Innovative Environmental Remediation, Inc.

March 8, 2009

Paresh C. Khatri
Hazardous Materials Specialist

Alameda County Health Agency
Department of Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Semi-Annual Groundwater Monitoring Report (First Quarter 2010)
Foothill Mini Mart
6600 Foothill Boulevard, Oakland, California
Fuel Leak Case No. RO0000175
GeoTracker Global ID: T0600102286

Dear Mr. Khatri:

On behalf of Mr. Ravi Sekhon, Innovative Environmental Remediation, Inc. (IERI) has conducted the 2010 first quarter semi-annual groundwater monitoring/sampling for the subject site, and prepared the *Semi-Annual Groundwater Monitoring Report (First Quarter, 2010)*. Attached with this electronic file, please find this report for your review and comments.

If you have questions, please feel free to call the undersigned at (925) 708-8387. Your assistance on this site is much appreciated.

Sincerely,
IERI

Jim Ho, Ph.D., P.E.
Principal Engineer

Cc: Ravi Sekhon, 21696 Knuppe Place, Castro Valley, CA 94552

Mr. Paresh C. Khatri
Hazardous Material Specialist

Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Sekhon Gas Station

6600 Foothill Boulevard
Oakland, California, 94605
Fuel Leak Case No. RO0000175
GeoTracker Global ID: T0600102286
UST Cleanup Fund Claim No. 14095

Dear Mr. Khatri:

As the responsible party of the above-referenced project location, I have reviewed the *Semi-Annual Groundwater Monitoring Report (First Quarter 2010)*, prepared by Innovative Environmental Remediation, Inc. (IERI), of Walnut Creek, California. I declare, under penalty of perjury, that the information and/or recommendations contained in this document or report are true and correct to the best of my knowledge.

Sincerely,

Mr. Ravi Sekhon

Date: 3-5-10

Innovative Environmental Remediation, Inc.

Semi-Annual Groundwater Monitoring Report

(First Quarter 2010)

Former Sekhon Gas Station
6600 Foothill Boulevard
Oakland, CA 94605
Fuel Leak Case No. RO0000175

Prepared for:

Mr. Ravi Sekhon

Prepared by:

Innovative Environmental Remediation, Inc.
Walnut Creek, California

March 2010

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION

Mr. Ravi Sekhon is one of the responsible parties for the subsurface contamination of the former Sekhon Gas Station (Foothill Mini Mart) located at 6600 Foothill Boulevard, Oakland, CA, and also the Claimant of the Underground Storage Tank Cleanup Fund (Claimant # 14095). Mr. Sekhon retained Innovative Environmental Remediation, Inc. (IERI) as his new consultant beginning December 1, 2009. On behalf of Mr. Sekhon, IERI conducted a First Quarter 2010 (1Q10) semi-annual groundwater monitoring on January 6 through 8, 2010, for the subject site. Since the owner of the 6633 Foothill Boulevard property was unavailable to open the gate on January 6 or 7, 2010, only well MW-13A was gauged and sampled on January 8, 2010.

All of the shallow zone monitoring wells, MW-1 through MW-7, MW10, MW-11, MW-12A, and MW-13A, and the deep zone monitoring wells, MW-5B, MW-6B, and MW-12B, were gauged and sampled during the 1Q10 groundwater monitoring event. Wells MW-1 through MW-3, MW-10, and MW-11 are located on the subject property. Well pair MW-12A/MW-12B and well MW-4 are located on the property with an address of 6620 Foothill Boulevard (former Dairy Mart Milk owned by Mr. Le Blanc) east of the subject property. Well pairs MW-5/MW-5B and MW-6/MW-6B, and well MW-7, are located on the southern edge of Foothill Boulevard south of the subject property. Shallow well MW-13A is located on the 6633 Foothill Boulevard property (see Figure 2). Monitoring wells MW-1 through MW-3 were installed on June 4, 2001, wells MW-4 through MW-6 were installed on June 26, 2002, and the remaining wells were installed on September 22 through 24, 2009. The top of casing (TOC) elevations and the construction data of the above monitoring wells are presented in Table 1.

Since the groundwater in wells MW-6B and MW-12B was deeper than 33 feet, a peristaltic pump could not pump water deeper than 33 feet from the ground surface, the traditional three-casing volume method was used for purging these two wells. With the exception of wells MW-6B and MW-12B, all the monitoring wells were purged and sampled using the Low-Flow Rate Purging and Sampling Method (Puls and Barcelona, 1996). The following methods were used to analyze the concerned contaminants: EPA Method 8015B (M) for the total petroleum hydrocarbons as gasoline (TPH-g), EPA Method 8260B for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and fuel oxygenates; including Methyl Tertiary Butyl Ether (MTBE) and Tertiary Butyl Alcohol (TBA), and Methanol/Ethanol.

Following the field gauging and sampling activities, IERI prepared the *Semi-Annual Groundwater Monitoring Report (First Quarter 2010)*. This report presents the groundwater monitoring activities, monitoring results, discussions, findings, conclusions, and recommendation for the subject site.

2. BACKGROUND

2.1 Site Description

The Site is located at 6600 Foothill Boulevard, Oakland, California, on the northeastern corner of Havenscourt Boulevard and Foothill Boulevard (Figure 1). The ground surface elevation at the site is approximately 60 feet above msl. The regional topography of the site slopes gently toward the south-southwest. The site is located in an area with mixed commercial and residential uses, and is currently occupied by a retail gasoline station (Golden Gasoline) that includes a convenience store and two gasoline dispenser islands. Each dispenser island contains two dispensers.

The property is bounded by an empty commercial building to the east, Foothill Boulevard to the south, Havenscourt Boulevard to the west, and Evergreen Cemetery to the north. An empty lot formerly used as a gas station is located south of the subject site, across Foothill Boulevard at the southeast corner of the intersection of Havenscourt Boulevard and Foothill Boulevard. Adjacent to this empty lot is a two-story residential building with a store. The site plan is shown in Figure 2.

The site is located in the foothills of the Oakland Hills to the north. San Francisco Bay is located approximately two miles to the west of the property, and San Leandro Bay is approximately two miles southwest of the property. The Frick Jr. High School, Luther Burbank School, and Markham School are located within 2,000 feet of the property.

2.2 Site History

The site has been a retail gas station since 1959 and was formerly operated as Shell, ARCO, and BEACON gasoline stations. The underground storage tank (UST) system of the former gas stations consisted of one 8,000-gallon, single wall, steel UST, two 10,000-gallon, single wall, fiberglass USTs, two dispenser islands, and two dispensers on each dispenser island. Mr. Ravi Sekhon purchased the property from the BEACON gas station in 1998.

As part of the UST system upgrade, a suspected leakage of the 8,000-gallon steel UST was noticed in November 1998. Consequently, the steel UST and associated dispensers were removed on December 16, 1998, and the leakage was reported in January 1999. Mr. Steve Crawford of the City of Oakland Fire Department was on site during the tank removal to observe site conditions and to direct sample collections. Under Mr. Crawford's direction, two soil samples were collected individually from the eastern and western sidewalls of the UST pit and three soil samples were collected from beneath the dispenser islands. Since the pipe trench between the dispensers and UST pit was less than 20 feet, Mr. Crawford did not require that pipe trench samples be collected. The sampling results from beneath the dispenser islands and from the UST pit sidewall were forwarded to the Alameda County Environmental Health (ACEH) on January 11, 1999. In addition, on December 31, 1998, staff of Edd Clark & Associates

collected one grab groundwater sample. A copy of these sample results was also forwarded to the ACEH (AARS, 2003). Review of all laboratory reports showed that, with the exception of 25 ppb of toluene in the east dispenser island soil sample, the only detected compound in the soil was MTBE. The water sample from the pit showed that TPH-gasoline, BTEX, and MTBE were detected in the groundwater.

Following the removal of the 8,000-gallon steel UST on December 16, 1998, P&D Environmental (P&D) of Oakland, California, was retained by Mr. Sekhon to provide consulting services. During P&D's site visit on January 9, 1999, approximately 6 inches of groundwater was observed at the bottom of the UST pit, from which a steel UST had just been removed. The measured depth to groundwater was 8.0 feet below ground surface (bgs). Sheen was observed on the water in the UST pit. However, no petroleum hydrocarbon odors were detected in any of the soil at the site. Based on a January 11, 1999 telephone conversation between Mr. Crawford of the City of Oakland Fire Department and the staff of P&D, Mr. Crawford indicated that there was nothing remarkable about the site, and no evidence of contamination other than MTBE, which was reported in the laboratory reports.

Based on the above observations and the sampling results, P&D recommended that the UST pit be backfilled, the upgrade of the remaining UST system be completed, and that a groundwater investigation be performed to determine the extent and origin of petroleum hydrocarbons in groundwater. Subsequently, prior to backfilling, groundwater was pumped from the UST pit and stored in above ground storage tanks pending carbon filtration and discharge to the storm drain with an approved San Francisco Bay Regional Water Quality Control Board temporary groundwater discharge permit. In addition, the stockpile soil generated during UST removal was characterized, profiled and removed from the site to the BFI Vasco Road Landfill in Livermore, California (P&D Environmental, 1999). Additionally, to complete the UST system upgrade, two fiberglass USTs were kept at the site. New dispensers with dispenser pans and sensors, double walled piping, overfill and overspill protection, a sump with a sensor for each UST, and an automatic tank gauging system were installed. The pit was backfilled in January and February 1999.

Mr. Sekhon retained Advanced Assessment and Remediation Services (AARS) to conduct subsequent groundwater investigation. AARS conducted a preliminary site assessment in June 2001, supervised the installation of monitoring wells MW-1, MW-2, and MW-3 on June 4, 2001, and conducted quarterly sampling on June 13, 2001 (AARS, 2001) and March 21, 2002 (AARS, 2002a). The results of the preliminary site investigation, as well as the June 2001 and March 2002 quarterly monitoring and sampling, confirmed the presence of elevated petroleum hydrocarbons and MTBE in monitoring well MW-2 near the backfilled UST pit. AARS conducted an additional site investigation by installing three monitoring wells MW-4, MW-5, and MW-6 and two soil borings. These monitoring wells were installed on June 26, 2002, and an additional groundwater sampling event was performed on July 9, 2002 (AARS, 2002b). After that, ARRS conducted six monitoring and sampling events between July 2003 and November 2005. The analytical results (ARRS, 2006) indicated an elevated concentration of petroleum

hydrocarbons in MW-4 and the farthest downgradient monitoring well MW-6, as well as elevated MTBE concentrations in monitoring wells MW-1, MW-2, and MW-6. The results of those monitoring events suggested that off-site migration of petroleum hydrocarbons and MTBE might have occurred. Thus, ACEH requested additional site characterization to define the lateral and vertical extent of the groundwater impact (see ACEH's March 28, 2008 letter posted on Alameda County Environmental Cleanup Oversight Programs' ftp site).

In addition to the above activities, all the existing monitoring wells MW-1 through MW-6 were surveyed again on August 4, 2008 due to issues regarding former well coordinates (ERS, 2008a). The revised top of casing (TOC) elevations and the construction data of the existing monitoring wells are presented in Table 1. The revised TOC elevations also have been uploaded to the GeoTracker.

2.3 Previous Site Investigations

To assess the nature and extent of groundwater contamination, P&D prepared and submitted a work plan for a preliminary site investigation. After this work plan was approved by ACEH, Mr. Sekhon retained AARS to supervise the drilling of three soil borings to a maximum depth of 25 feet bgs conducted by Exploration Geoservices of San Jose, California, on June 4, 2001. After being sampled and screened at five-foot intervals, these soil borings were converted into monitoring wells MW-1 through MW-3. One sample from each borehole was delivered for laboratory analysis based on groundwater depth, odor, and Photo Ionization Detector (PID) readings. Soil samples and groundwater samples from wells MW-1 through MW-3 were analyzed for TPH-g by EPA Method 8015M, and analyzed for BTEX and MTBE by EPA Method 8020. Elevated MTBE concentrations in soil and groundwater samples were found from MW-2 (0.29 mg/Kg and 94,000µg/L, respectively). EPA Method 8260 confirmed the above data. The investigation results are presented in the *Groundwater Quality Investigation* report (AARS, 2001).A work plan was approved by ACEH (AARS, 2002c) and an additional site investigation was performed in June 2002. AARS supervised drilling and sampling of five borings, SB-1, SB-2, MW-4, MW-5, and MW-6, to a maximum depth of 20 feet bgs by Exploration Geoservices, on June 26 and 27, 2002. Soil samples from these five borings were collected in the same manner as in the 2001 preliminary investigation. Three borings were converted into monitoring wells MW-4 through MW-6 after soil sampling. As in 2001, soil and groundwater samples were analyzed for TPH-g, BTEX, and MTBE using the same EPA methods. The 2002 additional investigation revealed that elevated MTBE concentrations of 37,600, 28,300, 18,600, and 11,300 µg/L were found in wells MW-2, MW-4, MW-5, and MW-6, respectively. Elevated MTBE concentrations of 593, 4,290, and 1160 mg/Kg were found in soil samples collected from borings MW-4, MW-5, and MW-6, respectively, at a depth of 10 feet bgs. The 2002 additional investigation (AARS, 2002b) suggests that both TPH-g and MTBE have migrated to the southeast of the subject property following the groundwater flow. Prior to soil sampling and well installation, a horizontal conduit study and well search was also performed. No significant horizontal and vertical conduits were identified during 2002 investigation.

A work plan was approved by ACEH (AARS, 2003) for another site investigation performed in August 2005 (AARS, 2005). AARS supervised drilling of 12 soil borings, SB-3 through SB-14 by Gregg Drilling and Testing, Inc. of Martinez, California, on August 10 and 11, 2005. Soil borings SB-3 and SB-4 were drilled to 20 feet bgs; soil borings SB-5, SB-6 and SB-10 through SB-14 were drilled to 17 feet bgs. Soil boring SB-7 was drilled to 30 feet bgs, and SB-8 and SB-9 were drilled to 28 feet bgs. Soil samples were collected from the above borings at five-foot intervals and analyzed for TPH-g, BTEX, and MTBE. Multiple soil samples were collected from borings SB-7, SB-8, and SB-9 based on the change of lithology or PID reading. Temporary well casings were installed in all soil borings for groundwater collection. Since borings SB-9, SB-13, and SB-14 were dry, groundwater samples were not collected (see Table 2). Groundwater was collected from other locations within the screened interval of 10 to 20 feet bgs. Collected soil and groundwater samples were analyzed for TPH-g by EPA Method 8015M, and for BTEX and MTBE by EPA Method 8021B.

The 2005 investigation revealed the following conditions:

- Highly clayey soil exists near the UST pit. Thus, the migration of dissolved hydrocarbons in groundwater is limited.

- The hydrocarbon plume is primarily confined to the vicinity of the removed tank pit area and has migrated to the southeast following the direction of groundwater flow.

- Groundwater samples collected from MW-2, MW-4, MW-6, SB-7, and SB-8 detected TPH-g concentrations between 91 and 9,300 µg/L (SB-8) and benzene concentrations between non-detect to 470 µg/L.

- Although MTBE was detected in all monitoring wells and most soil borings (non-detected only in soil borings SB-5 and SB-6), with concentrations ranging from 13 (SB-11) to 23,000 µg/L (SB-7), elevated MTBE concentrations were detected in monitoring wells MW-1, MW-2, MW-4, and MW-6, and soil borings SB-7 and SB-8.

- Significant levels of MTBE were detected in soil borings SB-7, SB-8, and SB-9 near the UST pit. TPH-g concentration containing strongly aged gasoline or diesel range compounds between 1.7 and 200 mg/Kg was detected in these soil borings.

- Due to the high mobility of MTBE, the delineated MTBE plume boundary is much broader than the hydrocarbon plume.

- Only a low TPH-g concentration of 4.7 mg/Kg containing strongly aged gasoline or diesel range compounds was detected at SB-4. No TPH-g, BTEX, and MTBE were detected in all other soil borings located on the properties of 6601 and 6619 Foothill Boulevard. In accordance with a personal communication with Mr. Billy Jue, property owner, elevated TPH-g concentration of 13,000 µg/L, detected in groundwater from location of SB-5 located

on the property of 6619 Foothill Boulevard, with non-typical gasoline pattern, was likely associated with past railroad activities of General Motors Automotive Plant.

In response to the February 6 and June 18, 2009 letters issued by ACEH, a data gap investigation was conducted from September 21 through 25, 2009 for the subject site (ERS, 2009). Five additional shallow zone monitoring wells MW-7, MW-10, MW-11, MW-12A, and MW-13A, as well as three deep zone monitoring wells MW-5B, MW-6B, and MW-12B, were installed between September 22 and 24, 2009.

As a result of the 2009 investigation, the major findings and conclusions are listed below:

- Both lithologic and groundwater data suggest that the shallow and deep groundwater zones are not connected.

- The deep zone groundwater is not impacted by the contaminated soil/groundwater in the shallow zone.

- Contaminated soil exists on the site south of the UST pit. TPH-g is the major contaminant of concern within the source area in the vadose zone; MTBE impact under the source area primarily exists in the shallow groundwater zone. A higher TPH-g concentration exists near the south/southeast corner of the property. The highest TPH-g concentration appears at a depth interval of approximately 6 to 8 feet below ground surface. The range of the on-site source area delineated in the preliminary SCM remains unchanged.

- The East Bay Municipal Utility District's (EBMUD's) 8-inch water pipe trench is a preferential migration pathway. Since the TPH-g concentration within the EBMUD trench appear to increase along the trench slope, and the highest TPH-g concentration within the trench was found in the farthest downstream borehole USB-11 approximately 120 feet east of the east property line, the extent of soil/groundwater contamination under Foothill Boulevard along the EBMUD trench in the east direction has not been completely determined.

2.4 Local Geologic and Hydrogeologic Setting

The subject property and its surroundings are located in the foothills of the Oakland Hills, at the eastern edge of a broad alluvial plain on the east side of San Francisco Bay. The alluvial plain is relatively flat. The alluvial deposits consist largely of inter-fingered lenses of clayey gravel, sandy and silty clays, and sand to silty clay mixtures. Individual units are discontinuous and have low correlation with distance.

Groundwater under the subject site is often shallow. The average groundwater depths under the subject site on June 4, 2001 and August 11, 2005, were 9.83 and 8.17 feet bgs, respectively. However, the average groundwater depth off site measured on August 11, 2005 was 7.00 feet bgs. Local groundwater elevation varies with rainfall and seasons. The general groundwater

flow direction ranges between west and southwest toward the San Francisco Bay or San Leandro Bay.

2.5 Groundwater Monitoring History

As mentioned above, monitoring wells MW-1 through MW-6 were installed separately in June 2001 and 2002. However, these wells have not been monitored regularly every quarter between 2001 and 2005. All wells were only monitored quarterly for one full year from July 2003 to May 2004 (see Table 2). Wells MW-1 through MW-3 were gauged only twice each year between 2002 and 2005, and wells MW-4 through MW-6 were gauged and sampled twice each year between 2003 and 2005. AARS conducted a final monitoring event on November 30, 2005 (AARS, 2006).

Thus, at the request of ACEH in a letter dated July 24, 2008 posted on Alameda County Environmental Cleanup Oversight Programs' ftp site, quarterly groundwater monitoring resumed on August 8, 2008.

2.6 Contaminants of Concern

The cumulative groundwater sampling data of all the sampling events between June 2001 and May 2009 (Table 2) shows that elevated or significant concentrations of dissolved hydrocarbons, including TPH-g and/or benzene, as well as fuel oxygenates, including MTBE and/or TBA, have been detected from on-site monitoring wells MW-1 and MW-2, and/or off-site monitoring wells MW-4, MW-5, and MW-6. Thus, TPH-g, benzene, MTBE, and TBA are the contaminants of concern for the subject site.

3. GROUNDWATER MONITORING ACTIVITIES

All of the shallow zone monitoring wells (MW-1 through MW-7, MW10, MW-11, MW-12A, and MW-13A) and the deep zone monitoring wells (MW-5B, MW-6B, and MW-12B) were gauged and sampled on January 6 through 8, 2010. Since the owner of the 6633 Foothill Boulevard property was unavailable to open the gate on January 6 or 7, 2010, only well MW-13A was gauged and sampled on January 8, 2010. Before gauging, all well lids were opened and allowed to equilibrate for approximately 30 minutes.

Since the groundwater in wells MW-6B and MW-12B was deeper than 33 feet, a peristaltic pump could not pump water deeper than 33 feet from the ground surface; the traditional three-casing volume method was used for purging these two wells. With the exception of wells MW-6B and MW-12B, all monitoring wells were purged and sampled using the Low-Flow Rate Purging (LRP) and Sampling Method (Puls and Barcelona, 1996) following the standard operating procedures presented in Appendix A. A peristaltic pump was calibrated prior to the first purge to establish the flow-rate. The pump was set to a flow rate of 0.3 liters per minute (L/min). Depth to water (DTW) and water quality parameters were measured in three-minute intervals. The water quality parameters of pH, temperature, and specific conductance (SC) were measured during purging using an Oakton Meter, which was calibrated prior to use and decontaminated between wells. When water quality parameters stabilized according to the low-flow sampling protocol (ASTM, 2002), groundwater samples were collected directly from the dedicated tubing. The groundwater depth and well purging data recorded in the field are shown in Appendix B.

Water samples were collected, labeled and stored in an ice chest chilled with ice, following the standard operating procedures presented in Appendix A. The samples were delivered to Kiff Analytical, LLC of Davis, California, a state-certified laboratory, under standard chain-of-custody protocols. Kiff Analytical performed analysis for TPH-g by EPA Method 8015B (M), and analyses for BTEX and fuel oxygenates by EPA Method 8260B. Appendix C includes copies of the laboratory reports and chain-of-custody.

4. GROUNDWATER MONITORING RESULTS

LRP was used to purge and sample each monitoring well during 1Q10. The groundwater purging rate for each well was set at 0.3 liter per minute (L/min). Groundwater gauging indicated that local groundwater was above the top of the well screens of most monitoring wells, except for wells MW-11, MW-13A, MW-6B, and MW-12B. Thus, the tubing for purging and sampling was inserted to a depth near the center of the well screen interval.

During 1Q10, sheen/product and odors were not identified in every monitoring well. Like 2Q09 monitoring, groundwater in all the monitoring wells was clear without visible color and with low turbidity. In addition to the purging rate and the stinger depth mentioned above, the water quality parameters (pH, temperature, and specific conductivity) and the purging time required for reaching stabilization of water quality are included in Appendix B. All the purged water and rinsate was transported away from the site and treated by a mobile water treatment unit.

4.1 Groundwater Elevation and Flow

Groundwater depth varied greatly from 4.43 (MW-6) to 12.80 feet bgs (MW-10) in the shallow zone, and from 12.22 (MW-5B) to 40.48 feet bgs (MW-12B) in the deep zone. Groundwater elevation was calculated by subtracting the measured groundwater depth from the top of casing elevation. The top of casing (TOC) elevations and the well construction data for all the monitoring wells are included in Tables 1 and 2. The calculated groundwater elevations for the 1Q10 monitoring event are listed in Table 2. They ranged from 49.09 feet above msl (MW-10) to 55.60 feet above msl (MW-13A) in the shallow zone, and from 17.43 feet above msl (MW-6B) to 45.47 feet above msl (MW-5B) in the deep zone. The groundwater elevation contours and the associated hydraulic gradients for the shallow zone in 1Q10 are plotted in Figure 3.

Before 2Q09, only six monitoring wells MW-1 through MW-6 were available to evaluate the groundwater flow direction. The general groundwater flow direction from February 2004 to May 2009 was primarily between northwest and southwest directions toward the San Francisco Bay or San Leandro Bay. Based on the contoured potentiometric surface shown in Figure 3, the primarily groundwater flow in 1Q10 was in the west and northwest directions with horizontal hydraulic gradient ranging from 0.020 to 0.028 ft/ft. It should be noted that after including 5 additional shallow zone monitoring wells installed during the 2009 site characterization (ERS, 2009), the shallow zone groundwater has shown similar distribution in January 2010 (wet season) and October 2009 (dry season).

Deep zone monitoring wells MW-5B, MW-6B, and MW-12B were installed in September 2009. The groundwater elevations determined in October 2009 were 44.53, 15.76, and 22.82 feet above msl for wells MW-5B, MW-6B, and MW-12B, respectively (ERS, 2009). The calculated groundwater elevations in 1Q10 for these three wells were 45.47, 17.43, and 22.46 feet above msl, respectively. In addition, the groundwater elevations in shallow zone well MW-5 obtained in October 2009 and January 2010 were 50.39 and 50.92 feet above msl, respectively. The above

data shows that groundwater in shallow zone MW-5 has been consistently higher than the groundwater determined in the deep zone well MW-5B. Both the 1Q10 data included in Table 2 and the October 2009 data confirm that:

- The groundwater depths measured in deep wells in October 2009 were correct.
- The shallow zone groundwater is consistently higher than the groundwater in the deep zone.

Both the October 2009 and January 2010 data also show that groundwater in well MW-5B is consistently much higher than the groundwater in wells MW-6B and MW-12B. This condition suggests that the groundwater flow direction in the deep zone south of the subject site is likely in the east-southeast direction. The above data suggests that:

- The groundwater south of the subject site has opposite flow direction in the shallow and deep zones.
- The groundwater in the shallow and deep zones either has a low connection or shallow/deep zones are isolated.

4.2 Concentration Level and Distribution of Groundwater Contaminants

Historical groundwater monitoring showed that local groundwater frequently flowed in the southward direction with stronger hydraulic gradient (AARS, 2004a; 2004b; 2005; 2006). The groundwater flow caused the southward/off-site migration of TPH-g, benzene, and MTBE from the on-site UST area. The above situation found in 3Q08, 4Q08, 1Q09, and 2Q09 has been confirmed in 1Q10.

The 1Q10 groundwater sampling revealed that the on-site TPH-g concentrations ranged from less than the detection limit to 320 μg/L. They are lower than the off-site TPH-g concentrations (from 330 to 1,600 μg/L). The highest TPH-g concentration (1,600 μg/L) was still detected in the off-site well MW-6. Similar to the on-site wells MW-1, MW-2, and MW-3, the TPH-g concentrations in off-site wells MW-4, MW-5, and MW-6 also have diminished from 4,500, 1,900, and 5,800 μg/L in 2Q09 to 1,200, 330, and 1,600 μg/L in 1Q10, respectively.

Like TPH-g, benzene has also migrated off site. Although the benzene concentration has diminished compared to the TPH-g concentration, the highest benzene concentration of 28 μg/L was still found in off-site well MW-6. No significant reduction in benzene concentration was found in MW-6. With the exception of wells MW-6 and MW-13A, the BTEX concentrations in all on-site/off-site monitoring wells were either insignificant or less than their associated method reporting limits.

Based on the change of the plume boundaries between TPH-g/benzene and MTBE, the effect of dilution and dispersion (natural attenuation) apparently has a stronger influence for MTBE. The

MTBE plume has been greatly diminished because the solubility of MTBE is much higher than the solubilities of TPH-g/benzene. Consequently, MTBE is more mobile than TPH-g/benzene. Since a northwestern component of local groundwater flow exists, center of the MTBE plume has been split. Additionally, as shown in Figure 6, centers of the MTBE plume have been found shifted from wells MW-1 and MW-6 to wells MW-1 and MW-12A after well MW-12A was installed. The change of MTBE over time described above is shown in Figure 8.

The highest MTBE concentrations (410 and 440 µg/L) were detected in on-site and off-site wells MW-1 and MW-12A. Although the MTBE concentration was only 5.7 µg/L in MW-2 located near the UST pit, this well has the highest TBA concentration (10,000 µg/L), which is a degradation product of MTBE.

The 1Q10 analytical data (Appendix C) for TPH-g, benzene, MTBE, and TBA is plotted in Figures 4 to 7. Comparing the data obtained on August 11, 2005 (AARS, 2005) and November 30, 2005 (AARS, 2006) with the data exhibited in Figures 4 through 7, significant reduction of concentration levels and change of plume location/boundary have occurred since 2005.

Most importantly, the contaminant of concern concentrations sampled from the deep zone wells MW-5B, MW-6B, and MW-12B were less than their associated method detention limits or extremely low. Thus, the deep zone groundwater is not contaminated.

5. FINDINGS

As a result of the 1Q10 monitoring, major findings are listed below:

- The groundwater depth varied greatly from 4.43 (MW-6) to 12.80 feet bgs (MW-10) in the shallow zone, and from 12.22 (MW-5B) to 40.48 feet bgs (MW-12B) in the deep zone.
- The primarily groundwater flow was in the west and northwest directions with horizontal hydraulic gradient ranging from 0.020 to 0.028 ft/ft.
- After installing 5 additional shallow zone monitoring wells, the shallow zone groundwater showed similar distributions in January 2010 (wet season) and October 2009 (dry season).
- The 1Q10 monitoring data confirmed that groundwater depths measured in deep wells in October 2009 were correct.
- The groundwater in the shallow zone was consistently higher than the groundwater in the deep zone; and groundwater south of the subject site had an opposite flow direction in the shallow and deep zones. Thus, groundwater in the shallow and deep zones either has a low connection or shallow/deep zones are isolated.
- The on-site TPH-g concentrations (from less than the detection limit to 320 μg/L) were less than the off-site TPH-g concentrations (from 330 to 1,600 μg/L). The highest TPH-g concentration (1,600 μg/L) was still remained in off-site well MW-6.
- As with TPH-g, benzene has also migrated off site. The highest benzene concentration was still found in well MW-6. With the exception of wells MW-6 and MW-13A, the BTEX concentrations in on-site/off-site monitoring wells were either insignificant or less than their associated method reporting limits.
- Since a northwestern component of local groundwater flow exists, the center of the MTBE plume has been split. Centers of the MTBE plume have been found shifted from wells MW-1 and MW-6 to wells MW-1 and MW-12A after well MW-12A was installed.
- The highest MTBE concentrations (410 and 440 μg/L) were detected in on-site and off-site wells MW-1 and MW-12A. Although well MW-1 has high MTBE concentration, the associated TBA concentration (410 μg/L) is lower than the TBA concentrations in wells MW-2, MW-3, and MW-4.
- As with the 2Q09 sampling, the center of the TBA plume with the highest concentration of 10,000 μg/L remained in well MW-2 near the UST pit where the MTBE concentration (5.7 μg/L) was relatively low.

6. CONCLUSIONS

1. Hydrocarbons have completely migrated off site. The TPH-g plume boundary has expanded south- and eastward. Although hydraulic gradient was historically primarily southward, the plume expansion toward the east direction very likely was influenced by the preferential migration pathway generated by the EBMUD's 8-inch water main.

2. Since MTBE is extremely mobile, especially when the groundwater flow is significant; and biodegradation of MTBE likely has occurred in the source area, the concentration level of MTBE has diminished greatly since 2005. As a result, the groundwater impact of MTBE is limited to areas near wells MW-1 and MW-12A. The groundwater impact of MTBE no longer appears as significant as that of TPH-g.

3. Although the MTBE plume has been split, elevated TBA concentration exists on site near the UST area (see Figure 7). Conversely, a higher level of petroleum hydrocarbon impact is found off site (see Figures 4 and 5).

4. TPH-g, benzene, and MTBE have migrated southward and/or off-site from the UST area. However, the TBA plume remained on site.

5. A significant reduction of concentration levels and change in plume location and boundaries has occurred since 2005.

6. The deep zone groundwater is not contaminated.

7. RECOMMENDATION

The results of the 3Q08 through 1Q10 groundwater monitoring and the 2009 site characterization indicate that:

- MTBE/TBA are the major contaminants under the subject site.
- The off-site groundwater is significantly impacted by petroleum hydrocarbons.
- The EBMUD's 8-inch water main under Foothill Boulevard is a preferential pathway for contaminant migration.
- In addition to the soil under Foothill Boulevard, contaminated soil exists south-southeast of the UST.

Based on the Site Conceptual Model (ERS, 2008b) and the groundwater monitoring results, a Feasibility Study Report and/or a Corrective Action Plan should be prepared as soon as possible so that an interim or final soil and groundwater remediation can be conducted for the areas south-southeast of the UST and under the street to eliminate continuing off-site groundwater contamination.

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CERTIFICATION

This report was prepared under the supervision of a State of California Professional Engineer at Innovative Environmental Remediation, Inc. (IERI). All statements, conclusions, and recommendations are based solely upon published results from previous consultants, field observations by IERI, and laboratory analysis performed by a California DHS-certified laboratory related to the work performed by IERI.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The service performed by IERI has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the property. No other warranty, expressed or implied, is made.

Sincerely,

INNOVATIVE ENVIRONMENTAL REMEDIATION, INC.

Jim Ho, PE #C68639

TABLES

Table 1
Well Construction Data
6600 Foothill Boulevard, Oakland, California

Well ID	Date Installed	Casing Diameter	Borehole Diameter	Total Depth	Screened Interval	Sand Interval	Bentonite Seal	Cement	Slot Size	Sand Size
		(inches)	(inches)	(feet)	(feet bgs)	(feet bgs)	(feet bgs)	(feet bgs)	(inches)	
MW-1	6/4/2001	2	8	25	10 - 25	8 - 25	6 - 8	0 - 6	0.01	Lonestar #2
MW-2	6/4/2001	2	8	25	10 - 25	8 - 25	6 - 8	0 - 6	0.01	Lonestar #2
MW-3	6/4/2001	2	8	25	10 - 25	8 - 25	6 - 8	0 - 6	0.01	Lonestar #2
MW-4	6/26/2002	2	8	20	7.5 - 20	6 - 20	5 - 6	0 - 5	0.01	Lonestar #2
MW-5	6/26/2002	2	8	20	7.5 - 20	6 - 20	5 - 6	0 - 5	0.01	Lonestar #2
MW-5B	9/23/2009	2	8	45	35-45	33-45	45-50, 31-33	0-31	0.01	Monterey #2/12
MW-6	6/26/2002	2	8	20	7.5 - 20	6 - 20	5 - 6	0 - 5	0.01	Lonestar #2
MW-6B	9/24/2009	2	8	50	35 - 50	33-50	32-33	0-32	0.01	Monterey #2/12
MW-7	9/23/2009	2	8	25	10 - 25	9-25	7-9	0-7	0.01	Monterey #2/12
MW-10	9/22/2009	2	8	25	15 - 25	14-25	12-14	0-12	0.01	Monterey #2/12
MW-11	9/23/2009	2	8	25	10 - 25	9-25	7-9	0-7	0.01	Monterey #2/12
MW-12A	9/22/2009	2	8	25	10 - 25	9-25	7-9	0-7	0.01	Monterey #2/12
MW-12B	9/22/2009	2	8	43	33 - 43	32-43	30-32	0-30	0.01	Monterey #2/12
MW-13A	9/24/2009	2	8	25	5 - 25	4-25	2-4	0-2	0.01	Monterey #2/12

TABLE 2

Cumulative Groundwater Elevation and Analytical Data

6600 Foothill Boulevard, Oakland, California

Monitoring Wells	Total Depth Drilled (ft bgs)	Date Sampled	Top of Casing Elevation (ft, above msl)	Depth to Water (ft, below TOC)	Water Elevation (ft, above msl)[1]	Groundwater Flow Direction	GW Gradient (ft/ft)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	ETBE, DIPE, TAME, METH, ETH (ug/L)	1,2-DCA (ug/L)	1,2-EDB (ug/L)
Analysis Methods								**EPA 8015M**	**EPA 8021B/EPA 8260B[2]**					**EPA 8260B**			
Maximum Contaminant Level^								NA	5	1,000	700	10,000	5	12 (Ca.)	NA	5	0.05
MW-1	25	6/13/2001	100.00*	9.36	90.64	SE	0.05	ND	ND	ND	ND	ND	130	NA	--	--	--
		3/21/2002	100.00*	7.96	92.04	SE	0.024	95	ND	ND	ND	ND	72.5	NA	--	--	--
		7/9/2002	100.00*	8.51	91.49	SE	0.014	ND	ND	ND	ND	ND	208	NA	--	--	--
		7/11/2003	160.25	8.66	151.59	SE	0.012	ND	0.7	ND	ND	1.2	636	NA	--	--	--
		11/13/2003	160.25	8.10	152.15	SE	0.012	ND<5000#	ND	ND	ND	ND	72,000	22,000	--	--	--
		2/19/2004	160.25	8.24	152.01	NW - SW	0.008	1,350	460	ND	ND	ND	82,000	8,630	--	--	--
		5/21/2004	160.25	8.51	151.74	NW - SW	0.019	ND	ND<50	ND<50	ND<50	ND<100	12,000	ND<1000	--	--	--
		8/11/2005	160.25	8.34	151.91	SW	0.008	ND	ND	ND	ND	ND	4,900	NA	--	--	--
		11/30/2005	160.25	9.86	150.39	NW - SW	0.018	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	8,400	NA	--	--	--
		8/8/2008	60.02	10.62	49.40	NWN - SW	0.031-0.017	390	<1.5	<1.5	<1.5	<1.5	720	7.4J	<1.5, Meth<300, Eth<15	<1.5	<1.5
		11/5/2008	60.02	10.78	49.24	NWN - SWW	0.039-0.016	350	<5.0	<10	<10	<10	580	<100	<20, Eth<1,000	--	--
		2/6/2009	60.02	9.05	50.97	W	0.015	150	<1.5	<1.5	<1.5	<1.5	610	120	<1.5, Meth<600, Eth<15	--	--
		5/7/2009	60.02	6.76	53.26	SWW	0.015	420	<0.50	<0.50	<0.50	<0.50	210	110	<0.50, Meth<150, Eth<5.0	--	--
		1/6/2010	**60.02**	**9.83**	**50.19**	**W - NW**	**0.020 - 0.028**	**320**	**<0.90**	**<0.90**	**<0.90**	**<0.90**	**410**	**410**	**<0.90, Meth<100, Eth<9.0**	**--**	**--**
MW-2	25	6/13/2001	98.71*	10.44	88.27	SE	0.05	5,800	160	210	290	980	94,000	980	--	--	--
		3/21/2002	98.71*	8.18	90.53	SE	0.024	452	3.4	ND	1.6	2.1	79,100	NA	--	--	--
		7/9/2002	98.71*	8.35	90.36	SE	0.014	497	61.6	ND	ND	1.6	37,600	NA	--	--	--
		7/11/2003	158.97	7.58	151.39	SE	0.012	553	48.9	ND	ND	ND	38,200	NA	--	--	--
		11/13/2003	158.97	8.01	150.96	SE	0.012	ND<2500#	NS	ND	ND	ND	47,000	11,000	--	--	--
		2/19/2004	158.97	6.43	152.54	NW - SW	0.008	4,390	410	265	160	490	26,700	3,930	--	--	--
		5/21/2004	158.97	6.83	152.14	NW - SW	0.019	1,150	254	ND<200	ND<200	ND<400	24,600	ND<4000	--	--	--
		8/11/2005	158.97	7.31	151.66	SW	0.008	91	ND	1.1	ND	ND	6,500	NA	--	--	--
		11/30/2005	158.97	7.98	150.99	NW - SW	0.018	69	ND	1.4	ND	ND	2,300	NA	--	--	--
		8/8/2008	58.74	7.19	51.55	NWN - SW	0.031-0.017	300	<9.0	<9.0	<9.0	<9.0	9.8	17,000	<9.0, Meth<900, Eth<90	<9.0	<9.0
		11/5/2008	58.74	7.14	51.60	NWN - SWW	0.039-0.016	510	<0.50	<1.0	<1.0	<1.0	12	13,000	<2.0, Eth<100	--	--
		2/6/2009	58.74	6.92	51.82	W	0.015	50	<4.0	<4.0	<4.0	<4.0	10	11,000	<4.0, Meth<400, Eth<40	--	--
		5/7/2009	58.74	6.53	52.21	SWW	0.015	860	<4.0	<4.0	<4.0	<4.0	9.7	12,000	<4.0, Meth<400, Eth<40	--	--
		1/6/2010	**58.74**	**7.30**	**51.44**	**W - NW**	**0.020 - 0.028**	**<50**	**<4.0**	**<4.0**	**<4.0**	**<4.0**	**5.7**	**10,000**	**<4.0, Meth<400, Eth<40**	**--**	**--**
MW-3	25	6/13/2001	99.90*	9.69	90.21	SE	0.05	300	1	ND	0.07	2	450	NA	--	--	--
		3/21/2002	99.90*	8.80	91.10	SE	0.024	274	1.1	ND	1	2.5	7,520	NA	--	--	--
		7/9/2002	99.90*	9.33	90.57	SE	0.014	ND	ND	ND	ND	ND	40.8	NA	--	--	--
		7/11/2003	160.17	9.35	150.82	SE	0.012	ND	ND	ND	ND	ND	24.3	NA	--	--	--
		11/13/2003	160.17	8.85	151.32	SE	0.012	ND	ND	ND	ND	ND	37	27	--	--	--
		2/19/2004	160.17	8.46	151.71	NW - SW	0.008	83	ND	ND	ND	ND	42.7	508	--	--	--
		5/21/2004	160.17	9.09	151.08	NW - SW	0.019	ND	ND	ND	ND	ND	54	1100	--	--	--
		8/11/2005	160.17	8.87	151.30	SW	0.008	ND	ND	ND	ND	ND	27	NA	--	--	--
		11/30/2005	160.17	9.73	150.44	NW - SW	0.018	ND	ND	ND	ND	ND	28	NA	--	--	--
		8/8/2008	59.94	9.64	50.30	NWN - SW	0.031-0.017	99	<0.50	<0.50	<0.50	<0.50	4.5	130	<0.50, Meth<80, Eth<5.0	<0.50	<0.50
		11/5/2008	59.94	9.33	50.61	NWN - SWW	0.039-0.016	55	<0.50	<1.0	<1.0	<1.0	4.5	500	<2.0, Eth<100	--	--
		2/6/2009	59.94	9.37	50.57	W	0.015	100	<0.50	<0.50	<0.50	<0.50	5.3	770	<0.50, Meth<100, Eth<5.0	--	--
		5/7/2009	59.94	8.98	50.96	SWW	0.015	410	<0.50	<0.50	<0.50	<0.50	5.5	900	<0.50, Meth<50, Eth<5.0	--	--
		1/6/2010	**59.94**	**9.43**	**50.51**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**4.8**	**770**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**

MW-4	20	7/9/2002	98.19*	8.14	90.05	SE	0.014	9,680	43	17	369	1990	28,300	NA	--	--	--
		7/11/2003	158.42	6.73	151.69	SE	0.012	3,170	16.5	6.4	71.7	240	16,600	NA	--	--	--
		11/13/2003	158.42	6.54	151.88	SE	0.012	ND<1000#	49	ND	340	900	16,000	4,500	--	--	--
		2/19/2004	158.42	4.37	154.05	NW - SW	0.008	7,230	107	7	497	1063	14,300	1,440	--	--	--
		5/21/2004	158.42	5.79	152.63	NW - SW	0.019	9,340	194	ND	309	860	7,380	ND<2000	--	--	--
		8/11/2005	158.42	6.65	151.77	SW	0.008	3,000	15	24	87	190	1,200	NA	--	--	--
		11/30/2005	158.42	6.05	152.37	NW - SW	0.018	4,300	18	28	84	130	340	NA	--	--	--
		8/8/2008	58.19	5.91	52.28	NWN - SW	0.031-0.017	3,600	0.53	0.61	5.6	1.5	24	1,800	<0.50, Meth<80, Eth<5.0	<0.50	<0.50
		11/5/2008	58.19	5.33	52.86	NWN - SWW	0.039-0.016	2,000	0.58	<1.0	6.8	1.2	31	760	<2.0, Eth<100	--	--
		2/6/2009	58.19	5.15	53.04	W	0.015	3,400	0.81	<0.50	10	1.2	39	1,400	<0.50,Meth<200, Eth<5.0	--	--
		5/7/2009	58.19	4.86	53.33	SWW	0.015	4,500	0.73	<0.50	7.4	1.2	29	1,000	<0.50, Meth<200, Eth<5.0	--	--
		1/6/2010	**58.19**	**5.24**	**52.95**	**W - NW**	**0.020 - 0.028**	**1,200**	**<0.50**	**<0.50**	**3.5**	**0.50**	**17**	**830**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**
MW-5	20	7/9/2002	97.81*	8.16	89.65	SE	0.014	275	30.2	ND	ND	3	18,600	NA	--	--	--
		7/11/2003	158.03	7.94	150.09	SE	0.012	890	10	0.6	ND	7.1	5,090	NA	--	--	--
		11/13/2003	158.03	7.41	150.62	SE	0.012	ND<1000#	ND	ND	ND	ND	3,400	3,100	--	--	--
		2/19/2004	158.03	6.14	151.89	NW - SW	0.008	1,310	ND	0.7	ND	2.2	438	1,340	--	--	--
		5/21/2004	158.03	7.42	150.61	NW - SW	0.019	1,960	9.7	0.7	ND	ND	214	436	--	--	--
		8/11/2005	158.03	7.67	150.36	SW	0.008	410**	ND	3.3	ND	ND	100	NA	--	--	--
		11/30/2005	158.03	8.51	149.52	NW - SW	0.018	240**	ND	1.8	ND	1.4	82	NA	--	--	--
		8/8/2008	57.80	7.59	50.21	NWN - SW	0.031-0.017	1,900	<0.50	<0.50	<0.50	4.0	8.6	510	<0.50, Meth<50, Eth<5.0	<0.50	<0.50
		11/5/2008	57.80	6.91	50.89	NWN - SWW	0.039-0.016	1,600	<0.50	<1.0	<1.0	1.1	4.8	170	<2.0, Eth<100	--	--
		2/6/2009	57.80	6.98	50.82	W	0.015	680	<0.50	<0.50	<0.50	2.2	5.5	110	<0.50,Meth<200, Eth<5.0	--	--
		5/7/2009	57.80	6.43	51.37	SWW	0.015	1,900	0.72	0.91	<0.50	2.3	4.3	60	<0.50, Meth<50, Eth<5.0	--	--
		1/7/2010	**57.80**	**6.88**	**50.92**	**W - NW**	**0.020 - 0.028**	**330**	**<0.50**	**<0.50**	**<0.50**	**1.1**	**4.5**	**95**	**<0.50, Meth<50, Eth<20**	**--**	**--**
MW-5B	45	**1/7/2010**	**57.69**	**12.22**	**45.47**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.73**	**<5.0**	**<0.50, Meth<50, Eth=11**	**--**	**--**
MW-6	20	7/9/2002	97*	7.45	89.55	SE	0.014	12,000	432	22	637	1740	11,300	NA	--	--	--
		7/11/2003	157.24	7.98	149.26	SE	0.012	2,970	534	6.3	70.1	278	18,000	NA	--	--	--
		11/13/2003	157.24	7.47	149.77	SE	0.012	ND<2500#	300	ND	ND	52	18,000	ND	--	--	--
		2/19/2004	157.24	5.09	152.15	NW - SW	0.008	5,340	184	5	65	127	5,310	4,260	--	--	--
		5/21/2004	157.24	6.38	150.86	NW - SW	0.019	6,110	340	12.7	205	308.8	3,900	4,060	--	--	--
		8/11/2005	157.24	6.68	150.56	SW	0.008	6,100	470	48	23	30	3,200	NA	--	--	--
		11/30/2005	157.24	7.43	149.81	NW - SW	0.018	3,700	310	30	16	12	3,400	NA	--	--	--
		8/8/2008	57.01	6.23	50.78	NWN - SW	0.031-0.017	6,500	63	2.0	42	98	230	810	<0.50, TAME<0.66, Meth<200, Eth<8.0	<0.50	<0.50
		11/5/2008	57.01	5.35	51.66	NWN - SWW	0.039-0.016	4,800	74	<5.0	23	42	340	950	<10, Eth<500	--	--
		2/6/2009	57.01	5.44	51.57	W	0.015	5,800	34	1.1	16	38	140	690	<0.50,Meth<200, Eth<5.0	--	--
		5/7/2009	57.01	4.91	52.10	SWW	0.015	5,800	32	1.2	14	37	150	460	<0.50, Meth<100, Eth<5.0	--	--
		1/7/2010	**56.83**	**4.43**	**52.40**	**W - NW**	**0.020 - 0.028**	**1,600**	**28**	**0.79**	**12**	**31**	**120**	**340**	**<0.50, Meth<100, Eth<8.0**	**--**	**--**
MW-6B	50	**1/7/2010**	**56.71**	**39.28**	**17.43**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**

MW-7	25	**1/7/2010**	**58.66**	**8.67**	**49.99**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.7**	**18**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**
MW-10	25	**1/6/2010**	**61.89**	**12.80**	**49.09**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**
MW-11	25	**1/7/2010**	**60.97**	**11.14**	**49.83**	**W - NW**	**0.020 - 0.028**	**66**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**80**	**<5.0**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**
MW-12A	25	**1/6/2010**	**62.98**	**8.83**	**54.15**	**W - NW**	**0.020 - 0.028**	**330**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**440**	**8.3J**	**<0.50, Meth<400, Eth=7.1**	**--**	**--**
MW-12B	43	**1/6/2010**	**62.94**	**40.48**	**22.46**	**W - NW**	**0.020 - 0.028**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.2**	**<5.0**	**<0.50, Meth<50, Eth<5.0**	**--**	**--**
MW-13A	25	**1/8/2010**	**60.90**	**5.30**	**55.60**	**W - NW**	**0.020 - 0.028**	**1,300**	**3.1**	**<0.50**	**<0.50**	**0.76**	**38**	**200**	**<0.50, Meth<50, Eth<10**	**--**	**--**
SB-1/GW	20	6/27/2002	--	--	--	--		554	1	0.8	11.6	76.2	74.1	NA	--	--	--
SB-2/GW	20	6/27/2002	--	--	--	--		3000	95.6	10.2	394	831	485*	NA	--	--	--
SB-3/GW	20	8/11/2005	--	--	--	--		ND	ND	ND	ND	ND	32	NA	--	--	--
SB-4/GW	20	8/11/2005	--	--	--	--		160**	ND	ND	ND	ND	180	NA	--	--	--
SB-5/GW	17	8/10/2005	--	--	--	--		13000**	ND<5.0	260	ND<5.0	ND<5.0	ND<50	NA	--	--	--
SB-6/GW	17	8/10/2005	--	--	--	--		ND	ND	ND	ND	ND	ND	NA	--	--	--
SB-7/GW	30	8/11/2005	--	--	--	--		2900	19	ND<10	160	ND	23000	NA	--	--	--
SB-8/GW	28	8/11/2005	--	--	--	--		9300	230	10	460	1500	11000	NA	--	--	--
SB-10/GW	17	8/10/2005	--	--	--	--		ND	ND	ND	ND	ND	16	NA	--	--	--
SB-11/GW	17	8/10/2005	--	--	--	--		ND	ND	ND	ND	ND	13	NA	--	--	--
SB-12/GW	17	8/10/2005	--	--	--	--		ND	ND	ND	ND	ND	ND	NA	--	--	--

Notes:

TPH-g	total petroleum hydrocarbons as gasoline	56.71
MTBE	Methyl Tertiary Butyl Ether	
TBA	Tertiary Butyl Alcohol	
ETBE	Ethyl-tetra-butyl ether	
DIPE	Diisopropyl ether	
TAME	Tertiary-amyl methyl ether	
METH	Methanol	
ETH	Ethanol	
1,2-DCA	1,2-Dichloroethane	
1,2-EDB	1,2-Dibromoethane	
SB	Soil Boring	
GW	Ground Water	

ND = "non-detect" or below the Method Reporting Limits

NA = Not Available

^ US EPA Drinking Water Standard

* The top of casing (TOC) elevations originally surveyed on June 13, 2001 used MW-1 as the common datum with an assumed elevation of 100.00 feet above mean sea level (MSL). All other TOC elevations were surveyed relative to MW-1. All the wells were again surveyed per GeoTracker standard on July 11, 2003, by PLS Surveys, Inc., a California licensed surveyor. All elevations are reported with respect to feet above mean sea leval (MSL).

+ Confirmed by GC/MS method 8260B

** Laboratory reported does not match gasoline pattern

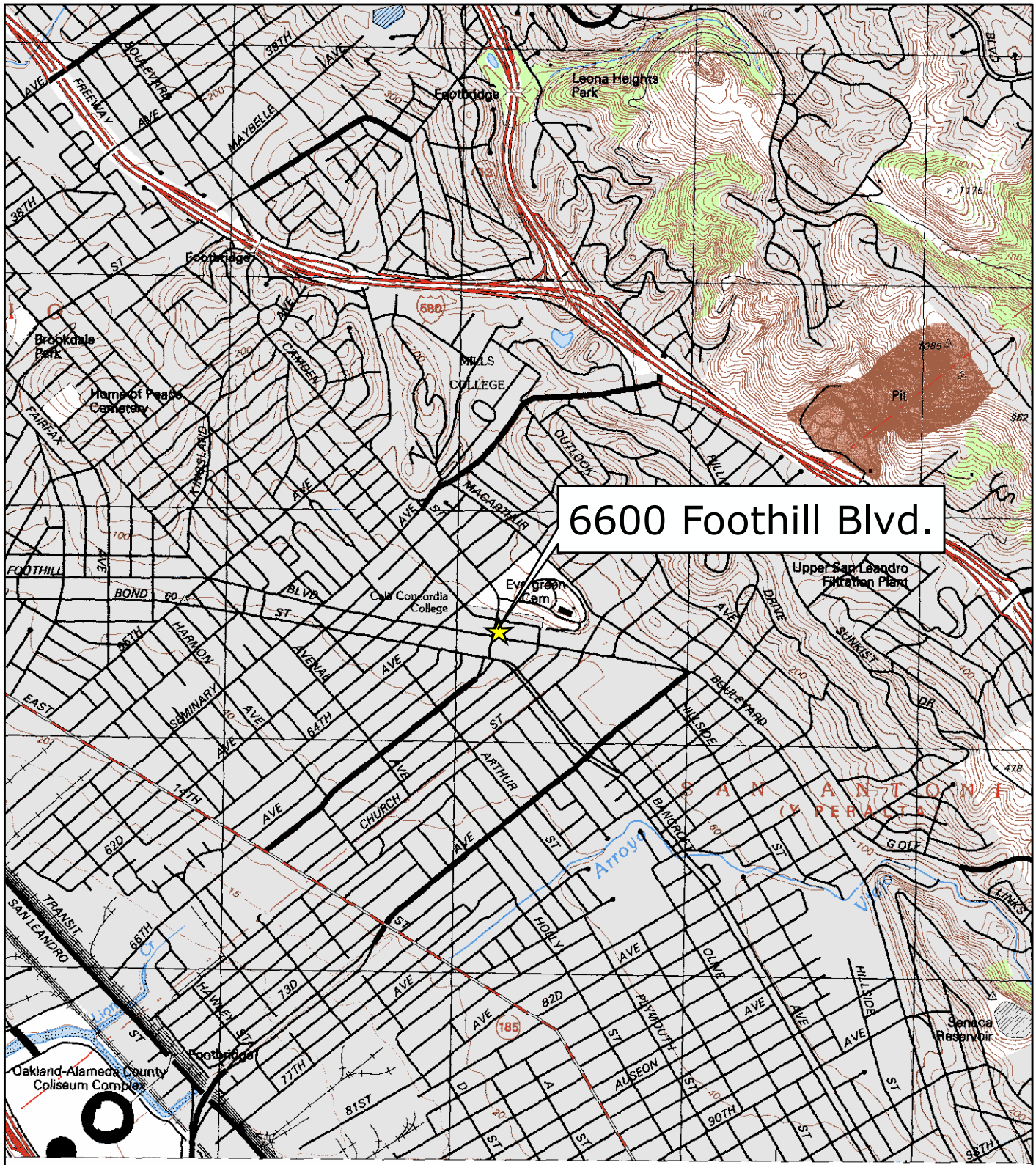
See Laboratory explanations (dated November 26 & December 8, 2003)

(1) The TOC elevations reported in all previous groundwater monitoring reports are incorrect. The datum elevation adopted previously was revised on August 4, 2008 using City of Oakland datum (NAD83). The revised TOC elevations are converted to mean sea level elevation and used to calculate all the groundwater elevations.

(2) EPA 8260B adopted since 8/8/2008

ug/L - microgram per litter (part per billion)

FIGURES

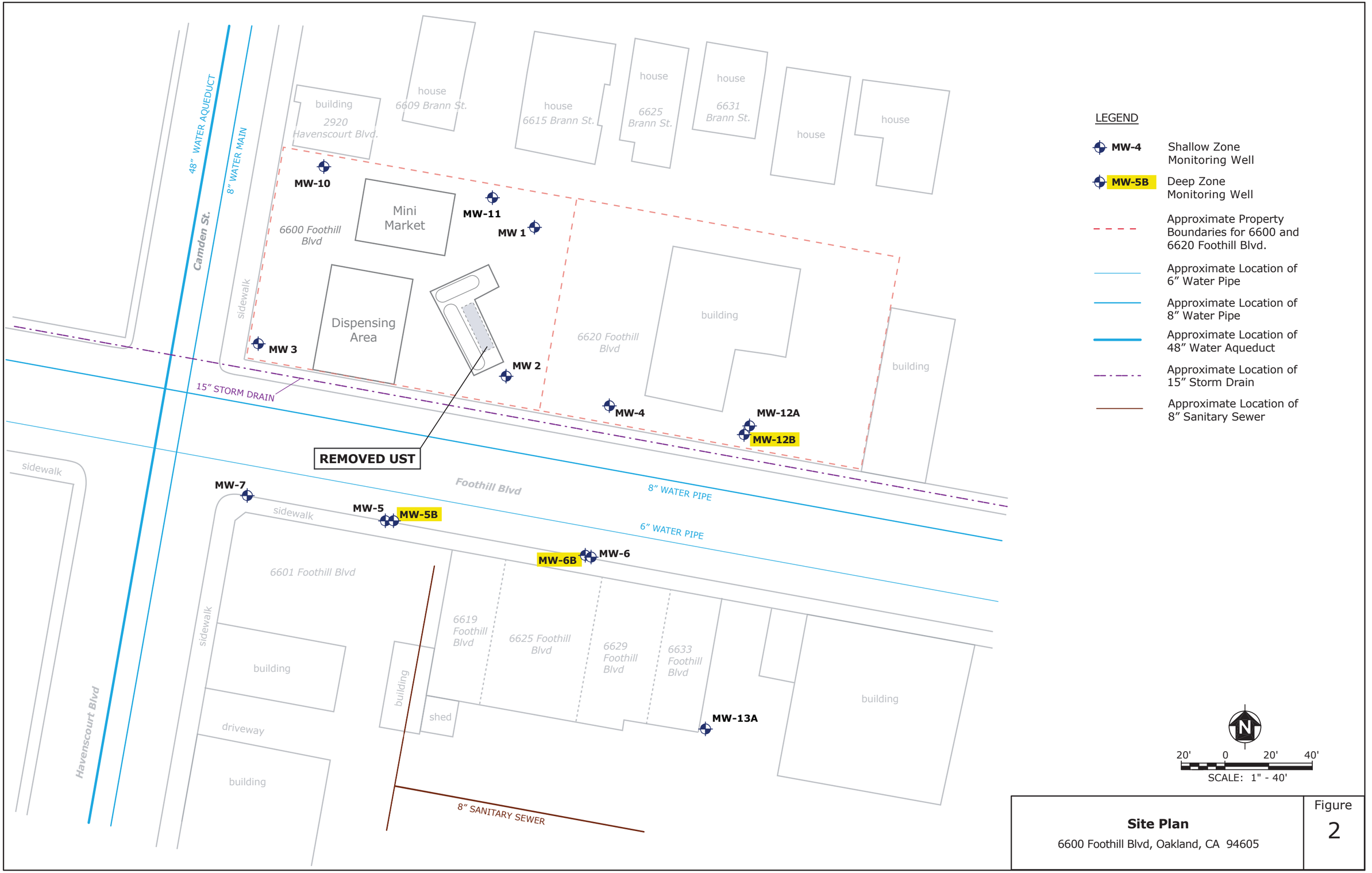


Vicinity Map

6600 Foothill Blvd, Oakland, CA

Figure 1

Innovative Environmental Remediation, Inc.

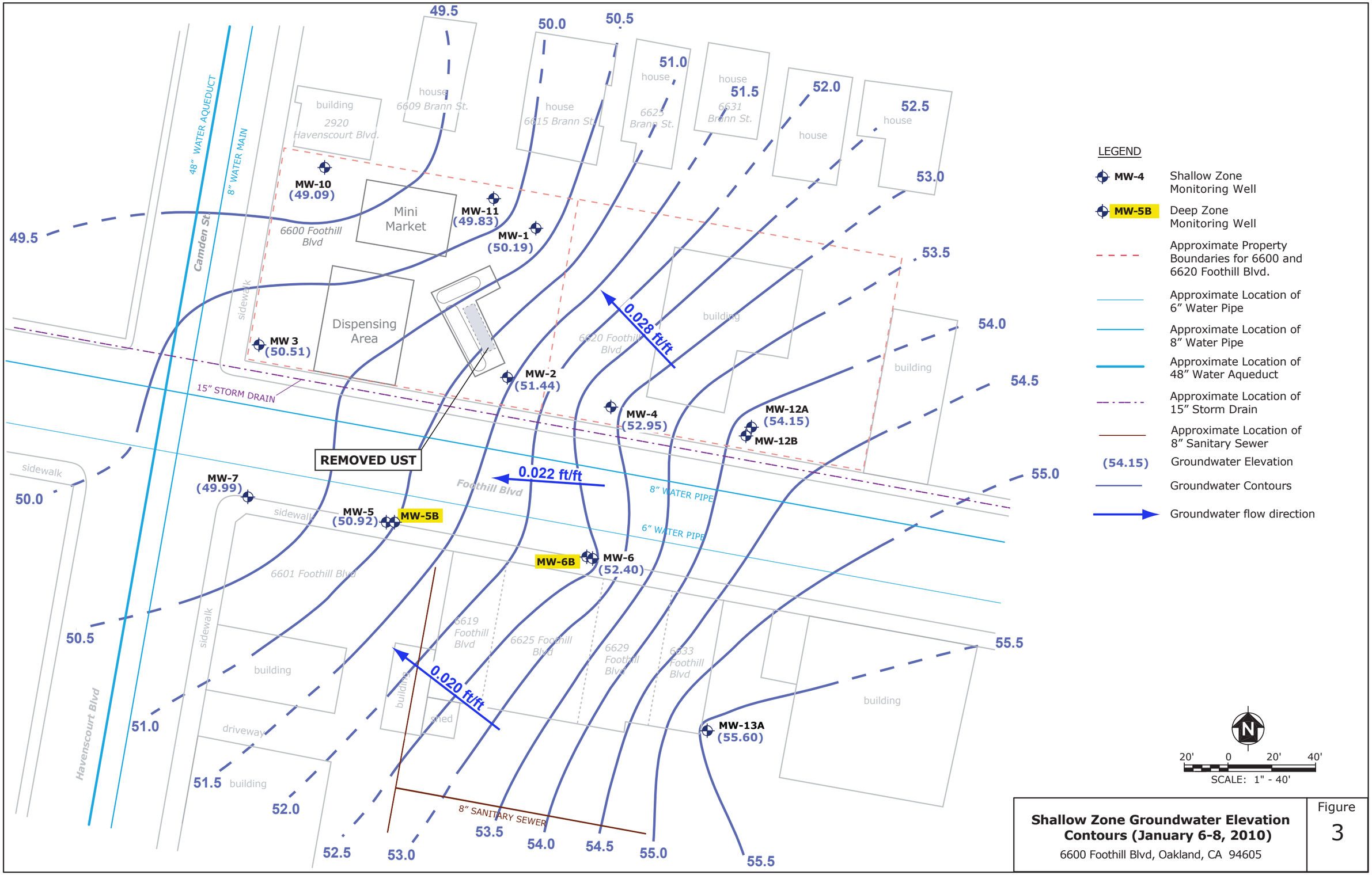


Site Plan

6600 Foothill Blvd, Oakland, CA 94605

Figure 2

Innovative Environmental Remediation, Inc.

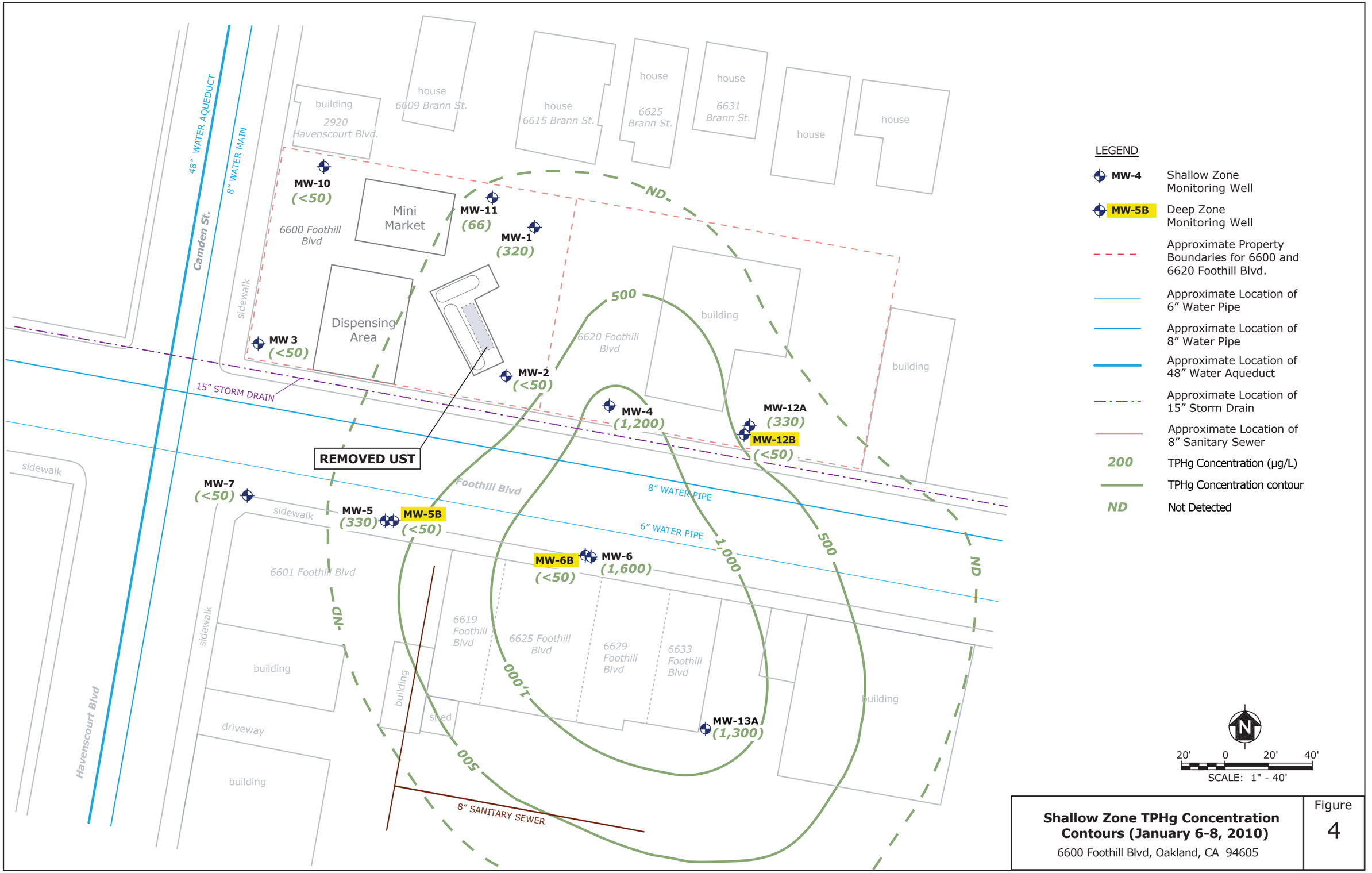


Shallow Zone Groundwater Elevation Contours (January 6-8, 2010)

6600 Foothill Blvd, Oakland, CA 94605

Figure 3

Innovative Environmental Remediation, Inc.

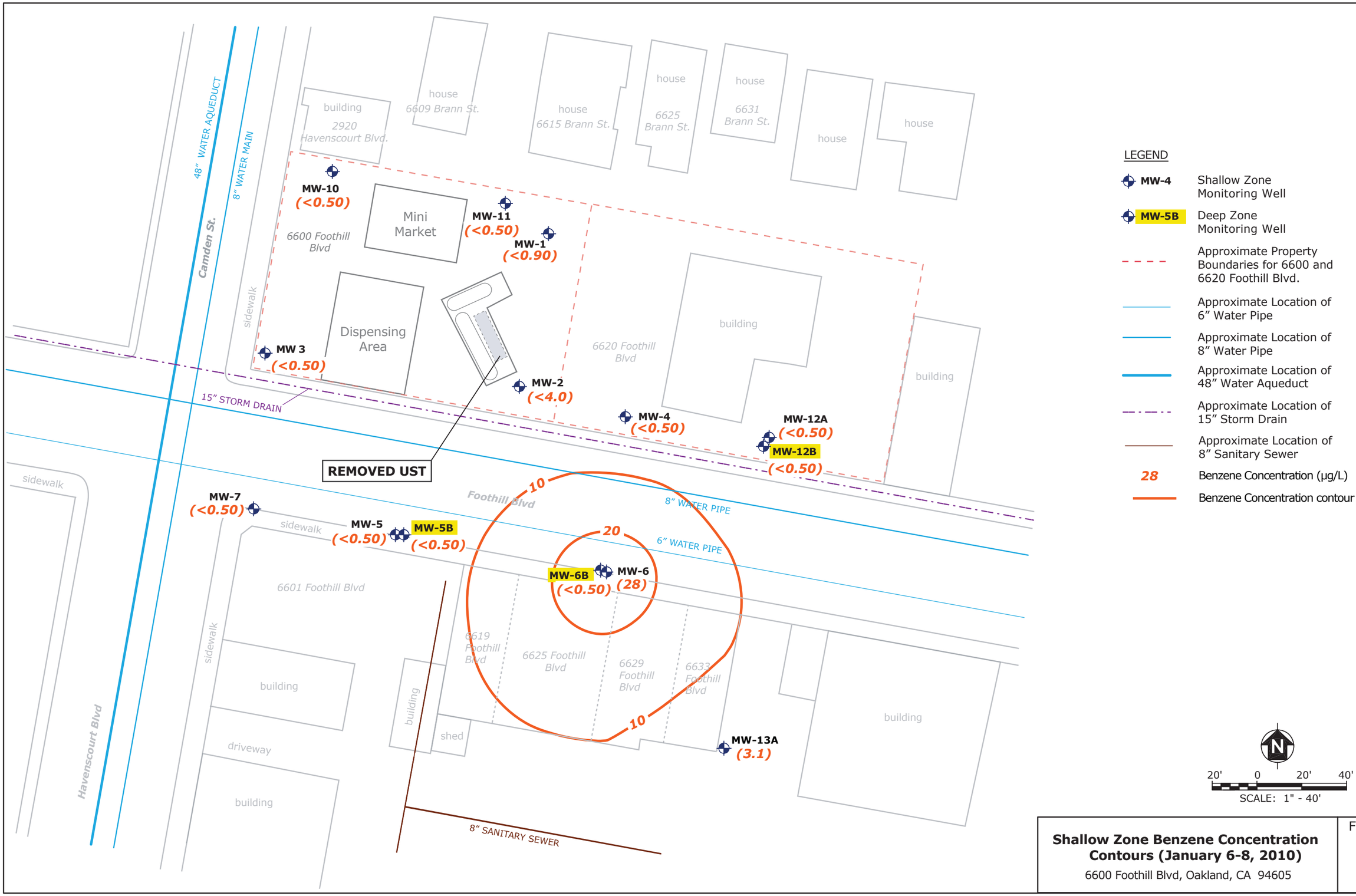


Shallow Zone TPHg Concentration Contours (January 6-8, 2010)

6600 Foothill Blvd, Oakland, CA 94605

Figure 4

Innovative Environmental Remediation, Inc.

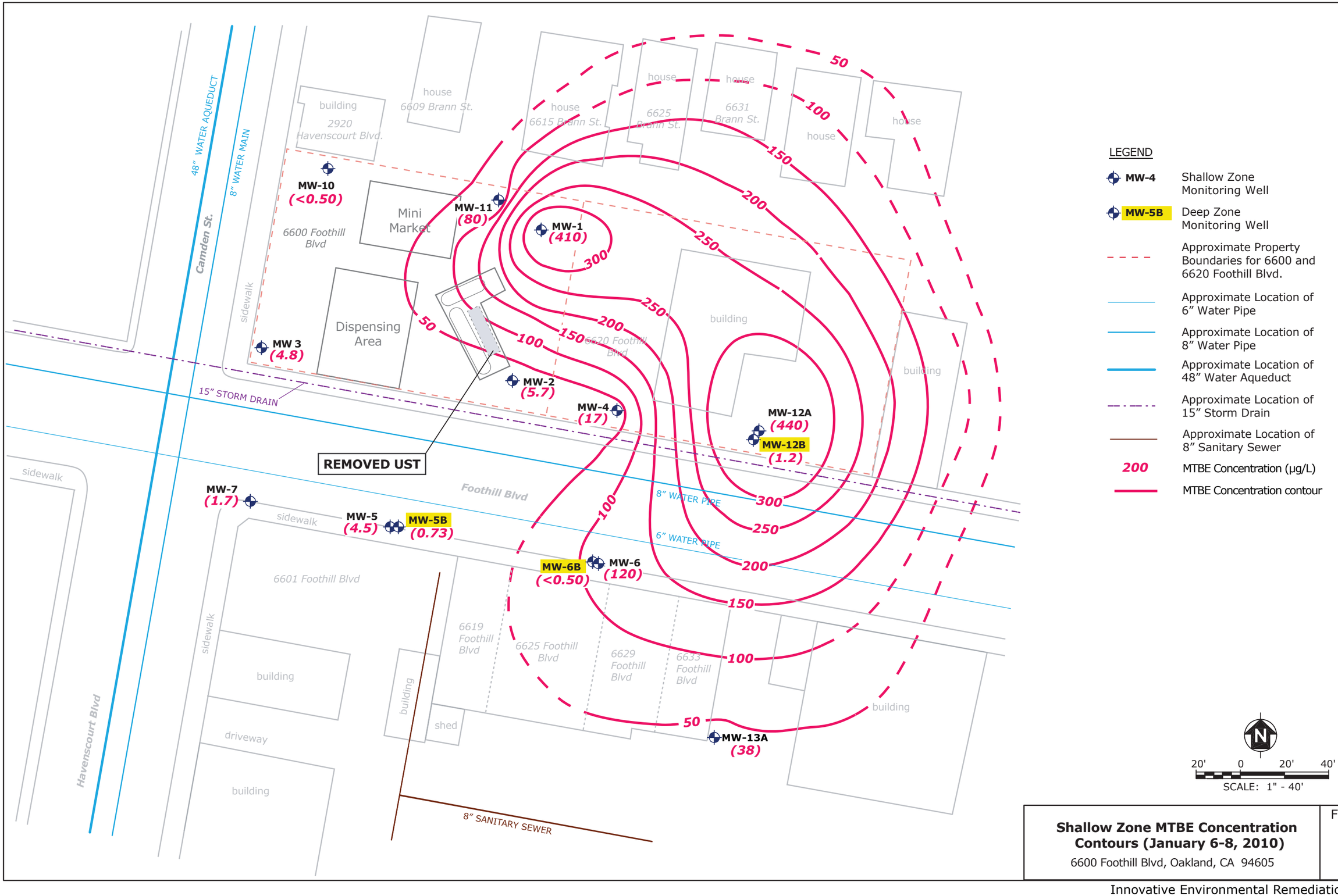


Shallow Zone Benzene Concentration Contours (January 6-8, 2010)

6600 Foothill Blvd, Oakland, CA 94605

Figure 5

Innovative Environmental Remediation, Inc.

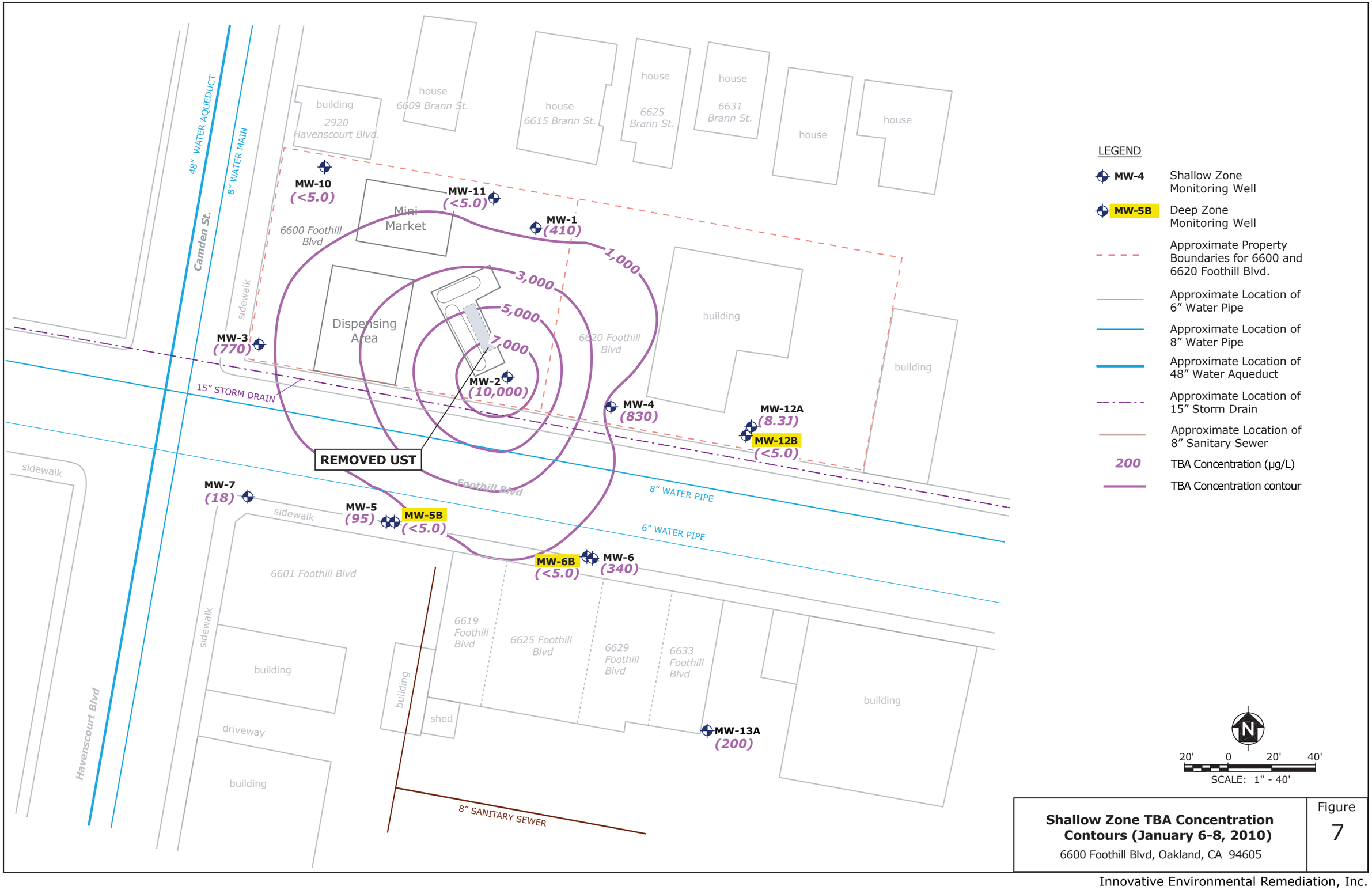


Shallow Zone MTBE Concentration Contours (January 6-8, 2010)

6600 Foothill Blvd, Oakland, CA 94605

Figure 6

Innovative Environmental Remediation, Inc.



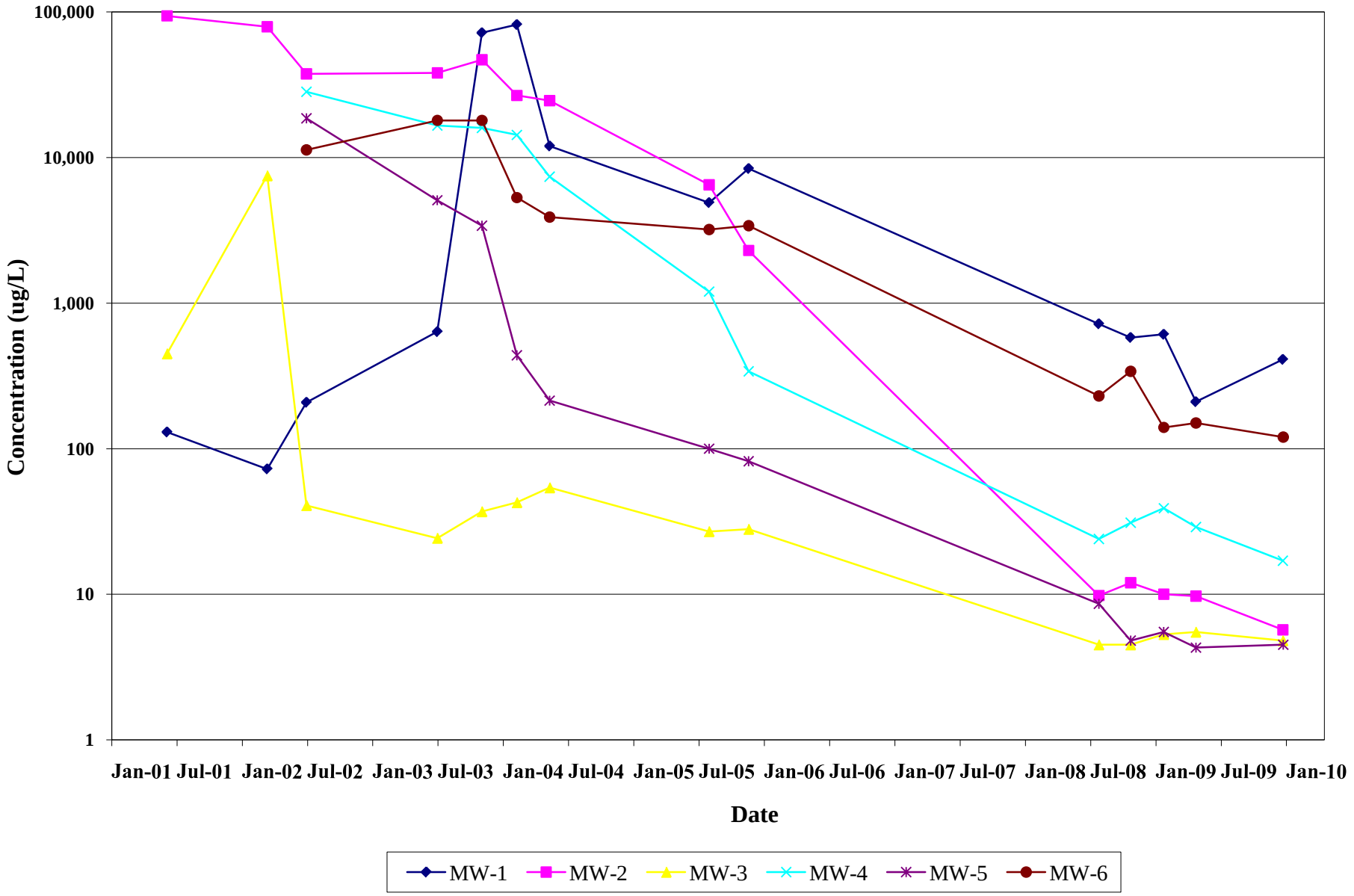
Shallow Zone TBA Concentration Contours (January 6-8, 2010)

6600 Foothill Blvd, Oakland, CA 94605

Figure 7

Innovative Environmental Remediation, Inc.

Figure 8
MTBE Concentration Change Over Time



APPENDIX A

GROUNDWATER MONITORING AND SAMPLING - STANDARD OPERATING PROCEDURES (SOP)

1. Purposes

This document focuses on the equipment, field procedures, and level of accuracy and quality control measures required for the groundwater monitoring and sampling program. Development of this SOP is to guide the field staff to perform the groundwater monitoring and sampling jobs properly, to maintain consistency of field procedures, and to facilitate the assurance of the quality and reliability of data obtained from all groundwater monitoring events.

2. Equipment

Groundwater monitoring and sampling need the following equipment and supplies:

- Job description, site maps, chain-of-custody, field data forms and activity logs, indelible ink pen, watch, cell phone
- Hardhead, boots, safety vest/suit, and gloves
- Traffic control cones and tapes
- Water level indicator (sounder)
- Peristaltic pump or bailers if water depth is deeper than 33 feet
- Water quality meter(s)
- Decon water, soap, and Liquinox® solution
- Sampling pump or bailers
- Laboratory-supplied sample bottles/containers
- Ice chest(s) with ice
- Waste storage drums and buckets
- Tools for opening well caps, string, tubing, and duck or Teflon tapes
- Multi-phase sounder, if needed.
- Health & Safety Plan

3. Procedures

Groundwater monitoring and sampling job include the following procedures, and should be performed in the designated order:

1. Job Preparation
2. Equipment Decontamination
3. Gauging of Groundwater Depth
4. Purging of Wells
5. Well Sampling
6. Handling of Groundwater Samples
7. Closing of Monitoring Event

Job Preparation

The following work should be conducted prior to arriving the site:

- Contact project manager
- Review job description, site direction, site maps, list of chemicals to be analyzed, H&SP
- Prepare chain-of-custody and sample labels
- Contact analytical lab for sample pickup
- Contact site manager 24 hours before sampling
- Calibrate water quality instruments daily
- Check equipment, supplies, and vehicle before departure

Equipment Decontamination

After checking in with the site manager, a decontamination area and traffic control cones should be setup prior to well gauging and sampling. Any non-dedicated downhole gauging, purging or sampling equipment should be decontaminated prior to use. Downhole equipment is scrubbed in a Liquinox® solution wash. Wash solution is also pumped through purging pumps and rinsed with potable water. The same equipment should be rinsed again with potable water or de-ionized water if the latter is required.

Gauging of Groundwater Depth

If local groundwater is under confined or semi-confined conditions, caps for all monitoring wells should be opened to allow atmospheric pressure to equalize for about 15 minutes prior to gauging. Depth to bottom for each well should be measured during the first monitoring event at the site. It is typically measured once every year or more frequently, if needed. The static water level is measured to the nearest 0.01 feet with an electronic water indicator. If historical analytical data for monitoring wells are not available, which can be used to establish an order of increasing contamination, the water level indicator should be decontaminated between wells. If floating product or separate-phase hydrocarbons (SPH) are suspected or observed within wells, a clear and open-ended bailer will be used to collect the product or SPH. The thickness is measured to the nearest 0.01 feet in the bailer. SPH may also be measured with an electronic interface probe. Any monitoring well containing a measurable thickness of SPH before or during purging will not be purged and sampled. Unless otherwise determined by the data conditions and specified by the project manager, wells containing hydrocarbon sheen are still sampled. Well conditions, water level and floating product thickness are recoded on appropriate data form.

Low Flow Purging and Sample Technique

Where applicable, a low flow purging technique will be used to purge and sample monitor wells. The sampling method is described in the "Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures" (EPA, 1996). Using a peristaltic pump with dedicated downhole tubing, the intake will be located in the middle of the screen zone. The flow rate will be adjusted to less than 1 L/min. When Dissolved oxygen or oxidation reduction potential is being measured, the pump will be set up with a flow through cell, to minimize aeration of the water. Parameters such

as temperature, pH, and conductivity will be measured a minimum of four times or until stability, as defined above, is reached. Samples will be collected from the downhole tube, not the discharge tube from the flow through cell.

Bailer Purging and Sample Technique When LRP Not Applicable

Selected quality parameters are measured in a discreet sample decanted from the bailer. Parameters are measured at least four times during purging: one before purging, and one each after purging each one casing volume. Purging continues until three well casing volumes of groundwater have been removed or until the well completely dewaters. Wells that dewater or demonstrate a slow recharge rate may still be sampled after less than three casing volumes have been removed. Well purging information is recorded on appropriate data form. Samples are collected from the bottom of the bailer using the sample retrieval device.

Well Sampling

Groundwater samples are collected immediately after purging using a low-rate peristaltic sampling pump. Samples being analyzed for volatile compounds are collected first. During sample collection for volatile organic analysis, the amount of air passing through the sample should be minimized. Sample bottles are filled slowly by running the collected water down the side of the bottle until there is a convex meniscus over the mouth of the bottle. The lid is carefully screwed onto the bottle such that no air bubbles are present within the bottle. If a bubble is present, the cap is removed and additional water is added to the sample container. After resealing the sample container, if bubbles still are present inside the bottle, the sample container should be discarded and the procedure is repeated with a new container.

Handling of Groundwater Samples

Collected samples are placed in appropriate laboratory-supplied containers, labeled, documented on a chain of custody form, and placed on ice in a chilled cooler for transport to a state-certified analytical laboratory. Analytical detection limits should match or surpass standards required by relevant local or regional guidelines.

Closing of Monitoring Event

The following work should be performed prior to leaving the site:

- Decon the equipment
- Cover/lock all wells
- Seal the drums that store purged water, and place them in a secure area
- Remove the cones/tapes and clean the ground
- Checkout with the site manager and call the project manager in the office

4. Quality Assurance (QC) Measures

To prevent contamination of the samples in the field, the following measures should be taken:

- Put on a clean pair of latex gloves prior to sampling each well;
- Gauge, purge and sample wells in the determined order of increasing degree of contamination based on historical analytical results; and
- Based on the site conditions, regulatory requirements, or clients' request, include trip blanks and equipment blanks to QC the sample handling and transportation procedures, and include duplicate samples to QC the lab procedures.

Trip blanks are prepared by the laboratory. They are transported to the site in the same manner along with other laboratory-supplied sample bottles/containers. The trip blank are not opened in the field, and are returned to the laboratory with the collected groundwater samples.

Equipment blanks are obtained in the field to determine if the field sampling equipment has been effectively decontaminated. The sampling equipment used to collect the groundwater samples is rinsed with distilled water, which is then decanted into laboratory-supplied containers. The equipment blanks are transported to the laboratory in the same manner along with other collected groundwater samples, and are analyzed for the same chemical constituents as the groundwater samples collected at the site.

Duplicates are collected at the same time with other groundwater samples. They are analyzed for the same chemical constituents in order to verify the repeatability of laboratory procedures. Number of duplicates is determined based on the number of monitoring wells and the size of the monitoring program. The duplicates are assigned identification numbers that are not associated with the well identification.

References

USEPA, 1996, Puls, Barcelona, *Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures* Ground Water Issue, EPA/540/S-95/504, April 1996.

APPENDIX B

Monitoring Well Gauging and Purging Data Sheet

Date: 1-6-10	Project No.	Site: SEKHON GAS		Location: 6600 Foothill Blvd. Oakland				Initials: BJA
Purge Method: Peristaltic Pump		Gauging Time: 14:17	Gauging Time: 17:24	Purge Starting Time:		Purge Ending Time:		Sampling Method:
Well ID	Diameter (in)	Depth to Bottom (ft)	Initial Depth to Water from TOC (ft)	Equilibrated Depth to Water from TOC (ft)	Static Water Column (ft)	Casing Volume (gal)	Purged Volume (gal)	Depth to Product (ft)	Note:
MW-1	2"	24.40	10.17	9.83					
MW-2	2"	24.56	7.42	7.30					
MW-3	2"	23.76	9.45	9.43					
MW-4	2"	19.82	5.23	5.24					
MW-12A	2"	21.71	8.76	8.83					
MW-12B	2"	43.45	40.47	40.48					
MW-10	2"	25.12	12.81	12.80					
Casing Volume = Static Water Column x Conversion Factor					Conversion Factor: 2-in well = 0.163 gal/ft, 4-in well = 0.653 gal/ft, 6-in well = 1.469 gal/ft				
Total purged volume from all wells (gals):									

Monitoring Well Gauging and Purging Data Sheet

Date:	Project No.	Site:	Location:	Initials:
1-7-10		SEKHON GAS	6600 Foothill Blvd Oakland	BCh

Purge Method:	Gauging Time:	Gauging Time:	Purge Starting Time:	Purge Ending Time:	Sampling Method:
Peristaltic pump / Bailer	7:30	7:35			

Well ID	Diameter (in)	Depth to Bottom (ft)	Initial Depth to Water from TOC (ft)	Equilibrated Depth to Water from TOC (ft)	Static Water Column (ft)	Casing Volume (gal)	Purged Volume (gal)	Depth to Product (ft)	Note:
MW-5	2"	19.60	6.95	6.88					
MW-5B	2"	45.26	12.51	12.22					
MW-6	2"	19.00	4.90	4.43					
MW-6B	2"	50.10	40.05	39.28	10.82	1.76	5.29		
MW-7	2"	24.93	8.66	8.67					
MW-11	2"	25.12	11.13	11.14					

Casing Volume = Static Water Column x Conversion Factor

Conversion Factor: 2-in well = 0.163 gal/ft, 4-in well = 0.653 gal/ft, 6-in well = 1.469 gal/ft

Total purged volume from all wells (gals):

Monitoring Well Gauging and Purging Data Sheet

Date: 1-8-10	Project No.	Site: SEKHON GAS		Location: 6600 Foothill Blvd Oakland				Initials: BCR
Purge Method: Peristaltic Pump		Gauging Time: 11:30	Gauging Time: 11:30	Purge Starting Time:		Purge Ending Time:		Sampling Method:
Well ID	Diameter (in)	Depth to Bottom (ft)	Initial Depth to Water from TOC (ft)	Equilibrated Depth to Water from TOC (ft)	Static Water Column (ft)	Casing Volume (gal)	Purged Volume (gal)	Depth to Product (ft)	Note:
MW-13A	2"	25.13	5.30	5.30					
Casing Volume = Static Water Column x Conversion Factor					Conversion Factor: 2-in well = 0.163 gal/ft, 4-in well = 0.653 gal/ft, 6-in well = 1.469 gal/ft				
Total purged volume from all wells (gals):									

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-1
Location: 6600 FOOTHILL BLVD	Initial Depth to Water (DTW): 10.17
Client:	Total Well Depth (TD): 24.40
Sampler: BERNARDO CHAVEZ	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3
Sample Method: Low Flow	Sampling Rate: 0.3
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
17:49	8.80	347		18.8	9.76	0		
17:52	7.50	342		19.0	10.34	0.9		
17:56	7.27	348		19.2	10.63	2.1		
17:59	6.93	348		19.7	10.77	3.0		
18:02	6.92	350		19.5	11.06	3.9		

Did Well Dewater?	NO	Start Purge Time:	17:48	DTW prior to sample:	10.98
Casing volumes Purged:		Stop Purge Time:	18:02	Start Sample Time:	18:08
Length of Tubing (ft):	18	Total Liters Purged:	3.6	Total Sample Volume:	
Well Recharge:	OK	Turbidity:		Color:	clear
Odor:	NO	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-2
Location: 6600 FOOTHILL	Initial Depth to Water (DTW): 7.42
Client:	Total Well Depth (TD): 24.56
Sampler: BERNARDO	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3
Sample Method: Low Flow	Sampling Rate: 0.3
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
18:30	7.17	831		19.4	8.47	0		
18:33	7.10	438		19.5	9.48	0.9		
18:36	7.15	440		19.8	10.18	2.7		
18:39	7.06	438		19.6	10.37	3.6		
18:42	7.06	437		20.9	10.60	4.5		

Did Well Dewater?	NO	Start Purge Time:	18:30	DTW prior to sample:	10.46
Casing volumes Purged:		Stop Purge Time:	18:42	Start Sample Time:	18:50
Length of Tubing (ft):	14'	Total Liters Purged:	4.5	Total Sample Volume:	
Well Recharge:	good	Turbidity:	clear	Color:	clear
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-3
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 9.45
Client:	Total Well Depth (TD): 23.76
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-6-2016	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
19:05	8.40	177.5		18.7	9.61	0		
19:08	7.39	289		20.2	9.65	0.9		
19:11	7.36	178.0		20.5	9.68	1.8		
19:14	7.25	276		21.6	9.72	2.7		
19:17	7.32	172.5		20.4	9.75	3.6		
19:20	7.27	271		20.7	9.77	4.5		
19:23	7.28	171.3		20.9	9.77	5.4		
19:26	2.25	270		20.8	9.77	6.3		
19:29	7.34	165.7		20.3	9.78	7.2		
19:32	7.25	168.4		21.1	9.78	8.1		

Did Well Dewater?	NO	Start Purge Time:	19:05	DTW prior to sample:	9.60
Casing volumes Purged:		Stop Purge Time:	19:32	Start Sample Time:	19:40
Length of Tubing (ft):	14'	Total Liters Purged:	8.1	Total Sample Volume:	
Well Recharge:	good	Turbidity:	Ligh	Color:	clear
Odor:	NONE	Sheen:	0	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-4
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 5.23
Client:	Total Well Depth (TD): 19.82
Sampler: Bernardo ch.	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
14:36	7.60	163.0		(20.1)	5.50	0		
14:39	7.50	163.5		20.0	5.55	0.9		
14:43	7.49	164.4		20.0	5.58	2.1		
14:46	7.50	164.0		19.4	5.63	3.0		
14:49	7.56	163.4		19.7	5.70	3.9		
14:52	7.56	163.5		19.4	5.73	4.8		

Did Well Dewater?	NO	Start Purge Time:	14:36	DTW prior to sample:	5.66
Casing volumes Purged:		Stop Purge Time:	14:52	Start Sample Time:	14:56
Length of Tubing (ft):	15'	Total Liters Purged:	3.0	Total Sample Volume:	
Well Recharge:	GOOD	Turbidity:	Ligh	Color:	CLEAR
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-5
Location: 6600 Foothill Bvld Oak	Initial Depth to Water (DTW): 6.95
Client:	Total Well Depth (TD): 19.60
Sampler: BERNARDO CHAVEZ	Well Diameter: 2"
Date: 1-7-10	1 Casing Volume:
Purge Method: Peristaltic Pump	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	DO	Temp	DTW	Cumulative Volume	ORP	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
9:19	8.67	124.0		18.7	7.42	0		
9:22	7.78	123.6		19.0	7.61	0.9		
9:25	7.65	123.4		19.1	7.73	1.8		
9:28	7.55	124.1		19.0	7.84	2.7		
9:31	7.54	125.2		19.0	7.93	3.6		

Did Well Dewater?	NO	Start Purge Time:	9:19	DTW prior to sample:	7.45
Casing volumes Purged:		Stop Purge Time:	9:31	Start Sample Time:	9:35
Length of Tubing (ft):	10'	Total Liters Purged:	3.6	Total Sample Volume:	
Well Recharge:	OK	Turbidity:	Ligh	Color:	CLEAR
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-5B
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 12.51
Client:	Total Well Depth (TD): 45.26
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-7-10	1 Casing Volume:
Purge Method: Peristaltic Pump	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
9:40	7.60	335		18.1	12.11	0		
9:43	7.63	349		19.2	13.83	0.9		
9:46	7.66	350		19.6	14.34	1.8		
9:49	7.65	360		19.9	14.90	2.7		
9:52	7.70	351		20.1	15.25	3.6		

Did Well Dewater?	NO	Start Purge Time:	9:40	DTW prior to sample:	14.92
Casing volumes Purged:		Stop Purge Time:	9:52	Start Sample Time:	9:55
Length of Tubing (ft):	15	Total Liters Purged:	3.6	Total Sample Volume:	
Well Recharge:	Ok	Turbidity:	Ligh	Color:	clear
Odor:	none	Sheen:	none	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-6
Location: 6600 Foothill Blvd Oak	Initial Depth to Water (DTW): 4.90
Client:	Total Well Depth (TD): 19.00
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-7-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	DO	Temp	DTW	Cumulative Volume	ORP	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
8:00	7.86	174.1		16.8	4.95	0		
8:03	7.62	178.5		16.7	4.99	0.9		
8:06	7.59	174.5		17.5	5.11	1.8		
8:09	7.64	174.6		17.4	5.19	2.7		
8:12	7.57	176.1		17.7	5.27	3.6		

Did Well Dewater?	NO	Start Purge Time:	8:00	DTW prior to sample:	4.96
Casing volumes Purged:		Stop Purge Time:	8:12	Start Sample Time:	8:14
Length of Tubing (ft):	14'	Total Liters Purged:	3.6	Total Sample Volume:	
Well Recharge:	good	Turbidity:	Ligh	Color:	clear
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-6 B
Location: 6600 Foothill Blvd Oak	Initial Depth to Water (DTW): 39.28
Client:	Total Well Depth (TD): 50.10
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
~~Purge Method: Peristaltic Pump~~ / Bailer	Purge Rate:
Sample Method: Low Flow	Sampling Rate:
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	DO	Temp	DTW	Cumulative Volume	ORP	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
8:18								

Did Well Dewater?		Start Purge Time:		DTW prior to sample:	
Casing volumes Purged:		Stop Purge Time:		Start Sample Time:	
Length of Tubing (ft):		Total Liters Purged:		Total Sample Volume:	
Well Recharge:		Turbidity:		Color:	
Odor:		Sheen:		Product Thinkness (in):	

Notes: Run pump for 10 minutes to water
USED 3 CASING VALUMES PURGING DO TO
LOW WATER

Purging Data Sheet

Date: 1-16-10	Project No. SEKHON GAS	Site: 6600 Foothill Blvd	Initials: Ben

Well ID	Time	# Casing Volume Purged	Temp (F)	pH	EC (µS/cm)	~~DO (mg/L)~~	~~ORP (mV)~~	Fe^{2+} (mg/L)	Total Fe (mg/L)
MW-6B	8:40	0	18.3	7.52	432				
	8:49	1	18.11	7.66	456				
	9.03	2	19.8	7.50	456				
	9.14	3	18.1	7.51	449				

Well Recharge: ok	Total purged volume (gal): 5.29	DTW prior to sample: 39.03	Start sampling time: 11:45

Water Characteristics

Turbidity: MODERATE	Color: BROWN	Odor: NONE	Sheen: NONE	Product thickness (in): 0

Well ID	Time	# Casing Volume Purged	Temp (F)	pH	EC (µS/cm)	DO (mg/L)	ORP (mV)	Fe^{2+} (mg/L)	Total Fe (mg/L)

Well Recharge:	Total purged volume (gal):	DTW prior to sample:	Start sampling time:

Water Characteristics

Turbidity:	Color:	Odor:	Sheen:	Product thickness (in):

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-7
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 8.66
Client:	Total Well Depth (TD): 24.93
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-7-10	1 Casing Volume:
Purge Method: Peristaltic Pump	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
10:15	8.07	472		17.5	9.11	0		
10:18	7.92	472		19.0	9.50	0.9		
10:21	7.82	475		18.8	10.00	1.8		
10:24	7.83	477		19.2	10.33	2.7		
10:27	7.77	480		19.3	10.35	3.6		
10:30	7.77	479		19.2	10.39	4.5		

Did Well Dewater?	NO	Start Purge Time:	10:15	DTW prior to sample:	10.22
Casing volumes Purged:		Stop Purge Time:	10:30	Start Sample Time:	10:35
Length of Tubing (ft):	14'	Total Liters Purged:	4.5	Total Sample Volume:	
Well Recharge:	SLOW	Turbidity:	Ligh	Color:	CLEAR
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-10
Location: 6600 FOOTHILL	Initial Depth to Water (DTW): 13.81
Client:	Total Well Depth (TD): 25.12
Sampler: BERNARDO	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	DO	Temp	DTW	Cumulative Volume	ORP	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
20:04	7.90	360		18.0	12.59	0		
20:07	7.25	371		19.9	13.47	0.9		
20:11	7.21	374		18.9	14.00	2.8		
20:14	7.21	380		18.7	14.51	9.7		
20.17	7.19	376		18.8	14.86	3.9		

Did Well Dewater?	NO	Start Purge Time:	20:04	DTW prior to sample:	14.50
Casing volumes Purged:	~~18'~~	Stop Purge Time:	20:17	Start Sample Time:	20:30
Length of Tubing (ft):	18'	Total Liters Purged:	3.9	Total Sample Volume:	
Well Recharge:	good	Turbidity:	Ligh	Color:	clear
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-11
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 11.13
Client:	Total Well Depth (TD): 25.00
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-7-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
10:53	7.50	483		19.2	11.33	0		
10:57	7.03	515		19.1	11.46	1.2		
11:00	6.78	524		19.1	11.55	2.1		
11:03	6.69	540		19.3	11.73	3.0		
11:06	6.69	542		19.1	11.80	3.9		
11:09	6.68	544		19.2	11.87	4.8		

Did Well Dewater?	NO	Start Purge Time:	10:53	DTW prior to sample:	11.65
Casing volumes Purged:		Stop Purge Time:	11:09	Start Sample Time:	11:13
Length of Tubing (ft):	14'	Total Liters Purged:	4.8	Total Sample Volume:	
Well Recharge:	OK	Turbidity:	Ligh	Color:	clear
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-12 A
Location: 6600 Foothill Blvd. Oak	Initial Depth to Water (DTW): 8.76
Client:	Total Well Depth (TD): 21.71
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
15:16	7.74	311		19.2	9.47	0.		
15:19	7.52	188.4		19.3	10.03	0.9		
15:23	7.41	325		19.5	10.22	2.1		
15:26	7.49	194.9		19.3	10.34	3		
15:29	7.49	328		19.4	10.47	3.9		
15:32	7.46	196.0		19.4	10.59	4.8		
15:38	7.40	328		19.3	10.83	6.6		
15:41	7.40	332		19.6	10.94	7.5		
15:44	7.36	339		19.7	11.03	8.4		

Did Well Dewater?	NO	Start Purge Time:	15:16	DTW prior to sample:	10.77
Casing volumes Purged:		Stop Purge Time:	15:44	Start Sample Time:	15:50
Length of Tubing (ft):	14"	Total Liters Purged:	8.4	Total Sample Volume:	
Well Recharge:	SLOW	Turbidity:	LIGHT	Color:	CLEAR
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

Monitor Well Data Sheet

Site Name: SEKHOM GAS	Well/Sample ID: MW-12B
Location: 6600 Foothill Blvd	Initial Depth to Water (DTW): 40.47
Client:	Total Well Depth (TD): 43.45
Sampler: Bernardo Chavez	Well Diameter: 2"
Date: 1-6-10	1 Casing Volume:
Purge Method: Peristaltic Pump / BAILER	Purge Rate:
Sample Method: Low Flow	Sampling Rate:
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	DO	Temp	DTW	Cumulative Volume	ORP	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
16:21						0		

Did Well Dewater?		Start Purge Time:	16:21	DTW prior to sample:	40.55
Casing volumes Purged:		Stop Purge Time:		Start Sample Time:	16:40
Length of Tubing (ft):		Total Liters Purged:		Total Sample Volume:	
Well Recharge:		Turbidity:		Color:	
Odor:		Sheen:		Product Thinkness (in):	

Notes: USE PUMP FOR 10 MINUTES AND NO WATER

Monitor Well Data Sheet

Site Name: SEKHON GAS	Well/Sample ID: MW-13A
Location: 6600 Foothill Blvd Oak	Initial Depth to Water (DTW): 5.30
Client:	Total Well Depth (TD): 25.13
Sampler: BERNARDO CHAVEZ	Well Diameter: 2"
Date: 1-8-10	1 Casing Volume:
Purge Method: Peristaltic Pump ✓	Purge Rate: 0.3 L/M
Sample Method: Low Flow	Sampling Rate: 0.3 L/M
2" well x 1 foot = 0.6 liters	4" well x 1 foot = 2.4L

Time	pH	SC	~~DO~~	Temp	DTW	Cumulative Volume	~~ORP~~	Notes
hh:mm	SU	µmhos/cm	mg/l	°F	feet	liters	mV	
11:32	7.75	368		18.1	5.43	0		
11:35	7.65	182.1		18.5	5.59	0.9		
11:38	7.40	182.1		18.7	5.79	1.8		
11:41	7.51	183.7		18.5	5.98	2.7		
11:44	7.41	183.9		18.5	6.12	3.6		
11:47	7.43	184.3		18.5	6.27	4.5		

Did Well Dewater?	NO	Start Purge Time:	11:32	DTW prior to sample:	6.02
Casing volumes Purged:		Stop Purge Time:	11:47	Start Sample Time:	11:52
Length of Tubing (ft):	10'	Total Liters Purged:	4.5	Total Sample Volume:	
Well Recharge:	OK	Turbidity:	High	Color:	CLEAR
Odor:	NONE	Sheen:	NONE	Product Thinkness (in):	0

Notes:

APPENDIX C

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Jim Ho
Innovative Environmental Remediation, Inc.
1022 Wiget Lane
Walnut Creek, CA 94598

Subject : 13 Water Samples
Project Name : Foothill Mini Mart (Sekhon Gas, 1Q10)
Project Number :

Dear Dr. Ho,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Subject : 13 Water Samples
Project Name : Foothill Mini Mart (Sekhon Gas, 1Q10)
Project Number :

Case Narrative

The Method Reporting Limit for Methanol has been increased due to the presence of an interfering compound for samples MW-1, MW-6 and MW-12A.

The Method Reporting Limit for Ethanol has been increased due to the presence of an interfering compound for samples MW-5 and MW-6.

Tert-Butanol results for sample MW-12A may be biased slightly high and are flagged with a 'J'. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-1** Matrix : Water Lab Number : 71504-01
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**410**	0.90	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.90**	0.90	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**410**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 100**	100	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 9.0**	9.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**320**	50	ug/L	EPA 8015B	01/11/2010
(Note: Primarily due to Methyl-t-butyl ether (MTBE).)					
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-2** Matrix : Water Lab Number : 71504-02
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Toluene	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Ethylbenzene	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Total Xylenes	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Methyl-t-butyl ether (MTBE)	**5.7**	4.0	ug/L	EPA 8260B	01/08/2010
Diisopropyl ether (DIPE)	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Ethyl-t-butyl ether (ETBE)	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Tert-amyl methyl ether (TAME)	**< 4.0**	4.0	ug/L	EPA 8260B	01/08/2010
Tert-Butanol	**10000**	20	ug/L	EPA 8260B	01/08/2010
Methanol	**< 400**	400	ug/L	EPA 8260B	01/08/2010
Ethanol	**< 40**	40	ug/L	EPA 8260B	01/08/2010
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery	EPA 8260B	01/08/2010
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	01/08/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-3** Matrix : Water Lab Number : 71504-03
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Methyl-t-butyl ether (MTBE)	**4.8**	0.50	ug/L	EPA 8260B	01/08/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Tert-Butanol	**770**	5.0	ug/L	EPA 8260B	01/08/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/08/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	97.0		% Recovery	EPA 8260B	01/08/2010
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	01/08/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-4** Matrix : Water Lab Number : 71504-04
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Ethylbenzene	**3.5**	0.50	ug/L	EPA 8260B	01/08/2010
Total Xylenes	**0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Methyl-t-butyl ether (MTBE)	**17**	0.50	ug/L	EPA 8260B	01/08/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/08/2010
Tert-Butanol	**830**	5.0	ug/L	EPA 8260B	01/08/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/08/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/08/2010
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	01/08/2010
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	01/08/2010
TPH as Gasoline	**1200**	500	ug/L	EPA 8015B	01/13/2010
(Note: Gasoline, with some compounds in abnormal ratios.)					
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8015B	01/13/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-5** Matrix : Water Lab Number : 71504-05
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**1.1**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**4.5**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**95**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 20**	20	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	96.7		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline (Note: Moderately Weathered Gasoline)	**330**	150	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-5B** Matrix : Water Lab Number : 71504-06
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**0.73**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**11**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-6** Matrix : Water Lab Number : 71504-07
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**28**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**0.79**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**12**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**31**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**120**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**340**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 100**	100	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 8.0**	8.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	93.4		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	94.7		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**1600**	250	ug/L	EPA 8015B	01/13/2010
(Note: Gasoline, with some compounds in abnormal ratios.)					
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8015B	01/13/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-6B** Matrix : Water Lab Number : 71504-08
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-7** Matrix : Water Lab Number : 71504-09
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**1.7**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**18**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-10** Matrix : Water Lab Number : 71504-10
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	98.1		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-11** Matrix : Water Lab Number : 71504-11
Sample Date :01/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**80**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**66**	50	ug/L	EPA 8015B	01/11/2010
(Note: Primarily due to Methyl-t-butyl ether (MTBE).)					
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-12A** Matrix : Water Lab Number : 71504-12
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**440**	0.90	ug/L	EPA 8260B	01/13/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**8.3 J**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 400**	400	ug/L	EPA 8260B	01/09/2010
Ethanol	**7.1**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**330**	50	ug/L	EPA 8015B	01/11/2010
(Note: Primarily due to Methyl-t-butyl ether (MTBE).)					
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8015B	01/11/2010

KIFF Analytical LLC

Report Number : 71504
Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**
Project Number :

Sample : **MW-12B** Matrix : Water Lab Number : 71504-13
Sample Date :01/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	**1.2**	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/09/2010
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	01/09/2010
TPH as Gasoline	**< 50**	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	99.6		% Recovery	EPA 8015B	01/11/2010

Report Number : 71504

Date : 01/14/2010

QC Report : Method Blank Data

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 50	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	97.8		%	EPA 8015B	01/11/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8015B	01/13/2010
4-Bromofluorobenzene (Surr)	97.8		%	EPA 8015B	01/13/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	01/08/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Methanol	< 50	50	ug/L	EPA 8260B	01/08/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/08/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	01/08/2010
Toluene - d8 (Surr)	98.7		%	EPA 8260B	01/08/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	01/09/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	01/09/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Methanol	< 50	50	ug/L	EPA 8260B	01/09/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/09/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/09/2010
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	01/09/2010
Toluene - d8 (Surr)	99.7		%	EPA 8260B	01/09/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	01/08/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Methanol	< 50	50	ug/L	EPA 8260B	01/08/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/08/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010
1,2-Dichloroethane-d4 (Surr)	97.1		%	EPA 8260B	01/08/2010
Toluene - d8 (Surr)	99.5		%	EPA 8260B	01/08/2010

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 71504

QC Report : Method Blank Data

Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Gasoline	71504-02	<50	1100	1100	856	886	ug/L	EPA 8015B	1/11/10	77.8	80.6	3.42	70.0-130	25
TPH as Gasoline	71504-06	<50	1100	1100	897	870	ug/L	EPA 8015B	1/13/10	81.6	79.1	3.04	70.0-130	25
Benzene	71509-01	<0.50	40.2	40.2	37.0	36.2	ug/L	EPA 8260B	1/8/10	91.9	90.2	1.88	80-120	25
Diisopropyl ether	71509-01	<0.50	39.6	39.5	37.3	36.6	ug/L	EPA 8260B	1/8/10	94.3	92.8	1.62	80-120	25
Ethanol	71509-01	<5.0	98.9	98.7	98.6	104	ug/L	EPA 8260B	1/8/10	99.6	105	5.60	55.1-159	25
Ethyl-tert-butyl ether	71509-01	<0.50	40.0	39.9	37.5	36.9	ug/L	EPA 8260B	1/8/10	93.7	92.6	1.21	76.5-120	25
Ethylbenzene	71509-01	<0.50	40.0	39.9	38.8	38.0	ug/L	EPA 8260B	1/8/10	96.9	95.1	1.88	80-120	25
Methanol	71509-01	<50	986	984	799	877	ug/L	EPA 8260B	1/8/10	81.0	89.1	9.52	53.2-147	25
Methyl-t-butyl ether	71509-01	110	40.3	40.2	149	147	ug/L	EPA 8260B	1/8/10	86.3	79.7	7.94	69.7-121	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	71509-01	<0.50	38.9	38.8	38.7	38.2	ug/L	EPA 8260B	1/8/10	99.5	98.3	1.21	76.8-120	25
Tert-Butanol														
	71509-01	350	200	200	550	537	ug/L	EPA 8260B	1/8/10	101	94.7	6.71	80-120	25
Tert-amyl-methyl ether														
	71509-01	<0.50	40.0	39.9	35.7	34.6	ug/L	EPA 8260B	1/8/10	89.4	86.7	3.03	78.9-120	25
Toluene														
	71509-01	<0.50	40.0	39.9	38.4	37.6	ug/L	EPA 8260B	1/8/10	95.9	94.2	1.71	80-120	25
Ethanol														
	71528-04	<5.0	99.7	99.7	99.9	104	ug/L	EPA 8260B	1/9/10	100	104	3.99	55.1-159	25
Benzene														
	71528-01	<0.50	40.6	40.6	38.1	38.2	ug/L	EPA 8260B	1/9/10	94.0	94.1	0.105	80-120	25
Diisopropyl ether														
	71528-01	<0.50	39.9	39.9	37.8	38.2	ug/L	EPA 8260B	1/9/10	94.6	95.8	1.19	80-120	25
Ethanol														
	71528-01	<5.0	99.7	99.7	88.2	86.9	ug/L	EPA 8260B	1/9/10	88.5	87.2	1.50	55.1-159	25
Ethyl-tert-butyl ether														
	71528-01	<0.50	40.3	40.3	38.3	39.1	ug/L	EPA 8260B	1/9/10	95.0	97.0	2.19	76.5-120	25

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethylbenzene														
	71528-01	<0.50	40.3	40.3	40.8	40.6	ug/L	EPA 8260B	1/9/10	101	101	0.468	80-120	25
Methanol														
	71528-01	60	994	994	1030	1000	ug/L	EPA 8260B	1/9/10	97.7	94.7	3.10	53.2-147	25
Methyl-t-butyl ether														
	71528-01	<0.50	40.6	40.6	37.3	37.9	ug/L	EPA 8260B	1/9/10	91.8	93.2	1.49	69.7-121	25
P + M Xylene														
	71528-01	<0.50	39.2	39.2	40.7	40.8	ug/L	EPA 8260B	1/9/10	104	104	0.219	76.8-120	25
Tert-Butanol														
	71528-01	<5.0	202	202	204	198	ug/L	EPA 8260B	1/9/10	101	98.0	3.33	80-120	25
Tert-amyl-methyl ether														
	71528-01	<0.50	40.3	40.3	37.0	38.1	ug/L	EPA 8260B	1/9/10	91.8	94.5	2.84	78.9-120	25
Toluene														
	71528-01	<0.50	40.3	40.3	39.4	39.2	ug/L	EPA 8260B	1/9/10	97.7	97.1	0.644	80-120	25
Benzene														
	71498-01	<0.50	40.6	40.6	37.7	36.3	ug/L	EPA 8260B	1/8/10	92.9	89.5	3.73	80-120	25
Diisopropyl ether														
	71498-01	<0.50	39.9	39.9	39.5	38.3	ug/L	EPA 8260B	1/8/10	98.9	96.0	2.92	80-120	25

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 71504

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethanol														
	71498-01	<5.0	99.7	99.7	107	110	ug/L	EPA 8260B	1/8/10	107	110	2.49	55.1-159	25
Ethyl-tert-butyl ether														
	71498-01	<0.50	40.3	40.3	40.2	39.2	ug/L	EPA 8260B	1/8/10	99.7	97.2	2.55	76.5-120	25
Ethylbenzene														
	71498-01	<0.50	40.3	40.3	38.0	36.6	ug/L	EPA 8260B	1/8/10	94.2	90.7	3.81	80-120	25
Methanol														
	71498-01	<50	994	994	1010	1030	ug/L	EPA 8260B	1/8/10	102	103	1.44	53.2-147	25
Methyl-t-butyl ether														
	71498-01	<0.50	40.6	40.6	38.9	38.0	ug/L	EPA 8260B	1/8/10	95.8	93.6	2.31	69.7-121	25
P + M Xylene														
	71498-01	<0.50	39.2	39.2	40.5	39.1	ug/L	EPA 8260B	1/8/10	103	99.7	3.51	76.8-120	25
Tert-Butanol														
	71498-01	<5.0	202	202	202	200	ug/L	EPA 8260B	1/8/10	100	99.4	0.671	80-120	25
Tert-amyl-methyl ether														
	71498-01	<0.50	40.3	40.3	37.9	36.9	ug/L	EPA 8260B	1/8/10	94.1	91.6	2.68	78.9-120	25
Toluene														
	71498-01	<0.50	40.3	40.3	38.9	37.3	ug/L	EPA 8260B	1/8/10	96.4	92.5	4.16	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 71504

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 01/14/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-butyl ether														
	71546-04	0.53	40.6	40.6	38.6	38.2	ug/L	EPA 8260B	1/12/10	93.6	92.8	0.814	69.7-121	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Gasoline	504	ug/L	EPA 8015B	1/11/10	97.3	70.0-130
TPH as Gasoline	510	ug/L	EPA 8015B	1/13/10	101	70.0-130
Benzene	40.6	ug/L	EPA 8260B	1/8/10	90.8	80-120
Diisopropyl ether	39.9	ug/L	EPA 8260B	1/8/10	93.7	80-120
Ethanol	99.7	ug/L	EPA 8260B	1/8/10	98.5	55.1-159
Ethyl-tert-butyl ether	40.3	ug/L	EPA 8260B	1/8/10	94.3	76.5-120
Ethylbenzene	40.3	ug/L	EPA 8260B	1/8/10	95.8	80-120
Methanol	994	ug/L	EPA 8260B	1/8/10	83.0	53.2-147
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	1/8/10	90.4	69.7-121
P + M Xylene	39.2	ug/L	EPA 8260B	1/8/10	98.2	76.8-120
Tert-Butanol	202	ug/L	EPA 8260B	1/8/10	95.9	80-120
Tert-amyl-methyl ether	40.3	ug/L	EPA 8260B	1/8/10	89.5	78.9-120
Toluene	40.3	ug/L	EPA 8260B	1/8/10	94.8	80-120
Ethanol	100	ug/L	EPA 8260B	1/9/10	102	55.1-159
Benzene	39.8	ug/L	EPA 8260B	1/9/10	99.6	80-120
Diisopropyl ether	39.7	ug/L	EPA 8260B	1/9/10	99.3	80-120
Ethanol	99.8	ug/L	EPA 8260B	1/9/10	100	55.1-159

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10)**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	1/9/10	102	76.5-120
Ethylbenzene	39.8	ug/L	EPA 8260B	1/9/10	103	80-120
Methanol	997	ug/L	EPA 8260B	1/9/10	99.6	53.2-147
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	1/9/10	96.3	69.7-121
P + M Xylene	39.8	ug/L	EPA 8260B	1/9/10	101	76.8-120
Tert-Butanol	201	ug/L	EPA 8260B	1/9/10	100	80-120
Tert-amyl-methyl ether	40.1	ug/L	EPA 8260B	1/9/10	101	78.9-120
Toluene	39.8	ug/L	EPA 8260B	1/9/10	103	80-120
Benzene	39.9	ug/L	EPA 8260B	1/8/10	93.6	80-120
Diisopropyl ether	39.8	ug/L	EPA 8260B	1/8/10	99.9	80-120
Ethanol	100	ug/L	EPA 8260B	1/8/10	112	55.1-159
Ethyl-tert-butyl ether	40.2	ug/L	EPA 8260B	1/8/10	100	76.5-120
Ethylbenzene	39.9	ug/L	EPA 8260B	1/8/10	93.6	80-120
Methanol	999	ug/L	EPA 8260B	1/8/10	102	53.2-147
Methyl-t-butyl ether	40.5	ug/L	EPA 8260B	1/8/10	95.5	69.7-121
P + M Xylene	39.9	ug/L	EPA 8260B	1/8/10	97.9	76.8-120
Tert-Butanol	201	ug/L	EPA 8260B	1/8/10	97.9	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	1/8/10	97.7	78.9-120
Toluene	39.9	ug/L	EPA 8260B	1/8/10	94.8	80-120
Methyl-t-butyl ether	40.8	ug/L	EPA 8260B	1/12/10	92.3	69.7-121

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 71504

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dr. Jim Ho	California EDF Report? ☑ Yes ☐ No
Company / Address: Innovative Environmental Remediation 1022 Wiget Lane, Walnut Creek, CA 94598	Sampling Company Log Code: pending
Phone #: (925) 943-6445 / Fax #:	Global ID: T0600102286
Project #: / P.O. #:	PDF/EDF Deliverable To (Email Address): Jimho.IER@gmail.com
Project Name: Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual Sampling)	Sampler Signature:
Project Address: 6600 Foothill Blvd., Oakland, CA	

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Container:	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative:	Preservative:	Matrix: Water	Matrix: Soil	Matrix: Air	Analysis Request: TPH as Gas (EPA 8015M)	Analysis Request: BTEX (EPA 8260B)	Analysis Request: 5 Oxygenates (MTBE, ETBE, DIPE, TAME, TBA) by EPA 8260B	Analysis Request: Methanol and Ethanol (EPA 8260B)												HOLD	TAT	For Lab Use Only
MW-1	1-6-10	18:08	6						X					X			X	X	X	X													1 wk	01
MW-2	1-6-10	18:50	6						X					X			X	X	X	X													1 wk	02
MW-3	1-6-10	19:40	6						X					X			X	X	X	X													1 wk	03
MW-4	1-6-10	14:56	6						X					X			X	X	X	X													1 wk	04
MW-5	1-7-10	9:35	6						X					X			X	X	X	X													1 wk	05
MW-5B	1-7-10	9:55	6						X					X			X	X	X	X													1 wk	06
MW-6	1-7-10	8:14	6						X					X			X	X	X	X													1 wk	07
MW-6B	1-7-10	11:45	6						X					X			X	X	X	X													1 wk	08
MW-7	1-7-10	10:35	6						X					X			X	X	X	X													1 wk	09
MW-10	1-8-10	20:30	6						X					X			X	X	X	X													1 wk	10

Relinquished by:	Date	Time	Received by:
Bernardo Chavez	1-7-10	12:02	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	010710	1202	Kiff Analytical LLC

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Copy - Originator
Rev: 051805

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 71504

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dr. Jim Ho	California EDF Report? ☑ Yes ☐ No
Company / Address: Innovative Environmental Remediation, 1022 Wiget Lane, Walnut Creek, CA 94598	Sampling Company Log Code: pending
Phone #: (925) 943-6445 / Fax #:	Global ID: T0600102286
Project #: / P.O. #:	PDF/EDF Deliverable To (Email Address): Jimho.IER@gmail.com
Project Name: Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual Sampling)	Sampler Signature:
Project Address: 6600 Foothill Blvd., Oakland, CA	

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☑ 1 wk

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	Matrix: Air	Analysis Request: TPH as Gas (EPA 8015M)	Analysis Request: BTEX (EPA 8260B)	Analysis Request: 5 Oxygenates (MTBE, ETBE, DIPE, TAME, TBA) by EPA 8260B	Analysis Request: Methanol and Ethanol (EPA 8260B)	Analysis Request: HOLD	TAT	For Lab Use Only
MW-11	1-7-10	11:13	6					X			X			X	X	X	X		1 wk	11
MW-12A	1-6-10	15:50	6					X			X			X	X	X	X		1 wk	12
MW-12B	1-6-10	16:40	6					X			X			X	X	X	X		1 wk	13
MW-13A BCh			6					X			X			X	X	X	X		1 wk	

Relinquished by:	Date	Time	Received by:
Bernardo Ch	1-7-10	12:02	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	010710	1202	Kiff Analytical LLC

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Copy - Originator
Rev: 051805

KIFF Analytical LLC

Report Number : 71531
Date : 01/15/2010

Laboratory Results

Jim Ho
Innovative Environmental Remediation, Inc.
1022 Wiget Lane
Walnut Creek, CA 94598

Subject : 1 Water Sample
Project Name : Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual)
Project Number :

Dear Dr. Ho,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 71531
Date : 01/15/2010

Subject : 1 Water Sample
Project Name : Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual)
Project Number :

Case Narrative

The Method Reporting Limit for Methanol has been increased due to the presence of an interfering compound for sample MW-13A.

The Method Reporting Limit for Ethanol has been increased due to the presence of an interfering compound for sample MW-13A.

KIFF Analytical LLC

Report Number : 71531
Date : 01/15/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual)**
Project Number :

Sample : **MW-13A** Matrix : Water Lab Number : 71531-01
Sample Date :01/08/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**3.1**	0.50	ug/L	EPA 8260B	01/11/2010
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	01/11/2010
Total Xylenes	**0.76**	0.50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	**38**	0.50	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	**200**	5.0	ug/L	EPA 8260B	01/11/2010
Methanol	**< 50**	50	ug/L	EPA 8260B	01/11/2010
Ethanol	**< 10**	10	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	95.3		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	01/11/2010
TPH as Gasoline	**1300**	200	ug/L	EPA 8015B	01/11/2010
(Note: Gasoline, but an unusually large proportion of aliphatics.)					
4-Bromofluorobenzene (Surr)	89.1		% Recovery	EPA 8015B	01/11/2010

Report Number : 71531

QC Report : Method Blank Data

Date : 01/15/2010

Project Name : **Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual)**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 50	50	ug/L	EPA 8015B	01/11/2010
4-Bromofluorobenzene (Surr)	97.8		%	EPA 8015B	01/11/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Methanol	< 50	50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	98.3		%	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	104		%	EPA 8260B	01/11/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 71531

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 01/15/2010

Project Name : **Foothill Mini Mart (Sekhon**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Gasoline														
	71504-02	<50	1100	1100	856	886	ug/L	EPA 8015B	1/11/10	77.8	80.6	3.42	70.0-130	25
Benzene														
	71527-02	<0.50	40.6	40.6	39.6	39.2	ug/L	EPA 8260B	1/11/10	97.7	96.6	1.14	80-120	25
Diisopropyl ether														
	71527-02	<0.50	39.9	39.9	40.1	40.2	ug/L	EPA 8260B	1/11/10	100	101	0.317	80-120	25
Ethanol														
	71527-02	<5.0	99.7	99.7	104	108	ug/L	EPA 8260B	1/11/10	105	109	3.64	55.1-159	25
Ethyl-tert-butyl ether														
	71527-02	<0.50	40.3	40.3	39.0	38.8	ug/L	EPA 8260B	1/11/10	96.7	96.3	0.423	76.5-120	25
Ethylbenzene														
	71527-02	<0.50	40.3	40.3	41.8	41.5	ug/L	EPA 8260B	1/11/10	104	103	0.679	80-120	25
Methanol														
	71527-02	<50	994	994	1090	1120	ug/L	EPA 8260B	1/11/10	110	113	2.80	53.2-147	25
Methyl-t-butyl ether														
	71527-02	0.52	40.6	40.6	37.5	37.6	ug/L	EPA 8260B	1/11/10	91.0	91.3	0.327	69.7-121	25
P + M Xylene														
	71527-02	<0.50	39.2	39.2	40.3	40.1	ug/L	EPA 8260B	1/11/10	103	102	0.439	76.8-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 01/15/2010

Project Name : **Foothill Mini Mart (Sekhon**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol														
	71527-02	<5.0	202	202	198	196	ug/L	EPA 8260B	1/11/10	98.3	97.2	1.12	80-120	25
Tert-amyl-methyl ether														
	71527-02	<0.50	40.3	40.3	38.9	38.6	ug/L	EPA 8260B	1/11/10	96.6	95.7	0.865	78.9-120	25
Toluene														
	71527-02	<0.50	40.3	40.3	43.0	42.2	ug/L	EPA 8260B	1/11/10	107	105	1.92	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Foothill Mini Mart (Sekhon**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Gasoline	504	ug/L	EPA 8015B	1/11/10	97.3	70.0-130
Benzene	40.2	ug/L	EPA 8260B	1/11/10	101	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	1/11/10	103	80-120
Ethanol	101	ug/L	EPA 8260B	1/11/10	103	55.1-159
Ethyl-tert-butyl ether	40.5	ug/L	EPA 8260B	1/11/10	98.0	76.5-120
Ethylbenzene	40.2	ug/L	EPA 8260B	1/11/10	104	80-120
Methanol	1010	ug/L	EPA 8260B	1/11/10	110	53.2-147
Methyl-t-butyl ether	40.8	ug/L	EPA 8260B	1/11/10	94.4	69.7-121
P + M Xylene	40.2	ug/L	EPA 8260B	1/11/10	99.7	76.8-120
Tert-Butanol	203	ug/L	EPA 8260B	1/11/10	97.8	80-120
Tert-amyl-methyl ether	40.5	ug/L	EPA 8260B	1/11/10	102	78.9-120
Toluene	40.2	ug/L	EPA 8260B	1/11/10	107	80-120

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

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Lab: 530.297.4800
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SRG # / Lab No. 71531

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dr. Jim Ho	California EDF Report? ☑ Yes ☐ No
Company / Address: Innovative Environmental Remediation 1022 Wiget Lane, Walnut Creek, CA 94598	Sampling Company Log Code: pending
Phone #: (925) 943-6445 / Fax #:	Global ID: T0600102286
Project #: / P.O. #:	PDF/EDF Deliverable To (Email Address): Jimho.IER@gmail.com
Project Name: Foothill Mini Mart (Sekhon Gas, 1Q10 Semi-annual Sampling)	Sampler Signature:
Project Address: 6600 Foothill Blvd., Oakland, CA	

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☑ 1 wk

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	Matrix: Air	Analysis Request: TPH as Gas (EPA 8015M)	Analysis Request: BTEX (EPA 8260B)	Analysis Request: 5 Oxygenates (MTBE, ETBE, DIPE, TAME, TBA) by EPA 8260B	Analysis Request: Methanol and Ethanol (EPA 8260B)	Analysis Request: HOLD	TAT	For Lab Use Only
MW-11			6					X			X			X	X	X	X		1 wk	
MW-12A			6					X			X			X	X	X	X		1 wk	
MW-12B			6					X			X			X	X	X	X		1 wk	
MW-13A	1-8-10	11:52	6					X			X			X	X	X	X		1 wk	01

Relinquished by:	Date	Time	Received by:
Bernardo Chavez	1-8-10	14:16	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	010810	1416	Kiff Analytical

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Copy - Originator
Rev: 051805