	<200	23,000	1.0	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
08/24/1999	P		335.53	12.00	15.00	9.45	326.08	200	0.6	5.6	0.6	1.7	22,000	--	--
03/01/2000	P		335.53	12.00	15.00	8.32	327.21	320	32	1	6.1	4	58,000	2.42	--
08/18/2000	P		335.53	12.00	15.00	8.35	327.18	<10,000	<100	<100	<100	<100	46200/55600	1.59	--
12/27/2000	P		335.53	12.00	15.00	9.75	325.78	29,700	1,620	1,730	<250	6,230	62,600	1.59	--
02/09/2001	P		335.53	12.00	15.00	9.61	325.92	29,300	2,590	3,530	440	7,080	85,500	0.51	--
04/17/2001	P		335.53	12.00	15.00	9.94	325.59	16,400	1,680	<25.0	310	2,290	48,700	0.41	--
07/17/2001	P		335.53	12.00	15.00	9.93	325.60	21,000	1,500	<100	1,100	690	82,000	0.51	--
12/21/2001	P		335.53	12.00	15.00	9.40	326.13	<5,000	<50	<50	<50	<50	4,300/3,800	0.40	--
03/06/2002	P		335.53	12.00	15.00	9.33	326.20	<50	1.2	<0.50	1.1	13	880	0.43	--
04/26/2002	P		335.53	12.00	15.00	9.19	326.34	260	3.7	<1.0	1.1	1.8	460/940	0.2	--
09/23/2002	P	b, d	335.53	12.00	15.00	9.30	326.23	1,500	41	2.4	9.8	14	980	1.5	7.6
12/27/2002	P	c, d	335.53	12.00	15.00	7.30	328.23	1,500	300	100	21	66	1,100	2.2	8.6
03/12/2003	P	f, g	335.53	12.00	15.00	8.06	327.47	<1,000	<10	<10	<10	<10	45	1.6	7.4
06/28/2003	P	h	338.18	12.00	15.00	8.60	329.58	1,500	20	27	12	45	140	1.7	7.6
09/30/2003	P		338.18	12.00	15.00	9.04	329.14	<2,500	<25	<25	<25	<25	650	0.9	7.4
12/05/2003	P		338.18	12.00	15.00	8.57	329.61	<2,500	<25	<25	<25	<25	480	1.3	--
03/10/2004	P		338.18	12.00	15.00	7.58	330.60	180	7.4	<1.0	<1.0	<1.0	75	2.0	--
06/21/2004	P	o	338.18	12.00	15.00	8.51	329.67	<2,500	<25	<25	<25	<25	370	4.6	7.6
09/17/2004	P		338.18	12.00	15.00	8.38	329.80	<5,000	<50	<50	<50	<50	280	1.8	7.1
12/13/2004	P	o	338.18	12.00	15.00	8.04	330.14	520	89	4.6	3.9	5.8	460	1.9	7.6
03/03/2005	P		338.18	12.00	15.00	6.89	331.29	300	23	<2.5	<2.5	<2.5	130	1.8	7.6
06/23/2005	P	n	338.18	12.00	15.00	8.27	329.91	260	6.1	1.1	0.65	2.8	40	1.4	8.0
09/16/2005	P		338.18	12.00	15.00	8.47	329.71	850	52	<5.0	<5.0	<5.0	270	1.4	7.2
12/27/2005	P		338.18	12.00	15.00	7.77	330.41	300	56	<2.5	<2.5	3.6	230	1.54	8.0
03/02/2006	P		338.18	12.00	15.00	7.33	330.85	<250	4.0	<2.5	<2.5	<2.5	24	1.5	7.2
6/23/2006	P		338.18	12.00	15.00	7.64	330.54	340	1.5	<0.50	<0.50	<0.50	47	1.42	7.1
9/19/2006	P		338.18	12.00	15.00	8.17	330.01	<50	<0.50	<0.50	<0.50	<0.50	14	3.30	7.1
12/19/2006	P		338.18	12.00	15.00	7.85	330.33	530	120	<5.0	<5.0	5.5	270	4.32	7.23
3/29/2007	P	q	338.18	12.00	15.00	7.15	331.03	750	180	<5.0	9.2	7.1	420	4.34	7.21
6/5/2007	P	q	338.18	12.00	15.00	8.10	330.08	1,200	330	<5.0	12	12	610	2.94	7.38
9/25/2007	P	q	338.18	12.00	15.00	8.73	329.45	230	<5.0	<5.0	<5.0	<5.0	54	3.91	6.85

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
12/26/2007	P		338.18	12.00	15.00	8.50	329.68	190	21	<0.50	0.69	<0.50	71	5.94	6.77
3/25/2008	P		338.18	12.00	15.00	7.23	330.95	170	41	<10	<10	<10	77	4.32	8.16
6/10/2008	P		338.18	12.00	15.00	8.15	330.03	110	<25	<25	<25	<25	<25	3.08	7.40
9/9/2008	P		338.18	12.00	15.00	8.57	329.61	73	<20	<20	<20	<20	<20	2.93	7.03
12/4/2008	P		338.18	12.00	15.00	8.67	329.51	91	<20	<20	<20	<20	<20	5.81	7.24
3/5/2009	P		338.18	12.00	15.00	6.75	331.43	64	11	<0.50	<0.50	<0.50	19	5.54	7.89
6/2/2009	P		338.18	12.00	15.00	7.99	330.19	<50	<1.0	<1.0	<1.0	<1.0	4.0	3.13	7.81
10/26/2009	P		338.18	12.00	15.00	8.18	330.00	330	11	3.5	<2.5	<5.0	38	--	7.14
MW-4															
02/15/1995	--		334.22	8.5	14.5	7.85	326.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		334.22	8.5	14.5	6.68	327.54	--	--	--	--	--	--	--	--
08/25/1995	--		334.22	8.5	14.5	6.93	327.29	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/28/1995	--		334.22	8.5	14.5	8.21	326.01	--	--	--	--	--	--	--	--
02/26/1996	--		334.22	8.5	14.5	6.65	327.57	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		334.22	8.5	14.5	6.47	327.75	--	--	--	--	--	--	--	--
08/23/1996	--		334.22	8.5	14.5	7.66	326.56	--	--	--	--	--	--	--	--
03/21/1997	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
08/20/1997	--		334.22	8.5	14.5	8.32	325.90	--	--	--	--	--	--	--	--
11/21/1997	--		334.22	8.5	14.5	8.65	325.57	--	--	--	--	--	--	--	--
02/12/1998	--		334.22	8.5	14.5	6.35	327.87	--	--	--	--	--	--	--	--
07/31/1998	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
02/17/1999	--		334.22	8.5	14.5	7.50	326.72	--	--	--	--	--	--	--	--
08/24/1999	--		334.22	8.5	14.5	9.50	324.72	--	--	--	--	--	--	--	--
03/01/2000	--		334.22	8.5	14.5	6.93	327.29	--	--	--	--	--	--	--	--
08/18/2000	--		334.22	8.5	14.5	7.03	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		334.22	8.5	14.5	8.10	326.12	--	--	--	--	--	--	--	--
02/09/2001	--		334.22	8.5	14.5	7.97	326.25	--	--	--	--	--	--	--	--
04/17/2001	--		334.22	8.5	14.5	8.90	325.32	--	--	--	--	--	--	--	--
07/17/2001	--		334.22	8.5	14.5	8.59	325.63	--	--	--	--	--	--	--	--
12/21/2001	NP		334.22	8.5	14.5	8.31	325.91	<50	<0.50	<0.50	<0.50	<0.50	4.1/2.0	0.68	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-4 Cont.															
03/06/2002	P		334.22	8.5	14.5	8.27	325.95	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.37	--
04/26/2002	P		334.22	8.5	14.5	8.05	326.17	<50	<0.50	<0.50	<0.50	<0.50	3.6	0.3	--
09/23/2002	P		334.22	8.5	14.5	7.94	326.28	<50	<0.50	<0.50	<0.50	<0.50	2.9	4.1	7.3
12/27/2002	--		334.22	8.5	14.5	7.56	326.66	<50	<0.50	<0.50	<0.50	<0.50	2.6	2.1	6.9
03/12/2003	P	g	334.22	8.5	14.5	7.67	326.55	<50	<0.50	<0.50	<0.50	<0.50	1.6	2.8	6.8
06/28/2003	P	h	336.87	8.5	14.5	7.60	329.27	<50	<0.50	<0.50	<0.50	<0.50	2.1	--	5.6
09/30/2003	--		336.87	8.5	14.5	7.66	329.21	<50	<0.50	<0.50	<0.50	<0.50	1.4	2.2	6.9
12/05/2003	P		336.87	8.5	14.5	5.61	331.26	<50	<0.50	<0.50	<0.50	<0.50	2.3	3.0	--
03/10/2004	P		336.87	8.5	14.5	6.84	330.03	<50	<0.50	<0.50	<0.50	<0.50	2.1	4.0	--
06/21/2004	P		336.87	8.5	14.5	7.35	329.52	<50	<0.50	<0.50	<0.50	<0.50	2.0	5.4	6.2
09/17/2004	P		336.87	8.5	14.5	7.30	329.57	<50	<0.50	<0.50	<0.50	<0.50	3.5	3.0	6.9
12/13/2004	P		336.87	8.5	14.5	7.08	329.79	<50	<0.50	<0.50	<0.50	<0.50	5.4	4.0	6.8
03/03/2005	P		336.87	8.5	14.5	8.11	328.76	<50	<0.50	<0.50	<0.50	<0.50	6.3	2.9	6.9
06/23/2005	P	p	336.87	8.5	14.5	6.70	330.17	--	--	--	--	--	--	2.2	6.7
09/16/2005	P		336.87	8.5	14.5	7.28	329.59	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.2	6.9
12/27/2005	--		336.87	8.5	14.5	7.03	329.84	--	--	--	--	--	--	--	--
03/02/2006	--		336.87	8.5	14.5	6.45	330.42	--	--	--	--	--	--	--	--
6/23/2006	--		336.87	8.5	14.5	6.42	330.45	--	--	--	--	--	--	--	--
9/19/2006	P		336.87	8.5	14.5	7.01	329.86	<50	<0.50	<0.50	<0.50	<0.50	5.8	3.08	6.9
12/19/2006	--		336.87	8.5	14.5	6.85	330.02	--	--	--	--	--	--	--	--
3/29/2007	--		336.87	8.5	14.5	6.23	330.64	--	--	--	--	--	--	--	--
6/5/2007	--		336.87	8.5	14.5	6.72	330.15	--	--	--	--	--	--	--	--
9/25/2007	P		336.87	8.5	14.5	7.53	329.34	<50	<0.50	<0.50	<0.50	<0.50	3.0	2.71	7.07
12/26/2007	--		336.87	8.5	14.5	7.25	329.62	--	--	--	--	--	--	--	--
3/25/2008	--		336.87	8.5	14.5	6.18	330.69	--	--	--	--	--	--	--	--
6/10/2008	--		336.87	8.5	14.5	6.90	329.97	--	--	--	--	--	--	--	--
9/9/2008	P		336.87	8.5	14.5	7.38	329.49	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.68	6.96
12/4/2008	--		336.87	8.5	14.5	7.47	329.40	--	--	--	--	--	--	--	--
3/5/2009	--		336.87	8.5	14.5	6.35	330.52	--	--	--	--	--	--	--	--
6/2/2009	--		336.87	8.5	14.5	6.62	330.25	--	--	--	--	--	--	--	--
10/26/2009	P		336.87	8.5	14.5	7.12	329.75	<50	<0.50	0.57	<0.50	<1.0	4.4	--	6.79

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Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-4															
MW-5															
02/15/1995	--		335.87	11.00	17.50	7.80	328.07	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
08/25/1995	--		335.87	11.00	17.50	9.43	326.44	--	--	--	--	--	--	--	--
11/28/1995	--		335.87	11.00	17.50	10.12	325.75	--	--	--	--	--	--	--	--
02/26/1996	--		335.87	11.00	17.50	6.73	329.14	--	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		335.87	11.00	17.50	7.87	328.00	--	--	--	--	--	--	--	--
08/23/1996	--		335.87	11.00	17.50	9.46	326.41	--	--	--	--	--	--	--	--
03/21/1997	--		335.87	11.00	17.50	8.23	327.64	--	--	--	--	--	--	--	--
08/20/1997	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
11/21/1997	--		335.87	11.00	17.50	10.18	325.69	--	--	--	--	--	--	--	--
02/12/1998	--		335.87	11.00	17.50	6.45	329.42	--	--	--	--	--	--	--	--
07/31/1998	--		335.87	11.00	17.50	8.98	326.89	--	--	--	--	--	--	--	--
02/17/1999	--		335.87	11.00	17.50	7.65	328.22	--	--	--	--	--	--	--	--
08/24/1999	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
03/01/2000	--		335.87	11.00	17.50	7.31	328.56	--	--	--	--	--	--	--	--
08/18/2000	--		335.87	11.00	17.50	8.65	327.22	--	--	--	--	--	--	--	--
12/27/2000	--		335.87	11.00	17.50	9.80	326.07	--	--	--	--	--	--	--	--
02/09/2001	--		335.87	11.00	17.50	9.65	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
07/17/2001	--		335.87	11.00	17.50	9.95	325.92	--	--	--	--	--	--	--	--
12/21/2001	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
09/23/2002	--		335.87	11.00	17.50	7.94	327.93	--	--	--	--	--	--	--	--
12/27/2002	--		335.87	11.00	17.50	7.57	328.30	<50	<0.50	<0.50	<0.50	0.76	15	0.7	6.9
03/12/2003	--	g	335.87	11.00	17.50	8.32	327.55	--	--	--	--	--	--	--	--
06/28/2003	--	h	338.59	11.00	17.50	8.58	330.01	--	--	--	--	--	--	--	--
09/30/2003	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
12/05/2003	P		338.59	11.00	17.50	9.11	329.48	<50	<0.50	<0.50	<0.50	<0.50	22	2.9	--

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-5 Cont.															
03/10/2004	--		338.59	11.00	17.50	7.57	331.02	--	--	--	--	--	--	--	--
06/21/2004	--		338.59	11.00	17.50	8.68	329.91	--	--	--	--	--	--	--	--
09/17/2004	--	Well inaccessible	338.59	11.00	17.50	--	--	--	--	--	--	--	--	--	--
09/24/2004	P		338.59	11.00	17.50	8.53	330.06	<50	<0.50	<0.50	<0.50	<0.50	17	1.9	6.8
12/13/2004	--		338.59	11.00	17.50	8.28	330.31	--	--	--	--	--	--	--	--
03/03/2005	--		338.59	11.00	17.50	6.78	331.81	--	--	--	--	--	--	--	--
06/23/2005	--		338.59	11.00	17.50	8.27	330.32	--	--	--	--	--	--	--	--
09/16/2005	P		338.59	11.00	17.50	9.57	329.02	<50	<0.50	<0.50	<0.50	<0.50	69	1.3	7.0
12/27/2005	--		338.59	11.00	17.50	8.72	329.87	--	--	--	--	--	--	--	--
03/02/2006	--		338.59	11.00	17.50	8.11	330.48	--	--	--	--	--	--	--	--
6/23/2006	--		338.59	11.00	17.50	8.54	330.05	--	--	--	--	--	--	--	--
9/19/2006	P		338.59	11.00	17.50	9.21	329.38	52	<0.50	<0.50	<0.50	<0.50	82	1.50	6.9
12/19/2006	--		338.59	11.00	17.50	9.00	329.59	--	--	--	--	--	--	--	--
3/29/2007	--		338.59	11.00	17.50	8.53	330.06	--	--	--	--	--	--	--	--
6/5/2007	--		338.59	11.00	17.50	8.42	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.59	11.00	17.50	9.80	328.79	<50	<0.50	<0.50	<0.50	<0.50	18	3.88	7.05
12/26/2007	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
3/25/2008	--		338.59	11.00	17.50	8.31	330.28	--	--	--	--	--	--	--	--
6/10/2008	--		338.59	11.00	17.50	9.19	329.40	--	--	--	--	--	--	--	--
9/9/2008	P		338.59	11.00	17.50	9.69	328.90	<50	<0.50	<0.50	<0.50	<0.50	27	2.68	7.00
12/4/2008	--		338.59	11.00	17.50	9.79	328.80	--	--	--	--	--	--	--	--
3/5/2009	--		338.59	11.00	17.50	7.68	330.91	--	--	--	--	--	--	--	--
6/2/2009	--		338.59	11.00	17.50	8.87	329.72	--	--	--	--	--	--	--	--
10/26/2009	P		338.59	11.00	17.50	9.36	329.23	<50	<0.50	<0.50	<0.50	<1.0	8.6	--	6.8
MW-6															
02/15/1995	--		335.84	8.5	12.7	7.81	328.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.84	8.5	12.7	8.35	327.49	--	--	--	--	--	--	--	--
08/25/1995	--		335.84	8.5	12.7	9.71	326.13	--	--	--	--	--	--	--	--
11/28/1995	--		335.84	8.5	12.7	10.28	325.56	--	--	--	--	--	--	--	--
02/26/1996	--		335.84	8.5	12.7	6.60	329.24	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
05/23/1996	--		335.84	8.5	12.7	8.05	327.79	--	--	--	--	--	--	--	--
08/23/1996	--		335.84	8.5	12.7	9.58	326.26	--	--	--	--	--	--	--	--
03/21/1997	--		335.84	8.5	12.7	8.39	327.45	--	--	--	--	--	--	--	--
08/20/1997	--		335.84	8.5	12.7	9.98	325.86	--	--	--	--	--	--	--	--
11/21/1997	--		335.84	8.5	12.7	10.31	325.53	--	--	--	--	--	--	--	--
02/12/1998	--		335.84	8.5	12.7	3.15	332.69	--	--	--	--	--	--	--	--
07/31/1998	--		335.84	8.5	12.7	9.29	326.55	--	--	--	--	--	--	--	--
02/17/1999	--		335.84	8.5	12.7	7.72	328.12	--	--	--	--	--	--	--	--
08/24/1999	--		335.84	8.5	12.7	9.65	326.19	--	--	--	--	--	--	--	--
03/01/2000	--		335.84	8.5	12.7	7.35	328.49	--	--	--	--	--	--	--	--
08/18/2000	--		335.84	8.5	12.7	8.65	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		335.84	8.5	12.7	9.83	326.01	--	--	--	--	--	--	--	--
02/09/2001	--		335.84	8.5	12.7	9.62	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.84	8.5	12.7	10.03	325.81	--	--	--	--	--	--	--	--
07/17/2001	--		335.84	8.5	12.7	9.95	325.89	--	--	--	--	--	--	--	--
12/21/2001	NP		335.84	8.5	12.7	9.47	326.37	<50	<0.50	<0.50	<0.50	0.57	<2.5	0.55	--
03/06/2002	P		335.84	8.5	12.7	9.31	326.53	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.33	--
04/26/2002	P		335.84	8.5	12.7	9.09	326.75	<50	<0.50	<0.50	<0.50	0.7	<2.5	0.31	--
09/23/2002	P		335.84	8.5	12.7	9.14	326.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	7.4
12/27/2002	--		335.84	8.5	12.7	7.26	328.58	<50	<0.50	<0.50	<0.50	0.63	0.91	0.8	7.0
03/12/2003	P	g	335.84	8.5	12.7	8.41	327.43	<50	<0.50	<0.50	<0.50	<0.50	0.64	1.3	7.2
06/28/2003	P	h	338.37	8.5	12.7	8.56	329.81	<50	<0.50	<0.50	<0.50	<0.50	0.62	1.6	6.8
09/30/2003	--		338.37	8.5	12.7	9.32	329.05	<250	<2.5	<2.5	<2.5	<2.5	3.9	0.8	7.0
12/05/2003	--		338.37	8.5	12.7	8.96	329.41	--	--	--	--	--	--	--	--
03/10/2004	--		338.37	8.5	12.7	7.65	330.72	--	--	--	--	--	--	--	--
06/21/2004	--		338.37	8.5	12.7	8.58	329.79	--	--	--	--	--	--	--	--
09/17/2004	P		338.37	8.5	12.7	8.47	329.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.0
12/13/2004	--		338.37	8.5	12.7	8.04	330.33	--	--	--	--	--	--	--	--
03/03/2005	--		338.37	8.5	12.7	6.60	331.77	--	--	--	--	--	--	--	--
06/23/2005	--		338.37	8.5	12.7	8.14	330.23	--	--	--	--	--	--	--	--
09/16/2005	P		338.37	8.5	12.7	8.66	329.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
12/27/2005	--		338.37	8.5	12.7	7.79	330.58	--	--	--	--	--	--	--	--
03/02/2006	--		338.37	8.5	12.7	7.15	331.22	--	--	--	--	--	--	--	--
6/23/2006	--		338.37	8.5	12.7	7.70	330.67	--	--	--	--	--	--	--	--
9/19/2006	P		338.37	8.5	12.7	8.30	330.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.50	7.3
12/19/2006	--		338.37	8.5	12.7	7.90	330.47	--	--	--	--	--	--	--	--
3/29/2007	--		338.37	8.5	12.7	7.72	330.65	--	--	--	--	--	--	--	--
6/5/2007	--		338.37	8.5	12.7	8.18	330.19	--	--	--	--	--	--	--	--
9/25/2007	NP		338.37	8.5	12.7	8.86	329.51	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.87	6.84
12/26/2007	--		338.37	8.5	12.7	8.25	330.12	--	--	--	--	--	--	--	--
3/25/2008	--		338.37	8.5	12.7	7.35	331.02	--	--	--	--	--	--	--	--
6/10/2008	--		338.37	8.5	12.7	8.23	330.14	--	--	--	--	--	--	--	--
9/9/2008	P		338.37	8.5	12.7	8.65	329.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.41	7.33
12/4/2008	--		338.37	8.5	12.7	8.80	329.57	--	--	--	--	--	--	--	--
3/5/2009	--		338.37	8.5	12.7	6.34	332.03	--	--	--	--	--	--	--	--
6/2/2009	--		338.37	8.5	12.7	7.96	330.41	--	--	--	--	--	--	--	--
10/26/2009	P		338.37	8.5	12.7	8.26	330.11	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	6.8
MW-7															
12/21/2001	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
09/23/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
12/27/2002	--	e	--	--	8.0	7.74	--	<50	<0.50	<0.50	<0.50	<0.50	4.7	2.7	7.0
03/12/2003	--	g, j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
06/28/2003	--	h, j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/30/2003	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/05/2003	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
03/10/2004	--		338.62	--	8.0	7.78	330.84	--	--	--	--	--	--	--	--
06/21/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/17/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/13/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #6041, 7249 Village Parkway, Dublin, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-7 Cont.															
03/03/2005	--		338.62	--	8.0	6.81	331.81	--	--	--	--	--	--	--	--
06/23/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/16/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/27/2005	--		338.62	--	8.0	7.90	330.72	--	--	--	--	--	--	--	--
03/02/2006	--		338.62	--	8.0	7.39	331.23	--	--	--	--	--	--	--	--
6/23/2006	--		338.62	--	8.0	7.90	330.72	--	--	--	--	--	--	--	--
9/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/29/2007	--	j	338.62	--	8.0	7.95	330.67	--	--	--	--	--	--	--	--
6/5/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/25/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/26/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/25/2008	--		338.62	--	8.0	7.51	331.11	--	--	--	--	--	--	--	--
6/10/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/9/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/4/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/5/2009	--		338.62	--	8.0	6.70	331.92	--	--	--	--	--	--	--	--
6/2/2009	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
10/26/2009	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
MW-8															
12/21/2001	NP		--	--	12.6	8.70	--	<5,000	67	<50	<50	<50	2,400/1,300	0.60	--
03/06/2002	P		--	--	12.6	8.63	--	210	41	0.64	0.79	2.0	940	0.25	--
03/06/2002	--	i	--	--	12.6	--	--	170	37	0.67	0.7	1.9	740	--	--
04/26/2002	P		--	--	12.6	8.15	--	680	95	<1.0	14	2.5	490	0.31	--
04/26/2002	--	i	--	--	12.6	--	--	480	74	3.5	11	<1.0	640	--	--
09/30/2002	P	c	--	--	12.6	9.37	--	1,100	120	<5.0	57	8.7	1,100	1.3	6.9
12/27/2002	P	b	--	--	12.6	7.55	--	350	13	<0.50	2.4	2.2	73	0.8	6.9
03/12/2003	P	g	--	--	12.6	8.25	--	<2,500	89	<25	<25	<25	740	1.4	6.9
06/28/2003	P	h	338.27	--	12.6	8.38	329.89	7,000	680	<25	110	180	2,900	1.9	4.8
09/30/2003	P	a	338.27	--	12.6	9.09	329.18	1,500	240	18	45	150	180	1.0	6.8

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-8 Cont.															
12/05/2003	P		338.27	--	12.6	8.37	329.90	590	60	<2.5	15	4.2	150	1.5	7.1
03/10/2004	P		338.27	--	12.6	7.41	330.86	690	50	<5.0	7.4	6.8	370	2.2	6.3
06/21/2004	P		338.27	--	12.6	8.41	329.86	1,300	200	<5.0	65	82	400	0.8	6.8
09/17/2004	P		338.27	--	12.6	8.25	330.02	580	17	<0.50	1.9	5.8	22	1.3	6.6
12/13/2004	P		338.27	--	12.6	7.78	330.49	380	24	<0.50	18	4.9	6.6	1.0	6.7
03/03/2005	P		338.27	--	12.6	6.48	331.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	6.8
06/23/2005	P	n	338.27	--	12.6	7.91	330.36	160	10	<0.50	3.8	5.4	26	1.8	6.8
09/16/2005	P		338.27	--	12.6	8.38	329.89	1,700	340	5.0	100	95	49	2.5	6.8
12/27/2005	--		338.27	--	12.6	7.60	330.67	--	--	--	--	--	--	--	--
03/02/2006	P		338.27	--	12.6	6.93	331.34	<250	10	<2.5	4.4	2.6	14	0.8	6.8
6/23/2006	--		338.27	--	12.6	7.55	330.72	--	--	--	--	--	--	--	--
9/19/2006	P		338.27	--	12.6	8.21	330.06	600	70	<2.5	24	3.2	89	0.81	6.8
12/19/2006	--		338.27	--	12.6	7.89	330.38	--	--	--	--	--	--	--	--
3/29/2007	P		338.27	--	12.6	7.55	330.72	95	3.1	<0.50	0.58	<0.50	5.1	1.67	7.35
6/5/2007	--		338.27	--	12.6	8.10	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.27	--	12.6	8.82	329.45	400	2.2	<0.50	<0.50	<0.50	3.5	2.84	6.77
12/26/2007	--		338.27	--	12.6	8.23	330.04	--	--	--	--	--	--	--	--
3/25/2008	P		338.27	--	12.6	6.43	331.84	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	8.08
6/10/2008	--		338.27	--	12.6	8.15	330.12	--	--	--	--	--	--	--	--
9/9/2008	P		338.27	--	12.6	8.62	329.65	920	130	1.5	24	8.1	16	3.20	6.93
12/4/2008	--		338.27	--	12.6	8.74	329.53	--	--	--	--	--	--	--	--
3/5/2009	P		338.27	--	12.6	6.49	331.78	180	0.72	<0.50	<0.50	<0.50	0.89	5.69	7.40
6/2/2009	--		338.27	--	12.6	6.80	331.47	--	--	--	--	--	--	--	--
10/26/2009	P		338.27	--	12.6	8.12	330.15	420	<2.5	<2.5	<2.5	<5.0	3.6	--	6.7
Shell MW-7															
12/27/2000	P		--	--	--	6.45	--	<50.0	<0.500	0.696	<0.500	0.795	<2.50	1.33	--
02/09/2001	P		--	--	--	6.39	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.13	--
04/17/2001	P		--	--	--	7.22	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.12	--
07/17/2001	P		--	--	--	6.93	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	--
12/21/2001	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
Shell MW-7 Cont.															
03/06/2002	P		--	--	--	7.03	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.95	--
04/26/2002	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.95	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
Shell MW-6															
12/27/2000	P		--	--	--	9.13	--	74.7	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	--
12/27/2000	--	i	--	--	--	--	--	79.3	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
02/09/2001	P		--	--	--	9.05	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.29	--
04/17/2001	P		--	--	--	10.17	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	--
07/17/2001	P	i	--	--	--	9.50	--	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.03	--
12/21/2001	P		--	--	--	9.98	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
03/06/2002	P		--	--	--	9.90	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.97	--
04/26/2002	P		--	--	--	9.47	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
VW-2															
03/21/1997	--		--	4.0	9.5	8.22	--	150	8.9	<0.5	<0.5	0.6	270	--	--
08/20/1997	--		--	4.0	9.5	9.16	--	--	--	--	--	--	--	--	--
11/21/1997	--		--	4.0	9.5	8.27	--	<200	3	<2	<2	<2	180	--	--
02/12/1998	--		--	4.0	9.5	6.65	--	200	19	<0.5	0.6	<0.5	2,200	--	--
07/31/1998	--		--	4.0	9.5	7.01	--	--	--	--	--	--	--	--	--
02/17/1999	--		--	4.0	9.5	8.47	--	--	--	--	--	--	--	--	--
08/24/1999	--		--	4.0	9.5	8.20	--	--	--	--	--	--	--	--	--
03/01/2000	--		--	4.0	9.5	8.72	--	--	--	--	--	--	--	--	--
08/18/2000	NP		--	4.0	9.5	8.40	--	<250	<2.50	<2.50	<2.50	<2.50	537	1.59	--
12/27/2000	--	j	--	4.0	9.5	8.95	--	--	--	--	--	--	--	--	--
02/09/2001	--	j	--	4.0	9.5	8.87	--	--	--	--	--	--	--	--	--
04/17/2001	--	j	--	4.0	9.5	9.00	--	--	--	--	--	--	--	--	--
07/17/2001	--	j	--	4.0	9.5	8.97	--	--	--	--	--	--	--	--	--
12/21/2001	--	k	--	4.0	9.5	--	--	--	--	--	--	--	--	--	--

SYMBOLS AND ABBREVIATIONS:

-- = Not sampled/analyzed/available/applicable
< = Not detected at or above specified laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
ft bgs = Feet below ground surface
GRO = Gasoline range organics
GWE = Groundwater elevation in ft MSL
mg/L = Milligrams per liter
ft MSL = Feet above mean sea level
MTBE = Methyl tert-butyl ether
NP = Well was not purged prior to sampling
P = Well was purged prior to sampling
TOC = Top of casing elevation in ft MSL
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter

FOOTNOTES:

a = Discrete peak at C6-C7 for GRO/TPH-g.
b = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.
c = Chromatogram Pattern: C6-C10 for GRO/TPH-g.
d = Well casing broken, TOC unknown.
e = Well mistakenly sampled this quarter.
f = Well casing was repaired and needs to be resurveyed.
g = Beginning the 1st quarter of 2003, TPH-g, benzene, toluene, ethylbenzene, total xylenes, and MTBE were analyzed by EPA Method 8260B.
h = Elevations resurveyed on 7/21/2003.
i = Blind duplicate sample.
j = Well was dry.
k = Well abandoned.
m = Well inaccessible.
n = Opening calibration verification standard for MTBE outside acceptance criteria.
o = Well dewatered.
p = VOAs broken prior to analysis of sample.
q = Hydrocarbon results partly due to indiv. peak(s) in quant. range (GRO).

NOTES:

For previous historical GWE and analytical data please refer to fourth quarter 1995 groundwater monitoring program results, ARCO Service Station 6041, Dublin, California, (EMCON, 02/26/96).

pH levels for Well MW-3 on 12/05/03 ranged from 7.2 to 11.25.

The values for DO and pH levels were obtained through field measurements.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through September 30, 2009. GRO analysis was changed to EPA method 8260B (C6-C12) for the time period October 1, 2009 through the present.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.