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**FOURTH QUARTER 2006
GROUNDWATER MONITORING
AND ANNUAL SUMMARY REPORT**

**240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA**

Prepared for:

**MR. GLEN POY-WING
OAKLAND AUTO WORKS
OAKLAND, CALIFORNIA**

January 2007

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Prepared for:

**MR. GLEN POY-WING
OAKLAND AUTO WORKS
240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94612**

Prepared by:

**STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET
BERKELEY, CALIFORNIA 94710**

January 16, 2007

Project No. 2003-43

January 16, 2007

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Environmental Health Department
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Fourth Quarter 2006 Groundwater Monitoring and Annual Summary Report
Oakland Auto Works Facility – 240 W. MacArthur Boulevard, Oakland, California
Alameda County Health Department Fuel Leak Case No. RO0000142

Dear Mr. Hwang:

Enclosed is the Stellar Environmental Solutions, Inc. report presenting the findings of the Fourth Quarter 2006 groundwater monitoring event for the Oakland Auto Works facility. This is the 33rd site groundwater monitoring event since August 1997.

This report also summarizes historical findings, evaluates hydrologic and hydrochemical contaminant trends, and assesses contaminant plume stability and the potential for migration. This report was uploaded to both the Water Board's GeoTracker system and the Alameda County Environmental Health Department's Electronic Upload ftp system.

If you have any questions regarding this report, please contact us at (510) 644-3123.

Sincerely,



Richard S. Makdisi, R.G., R.E.A.
Principal

cc: Mr. Glen Poy-Wing, Property Owner

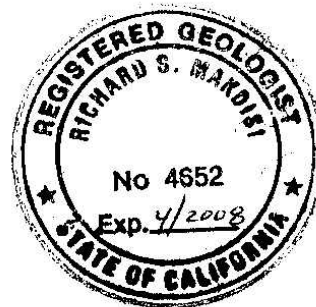


TABLE OF CONTENTS

	Page
1.0 INTRODUCTION	1
Project Background.....	1
Regulatory Status	1
Scope of Report.....	2
Site Description.....	2
Historical Environmental Activities.....	2
2.0 PHYSICAL SETTING	6
Topography and Surface Water Drainage.....	6
Lithology	6
Groundwater Hydrology	7
3.0 DECEMBER 2006 GROUNDWATER MONITORING AND SAMPLING.....	10
4.0 REGULATORY CONSIDERATIONS, ANALYTICAL RESULTS AND FINDINGS	12
Regulatory Considerations.....	12
Groundwater Sample Analytical Methods.....	15
Groundwater Sample Results.....	15
Quality Control Sample Analytical Results.....	21
5.0 EVALUATION OF HYDROCHEMICAL TRENDS AND PLUME STABILITY ..	22
Contaminant Source Assessment	22
Water Level Trends.....	23
Hydrochemical Trends.....	25
Plume Geometry and Migration Indications	33
Closure Criteria Assessment and Proposed Actions	33
6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS.....	35
Summary and Conclusions.....	35
Proposed Actions	36

TABLE OF CONTENTS (continued)

Section	Page
7.0 REFERENCES AND BIBLIOGRAPHY	38
8.0 LIMITATIONS	43

Appendices

Appendix A	Current Event Groundwater Monitoring Field Records
Appendix B	Current Event Analytical Laboratory Report and Chain-of-Custody Record
Appendix C	Historical Analytical Results
Appendix D	Historical Groundwater Elevation Data

TABLES AND FIGURES

Tables	Page
Table 1 Groundwater Monitoring Well Construction and Groundwater Elevation Data 240 W. MacArthur Boulevard, Oakland, California.....	11
Table 2 Groundwater Sample Analytical Results –December 13, 2006 Hydrocarbons, BTEX and MTBE 240 W. MacArthur Boulevard, Oakland, California.....	13
Table 3 Groundwater Sample Analytical Results – December 13, 2006 Lead Scavengers and Fuel Oxygenates 240 W. MacArthur Boulevard, Oakland, California.....	14

Figures	Page
Figure 1 Site Location Map	3
Figure 2 Site Plan	4
Figure 3 Groundwater Elevation Map –December 13, 2006.....	9
Figure 4 Gasoline Isoconcentration Contours – December 2006.....	16
Figure 5 Diesel Isoconcentration Contours – December 2006.....	18
Figure 6 Benzene Isoconcentration Contours – December 2006	19
Figure 7 MTBE Isoconcentration Contours – December 2006.....	20
Figure 8 Historical Groundwater Elevations in Monitoring Wells	24
Figure 9 Gasoline Hydrochemical Trends – Source Area Wells.....	25
Figure 10 Gasoline Hydrochemical Trends – Downgradient Wells.....	27
Figure 11 Diesel Hydrochemical Trends – Source Area Wells.....	28
Figure 12 Diesel Hydrochemical Trends – Downgradient Wells.....	29
Figure 13 Benzene Hydrochemical Trends	31
Figure 14 MTBE Hydrochemical Trends.....	32

1.0 INTRODUCTION

PROJECT BACKGROUND

The subject property, located at 240 W. MacArthur Boulevard, Oakland, Alameda County, California, is owned by Glen Poy-Wing and his wife of Oakland Auto Works, for whom Stellar Environmental Solutions, Inc. (SES) has provided environmental consulting services since July 2003. The site has undergone contaminant investigations and remediation since 1991 (discussed below). A list of all known environmental reports is included in Section 7.0, References and Bibliography. This report presents findings for the 33rd site groundwater monitoring event since monitoring began in August 1997.

In 2002, the current property owners purchased the property and assumed responsibility for continued environmental investigations. The property was formerly owned by Mr. Warren Dodson (Dodson Ltd.) and operated as Vogue Tyres.

REGULATORY STATUS

The Alameda County Health Care Services Agency, Department of Environmental Health (Alameda County Health) is the lead regulatory agency for the case, acting as a Local Oversight Program (LOP) for the Regional Water Quality Control Board – San Francisco Bay Region (Water Board). There are no Alameda County Health or Water Board cleanup orders for the site; however, all site work has been conducted under oversight of Alameda County Health. In our August 2003 review of the Alameda County Health case file, we determined that all known technical reports for the site were included in that file.

The previous consultant requested site closure in March 2003 (AEC, 2003a). Alameda County Environmental Health denied that request and, in a letter dated April 16, 2003, requested additional site characterization prior to considering case closure. That work was subsequently conducted by SES, and was summarized in our April 2004 Soil and Groundwater Investigation Report (SES, 2004c).

In December 2004, SES submitted a workplan for interim remedial action (including additional site characterization and an evaluation of soil vapor extraction as an interim corrective action). Alameda County Environmental Health responded to that workplan in its March 2006 letter (Water Board, 2006) approving the work (with minor technical revisions). The first technical

submittal deadline was July 17, 2006, for the subsurface investigation portion of the work; however, Mr. Poy-Wing requested a deadline extension due to his exploration of a real estate sale of the property.

The site is in compliance with State of California GeoTracker requirements for uploading technical data and reports. In addition, electronic copies of technical documentation reports published since Q2 2005 have been uploaded to Alameda County Environmental Health's file transfer protocol (ftp) system. Per Alameda County Environmental Health's October 31, 2005 "Miscellaneous Administrative Topics and Procedures" directive, effective January 31, 2006, paper copies of reports will no longer be provided to Alameda County Environmental Health.

The site has been granted a Letter of Commitment (and has been receiving financial reimbursement) from the California Underground Storage Tank Cleanup Fund.

SCOPE OF REPORT

- This report discusses the work conducted between October 1 and December 31, 2006 (specifically, the 33st site monitoring event, conducted on December 13, 2006)
- An evaluation of historical analytical results, hydrochemical and hydrologic trends, and the stability of the groundwater contaminant plume.

SITE DESCRIPTION

The project site is located at 240 W. MacArthur Boulevard in Oakland, California (see Figure 1). The rectangular-shaped project site is approximately 14,000 square feet (140 feet long by 100 feet wide), and is oriented with its long axis parallel to W. MacArthur Boulevard (approximately northwest-southeast). The project site is essentially flat and is wholly paved. One structure currently exists on the property—an automobile servicing shop that covers approximately 50 percent of the property. The building is currently occupied by Oakland Auto Works. Figure 2 is a site plan showing adjacent land uses.

Adjacent land use includes: a Shell-branded service station (*to the south*); W. MacArthur Boulevard (*to the west*); Howe Street (*to the north*); and a paved driveway, then a multi-story (with basement) health services building (*to the east*).

HISTORICAL ENVIRONMENTAL ACTIVITIES

This section summarizes historical (prior to the current quarter) environmental remediation and site characterization activities, based on documentation provided by the current property owners as well as Alameda County Health files. Figure 2 shows the site plan with the current groundwater well and former underground fuel storage tanks (UFSTs) locations.



SITE LOCATION ON U.S.G.S. TOPOGRAPHIC MAP

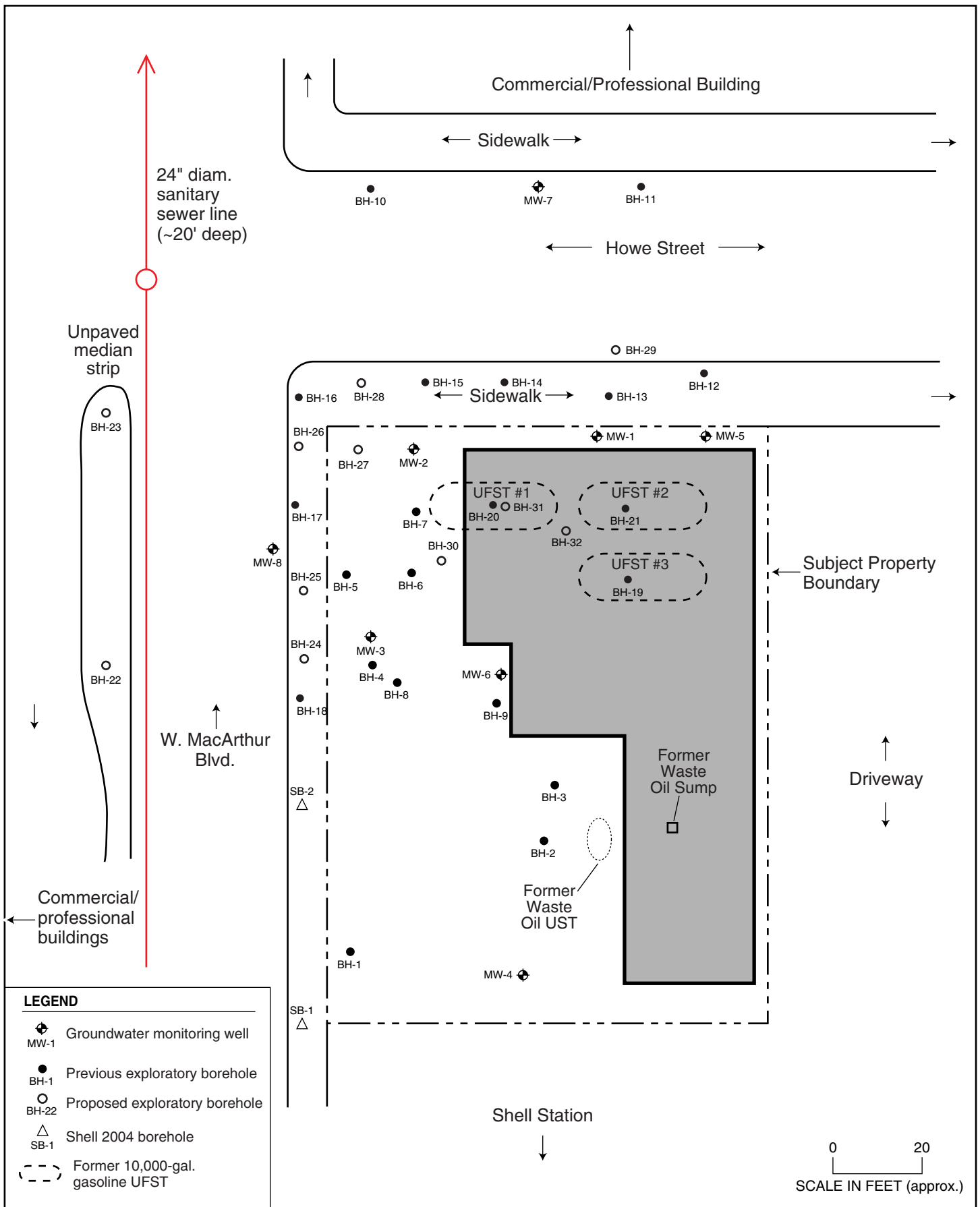
240 W. MacArthur Blvd.
Oakland, CA

By: MJC

APRIL 2004

Figure 1

★ Stellar Environmental Solutions, Inc.
Geoscience & Engineering Consulting



SITE PLAN WITH BOREHOLE AND GROUNDWATER WELL LOCATIONS

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

JANUARY 2005

Figure 2

Stellar Environmental Solutions, Inc.
Geoscience & Engineering Consulting

2003-43-94



Historical remediation and site characterization activities include:

- **Pre-1991.** Three 10,000-gallon gasoline UFSTs from a former Gulf service station occupancy were removed prior to 1991 (there is no available documentation regarding their removals).
- **1991.** A waste oil sump was removed. Limited overexcavation was conducted, and there was no evidence of residual soil contamination, with the exception of 360 mg/kg of petroleum oil & grease (Mittelhauser Corporation, 1991b).
- **1996.** A 350-gallon waste oil UST was removed. Elevated levels of diesel and oil & grease were detected in confirmation soil samples. Subsequent overexcavation was conducted, and there was no evidence of residual soil contamination (All Environmental, Inc., 1997a).
- **January 1997.** In accordance with a request by Alameda County Health, a subsurface investigation was conducted (All Environmental, Inc., 1997b). Six exploratory boreholes were advanced to a maximum depth of 20 feet, and soil samples were collected.
- **August 1997.** Additional site characterization was conducted, which included sampling three boreholes, installing four groundwater monitoring wells, and conducting the initial groundwater sampling event.
- **December 2000.** Quarterly (approximately) groundwater monitoring began.
- **February 2001.** Four additional groundwater monitoring wells were installed. Maximum historical soil concentrations were detected in well MW-5 in the northeastern corner of the subject property: 11,700 mg/kg of gasoline and 25.6 mg/kg of benzene (AEC, 2001b).
- **October 2001.** Short-term (less than 1-day duration) groundwater and vapor extraction from five wells was conducted over 4 days (AEC, 2001e) (referred to by that consultant as “Hi-Vac” process).
- **2003.** A sensitive receptor and vicinity water well survey was conducted.
- **April 2004.** Additional site characterization was conducted, including: advancing and sampling 12 exploratory boreholes; analyzing 64 soil and 12 grab-groundwater sample results; and further evaluating site hydrogeology and contaminant extent and magnitude.
- **June 2004 to present.** Quarterly groundwater monitoring events.

To date, a total of 33 groundwater monitoring events have been conducted at the site.

2.0 PHYSICAL SETTING

The following evaluation of the physical setting of the site—including topography, surface water drainage, and geologic and hydrogeologic conditions—is based on previous (1991 through April 2003) site investigations conducted by others, and site inspections and groundwater monitoring data collected by SES since 2003.

TOPOGRAPHY AND SURFACE WATER DRAINAGE

The site is on a gently-sloping alluvial fan at the base of the Berkeley/Oakland Hills, which rise approximately 1,100 feet above mean sea level (amsl) and are located approximately 3 miles east of San Francisco Bay. The mean elevation of the subject property is approximately 82 feet amsl. The subject property is essentially flat, with a local topographic gradient to the west. The nearest surface water bodies are: 1) Glen Echo Creek, a northeast-southwest trending creek located approximately 800 feet southeast of the subject property; and 2) Rockridge Branch, a north-south trending creek located approximately 1,000 feet northwest of the subject property. Both creeks are culverted underground in the areas nearest to the subject property.

LITHOLOGY

The unsaturated zone (from ground surface to approximately 20 feet below ground surface [bgs]) consists of interbedded silty/sandy clays with silty/clayey sand, with occasional gravelly zones. In the sand zones, clay and/or silt content is high, and the sand is generally very fine- to fine-grained—such that the unit is, in essence, gradational between a clayey sand and a sandy clay. The most laterally-extensive unsaturated zone unit is a sandy clay encountered between ground surface and approximately 15 feet, locally pinching out and displaying lenticular form. Locally, this unit is interbedded with a sandy clay. The sediment types and geometry are suggestive of channel deposits, which is a common depositional facies in this area.

Depth to groundwater in all onsite April 2004 boreholes was approximately 20 to 21 feet bgs, predominantly in a saturated, loose, clayey sand. The saturated portion of this clayey sand constitutes the bottom of the unit; the saturated zone is approximately 0.5 to 2.5 feet thick, underlain in all boreholes by a cohesive, non-water-bearing clay. The top of this clay was consistently at a depth between approximately 21 and 23 feet. Of the 12 boreholes, 9 were advanced at least 1.5 feet into this clay before terminating (and not encountering visible moisture or sand). One of the boreholes was advanced deeper, documenting a thickness of at least 4.5

feet. The lithologic data (supported by soil sample analytical data) strongly suggest that this clay unit inhibits downward migration of groundwater contamination.

The site lithology is consistent with that documented at the adjacent Shell service station site. Specifically, the boreholes document that the thin upper, water-bearing zone is underlain by what site-specific data suggest is a non-water-bearing clay unit. In three of the four well boreholes at the Shell site, that clay unit was at least 2 feet thick. In one of the well boreholes, the clay unit was underlain by a saturated clayey sand unit (from approximately 22 to 25.5 feet bgs, which was underlain by a non-water-bearing clay). There are insufficient data to conclude whether the second deepest saturated clayey sand is connected to the most shallow saturated zone above it that occurs across the site. The subsequent (March 2004) Shell boreholes SB-1 and SB-2 (between the Shell wells and the subject property) all terminated at 20 feet bgs, which was too shallow to encounter the underlying clay unit.

GROUNDWATER HYDROLOGY

The number and positioning of the existing eight site monitoring wells is currently adequate to evaluate the general groundwater flow direction and gradient. Four of the wells (MW-1, MW-2, MW-3, and MW-4) are screened between approximately 25 and 15 feet bgs, and the other four (MW-5, MW-6, MW-7, and MW -8) are screened at a depth of 10 to 20 feet.

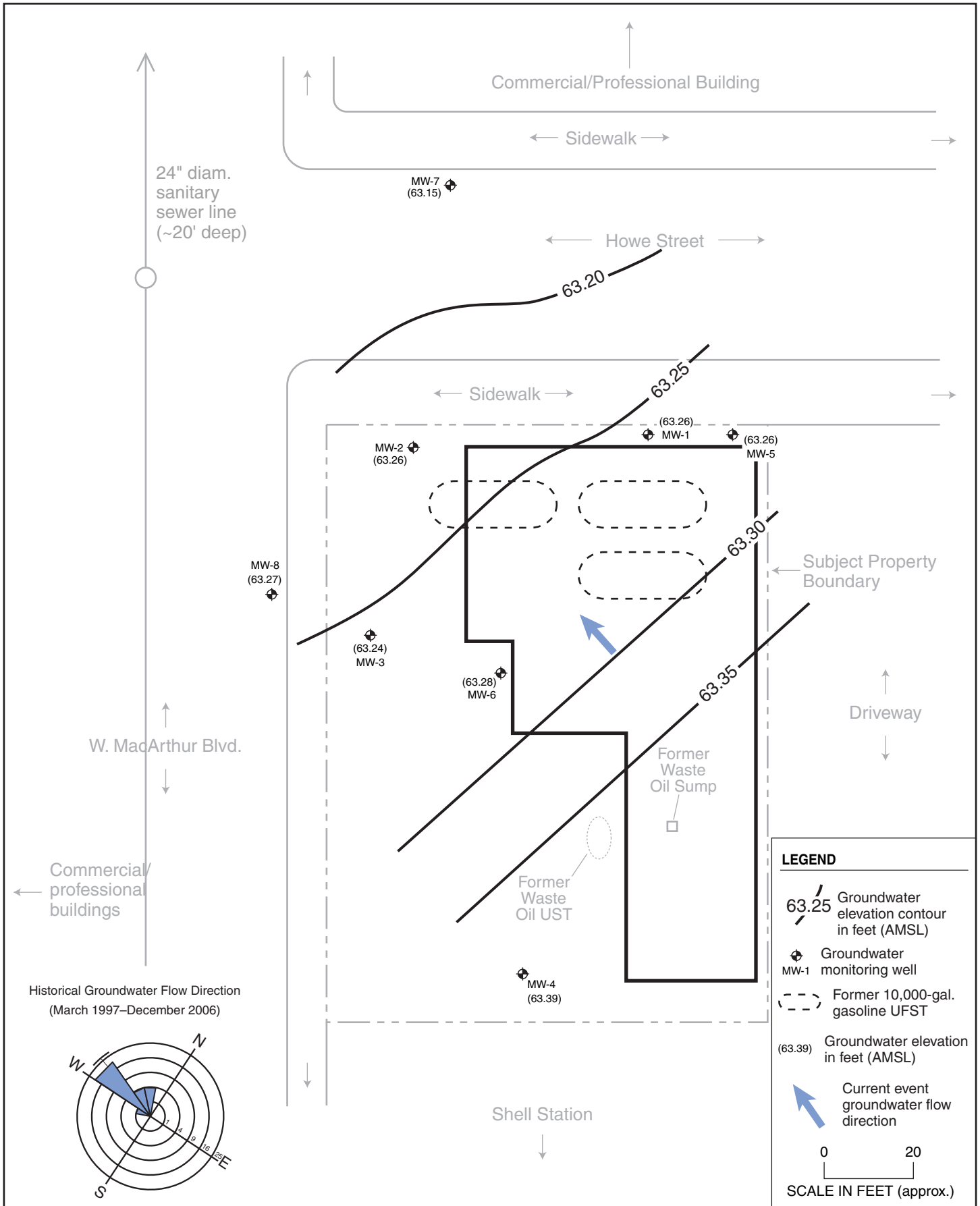
Figure 3 is a groundwater elevation map that shows elevations and contours from the most recent (December 2006) groundwater monitoring event. Groundwater flow direction in this event was to the west. A generally westward (with a slight southern component) groundwater flow direction has also been measured at the adjacent Shell-branded service station (Cambria Environmental Technology, 2003). Subject property groundwater gradient in the current event was relatively flat, at approximately 0.003 feet/foot. Historical groundwater gradient has varied between approximately 0.002 feet/foot and 0.008 feet/foot, averaging approximately 0.005 feet/foot.

Figure 3 includes a rose diagram that shows historical groundwater flow direction measured at the site. The rose diagram is a histogram that has been wrapped around a circle, and has the following characteristics:

- Each wedge represents a 15-degree arc of groundwater flow direction.
- The length of each wedge (circle radius) represents the number of sampling events with data falling within the 15-degree arc.
- The bold black line from the center of the circle to the outer edge is the mean groundwater flow direction.

- The arcs extending to either side of the mean groundwater flow direction line represent the 95-degree confidence interval of the data.

Historical equilibrated water levels (in wells) have been measured at depths of approximately 13 to 16 feet (slightly higher than first occurrence of groundwater encountered during drilling), indicating that groundwater occurs under slightly confining conditions. Section 5.0 discusses historical groundwater elevations and flow direction trends.



GROUNDWATER ELEVATION MAP—December 13, 2006

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

JANUARY 2007

Figure 3



2003-43-142

3.0 DECEMBER 2006 GROUNDWATER MONITORING AND SAMPLING

This section presents the groundwater sampling and analytical methods for the most recent event (Fourth Quarter 2006), conducted on December 13, 2006. Table 1 summarizes monitoring well construction and groundwater monitoring data. Groundwater analytical results are presented and discussed in Section 4.0. Monitoring and sampling protocols were in accordance with the SES technical workplan (SES, 2003) submitted to Alameda County Health, and subsequent technical revision requested by Alameda County Health. The December 2006 groundwater sampling event involved the collection of one set of “post-purge” samples from all wells, in accordance with recent revisions to the quarterly monitoring program approved by Alameda County Health. Specific activities for this event included:

- Measuring static water levels and field measurement of “pre-purge” groundwater samples for hydrogeochemical parameters (temperature, pH, electrical conductivity, turbidity, and dissolved oxygen) in the eight site wells;
- Collecting “post-purge” groundwater samples from the eight onsite wells for field measurement of the aforementioned hydrogeochemical parameters, and for offsite laboratory analyses for contaminants of concern.

The locations of all site monitoring wells are shown on Figure 2. Well construction information and water level data are summarized in Table 1. All site wells are 2-inch-diameter PVC, although the borehole geologic logs for MW-1 through MW-4 completed by the previous consultant mistakenly indicated that they are 4-inch-diameter. Appendix A contains the groundwater monitoring field records for the current event.

Groundwater monitoring well water level measurements, sampling, and field analyses were conducted by Blaine Tech Services (San Jose, California) on December 13, 2006, under the direct supervision of SES personnel. To minimize the potential for cross-contamination, wells were purged and sampled in order of anticipated increasing contamination (based on analytical results from the previous quarter).

As the first monitoring task, static water levels were measured in the eight site wells using an electric water level indicator. Grab-groundwater samples were then collected from each well (using a new disposable bailer) and field-analyzed for aquifer stability parameters—including temperature, pH, electrical conductivity, turbidity, and dissolved oxygen.

Table 1
Groundwater Monitoring Well Construction and Groundwater Elevation Data
240 W. MacArthur Boulevard, Oakland, California

Well	Well Depth (feet bgs)	Well Screened Interval		Groundwater Level Depth ^(a) December 13, 2006	Groundwater Elevation ^(b) December 13, 2006
		Depth (feet)	Elevation (feet)		
MW-1	25	19.5 to 24.5	54.5 to 49.5	15.89	63.26
MW-2	25	14.5 to 24.5	64.2 to 54.2	15.19	63.24
MW-3	25	14.5 to 24.5	63.4 to 53.4	14.34	63.24
MW-4	25	14.5 to 24.5	63.6 to 53.6	14.35	63.39
MW-5	20	9 to 19	70.6 to 60.6	16.10	63.26
MW-6	20	9 to 19	69.7 to 59.7	15.15	63.28
MW-7	20	9 to 19	69.6 to 59.6	15.12	63.15
MW-8	20	9 to 19	67.7 to 57.7	13.12	63.27

Notes:

^(a) Pre-purge measurement, feet below top of well casing.

^(b) Pre-purge measurement, feet above mean sea level.

Each well was then purged (by hand bailing with a new disposable bailer or with a submersible pump) of three wetted casing volumes, and aquifer stability parameters (pH, temperature, electrical conductivity, and turbidity) were measured between each purging. When measurements indicated that representative formation water was entering the well, a groundwater sample set was collected from each well with the purging bailer. These samples were field-measured for pH, temperature, electrical conductivity, turbidity, and dissolved oxygen. Samples were then transferred to appropriate sampling containers (40-ml VOA vials with hydrochloric acid preservative, and 1-liter amber glass jars), labeled, and placed in coolers with “blue ice.” All groundwater samples were managed under chain-of-custody procedures from the time of sample collection until samples were received in the laboratory.

Wastewater (purge water and equipment decontamination rinseate) was containerized in a labeled, 55-gallon steel drum that will be temporarily stored on site. This non-hazardous water will continue to be accumulated on site until it is cost-effective to coordinate its disposal, at which time it will be profiled and disposed of at a permitted wastewater treatment facility.

4.0 REGULATORY CONSIDERATIONS, ANALYTICAL RESULTS AND FINDINGS

This section presents analytical results of the most recent monitoring event, preceded by a summary of relevant regulatory considerations. Tables 2 and 3 summarize the contaminant analytical results of the most recent monitoring event. Appendix B contains the certified analytical laboratory report and chain-of-custody record.

REGULATORY CONSIDERATIONS

Environmental Screening Levels

There are no published cleanup goals for detected site contaminants in groundwater. The Water Board has published “Environmental Screening Levels” (ESLs), which are screening-level concentrations for soil and groundwater that incorporate both environmental and human health risk considerations, and are used as a preliminary guide in determining whether additional remediation and/or investigation are warranted. The ESLs are not cleanup criteria; rather, they are conservative screening-level criteria designed to be protective of both drinking water resources and aquatic environments in general. The groundwater ESLs are composed of one or more components, including ceiling value, human toxicity, indoor air impacts, and aquatic life protection. Where one or more ESLs are exceeded, additional remediation and/or investigation may be warranted. The decision about the type and extent of remediation—if any—is generally based, among other factors, on the degree to which the analytes of concern have exceeded their respective ESLs, the potential for sensitive receptors, and whether a source area remains where mass contamination can be efficiently captured. Remediation can take the form of an active plan to remove subsurface contamination or a passive monitoring of natural attenuation to track plume stability and demonstrate no risk to sensitive receptors in the case of sites where drinking water is not threatened.

The City of Oakland, via its Urban Land Redevelopment (URL) Program, utilizes a similar ESL approach in evaluating whether active remediation is necessary at sites proposed for redevelopment. This program is not currently applicable to the site, as no redevelopment is proposed.

Table 2
Groundwater Sample Analytical Results – December 13, 2006
Hydrocarbons, BTEX and MTBE
240 W. MacArthur Boulevard, Oakland, California ^(a)

Well	TVHg	TEHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1	16,000	4,100	1,500	100	160	670	< 13
MW-2	1,500	940	22	2.9	2.6	3.5	67
MW-3	4,500	2,000	110	4.0	7.3	19.1	47
MW-4	59	NA	NA	NA	NA	NA	NA
MW-5	15,000	3,400	510	160	260	1190	< 3.6
MW-6	500	750	7.5	< 0.5	2.6	2.5	< 0.5
MW-7	< 50	NA	NA	NA	NA	NA	NA
MW-8	63	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21
Water Board Environmental Screening Levels ^(b)							
	NLP	NLP	1.0	40	30	20	5.0
Drinking Water Standards ^(c)							
	100	100	1.0 ^(d)	40	30	13	5.0

Notes:

- ^(a) All concentrations in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
- ^(b) For commercial/industrial sites where known or potential drinking water resource is threatened.
- ^(c) Drinking water standards are State of California Secondary Maximum Contaminant Levels (MCLs) – proposed, unless specified otherwise.
- ^(d) State of California Primary MCL.

MTBE = methyl *tertiary*-butyl ether
 TEHd = total extractable hydrocarbons - diesel range
 TVHg = total volatile hydrocarbons - gasoline range

NA = Not analyzed for this contaminant.
 NLP = No level published.

Analytes in **bold face** exceed ESLs or drinking water standards.

For all site contaminants with published drinking water standards—i.e., benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl *tertiary*-butyl ether (MTBE)—the drinking water standards are equal to or greater than the published ESLs.

Sensitive Receptors

Risk evaluation commonly includes the identification of sensitive receptors, including vicinity groundwater supply wells. As discussed in a previous report (SES, 2004c), the California Department of Water Resources identified only one groundwater supply well within 1,500 feet of the site. Based on its distance and upgradient location relative to the site, there is no reasonable potential for this well to intercept shallow groundwater emanating from the subject property.

Table 3
Groundwater Sample Analytical Results – December 13, 2006
Lead Scavengers and Fuel Oxygenates
240 W. MacArthur Boulevard, Oakland, California ^(a)

Well	EDC	EDB	TBA	DIPE
MW-1	< 13	< 13	< 250	< 13
MW-2	2.2	< 0.5	45	0.7
MW-3	1.6	< 0.7	55	2.1
MW-4	NA	NA	NA	NA
MW-5	4.9	< 3.6	< 71	< 3.6
MW-6	17	< 0.5	43	0.9
MW-7	NA	NA	NA	NA
MW-8	< 0.5	< 0.5	< 10	0.5
Water Board Environmental Screening Levels ^(b)				
	0.5	0.05	12	NLP
Drinking Water Standards ^(c)				
	NLP	NLP	NLP	NLP

Notes:

^(a) All concentrations in micrograms per liter (µg/L), equivalent to parts per billion (ppb).

^(b) For commercial/industrial sites where known/potential drinking water resource is threatened.

^(c) Drinking water standards are State of California Secondary Maximum Contaminant Levels (MCLs) – proposed, unless specified otherwise.

DIPE = di-isopropyl ether

NA = Not analyzed for this contaminant.

EDB = ethylene dibromide (1,2-dibromoethane)

NLP = No level published.

EDC = ethylene dichloride (1,2-dichloroethane)

TBA = *tertiary*-butyl alcohol

Analytes in **bold face** exceed drinking water standards.

Table includes only detected fuel oxygenates. Appendix B contains the full list of analytical compounds.

As specified in the Water Board’s San Francisco Bay Region Water Quality Control Plan, all groundwater is considered a potential source of drinking water unless otherwise approved by the Water Board, and is assumed to ultimately discharge to a surface water body and potentially impact aquatic organisms. In the case of groundwater contamination, ESLs are published for two scenarios: groundwater *is* a source of drinking water, and groundwater *is not* a source of drinking water. Qualifying for the higher ESLs (applicable to groundwater *is not* a source of drinking water) requires meeting one of the following two criteria:

1. The Water Board's "East Bay Plain Groundwater Basin Beneficial Use Evaluation Report" (Water Board, 1999) delineates three types of areas with regard to beneficial uses of groundwater: Zone A (significant drinking water resource); Zone B (groundwater unlikely to be used as drinking water resource); and Zone C (shallow groundwater proposed for designation as Municipal Supply Beneficial Use). Because the subject site falls within Zone A, this criterion has not been met.
2. A site-specific exemption may be obtained from the Water Board. Such an exemption has not been obtained for this site; thus, this criterion has not been met.

As discussed below, multiple groundwater contaminants have been detected in excess of ESLs, for both groundwater beneficial scenarios (groundwater *is* and *is not* a potential drinking water resource). These data indicate that continued site characterization is warranted until it can be demonstrated that site-sourced contamination poses no unacceptable risk to sensitive receptors. Our subsequent discussion of groundwater contamination is in the context of the ESL criteria for sites where groundwater *is* a potential drinking water resource.

GROUNDWATER SAMPLE ANALYTICAL METHODS

Groundwater samples were analyzed in accordance with the methods proposed in the SES technical workplan. Analytical methods included:

- Total volatile hydrocarbons – gasoline range (TVHg), by EPA Method 8015B (all wells);
- BTEX and MTBE, by EPA Method 8260B (all wells except MW-4 and MW-7);
- The lead scavengers 1,2-dichloroethane (EDC) and 1,2-dibromoethane (EDB), by EPA Method 8260B (all wells except MW-4 and MW-7);
- Total extractable hydrocarbons – diesel range (TEHd), by EPA Method 8015M (all wells except MW-4 and MW-7, which historically have never detected diesel); and
- Fuel oxygenates, by EPA Method 8260B (all wells except MW-4 and MW-7).

GROUNDWATER SAMPLE RESULTS

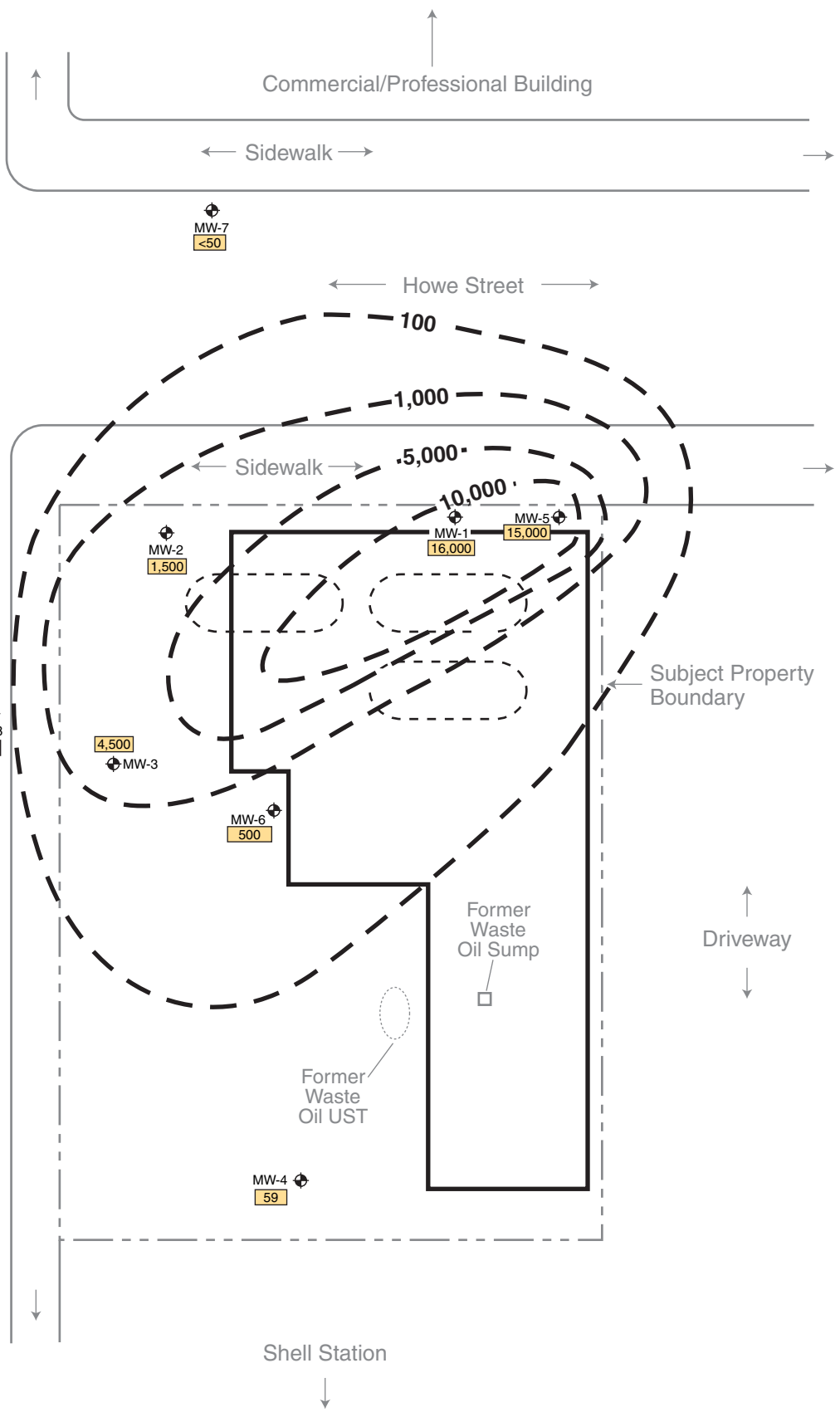
Gasoline and Diesel

Figure 4 shows gasoline isoconcentration contours for the recent event. Gasoline was detected in all site wells, except MW-4 and MW-7, with concentrations between 59 µg/L (well MW-4) and 16,000 µg/L (well MW-5). The center of contaminant mass is near source area wells MW-1 and MW-5. All detected gasoline concentrations exceeded the 100-µg/L MCL criterion, with the exception of 65 µg/L in well MW-8 and 59 µg/L in well MW-4. The longitudinal axis of the gasoline plume is oriented

LEGEND

- Groundwater monitoring well
- Former 10,000-gal. gasoline UFST
- Gasoline isoconcentration contour (µg/L)
- Gasoline concentration (µg/L)
- Not analyzed

0 20
SCALE IN FEET (approx.)



GASOLINE ISOCONCENTRATION CONTOURS (December 2006)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

JANUARY 2007

Figure 4



2003-43-143



approximately north-south, with a concentration of 63 µg/L extending offsite (beneath W. MacArthur Boulevard). The north-northwestern limit of the gasoline plume appears to be underneath Howe Street, and the eastern limit is constrained on site. The exact northern (upgradient) limit of the plume is not known, but is likely no more than 20 to 30 feet off site.

Figure 5 shows diesel isoconcentration contours for the recent event. The plume orientation is similar to the gasoline plume. With the exception of one well (MW-6), diesel concentrations are generally less than the respective gasoline concentrations in individual wells. Diesel concentrations ranged from 750 µg/L (well MW-6) to 4,100 µg/L (well MW-1), with all concentrations exceeding the 100-µg/L MCL criterion. The diesel plume configuration closely mirrors the gasoline plume, with the center of contaminant mass near the source area and a southward longitudinal axis.

Benzene, Toluene, Ethylbenzene, and Total Xylenes

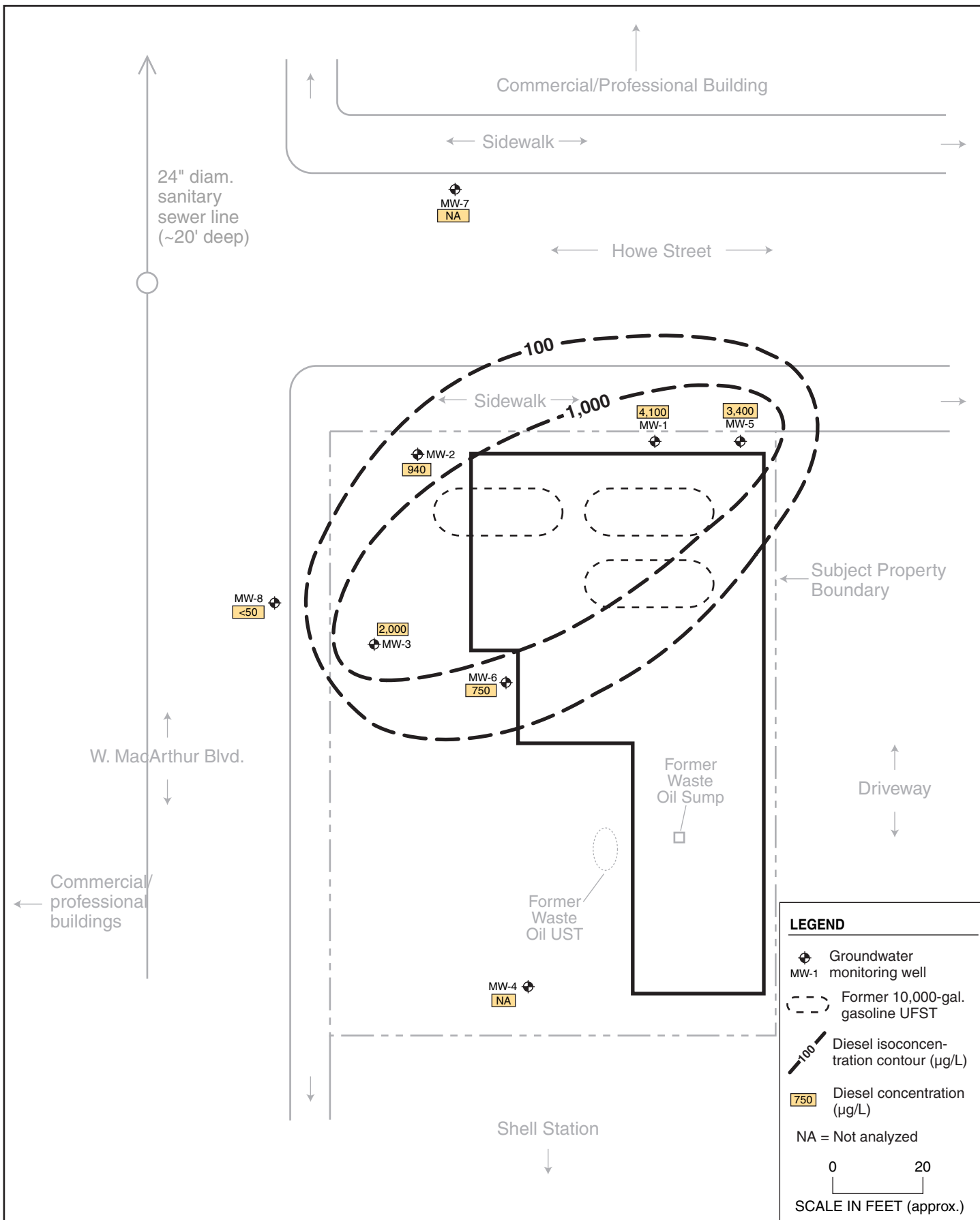
The principal BTEX contaminant, given its concentrations above ESLs, is benzene. The benzene plume shows a similar geometry as the gasoline and diesel plumes. Benzene was detected in five of the six wells for which it was analyzed, at concentrations ranging from 7.5µg/L to 1,500 µg/L. Figure 6 shows benzene isoconcentration contours for the recent event. Benzene extends off site to the north (under Howe Street) and is constrained on site in other directions.

Toluene, ethylbenzene, and xylenes were detected in the same five wells in which benzene was detected, and contaminant concentrations exceeded respective ESL criteria in wells MW-1 and MW-5.

Methyl *tertiary*-Butyl Ether

Figure 7 shows MTBE isoconcentration contours for the recent event. MTBE was detected at concentrations above the ESL in three of the six wells for which it was analyzed, ranging from 21 µg/L to 67 µg/L. Unlike the distribution of gasoline, diesel, and benzene, the center of mass of MTBE contamination at a concentration of 21 µg/L detected in groundwater during this event near the downgradient (south) property line, extending beneath W. MacArthur Boulevard. Little to no MTBE was present in the source area (near MW-1 and MW-5) in this groundwater monitoring event; with two notable exceptions (December 2003 and March 2002), MTBE has been higher at the downgradient wells compared to the source area wells.

As discussed in a previous report (SES, 2004c), MTBE appears to be migrating onto the subject property from the adjacent (to the east) Shell-branded service station. This contamination, however, is unrelated to the separate site-sourced MTBE contamination.



LEGEND

- ⊕ Groundwater monitoring well
- - - Former 10,000-gal. gasoline UFST
- 100 Diesel isoconcentration contour (µg/L)
- 750 Diesel concentration (µg/L)
- NA = Not analyzed

0 20
SCALE IN FEET (approx.)

DIESEL ISOCONCENTRATION CONTOURS (December 2006)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

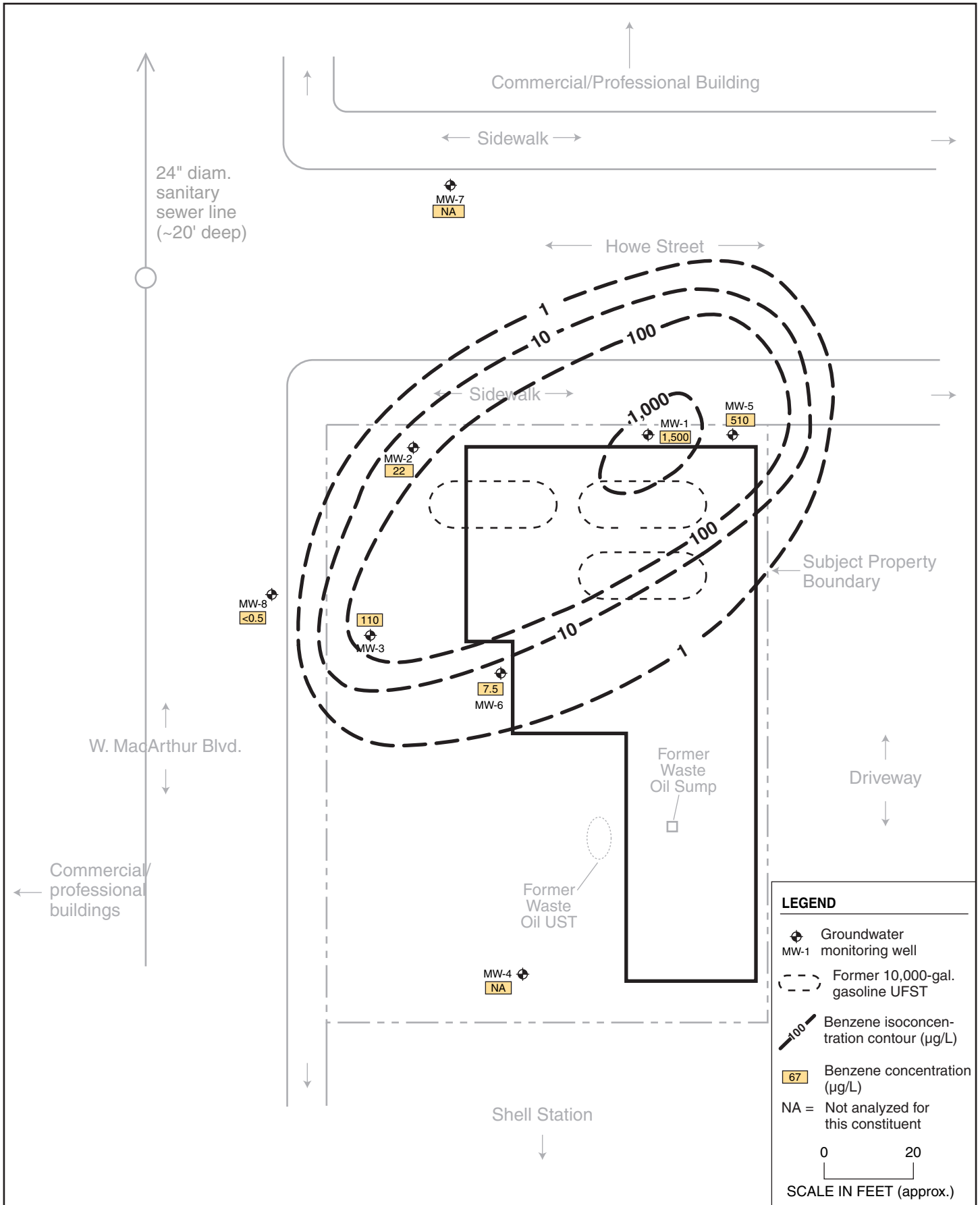
JANUARY 2007

Figure 5



2003-43-146





LEGEND

- Groundwater monitoring well
- Former 10,000-gal. gasoline UFST
- Benzene isoconcentration contour (µg/L)
- Benzene concentration (µg/L)
- NA = Not analyzed for this constituent

0 20
SCALE IN FEET (approx.)

BENZENE ISOCONCENTRATION CONTOURS (December 2006)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

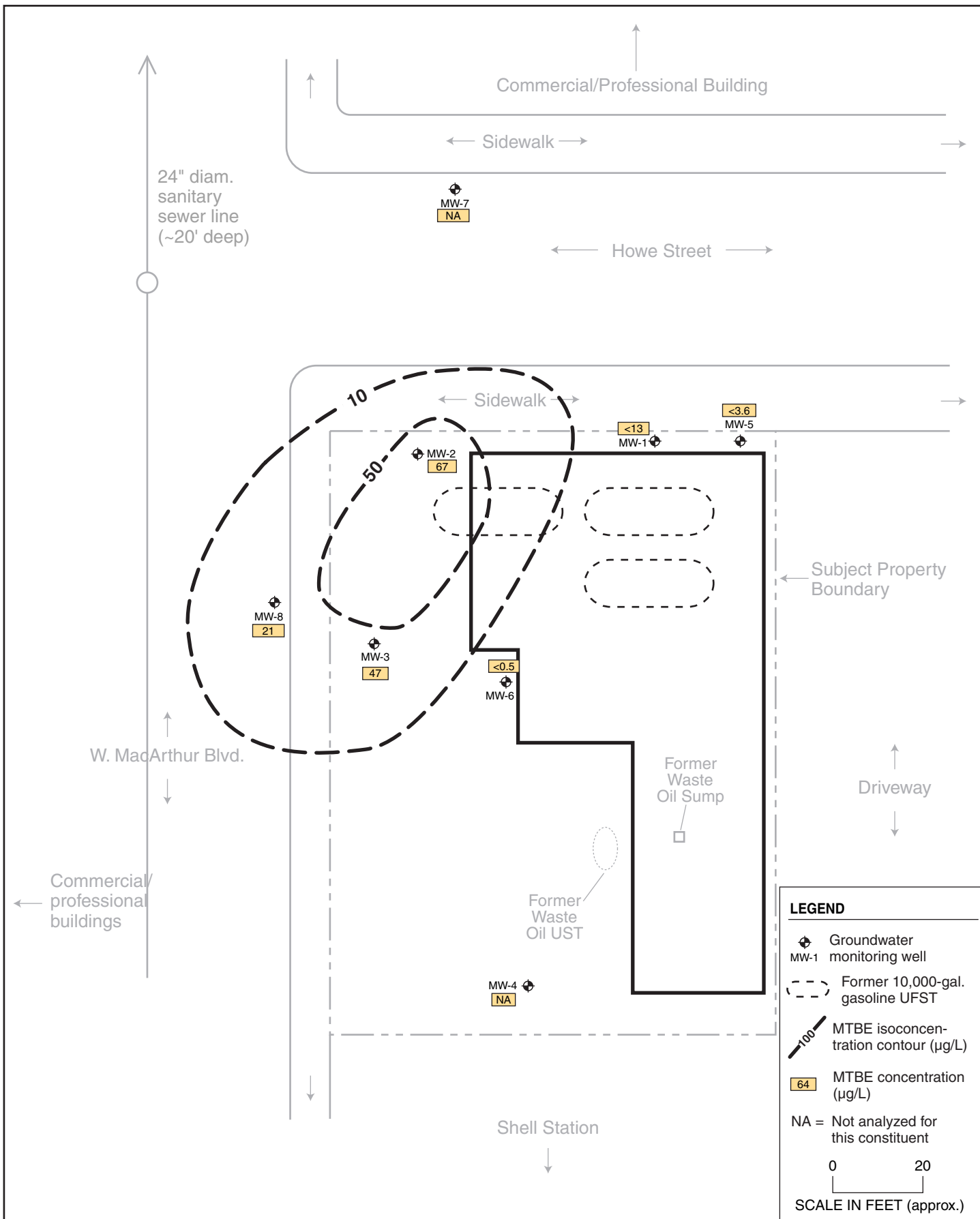
JANUARY 2007

Figure 6



2003-43-145





MTBE ISOCONCENTRATION CONTOURS (December 2006)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC

JANUARY 2007

Figure 7



2003-43-144



Lead Scavengers and Fuel Oxygenates

The lead scavenger EDC was detected in wells MW-2, MW-3, MW-5 and MW-6, at concentrations ranging from 1.6 to 17 µg/L, all exceeding the 0.5-µg/L ESL criterion. EDB was not detected in any of the wells.

Two fuel oxygenates were detected: *tertiary*-butyl alcohol (TBA) and di-isopropyl ether (DIPE). TBA was detected in three of the six wells for which it was analyzed, with concentrations ranging from 43 µg/L in well MW-6 to 45 µg/L in well MW-2 and 55 µg/L in well MW-3 (all concentrations exceed the 12-µg/L ESL criterion). DIPE was detected in four wells, at a maximum concentration of 0.9 µg/L.

Summary of Groundwater Contamination

Maximum concentrations of gasoline and diesel were detected in wells MW-1 and MW-5, located in the northern area of the property (near the former UFSTs). Maximum concentrations of MTBE were detected in downgradient wells (adjacent to W. MacArthur Boulevard), indicating that the center of mass of MTBE has migrated downgradient. Groundwater contamination above ESL criteria extends off site to the west-northwest (into Howe Street and W. MacArthur Boulevard, respectively). The current quarter conditions were generally consistent with recent historical conditions.

Quality Control Sample Analytical Results

Laboratory quality control (QC) samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) were analyzed by the laboratory in accordance with requirements of each analytical method. All laboratory QC sample results and sample holding times were within the acceptance limits of the methods (Appendix B).

5.0 EVALUATION OF HYDROCHEMICAL TRENDS AND PLUME STABILITY

This section evaluates the observed hydrologic and hydrochemical trends with regard to plume stability and contaminant migration. An assessment is made of the nature of residual contaminated soil that acts as a continued source of groundwater contamination. A conceptual model (incorporating site lithology, hydrogeology, and hydrochemistry) is presented to explain the spatial extent and magnitude of the dissolved hydrocarbon plume.

CONTAMINANT SOURCE ASSESSMENT

Three UFSTs were removed (i.e., discharge was discontinued) prior to 1991, although there is no documentation of conditions at the time of the removals nor whether any contaminated soil was removed at that time. Borehole soil sampling has provided data on the extent and magnitude of soil contamination in the vicinity of the former UFSTs (“source area”) and the outlying area (in the capillary fringe above the groundwater plume). A full discussion of residual soil contamination was presented in the SES June 2004 Soil and Groundwater Investigation Report (SES, 2004c). Appendix C contains key historical soil analytical results.

Source Area

A substantial mass of soil contamination is present at depths between approximately 13 feet bgs and 21 feet bgs (top of the underlying non-water-bearing clay unit) in the immediate vicinity of former UFSTs (BH-13, BH-19, BH-20 and BH-21); this mass has a footprint of approximately 40 feet by 40 feet. This source area contamination is almost certainly related to downward migration of contamination following UFST and/or piping leakage, and is responsible for the continued relatively elevated concentrations of gasoline, diesel, BTEX, and MTBE in groundwater in the wells and bores. No contamination was detected in the UFST excavation fill material. Soil contamination was detected in two of the three saturated zone soil samples, and no contamination was detected in the underlying clay samples.

Source area wells MW-1 and MW-5 historically showed evidence of separate-phase hydrocarbons (i.e., floating product). Limited “Hi-Vac” removal (short-term pumping) of contaminated groundwater from these wells in October 2001 appears to have removed the floating product, which has not been observed since that time.

Outlying Area Soil Contamination

Soil contamination has been detected in boreholes greater than 10 feet from the former UFSTs only to the southwest (BH-16, approximately 40 feet away) and to the south (BH-4 and BH-8, approximately 40 feet away). Intervening boreholes (MW-2, BH-7, and BH-15) showed low to no soil contamination. Low to no soil contamination was detected in boreholes other than those discussed above, even in the capillary fringe. Soil contamination above ESL criteria appears to be constrained on site, except for the apparently localized “hot spot” at BH-16 (southwest corner of property).

Consideration of potential sources (discrete former UFSTs), historical groundwater flow direction and water levels, and distribution suggests that the detected soil contamination is the result of leaks from at least two, and possibly three, former UFSTs. The unsaturated zone soil contamination to the south and southwest likely resulted from desorption from source area contaminated groundwater, the distribution of which is strongly influenced by localized lithologic and groundwater hydrologic controls. The contaminant mass in outlying area unsaturated zone soils is small relative to the source area.

Summary

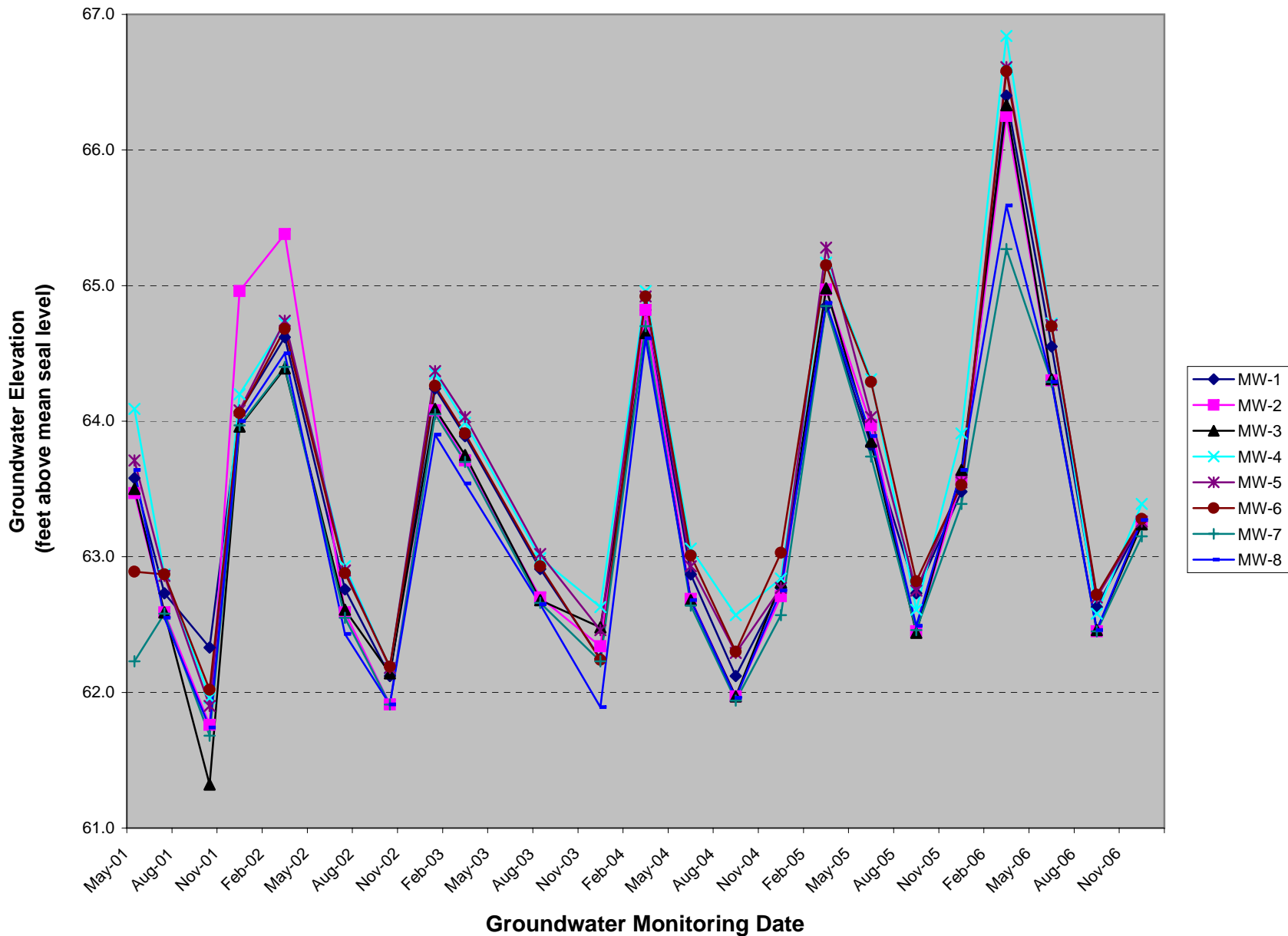
A substantial mass of unsaturated zone soil contamination is located beneath the subject property building and to the immediate south-southwest. While the contamination is largely constrained on site, it will continue to be a source of long-term groundwater contamination unless abated.

WATER LEVEL TRENDS

Appendix D contains historical groundwater elevation and gradient data. Figure 8 shows a trendline of site groundwater elevations in wells since May 2001. The data support the following conclusions:

- Groundwater elevations in all wells show a strong elevation change correlation with rainy versus dry season. Decreases in elevation are seen from approximately March through December, followed by an increase in March. This is a common seasonal trend observed in the upper water-bearing zone in the Bay Area region.
- The range of water level elevations (in a given year) has varied by approximately 3 feet, and no substantial differences in elevations (beyond the seasonal fluctuations) have been noted since 2001.
- Historical groundwater flow direction has been predominantly to the west-northwest.
- Historical groundwater gradient has varied between approximately 0.002 feet/foot and 0.008 feet/foot, averaging approximately 0.005 feet/foot.

**FIGURE 8: Historical Groundwater Elevations in Monitoring Wells
240 W. Macarthur Blvd., Oakland, CA**



HYDROCHEMICAL TRENDS

Historical groundwater analytical results are included in Appendix C.

Gasoline

Figures 9 and 10 show hydrochemical trend data for gasoline in source area wells (MW-1 and MW-5) and downgradient wells (MW-2, MW-3, MW-6, and MW-8), respectively, for the past 5 years of monitoring.

Source area wells MW-1 and MW-5 showed an overall trend of increased gasoline concentration between December 2001 and June 2005, followed by a decrease in December 2005, with another increase. Historically, MW-5 has displayed higher gasoline concentrations than MW-1; however, during the June and September 2005 and March, September and December 2006 monitoring events, the concentrations of gasoline in MW-1 exceeded that of MW-5. Gasoline concentrations have generally shown the expected seasonal trend of higher concentrations in the high-water (rainy) period and lower concentrations in the low-water (dry) period.

Downgradient wells MW-2, MW-3, MW-6, and MW-8 have shown a relatively stable gasoline concentration over the previous 5 years of monitoring, with some seasonal variations within particular years. The September 2006 event showed the historical second highest gasoline concentration of 8,300 µg/L in well MW-2 but returned to average historical levels in December 2006. Downgradient well MW-3 showed a trend of decreasing gasoline concentrations from December 2001 to June 2002, then increasing concentrations until December 2003, then has remained within historical range since. All downgradient well gasoline concentrations in the current event are between the historical site minima and maxima for individual wells.

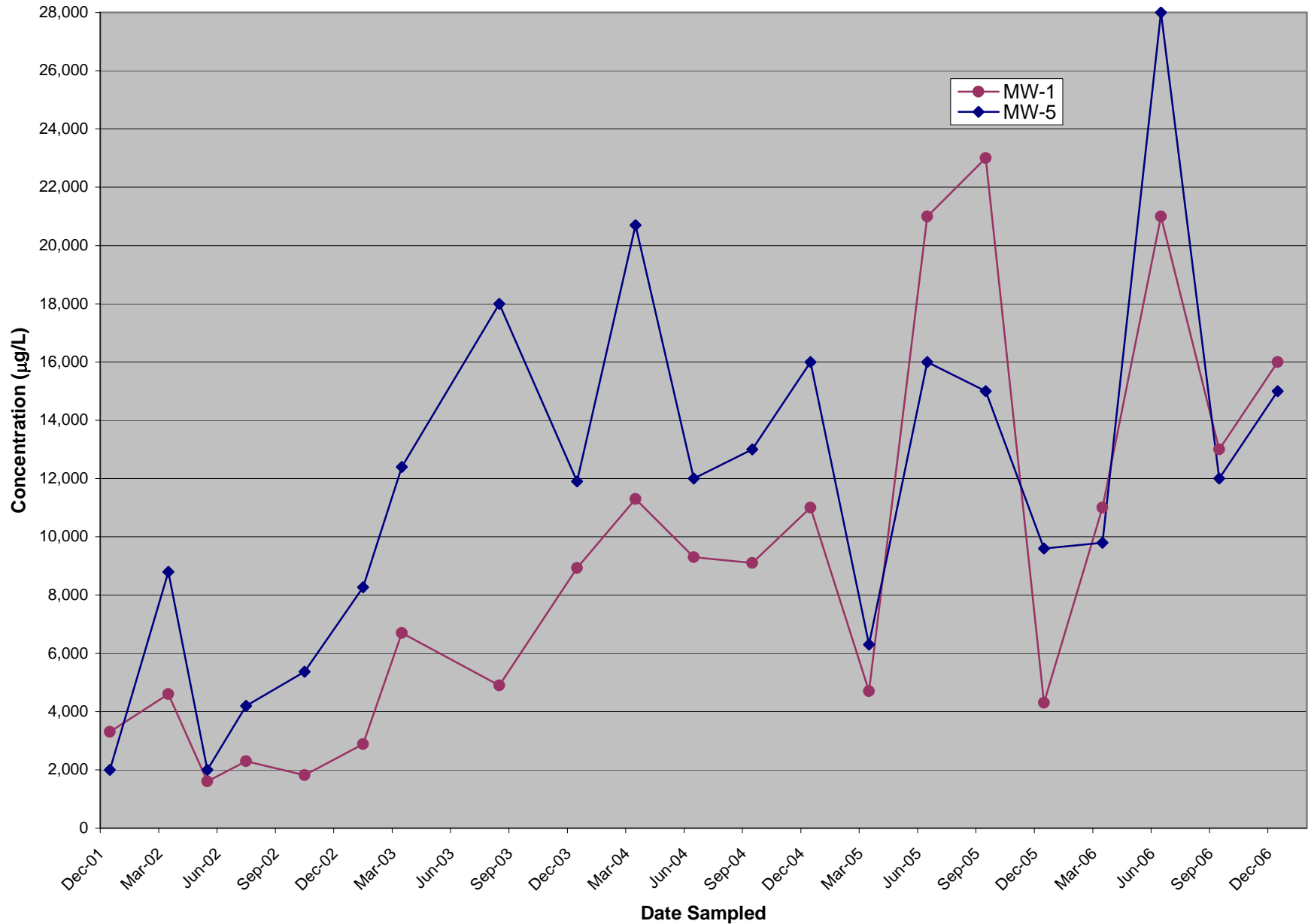
Diesel

Figures 11 and 12 show hydrochemical trend data for diesel in source area wells and downgradient wells, respectively, for the past 3½ years of monitoring.

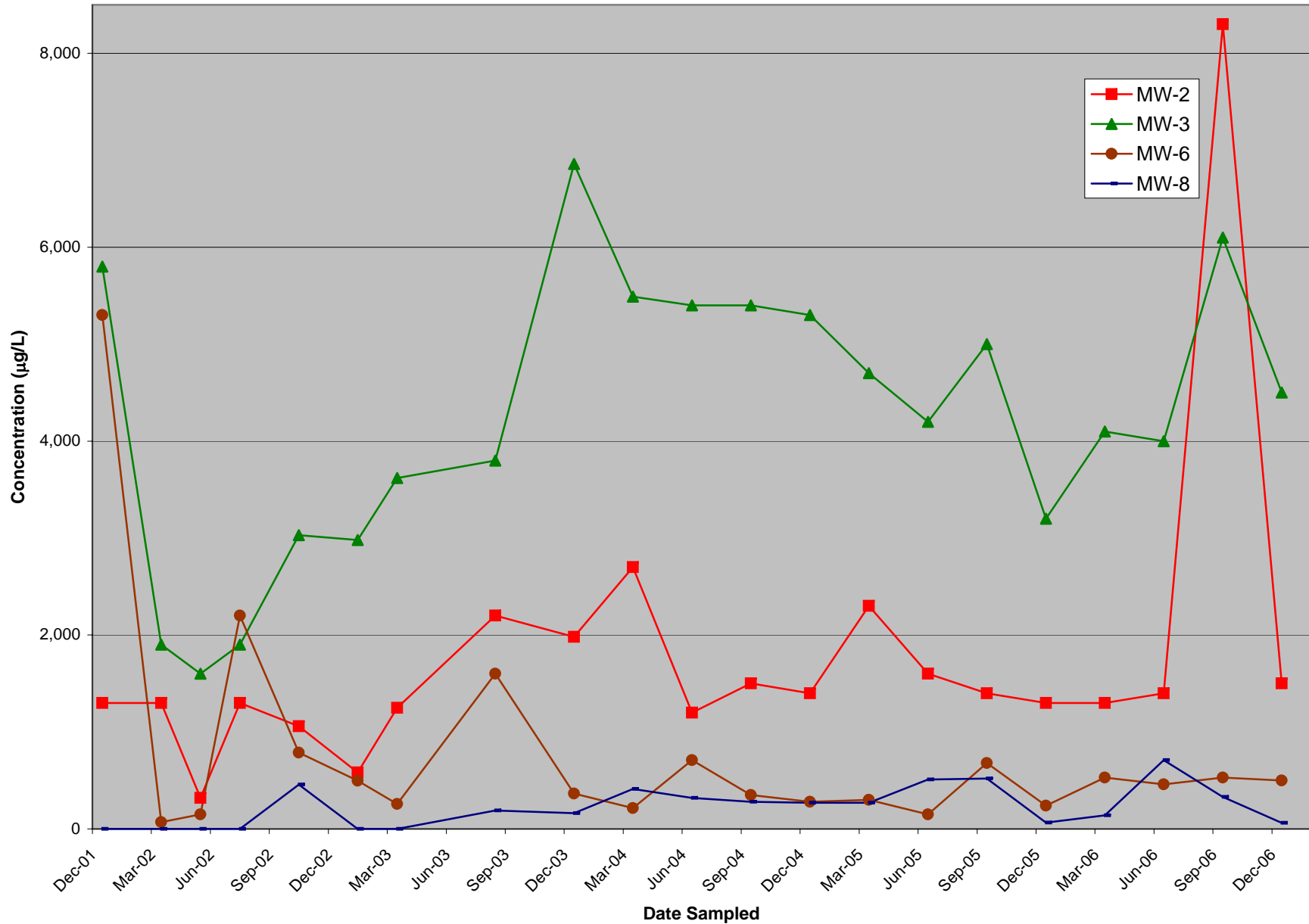
Source area wells MW-1 and MW-5 have shown substantial variations (generally correlating with seasonal variations in groundwater elevations) in diesel concentrations. Both gasoline and diesel concentrations in both MW-1 and MW-5 in the December 2006 event are within the historical site maxima and minima for those wells.

Downgradient wells MW-2, MW-3, MW-6 and MW-8 have shown substantial variations in diesel concentration. In general, a substantial decrease was observed in wells MW-2, MW-3 and MW-6 from August 2003 to December 2003, followed by an overall increasing trend up to the December 2006 event, where concentrations were within historical range. The September 2006 event detected the historical highest diesel concentration of 2,600 µg/L in well MW-3.

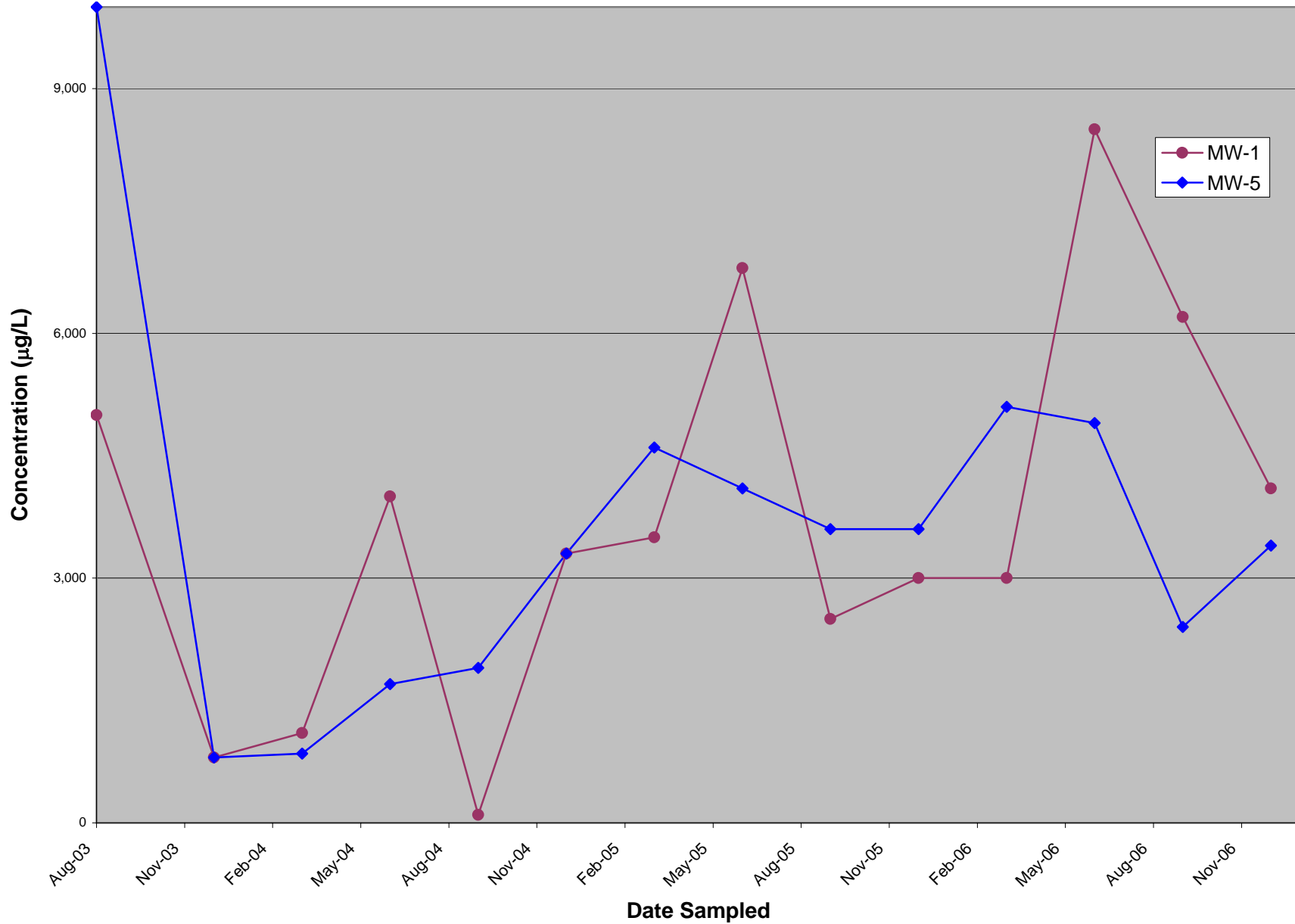
**Figure 9: Gasoline Hydrochemical Trends
Source Area Wells
240 W. MacArthur Blvd, Oakland, California**



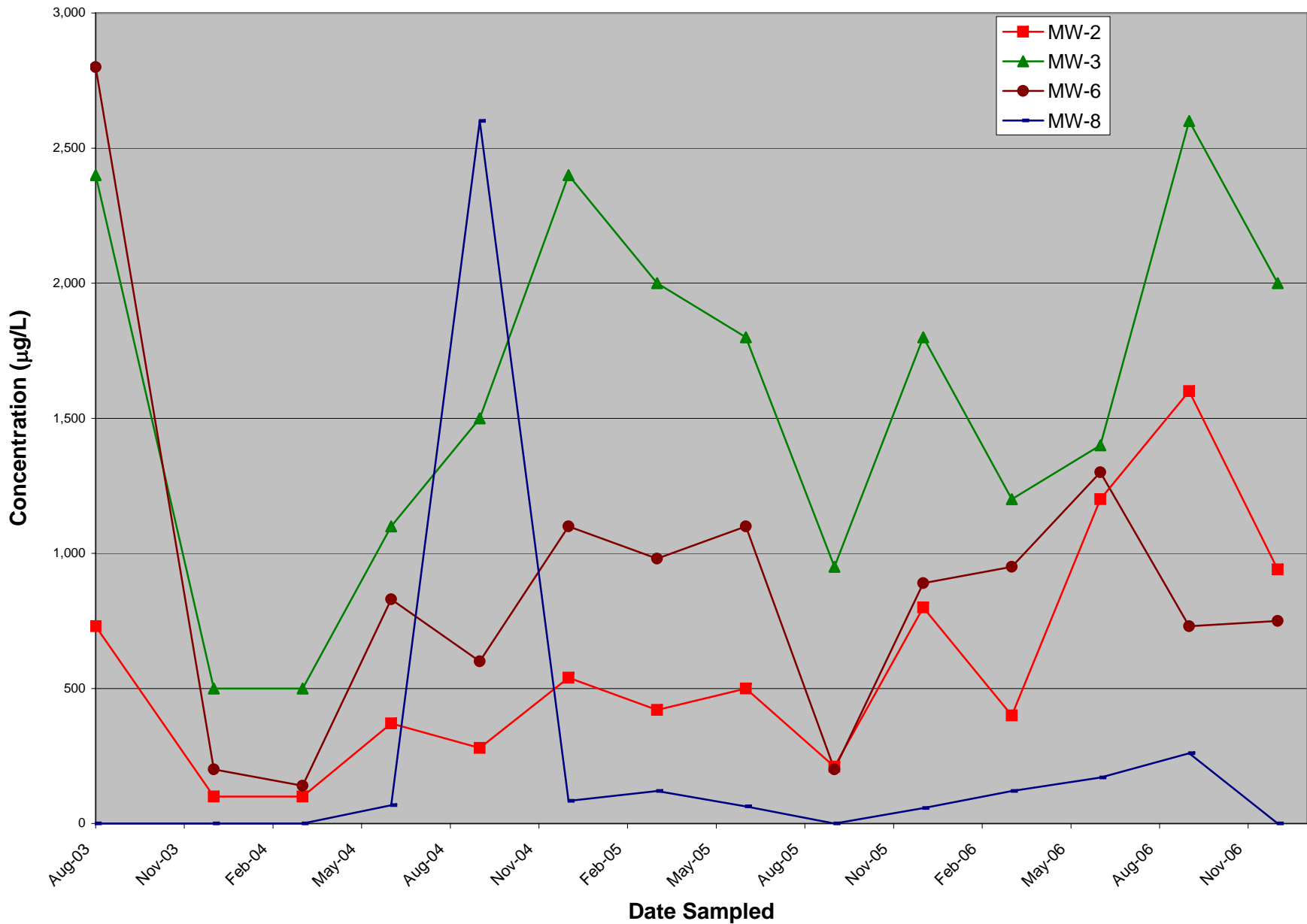
**Figure 10: Gasoline Hydrochemical Trends
Downgradient Wells
240 W. MacArthur Blvd, Oakland, California**



**Figure 11: Diesel Hydrochemical Trends
Source Area Wells
240 W. MacArthur Blvd, Oakland, California**



**Figure 12: Diesel Hydrochemical Trends
Downgradient Wells
240 W. MacArthur Blvd, Oakland, California**



Well MW-8 (the most downgradient well) has historically shown low to non-detect diesel concentrations, with the exception of an apparently anomalous measurement of approximately 2,500 milligrams per liter (mg/L) in September 2004, and then a return to a concentration of less than 100 mg/L in the most recent event.

Benzene

Figure 13 shows hydrochemical trend data for benzene in key site wells for the past 5 years of monitoring.

Source area wells MW-1 and MW-5 have shown substantial variations in benzene concentrations—an overall increase in concentration over time. Benzene concentrations generally have been comparable between MW-1 and MW-5 with concentrations in MW-1 higher than MW-5 since June 2004, with generally the same trend of seasonal fluctuations.

Historical maximum benzene concentrations were observed in June 2005 (MW-5) and September 2005 (MW-1), followed by a decrease in December 2005 and have remained within historical range during 2006.

Downgradient wells MW-2, MW-3, and MW-6 have all shown a relatively stable benzene concentration trend, with the most recent concentrations comparable to those in December 2001.

MTBE

Figure 14 shows hydrochemical trend data for MTBE in key site wells for the past 5 years of monitoring.

Source area wells MW-1 and MW-5 have shown substantial variations in MTBE concentrations, with generally the same trend of higher concentrations in the wet season and lower concentrations in the dry season. Following historical maximum concentrations in December 2003, MTBE concentrations in MW-1 and MW-5 decreased to low or non-detectable concentrations by June 2004, and have remained there since.

Downgradient wells MW-2 and MW-3 have shown substantial variations in MTBE concentration over the 5 years of monitoring, with the expected higher concentrations in the rainy season. MTBE concentrations have shown a declining trend since December 2003, and in the most recent event are approximately 200 percent lower than in December 2001. MTBE concentrations in MW-8 (the most downgradient well) also have shown substantial variations in concentration, and showed an increasing trend from August 2003 through September 2004 before exhibiting an overall decreasing trend in MTBE concentration. MTBE has not been

Figure 13: Benzene Hydrochemical Trends
240 W. MacArthur Blvd, Oakland, California

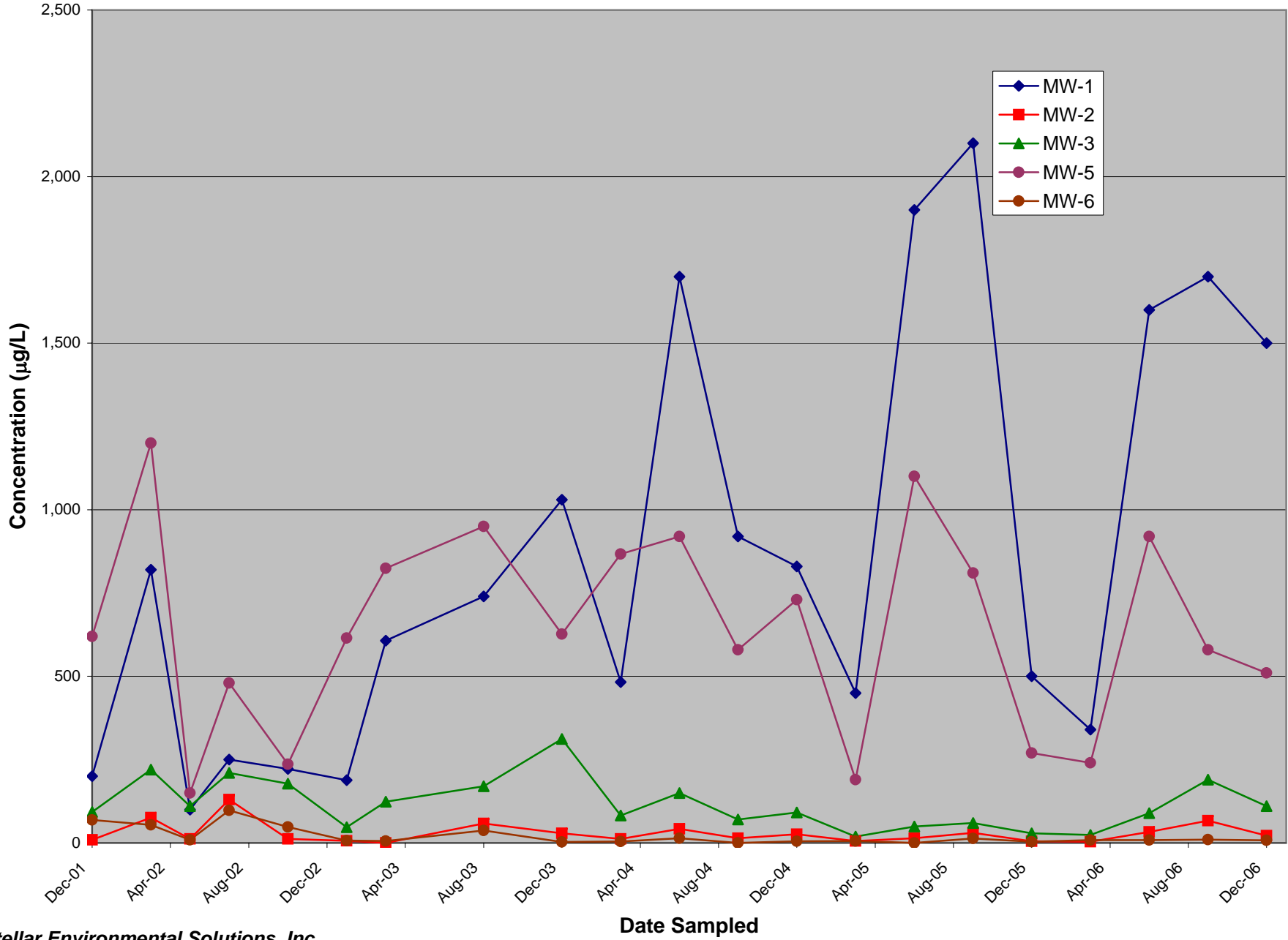
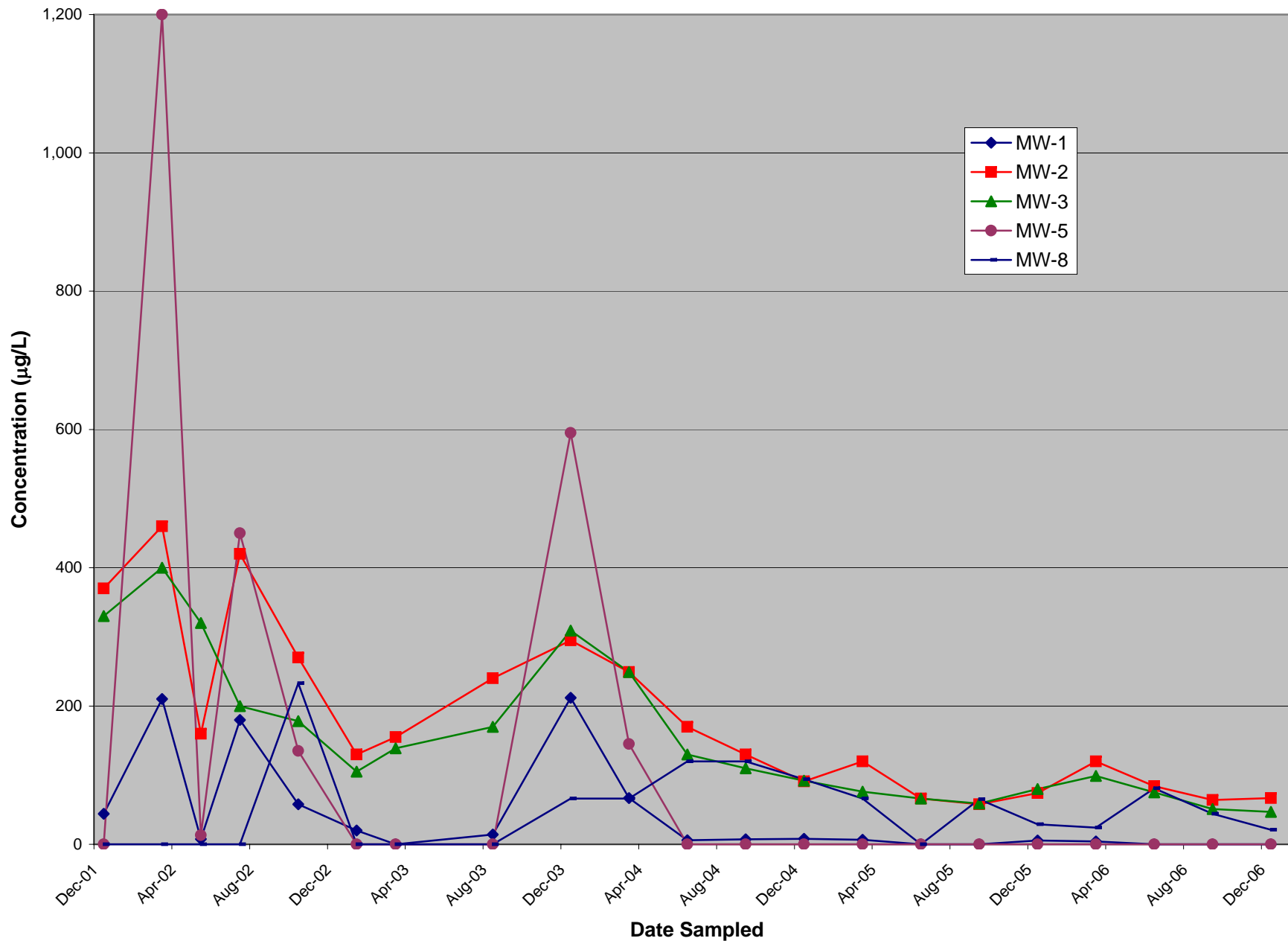


Figure 14: MTBE Hydrochemical Trends
240 W. MacArthur Blvd, Oakland, California



detected in downgradient well MW-6 above 5 µg/L since October 2002, with the exception of a reported concentration of 28 µg/L in June 2005; the reported MTBE concentration in the following September 2005 event was less than 0.5 µg/L. The data indicate that the center of MTBE mass in the plume has migrated beyond the source area to the downgradient (southern) portion of the property.

PLUME GEOMETRY AND MIGRATION INDICATIONS

As discussed in detail in Section 4.0, the contaminant plume in groundwater (gasoline, diesel, and BTEX concentrations above ESL criteria) has a maximum extent within the isoconcentration contours of approximately 160 feet long by 120 feet wide in the December 2006 monitoring event, with a generally north-south longitudinal axis. The source area, represented by wells MW-1 and MW-5, show concentrations of gasoline and benzene remaining high and trending upward in concentration over the past 4 years.

Contaminant concentrations above ESL criteria extend off site to the north-northwest (under Howe Street), and for gasoline extend underneath W. Macarthur Boulevard to the south. The MTBE plume shows generally the same configuration, except that it is situated downgradient from the source area. The northern (upgradient) limit of the plume is inferred to be within 10 to 20 feet of the former UFSTs. The eastern limit of the plume is constrained on site.

The plume geometry has not varied substantially over the past 5 years of monitoring, although seasonal fluctuations in contaminant concentrations have been observed. Increasing diesel and MTBE concentrations in downgradient wells MW-8, MW-2, and MW-3 suggest that the center of contaminant mass for these constituents is moving slowly downgradient. Relatively stable gasoline and benzene concentrations in downgradient wells suggest that downgradient migration of these constituents is not occurring.

Groundwater contaminant migration appears to be controlled locally by hydrogeologic conditions. Based on our experience, it is likely that the contaminant concentrations attenuate to below ESL criteria no more than 50 feet off site. However, continued quarterly groundwater monitoring in site wells is warranted to confirm that groundwater contaminant concentrations do not increase and/or there is no indication of significant plume migration.

CLOSURE CRITERIA ASSESSMENT AND PROPOSED ACTIONS

The Water Board generally requires that the following criteria be met before issuing regulatory closure of contaminant cases:

1. ***The contaminant source has been removed (i.e., the source of the discharge and obviously-contaminated soil).*** This criterion has not been met. While the UFSTs have been removed, borehole soil sampling has shown a substantial mass of residual source

area soil contamination that will act as an ongoing source of groundwater contamination. As discussed below, the property owner has proposed to Alameda County Health to implement a soil vapor extraction system as an interim remedial action to reduce contaminant mass.

2. ***The groundwater contaminant plume is well characterized, and is stable or reducing in magnitude and extent.*** As discussed above, in our professional opinion, this criterion has not been met, and continued groundwater monitoring will be needed to demonstrate plume stability.
3. ***If residual contamination (soil or groundwater) exists, there is no reasonable risk to sensitive receptors (i.e., contaminant discharge to surface water or water supply wells) or to site occupants.*** This criterion is generally met by conducting a Risk-Based Corrective Action (RBCA) assessment that models the fate and transport of residual contamination in the context of potential impacts to sensitive receptors (e.g., water wells, residential land use). While no downgradient water wells have been identified, a deep sanitary sewer line is located approximately 40 feet from the downgradient property line. It is possible that this line could act as a preferential pathway for migration of site-sourced groundwater contamination. However, it is highly unlikely that contaminated groundwater that might be entrained in the line backfill material would migrate to the nearest surface water body.

Based on the results of SES site investigation and monitoring phases in 2004 and 2005 Alameda County Health requested a workplan for additional site characterization to further define the lateral extent and magnitude of site contamination and complete appropriate remediation. SES completed a December 2004 and March 2005 workplan addendum for Additional Site Characterization and Interim Remedial Action which Alameda County responded to on March 14, 2006, approving it with some additional requested actions. However, before starting this phase of the work the responsible party entered into the process of divorce proceedings which inhibited his ability, as indicated by the attorney's negotiations, to put up the funds needed to underwrite the investigation and corrective action. The divorce proceeding are now apparently coming to a resolution and the responsible party, Mr. Glen Poy-Wing, is prepared to proceed with the site investigation and interim remedial action in early 2007.

Reducing source area (and outlying area) soil contamination should reduce the potential for offsite migration of groundwater contamination by removing contaminant mass, and should reduce the overall time to achieve regulatory closure.

6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS

SUMMARY AND CONCLUSIONS

- The site has undergone site investigations and remediation since 1991 (SES has been involved since August 2003) to address soil and groundwater contamination resulting from leaking UFSTs that were reportedly removed. Alameda County Health is the lead regulatory agency.
- A total of 33 groundwater monitoring/sampling events have been conducted in the eight site wells between August 1997 and December 2006 (the most recent event).
- Additional site characterization (exploratory borehole drilling and sampling) in 2004 provided additional data on the extent and magnitude of residual soil and groundwater contamination.
- A substantial mass of residual unsaturated zone soil contamination is present in the source area, and will continue to be a long-term source of groundwater contamination unless abated. Soil (and groundwater) contamination appears to be constrained to the upper water-bearing zone, and has not impacted the underlying non-water-bearing zone (beginning at approximately 21 feet deep).
- Groundwater at the site appears to be slightly confined, with a flow direction ranging between northwest and west and a relatively flat hydraulic gradient averaging approximately 0.005 feet/foot. Annual fluctuation in water levels is approximately 3 feet and is in response to seasonal precipitation. The groundwater flow direction and gradient in the current event were within the historical range.
- The primary site chemicals of concern, with regard to concentrations and risk issues, are gasoline, benzene, and MTBE. Diesel, aromatic hydrocarbons, lead scavengers, and fuel oxygenates are present at lesser concentrations and over a smaller area.
- Maximum groundwater contamination of gasoline, diesel, and benzene in groundwater is located in the northern corner of the site, near the source area. There has been no evidence of separate-phase (i.e., floating product) petroleum in source area wells since 2001. Groundwater contamination above ESL criteria extends offsite (likely no more than 25 feet) beneath Howe Street and W. MacArthur Boulevard.
- The September 2006 event detected the highest historical diesel concentration of 2,600 µg/L in well MW-3 second highest gasoline concentration of 8,300 µg/L in well MW-2..

- Increasing diesel and MTBE concentrations in downgradient wells suggest that the center of mass of contamination in groundwater may be migrating downgradient.
- The groundwater plume geometry in December 2006 is typical of what has been observed in previous monitoring events. Seasonal effects do not appear to change the plume migration direction.
- Potential preferential pathways identified include deep sanitary sewer lines beneath Howe Street and W. MacArthur Boulevard (adjacent to the subject property). Based on the detection of gasoline and MTBE in well MW-7 (beyond the Howe Street deep utilities), it appears unlikely that the Howe Street deep utilities are acting as a preferential pathway for site-sourced groundwater contamination. The influence of deep utilities beneath W. MacArthur Boulevard is not known.
- A previous water well survey identified no vicinity water wells with the potential to intercept site-sourced groundwater contamination.
- The adjacent Shell service station is contributing minor MTBE groundwater contamination to the eastern corner of the subject property. This contamination is unrelated to the separate, site-sourced MTBE groundwater contamination in the northern and western portions of the subject property.
- Sufficient site characterization has been conducted to evaluate the risks associated with residual soil contamination, and to evaluate corrective action options. The data indicate that, if corrective action is not conducted, residual site contamination will remain at elevated levels for at least several years and likely longer.
- In December 2004, the Responsible Party submitted to Alameda County Environmental Health a workplan for interim remedial action (focusing on soil vapor extraction to reduce source area contaminant mass). Alameda County Environmental Health provided written concurrence with that workplan, with minor technical revisions, in its March 2006 letter.

PROPOSED ACTIONS

The property owner proposes to implement the following action to address regulatory concerns:

- In Spring or Summer of 2007, implement the SES-recommended (December 2004) Additional Site Characterization and Interim Remedial Action Workplan approved by Alameda County Environmental Health in March 2006.
- Continue the program of quarterly groundwater sampling and reporting.

- Continue to make required electronic data format uploads to the State of California GeoTracker database, and upload an electronic copy of technical reports to Alameda County Environmental Health's ftp system.
- Continue submitting reimbursement requests under the State of California Petroleum UST Cleanup Fund.

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- Stellar Environmental Solutions, Inc. (SES), 2004e. Third Quarter 2004 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 11.
- Stellar Environmental Solutions, Inc. (SES), 2004f. Workplan for Additional Site Characterization and Interim Remedial Action, 240 W. MacArthur Boulevard, Oakland, California. December 27.
- Stellar Environmental Solutions, Inc. (SES), 2005a. Fourth Quarter 2004 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 18.
- Stellar Environmental Solutions, Inc. (SES), 2005b. First Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. March 31.
- Stellar Environmental Solutions, Inc. (SES), 2005c. Second Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 8.
- Stellar Environmental Solutions, Inc. (SES), 2005d. Third Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 12.
- Stellar Environmental Solutions, Inc. (SES), 2006a. Fourth Quarter 2005 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 18.

Stellar Environmental Solutions, Inc. (SES), 2006b. First Quarter 2006 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. April 21.

Stellar Environmental Solutions, Inc. (SES), 2006c. Third Quarter 2006 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. September 29.

8.0 LIMITATIONS

This report has been prepared for the exclusive use of the current property owners (Mr. and Mrs. Glen Poy-Wing, d.b.a. Oakland Auto Works), their representatives, and the regulators. No reliance on this report shall be made by anyone other than those for whom it was prepared.

The findings and conclusions presented in this report are based on the review of previous investigators' findings at the site, as well as site activities conducted by SES since August 2003. This report provides neither a certification nor guarantee that the property is free of hazardous substance contamination. This report has been prepared in accordance with generally accepted methodologies and standards of practice of the area. The SES personnel who performed this limited remedial investigation are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions, and recommendations included in the report.

The findings of this report are valid as of the present. Site conditions may change with the passage of time, natural processes, or human intervention, which can invalidate the findings and conclusions presented in this report. As such, this report should be considered a reflection of the current site conditions as based on the investigation and remediation completed.

APPENDIX A

Current Event Groundwater Monitoring Field Records

WELLHEAD INSPECTION CHECKLIST

Date 12/13/06 Client Skellar
 Site Address 240 W. MacArthur Blvd. Oakland CA
 Job Number 061213-DRZ Technician DR

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-4	x							
MW-7	x							
MW-8	x							
MW-6	x							
MW-2	x							
MW-3	x							
MW-1							x	
MW-5	x							

NOTES: MW-1 No bolts

WELL GAUGING DATA

Project # 061213-DPA 2 Date 12/13/06 Client Stellar

Site 240 W. MacArthur Blvd. Oakland CA.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-4	1003	2					14.35	23.88	/	
MW-7	1010	2				15.12	19.87			
MW-8	1015	2				13.12	19.59			
MW-6	1019	2				15.15	20.16			
MW-2	1024	2				15.19	24.16			
MW-3	1028	2				14.34	23.66			
MW-1	1033	2	X ^{odor} No SPIT detected			15.89	24.40			
MW-5	1038	2				16.10	18.93	V		

WATER MONITORING DATA SHEET

Project #: <u>061213-DR2</u>	Client: <u>Stellar</u>
Sampler: <u>DR</u>	Date: <u>12/13/06</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>24.40</u>	Depth to Water (DTW): <u>15.89</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>17.50</u>	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

$\underline{1.4} \text{ (Gals.)} \times \underline{3} = \underline{4.2} \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1342	19.2	7.0	1087	>1000	1.4	cloudy / odor
1347	19.3	7.1	1130	>1000	2.8	"
1352	19.4	7.1	1178	>1000	4.2	"
					Post Purge	Fe ²⁺ = 2.3

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 12/13/06 Sampling Time: 1359 Depth to Water: 16.88

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other: CT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	<u>Post-purge:</u>	1.03	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

W. L. MONITORING DATA SHEET

Project #: <u>061213-DR2</u>	Client: <u>Stellar</u>
Sampler: <u>DR</u>	Date: <u>12/13/06</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>24.16</u>	Depth to Water (DTW): <u>15.19</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>16.15</u>	

Purge Method: Bailer	Water	Sampling Method: Bailer
<input checked="" type="checkbox"/> Disposable Bailer	Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
Other: _____		

<u>1.4</u> (Gals.) X <u>3</u> = <u>4.2</u> Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1156</u>	<u>19.2</u>	<u>6.9</u>	<u>833</u>	<u>495</u>	<u>1.4</u>	<u>cloudy color</u>
<u>1201</u>	<u>19.7</u>	<u>7.3</u>	<u>796</u>	<u>529</u>	<u>2.8</u>	<u>"</u>
<u>1206</u>	<u>19.8</u>	<u>7.2</u>	<u>784</u>	<u>503</u>	<u>4.2</u>	<u>"</u>
					<u>Post Purge</u>	<u>Fe²⁺ = 1.3</u>

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 12/13/06 Sampling Time: 1211 Depth to Water: 16.03

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other CTT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

W. L. MONITORING DATA SHEET

Project #: 061213-DR2	Client: Stellar
Sampler: DR	Date: 12/13/06
Well I.D.: MW-3	Well Diameter: <u>3</u> 3 4 6 8
Total Well Depth (TD): 23.66	Depth to Water (DTW): 14.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.20	

Purge Method: Bailer	Waterra	Sampling Method: Bailer
<input checked="" type="checkbox"/> Disposable Bailer	Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

<u>1.5</u> (Gals.) X <u>3</u> = <u>4.5</u> Gals.	Well Diameter	Multiplier	Well Diameter	Multiplier
1 Case Volume	Specified Volumes	Calculated Volume	1"	0.04
			2"	0.16
			3"	0.37
			4"	0.65
			6"	1.47
			Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1243	19.6	7.2	838	71000	1.5	
1248	20.5	7.2	847	71000	3.0	
1253	20.7	7.1	843	71000	4.5	
					Post Purge	F ₂ = 1.5

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 12/13/06 Sampling Time: 1300 Depth to Water: 15.01

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other CFT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 5 mg/L Post-purge: 0.86 mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: 061213.212 061213.212	Client: Stellar
Sampler: DR	Date: 12/13/06
Well I.D.: MW-5	Well Diameter: <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="checkbox"/> _____
Total Well Depth (TD): 18.93	Depth to Water (DTW): 16.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> Grade	D.O. Meter (if req'd): <input checked="" type="checkbox"/> YSI <input type="checkbox"/> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.67	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

0.5 (Gals.) X 3 = 1.5 Gals.		
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1409	18.7	7.1	731	7100	0.5	cloudy water
1412	18.8	7.0	728	7100	1.0	"
1415	19.0	7.0	689	7100	1.5	"
						Post Purge Fe ²⁺ = 2.4

Did well dewater? Yes **No** Gallons actually evacuated: **1.5**

Sampling Date: **12/13/06** Sampling Time: **1422** Depth to Water: **16.60**

Sample I.D.: **MW-5** Laboratory: Kiff CalScience Other **C+T**

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: **See C+C**

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
				0.79
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WATER MONITORING DATA SHEET

Project #: 061213-DR2	Client: Stellar
Sampler: DR	Date: 12/13/06
Well I.D.: MW-6	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 20.16	Depth to Water (DTW): 15.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVE</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.45	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: _____

0.8 (Gals.) X 3 = 2.4 Gals.	Well Diameter	Multiplier	Well Diameter	Multiplier
1 Case Volume Specified Volumes Calculated Volume	1"	0.04	4"	0.65
	2"	0.16	6"	1.47
	3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1125	20.2	7.2	953	495	0.8	cloudy
1129	20.7	7.2	995	607	1.6	"
1133	20.6	7.1	1002	934	2.4	"
					Post Purge	F _c ² = 10

Did well dewater? Yes No Gallons actually evacuated: 11:29 2.4
 DR

Sampling Date: 12/13/06 Sampling Time: 1140 Depth to Water: 15.99

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other C+T

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.93	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

WATER MONITORING DATA SHEET

Project #: <u>061213-DR2</u>	Client: <u>Stellar</u>
Sampler: <u>DR</u>	Date: <u>12/13/06</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>②</u> 3 4 6 8 _____
Total Well Depth (TD): <u>19.87</u>	Depth to Water (DTW): <u>15.12</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>16.07</u>	

Purge Method: Bailer	Waters	Sampling Method: Bailer
<input checked="" type="checkbox"/> Disposable Bailer	<input type="checkbox"/> Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer
<input type="checkbox"/> Positive Air Displacement	<input type="checkbox"/> Extraction Pump	<input type="checkbox"/> Extraction Port
<input type="checkbox"/> Electric Submersible	Other _____	<input type="checkbox"/> Dedicated Tubing
Other: _____		

0.8 (Gals.) X 3 = 2.4 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1106	19.4	7.0	737	71000	0.8	cloudy
1109	19.6	7.0	773	71000	1.6	"
1112	19.9	6.9	810	71000	2.4	"
					Post Purge	Fe ²⁺ = 0

Did well dewater? Yes No Gallons actually evacuated: 2.4

Sampling Date: 12/13/06 Sampling Time: 1120 Depth to Water: 15.93 *Traffic Well*

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other CT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L		<u>Post-purge</u>	mg/L	<u>2.3</u>
O.R.P. (if req'd):	Pre-purge:	mV		Post-purge:	mV	

APPENDIX B

Current Event Analytical Laboratory Report and Chain-of-Custody Record

Total Volatile Hydrocarbons

Lab #: 191518	Location: Oakland Auto Works
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: STANDARD	Analysis: EPA 8015B
Matrix: Water	Sampled: 12/13/06
Units: ug/L	Received: 12/14/06
Batch#: 120414	Analyzed: 12/15/06

Field ID: MW-8	Lab ID: 191518-004
Type: SAMPLE	Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	63	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	69-137
Bromofluorobenzene (FID)	103	80-133

Field ID: MW-2	Lab ID: 191518-005
Type: SAMPLE	Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	1,500	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	69-137
Bromofluorobenzene (FID)	122	80-133

Field ID: MW-3	Lab ID: 191518-006
Type: SAMPLE	Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	4,500	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	158 *	69-137
Bromofluorobenzene (FID)	129	80-133

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC368501	Batch#:	120414
Matrix:	Water	Analyzed:	12/15/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,003	100	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	69-137
Bromofluorobenzene (FID)	106	80-133

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	MW-4	Batch#:	120414
MSS Lab ID:	191518-001	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/15/06
Diln Fac:	1.000		

Type: MS Lab ID: QC368502

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	58.93	2,000	2,047	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	69-137
Bromofluorobenzene (FID)	107	80-133

Type: MSD Lab ID: QC368503

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,948	94	80-120	5	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	69-137
Bromofluorobenzene (FID)	103	80-133

RPD= Relative Percent Difference

Total Extractable Hydrocarbons

Lab #: 191518	Location: Oakland Auto Works
Client: Stellar Environmental Solutions	Prep: EPA 3520C
Project#: STANDARD	Analysis: EPA 8015B
Matrix: Water	Sampled: 12/13/06
Units: ug/L	Received: 12/14/06
Diln Fac: 1.000	Prepared: 12/17/06
Batch#: 120442	

Field ID: MW-1	Lab ID: 191518-007
Type: SAMPLE	Analyzed: 12/18/06

Analyte	Result	RL
Diesel C10-C24	4,100 H L Y	50

Surrogate	%REC	Limits
Hexacosane	83	65-130

Field ID: MW-5	Lab ID: 191518-008
Type: SAMPLE	Analyzed: 12/18/06

Analyte	Result	RL
Diesel C10-C24	3,400 H L Y	50

Surrogate	%REC	Limits
Hexacosane	83	65-130

Type: BLANK	Analyzed: 12/18/06
Lab ID: QC368609	

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	110	65-130

H= Heavier hydrocarbons contributed to the quantitation
 L= Lighter hydrocarbons contributed to the quantitation
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC368610	Batch#:	120442
Matrix:	Water	Prepared:	12/17/06
Units:	ug/L	Analyzed:	12/18/06

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,159	86	61-133

Surrogate	%REC	Limits
Hexacosane	95	65-130

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	120442
MSS Lab ID:	191351-001	Sampled:	12/07/06
Matrix:	Water	Received:	12/08/06
Units:	ug/L	Prepared:	12/17/06
Diln Fac:	1.000	Analyzed:	12/18/06

Type: MS
 Lab ID: QC368611

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<18.49	2,500	1,884	75	55-134

Surrogate	%REC	Limits
Hexacosane	86	65-130

Type: MSD
 Lab ID: QC368612

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,848	74	55-134	2	27

Surrogate	%REC	Limits
Hexacosane	79	65-130

RPD= Relative Percent Difference

BTXE & Oxygenates

Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-6	Batch#:	120523
Lab ID:	191518-003	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/20/06
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	43	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	0.9	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	17	0.5
Benzene	7.5	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	2.6	0.5
m,p-Xylenes	1.9	0.5
o-Xylene	0.6	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	98	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-122

ND= Not Detected
 RL= Reporting Limit

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-8	Batch#:	120490
Lab ID:	191518-004	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/19/06
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	21	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	130	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-122

ND= Not Detected

RL= Reporting Limit

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	120523
Lab ID:	191518-005	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/20/06
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	45	10
MTBE	67	0.5
Isopropyl Ether (DIPE)	0.7	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	2.2	0.5
Benzene	22	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	2.9	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	2.6	0.5
m,p-Xylenes	2.1	0.5
o-Xylene	1.4	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
 RL= Reporting Limit

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	120642
Lab ID:	191518-006	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/22/06
Diln Fac:	1.429		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	55	14
MTBE	47	0.7
Isopropyl Ether (DIPE)	2.1	0.7
Ethyl tert-Butyl Ether (ETBE)	ND	0.7
1,2-Dichloroethane	1.6	0.7
Benzene	110	0.7
Methyl tert-Amyl Ether (TAME)	ND	0.7
Toluene	4.0	0.7
1,2-Dibromoethane	ND	0.7
Ethylbenzene	7.3	0.7
m,p-Xylenes	15	0.7
o-Xylene	4.1	0.7

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	95	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	104	80-122

ND= Not Detected
 RL= Reporting Limit

BTXE & Oxygenates

Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	120552
Lab ID:	191518-007	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/21/06
Diln Fac:	25.00		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	250
MTBE	ND	13
Isopropyl Ether (DIPE)	ND	13
Ethyl tert-Butyl Ether (ETBE)	ND	13
1,2-Dichloroethane	ND	13
Benzene	1,500	13
Methyl tert-Amyl Ether (TAME)	ND	13
Toluene	100	13
1,2-Dibromoethane	ND	13
Ethylbenzene	160	13
m,p-Xylenes	410	13
o-Xylene	260	13

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	93	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-122

ND= Not Detected

RL= Reporting Limit

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	120552
Lab ID:	191518-008	Sampled:	12/13/06
Matrix:	Water	Received:	12/14/06
Units:	ug/L	Analyzed:	12/21/06
Diln Fac:	7.143		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	71
MTBE	ND	3.6
Isopropyl Ether (DIPE)	ND	3.6
Ethyl tert-Butyl Ether (ETBE)	ND	3.6
1,2-Dichloroethane	4.9	3.6
Benzene	510	3.6
Methyl tert-Amyl Ether (TAME)	ND	3.6
Toluene	160	3.6
1,2-Dibromoethane	ND	3.6
Ethylbenzene	260	3.6
m,p-Xylenes	740	3.6
o-Xylene	450	3.6

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-120
1,2-Dichloroethane-d4	93	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-122

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	120490
Units:	ug/L	Analyzed:	12/19/06
Diln Fac:	1.000		

Type: BS Lab ID: QC368810

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	110.6	88	64-141
MTBE	25.00	22.50	90	72-120
Isopropyl Ether (DIPE)	25.00	20.38	82	68-123
Ethyl tert-Butyl Ether (ETBE)	25.00	25.37	101	77-129
1,2-Dichloroethane	25.00	25.47	102	77-120
Benzene	25.00	25.44	102	80-120
Methyl tert-Amyl Ether (TAME)	25.00	22.73	91	77-120
Toluene	25.00	26.58	106	80-120
1,2-Dibromoethane	25.00	25.05	100	80-120
Ethylbenzene	25.00	27.45	110	80-120
m,p-Xylenes	50.00	54.23	108	80-121
o-Xylene	25.00	27.22	109	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-120
1,2-Dichloroethane-d4	96	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-122

Type: BSD Lab ID: QC368811

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	127.9	102	64-141	15	22
MTBE	25.00	23.60	94	72-120	5	20
Isopropyl Ether (DIPE)	25.00	20.35	81	68-123	0	20
Ethyl tert-Butyl Ether (ETBE)	25.00	26.59	106	77-129	5	20
1,2-Dichloroethane	25.00	26.24	105	77-120	3	20
Benzene	25.00	25.48	102	80-120	0	20
Methyl tert-Amyl Ether (TAME)	25.00	25.09	100	77-120	10	20
Toluene	25.00	28.24	113	80-120	6	20
1,2-Dibromoethane	25.00	27.05	108	80-120	8	20
Ethylbenzene	25.00	28.96	116	80-120	5	20
m,p-Xylenes	50.00	56.53	113	80-121	4	20
o-Xylene	25.00	28.17	113	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-122

RPD= Relative Percent Difference

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC368812	Batch#:	120490
Matrix:	Water	Analyzed:	12/19/06
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	107	80-130
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC368960	Batch#:	120523
Matrix:	Water	Analyzed:	12/20/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	117.2	94	64-141
MTBE	25.00	21.65	87	72-120
Isopropyl Ether (DIPE)	25.00	19.59	78	68-123
Ethyl tert-Butyl Ether (ETBE)	25.00	24.69	99	77-129
1,2-Dichloroethane	25.00	24.51	98	77-120
Benzene	25.00	26.09	104	80-120
Methyl tert-Amyl Ether (TAME)	25.00	22.91	92	77-120
Toluene	25.00	25.78	103	80-120
1,2-Dibromoethane	25.00	25.34	101	80-120
Ethylbenzene	25.00	25.72	103	80-120
m,p-Xylenes	50.00	53.19	106	80-121
o-Xylene	25.00	25.02	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	98	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-122

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC368961	Batch#:	120523
Matrix:	Water	Analyzed:	12/20/06
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC368962	Batch#:	120523
Matrix:	Water	Analyzed:	12/20/06
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	120523
MSS Lab ID:	191444-007	Sampled:	12/12/06
Matrix:	Water	Received:	12/13/06
Units:	ug/L	Analyzed:	12/20/06
Diln Fac:	1.000		

Type: MS Lab ID: QC368991

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<1.348	125.0	132.7	106	68-148
MTBE	<0.05207	25.00	23.26	93	75-120
Isopropyl Ether (DIPE)	<0.02749	25.00	21.21	85	74-125
Ethyl tert-Butyl Ether (ETBE)	<0.03408	25.00	26.81	107	80-131
1,2-Dichloroethane	<0.05559	25.00	26.36	105	80-124
Benzene	<0.02734	25.00	28.56	114	80-122
Methyl tert-Amyl Ether (TAME)	<0.05699	25.00	24.19	97	78-120
Toluene	<0.05252	25.00	28.56	114	80-120
1,2-Dibromoethane	<0.06951	25.00	27.12	108	80-120
Ethylbenzene	<0.1099	25.00	29.69	119	80-121
m,p-Xylenes	<0.1956	50.00	61.02	122 *	80-121
o-Xylene	<0.1276	25.00	28.91	116	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-122

Type: MSD Lab ID: QC368992

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	125.5	100	68-148	6	23
MTBE	25.00	22.24	89	75-120	4	20
Isopropyl Ether (DIPE)	25.00	20.50	82	74-125	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	26.01	104	80-131	3	20
1,2-Dichloroethane	25.00	25.48	102	80-124	3	20
Benzene	25.00	26.95	108	80-122	6	20
Methyl tert-Amyl Ether (TAME)	25.00	23.58	94	78-120	3	20
Toluene	25.00	27.67	111	80-120	3	20
1,2-Dibromoethane	25.00	25.95	104	80-120	4	20
Ethylbenzene	25.00	28.38	114	80-121	5	20
m,p-Xylenes	50.00	58.38	117	80-121	4	20
o-Xylene	25.00	27.78	111	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	100	80-130
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-122

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	120552
Units:	ug/L	Analyzed:	12/20/06
Diln Fac:	1.000		

Type: BS Lab ID: QC369068

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	105.9	85	64-141
MTBE	25.00	19.11	76	72-120
Isopropyl Ether (DIPE)	25.00	17.49	70	68-123
Ethyl tert-Butyl Ether (ETBE)	25.00	22.30	89	77-129
1,2-Dichloroethane	25.00	22.16	89	77-120
Benzene	25.00	23.72	95	80-120
Methyl tert-Amyl Ether (TAME)	25.00	20.32	81	77-120
Toluene	25.00	25.48	102	80-120
1,2-Dibromoethane	25.00	24.58	98	80-120
Ethylbenzene	25.00	27.69	111	80-120
m,p-Xylenes	50.00	59.05	118	80-121
o-Xylene	25.00	30.09	120	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-120
1,2-Dichloroethane-d4	91	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	96	80-122

Type: BSD Lab ID: QC369069

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	103.0	82	64-141	3	22
MTBE	25.00	18.54	74	72-120	3	20
Isopropyl Ether (DIPE)	25.00	16.97	68	68-123	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	20.92	84	77-129	6	20
1,2-Dichloroethane	25.00	21.18	85	77-120	5	20
Benzene	25.00	22.13	89	80-120	7	20
Methyl tert-Amyl Ether (TAME)	25.00	19.67	79	77-120	3	20
Toluene	25.00	24.47	98	80-120	4	20
1,2-Dibromoethane	25.00	23.89	96	80-120	3	20
Ethylbenzene	25.00	26.47	106	80-120	5	20
m,p-Xylenes	50.00	55.54	111	80-121	6	20
o-Xylene	25.00	28.01	112	80-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-120
1,2-Dichloroethane-d4	90	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-122

RPD= Relative Percent Difference

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC369070	Batch#:	120552
Matrix:	Water	Analyzed:	12/20/06
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	98	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	120642
Units:	ug/L	Analyzed:	12/22/06
Diln Fac:	1.000		

Type: BS Lab ID: QC369420

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	149.7	120	64-141
MTBE	25.00	22.40	90	72-120
Isopropyl Ether (DIPE)	25.00	24.64	99	68-123
Ethyl tert-Butyl Ether (ETBE)	25.00	26.73	107	77-129
1,2-Dichloroethane	25.00	23.71	95	77-120
Benzene	25.00	24.45	98	80-120
Methyl tert-Amyl Ether (TAME)	25.00	22.13	89	77-120
Toluene	25.00	25.18	101	80-120
1,2-Dibromoethane	25.00	24.16	97	80-120
Ethylbenzene	25.00	27.39	110	80-120
m,p-Xylenes	50.00	59.33	119	80-121
o-Xylene	25.00	28.87	115	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	100	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	107	80-122

Type: BSD Lab ID: QC369421

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	146.2	117	64-141	2	22
MTBE	25.00	20.94	84	72-120	7	20
Isopropyl Ether (DIPE)	25.00	24.18	97	68-123	2	20
Ethyl tert-Butyl Ether (ETBE)	25.00	26.80	107	77-129	0	20
1,2-Dichloroethane	25.00	22.77	91	77-120	4	20
Benzene	25.00	23.10	92	80-120	6	20
Methyl tert-Amyl Ether (TAME)	25.00	21.60	86	77-120	2	20
Toluene	25.00	24.29	97	80-120	4	20
1,2-Dibromoethane	25.00	23.69	95	80-120	2	20
Ethylbenzene	25.00	25.75	103	80-120	6	20
m,p-Xylenes	50.00	55.67	111	80-121	6	20
o-Xylene	25.00	27.86	111	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	97	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	105	80-122

RPD= Relative Percent Difference

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC369422	Batch#:	120642
Matrix:	Water	Analyzed:	12/22/06
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	103	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	110	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	120642
MSS Lab ID:	191523-005	Sampled:	12/12/06
Matrix:	Water	Received:	12/15/06
Units:	ug/L	Analyzed:	12/22/06
Diln Fac:	400.0		

Type: MS Lab ID: QC369474

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<527.5	50,000	58,260	117	68-148
MTBE	<15.95	10,000	9,086	91	75-120
Isopropyl Ether (DIPE)	<11.91	10,000	10,820	108	74-125
Ethyl tert-Butyl Ether (ETBE)	<13.01	10,000	11,640	116	80-131
1,2-Dichloroethane	<48.13	10,000	10,240	102	80-124
Benzene	36,680	10,000	49,980 >LR b	133 *	80-122
Methyl tert-Amyl Ether (TAME)	664.0	10,000	9,662	90	78-120
Toluene	68.20	10,000	10,830	108	80-120
1,2-Dibromoethane	<42.63	10,000	10,010	100	80-120
Ethylbenzene	784.2	10,000	12,620	118	80-121
m,p-Xylenes	205.0	20,000	24,850	123 *	80-121
o-Xylene	70.80	10,000	11,980	119	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	104	80-130
Toluene-d8	101	80-120
Bromofluorobenzene	108	80-122

Type: MSD Lab ID: QC369475

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	50,000	58,030	116	68-148	0	23
MTBE	10,000	9,448	94	75-120	4	20
Isopropyl Ether (DIPE)	10,000	10,810	108	74-125	0	20
Ethyl tert-Butyl Ether (ETBE)	10,000	11,740	117	80-131	1	20
1,2-Dichloroethane	10,000	10,380	104	80-124	1	20
Benzene	10,000	49,430 >LR b	127 *	80-122	NC	20
Methyl tert-Amyl Ether (TAME)	10,000	9,603	89	78-120	1	20
Toluene	10,000	10,720	107	80-120	1	20
1,2-Dibromoethane	10,000	10,180	102	80-120	2	20
Ethylbenzene	10,000	12,340	116	80-121	2	20
m,p-Xylenes	20,000	24,610	122 *	80-121	1	20
o-Xylene	10,000	12,050	120	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-120
1,2-Dichloroethane-d4	103	80-130
Toluene-d8	102	80-120
Bromofluorobenzene	108	80-122

*= Value outside of QC limits; see narrative
 b= See narrative
 NC= Not Calculated
 >LR= Response exceeds instrument's linear range
 RPD= Relative Percent Difference

Batch QC Report

BTXE & Oxygenates			
Lab #:	191518	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	120642
MSS Lab ID:	191524-004	Sampled:	12/13/06
Matrix:	Water	Received:	12/15/06
Units:	ug/L	Analyzed:	12/22/06
Diln Fac:	1.000		

Type: MS Lab ID: QC369476

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<1.319	125.0	147.6	118	68-148
MTBE	<0.03988	25.00	22.63	91	75-120
Isopropyl Ether (DIPE)	<0.02976	25.00	26.07	104	74-125
Ethyl tert-Butyl Ether (ETBE)	<0.03253	25.00	28.58	114	80-131
1,2-Dichloroethane	<0.1203	25.00	25.72	103	80-124
Benzene	<0.1164	25.00	26.37	105	80-122
Methyl tert-Amyl Ether (TAME)	<0.04809	25.00	23.18	93	78-120
Toluene	<0.06248	25.00	27.19	109	80-120
1,2-Dibromoethane	<0.1066	25.00	24.38	98	80-120
Ethylbenzene	<0.04120	25.00	29.31	117	80-121
m,p-Xylenes	<0.1703	50.00	62.38	125 *	80-121
o-Xylene	<0.1599	25.00	30.38	122 *	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	104	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	107	80-122

Type: MSD Lab ID: QC369477

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	153.7	123	68-148	4	23
MTBE	25.00	23.75	95	75-120	5	20
Isopropyl Ether (DIPE)	25.00	27.20	109	74-125	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	29.88	120	80-131	4	20
1,2-Dichloroethane	25.00	24.60	98	80-124	4	20
Benzene	25.00	26.25	105	80-122	0	20
Methyl tert-Amyl Ether (TAME)	25.00	23.06	92	78-120	0	20
Toluene	25.00	27.85	111	80-120	2	20
1,2-Dibromoethane	25.00	25.18	101	80-120	3	20
Ethylbenzene	25.00	29.81	119	80-121	2	20
m,p-Xylenes	50.00	62.99	126 *	80-121	1	20
o-Xylene	25.00	31.34	125 *	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	102	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-122

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Chain of Custody Record

191518

Lab job no. _____
 Date 12/13/06
 Page 1 of 1

Laboratory CST Method of Shipment LAB P/U
 Address 2323 RYAN ST. Shipment No. _____
BERKELEY, CA
 Project Owner STELLAR ENV. Airbill No. _____
 Site Address 240 W. MACARTHUR Cooler No. _____
DALLAND, CA Project Manager R. MAKDISI
 Project Name DALLAND AND WORKS Telephone No. (510) 644-3123
 Project Number 061213-DR2 Fax No. (510) 644-3859
 Samplers: (Signature) [Signature]

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Filtered	No. of Containers	Analysis Required	Remarks
						Cooler	Chemical				
1- MW-4		12/13/06	1055	W	3 vials			X	1		
2- MW-7			1120	W	3 vials			X	1		
3- MW-6			1140	W	3 vials 2 Ambrs			X	3		
4- MW-8			1335	W	3 vials 2 Ambrs			X	3		
5- MW-2			1211	W	3 vials 2 Ambrs			X	3		
6- MW-3			1300	W	3 vials 2 Ambrs			X	3		
7- MW-1			1359	W	3 vials 2 Ambrs			X	3		
8- MW-5			1422	W	3 vials 2 Ambrs			X	3		

1-
2-
3-
4-
5-
6-
7-
8-

What out of clean to dirty for test reasons

Filtered
 No. of Containers
 TUH-GAS (BOISIN)
 THH-D (BOISIN)
 BIK, M, BE, EDB, EDC
 +5 ORYS (ORYS)

Relinquished by: Signature <u>[Signature]</u> Printed <u>Devin Rayna</u> Company <u>BTS</u>	Date <u>12/13/06</u> Time <u>1430</u>	Received by: Signature <u>[Signature]</u> Printed <u>R. SPILL</u> Company <u>BTS</u>	Date <u>12/13/06</u> Time <u>1430</u>	Relinquished by: Signature <u>[Signature]</u> Printed <u>Suehem Sung</u> Company <u>BTS</u>	Date <u>12/14</u> Time <u>1520</u>	Received by: Signature <u>[Signature]</u> Printed <u>Rick Grams</u> Company <u>CST</u>	Date <u>12/14/06</u> Time <u>1519</u>				
Turnaround Time: _____ Comments: _____				Relinquished by: Signature _____ Printed _____ Company _____				Received by: Signature _____ Printed _____ Company _____			

2000-00-01

intact cold R6

APPENDIX C

Historical Analytical Results

Table C-1
Historical Groundwater Monitoring Well Groundwater Analytical Results
Petroleum and Aromatic Hydrocarbons (µg/L)
240 W. MacArthur Boulevard, Oakland, Alameda, California

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-1									
Yes	1	Aug-97	1,140	< 1,000	110	16	15	112	NA
Yes	2	Dec-97	ND	NA	ND	ND	ND	31	NA
Yes	3	Mar-98	370	NA	8.9	< 0.5	< 0.5	2.2	18
Yes	4	Jul-98	6,400	NA	1,300	23	3.7	58	97
Yes	5	Oct-98	2,500	NA	360	44	1.3	150	< 0.5
Yes	6	Jan-99	2,700	NA	1,200	28	140	78	130
(a)	7	Jun-00	27,000	NA	5,200	500	320	3,100	1,300
(a)	8	Dec-00	976,000	NA	2,490	1,420	3,640	10,100	< 150
(a)	9	Feb-01	NA	NA	NA	NA	NA	NA	NA
(a)	10	May-01	20,000	NA	2,900	310	230	1,900	< 30
(a)	11	Jul-01	92,000	NA	2,900	580	2,800	20,000	560
Pre“hi-vac”	12	Oct 22-01	20,000	NA	3,700	560	410	4,600	2,600
Post “hi-vac”	12	Oct 26-01	< 0.05	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
(a)	13	Dec-01	3,300	NA	200	12	5.7	43	44
No	14	Mar-02	4,600	NA	820	4.4	100	300	210
No	15	May-02	1,600	NA	100	23	20	190	7.7
No	16	Jul-02	2,300	NA	250	15	13	180	180
No	17	Oct-02	1,820	NA	222	16	< 0.3	59	58
No	18	Jan-03	2,880	NA	188	< 50	< 50	157	20
No	19	Mar-03	6,700	NA	607	64	64	288	< 0.18
No	20	Aug-03	4,900	5,000	740	45	85	250	14
Yes	21	Dec-03	8,930	800	1,030	55	127	253	212
Yes	22	Mar-04	11,300	1,100	483	97	122	452	67
Yes	23	Jun-04	9,300	4,000	1,700	75	92	350	6.0
Yes	24	Sep-04	9,100	97	920	19	82	201	7.2
Yes	25	Dec-04	11,000	3,300	830	21	74	118	7.9
Yes	26	Mar-05	4,700	3,500	450	28	42	97	6.7
Yes	27	Jun-05	21,000	6,800	1,900	270	320	2,800	< 13
Yes	28	Sep-05	23,000	2,500	2,100	100	200	880	< 2.5
Yes	29	Dec-05	4,300	3,000	500	22	72	228	5.5
Yes	30	Mar-06	11,000	3,000	340	45	89	630	4.3
Yes	31	Jun-06	21,000	8,500	1,600	160	170	1,000	< 2.5
Yes	32	Sep-06	13,000	6,200	1,700	76	110	440	< 13
Yes	33	Dec-06	16,000	4,100	1,500	100	160	670	< 13

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-2									
Yes	1	Aug-97	5,350	< 1,000	108	36	33	144	NA
Yes	2	Dec-97	1,600	NA	73	ND	ND	ND	NA
Yes	3	Mar-98	3,400	NA	830	100	210	240	870
Yes	4	Jul-98	3,100	NA	25	2.2	< 0.5	0.9	1,900
Yes	5	Oct-98	4,300	NA	< 0.5	1.2	< 0.5	1	4,200
Yes	6	Jan-99	2,900	NA	160	8.9	6.9	78.4	2,100
(a)	7	Jun-00	2,700	NA	200	17	30	16	680
(a)	8	Dec-00	3,020	NA	56.7	< 1.5	< 1.5	< 3.0	3,040
(a)	9	Feb-01	NA	NA	NA	NA	NA	NA	NA
(a)	10	May-01	720	NA	49	< 3.0	4.6	< 3.0	380
(a)	11	Jul-01	8,400	NA	350	44	77	78	550
Pre "hi-vac"	12	Oct 22-01	850	NA	170	4.9	5.1	14	260
Post "hi-vac"	12	Oct 26-01	770	NA	86	5.5	9.6	8.5	310
(a)	13	Dec-01	1,300	NA	9.2	< 2.0	< 2.0	< 2.0	370
No	14	Mar-02	1,300	NA	76	3.8	21	15	460
No	15	May-02	320	NA	12	1.1	4.6	4.8	160
No	16	Jul-02	1,300	NA	130	1	9.4	5.6	420
No	17	Oct-02	1,060	NA	12	2.2	4.2	3.5	270
No	18	Jan-03	581	NA	6.5	< 5.0	< 5.0	< 5.0	130
No	19	Mar-03	1,250	NA	< 0.22	< 0.32	< 0.31	< 0.4	155
No	20	Aug-03	2,200	730	58	9.2	< 0.5	28	240
Yes	21	Dec-03	1,980	100	29	22.0	7.4	13	295
Yes	22	Mar-04	2,700	100	12	16.0	9	12	249
Yes	23	Jun-04	1,200	370	42	0.7	2.6	0.9	170
Yes	24	Sep-04	1,500	280	14	< 0.5	< 0.5	0.6	130
Yes	25	Dec-04	1,400	540	26	1.1	1.8	3.5	91
Yes	26	Mar-05	2,300	420	5.3	< 1.0	3.7	< 2.0	120
Yes	27	Jun-05	1,600	500	14	< 0.5	1.8	0.68	66
Yes	28	Sep-05	1,400	210	30	1.3	12	26	58
Yes	29	Dec-05	1,300	800	4.9	0.6	0.7	0.8	74
Yes	30	Mar-06	1,300	400	3.2	< 0.7	< 0.7	< 1.4	120
Yes	31	Jun-06	1,400	1,200	33.0	1.3	3.5	< 1.6	84
Yes	32	Sep-06	8,300	1,600	67.0	4.1	4.6	15.4	64
Yes	33	Dec-06	1,500	940	22.0	2.9	2.6	3.5	67

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-3									
Yes	1	Aug-97	8,500	< 1,000	450	30	53	106	NA
Yes	2	Dec-97	5,200	NA	180	6	5	9.3	NA
Yes	3	Mar-98	1,000	NA	6	< 0.5	< 0.5	< 0.5	810
Yes	4	Jul-98	6,400	NA	490	57	23	78	220
Yes	5	Oct-98	2,100	NA	< 5.0	< 5.0	< 5.0	< 5.0	2,100
Yes	6	Jan-99	4,400	NA	450	65	26	42	1,300
(a)	7	Jun-00	1,700	NA	110	13	34	13	96
(a)	8	Dec-00	5,450	NA	445	< 7.5	23.8	< 7.5	603
(a)	9	Feb-01	NA	NA	NA	NA	NA	NA	NA
(a)	10	May-01	1,900	NA	180	12	< 3.0	19	330
(a)	11	Jul-01	10,000	NA	830	160	150	260	560
Pre“hi-vac”	12	Oct 22-01	1,400	NA	240	7.8	4.1	15	220
Post “hi-vac”	12	Oct 26-01	1,900	NA	200	16	51	30	290
(a)	13	Dec-01	5,800	NA	93	< 20	31	< 20	330
No	14	Mar-02	1,900	NA	220	16	31	24	400
No	15	May-02	1,600	NA	110	3.4	29	14	320
No	16	Jul-02	1,900	NA	210	27	30	55	200
No	17	Oct. 2002	3,030	NA	178	19	6.2	36	178
No	18	Jan-03	2,980	NA	47	< 5.0	7.6	6.3	105
No	19	Mar-03	3,620	NA	124	< 0.32	22	12	139
No	20	Aug-03	3,800	2,400	170	28	31	31	170
Yes	21	Dec-03	6,860	500	312	20	55	58	309
Yes	22	Mar-04	5,490	500	82	34	46	49	249
Yes	23	Jun-04	5,400	1,100	150	30	45	66	130
Yes	24	Sep-04	5,400	1,500	70	3.2	16	13	110
Yes	25	Dec-04	5,300	2,400	91	7.4	21	19	92
Yes	26	Mar-05	4,700	2,000	19	1.1	10	3.7	76
Yes	27	Jun-05	4,200	1,800	49	4.5	23	16	66
Yes	28	Sep-05	5,000	950	60	3.1	12	26	59
Yes	29	Dec-05	3,200	1,800	29	1.3	6.6	5.6	80
Yes	30	Mar-06	4,100	1,200	24	1.1	8.5	3.4	99
Yes	31	Jun-06	4,000	1,400	89.0	8.4	14.0	16.7	75
Yes	32	Sep-06	6,100	2,600	190	15.0	24.0	59.0	51
Yes	33	Dec-06	4,500	2,000	110	4.0	7.3	19.1	47

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-4									
Yes	1	Aug-97	< 500	< 1,000	< 0.5	< 0.5	< 0.5	< 1.5	NA
Yes	2	Dec-97	ND	NA	ND	ND	ND	ND	NA
Yes	3	Mar-98	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	4	Jul-98	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	5	Oct-98	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	6	Jan-99	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
(a)	7	Jun-00	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
(a)	8	Dec-00	< 500	NA	< 0.3	< 0.3	< 0.6	< 0.3	< 0.3
(a)	9	Feb-01	NA	NA	NA	NA	NA	NA	NA
(a)	10	May-01	< 50	NA	1.2	< 0.3	0.55	1.2	2.9
(a)	11	Jul-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pre“hi-vac”	12	Oct 22-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Post “hi-vac”	12	Oct 26-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
(a)	13	Dec-01	ND	NA	ND	ND	ND	ND	ND
No	14	Mar-02	< 50	NA	< 1	< 1	< 1	< 1	< 1
No	15	May-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	16	Jul-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	17	Oct-02	< 100	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 0.3
No	18	Jan-03	< 100	NA	< 0.3	< 0.3	< 0.3	< 0.6	14
No	19	Mar-03	< 15	NA	< 0.4	< 0.02	< 0.02	< 0.06	5.2
No	20	Aug-03	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	21	Dec-03	63	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 5.0
Yes	22	Mar-04	< 50	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 5.0
Yes	23	Jun-04	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	0.9
Yes	24	Sep-04	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	2.3
Yes	25	Dec-04	< 50	NA	NA	NA	NA	NA	NA
Yes	26	Mar-05	< 50	NA	NA	NA	NA	NA	NA
Yes	27	Jun-05	< 50	NA	NA	NA	NA	NA	NA
Yes	28	Sep-05	< 50	NA	NA	NA	NA	NA	NA
Yes	29	Dec-05	< 50	NA	NA	NA	NA	NA	NA
Yes	30	Mar-06	< 50	NA	NA	NA	NA	NA	NA
Yes	31	Jun-06	< 50	NA	NA	NA	NA	NA	NA
Yes	32	Sep-06	< 50	NA	NA	NA	NA	NA	NA
Yes	33	Dec-06	59	NA	NA	NA	NA	NA	NA

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-5									
(a)	9	Feb-01	5,660	NA	76.9	21.1	47.3	312	< 0.3
(a)	10	May-01	22,000	NA	2,600	480	220	2,700	< 30
(a)	11	Jul-01	72,000	NA	3,500	1,100	4,300	22,000	2,500
Pre“hi-vac”	12	Oct 22-01	26,000	NA	2,800	980	6,000	950	2,300
Post “hi-vac”	12	Oct 26-01	17,000	NA	1,200	470	2,900	440	900
(a)	13	Dec-01	2,000	NA	620	190	110	910	< 20
No	14	Mar-02	8,800	NA	1,200	72	7.4	350	1,200
No	15	May-02	2,000	NA	150	38	21	260	13
No	16	Jul-02	4,200	NA	480	68	29	280	450
No	17	Oct-02	5,370	NA	236	45	23	39	135
No	18	Jan-03	8,270	NA	615	156	174	1,010	< 10
No	19	Mar-03	12,400	NA	824	195	213	1,070	< 0.18
No	20	Aug-03	18,000	10,000	950	290	330	1,820	< 2.0
Yes	21	Dec-03	11,900	800	627	263	288	1,230	595
Yes	22	Mar-04	20,700	850	867	266	305	678	145
Yes	23	Jun-04	12,000	1,700	920	240	260	1,150	< 3.1
Yes	24	Sep-04	13,000	1,900	580	240	260	1,260	< 4.2
Yes	25	Dec-04	16,000	3,300	730	200	250	1,100	< 4.2
Yes	26	Mar-05	6,300	4,600	190	28	42	280	< 1.7
Yes	27	Jun-05	16,000	4,100	1,100	260	380	1,590	< 7.1
Yes	28	Sep-05	15,000	3,600	810	210	300	1,300	< 1.3
Yes	29	Dec-05	9,600	3,600	270	80	110	710	< 1.7
Yes	30	Mar-06	9,800	5,100	240	47	97	590	< 2.0
Yes	31	Jun-06	28,000	4,900	920.0	250.0	350.0	1,480	< 2.0
Yes	32	Sep-06	12,000	2,400	580	170	230	980	< 3.6
Yes	33	Dec-06	15,000	3,400	510	160	260	1,190	<3.6

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-6									
(a)	9	Feb-01	1,340	NA	17	0.967	11.1	51.4	< 0.3
(a)	10	May-01	610	NA	15	0.97	< 0.5	46	< 0.5
(a)	11	Jul-01	2,500	NA	130	4.7	53	170	120
Pre“hi-vac”	12	Oct 22-01	280	NA	18	1.2	6.2	4.7	6
Post “hi-vac”	12	Oct 26-01	3,600	NA	210	20	170	62	120
(a)	13	Dec-01	5,300	NA	69	5.6	14	17	< 2.0
No	14	Mar-02	71	NA	54	4.2	27	17	8.5
No	15	May-02	150	NA	9.3	< 0.5	< 0.5	< 0.5	1.5
No	16	Jul-02	2,200	NA	98	32	46	150	66
No	17	Oct-02	786	NA	48	5.0	2.2	44	16
No	18	Jan-03	497	NA	6.8	< 5.0	< 5.0	11	< 1.0
No	19	Mar-03	258	NA	5.4	< 0.32	3.3	< 1.1	< 0.18
No	20	Aug-03	1,600	2,800	37	4	23	58	< 0.5
Yes	21	Dec-03	365	200	2.5	3.8	1.4	6.1	< 5.0
Yes	22	Mar-04	215	140	4.0	1.2	1.4	1.4	3.7
Yes	23	Jun-04	710	830	14.0	0.7	5.2	6.6	< 0.5
Yes	24	Sep-04	350	600	< 0.5	2.4	< 0.5	< 0.5	< 0.5
Yes	25	Dec-04	280	1,100	4.9	< 0.5	1.4	4.4	< 0.5
Yes	26	Mar-05	300	980	5.4	< 0.5	3.3	2.3	< 0.5
Yes	27	Jun-05	150	1,100	< 0.5	< 0.5	< 0.5	0.77	28
Yes	28	Sep-05	680	200	13	0.9	6.6	13	< 0.5
Yes	29	Dec-05	240	890	3.6	< 0.5	0.7	2.4	0.5
Yes	30	Mar-06	530	950	8.3	< 0.5	4.0	2.1	0.6
Yes	31	Jun-06	460	1,300	8.3	< 0.5	1.4	2.6	< 0.5
Yes	32	Sep-06	530	730	10.0	0.8	4.1	7.5	< 0.5
Yes	33	Dec-06	500	750	7.5	< 0.5	2.6	2.5	< 0.5

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-7									
(a)	9	Feb-01	ND	NA	ND	ND	ND	ND	ND
(a)	10	May-01	< 50	NA	0.75	0.77	0.48	2.4	1.1
(a)	11	Jul-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pre“hi-vac”	12	Oct 22-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Post “hi-vac”	12	Oct 26-01	6,000	NA	170	550	110	120	970
(a)	13	Dec-01	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	43
No	14	Mar-02	< 50	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
No	15	May-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	16	Jul-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	17	Oct-02	< 100	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 5.0
No	18	Jan-03	NA	NA	NA	NA	NA	NA	NA
No	19	Mar-03	< 15	NA	< 0.04	< 0.02	< 0.02	< 0.06	< 0.03
No	20	Aug-03	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	21	Dec-03	< 50	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 5.0
Yes	22	Mar-04	86	NA	< 0.3	< 0.3	< 0.3	< 0.6	57
Yes	23	Jun-04	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	24	Sep-04	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Yes	25	Dec-04	< 50	NA	NA	NA	NA	NA	NA
Yes	26	Mar-05	< 50	NA	NA	NA	NA	NA	NA
Yes	27	Jun-05	< 50	NA	NA	NA	NA	NA	NA
Yes	28	Sep-05	< 50	NA	NA	NA	NA	NA	NA
Yes	29	Dec-05	< 50	NA	NA	NA	NA	NA	NA
Yes	30	Mar-06	< 50	NA	NA	NA	NA	NA	NA
Yes	31	Jun-06	< 50	NA	NA	NA	NA	NA	NA
Yes	32	Sep-06	< 50	NA	NA	NA	NA	NA	NA
Yes	33	Dec-06	< 50	NA	NA	NA	NA	NA	NA

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-8									
(a)	9	Feb-01	1,000	NA	3.97	< 0.3	3.78	1.63	620
(a)	10	May-01	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	4.4
(a)	11	Jul-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pre“hi-vac”	12	Oct 22-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Post “hi-vac”	12	Oct 26-01	< 5.0	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
(a)	13	Dec-01	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	14	Mar-02	< 50	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
No	15	May-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	16	Jul-02	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
No	17	Oct-02	458	NA	1.7	< 0.3	< 0.3	< 0.6	233
No	18	Jan-03	< 100	NA	< 0.3	< 0.3	< 0.3	< 0.6	< 5.0
No	19	Mar-03	< 15	NA	< 0.22	< 0.32	< 0.31	< 0.4	< 0.18
No	20	Aug-03	190	< 50	< 0.5	< 0.5	< 0.5	0.6	< 0.5
Yes	21	Dec-03	163	< 100	< 0.3	< 0.3	< 0.3	< 0.6	66
Yes	22	Mar-04	412	< 100	1.2	< 0.3	1.7	3.9	66
Yes	23	Jun-04	320	68	< 0.5	< 0.5	< 0.5	< 0.5	120
Yes	24	Sep-04	280	2600	< 0.5	< 0.5	< 0.5	< 0.5	120
Yes	25	Dec-04	270	84	< 0.5	< 0.5	< 0.5	< 0.5	94
Yes	26	Mar-05	270	120	< 0.5	< 0.5	< 0.5	< 1.0	66
Yes	27	Jun-05	510	63	6.8	< 0.5	2.4	5.3	< 0.5
Yes	28	Sep-05	520	< 50	< 0.5	< 0.5	< 0.5	< 1.0	65
Yes	29	Dec-05	65	57	< 0.5	< 0.5	< 0.5	< 1.0	29
Yes	30	Mar-06	140	120	< 0.5	< 0.5	< 0.5	0.6	24
Yes	31	Jun-06	710	170	< 0.5	< 0.5	< 0.5	< 1.0	81
Yes	32	Sep-06	330	260	< 0.5	< 0.5	< 0.5	< 0.5	44
Yes	33	Dec-06	63	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21

Notes:

(a) Data not available to Ses as to whether the samples were collected "post-purge" or before purging.

"No Purge" means no purging was conducted before the groundwater sample was collected.

TVH-g = Total Volatile Hydrocarbons - gasoline range. TEH-d = Total Extractable Hydrocarbons - diesel range.

NA = Not analyzed for this constituent in this event.

ND = Not Detected (method reporting limit not specified in the information available to SES).

TABLE C-2
Historical Groundwater Monitoring Well Groundwater Analytical Results
Fuel Oxygenates and VOCs (µg/L)
240 W. MacArthur Boulevard, Oakland, California

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	7	Jun-00	< 5.0	< 5.0	51	< 5	< 1,000	< 1000	< 50	< 5	< 5	< 5	< 5	ND
	14	Mar-02	< 1.0	< 1.0	< 1	1.6	< 10	NA	< 2	< 1	< 1	< 1	< 1	ND
	18	Jan-03	< 50	< 50	150	< 50	NA	68	< 10	< 50	< 50	< 50	< 50	ND
MW-1	19	Mar-03	< 0.26	< 0.17	373	< 0.49	NA	< 10	< 0.29	< 0.88	< 0.30	< 0.23	< 0.36	ND
	20	Aug-03	< 1.0	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	< 5.0	< 5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 5.0	< 5.0	NA	NA	NA	270	< 5.0	NA	NA	NA	NA	NA
	24	Sep-04	< 5.0	< 5.0	NA	NA	NA	120	< 5.0	NA	NA	NA	NA	NA
	25	Dec-04	< 1.3	< 1.3	NA	NA	NA	< 25	< 1.3	NA	NA	NA	NA	NA
	26	Mar-05	< 0.50	< 0.50	NA	NA	NA	< 10	< 0.50	NA	NA	NA	NA	NA
	27	Jun-05	< 13	< 13	NA	NA	NA	< 250	< 13	NA	NA	NA	NA	NA
	28	Sep-05	< 2.5	6.5	NA	NA	NA	240	< 2.5	NA	NA	NA	NA	NA
	29	Dec-05	< 1.3	< 1.3	NA	NA	NA	100	< 3.6	NA	NA	NA	NA	NA
	30	Mar-06	< 2.0	< 2.0	NA	NA	NA	83	< 2.0	NA	NA	NA	NA	NA
	31	Jun-06	< 2.5	< 2.5	NA	NA	NA	220	< 2.5	NA	NA	NA	NA	NA
	32	Sep-06	< 13	< 13	NA	NA	NA	320	< 13	NA	NA	NA	NA	NA
	33	Dec-06	< 13	< 13	NA	NA	NA	320	< 13	NA	NA	NA	NA	NA

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Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	7	Jun-00	< 0.5	< 0.5	< 0.5	< 0.5	< 100	< 100	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	ND
	14	Mar-02	< 1.0	< 1.0	< 1	< 1	220	NA	< 2	< 1	< 1	< 1	< 1	ND
	18	Jan-03	< 5	< 5	< 5	< 5	NA	34	< 1	< 5	24	< 5	< 5	ND
	19	Mar-03	< 0.26	< 0.17	< 0.49	< 0.26	NA	94	< 0.29	< 0.88	15	< 0.23	< 0.36	ND
MW-2	21	Dec-03	< 0.6	< 0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	20	Aug-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	2.0	NA	NA	NA	190	1.1	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	1.2	NA	NA	NA	130	0.9	NA	NA	NA	NA	NA
	25	Dec-04	< 0.5	< 0.5	NA	NA	NA	< 10	0.8	NA	NA	NA	NA	NA
	26	Mar-05	< 1.0	< 1.0	NA	NA	NA	< 20	1.3	NA	NA	NA	NA	NA
	27	Jun-05	< 0.50	< 0.50	NA	NA	NA	200	0.79	NA	NA	NA	NA	NA
	28	Sep-05	< 0.50	0.6	NA	NA	NA	150	0.8	NA	NA	NA	NA	NA
	29	Dec-05	< 0.50	< 0.50	NA	NA	NA	54	1.0	NA	NA	NA	NA	NA
	30	Mar-06	< 0.7	< 0.7	NA	NA	NA	56	1.2	NA	NA	NA	NA	NA
	31	Jun-06	< 0.8	1.4	NA	NA	NA	56	< 0.8	NA	NA	NA	NA	NA
	32	Sep-06	< 0.5	1.3	NA	NA	NA	59	0.8	NA	NA	NA	NA	NA
	33	Dec-06	< 0.5	1.3	NA	NA	NA	59	0.8	NA	NA	NA	NA	NA

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Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	14	Mar-02	< 1.0	< 1.0	1.8	4.7	180	NA	< 2	2.2	< 1	< 1	< 1	ND
	18	Jan-03	< 5	< 5	< 5	5.0	NA	76	< 1	< 5	21	< 5	< 5	(a)
	19	Mar-03	< 0.26	< 0.17	< 0.49	< 0.26	NA	< 10	< 0.29	< 0.88	24	< 0.23	< 0.36	ND
MW-3	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	< 0.5	NA	NA	NA	130	1.9	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	< 0.5	NA	NA	NA	82	1.5	NA	NA	NA	NA	NA
	25	Dec-04	< 0.7	< 0.7	NA	NA	NA	< 14	1.3	NA	NA	NA	NA	NA
	26	Mar-05	< 1.0	< 1.0	NA	NA	NA	< 20	1.1	NA	NA	NA	NA	NA
	27	Jun-05	< 0.5	< 0.5				160	1.4					
	28	Sep-05	< 0.5	1.5	NA	NA	NA	94	0.9	NA	NA	NA	NA	NA
	29	Dec-05	< 0.7	< 0.7	NA	NA	NA	67	1.2	NA	NA	NA	NA	NA
	30	Mar-06	< 0.5	< 0.5	NA	NA	NA	29	1.0	NA	NA	NA	NA	NA
	31	Jun-06	< 0.5	< 0.5	NA	NA	NA	52	2.2	NA	NA	NA	NA	NA
	32	Sep-06	< 1.7	1.8	NA	NA	NA	53	1.7	NA	NA	NA	NA	NA
	33	Dec-06	< 1.7	1.8	NA	NA	NA	53	1.7	NA	NA	NA	NA	NA

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Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	7	Jun-00	< 0.5	< 0.5	< 0.5	< 0.5	< 100	< 100	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	ND
	14	Mar-02	< 1.0	< 1.0	< 1	< 1	< 10	NA	< 2	< 1	2.9	3.7	5.0	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
MW-4	19	Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	< 0.5	NA	NA	NA	< 10	< 0.5	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	< 0.5	NA	NA	NA	< 10	< 0.5	NA	NA	NA	NA	NA
	25	Dec-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	26	Mar-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	27	Jun-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	28	Sep-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	29	Dec-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	30	Mar-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	31	Jun-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	32	Sep-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	14	Mar-02	< 1.0	< 1.0	< 1	2.7	640	NA	< 2	< 1	< 1	< 1	< 1	ND
	18	Jan-03	< 50	< 50	512	122	NA	< 100	< 10	120	< 50	< 50	< 50	ND
	19	Mar-03	< 0.26	< 0.17	554	107	NA	< 10	< 0.29	251	< 0.3	< 0.23	< 0.36	(b)
MW-5	20	Aug-03	< 2.0	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	< 5.0	< 5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 3.1	< 3.1	NA	NA	NA	120	< 3.1	NA	NA	NA	NA	NA
	24	Sep-04	< 4.2	18	NA	NA	NA	87	< 4.2	NA	NA	NA	NA	NA
	25	Dec-04	< 4.2	< 4.2	NA	NA	NA	< 83	< 4.2	NA	NA	NA	NA	NA
	26	Mar-05	< 1.7	< 1.7	NA	NA	NA	< 33	< 1.7	NA	NA	NA	NA	NA
	27	Jun-05	< 7.1	< 7.1	NA	NA	NA	< 140	< 7.1	NA	NA	NA	NA	NA
	28	Sep-05	< 1.3	7.7	NA	NA	NA	87	< 0.50	NA	NA	NA	NA	NA
	29	Dec-05	< 1.7	< 1.7	NA	NA	NA	< 33	< 1.7	NA	NA	NA	NA	NA
	30	Mar-06	< 2.0	< 2.0	NA	NA	NA	< 2.0	< 2.0	NA	NA	NA	NA	NA
	31	Jun-06	< 2.0	10	NA	NA	NA	61	< 2.0	NA	NA	NA	NA	NA
	32	Sep-06	< 3.6	5.5	NA	NA	NA	76	< 3.6	NA	NA	NA	NA	NA
	33	Dec-06	< 3.6	5.5	NA	NA	NA	76	< 3.6	NA	NA	NA	NA	NA

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Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	14	Mar-02	< 1.0	< 1.0	< 1	2.2	< 10	NA	< 2	1.6	< 1	< 1	< 1	ND
	18	Jan-03	< 5.0	< 5.0	13	< 5	NA	46	< 1	< 5	< 5	< 5	< 5	ND
	19	Mar-03	< 0.26	6.9	< 0.49	< 0.26	NA	40	< 0.29	< 0.88	< 0.3	< 0.23	< 0.36	(c.)
	20	Aug-03	< 0.5	12.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-6	21	Dec-03	< 5.0	11 / 17.1 ^(d)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	19	NA	NA	NA	54	1.0	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	31	NA	NA	NA	43	1.0	NA	NA	NA	NA	NA
	25	Dec-04	< 0.5	24	NA	NA	NA	32	0.7	NA	NA	NA	NA	NA
	26	Mar-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	27	Jun-05	< 0.50	< 0.50	NA	NA	NA	26	< 0.50	NA	NA	NA	NA	NA
	28	Sep-05	< 0.50	15	NA	NA	NA	43	0.7	NA	NA	NA	NA	NA
	29	Dec-05	< 0.50	13	NA	NA	NA	30	0.9	NA	NA	NA	NA	NA
	30	Mar-06	< 0.50	15	NA	NA	NA	19	0.6	NA	NA	NA	NA	NA
	31	Jun-06	< 0.50	28	NA	NA	NA	53	1.3	NA	NA	NA	NA	NA
	32	Sep-06	< 0.50	11	NA	NA	NA	46	0.7	NA	NA	NA	NA	NA
	33	Dec-06	< 0.50	11	NA	NA	NA	46	0.7	NA	NA	NA	NA	NA

(table continued on next page)

Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	14	Mar-02	< 1.0	< 1.0	< 1	< 1	< 10	NA	< 2	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	19	Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
MW-7	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	< 0.5	NA	NA	NA	< 10	< 0.5	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	< 0.5	NA	NA	NA	< 10	< 0.5	NA	NA	NA	NA	NA
	25	Dec-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	26	Mar-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	27	Jun-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	28	Sep-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	29	Dec-05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	30	Mar-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	31	Jun-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	32	Sep-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

(table continued on next page)

Table C-2 Continued

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	DIPE	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
	14	Mar-02	< 1.0	< 1.0	< 1	< 1	< 10	NA	< 2	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	19	Mar-03	< 0.26	< 0.17	< 0.49	< 0.26	NA	< 10	< 0.29	< 0.88	< 0.3	< 0.23	< 0.36	ND
MW-8	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23	Jun-04	< 0.5	< 0.5	NA	NA	NA	61	1.0	NA	NA	NA	NA	NA
	24	Sep-04	< 0.5	< 0.5	NA	NA	NA	96	1.1	NA	NA	NA	NA	NA
	25	Dec-04	< 0.5	< 0.5	NA	NA	NA	< 10	1.0	NA	NA	NA	NA	NA
	26	Mar-05	< 0.5	< 0.5	NA	NA	NA	< 10	0.6	NA	NA	NA	NA	NA
	27	Jun-05	< 0.50	25	NA	NA	NA	42	1.1	NA	NA	NA	NA	NA
	28	Sep-05	< 0.50	< 0.50	NA	NA	NA	120	1.4	NA	NA	NA	NA	NA
	29	Dec-05	< 0.50	< 0.50	NA	NA	NA	27	< 0.50	NA	NA	NA	NA	NA
	30	Mar-06	< 0.50	< 0.50	NA	NA	NA	17	0.6	NA	NA	NA	NA	NA
	31	Jun-06	< 0.50	< 0.50	NA	NA	NA	20	0.9	NA	NA	NA	NA	NA
	32	Sep-06	< 0.50	< 0.50	NA	NA	NA	12	< 0.50	NA	NA	NA	NA	NA
	33	Dec-06	< 0.50	< 0.50	NA	NA	NA	12	< 0.50	NA	NA	NA	NA	NA

Table C-2 - Footnotes

Notes:

Table includes only detected contaminants.

EDB = Ethylene dibromide, aka 1,2-Dibromoethane (lead scavenger)

EDC = Ethylene dichloride, aka 1,2-Dichloroethane (lead scavenger)

PCE = Tetrachloroethylene

DCE = Dichloroethylene

TCE = Trichloroethylene

TMB = Trimethylbenzene

DIPE = Isopropyl Ether (a.k.a. di-isopropyl ether)

TBA = Tertiary butyl alcohol

NLP = No Level Published

NA = Not analyzed for this constituent. ND = Not Detected

(a) Also detected were: n-propylbenzene (5.4 mg/L); p-Isopropyltoluene (14 mg/L); sec-Butylbenzene (7.2 mg/L)

(b) Also detected were: isopropylbenzene (38 mg/L); n-Butylbenzene (20 mg/L); n-propylbenzene (36 mg/L); p-Isopropyltoluene (14 mg/L).

(c.) Also detected were: isopropylbenzene (3.4 mg/L); n-propylbenzene (2.3 mg/L).

(d) Pre-purge / post-purge sampling, conducted in same event.

APPENDIX D

Historical Groundwater Elevation Data

Table D-1
Historical Water Levels in Monitoring Wells
240 W. MacArthur Boulevard, Oakland, Alameda, California

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-1	1	Aug-97	16.83	62.32
	2	Dec-97	NA	NA
	3	Mar-98	13.58	65.57
	4	Jul-98	15.55	63.60
	5	Oct-98	15.70	63.45
	6	Jan-99	15.21	63.94
	7	Jun-00	15.41	63.74
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	15.57	63.58
	11	Jul-01	16.42	62.73
	12	Oct-01	16.82	62.33
	13	Dec-01	15.08	64.07
	14	Mar-02	14.53	64.62
	15	May-02	NA	NA
	16	Jul-02	16.39	62.76
	17	Oct-02	17.03	62.12
	18	Jan-03	14.91	64.24
	19	Mar-03	15.26	63.89
	20	Aug-03	16.24	62.91
	21	Dec-03	16.90	62.25
	22	Mar-04	14.33	64.82
	23	Jun-04	16.28	62.87
	24	Sep-04	17.03	62.12
	25	Dec-04	16.38	62.77
	26	Mar-05	14.30	64.85
	27	Jun-05	15.53	63.82
	28	Sep-05	16.42	62.73
	29	Dec-05	15.67	63.48
	30	Mar-06	12.75	66.40
	31	Jun-06	14.60	64.55
	32	Sep-06	16.52	62.63
	33	Dec-06	15.89	62.63

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-2				
	1	Aug-97	16.32	62.13
	2	Dec-97	NA	NA
	3	Mar-98	13.05	64.95
	4	Jul-98	14.95	63.50
	5	Oct-98	15.09	63.36
	6	Jan-99	14.61	63.84
	7	Jun-00	14.80	63.65
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	14.98	63.47
	11	Jul-01	15.86	62.59
	12	Oct-01	16.69	61.76
	13	Dec-01	13.49	64.96
	14	Mar-02	13.07	65.38
	15	May-02	NA	NA
	16	Jul-02	15.86	62.59
	17	Oct-02	16.54	61.91
	18	Jan-03	14.37	64.08
	19	Mar-03	14.74	63.71
	20	Aug-03	15.75	62.70
	21	Dec-03	16.11	62.34
	22	Mar-04	13.83	64.82
	23	Jun-04	15.76	62.69
	24	Sep-04	16.48	61.97
	25	Dec-04	15.74	62.71
	26	Mar-05	13.48	64.97
	27	Jun-05	14.48	63.97
	28	Sep-05	16.00	62.45
	29	Dec-05	14.88	63.57
	30	Mar-06	12.20	66.25
	31	Jun-06	14.15	64.30
		32	Sep-06	16.00
	33	Dec-06	15.19	63.26

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-3	1	Aug-97	15.36	62.22
	2	Dec-97	NA	NA
	3	Mar-98	12.18	65.40
	4	Jul-98	14.08	63.50
	5	Oct-98	14.24	63.34
	6	Jan-99	13.74	63.84
	7	Jun-00	13.94	63.64
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	14.08	63.50
	11	Jul-01	14.99	62.59
	12	Oct-01	16.26	61.32
	13	Dec-01	13.62	63.96
	14	Mar-02	13.19	64.39
	15	May-02	NA	NA
	16	Jul-02	14.97	62.61
	17	Oct. 2002	15.44	62.14
	18	Jan-03	13.49	64.09
	19	Mar-03	13.83	63.75
	20	Aug-03	14.90	62.68
	21	Dec-03	15.10	62.48
	22	Mar-04	12.93	64.65
	23	Jun-04	14.90	62.68
	24	Sep-04	15.61	61.97
	25	Dec-04	14.77	62.81
	26	Mar-05	12.60	64.98
	27	Jun-05	13.73	63.85
	28	Sep-05	15.14	62.44
	29	Dec-05	13.94	63.64
	30	Mar-06	11.25	66.33
	31	Jun-06	13.27	64.31
	32	Sep-06	15.12	62.46
	33	Dec-06	14.34	63.24

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-4	1	Aug-97	NA	NA
	2	Dec-97	NA	NA
	3	Mar-98	11.87	65.87
	4	Jul-98	13.90	63.84
	5	Oct-98	14.10	63.64
	6	Jan-99	13.56	64.18
	7	Jun-00	13.75	63.99
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	13.65	64.09
	11	Jul-01	14.87	62.87
	12	Oct-01	15.78	61.96
	13	Dec-01	13.54	64.20
	14	Mar-02	13.02	64.72
	15	May-02	NA	NA
	16	Jul-02	14.81	62.93
	17	Oct-02	15.56	62.18
	18	Jan-03	13.39	64.35
	19	Mar-03	13.75	63.99
	20	Aug-03	14.75	62.99
	21	Dec-03	15.11	62.63
	22	Mar-04	12.78	64.96
	23	Jun-04	14.68	63.06
	24	Sep-04	15.17	62.57
	25	Dec-04	14.90	62.84
	26	Mar-05	12.57	65.17
	27	Jun-05	13.43	64.31
	28	Sep-05	15.13	62.61
	29	Dec-05	13.83	63.91
	30	Mar-06	10.90	66.84
	31	Jun-06	13.02	64.72
	32	Sep-06	15.16	62.58
	33	Dec-06	14.35	63.24

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-5	9	Feb-01	NA	NA
	10	May-01	15.65	63.71
	11	Jul-01	16.50	62.86
	12	Oct-01	17.46	61.90
	13	Dec-01	15.28	64.08
	14	Mar-02	14.62	64.74
	15	May-02	NA	NA
	16	Jul-02	16.46	62.90
	17	Oct-02	17.18	62.18
	18	Jan-03	14.99	64.37
	19	Mar-03	15.33	64.03
	20	Aug-03	16.34	63.02
	21	Dec-03	16.90	62.46
	22	Mar-04	14.44	64.92
	23	Jun-04	16.43	62.93
	24	Sep-04	17.07	62.29
	25	Dec-04	16.59	62.77
	26	Mar-05	14.08	65.28
	27	Jun-05	15.33	64.03
	28	Sep-05	16.61	62.75
29	Dec-05	15.81	63.55	
30	Mar-06	12.75	66.61	
31	Jun-06	14.65	64.71	
	32	Sep-06	16.66	62.70
	33	Dec-06	16.10	63.26

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-6	9	Feb-01	NA	NA
	10	May-01	15.54	62.89
	11	Jul-01	15.56	62.87
	12	Oct-01	16.41	62.02
	13	Dec-01	14.37	64.06
	14	Mar-02	13.75	64.68
	15	May-02	NA	NA
	16	Jul-02	15.55	62.88
	17	Oct-02	16.24	62.19
	18	Jan-03	14.17	64.26
	19	Mar-03	14.52	63.91
	20	Aug-03	15.50	62.93
	21	Dec-03	16.19	62.24
	22	Mar-04	13.51	64.92
	23	Jun-04	15.42	63.01
	24	Sep-04	16.13	62.30
	25	Dec-04	15.40	63.03
	26	Mar-05	13.28	65.15
	27	Jun-05	14.14	64.29
	28	Sep-05	15.61	62.82
29	Dec-05	14.90	63.53	
30	Mar-06	11.85	66.58	
31	Jun-06	13.73	64.70	
32	Sep-06	15.71	62.72	
33	Dec-06	15.15	63.28	

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-7	9	Feb-01	NA	NA
	10	May-01	15.04	62.23
	11	Jul-01	15.69	62.58
	12	Oct-01	16.59	61.68
	13	Dec-01	14.30	63.97
	14	Mar-02	13.87	64.40
	15	May-02	NA	NA
	16	Jul-02	15.72	62.55
	17	Oct-02	16.36	61.91
	18	Jan-03	14.22	64.05
	19	Mar-03	14.57	63.70
	20	Aug-03	15.61	62.66
	21	Dec-03	16.04	62.23
	22	Mar-04	13.57	64.70
	23	Jun-04	15.63	62.64
	24	Sep-04	16.33	61.94
	25	Dec-04	15.70	62.57
	26	Mar-05	13.42	64.85
	27	Jun-05	14.53	63.74
	28	Sep-05	15.81	62.46
	29	Dec-05	14.88	63.39
	30	Mar-06	13.00	65.27
	31	Jun-06	13.98	64.29
	32	Sep-06	15.82	62.45
	33	Dec-06	15.12	63.15

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-8	10	May-01	12.75	63.64
	11	Jul-01	13.84	62.55
	12	Oct-01	14.65	61.74
	13	Dec-01	12.39	64.00
	14	Mar-02	11.89	64.50
	15	May-02	NA	NA
	16	Jul-02	13.96	62.43
	17	Oct-02	14.48	61.91
	18	Jan-03	12.49	63.90
	19	Mar-03	12.85	63.54
	20	Aug-03	13.75	62.65
	21	Dec-03	14.50	61.89
	22	Mar-04	11.78	64.61
	23	Jun-04	13.71	62.68
	24	Sep-04	14.43	61.96
	25	Dec-04	13.64	62.75
	26	Mar-05	11.52	64.87
	27	Jun-05	12.50	63.89
	28	Sep-05	13.90	62.49
	29	Dec-05	12.75	63.64
	30	Mar-06	10.80	65.59
	31	Jun-06	12.10	64.29
	32	Sep-06	13.93	62.46
	33	Dec-06	13.12	63.27

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.