FOURTH QUARTER 2005 GROUNDWATER MONITORING & YEAR 2005 ANNUAL SUMMARY REPORT

FORMER RUSS ELLIOTT, INC. FACILITY
2526 WOOD STREET
OAKLAND, CALIFORNIA

Prepared for:

ELLIOTT FAMILY TRUST
SAN LEANDRO, CALIFORNIA

December 2005

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

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December 21, 2005

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health – Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Fourth Quarter 2005 Groundwater Monitoring & Year 2005 Annual Summary Report
Former Russ Elliott, Inc. Facility – 2526 Wood Street, Oakland, California

Dear Mr. Chan:

This report documents the eighth consecutive groundwater monitoring event (Q4 2005) conducted in November 2005 by Stellar Environmental Solutions, Inc. at the referenced site. Three site groundwater monitoring wells were installed and first sampled in February 2004 to evaluate impacts from two former onsite underground fuel storage tanks. The scope of work was conducted in accordance with the Alameda County Health-approved technical workplan. This report also presents an evaluation of hydrochemical trends over the 2 years of monitoring, including an evaluation of the plume extent and stability.

In our professional opinion, because the closure criterion of steady state concentrations has not been met, continued groundwater monitoring is warranted to evaluate plume stability over time. Based on the historical data, we are requesting a decrease in groundwater monitoring frequency from quarterly to bi-annual (twice per year), and discontinuing analysis for diesel.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge. Please contact us at (510) 644-3123 if you have any questions.

Sincerely,

STELLAR ENVIRONMENTAL SOLUTIONS, INC.

Bruce Rucker, R.G., R.E.A.
Project Manager and Senior Geologist

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

cc: Ms. Jeannette Elliott, Property Owner

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OAKLAND, CALIFORNIA

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December 21, 2005

Project No. 2003-41

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

Project Background 1
Site and Vicinity Description 1
Previous Investigations 4
Objectives and Scope of Work 5
Regulatory Oversight 5

2.0 PHYSICAL SETTING 6

Lithology 6
Groundwater Hydrology 6

3.0 NOVEMBER 2005 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES 7

4.0 CURRENT EVENT (Q4 2005) ANALYTICAL RESULTS 10

5.0 HYDROLOGIC AND HYDROCHEMICAL TREND EVALUATION 13

Water Level Trends 13
Hydrochemical Trends 13
Plume Geometry and Migration Indications 17
Closure Criteria Assessment 18

6.0 SUMMARY CONCLUSIONS AND PROPOSED ACTIONS 20

Summary and Conclusions 20
Proposed Actions 21

7.0 REFERENCES AND BIBLIOGRAPHY 22

TABLE OF CONTENTS (continued)

Section **Page**

8.0 LIMITATIONS 24

Appendices

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

TABLES AND FIGURES

Tables **Page**

Table 1 Groundwater Monitoring Well Construction and Groundwater Elevation Data - November 28, 2005 Monitoring Event 2526 Wood Street, Oakland, California 7

Table 2 November 28, 2005 Groundwater Analytical Results 2526 Wood Street, Oakland, California 11

Figures **Page**

Figure 1 Site Location Map 2

Figure 2 Site Plan and Historical Sampling Locations 3

Figure 3 Groundwater Elevation Map 9

Figure 4 November 2005 Groundwater Analytical Results 12

Figure 5 Historical Groundwater Elevations in Monitoring Wells 14

Figure 6 Historical Gasoline Hydrochemical Trends 15

Figure 7 Historical MTBE Hydrochemical Trends 16

1.0 INTRODUCTION

PROJECT BACKGROUND

Stellar Environmental Solutions, Inc. (SES) was retained by Ms. Jeannette Elliott (as property owner) to conduct groundwater monitoring and sampling activities at 2526 Wood Street in Oakland, California. The work is designed to evaluate impacts from previous onsite underground fuel storage tanks (UFSTs). Previous site corrective actions and investigations are summarized later in this report. The Alameda County Health Care Services Agency (Alameda County Health), Department of Environmental Health is the lead regulatory agency for the investigation, and has assigned the site as Fuel Leak Case No. RO000040. The State Water Resources Control Board's "GeoTracker" system Global I.D. for the site is TO600102110.

SITE AND VICINITY DESCRIPTION

The project site is a former roofing company (Russ Elliott, Inc.) located at 2526 Wood Street, Oakland, Alameda County, California (site). The business ceased operations at the site in early 2004, and the property is currently occupied by a construction firm. The property was recently sold; however, the previous property owner (Ms. Jeannette Elliott) remains responsible for the UFST-related site investigation.

The property is approximately 380 feet long (between Wood Street and Willow Street) by approximately 120 feet wide. The long axis of the site (parallel to 26th Street) is oriented approximately northeast to southwest. Figure 1 is a site location map. Figure 2 shows the location of the former site UFSTs in relation to the site buildings and adjacent streets.

The former UFSTs and current area of investigation are in the largely-unpaved service yard near the western border of the subject property (near 26th Street). Access to this area is through a chain-link gate on 26th Street. The area available for exterior drilling is limited by adjacent buildings and an active railroad spur that services an adjacent parcel. Nearby land use is wholly commercial and light industrial (i.e., there are no residential or other sensitive land uses in the immediate vicinity).

Downgradient (to the west) land use includes streets, then undeveloped land with freeway overpasses, then San Francisco Bay (a total of approximately 3,000 feet from the subject property).

N

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

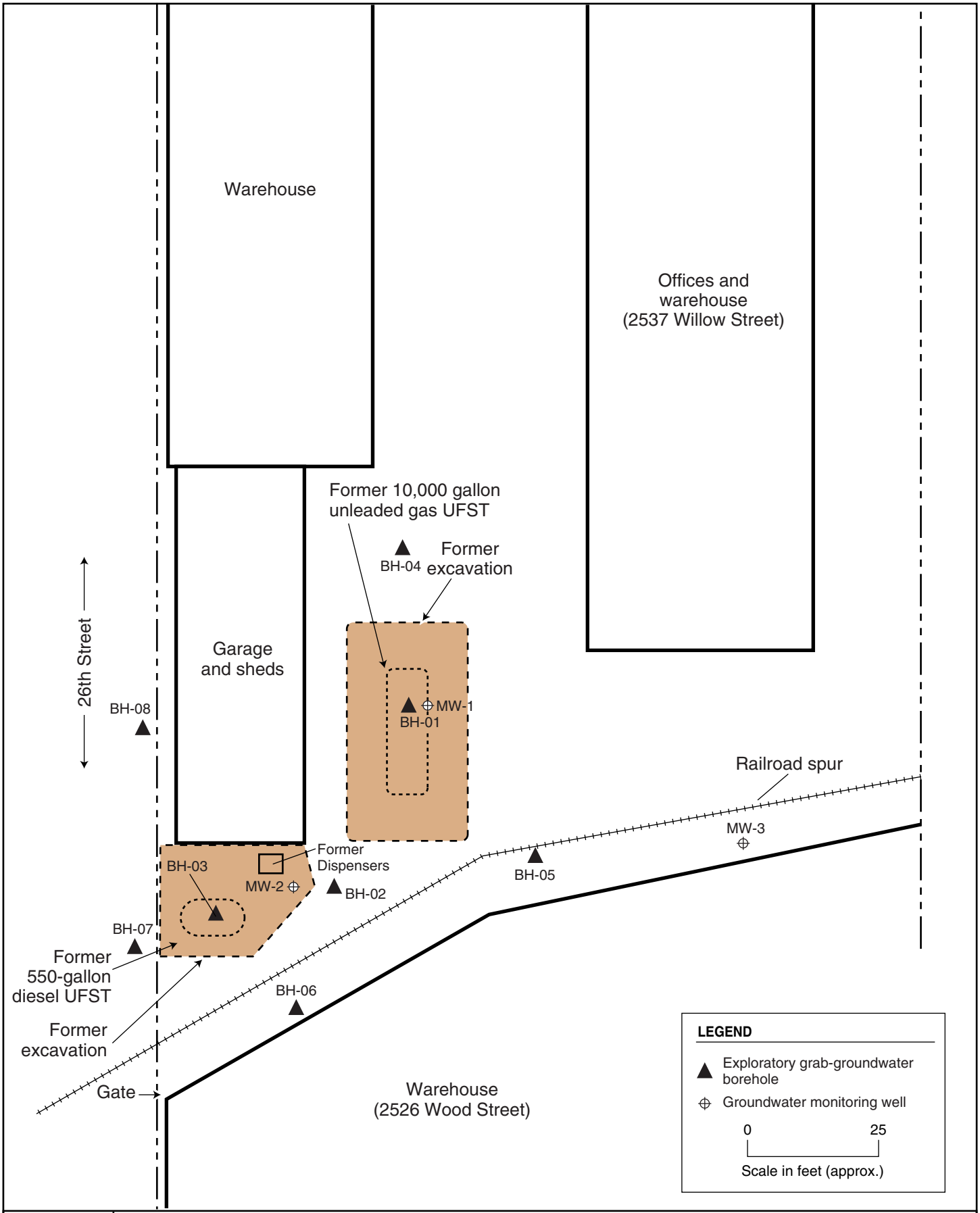
2526 Wood Street
Oakland, CA

By: MJC

JULY 2003

Figure 1

2003-36-01



SITE PLAN AND HISTORICAL SAMPLING LOCATIONS

2526 Wood Street **Oakland, CA**	**By: MJC**	**JUNE 2004**
	Figure 2	

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PREVIOUS INVESTIGATIONS

Historical analytical results are presented in Appendix A, and are discussed in detail in Section 5.0 of this report.

UFST Removals

Two UFSTs were located near the western border of the subject property (near 26th Street), approximately 40 feet from each other. Both UFSTs were utilized for fueling company vehicles, and shared a common dispenser island that was located between them. Both UFSTs were removed under permit and regulatory oversight.

The 550-gallon diesel UFST was removed in 1995, and the 10,000-gallon gasoline UFST was removed in 2002. Confirmation soil and water sampling during UFST removals suggested an historical leak in the tank and/or piping. No UFST closure documentation report was submitted for this UFST removal by the contractor that conducted the removal.

A UFST closure documentation report that discusses both UFST removals (SES, 2003a) was prepared and submitted by SES to both the Oakland Fire Department and Alameda County Health.

2003 Preliminary Site Assessment

Concurrent with the UFST closure documentation report, SES submitted to Alameda County Health a technical workplan for a Preliminary Site Assessment (PSA) (consisting of exploratory borehole drilling and sampling) to evaluate the potential for residual contamination (SES, 2003b). Alameda County Health subsequently approved the technical workplan (Alameda County Health, 2003). The investigation, conducted in 2003, included advancing and sampling (both soil and groundwater) from eight exploratory boreholes. A PSA documentation report was submitted to Alameda County Health (SES 2003c). Groundwater contaminants detected above screening-level criteria include diesel, gasoline, benzene, methyl *tertiary*-butyl ether (MTBE), and *tertiary*-butyl alcohol (TBA). The only soil contaminant detected above screening-level criteria was MTBE; however, that contamination was confined to the immediate vicinity of the former gasoline UFST. No soil contamination was detected beneath the upper water-bearing zone.

Groundwater Monitoring Well Installation

On behalf of the property owner, SES submitted to Alameda County Health a technical workplan for a program of groundwater monitoring well installation, sampling, and reporting (SES, 2004a). Alameda County Health subsequently approved the well installation workplan (Alameda County Health, 2004). Three groundwater monitoring wells were installed, developed, surveyed, and sampled in February 2004 (SES, 2004b).

This event represents the eighth consecutive quarterly groundwater monitoring event at the site.

OBJECTIVES AND SCOPE OF WORK

This report discusses the following activities conducted/coordinated by SES between October 1 and December 31, 2005:

- Collecting water levels in site wells to determine shallow groundwater flow direction;
- Sampling site wells for contaminant analysis and natural attenuation indicators; and
- Evaluating hydrochemical and groundwater elevation trends.

REGULATORY OVERSIGHT

The lead regulatory agency for the site investigation and remediation is Alameda County Health. All workplans and reports are submitted to this agency. The most recent Alameda County Health directive regarding the site (letter dated January 6, 2004) approved the well installation and quarterly groundwater monitoring and sampling.

Electronic data format (EDF) documentation, beginning in the first quarter of 2004, has been successfully uploaded to the GeoTracker database, in accordance with the requirements for EDF submittals. Since Q2 2005, electronic copies of technical documentation reports have also been uploaded to Alameda County Health's file transfer protocol (ftp) system.

2.0 PHYSICAL SETTING

Following is a brief summary of the site hydrogeologic conditions based on geologic logging and water level measurements collected at the site since October 2003.

A detailed discussion of site lithology and hydrogeology was provided in the well installation report (SES, 2004a). The following summarizes site conditions. A total of 11 exploratory boreholes at the subject property have been geologically logged by a California Registered Geologist using the visual method of the Unified Soils Classification System. The majority of site boreholes have been advanced to 20 feet below ground surface (bgs). That interval includes the upper water-bearing zone and the underlying low-permeability non-water-bearing zone (aquitard).

LITHOLOGY

In general, native soil consists primarily of clay (often silty), with interbedded sandy and gravelly zones. The upper 2 to 3 feet is dry, gravelly, sandy fill material. In the majority of the boreholes, this material is underlain by a sand (often silty and clayey) varying in thickness from 1 to 6 feet, in which water was encountered (see below). This is underlain by a clay unit, occasionally with interbedded sand stringers. In some of the boreholes, this clay unit extends to total depth; in other boreholes, this clay unit is underlain by a sand unit, which in turn is underlain by a low-permeability clay (often gravelly). The shallow site lithology is typical of alluvial fan and stream depositional environments in this area, with lower-permeability (clay and silt) overbank deposits, and higher-permeability (sand and gravel) channel deposits, with significant lateral and depth variation over short distances.

GROUNDWATER HYDROLOGY

Two shallow water-bearing zones were encountered in native soils in the majority of site boreholes. The top of the upper zone (possibly a perched water zone) was encountered at depths between approximately 4 and 8 feet bgs, in a sandy zone. Water was then encountered again at depths between approximately 13.5 and 17.5 feet bgs. In some of the boreholes, this deeper water was encountered at the top of the sand zone (when present); in other boreholes, it was within the lower clay unit. Water levels in wells MW-1 and MW-2 (installed in the former UFST backfill areas) also are likely influenced by direct infiltration during winter recharge events due to the surrounding unpaved surface. Section 5.0 discusses historical groundwater elevation data.

3.0 NOVEMBER 2005 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

This section presents the groundwater monitoring and sampling methods for the most recent groundwater monitoring/sampling event. Analytical results are discussed in a subsequent section. Activities included:

- Measuring static water levels with an electric water level indicator;
- Purging wells to obtain representative formation water (and collecting aquifer stability parameters between each purging); and
- Collecting post-purge groundwater samples for laboratory analysis.

On November 28, 2005, groundwater monitoring well water level measurements, purging, and sampling activities were conducted by Dysert Environmental, Inc. under the supervision of SES personnel. Table 1 shows the well construction and groundwater elevation data. Appendix B contains the groundwater monitoring field records for the sampling event.

Table 1
Groundwater Monitoring Well Construction and Groundwater Elevation Data
November 28, 2005 Monitoring Event
2526 Wood Street, Oakland, California

Well	Well Depth	Screened Interval	TOC Elevation [a]	Groundwater Depth [b]	Groundwater Elevation [a]
MW-1	20	5 to 20	6.87	4.56	2.39
MW-2	20	5 to 20	6.29	3.96	2.33
MW-3	20	5 to 20	6.94	4.77	2.17

Notes:

[a] All elevations are expressed as feet above mean sea level.
[b] Depths are in feet bgs, adjacent to the well.

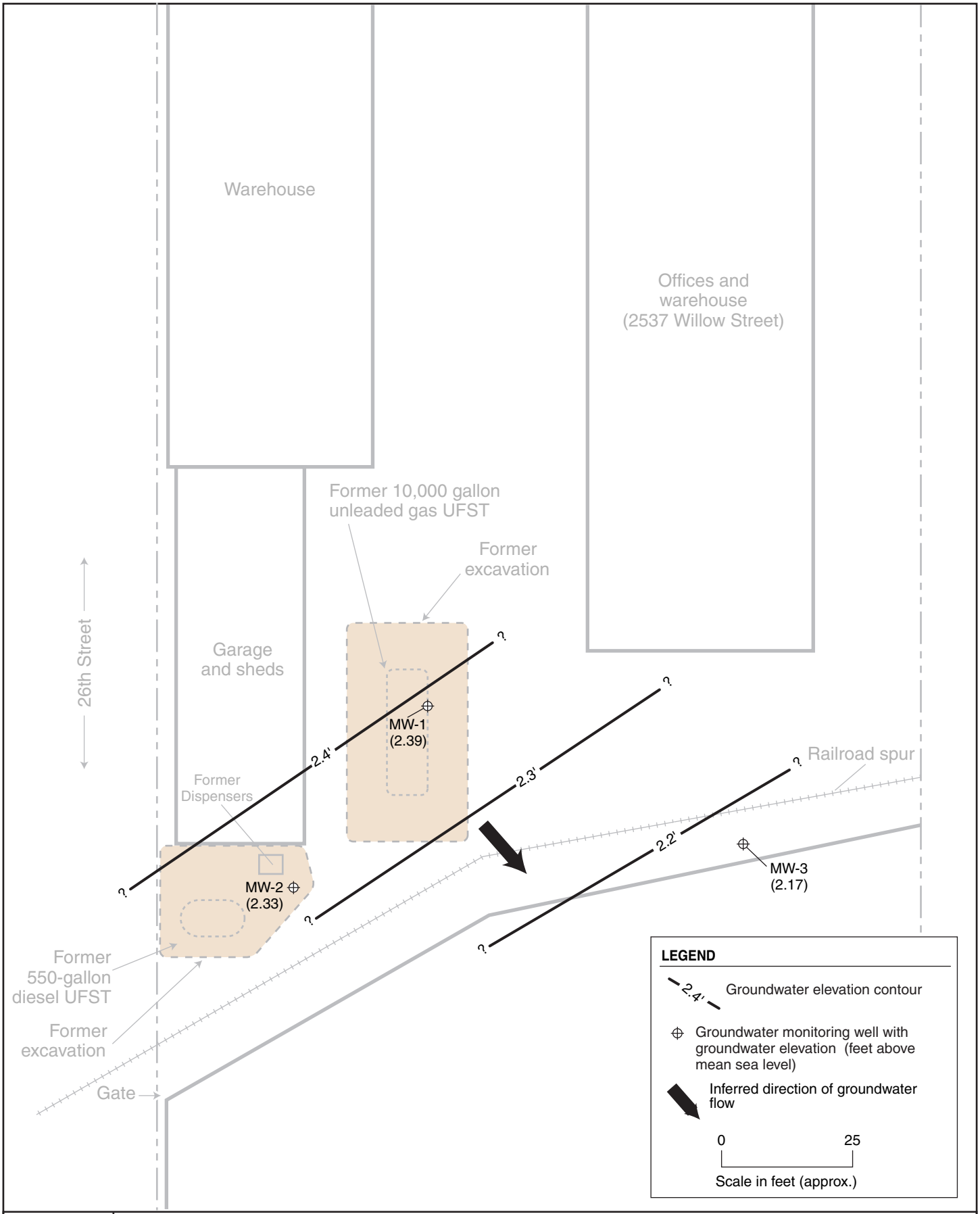
TOC = Top of casing.

All wells are 2-inch-diameter.

As the first task of the monitoring event, static water levels were measured using an electric water level indicator. Each well was then purged (with a downhole pump) of three wetted casing volumes. Aquifer stability parameters were measured between each purged casing volume to ensure that representative formation water entered the well before sampling. Neither separate-phase petroleum product nor sheen was observed during well purging/sampling.

The "Geo Well" data for this event (water levels) were uploaded as an EDD to the GeoTracker on-line database.

Depth to groundwater (equilibrated in wells) in the current monitoring event ranged from approximately 3.96 to 4.77 feet below grade (2.17 to 2.39 feet above mean sea level). Apparent local groundwater flow direction in the November 2005 event was to the south, with relatively flat hydraulic gradient of approximately 0.004 feet/foot. Figure 3 is a groundwater elevation and contour map for the current event. Section 5.0 discusses historical groundwater elevation data.



GROUNDWATER ELEVATION MAP — NOVEMBER 28, 2005

2526 Wood Street Oakland, CA	By: MJC	DECEMBER 2005
	Figure 3	

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4.0 CURRENT EVENT (Q4 2005) ANALYTICAL RESULTS

This section discusses the findings of the current (November 2005) sampling event. Section 5.0 discusses historical hydrochemical results and trends.

All groundwater samples in the current sampling event were analyzed for:

- Total volatile hydrocarbons – gasoline range (TVHg), by modified EPA Method 8015.
- Total extractable hydrocarbons – diesel range (TEHd), by modified EPA Method 8015.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX); and MTBE, by EPA Method 8020.
- MTBE; fuel oxygenates (TAME, DIPE, TBA, ETBE, and ethanol); and lead scavengers (EDB and EDC), by EPA Method 8260B.

All groundwater samples were analyzed by EnTech Analytical Services, which maintains current ELAP certifications for all of the analytical methods utilized in this investigation. Appendix C contains the certified analytical laboratory report and chain-of-custody record for this event. Note that MTBE was analyzed by both EPA Methods 8020 and 8260B. Detected concentrations reported herein are from the more accurate EPA 8260B analysis.

Table 2 summarizes the groundwater sample analytical results from the November 2005 well sampling event. Figure 4 displays the groundwater analytical results on the site plan.

The only contaminant detected in the current event groundwater samples was MTBE, at concentrations of 97 µg/L (MW-1) and 7.7 µg/L (MW-2). MTBE was not detected in well MW-3. Contaminants analyzed for and not detected include gasoline, diesel, BTEX, fuel oxygenates, and lead scavengers.

Table 2
November 28, 2005 Groundwater Analytical Results
2526 Wood Street, Oakland, California [a]

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE [b]	Fuel Oxygenates and Lead Scavengers [c]
MW-1	*<50*	*<50*	*<4.0*	*<4.0*	*<4.0*	*<4.0*	**97**	*ND*
MW-2	*<50*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**7.7**	*ND*
MW-3	*<50*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*ND*
Groundwater ESLs	100	100	1.0	40	30	13	5.0	Various

Notes:

[a] All concentrations in µg/L.

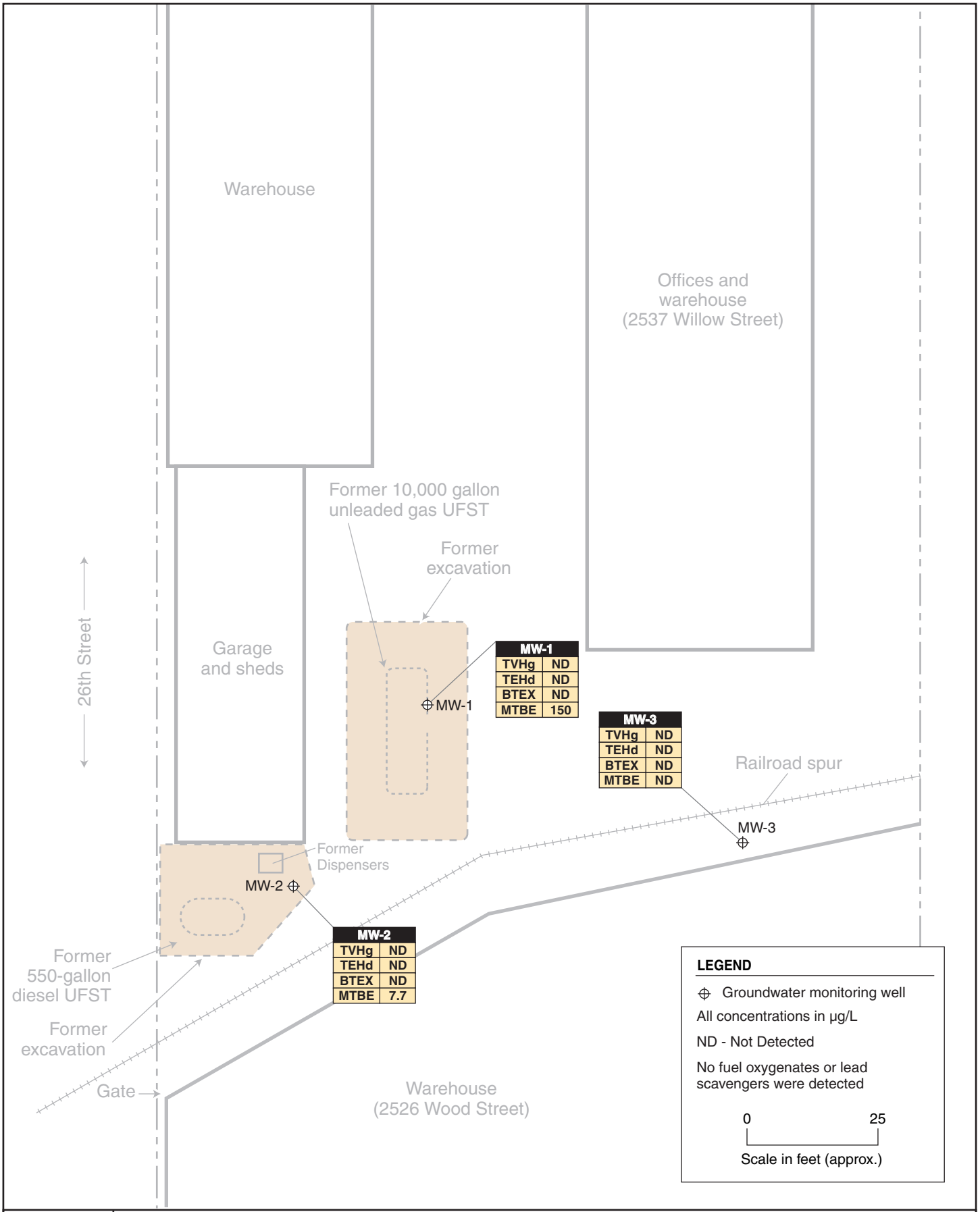
[b] Reported concentrations are from EPA 8260B analysis.

[c] Table reports only detected fuel oxygenates and lead scavengers. Full list of analytes is included in Appendix C.

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

ESLs = Regional Water Quality Control Board, San Francisco Bay Region, Environmental Screening Levels (Water Board, 2004).

ND = not detected above method reporting limits



NOVEMBER 2005 GROUNDWATER ANALYTICAL RESULTS

2526 Wood Street Oakland, CA	By: MJC	DECEMBER 2005
	Figure 4	

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5.0 HYDROLOGIC AND HYDROCHEMICAL TREND EVALUATION

This section evaluates the observed hydrologic and hydrochemical trends with regard to plume stability and contaminant migration. A conceptual model (incorporating site lithology, hydrogeology, and hydrochemistry) is presented to explain the spatial extent and magnitude of the dissolved hydrocarbon plume.

WATER LEVEL TRENDS

Appendix D contains historical (since inception) groundwater elevation data, including groundwater elevation contour maps. Figure 5 shows a trendline of site groundwater elevations over the eight quarters of monitoring. In general, groundwater elevations show a declining trend from January (highest annual water levels) through August (lowest annual water levels), then an increase to January levels. This is a common seasonal trend observed in the upper water-bearing zone in the Bay Area region. An anomalously low groundwater elevation was measured in well MW-2 in August 2004, and may be reflective of more permeable excavation backfill conditions that allow water levels to drop more relative to conditions at the other two well locations.

Of the eight quarterly groundwater monitoring events, apparent local flow direction has been to the west in five events and to the south in three events. Southerly groundwater flow has been observed in high water level conditions (January or October events). The observed seasonal changes in apparent groundwater flow direction are likely controlled lithologically (i.e., more permeable excavation backfill materials in the MW-2 area respond differently than native materials at other well locations). Continued quarterly monitoring of groundwater elevations is warranted to confirm local groundwater flow direction.

HYDROCHEMICAL TRENDS

Figures 6 and 7 show hydrochemical trend data (since inception) for gasoline and MTBE, respectively. The data show the following:

- Source area well MW-1 showed an initial (February 2004) gasoline concentration of 172 µg/L, no detections in the subsequent four events, then a detection of 220 µg/L in August 2005, then no contamination in the most recent event.

Figure 5: Historical Groundwater Elevations in Monitoring Wells
2526 Wood Street, Oakland, California

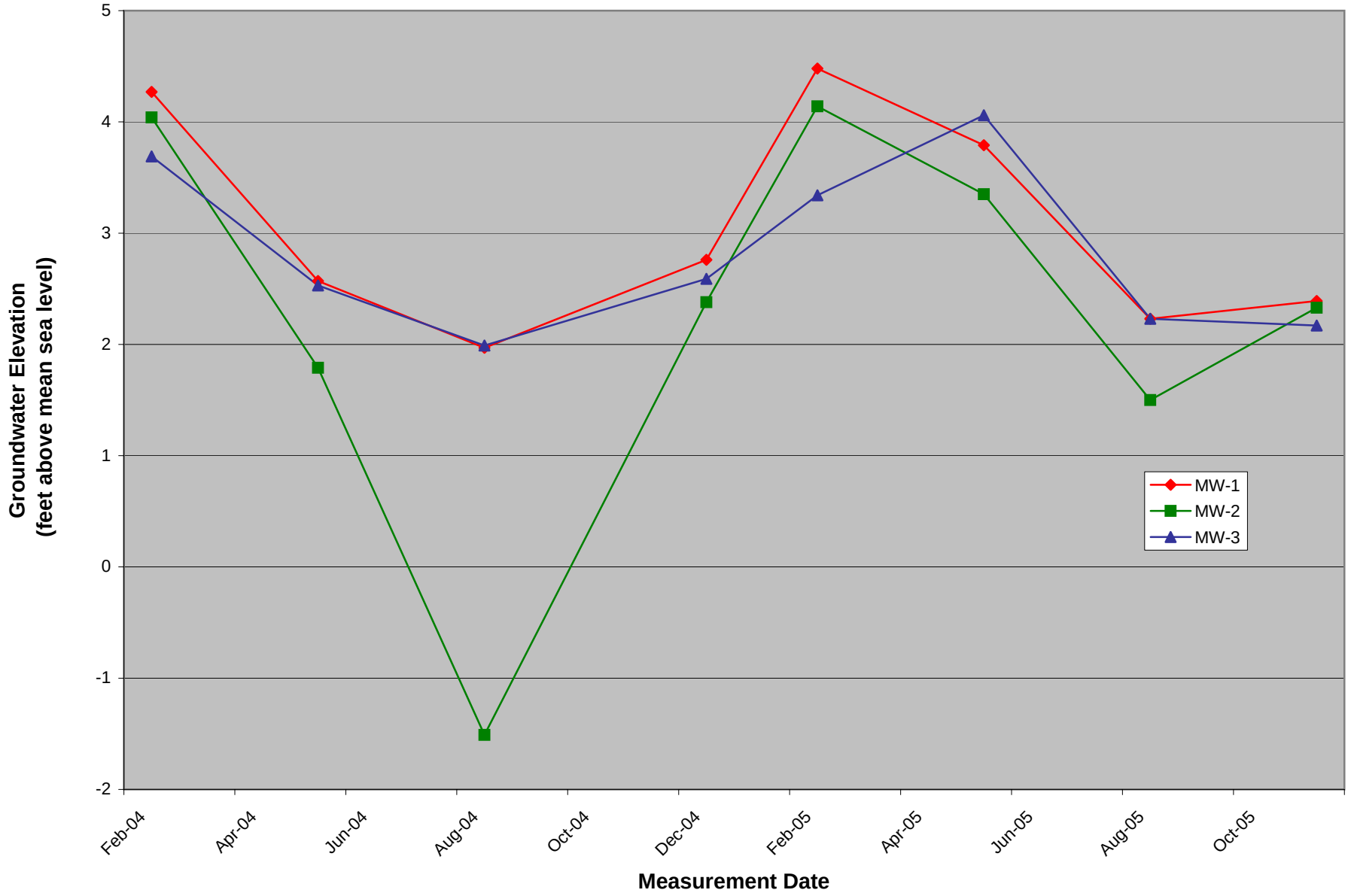


Figure 6: Historical Gasoline Hydrochemical Trends
2526 Wood Street, Oakland, California

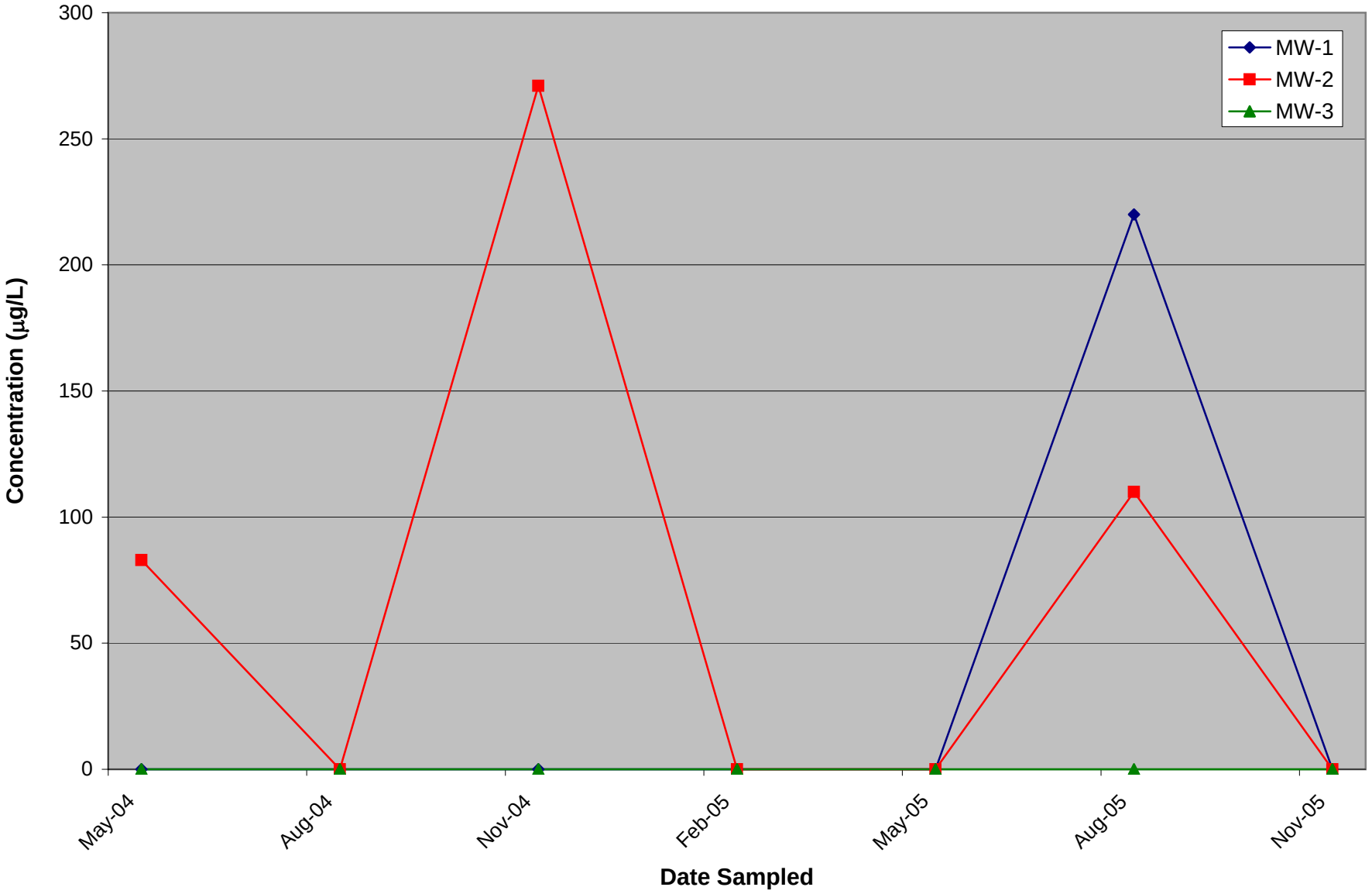
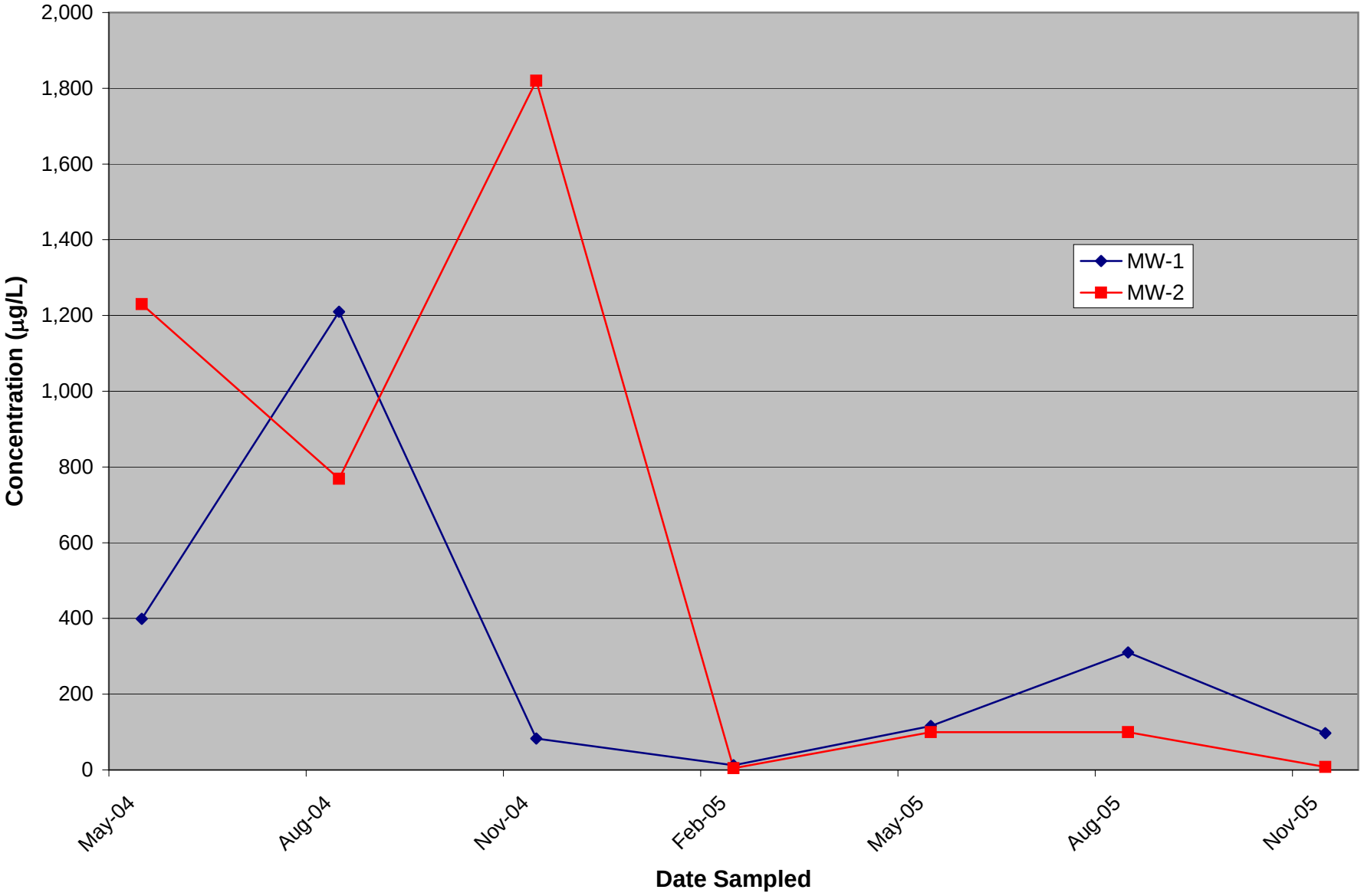


Figure 7: Historical MTBE Hydrochemical Trends
2526 Wood Street, Oakland, California



- Downgradient well MW-2 has shown fluctuating gasoline contamination, between non-detect and 271 µg/L.
- Downgradient well MW-3 had gasoline contamination (58 µg/L) in only the initial (February 2004) event, and no detection since.
- Benzene has been detected only sporadically—once in well MW-1 (February 2004) at 1.2 µg/L, and once in well MW-2 (November 2004) at 102 µg/L. Benzene has never been detected in well MW-3.
- MTBE has been consistently detected in wells MW-1 and MW-2, with maximum concentrations in 2004, and lower concentrations in the 2005 events. MTBE has never been detected in well MW-3.
- There is no apparent correlation between seasonal water level trends and contaminant concentrations.
- Neither diesel nor lead scavengers (EDB or EDC) have ever been detected in any of the groundwater monitoring well samples.
- Three fuel oxygenates have been detected in site groundwater samples. TAME (for which there is no Water Board ESL) has been detected sporadically (seven detections in the 24 samples collected) in wells MW-1 and MW-2. Five of the seven detections were at 6 µg/L or less; the other two detections were at 52 µg/L (MW-2 in May 2004) and 139 µg/L (MW-2 in November 2004). TBA has been detected sporadically in wells MW-1 and MW-2 only, at concentrations up to 486 µg/L (MW-2 in November 2004). DIPE was detected only once at a concentration just above the method reporting limit, and does not appear to be a site contaminant of concern. Fuel oxygenate concentrations show a general correlation between MTBE concentrations.

The site data collected to date, including the hydropunch data, suggest that: 1) the two UFST excavations exert a seasonal hydrologic control on contaminant distribution due to infiltration; 2) there may be a source of contamination (i.e., residual soil contamination in the unsaturated zone) immediately east of well MW-2 (between the two UFST excavations) that desorbs during high water level conditions and migrates downgradient of the area of MW-2; and 3) plume migration appears to be south and west, depending on the season.

PLUME GEOMETRY AND MIGRATION INDICATIONS

Appendix A contains historical groundwater contaminant data and maps showing contaminant distribution. MTBE is the sole contaminant with distribution suggestive of a plume; site gasoline concentrations are sporadic and low. Based on data collected to date, the emerging conceptual model of the MTBE plume consists of two centers around the former UFST areas, subject to

seasonal fluxes of contaminant flow in a south-to-west direction. Changes in well water levels and plume geometry suggest that groundwater recharge by direct infiltration into the unpaved ground surface is a controlling factor. Westerly flow is indicated in the low water level periods (dry season). In the rainy season, the backfill areas of the former UFSTs preferentially recharge (exhibit higher water levels than surrounding native soil). The infiltrated water comes in contact with the residual contamination in the UFST backfill areas until the winter recharge water pulses the contaminated groundwater to migrate to the south. The plume appears to flow within the water-bearing unit between 13.5 and 17.5 feet bgs.

The MTBE plume appears to be approximately 150 feet long and 100 feet wide, with the upgradient limit defined by the former UFSTs. Well MW-3 appears to define the lateral southern boundaries of the plume. Examination of results from the October 2003 hydropunch sampling show that, outside of the UFST boreholes, the western and southern boreholes—BH-02, BH-05, and BH-06—have the highest residual concentration of contaminants, while BH-07 and BH-08 along 26th Street showed trace to non-detected hydrocarbons. The contaminant geometry suggests that there is at least an historical groundwater flow direction to the south, possibly due to seasonal variations in local groundwater flow direction.

Concentrations of MTBE above the 5-µg/L ESL criterion extend offsite to the south (as represented by downgradient well MW-2) an unknown distance. Concentrations of gasoline, benzene, and the fuel oxygenate TBA in downgradient well MW-2 sporadically exceed their respective ESL criteria.

Based on our experience, it is likely that the concentrations attenuate to below ESL criteria no more than 50 feet downgradient of the property line. 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

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 been met as the USTs have been removed, and confirmation/borehole soil sampling has demonstrated only MTBE contamination in residual soils (and at concentrations between the most restrictive and the less restrictive Water Board ESLs). There does not appear to be a significant mass of residual contaminated soil that will act as an ongoing source of groundwater contamination.
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 (in 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 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), including an evaluation of potential preferential migration pathways (i.e., underground utilities). Downgradient land use includes streets, then undeveloped land with overpasses, then San Francisco Bay (approximately 3,000 feet downgradient of the site). There appears to be no sensitive receptors that could be impacted by site-sourced contamination.

In our professional opinion, Alameda County Health will require continued quarterly groundwater monitoring and reporting prior to considering a petition for case closure. Additional site characterization (i.e., borehole drilling and sampling) and/or sensitive receptor or risk assessment work may also be required to obtain final closure.

Based on the 2 years of groundwater monitoring, a reduction in monitoring frequency from quarterly to bi-annual (twice per year) should be sufficient to continue to monitor the plume. Monitoring events conducted in February and August would encompass both high and low water conditions. It is also appropriate to discontinue diesel analysis from future groundwater monitoring events as this contaminant has not been detected in any site well in any of the 8 events.

6.0 SUMMARY CONCLUSIONS AND PROPOSED ACTIONS

SUMMARY AND CONCLUSIONS

The available data support the following findings and conclusions:

- Two UFSTs containing gasoline and diesel were removed from the site in 2002 and 1995, respectively. Excavation confirmation soil samples indicated that MTBE was the sole contaminant of concern in soil, although pit water samples contained elevated levels of diesel, gasoline, and MTBE. A UFST closure documentation report discussing both UFST removals was submitted to the appropriate regulatory agencies in 2003.
- A PSA (exploratory borehole drilling and sampling program) was conducted in October 2003; activities included advancing and sampling eight exploratory boreholes to a maximum depth of 25 feet below grade. Hydrocarbon contamination was most pronounced in samples from the areas of the two former UFSTs and to the south-southwest.
- Three shallow site groundwater monitoring wells were installed, developed, and surveyed in February 2004. Eight consecutive quarterly groundwater monitoring events have been conducted to date.
- Site lithology ranges from low-permeability silts and clays to higher-permeability (and water-bearing) sands and gravels. There are two shallow water bearing zones: the top of the upper zone (potentially a seasonally-perched zone) is encountered at depths between 4 and 8 feet; the top of the third zone is encountered at depths between approximately 13.5 and 17.5 feet bgs. The lower water-bearing zone is underlain by a low-permeability, non-water-bearing zone.
- Groundwater flow is generally to the west, with a more southerly flow in the wet season (higher water level conditions). The data show the expected seasonal trend of lower groundwater elevations in the dry season, increasing with the onset of rains. The site data suggest that backfill material in one or both of the former UFST excavations may be influencing apparent flow direction.
- The only soil contaminant detected above ESL criteria in residual soils (including UFST removal, borehole, and well installation phases) is MTBE, at locations within 15 feet of the former UFST excavations. Maximum detected MTBE concentration in soil is between the most restrictive (residential, groundwater used) and the least restrictive (commercial/ industrial, groundwater not used) Water Board ESL criteria.

- In general, groundwater contaminants above ESL criteria do not appear to extend offsite during the dry season (low water conditions). In the rainy season, gasoline, MTBE, and TBA above ESL criteria likely extend offsite (to the west), likely no more than 50 feet beyond the property. Groundwater contamination to the south appears to be wholly constrained onsite. Diesel has not been detected in any site well in the 8 monitoring events.
- The distribution and magnitude of groundwater contamination, particularly gasoline and MTBE, has varied greatly in the 2 years of groundwater monitoring, showing a lack of stability. This variation is attributed to seasonal recharge mobilizing residual contamination in the areas of the former UFSTs, suggesting localized plume instability that warrants continued groundwater monitoring.
- The current monitoring wells appear adequate to define local groundwater flow direction and to evaluate site-sourced hydrochemistry, although continued groundwater monitoring is warranted to ensure that groundwater contamination above regulatory agency levels of concern is not migrating offsite.
- The property owner is pursuing reimbursement from the State of California Underground Storage Tank Cleanup Fund (Fund) for regulatory agency-directed corrective action and investigation costs. The initial Claim Application was submitted to the Fund in February 2004.
- All required electronic uploads for previous work have been made to both the GeoTracker on-line database system and the Alameda County Health ftp system.

PROPOSED ACTIONS

- The property owner proposes to continue groundwater monitoring well monitoring and sampling program. This will include electronic uploads of water level and groundwater contamination data for future monitoring events to the GeoTracker system and the Alameda County Health ftp system. The focus of continued groundwater monitoring will be to evaluate the magnitude and extent of groundwater contamination, particularly with regard to plume stability. If future monitoring indicates offsite migration of contamination, additional assessment activities—i.e., sensitive receptor; vicinity well survey; RBCA study; and/or additional exploratory boreholes/groundwater monitoring wells—will be considered.
- Based on historical data, we are petitioning Alameda County Health to approve reduction in groundwater monitoring frequency from quarterly to bi-annual (twice per year) and to discontinue analysis for diesel from future groundwater monitoring events.
- The property owner will continue to pursue reimbursement of eligible incurred corrective action costs from the California UST Cleanup Fund.

7.0 REFERENCES AND BIBLIOGRAPHY

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8.0 LIMITATIONS

This report has been prepared for the exclusive use of Ms. Jeannette Elliott, the Elliot Family Trust, their authorized representatives, and the regulatory agencies. 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 a review of previous investigators' findings at the site, as well as site investigations conducted by SES since 2003. This report has been prepared in accordance with generally accepted methodologies and standards of practice. 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 date of this report. 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 activities completed.

APPENDIX A

Historical Analytical Results

Table A-1
1995-1996 Diesel UFST Removal Sampling Analytical Results
2526 Wood Street, Oakland, California

Sample I.D.	Sample Depth (feet)	TEHd	TVHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	Total Lead
July 1995 Excavation Confirmation Samples (mg/kg) (sample locations subsequently overexcavated)									
S-1 (south sidewall)	3	**310**	**1,900**	*2.6*	*<1.4*	**26**	**100**	*NA*	*NA*
S-2 (north sidewall)	4	*<1*	*<0.5*	*<0.005*	*<0.005*	*<0.005*	**0.0054**	*NA*	*NA*
June 1996 Excavation Confirmation Soil Samples (mg/kg)									
VS-1	3	*<1*	*<1*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*NA*
VS-2	4	*<1*	*<1*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*NA*
VS-3	5	*<1*	*<1*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*NA*
VS-4	4	*<1*	*<1*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*NA*
VS-5	4	*<1*	*<1*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*NA*
July 1995 Stockpiled Soil Sample (concentrations in mg/kg)									
SP1 (A-D) [(a)]	—	**340**	**960**	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*NA*	*NA*
June 1996 Stockpiled Soil Sample (mg/kg)									
STK (A-D)	—	*<25*	**340**	**0.80**	**1.2**	**0.71**	*<0.005*	*<0.05*	*NA*
October 1995 Pit Water Sample (µg/L)									
W-1	4.5	*<50*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*NA*	*NA*

Notes:

[(a)] 4-point composite sample.

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

NA = Sample not analyzed for this constituent.

Table A-2
April 2002 Gasoline UFST Removal Sampling Analytical Results
2526 Wood Street, Oakland, California

Sample I.D.	Sample Depth (feet)	TEHd	TVHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	Total Lead
Excavation Confirmation Soil Samples (mg/kg)									
S-1 (west sidewall)	7’	*NA*	*<1.0*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.24**	**8.5**
S-2 (east sidewall)	7’	*NA*	*<1.0*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	*<3.0*
B-1 (UFST base)	10’	*NA*	*<1.0*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.078**	**3.1**
D-1 (below dispenser)	3.5’	*NA*	*<1.0*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	*<0.05*	**11**
	Soil ESLs	100	100	0.044	2.9	3.3	1.5	0.023	750
Stockpiled Soil Sample (mg/kg)									
STK 1A-1D	—	*NA*	*<1.0*	*<0.005*	*<0.005*	*<0.005*	*<0.005*	**0.15**	**9.9**
Pit Water Sample (µg/L)									
W-1	7’	*NA*	**790**	**48**	**120**	**14**	**88**	**810**	*ND*

Notes:

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

NA = Sample not analyzed for this constituent.
ND = Not detected; method reporting limit not specified in lab report.

Table A-3
Borehole Soil Analytical Results (mg/kg)
2526 Wood Street, Oakland, California

Sample I.D.	Sample Depth (feet)	TEHd	TVHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE [a]	Fuel Oxygenates and Lead Scavengers [b]
October 2003 Boreholes									
BH-01-4'	4	*<10.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035* / **0.0017**	*ND*
BH-02-6.5'	6.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	**0.095 / 0.135**	**TBA = 0.061**
BH-02-16'	16	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035 / <0.005*	*ND*
BH-03-4.5'	4.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035 / <0.005*	*ND*
BH-03-15'	15	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035 / <0.005*	*ND*
BH-04-7'	7	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-04-18'	18	**2.0**	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-05-6'	6	**2.0**	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	**0.094 / 0.026**	*NA*
BH-05-15.5'	15.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	**0.046** / **0.0025**	*NA*
BH-06-8.5'	8.5	**1.3**	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-06-15.5'	15.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-06-19.5'	19.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-07-6'	6	**2.2**	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-07-15.5'	15.5	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-08-10'	10	*<1.0*	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
BH-08-19.5'	19.5	**2.0**	*<3.0*	*<0.005*	*<0.005*	*<0.005*	*<0.015*	*<0.035*	*NA*
February 2004 Monitoring Well Installation Boreholes									
MW-1-19.5'	19.5	*<1*	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.010*	**0.190**	*ND*
MW-2-4.5'	4.5	*<1*	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.010*	**0.108**	*ND*
MW-3-14.5'	14.5	*<1*	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.010*	*<0.005*	*ND*

Notes:

[a] First value is quantification by EPA Method 8021b; second value is confirmation quantification by EPA Method 8260B.
[b] Table reports only detected fuel oxygenates and lead scavengers.

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

ND = Not selected above method reporting limits.
NA = Sample not analyzed for this constituent.

Table A-4
October 2003 Borehole Groundwater Analytical Results
2526 Wood Street, Oakland

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE [a]	Fuel Oxygenates and Lead Scavengers [b]
BH-01-GW	**120**	**2,960**	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**1,020 / 764**	**TAME = 4.7 | TBA = 93**
BH-02-GW	**160**	**107**	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**103 / 84**	*ND*
BH-03-GW	**470**	**437**	**1.0**	**1.9**	**16**	**4.1**	**69 / 55**	**TBA = 10**
BH-04-GW	*<100*	*<50*	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**5.0 / 1.1**	*NA*
BH-05-GW	*<100*	**1,370**	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**737 / 606**	*NA*
BH-06-GW	*<100*	**92**	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**70 / 59**	*NA*
BH-07-GW	*<100*	**52**	*<0.30*	*<0.30*	*<0.30*	*<0.60*	**12 / 8.0**	*NA*
BH-08-GW	*<100*	*<50*	*<0.30*	*<0.30*	*<0.30*	*<0.60*	*<5.0*	*NA*

Notes:

[a] First value is quantified by EPA Method 8021b; second value is quantified by EPA Method 8260B.
[b] Table reports only detected fuel oxygenates and lead scavengers.

TEHd = total extractable hydrocarbons, diesel range
TVHg = total volatile hydrocarbons, gasoline range
MTBE = methyl *tertiary*-butyl ether
TAME = *tertiary*-amyl methyl ether
TBA = *tertiary*-butyl alcohol

ND = Not selected above method reporting limits.
NA = Sample not analyzed for this constituent.

All results in µg/L.

Table A-5
Historical Groundwater Monitoring Well Groundwater Analytical Results
2526 Wood Street, Oakland

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates [(a)]
February 2004 Event								
MW-1	*<50*	**172**	**1.2**	*<0.5*	*<0.5*	*<1.0*	**578**	**TAME = 3 | TBA = 19**
MW-2	*<50*	**72**	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**16.4**	*ND*
MW-3	*<50*	**58**	*<0.5*	**0.6**	*<0.5*	*<1.0*	*<0.5*	*ND*
May 2004 Event								
MW-1	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**399**	**TAME = 2**
MW-2	*<50*	**83**	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**1,230**	**TAME = 52 | DIPE = 0.6 TBA = 243**
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<0.5*	*ND*
August 2004 Event								
MW-1	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**1,210**	**TAME = 3 | TBA = 78**
MW-2	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**769**	**TAME = 6 | TBA = 81**
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<0.5*	*ND*
November 2004 Event								
MW-1	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**83**	*ND*
MW-2	*<50*	**271**	**102**	*<0.5*	*<0.5*	**1.3**	**1,820**	**TAME = 139 | TBA = 486**
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<0.5*	*ND*
February 2005 Event								
MW-1	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**12.6**	*ND*
MW-2	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**4.8**	*ND*
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<0.5*	*ND*

Table A-5 *continued*

Sample I.D.	TEHd	TVHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates [(a)]
May 2005 Event								
MW-1	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**116**	*ND*
MW-2	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**100**	TAME = 4 TBA = 48
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<0.5*	*ND*
August 2005 Event								
MW-1	*<500*	**220**	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**310**	*ND*
MW-2	*<50*	**110**	*<0.5*	*<0.5*	*<0.5*	*<1.0*	**100**	*ND*
MW-3	*<50*	*< 50*	*<0.5*	*<0.5*	*<0.5*	*<1.0*	*<1.0*	*ND*

Notes:

[(a)] Table reports only detected fuel oxygenates and lead scavengers.

TEHd = total extractable hydrocarbons, diesel range
TVHg = total volatile hydrocarbons, gasoline range
MTBE = methyl *tertiary*-butyl ether
DIPE = di-isopropyl ether
TAME = *tertiary*-amyl methyl ether
TBA = *tertiary*-butyl alcohol

ND = Not selected above method reporting limits.

All results in µg/L.

APPENDIX B

Current Event Well Monitoring and Sampling Field Records

Dysert Environmental, Inc.

FLUID-LEVEL MONITORING DATA

Project No: _____ Date: 11-28-05

Project/Site Location: Russ Elliot, 2526 Wood St, Oakland, CA

Technician: JWS Method: Electronic

Boring/ Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Comments
MW-1	4.56			11.27	@ 1315
MW-2	3.96			15.06	@ 1313
MW-3	4.77			13.18	@ 1311

Measurements referenced to top of well casing.

Page ____ of ____

DYSERT ENVIRONMENTAL, INC.
WELL PURGING / SAMPLING DATA

PROJECT: Ross Elliot **DATE:** 11-28-05
SITE LOCATION: 2526 Wood St

CITY: OAKLAND **STATE:** CA

PURGE DEVICE

circle one 12volt submersible pump peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one	bladder pump	peristaltic pump	disposable bailer		other
casing diameter (inches)	*circle one*	0.75	2	4	6
casing volumes (gallons)	*circle one*	0.02	0.2	0.7	1.52

WELL DATA

SAMPLER: JWS
WELL NUMBER / FIELD POINT ID: MW-1
A. TOTAL WELL DEPTH: 11.27
B. DEPTH TO WATER: 4.56
C. WATER HEIGHT (A-B): 6.71
D. WELL CASING DIAMETER: 2.0
E. CASING VOLUME: 0.2
F. SINGLE CASE VOLUME (CxE): 1.34
G. CASE VOLUME (s) (CxEx 3): 4.03
H: 80% RECHARGE LEVEL(F+B): 5.88

PURGE DATA

START TIME: 1356
PUMP DEPTH: 6'
FINISH TIME: 1359
PUMP DEPTH: 6'

RECHARGE / SAMPLE TIME

DEPTH TO WATER: 4.60 **TIME MEASURED:** 1403
GREATER THAN OR EQUAL TO 80% RECHARGE LEVEL (H): circle one (YES) NO
SAMPLE TIME: 1405 **DEPTH TO WATER:** 4.60
SAMPLE APPEARANCE / ODOR: TURBID w/ SUSPENDED SOLIDS / SLIGHT UNKNOWN ODOR OBSERVED.
TOTAL GALLONS PURGED: 6.0 gal

WELL FLUID PARAMETERS

CASE VOL.	0	0.5	1	1.5	2	2.5	3	POST
Ph	9.69		8.86		8.42	8.34	7.73	8.59
TEMP in °C	20.5		20.6		20.2	20.6	21.0	19.7
COND / SC	490		651		713	734	754	726
DO in mg/L								1.71
DO in %								18.8%
ORP								
TURBIDITY								

DYSERT ENVIRONMENTAL, INC.
WELL PURGING / SAMPLING DATA

PROJECT: Ross Elliot **DATE:** 11.28.05
SITE LOCATION: 2526 WOOD St

CITY: OAKLAND **STATE:** CA

PURGE DEVICE

circle one 12volt (submersible pump) peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one bladder pump peristaltic pump disposable bailer other

casing diameter (inches)	*circle one*	0.75	(2)	4	6
casing volumes (gallons)	*circle one*	0.02	(0.2)	0.7	1.52

WELL DATA

SAMPLER: JWS
WELL NUMBER / FIELD POINT ID: MW-2
A. TOTAL WELL DEPTH: 15.06
B. DEPTH TO WATER: 3.96
C. WATER HEIGHT (A-B): 11.10
D. WELL CASING DIAMETER: 2.0
E. CASING VOLUME: 0.2
F. SINGLE CASE VOLUME (CxE): 2.22
G. CASE VOLUME (s) (CxEx 3): 6.66
H: 80% RECHARGE LEVEL (F+B): 6.18

PURGE DATA

START TIME: 1339
PUMP DEPTH: 5.0'
FINISH TIME: 1349
PUMP DEPTH: 14'-15'

RECHARGE / SAMPLE TIME

DEPTH TO WATER: 9.58 @ 1353 9.42 **TIME MEASURED:** 1430
GREATER THAN OR EQUAL TO 80% RECHARGE LEVEL (H): circle one YES (NO)
SAMPLE TIME: ~~1435~~ 1420 **DEPTH TO WATER:** 9.40
SAMPLE APPEARANCE / ODOR: Cloudy / No odors
TOTAL GALLONS PURGED: ~6.75 gal

WELL FLUID PARAMETERS

CASE VOL.	0	0.5	1	1.5	2	2.5	3	POST
Ph	7.03		7.04		6.98	6.95	6.88	6.81
TEMP in °C	18.5		18.9		19.3	18.5	19.2	19.1
COND / SC	331		177.2		397	338	326	1157
DO in mg/L								~~4.5~~ JS 3.49
DO in %				PUMPED DRY	PUMPED DRY.	PUMPED DRY.	PUMPED DRY	37.4%
ORP								
TURBIDITY								

DYSERT ENVIRONMENTAL, INC.
WELL PURGING / SAMPLING DATA

PROJECT: Russ Elliot **DATE:** 11.28-05
SITE LOCATION: 2526 Wood St

CITY: Oakland **STATE:** CA

PURGE DEVICE

circle one 12volt (submersible pump) peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one	bladder pump	peristaltic pump	disposable bailer	other
casing diameter (inches)	*circle one*	0.75 (2)	4	6
casing volumes (gallons)	*circle one*	0.02 (0.2)	0.7	1.52

WELL DATA

SAMPLER: JWS
WELL NUMBER / FIELD POINT ID: MW-3
A. TOTAL WELL DEPTH: 18.18
B. DEPTH TO WATER: 4.77
C. WATER HEIGHT (A-B): 13.41
D. WELL CASING DIAMETER: 2.0
E. CASING VOLUME: 0.2
F. SINGLE CASE VOLUME (CxE): 2.68
G. CASE VOLUME (s) (CxEx 3): 8.05
H: 80% RECHARGE LEVEL (F+B): 7.45

PURGE DATA

START TIME: 1320
PUMP DEPTH: ~5.0'
FINISH TIME: 1331
PUMP DEPTH: 18'

RECHARGE / SAMPLE TIME

DEPTH TO WATER: 5.98 @ 1334 (4.66) **TIME MEASURED:** 1418
GREATER THAN OR EQUAL TO 80% RECHARGE LEVEL (H): circle one (YES) NO
SAMPLE TIME: ~~1420~~ 1435 **DEPTH TO WATER:** 4.60
SAMPLE APPEARANCE / ODOR: Clear / None
TOTAL GALLONS PURGED: ~7.0

WELL FLUID PARAMETERS

CASE VOL.	0	0.5	1	1.5	2	2.5	3	POST
Ph	6.51		6.53	6.54	6.58	6.63		6.86
TEMP in °C	18.9	~~19.55~~	19.1	19.1	19.1	19.9		18.4
COND / SC	852		1015	1057	1076	1159		~~30.47~~ 298
DO in mg/L								2.86
DO in %				PUMPED DRY	PUMPED DRY	PUMPED DRY		30.4%
ORP								
TURBIDITY								

APPENDIX C

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

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Bruce Rucker
Stellar Environmental Sol.
2198 Sixth Street Suite 201
Berkeley, CA 94710

Lab Certificate Number: 46513
Issued: 12/13/2005

Project Name: Russ Elliott

Project Location: 2526 Wood St/Oakland
Global ID: T0600102110

Certificate of Analysis - Final Report

On November 29, 2005, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Comments
Liquid	Electronic Deliverables	
	TPH-Extractable	
	Volatile-GC	
	EPA 8260B - GC/MS	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Erin Cunniffe
Operations Manager

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Stellar Environmental Sol.
2198 Sixth Street Suite 201
Berkeley, CA 94710
Attn: Bruce Rucker

Date Received: 11/29/2005 1:39:04 PM
Project ID: Russ Elliott

Project Name: Russ Elliott
GlobalID: T0600102110

Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 46513-001 **Sample ID: MW-1** **Matrix:** Liquid **Sample Date:** 11/28/2005 2:05 PM

EPA 3510C EPA 8015 MOD. (Extractable) **TPH-Extractable**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/5/2005	DW051205	12/9/2005	DW051205

1600 ppb Hydrocarbon (C12-C40). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	66.0	22 - 133

Analyzed by: EricKum
Reviewed by: ECunniffe

EPA 5030C EPA 8015 MOD. (Purgeable) **TPH as Gasoline**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		8.0	400	µg/L	N/A	N/A	12/2/2005	WGC051202

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.4	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 8020 **BTEX**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		8.0	4.0	µg/L	N/A	N/A	12/2/2005	WGC051202
Toluene	ND		8.0	4.0	µg/L	N/A	N/A	12/2/2005	WGC051202
Ethyl Benzene	ND		8.0	4.0	µg/L	N/A	N/A	12/2/2005	WGC051202
Xylenes, Total	ND		8.0	4.0	µg/L	N/A	N/A	12/2/2005	WGC051202
Methyl-t-butyl Ether	97		8.0	8.0	µg/L	N/A	N/A	12/2/2005	WGC051202

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.2	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Methyl-t-butyl Ether	150		2.0	2.0	µg/L	N/A	N/A	12/7/2005	WM2051207
tert-Butyl Ethyl Ether	ND		2.0	10	µg/L	N/A	N/A	12/7/2005	WM2051207
tert-Butanol (TBA)	ND		2.0	20	µg/L	N/A	N/A	12/7/2005	WM2051207
Diisopropyl Ether	ND		2.0	10	µg/L	N/A	N/A	12/7/2005	WM2051207
tert-Amyl Methyl Ether	ND		2.0	10	µg/L	N/A	N/A	12/7/2005	WM2051207
1,2-Dichloroethane	ND		2.0	1.0	µg/L	N/A	N/A	12/7/2005	WM2051207
1,2-Dibromoethane (EDB)	ND		2.0	1.0	µg/L	N/A	N/A	12/7/2005	WM2051207
Ethanol	ND		2.0	200	µg/L	N/A	N/A	12/7/2005	WM2051207

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.5	70 - 130
Dibromofluoromethane	93.0	70 - 130
Toluene-d8	102	70 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Stellar Environmental Sol.
2198 Sixth Street Suite 201
Berkeley, CA 94710
Attn: Bruce Rucker

Date Received: 11/29/2005 1:39:04 PM
Project ID: Russ Elliott

Project Name: Russ Elliott
GlobalID: T0600102110

Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 46513-002 **Sample ID: MW-2** **Matrix:** Liquid **Sample Date:** 11/28/2005 2:20 PM

EPA 3510C EPA 8015 MOD. (Extractable) **TPH-Extractable**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/5/2005	DW051205	12/8/2005	DW051205

250 ppb Hydrocarbon (C14-C36). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	83.6	22 - 133

Analyzed by: EricKum
Reviewed by: jhsiang

EPA 5030C EPA 8015 MOD. (Purgeable) **TPH as Gasoline**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/2/2005	WGC051201

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.1	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 8020 **BTEX**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Methyl-t-butyl Ether	5.8		1.0	1.0	µg/L	N/A	N/A	12/2/2005	WGC051201

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.2	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Methyl-t-butyl Ether	7.7		1.0	1.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	12/6/2005	WM2051206
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/6/2005	WM2051206
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/6/2005	WM2051206
Ethanol	ND		1.0	100	µg/L	N/A	N/A	12/6/2005	WM2051206

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.3	70 - 130
Dibromofluoromethane	102	70 - 130
Toluene-d8	103	70 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

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Stellar Environmental Sol.
2198 Sixth Street Suite 201
Berkeley, CA 94710
Attn: Bruce Rucker

Date Received: 11/29/2005 1:39:04 PM
Project ID: Russ Elliott

Project Name: Russ Elliott
GlobalID: T0600102110

Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 46513-003 **Sample ID: MW-3** **Matrix:** Liquid **Sample Date:** 11/28/2005 2:35 PM

EPA 3510C EPA 8015 MOD. (Extractable) **TPH-Extractable**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/5/2005	DW051205	12/8/2005	DW051205

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	84.0	22 - 133

Analyzed by: EricKum
Reviewed by: jhsiang

EPA 5030C EPA 8015 MOD. (Purgeable) **TPH as Gasoline**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/2/2005	WGC051201

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 8020 **BTEX**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/2/2005	WGC051201
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/2/2005	WGC051201

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.2	65 - 135

Analyzed by: mruan
Reviewed by: dba

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	12/6/2005	WM2051206
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	12/6/2005	WM2051206
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/6/2005	WM2051206
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/6/2005	WM2051206
Ethanol	ND		1.0	100	µg/L	N/A	N/A	12/6/2005	WM2051206

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.1	70 - 130
Dibromofluoromethane	103	70 - 130
Toluene-d8	103	70 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

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Method Blank - Liquid - EPA 8015 MOD. (Extractable) - TPH-Extractable

QC/Prep Batch ID: DW051205

Validated by: jhsiang - 12/07/05

QC/Prep Date: 12/5/2005

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	**69.0**	22 - 133

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD. (Extractable) - TPH-Extractable

QC/Prep Batch ID: DW051205

Reviewed by: jhsiang - 12/07/05

QC/Prep Date: 12/5/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	803	µg/L	80.3	40 - 138
TPH as Motor Oil	<200	1000	858	µg/L	85.8	40 - 138

Surrogate	% Recovery	Control Limits
o-Terphenyl	**86**	22 - 133

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	820	µg/L	82.0	**2.0**	25.0	40 - 138
TPH as Motor Oil	<200	1000	874	µg/L	87.4	**1.8**	25.0	40 - 138

Surrogate	% Recovery	Control Limits
o-Terphenyl	**88.7**	22 - 133

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8015 MOD. (Purgeable) - TPH as Gasoline

QC Batch ID: WGC051202

Validated by: dba - 12/06/05

QC Batch Analysis Date: 12/2/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**103**	65 - 135

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD. (Purgeable) - TPH as Gasoline

QC Batch ID: WGC051202

Reviewed by: dba - 12/06/05

QC Batch ID Analysis Date: 12/2/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<50	120	122	µg/L	97.8	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**118**	65 - 135

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	120	117	µg/L	93.8	**4.2**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**117**	65 - 135

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8015 MOD. (Purgeable) - TPH as Gasoline

QC Batch ID: WGC051201

Validated by: dba - 12/05/05

QC Batch Analysis Date: 12/1/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**99.7**	65 - 135

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD. (Purgeable) - TPH as Gasoline

QC Batch ID: WGC051201

Reviewed by: dba - 12/05/05

QC Batch ID Analysis Date: 12/1/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<50	120	133	µg/L	107	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**123**	65 - 135

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	120	136	µg/L	109	**2.3**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**118**	65 - 135

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8020 - BTEX

QC Batch ID: WGC051202

Validated by: dba - 12/06/05

QC Batch Analysis Date: 12/2/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**104**	65 - 135

Laboratory Control Sample / Duplicate - Liquid - EPA 8020 - BTEX

QC Batch ID: WGC051202

Reviewed by: dba - 12/06/05

QC Batch ID Analysis Date: 12/2/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	4.0	3.68	µg/L	92.0	65 - 135
Ethyl Benzene	<0.50	4.0	3.64	µg/L	91.0	65 - 135
Toluene	<0.50	4.0	3.60	µg/L	90.0	65 - 135
Xylenes, total	<0.50	12	10.9	µg/L	90.5	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**111**	65 - 135

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	4.0	3.75	µg/L	93.8	**1.9**	25.0	65 - 135
Ethyl Benzene	<0.50	4.0	3.68	µg/L	92.0	**1.1**	25.0	65 - 135
Toluene	<0.50	4.0	3.69	µg/L	92.2	**2.5**	25.0	65 - 135
Xylenes, total	<0.50	12	11.0	µg/L	91.3	**0.92**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**97.5**	65 - 135

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8020 - BTEX

QC Batch ID: WGC051202

Reviewed by: dba - 12/06/05

QC Batch ID Analysis Date: 12/2/2005

MS Sample Spiked: 46626-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	4.0	3.45	µg/L	12/2/2005	86.2	65 - 135
Ethyl Benzene	ND	4.0	3.24	µg/L	12/2/2005	81.0	65 - 135
Toluene	ND	4.0	3.27	µg/L	12/2/2005	81.8	65 - 135
Xylenes, total	ND	12	9.94	µg/L	12/2/2005	82.8	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**101**	65 - 135

MSD Sample Spiked: 46626-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	4.0	3.46	µg/L	12/2/2005	86.5	0.29	25.0	65 - 135
Ethyl Benzene	ND	4.0	3.14	µg/L	12/2/2005	78.5	3.1	25.0	65 - 135
Toluene	ND	4.0	3.20	µg/L	12/2/2005	80.0	2.2	25.0	65 - 135
Xylenes, total	ND	12	9.62	µg/L	12/2/2005	80.2	3.3	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**96.5**	65 - 135

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8020 - BTEX

QC Batch ID: WGC051201

Validated by: dba - 12/05/05

QC Batch Analysis Date: 12/1/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**99.6**	65 - 135

Laboratory Control Sample / Duplicate - Liquid - EPA 8020 - BTEX

QC Batch ID: WGC051201

Reviewed by: dba - 12/05/05

QC Batch ID Analysis Date: 12/1/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	4.0	4.10	µg/L	102	65 - 135
Ethyl Benzene	<0.50	4.0	3.78	µg/L	94.5	65 - 135
Toluene	<0.50	4.0	3.80	µg/L	95.0	65 - 135
Xylenes, total	<0.50	12	11.3	µg/L	93.9	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**98.5**	65 - 135

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	4.0	3.90	µg/L	97.5	**5.0**	25.0	65 - 135
Ethyl Benzene	<0.50	4.0	3.59	µg/L	89.8	**5.2**	25.0	65 - 135
Toluene	<0.50	4.0	3.63	µg/L	90.8	**4.6**	25.0	65 - 135
Xylenes, total	<0.50	12	10.7	µg/L	89.1	**5.3**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**92.4**	65 - 135

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Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051206

Validated by: MaiChiTu - 12/08/05

QC Batch Analysis Date: 12/6/2005

Parameter	Result	DF	PQLR	Units
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethanol	ND	1	100	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**102**	70 - 130
Dibromofluoromethane	**107**	70 - 130
Toluene-d8	**101**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051206

Reviewed by: MaiChiTu - 12/08/05

QC Batch ID Analysis Date: 12/6/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	20.8	µg/L	104	70 - 130
Benzene	<0.50	20	20.0	µg/L	100	70 - 130
Chlorobenzene	<0.50	20	21.8	µg/L	109	70 - 130
Methyl-t-butyl Ether	<1.0	20	20.2	µg/L	101	70 - 130
Toluene	<0.50	20	20.0	µg/L	99.8	70 - 130
Trichloroethene	<0.50	20	21.6	µg/L	108	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**104**	70 - 130
Dibromofluoromethane	**101**	70 - 130
Toluene-d8	**98.9**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	19.7	µg/L	98.6	**5.3**	25.0	70 - 130
Benzene	<0.50	20	19.1	µg/L	95.5	**4.7**	25.0	70 - 130
Chlorobenzene	<0.50	20	20.8	µg/L	104	**4.9**	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	19.5	µg/L	97.7	**3.1**	25.0	70 - 130
Toluene	<0.50	20	19.7	µg/L	98.4	**1.4**	25.0	70 - 130
Trichloroethene	<0.50	20	21.5	µg/L	108	**0.36**	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**104**	70 - 130
Dibromofluoromethane	**107**	70 - 130
Toluene-d8	**98.2**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051206

Reviewed by: MaiChiTu - 12/08/05

QC Batch ID Analysis Date: 12/6/2005

MS Sample Spiked: 46563-004

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	20	19.6	µg/L	12/6/2005	98.1	70 - 130
Methyl-t-butyl Ether	ND	20	18.2	µg/L	12/6/2005	91.2	70 - 130
Toluene	ND	20	19.1	µg/L	12/6/2005	95.4	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**98**	70 - 130
Dibromofluoromethane	**97.2**	70 - 130
Toluene-d8	**97**	70 - 130

MSD Sample Spiked: 46563-004

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	19.4	µg/L	12/6/2005	96.9	1.2	25.0	70 - 130
Methyl-t-butyl Ether	ND	20	18.6	µg/L	12/6/2005	93.2	2.1	25.0	70 - 130
Toluene	ND	20	19.5	µg/L	12/6/2005	97.6	2.3	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**98.8**	70 - 130
Dibromofluoromethane	**96.3**	70 - 130
Toluene-d8	**97.9**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051207

Validated by: MaiChiTu - 12/08/05

QC Batch Analysis Date: 12/7/2005

Parameter	Result	DF	PQLR	Units
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethanol	ND	1	100	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**95.2**	70 - 130
Dibromofluoromethane	**92.2**	70 - 130
Toluene-d8	**101**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051207

Reviewed by: MaiChiTu - 12/08/05

QC Batch ID Analysis Date: 12/7/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	18.8	µg/L	94.2	70 - 130
Benzene	<0.50	20	19.9	µg/L	99.6	70 - 130
Chlorobenzene	<0.50	20	21.9	µg/L	110	70 - 130
Methyl-t-butyl Ether	<1.0	20	18.5	µg/L	92.6	70 - 130
Toluene	<0.50	20	19.6	µg/L	98.2	70 - 130
Trichloroethene	<0.50	20	22.6	µg/L	113	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.7**	70 - 130
Dibromofluoromethane	**95.8**	70 - 130
Toluene-d8	**96.9**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	18.9	µg/L	94.6	**0.51**	25.0	70 - 130
Benzene	<0.50	20	20.0	µg/L	99.8	**0.25**	25.0	70 - 130
Chlorobenzene	<0.50	20	21.9	µg/L	110	**0.055**	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	19.0	µg/L	94.9	**2.4**	25.0	70 - 130
Toluene	<0.50	20	19.6	µg/L	98.1	**0.092**	25.0	70 - 130
Trichloroethene	<0.50	20	22.7	µg/L	113	**0.17**	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**102**	70 - 130
Dibromofluoromethane	**97.6**	70 - 130
Toluene-d8	**97.8**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2051207

Reviewed by: MaiChiTu - 12/08/05

QC Batch ID Analysis Date: 12/7/2005

MS Sample Spiked: 46730-002

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	20	19.8	µg/L	12/7/2005	99.2	70 - 130
Methyl-t-butyl Ether	0.343	20	21.6	µg/L	12/7/2005	106	70 - 130
Toluene	0.316	20	19.3	µg/L	12/7/2005	95.1	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**102**	70 - 130
Dibromofluoromethane	**110**	70 - 130
Toluene-d8	**98.1**	70 - 130

MSD Sample Spiked: 46730-002

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	19.8	µg/L	12/7/2005	99.2	0.0050	25.0	70 - 130
Methyl-t-butyl Ether	0.343	20	21.7	µg/L	12/7/2005	107	0.17	25.0	70 - 130
Toluene	0.316	20	19.3	µg/L	12/7/2005	94.8	0.34	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**102**	70 - 130
Dibromofluoromethane	**112**	70 - 130
Toluene-d8	**98.5**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Joe Dinan/Bruce Rucker	Phone No.: 510-644-3123		Purchase Order No.:	Invoice to: (If Different)	Phone:
Company Name: Stellar Environmental Solutions	Fax No.: 510-644-3859		Project No.:	Company:	Quote No.:
Mailing Address: 2198 Sixth St. Suite 201	Email Address: bruckers@stellarenvironmental.com		Project Name: RUSSELLIOT	Billing Address: (If Different)	
City: Berkeley	State: CA	Zip Code: 94710	Project Location: 2526 Wood St	City: Oakland	State: CA / Zip:

Sampler: JWS | Field Org. Code:

Global ID: T0600102110

Turn Around Time
- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☐ 4 Day ☐ 5 Day
- ☒ 10 Day

Order ID:

Client ID / Field Point	Lab. No.	Sample Date	Sample Time	Matrix	No. of Containers	GC/MS Methods: EPA 8260B	BTEX ☐, MTBE ☐ TPH Gas ☐ by 8260B	5 Oxygenates (MTBE, TBA, ETBA, DIPE, TAME) ☒ Ethanol ☒	Lead Scavengers (1,2-DCA & EDB) ☒	Base/Neutral/Acid Organics	8270C ☐, PAH - 8270C SIM ☐	TPH Extractable: Diesel ☒ Motor Oil ☐ Other ☐,	w/ Si-Gel Cleanup ☐	Pesticides-8081 ☐	PCBs - 8082 ☐	TPH as Gas/BTEX ☒ MTBE ☒ by 8015M/8020	Methanol by 8015M	General Chemistry: Anions: F ☐ Cl ☐ Br ☐ SO4 ☐ NO3 ☐ NO2 ☐ PO4 ☐	pH ☐ TSS ☐ SC ☐ TOC ☐ TRPH ☐ O & G ☐	Metals - Circle Below Total ☐ Dissolved ☐ STLC ☐ TCLP ☐	Remarks
MW-1	46513-001	11.28.05	1405	W	6			X				X				X					
MW-2	002	↓	~~1435~~ 1420	W	6			X				X				X					
MW-3	003	↓	~~1420~~ 1435	W	6			X				X				X					

Relinquished by:	Received by:	Date:	Time:
		11-28-05	1700
		11-29-05	1300

Special Instructions or Comments

LOG CODE = SESB

FIELD POINT ID'S ARE THE SAME AS CLIENT ID

Metals:

Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Tl, Sn, Ti, Zn, V, W, Zr

- ☐ EDD Report
- ☒ EDF Report
- ☐ Plating
- ☐ LUFT-5
- ☐ RCRA-8
- ☐ PPM-13
- ☐ CAM-17

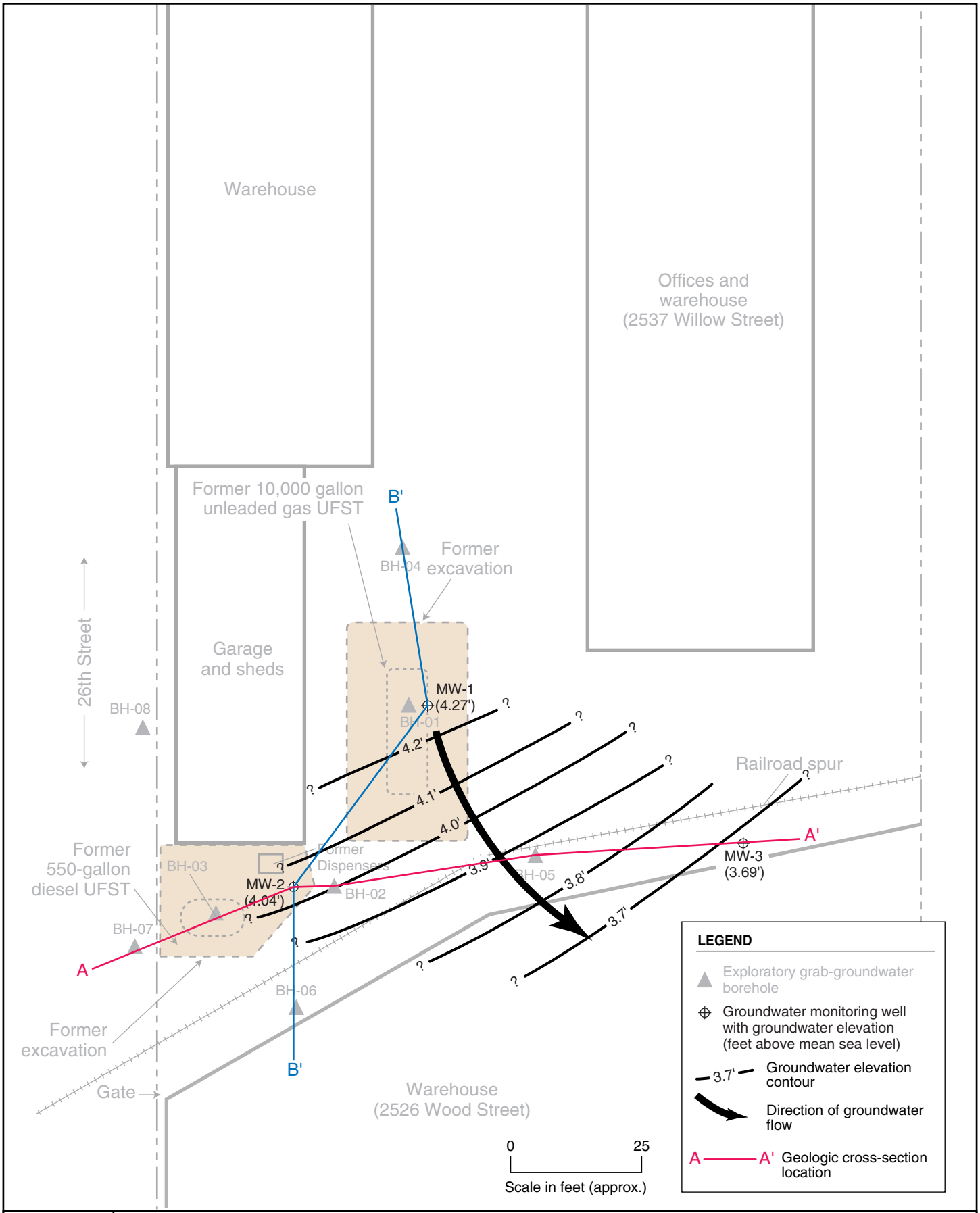
APPENDIX D

Historical Groundwater Elevation Data and Groundwater Flow Direction Maps

Historical Groundwater Elevations in Monitoring Wells
2526 Wood Street, Oakland, California

(all elevations are in feet above mean sea level)

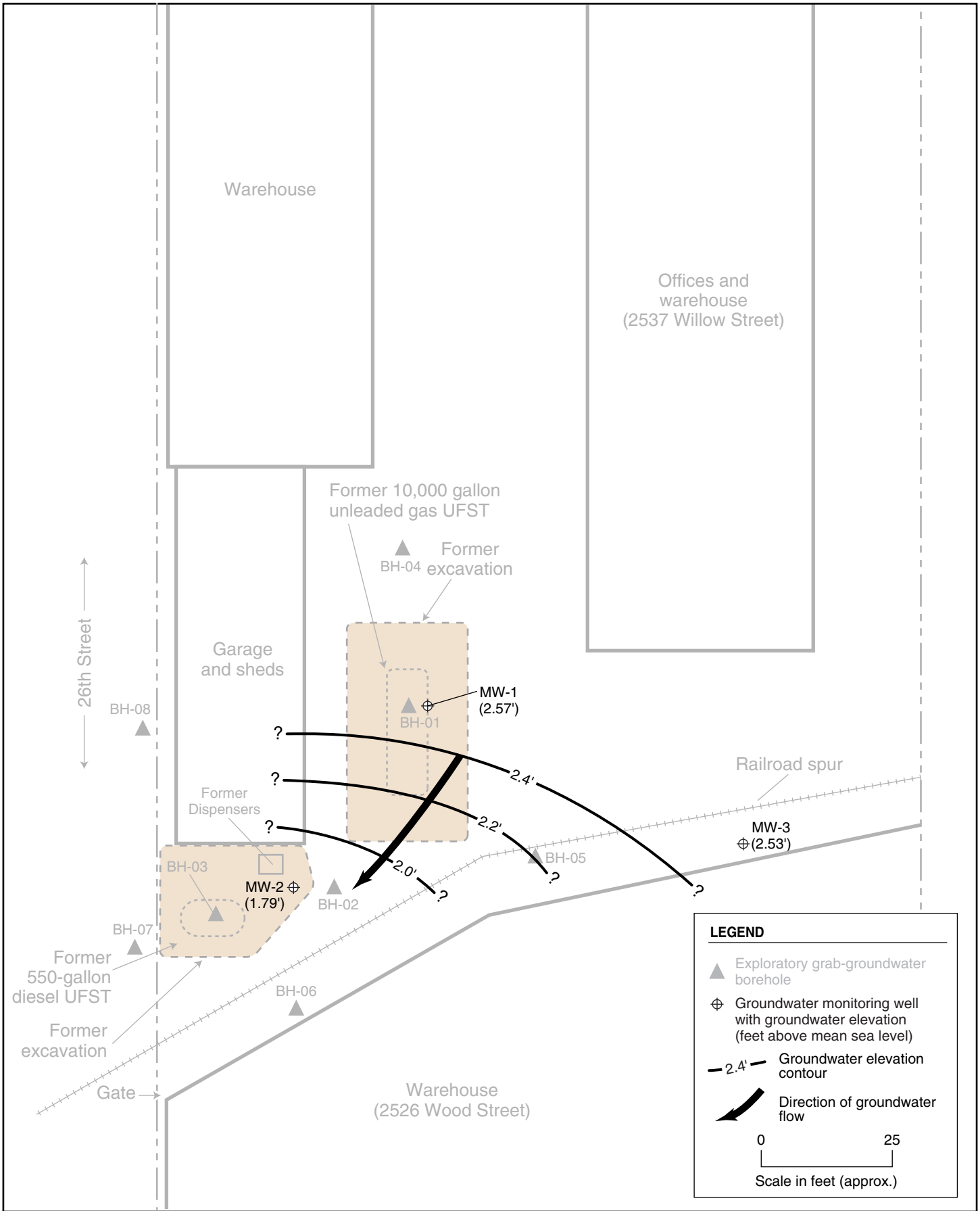
Measurement Date	MW-1	MW-2	MW-3
Feb-04	4.27	4.04	3.69
May-04	2.57	1.79	2.53
Aug-04	1.97	-1.51	1.99
Dec-04	2.76	2.38	2.59
Feb-05	4.48	4.14	3.34
May-05	3.79	3.35	4.06
Aug-05	2.23	1.50	2.23
Nov-05	2.39	2.33	2.17



GROUNDWATER ELEVATION MAP — FEBRUARY 20, 2004

2526 Wood Street Oakland, CA	By: MJC	MARCH 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

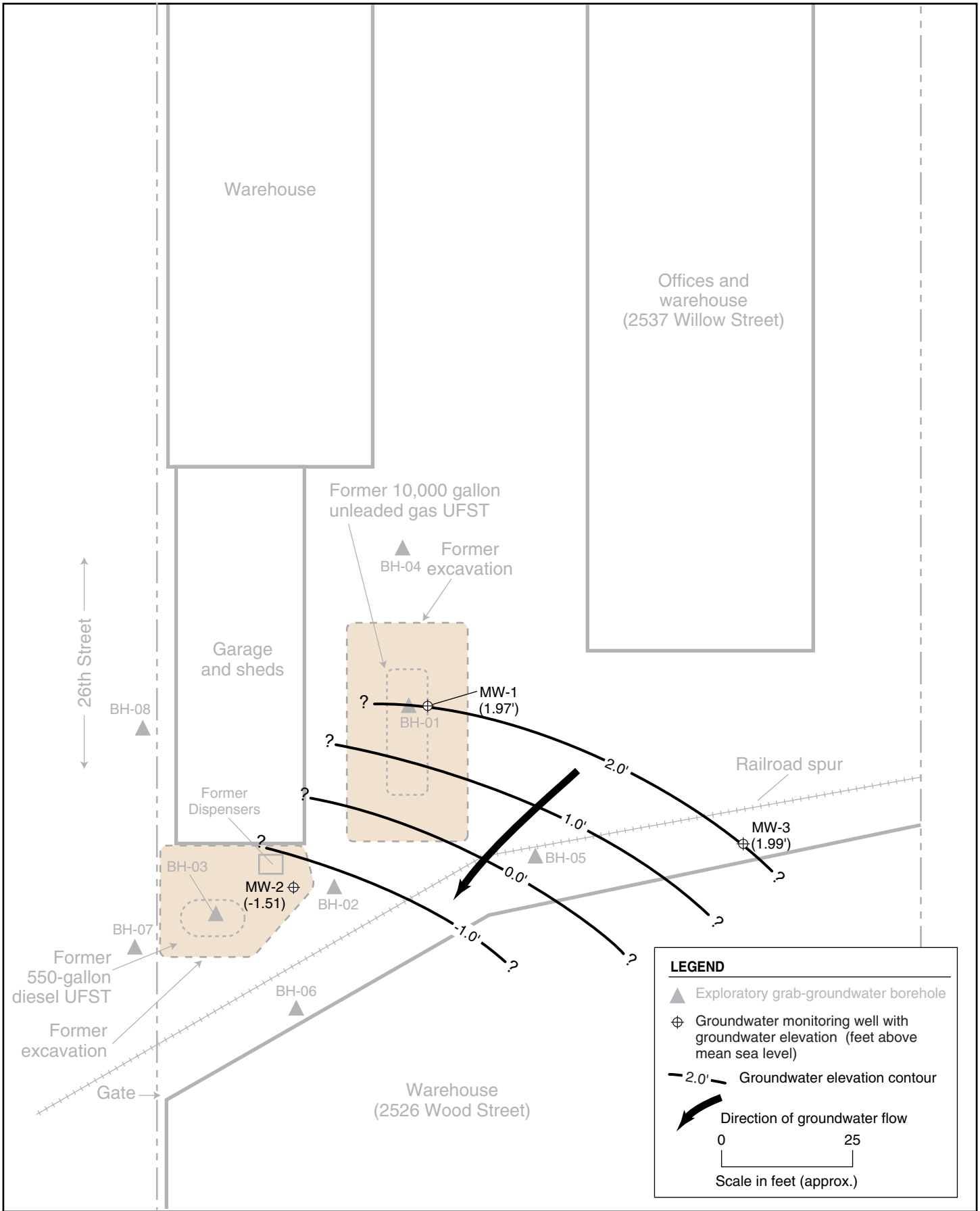
2003-41-25



GROUNDWATER ELEVATION MAP — MAY 18, 2004

2526 Wood Street Oakland, CA	By: MJC	JUNE 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

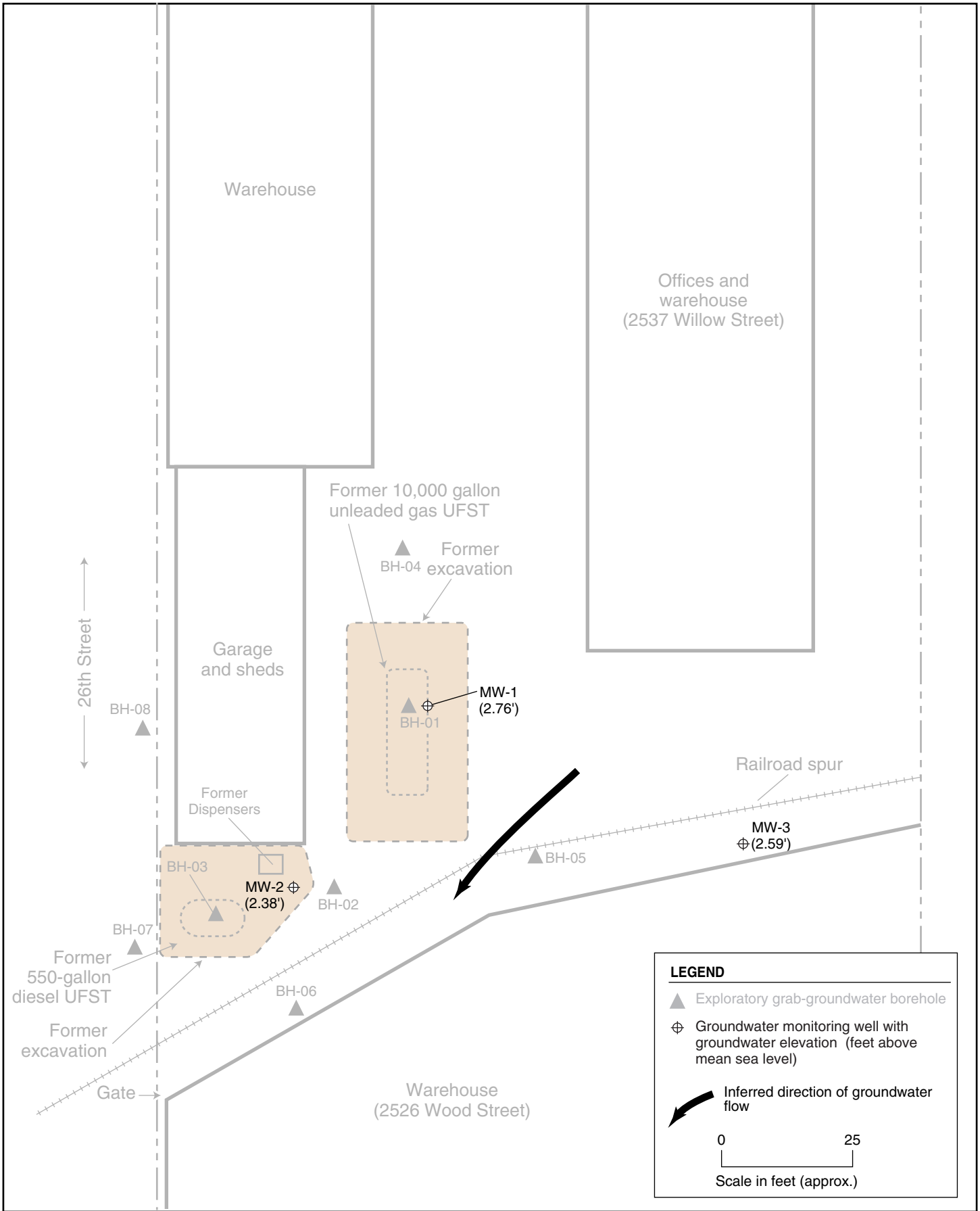
2003-41-30



GROUNDWATER ELEVATION MAP — AUGUST 12, 2004

2526 Wood Street Oakland, CA	By: MJC	AUGUST 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

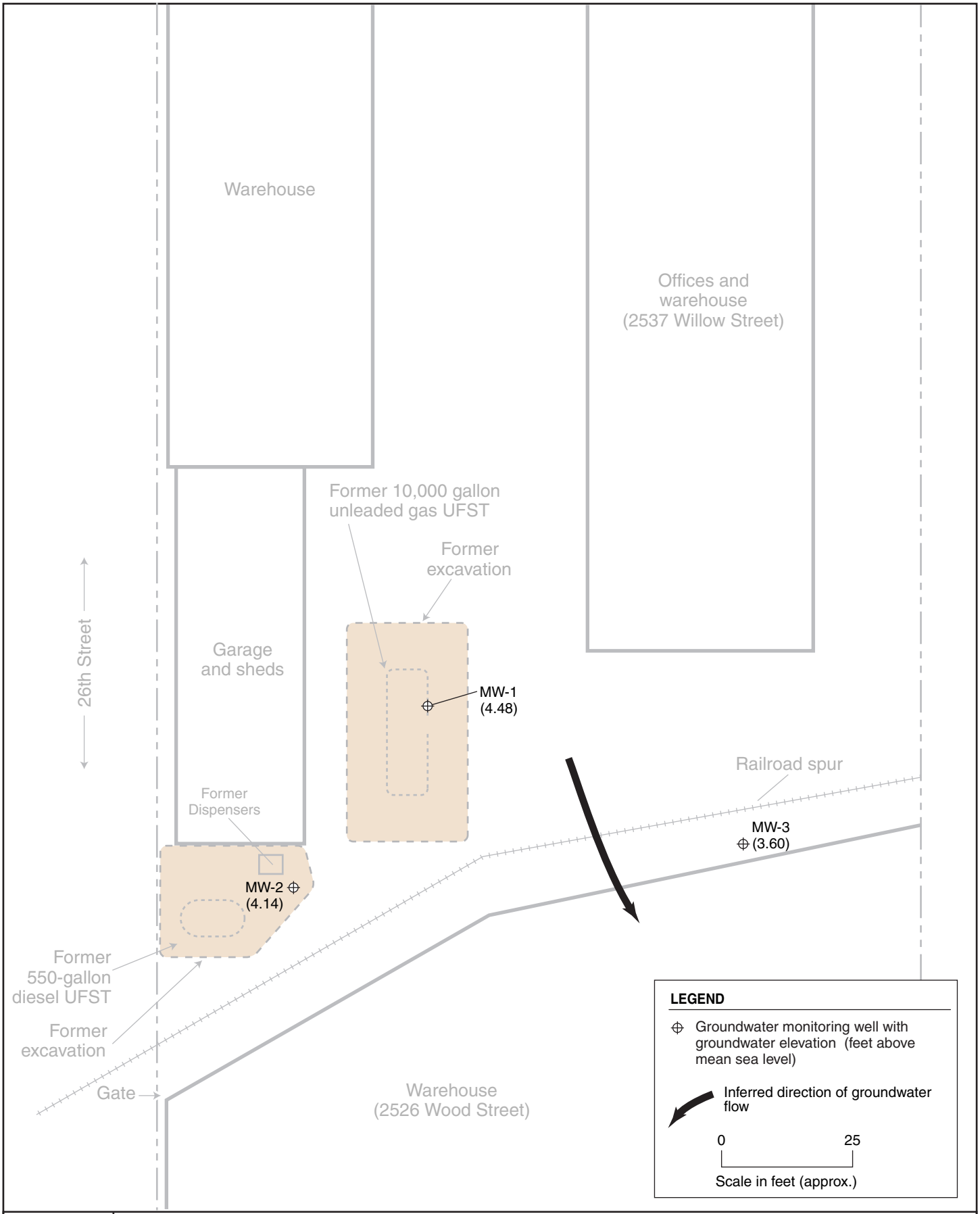
2003-41-32



GROUNDWATER ELEVATION MAP — NOVEMBER 22, 2004

2526 Wood Street Oakland, CA	By: MJC	DECEMBER 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

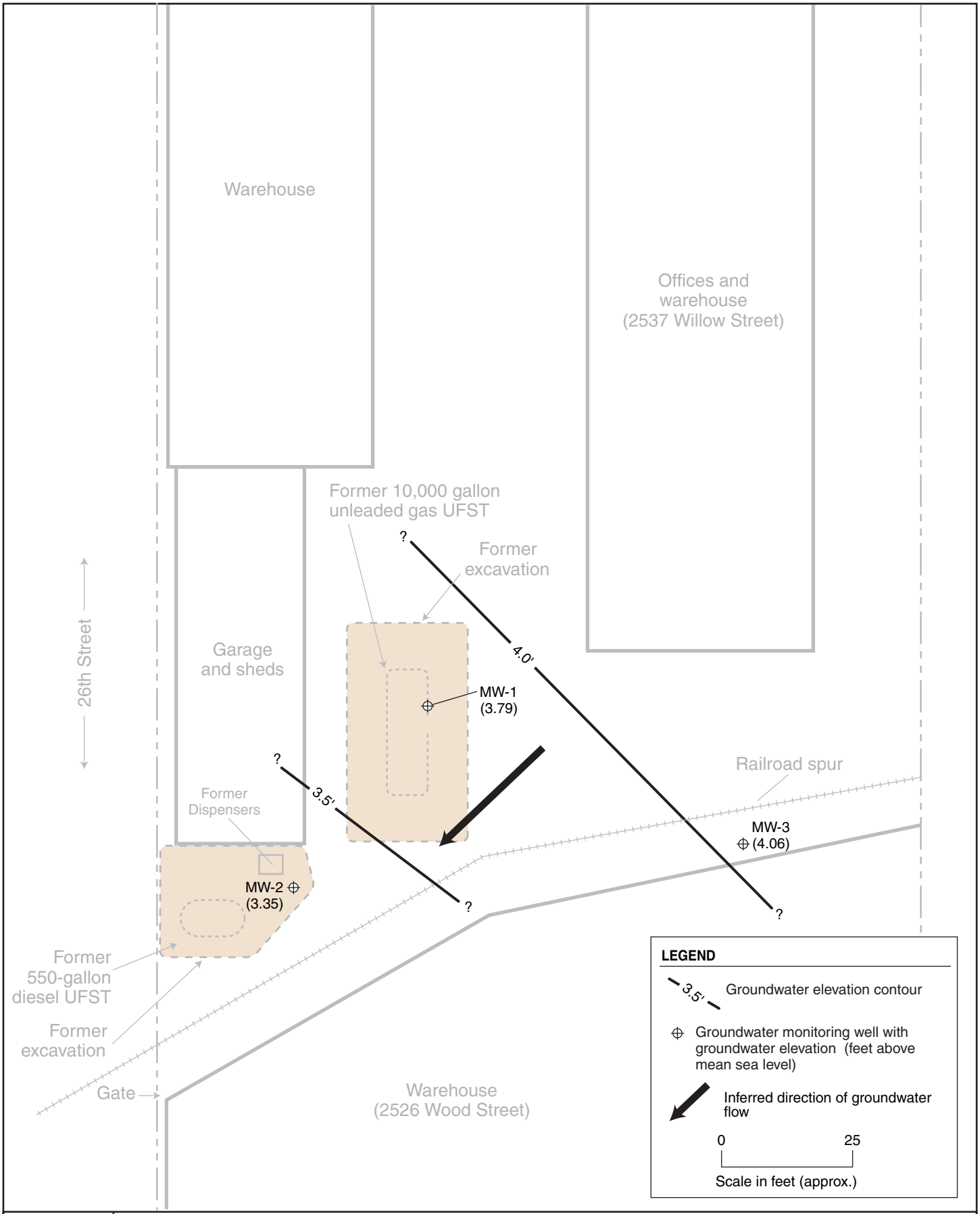
2003-41-36



GROUNDWATER ELEVATION MAP — FEBRUARY 17, 2005

2526 Wood Street Oakland, CA	By: MJC	MARCH 2005	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

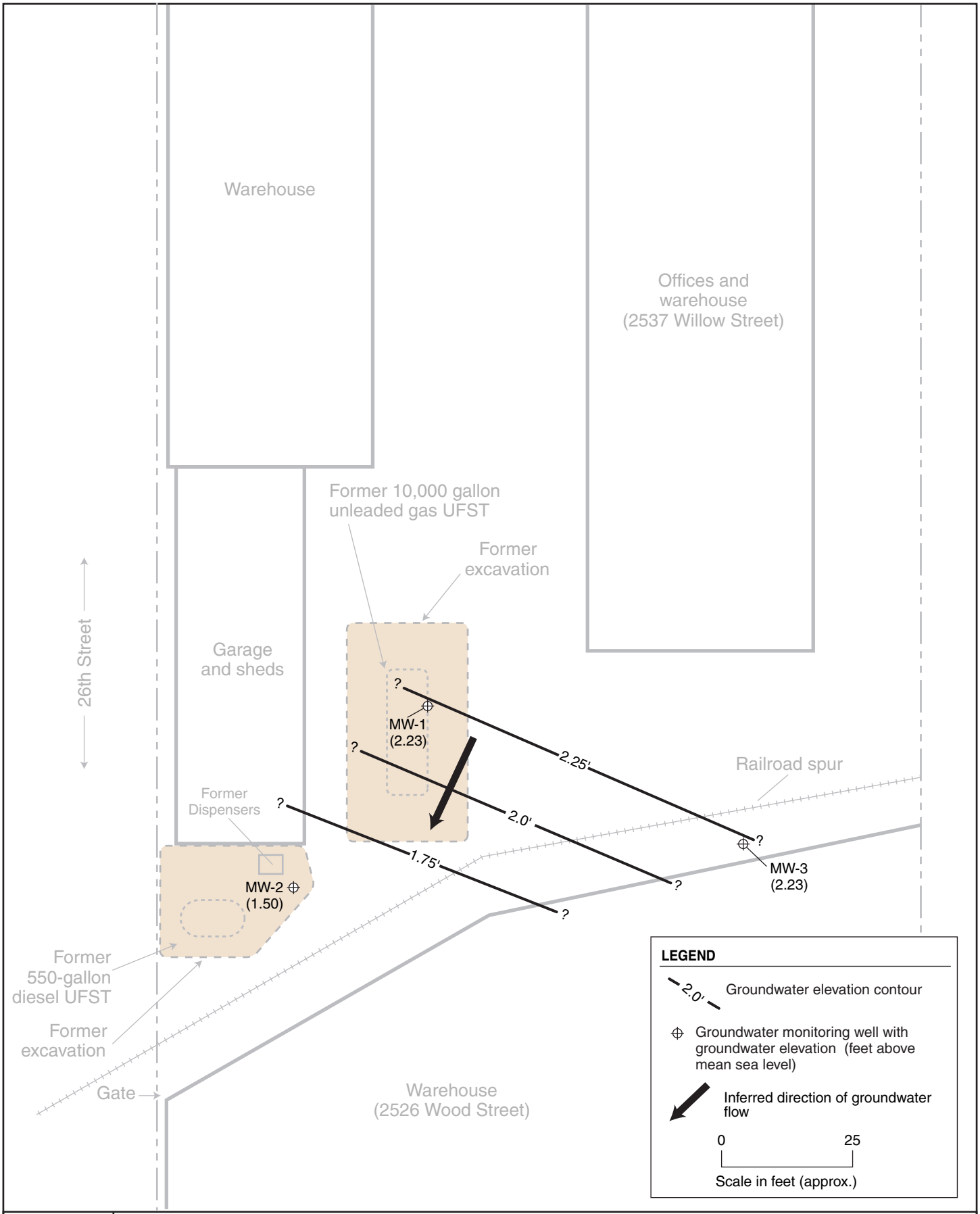
2003-41-38



GROUNDWATER ELEVATION MAP — MAY 26, 2005

2526 Wood Street Oakland, CA	By: MJC	MAY 2005	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

2003-41-40



GROUNDWATER ELEVATION MAP — AUGUST 26, 2005

2526 Wood Street Oakland, CA	By: MJC	SEPTEMBER 2005	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 3		

2003-41-41