Fiesta Beverages
7150 Island Queen Dr.
Sparks, NV 89436

3/24/09, 2009

Ms. Barbara Jakub
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Perjury Statement
Former Fiesta Beverages Facility
966 89th Avenue
Oakland, California
ACDEH Fuel Leak Site # RO0000314

Dear Ms. Jakub,

"I declare under penalty of perjury, that the information and / or recommendations contained in the attached proposal or report is true and correct to the best of my knowledge."

Ted Walbey, Owner

Report on Interim Corrective Actions

Former Fiesta Beverages Facility
966 89th Avenue
Oakland, California 94621
ACDEH Fuel Leak Site # RO0000314

March 17, 2009
BEI Job No. 203004

Prepared for:

Mr. Ted Walbey
Fiesta Beverages
7150 Island Queen Dr.
Sparks, NV 89436

Prepared by:

Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395
(510) 521-3773

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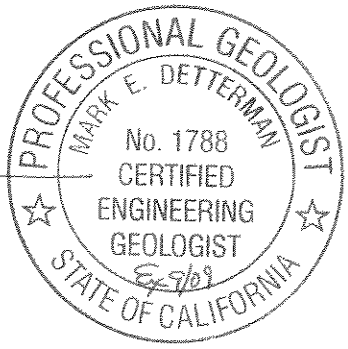
Blymyer Engineers, Inc.



By: _____
Mark E. Determan, CEG
Senior Geologist

And: _____
Michael S. Lewis, REA
Vice President, Technical Services

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1.0 Introduction

1.1 Background

In August 1990, one 500-gallon and one 1,000-gallon gasoline underground storage tanks (USTs) were removed from the subject site (Figures 1 and 2). Soil and groundwater were reported to be impacted from releases from one or both USTs. Overexcavation of the former UST basins occurred in January 1991. The excavations were reported to have reached approximately 15 feet by 8 feet by 14 feet deep and 12 feet by 7 feet by 14 feet deep, respectively, on January 14, 1991. Beginning in April 1991, aeration of the soil occurred onsite. In April 1993, 74.28 tons of soil were transported to the Remco recycling facility. Soil with no or low residual hydrocarbon concentrations is reported to have been reused in the northern UST excavation, while the southern excavation is reported to consist predominately of imported fill (personal communication, Ted Walbey, 2008).

In June 1993, groundwater monitoring wells MW-1, MW-2, and MW-3 were installed (Table I). In general, the wells encountered black to grey to light brown clay to a depth of approximately 15 below grade surface (bgs). At 15 feet bgs, the three bores encountered a 0.5- to 2.0-foot-thick clayey sand. Below this unit, a light brown to grey clay was present to a depth of 18 to 21 feet bgs. Underneath this unit, a 1- to 3-foot-thick sand was encountered in bores MW-1 and MW-2, while a clayey silt was encountered in bore MW-3. Below approximately 21 feet bgs, green-grey or black clay was encountered to the full explored depth of 26.5 feet bgs in bore MW-1 and to 25 feet bgs in bores MW-2 and MW-3. Saturated soil was encountered below a depth of approximately 13 feet bgs (in clay overlaying the uppermost sand unit). The wells were installed with a screened interval between 10 and 25 feet bgs. Groundwater from the three wells was sampled six times between August 1993 and December 1998 (Tables II to IV).

In November 1999, after obtaining appropriate permits, AllCal Property Services, Inc. (AllCal) installed four Geoprobe® soil bores downgradient from the former location of the two USTs. The bores were installed in the public right-of-way across 89th Avenue from the subject site, in an unpaved portion of the roadway. Soil bores SB-1 and SB-2 were logged to a depth of 16 feet bgs. Silty clay was encountered to a depth of approximately 13 to 14 feet bgs. Below that depth, soil consisted of clayey silt that alternated between moist and saturated for several vertical feet. Bore SB-1 also encountered poorly graded sand at 16 feet bgs. Hydrocarbon odors were present

in both bores at a depth of approximately 6 feet bgs and green discolored soil was present at 10 feet bgs in bore SB-1. Discolored soil and gasoline odors were noted in both bores throughout the clayey silt, while brownish colored clay was present in both bores just above the silt. The groundwater interface appears to have been encountered at an approximate depth of 16 feet bgs in the sand. Sheen was noted at that depth in SB-1. Groundwater samples were obtained from bores SB-1 and SB-2 after pushing the Geoprobe[7] system to a total depth of 18 feet bgs. Soil bores SB-3 and SB-4 were directly pushed to a total depth of 18 feet bgs in order to obtain grab groundwater samples. Groundwater samples from bores SB-1 and SB-2 contained elevated concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Significantly lower concentrations of TPH as gasoline and total xylenes were encountered in the groundwater sample from soil bore SB-3, while all analytes were nondetectable in groundwater collected from soil bore SB-4. No soil samples were submitted for laboratory analysis from the four Geoprobe[7] bores.

After the review of the January 2001 groundwater monitoring report, the Alameda County Department of Environmental Health (ACDEH) approved the application of a 7% solution of hydrogen peroxide to the wells in an attempt to remediate dissolved constituents. On March 7, 2001, the solution was applied by AllCal and on April 25, 2001, a groundwater monitoring event was conducted to determine if a reduction in dissolved constituents had occurred. Based on the analytical data, a reduction was seen in wells MW-1 and MW-2, with some reductions also seen in well MW-3. This sampling event and subsequent interpretation was complicated by the presumed mis-marking of samples from wells MW-1 and MW-3. No further work at the site is known to have occurred between April 2001 and the March 2003 groundwater monitoring event.

On January 16, 2003, a new case manager, Mr. Amir Gholami, was appointed by the ACDEH. On September 17, 2003, a workplan for a Geoprobe[7] investigation of the site was submitted to the ACDEH. The intent was to attempt to determine the lateral and vertical extent of impacted soil and groundwater in order to better target the residual contamination in future remedial actions to be determined. Due to the lack of a response from the ACDEH, on February 17, 2004, Blymyer Engineers issued a *Letter of Intent to Proceed: Geoprobe[7] Investigation.*

The *Fourth Quarter 2003 Groundwater Monitoring Event* report, dated January 6, 2004, recommended that analysis for fuel oxygenates by EPA Method 8260B be eliminated from the analytical program. It was reasoned that the data generated to date had been very consistent, and further quantification would not significantly add to the level of understanding at the site. Additionally, the concentration of methyl *tert*-butyl ether (MTBE) could be monitored using EPA Method 8021B for no additional cost and the resultant concentration of MTBE can be used as a proxy for the approximate concentration of the remaining fuel oxygenates. Based on the lack of response from the ACDEH, it has been presumed that this was found reasonable and acceptable.

On March 15, 2004, Blymyer Engineers issued a letter entitled *Recommendation for Reduction of Groundwater Monitoring* that provided additional rationale for decreasing the groundwater sampling interval from quarterly to semi-annually. It argued that generation of quarterly analytical data would not significantly improve the level of understanding of impacts to the subsurface at the site, and recommended a reduction of the sampling interval to semi-annual. Based on the lack of response from the ACDEH, it has been presumed that this was found reasonable and acceptable.

On December 14, 2004, Blymyer Engineers issued to the ACDEH the *Report on a Geoprobe® Subsurface Investigation* which documented the installation of nine Geoprobe® soil bores at the site. The work further refined the known lateral and vertical extent of soil impacted by the petroleum release at the site. Grab groundwater samples in the upgradient and the eastern cross-gradient directions defined all petroleum compounds in groundwater to concentrations below the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs). Grab groundwater samples in the downgradient and western cross-gradient directions were unable to define most petroleum compounds to concentrations below the RWQCB ESLs. The installation of additional permanent groundwater monitoring wells was recommended as appropriate at the site in order to allow for groundwater sampling from repeatedly accessed locations. It was reasoned that data generated from these locations would assist in determining appropriate remedial actions, and in monitoring remedial progress.

On July 6, 2005, the new case manager for the ACDEH, Mr. Barney Chan, issued the letter *Fuel Leak Case RO0000314* commenting on the December 14, 2004 report. The ACDEH determined that the collection of additional data is needed to progress the site towards closure. The letter requested a workplan to clear well MW-1 of several feet of sediment due to the potential for groundwater gradient biasing, requested further definition of the groundwater and soil plumes through the installation of additional wells and soil bores, requested a conduit study, and requested a Feasibility Study and Remedial Action Plan.

Blymyer Engineers submitted the *Workplan for Remedial Investigation / Feasibility Study*, on October 10, 2005. The Workplan detailed the procedures for the collection of Remediation by Natural Attenuation (RNA) analytical parameters (Tables V and VI) from existing wells as an initial phase of a Remedial Investigation / Feasibility Study (RI/FS), as well as the installation of four additional groundwater monitoring wells, and the destruction and reinstallation of groundwater monitoring well MW-1. On November 18, 2005, the ACDEH issued the letter *Fuel Leak Case RO0000314* commenting on the Workplan. The ACDEH requested the following:

- The addition of two wells at specified locations for further plume characterization,
- Use of a maximum of 10 feet of screen in the wells,
- Confirmation of the presence of MTBE by EPA Method 8260 if MTBE concentrations rose significantly, and
- Collection of the RNA parameters.

The ACDEH requested confirmation that the additional wells would be added by December 19, 2005, and that a RI/FS report would be submitted by February 19, 2006. Confirmation that the additional wells would be included was provided by telephone in December 2005; however, permitting issues delayed installation of the wells. The *Remedial Investigation / Feasibility Study Report* (RI/FS Report), dated September 8, 2006, was submitted to ACDEH on October 6, 2006.

The RI/FS Report documented the destruction of well MW-1, the installation of replacement well MW-1R, and the installation of wells MW-4 through MW-9. The soil and groundwater data collected in the effort achieved vertical delineation, as well as upgradient, lateral, and

downgradient delineation of all hydrocarbon compounds in soil and groundwater, with the exception of MTBE in groundwater. MTBE was delineated to below the Maximum Contaminant Level (MCL) and the *non-drinking water* ESL goal for the compound, but was slightly above the *drinking water* goal. Because the site is in an area that is not known to extensively use groundwater as a drinking water source, the numeric remedial goals are predominantly compared to the *non-drinking water* ESL goals; however, the ACDEH may ultimately apply *drinking water* ESL goals to remedial efforts at the site.

Higher concentrations of TPH as gasoline appear to be relatively isolated near the former source (MW-1, MW-1R, GP-5, and GP-2; the latter based on PID results only). The presence of slightly higher concentrations at GP-6 or GP-8 likely indicates lateral migration through the clay units in the vadose zone in very thin, interbedded coarser grained deposits with more permeability and porosity. A conduit survey indicated that, due to depth of burial, the utility corridors do not appear to be acting as significant conduits in the site vicinity for groundwater movement and therefore contaminant migration. A notable decrease in analyte concentrations in soil is apparent with increasing depth. Generic *non-drinking water* ESL goals for soil were not exceeded for any compound beneath approximately 12 feet bgs.

The distribution of nitrate, methane and dissolved oxygen indicate that the TPH as gasoline groundwater plume is undergoing anaerobic degradation. Specifically, the elevated concentrations of nitrate observed in perimeter wells MW-4 through MW-9, in comparison to the concentration of nitrate in plume core wells MW-1/1R, MW-2 and MW-3, where the concentration is reduced to essentially one-half of its perimeter levels, and the correspondingly high methane concentrations in the plume core area suggest that active anaerobic degradation is occurring. The source of nitrate is likely leaking sewer lines located along 89th Avenue.

For the site as a whole, the limited area of hydrocarbon degradation suggested by the RNA data, collectively with the laboratory notes indicating relatively unmodified gasoline range hydrocarbons are present in soil and groundwater samples, and the continued recontamination of groundwater documented by graphs depicted on Figures 10 through 13 of the RI/FS Report, appear to document a release that is undergoing anaerobic microbial degradation, that RNA is oxygen limited, has reached stability with the surrounding area, and will not progress significantly further without remedial efforts.

Six potential remedial options were evaluated for appropriateness at the site; monitored natural attenuation (MNA), groundwater pump and treat, enhanced insitu bioremediation (EIB), air sparging-vapor recovery (ASVR), dual phase extraction, and insitu chemical oxidation (ISCO). A combination of EIB and ISCO was selected as the most appropriate remedial technology for the site due to multiple factors. ISCO was selected for the vicinity of the former tank excavation and would consist of the injection of the commercial oxidation product RegenOx. Chemical oxidation of residual source soil and groundwater containing higher hydrocarbon concentrations is anticipated to eliminate potential residual free-phase hydrocarbons in the tank vicinity. EIB using Oxygen Releasing Compound Advanced (ORC Advanced) was selected for the larger area around and downgradient of the former tank location. Petroleum hydrocarbon compounds are recognized to degrade favorably and rapidly under aerobic (oxygen rich) conditions. To stimulate aerobic bacterial activity and increase the rate of biodegradation within the hydrocarbon plume, non-toxic inorganic chemicals (bionutrients) can be added to the groundwater that release oxygen, nitrogen and phosphate, such as ORC Advanced and bionutrient compounds (typically, nitrogen/phosphorus/potassium (NPK) fertilizer). At sites where stagnant hydrocarbon plumes are present, one or more of the essential bio-nutrient elements is commonly depleted, and natural attenuation of the hydrocarbon plume due to microbial activity ceases. By determining a site's "bio-needs," the missing elements can be injected into the hydrocarbon plume to boost bioactivity.

At the site, dissolved oxygen in groundwater is depleted to less than 1 milligram per liter (mg/L), and based on available information the lack of dissolved oxygen is the limiting factor retarding current biological activity. For EIB, the supply of bio-nutrients is assessed prior to and during remediation. During the course of remediation, if nutrient concentrations are found to be inadequate, then further nutrient addition is performed.

On December 18, 2006, the ACDEH issued a letter indicating that it was in agreement with the proposed plan of action, namely EIB with localized ISCO, using a combination of ORC Advanced and RegenOx, respectively. The December 18, 2006 letter requested an interim corrective action plan (ICAP) by January 19, 2007, and quarterly monitoring reports by January 30, and April 30, 2007. A request for deadline extension was later submitted to, and approved by, the ACDEH. The *Interim Corrective Action Plan* was submitted on February 7, 2007, and

was approved by the ACDEH on May 4, 2007. A pre-remedial groundwater sampling event to determine pre-remedial bacterial populations in groundwater, in the event of a bacterial die-off related to remedial injections, occurred on April 27, 2007. Remedial activities began on May 22, 2007, with a volume test injection. The first injection of RegenOx occurred between June 4 and June 7, 2007, and the second event occurred on June 26 and 27, 2007. On August 9, 2007, an abbreviated interim round of sampling occurred on selected wells (MW-1R, MW-2, MW-3, and MW-5) to help determine the progress of the remedial actions at the site. Elevated concentrations of hydrocarbons were detected in plume core wells MW-1R and MW-3. Because it had not been possible to inject the entire volume of RegenOx specified by Regenesis due to resurfacing of the injected material, an additional round of RegenOx injection occurred on September 12 and 13, 2007. Activities associated with these events are reported in the following sections of this report.

On August 28, 2007, twenty-three 55-gallon drums of soil and fifteen 55-gallon drums of purge water, development water, and groundwater were removed from the subject site. The drums were transported by NRC Environmental to Crosby and Overton in Long Beach, California. The drums of soil represented soil cuttings from the installation of all soil bores and wells since 1993. The drums of water had accumulated since the installation of wells MW-1R, and MW-4 through MW-9, and as a result of fluid return flow to the surface during remedial injection activities.

On March 28, 2008, Blymyer Engineers was notified that a new case worker, Ms. Barbara Jakub, had been assigned to the project by the ACDEH. In order to monitor the trend of hydrocarbon concentrations in groundwater, quarterly reporting resumed shortly before implementation of interim corrective actions. Quarterly events and reports have been conducted and generated consistently since the First Quarter 2007; the most recent being Fourth Quarter 2008. Case closure was recommended in the quarterly report for Third Quarter 2008 event, should groundwater concentrations continued to decrease.

1.2 Site Conditions

The subject site consists of two buildings (960 and 966 89th Avenue) on the southeast side of 89th Avenue in the city of Oakland, Alameda County, California (Figures 1 and 2). The site is situated in an industrial district of the city, and is bounded on the north by 89th Avenue, on the

west and east by small warehouses and industrial buildings, and on the south by an older residential community. Across 89th Avenue are additional small warehouses and industrial facilities. The site is currently leased by two occupants, Best Equipment (966 89th Avenue), a custom builder of towing equipment, and an importer of Chinese food goods (960 89th Avenue), as a warehouse. The current study area is located at the front of both addresses, in and just outside the area normally reserved as sidewalk. The investigation area is paved with asphalt, except the interior of the buildings, which consist of slab-on-grade concrete.

Based on existing evidence and the comments of Ted Walbey of Fiesta Beverages, the former UST system was a suction system with a single dispenser located approximately 5 feet inside the roll-up door closest to the former northern tank system. A vent line remains fastened to the northern wall of the building at 966 89th Avenue.

2.0 Environmental Setting

2.1 Regional Geology and Hydrogeology

The site is located in the gently sloping East Bay Plain of the San Francisco Bay Area, approximately 1.5 miles feet east of San Leandro Bay in the Alameda - Oakland Estuary at an approximate elevation of 18 feet National Geodetic Vertical Datum.

The San Francisco Bay Area is a region dominated by northwest trending topography, located in the Coast Range Province of California. The topography of the region reflects activity of a major fault system that includes the San Andreas Fault Zone on the west side of San Francisco Bay and the Hayward Fault at the base of the Berkeley Hills on the east side of the Bay, which defines the base of the Berkeley Hills. Rock types in the region range from Jurassic and Cretaceous aged sedimentary, volcanic, metamorphic, and plutonic basement, to Quaternary alluvium (Norris and Webb, *Geology of California*, 1990).

The property has been mapped (R.W. Graymer, *Geologic map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California*, Miscellaneous Field Studies MF-2342, 2000) to be just on the northerly edge of an abandoned stream levee deposit north of the current location of San Leandro Creek. The levee was formed when San Leandro Creek had a more northerly discharge point into the Estuary. The area north across 89th Avenue was mapped to lie in a low basin between adjacent stream levees (Arroyo Viejo to the north and the older San Leandro Creek levee to the south), at the distal end of the stream levees as they discharged into the Estuary. Both deposits are Holocene in age. The levee deposits are characterized by Graymer as ALoose, moderately-sorted to well-sorted sandy or clayey silt grading to sandy or silty clay. These deposits are porous and permeable and provide conduits for transport of groundwater. Levee deposits border stream channels, usually both banks, and slope away to flatter floodplains and basins.@ (pg. 7, op. cite.). These units were derived from the adjacent Jurassic and Cretaceous rocks of the nearby East Bay hills.

The regional groundwater flow direction is generally towards the Estuary to the west. A small tributary, situated between Arroyo Viejo and San Leandro Creek, appears to drain the area of cultural infrastructure developed over the lower basinal deposits discussed above. Based on the

documented groundwater flow direction to the northwest at the site, this smaller tributary likely exerts some localized influence on the direction of groundwater flow at the site.

2.2 Climate

The East Bay Plain exhibits a Mediterranean-type climate with cool, wet winters and warmer, dry summers. Mean annual precipitation in Oakland is 25.19 inches. Mean monthly rainfall is 6.09 inches in January and 0.01 inches in July. Mean maximum temperatures are 55.5 degrees Fahrenheit (EF) in January and 78.2EF in September; mean minimum temperatures are 39.3EF in January and 53.8EF in September; the average minimum temperature was 47.2EF and the average maximum temperature was 68.7EF (Western Regional Climate Center; January 1899 to July 1958; www.wrcc.dri.edu).

2.3 Regional Setting and Use of Generic RWQCB ESL

The site is located on the eastern edge of an industrial area that is not known to use near surface groundwater as a drinking water source; however, as delineated in the *Groundwater Basin Plan Amendments* (RWQCB, August 2004), deeper groundwater in the area is considered to be a current or a probable source of drinking water. Because use of the near surface groundwater as a drinking water source is judged relatively unlikely, Blymyer Engineers has provided comparisons to non-drinking water ESL goals contained in Table B or D of the May 2008 RWQCB, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. However, ESL goals for drinking water sources are additionally provided to enable further comparisons.

3.0 Interim Corrective Actions

3.1 Background

The following sections document actions taken during interim corrective actions for the treatment of hydrocarbon-impacted unsaturated and saturated soil (*Interim Corrective Action Plan for ORC and RegenOx Injection*, February 7, 2007). The contaminants of concern at the site include TPH as gasoline, BTEX, and MTBE in groundwater. Methyl tert-amyl ether (TAME) has also been documented in groundwater at concentrations below 9 micrograms per liter (µg/L). The RI/FS Report (September 8, 2006) documented that a principal limiting factor for bioremediation was lack of sufficient dissolved oxygen in subsurface groundwater. The RI/FS Report identified ISCO using injected slurry of RegenOx in the vicinity of the former UST location followed by EIB using injected slurry of ORC Advanced and bionutrients as the preferred remedial alternative. The previous use of hydrogen peroxide showed that TPH as gasoline impacted groundwater at the site can be chemically oxidized with positive results.

Typically two to three rounds of RegenOx injection are required at a site to effectively remediate residual soil and groundwater contamination. The goals for chemical oxidation projects are to rapidly reduce the contaminant mass and to stabilize or reduce the size of the plume. RegenOx uses a solid alkaline oxidant that employs a sodium percarbonate, sodium carbonate, sodium silicate, silica gel, and ferrous sulfate mix. The RegenOx mix directly oxidizes contaminants while generating highly oxidizing free radicals (perhydroxyl, hydroxyl, and superoxide radicals) to rapidly destroy targeted contaminants.

Injection of RegenOx rapidly reduces dissolved-phase contaminants in groundwater; however, as contaminants sorbed on subsurface soil re-enter (re-dissolve) into groundwater in response to the initial decrease in groundwater concentrations, groundwater concentrations typically rebound. Reinjection of RegenOx followed by ORC Advanced helps assure continued long-term treatment of residual contaminants in the project vicinity. The half-life of RegenOx is dependant on the contaminant concentration, the total oxygen demand, the injection ratio (RegenOx to water mix), and the use of “Part D”, a retarding compound to prevent excessively vigorous destruction reactions. In general the half-life averages 5 to 20 days.

Two rounds were calculated by Regenesis to be appropriate for this site, with the injections to be approximately 2 weeks apart. Each round would consist of ten Geoprobe locations as depicted on Figure 2. The recommended injection grid was on approximate 10-foot centers, with the second round of injection points to be offset approximately 5 feet from the first set. Approximately 18.8 pounds per foot of RegenOx would be injected at each borehole location under pressure from approximately 4 to 16 feet bgs. The remaining portions of the boreholes to ground surface were to be backfilled with neat cement grout.

3.2 Preparation for Work Activities

Upon approval of the ICAP by the ACDEH, Blymyer Engineers submitted a *Drilling Permit Application* to the Alameda County Public Works Agency (ACPWA) to obtain a drilling permit (No. W2007-0613) for the installation of up to 86 Geoprobe soil bores (both RegenOx and OCR Advanced bore locations). The health and safety plan was revised to outline potentially hazardous work conditions and contingencies for an emergency. A traffic control plan submitted to, and approved by, the city of Oakland due to potential impingement on public traffic ways during installation of the RegenOx bores. City of Oakland excavation and encroachment permits were not initially sought as all RegenOx bore locations were on property owned by Fiesta Beverages. Copies of all permits are included in Appendix A.

Prior to initiation of work, offsite utilities were marked and cleared a minimum of 48-hours prior to initiation of the work under Underground Service Alert (USA) Ticket Numbers 177921 and 334498.

3.3 Installation of RegenOx Injection Bores

3.3.1 Test Injection

An initial test injection was recommended by Regenesis to determine the ability of site soil to accept the recommended volume of product, and to help determine injection procedures and tooling.

On May 22, 2007, Blymyer Engineers mobilized to the site to install one test injection bore using clean water. The soil bore was installed by Precision Drilling (C57 – 636387) using a Geoprobe direct-push rig, under the observation of a Blymyer Engineers geologist. In order to help

determine the ability of the ground to accept the required volume, Regenesis recommended that the test bore be injected with 125% of the actual required volume for future bores. An injection location east of well MW-6 was selected in order to minimize the affect of the increased volume in the subsurface in the vicinity of the impacted area (Figure 3). Initially a top down injection was recommended by Regenesis; however, it was determined that a bottom up injection produced better results at the site. This was consistent with the previous experience of Precision Drilling at most sites. The rate of injection was also modified from full rate to half-rate to quarter-rate as the ability of the soil to accept the product volume was determined by the volume of water returning to the surface. Injection into the lower soil column could accommodate higher rates of injection consistent with the ability of more granular materials to transmit the increased volume laterally. Injections higher in the soil column required slower rates of injection due to the predominance of silty clays. The selection of final injection methodology called for bottom up injection at half-rate, with a top down modification for the upper soil horizon (approximately 4 to 7 feet bgs) at quarter- to half-rate. The principal return conduit to the surface for injection fluids appeared to be at the break in slope at the property line between the site and 89th Avenue. This also generally corresponds to the location of the 6-inch gas main that borders that property line. The test borehole was backfilled with tremied neat cement grout.

3.3.2 Initial RegenOx Injections

On June 4, to 7, 2007, Blymyer Engineers mobilized to the site to install ten RegenOx injection bores. The soil bores were installed by Precision Drilling using a Geoprobe direct-push rig, under the observation of a Blymyer Engineers geologist. Initial indications suggested that two to three days would be required to install the bores and inject the remedial product; however, three to four days were required to complete this scope of work due to increased return flow to the surface. This was slower than the anticipated rates of injection as indicated by the test injection. Return flows exploited the multiple utility trenches (gas main, sewer, and water) overlaying the area of injection, tank excavation backfill margins, breaks in slope at the property line, the building foundation envelope, and the intermittently poor condition of the asphalt paving at the site. Sheen and free phase product were observed in the return flow. Eventually 12 injection bores (IB1 to IB12; Figure 3) were installed in the initial mobilization due to a need to further modify and test the success of alternate injection methods, product concentration mixes

(increasing or decreasing water volume for a given product volume), or rates of injection. Ultimately this resulted in a smaller volume of water being used at each injection site, effectively increasing the concentration of RegenOx, in order to inject close to the specified volume of RegenOx at each location.

Due to the vigorousness of reaction between the RegenOx product and the hydrocarbons in the return flow, and presumed similar subsurface reactions, portions of the asphalt pavement further disintegrated. Large over-pressurized zones with extensive foaming (degassing of carbon dioxide) caused large pavement sections to rise (bubbles 2 to 3 feet in diameter, one foot in height) where the pavement separated from the subsurface. In order to limit the rate of the reaction between the RegenOx product and the residual hydrocarbons, and thus the generation of carbon dioxide causing the over-pressurization, Regenesis provided an additional proprietary compound, Part D, to retard the reaction process. Part D limits the rate of reaction, but also extends the length of time RegenOx continues to work, thus necessitating longer monitoring of groundwater to determine when reactions are complete and the product is exhausted. This is monitored by the return of slightly alkaline pH values to a more neutral pH range.

Because there are no storm drains in the vicinity of the injections (closest being on north side of 89th Avenue, and isolated by a rise in roadbed elevation), there was not a surface runoff concern with the return flow; however, all surface returned materials were collected and drummed. Absorb-All was additionally used to help contain surface return flows.

3.3.3 UST Excavation Geoprobe Investigation

Due to the vigorousness of the observed reactions and the evident free product, Blymyer Engineers judged it appropriate to investigate the level of residual contamination in tank backfill, previously understood to have been treated by aeration. As a consequence, Blymyer Engineers installed two unplanned Geoprobe bores, one through the center of each UST excavation, on June 7, 2007, prior to fully completing the initial set of twelve injection bores. The soil bores were installed by Precision Drilling using a Geoprobe direct-push rig, under the direction of a Blymyer Engineers geologist. Soil bore GP10 was installed into the northern excavation from which a 1,000-gallon gasoline UST was removed, and GP11 was installed into the southern excavation from which a 500-gallon gasoline UST was removed. Both bores were installed to total depths of 16 feet bgs (Figure 2).

A total of three soil samples were submitted from each soil bore for laboratory analysis for TPH as gasoline by Modified EPA Method 8015, and BTEX and MTBE by EPA Method 8021B. If field evidence of impacted soil (i.e., odor, discoloration, elevated PID readings) was observed in a soil bore, a soil sample was collected from the impacted interval and submitted for laboratory analysis. Soil samples were generally selected for laboratory analysis based on elevated PID readings.

The upper two feet of material in soil bore GP10 can be characterized as granular backfill consisting of an upper six inches of chipped gravel base rock, and a lower 1.5 feet of gravelly sand. Between 2 and 15 feet bgs, soils consisted of silty clay. Presumed native organics (carbon flecks) were noted below an approximate depth of 11 feet; however, a thin 2-inch layer of gravelly clay at approximately 14.25 feet suggested an excavation bottom. Below 15 feet bgs clayey sand was encountered to the total depth of 16 feet. Groundwater was encountered at 15 feet bgs. Soil bore GP11 encountered a very mixed assemblage of soil materials to an approximate depth of 14 feet bgs. The upper approximately 7.5 feet consisted of a recycled crushed granular fill. A mix of clay, fine sand, mixed gravels, some in multiple layers, were encountered between 7.5 feet and approximately 14 feet, and appeared to be fill materials, or excavation sidewall sluff. Beginning at 14 feet bgs, silty clay, presumed to be native based on an increased firmness and fine internal layering, was encountered. Silty fine sand was encountered at 15.75 feet to the total depth of 16 feet bgs. Groundwater was encountered at a depth of 8 feet bgs in GP11. It is assumed that this elevation may be higher than usual due to the injection of a significant volume of remedial fluids into the tank excavation vicinity (around 3,000 gallons for the 12 bores).

Mr Ted Walbey (personal communication, 2008) reports these findings to be consistent with his recollection of past events at the site. He reports that clean or remediated native soil materials were largely returned to the northern UST excavation represented by GP10, and that the southern excavation was predominately backfill materials. Both tank basins are reported to have been overexcavated to a depth of approximately 14 feet bgs, with confirmation sampling (S1 and S2) conducted at that depth (Table I).

Analytical results for the six soil samples submitted indicate that former tank basin soils generally contain low residual concentrations. With limited exceptions all concentrations were

below generic non-drinking water ESL goals for soil, and many of the contaminants were below generic drinking water ESL goals for soil. The outlier sample, GP10-11.5, yielded a concentration of 450 milligrams per kilogram (mg/Kg) TPH as gasoline, 0.82 mg/Kg benzene, 1.3 mg/Kg toluene, 5.1 mg/Kg ethylbenzene, and 2.2 mg/Kg total xylenes. All other samples were significantly below these concentrations.

These data allow a better understanding of the location of residual contamination in the subsurface; that is the predominance of residual contamination is located outside the former tank basins in the basin walls, presumably in both native and granular fill materials. Observations on the locations of more vigorous RegenOx reactions also confirm these data. The observations suggested that an important component of the residual contamination was located between the UST excavations and the high-pressure gas main, particularly close to or within the granular backfill materials associated with the gas main, and to a more limited extent at the eastern edge of the northerly tank excavation.

Copies of the bore logs can be found in Appendix B, and copies of the laboratory analytical reports from McCampbell Analytical can be found in Appendix C.

3.3.4 Second and Third RegenOx Injection Events

On June 26, and 27, 2007, Blymyer Engineers remobilized to the site for the second planned injection of RegenOx into the subsurface. As with the previous efforts, ten RegenOx injection bores were planned, offset 5 feet from the initial round of injections. Ten injection bores were installed; IB13 to IB22 (Figure 3). The soil bores were installed by Precision Drilling using a Geoprobe direct-push rig, under the observation of a Blymyer Engineers geologist. As with the initial series of injections, significant resurfacing of foam and fluids required capture, recovery, and drumming. Sheen with less free phase was noted in the fluids. Observations on the intensity of foaming and return flows during this second planned series of injections generally confirmed prior observations that a greater portion of the residual contamination appeared to be concentrated between the former tank excavations and the gas main.

At this juncture, because the upper portion of the soil column had a more limited ability to accept the injection fluids, it had not been possible to deliver the full recommended volume of RegenOx to the subsurface in the two sets of 10 injection bores. As a consequence, a third round of

injection was judged warranted to deliver more of the calculated volume of RegenOx required. On September 12 and 13, 2007, Blymyer Engineers remobilized to the site for a third round of injection of RegenOx. Fourteen injection bores (IB23 to IB36) were installed by Precision Drilling using a Geoprobe direct-push rig, under the observation of a Blymyer Engineers geologist (Figure 3). These bores were focused on the perimeter of the former tank basins, in particular between the former basins and the gas main, but also east of the northern UST excavation, and south of the southern tank excavation, between the excavation and the warehouse at 960 89th Avenue. This included three bores through the concrete slab inside the warehouse in an attempt to intercept any upgradient residual contamination at depth beneath the slab.

Although present, there appeared to be noticeably less foaming and return flow to the surface in more locations during the third mobilization. Limited sheen and no free phase were noted in this round. All resurfaced foam and fluids were captured, recovered, and drummed. At this juncture, approximately 80% of the planned volume of RegenOx had been injected at the end of the third injection event. It was judged prudent to monitor contaminant concentrations in groundwater for several quarters to determine if additional mobilizations to inject the remainder of the RegenOx were appropriate, or if the injection of ORC in a larger area, should proceed.

3.4 Interim Groundwater Monitoring

Two rounds of interim groundwater monitoring and sampling of plume core wells (MW-1R, MW-2, and MW-3) were initially planned to help determine the timing of, or need for, additional RegenOx applications. The initial round was collected on June 21, 2007, within 15 days after initial application of RegenOx, as specified by Regenesis. This was incorporated into a site wide quarterly monitoring event and these data have previously been reported. The second event was conducted on August 9, 2007, 42 days after the second application of RegenOx. Groundwater samples were collected from plume core wells MW-1R, MW-2, and MW-3, and upgradient well MW-5 (the latter for bio-monitoring only). These data have also been previously reported. The second event had been specified to be collected approximately 30 days after the final application in an attempt to determine the magnitude of a contaminant rebound, if any. Because of the use of “Part D”, this timeline was extended.

Post-injection bio-monitoring was specified by Regenesis for after the second injection event and was conducted in association with the second interim groundwater monitoring and sampling event. The results were compared with results generated during pre-injection bio-monitoring. While chemical oxidation is known to disinfect (kill-off) bacterial populations, this disinfection is not reported to be as significant with RegenOx. Pre-injection bio-monitoring of wells MW-1R, MW-2, MW-6, and MW-9 occurred on April 27, 2007, while post-injection bio-monitoring of wells MW-1R and MW-5 occurred on August 9, 2007. Plume core well MW-2 was scheduled to be sampled in August 2007 event; however, these instructions were overlooked by Blaine Tech Services. Wells MW-6 and MW-9, and later MW-5, were used for background comparison counts. Plate counts were conducted for aerobic bacteria with speciation for gasoline / diesel hydrocarbon degraders by Method 9215A (HPC) and Modified SM 9215B at CytoCulture International, Inc., (CytoCulture) of Pt. Richmond, California. Copies of the laboratory reports from CytoCulture are attached as Appendix C.

A review of the total number of hydrocarbon degrading bacteria, and the ratio (as a percentage) of hydrocarbon degrading bacteria to total heterotrophic bacteria is instructive (Table VII). The ratio for upgradient well MW-5 indicates it has the lowest percentage of hydrocarbon degrading bacteria, as would be expected in a presumably un-impacted area of the site (only trace concentrations of MTBE have been detected in this well). Lateral and downgradient wells MW-6 and MW-9, respectively, have low total concentrations of hydrocarbon degrading bacteria, but the bacteria are a relatively large percentage of the total heterotrophs. This suggests that there has been a preference for hydrocarbon degrading bacteria to grow at these locations in comparison to total heterotrophic bacteria. In April 2007, plume core wells MW-1R and MW-2 have a higher number of hydrocarbon degrading bacteria at roughly the same number of total heterotrophs (1,000 to 3,000 colony forming units), in comparison to wells MW-6 and MW-9. In comparison to the April 2007 plate count, the plate count for the August 2007 sampling of MW-1R, conducted after the first two rounds of RegenOx injection, suggest that the RegenOx did not disinfect the subsurface, but may have allowed the preferential growth of non-hydrocarbon degrading bacteria (as total heterotrophs). While of potential concern, the total number of hydrocarbon degraders also rose after the two injection rounds; consequently it was not believed that bio-augmentation was warranted beneath the site.

3.5 Interim Soil Monitoring

Other than through the installation of GP-10 and GP-11 in association with the first round of RegenOx injection, interim soil monitoring has not been conducted at the site. Principally this has been due to the extended monitoring of groundwater concentrations after modifications in the approach for the RegenOx injections were required, the inability to ultimately inject the full amount of RegenOx specified, and the generally consistent decreases in groundwater concentrations observed over time.

Interim soil monitoring was originally planned to be conducted at the same time as the injection bores for the ORC Advanced compound. As planned a mixture of ORC Advanced and bionutrients would stimulate bacterial activity in groundwater outside the vicinity of the former tank excavations. The mixture was planned to be injected in a series of strategically placed boreholes (Figure 2) approximately 2 to 4 weeks after the final RegenOx injection. Because groundwater concentrations have continued to decline and the extent of impacted groundwater is well documented to be minimal, the need for the injection of ORC Advanced was reevaluated.

4.0 Recent Groundwater Sample Analytical Trends

Since the first quarter of 2007, before the three RegenOx injection mobilizations, groundwater monitoring and sampling has been conducted on a quarterly basis. The most recent event occurred in November 2008. A full discussion of the data generated during that event can be found in the report entitled *Fourth Quarter 2008 Groundwater Monitoring Event*, dated December 15, 2008.

A graphical analysis of historic groundwater elevations and concentrations through time that incorporate the November 2008 data indicate that at well MW-3 prior to remedial injections, a rise in the groundwater elevation generally resulted in an increase in groundwater concentrations; likely indicating that rising groundwater was encountering impacted soil at a higher level (i.e. a smear zone; Figures 4 and 5). The analysis is less straight forward in well pair MW-1 / MW-1R, but the graphs tend to suggest that as groundwater drops in elevation groundwater concentrations rise, possibly indicating drainage from soil to groundwater after a drop (i.e. residual free phase in granular pockets; Figures 6 and 7). For consistency, all groundwater elevations in these figures utilized the GeoTracker wellhead survey elevations to determine the groundwater elevation.

Data from well MW-3 for the most recent quarter are consistent with the historical trend, and with the exception of benzene, concentrations are below all regulatory goals. An analysis of Figures 4 and 5 indicates that generally TPH as gasoline and benzene concentrations in well MW-3 can be divided into three broad time periods; higher concentrations prior to the introduction of hydrogen peroxide in March 2001 (with likely mobilization of contamination from soil to groundwater documented in the April 2001 sampling event), followed by generally lower concentrations from April 2001 to roughly February 2007, a rapid rise in groundwater concentrations during the period of RegenOx injection (through August 2007), and a subsequent and substantial decline of concentrations to levels below, or marginally over, the limits of detection for three quarters (since the May 2008 sampling event).

Data from the most recent quarter for well pair MW-1 / MW-1R is also consistent with historical trends; a rise in groundwater elevation is accompanied by a decrease in groundwater concentrations (Figures 6 and 7). As with well MW-3, a similar time division of contaminant concentrations in well pair MW-1 / MW-1R can also be observed; however, with a complication, which results in a less clear picture. Higher concentrations are present prior to the introduction

of hydrogen peroxide in March 2001 (without the clear mobilization of contamination from soil to groundwater in the April 2001 sampling event), followed by generally lower concentrations from April 2001 to roughly June 2005. In May 2006, due to a break in the well casing, well MW-1 was destroyed and was replaced with well MW-1R (the placement of well MW-1R was severely limited). Concentrations in well MW-1R decreased relative to well MW-1 (first sampled June 2006), and have remained lower, except for a sharp spike between August and November 2007, most likely associated with the injection of RegenOx. Concentrations of TPH as gasoline and benzene have decreased substantially since the injections. A sharp decline in groundwater levels last quarter is notable as it was also accompanied with lower contaminant concentrations and suggests decreasing residual soil concentrations.

Recent data from MW-1R suggest that granular backfill and soil predominately in the vadose zone and in proximity to the 6-inch-diameter gas main located approximately 5 feet to the north of well MW-1R and former MW-1 may be creating a reservoir for hydrocarbons not easily reached.

5.0 Summary and Conclusions

- In-situ Chemical Oxidation using RegenOx in the vicinity of the former UST locations was identified as appropriate remedial technology at the site, and was to be followed by Enhanced Insitu Biodegradation using injected ORC Advanced and bionutrients.

- Two rounds of RegenOx were calculated by Regenesis to be appropriate for this site, and with the injections to be approximately 2 weeks apart. Each round would consist of ten Geoprobe locations, on 10-foot centers, with the second round of injection points offset 5 feet from the first set.

- An initial test injection of domestic water was conducted to determine the ability of soil to accept the recommended product volume, and to determine injection procedures and tooling. The recommended test injection of 125% of the volume revealed limited resurfacing of water, that the upper and lower portions of the injection zone accepted the volume best, and that the mid-injection zone had more difficulties in accepting the test volume.

- The initial injection of RegenOx resulted in product resurfacing along utility conduits, tank excavation backfill margins, breaks in slope, and poor pavement zones. Sheen and free phase product was notable. Twelve, rather than ten, injection bores were installed as injection procedures were further tested and modified. The additional use of the proprietary compound 'Part D' was employed to retard the rate, and also extend the length, of the reaction between the RegenOx and the residual hydrocarbons.

- Due to the extent of the subsurface reactions, two unplanned Geoprobe bores were installed in the two former UST excavations (one in each) in order to investigate the condition of tank backfill, previously understood to be remediated. In general the soil contained non-detectable to low concentrations of hydrocarbon constituents. In one of the four soil samples, TPH as gasoline and ethylbenzene were over the generic non-drinking water ESL goals.

- Two additional rounds of RegenOx injection bores were subsequently installed, consisting of 24 additional sites of injection. Ultimately, approximately 80% of the planed value of RegenOx was injected into the ground. After each round obvious decreases in sheen and residual free-phase product were observed.

- Interim groundwater monitoring was extended due to modifications in the injection process, lengthening of the rate of reaction due to use of 'Part D', and the inability to fully deliver the specified volume of RegenOx calculated to be required.

- Pre- and post-injection bio-monitoring was specified by Regenesis due to potential sterilizing effects by RegenOx on existing indigenous hydrocarbon degrading bacteria. Consequently a comparison of pre-injection and post-second injection bacterial flora was conducted. The comparison confirmed there had not been a disinfection of the groundwater bacterial flora, that there had been an apparent slight preference in growth of total heterotrophs over the hydrocarbon degrading bacterial population, but that the total number of hydrocarbon degrading bacteria had also increased.

- Graphical analysis of groundwater elevations and concentrations through time indicate that TPH as gasoline and benzene concentrations can be divided into three broad time periods: prior to introduction of hydrogen peroxide in March 2001 (with a concentration spike April 2001), followed by generally lower concentrations between April 2001 to roughly February 2007, followed by another concentration spike due to RegenOx injection (through August 2007), and finally a substantial decline of most contaminants (excluding benzene, or TPP as gasoline in one well) to levels below regulatory concern since the May 2008 sampling event.

- Groundwater contamination at this location appears to be localized and the data indicate that it is principally associated with impacted material predominately in the vadose zone adjacent to the gas main. There is no significant downgradient expression of groundwater contamination in a very mature plume. It is highly unlikely that impacted vadose zone materials adjacent to the gas main can be fully remediated in-place without potential damage to the high pressure main.

- All utility lines in the vicinity have previously been reviewed and are not considered to be conduits or preferential pathways for groundwater flow.

- Abundant underground utility lines and building envelopes tightly constrain access to residual soil contamination beneath the site.

6.0 Recommendations

- The site should be recommended for closure.
- A Soil Management Plan (SMP) should be formulated for the management of residual soil contamination beneath the site should subsurface work be required in the future (building improvements, utility repairs, etc.).
- All groundwater wells should be destroyed after agency approval of the SMP and acceptance of a case closure report by the RWQCB.
- A copy of this report will be forwarded to:

  Ms. Barbara Jakub
  Alameda County Environmental Health Department
  Environmental Protection Division
  1131 Harbor Bay Parkway, Suite 250
  Alameda, CA 94502-6577

Tables

Table I, Summary of Soil Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California								
Well ID	Depth (ft)	Sample Date	Modified EPA Method 8015	EPA Method 8020 or 8021B (mg/Kg)				
			TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Commercial / Industrial Drinking Water ESL, Shallow or Deep Soil [1]			83	0.044	2.9	3.3	2.3	0.023
Commercial / Industrial Non-Drinking Water ESL, Shallow Soil [2]			180	0.27	9.3	4.7	11	8.4
Commercial / Industrial Non-Drinking Water ESL, Deep Soil [3]			180	2.0	9.3	4.7	11	8.4
1	9*	8/24/1990	**350**	**3.5**	**15**	**4.5**	**28**	NA
2	9*	8/24/1990	**4900**	**59**	**260**	**100**	**500**	NA
3	9*	8/24/1990	**780**	**13**	**41**	**13**	**67**	NA
4	9*	8/24/1990	**810**	**16**	**52**	**17**	**87**	NA
Composite 1	N/A	8/24/1990	**1000**	**0.16**	**1.8**	**0.57**	**22**	NA
Composite 2	N/A	8/24/1990	**10**	**0.0071**	**0.032**	**0.037**	**1.1**	NA
Composite 3	N/A	8/24/1990	**440**	**0.1**	**0.59**	**1.7**	**13**	NA
S1	14**	1/15/1991	<0.5	<0.005	**0.0068**	<0.005	**0.0077**	NA
S2	14**	1/15/1991	**2.2**	**0.081**	**0.013**	<0.005	**0.0092**	NA
MW-1	6	6/24/1993	**43**	**0.9**	**0.71**	**0.7**	**3.8**	NA
MW-1	11	6/24/1993	**60**	**2.8**	**2.3**	**3.5**	**10**	NA
MW-2	6	6/24/1993	**260**	**7.9**	**30**	**6.3**	**49**	NA
MW-2	11	6/24/1993	**11**	**0.097**	**0.34**	**0.44**	**1.6**	NA
MW-3	6	6/24/1993	**5**	**0.15**	**0.16**	**0.18**	**0.48**	NA
MW-3	11	6/24/1993	**22**	**0.29**	**2.2**	**0.29**	**5.6**	NA
GP1-6	6	9/27/2004	**2.1** [c]	**0.027**	**0.009**	<0.005	<0.005	<5.0
GP1-15.5	15.5	9/27/2004	**23** [d]	**0.0056**	<0.005	<0.005	**0.07**	<5.0
GP2-11.5	11.5	9/27/2004	**140** [c]	**1.4**	**2**	**2.3**	**6.4**	<0.50
GP3-14.5	14.5	9/27/2004	<1.0	<0.005	<0.005	<0.005	<0.005	<5.0
GP4-11.5	11.5	9/27/2004	**310** [c]	**0.28**	**0.4**	**1.4**	**2.1**	<1.0
GP5-11	11	9/27/2004	**540** [c]	**1.1**	**0.22**	**8.3**	**12**	<0.50
GP5-12.5	12.5	9/27/2004	**23** [c]	**0.13**	**0.03**	**0.24**	**0.62**	<5.0

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Commercial / Industrial Non-Drinking Water ESL, Deep Soil [3]			180	2.0	9.3	4.7	11	8.4
GP6-6	6	9/27/2004	**200** [c]	**0.63**	**0.83**	**3.3**	**12**	<1.0
GP6-11.5	11.5	9/27/2004	**390** [c]	**0.63**	**0.56**	**4.5**	**18**	<1.0
GP7-2.5	2.5	9/27/2004	**2.7** [c]	**0.028**	<0.005	<0.005	**0.018**	<5.0
GP7-11.5	11.5	9/27/2004	<1.0	<0.005	<0.005	<0.005	<0.005	<5.0
GP8-6.5	6.5	9/27/2004	**170** [c]	**1.8**	**2.5**	**3.2**	**10**	<0.50
GP8-11.5	11.5	9/27/2004	**32** [c]	**0.27**	**1.1**	**0.44**	**2.2**	<0.50
GP9-11.5	11.5	9/27/2004	**120** [c]	**0.2**	**0.32**	**1.3**	**5.3**	<0.50
GP9-15.5	15.5	9/27/2004	**40** [d]	**0.011**	**0.037**	**0.066**	**0.3**	<5.0
MW5-10.5	10.5	5/8/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW6-5.5	5.5	5/8/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW6-13.5	13.5	5/8/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW1R-7	7	5/9/2006	**450** [c]	**4.8**	**18**	**8.2**	**45**	<10
MW1R-13.5	13.5	5/9/2006	**60** [c, d]	**0.34**	**1.8**	**0.73**	**3.3**	<0.35
MW4-14.5	14.5	5/9/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW7-14	14	6/2/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW8-15	15	6/2/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
MW-9-16	16	6/2/2006	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
GP10-7.5	7.5	6/7/2007	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
GP10-11.5	11.5	6/7/2007	**450** [c, d]	**0.82**	**1.3**	**5.1**	**2.2**	<1.0
GP10-15.5	15.5	6/7/2007	**1.7** [d]	<0.005	<0.005	<0.005	<0.005	<0.05
GP11-11.5	11.5	6/7/2007	**37** [c]	**0.24**	**0.079**	**0.81**	**0.48**	<0.10
GP11-15.5 (Up arrow)	15.5	6/7/2007	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
GP11-15.5 (No arrow)	15.75	6/7/2007	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05

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Commercial / Industrial Non-Drinking Water ESL, Deep Soil [3]			180	2.0	9.3	4.7	11	8.4

Notes:

ft = feet
mg/Kg = Milligrams per kilogram
TPH = Total Petroleum Hydrocarbons
MTBE = Methyl *tert* -Butyl Ether
RWQCB = California Regional Water Quality Control Board, San Francisco Bay Region
ESL = Environmental Screening Level

[1] = From Table A or C; RWQCB Environmental Screening Levels (ESLs); **Shallow or Deep Soils (<3m)**; Commercial/Industrial Land Use; Groundwater IS a Current or Potential Source of Drinking Water; May 2008 revision.

[2] = From Table B; RWQCB Environmental Screening Levels (ESLs); **Shallow Soils (<3m)**; Commercial/Industrial Land Use; Groundwater IS NOT a Current or Potential Source of Drinking Water; May 2008 revision.

[3] = From Table D; RWQCB Environmental Screening Levels (ESLs); **Deep Soils (>3m)**; Commercial/Industrial Land Use; Groundwater IS NOT a Current or Potential Source of Drinking Water; May 2008 revision.

NA = Not analyzed
RBSL = Risk Based Screening Level
<*x* = Analyte not detected at reporting limit *x*
* = Assumed to be bottom samples.
** = Bottom samples (per Tank Protect Engineering Preliminary Site Assessment Report, dated December 15, 1993).
[a] = Laboratory note indicates the result is a hydrocarbon within the diesel range but that it appears to be the less volatile constituents of gasoline.
[b] = Also detected "High Point Hydrocarbons" calculated as oil at 300 mg/kg, and Oil and Grease at 80 mg/kg.
[c] = Laboratory note indicates unmodified or weakly modified gasoline is significant.
[d] = Laboratory note indicates no recognizable pattern..

Bold results indicate detectable analyte concentrations.
Note: Shaded cell indicates that detected concentration exceeds *Non-Drinking Water* ESL.

Table II, Summary of Groundwater Elevation Measurements BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-1	8/6/1993	18.72	8.96	9.76
	1/12/1996		8.55	10.17
	4/16/1996		7.65	11.07
	7/15/1996		8.76	9.96
	10/16/1996		9.04	9.68
	12/15/1998		8.38	10.34
	1/18/2001		8.49	10.23
	4/25/2001		8.24	10.48
	3/17/03*		8.08	10.64
	6/23/2003		8.63	10.09
	9/18/2003		8.90	9.82
	12/15/2003		8.15	10.57
	6/15/2004		8.67	10.05
	12/15/2004		7.99	10.73
	6/29/2005		7.88	10.84
	5/8/2006	21.70	Destroyed	Destroyed
	2/19/2007		Destroyed	Destroyed
	6/21/2007		Destroyed	Destroyed
	11/8/2007		Destroyed	Destroyed
	2/28/2008		Destroyed	Destroyed
	5/29/2008		Destroyed	Destroyed
	8/27/2008		Destroyed	Destroyed
	11/25/2008		Destroyed	Destroyed
MW-1R	6/12/2006	21.73	8.49	13.24
	2/19/2007		7.94	13.79
	6/21/2007		8.71	13.02
	8/9/2007		8.83	12.90
	11/8/2007		9.80	11.93
	2/28/2008		8.74	12.99
	5/29/2008		8.76	12.97
	8/27/2008		9.02	12.71
	11/25/2008		8.73	13.00

Table II, Summary of Groundwater Elevation Measurements BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-2	8/6/1993	18.44	8.68	9.76
	1/12/1996		8.24	10.20
	4/16/1996		7.41	11.03
	7/15/1996		8.45	9.99
	10/16/1996		8.73	9.71
	12/15/1998		8.05	10.39
	1/18/2001		8.24	10.20
	4/25/2001		7.88	10.56
	3/17/03*		7.08	11.36
	6/23/2003		8.90	9.54
	9/18/2003		8.61	9.83
	12/15/2003		7.97	10.47
	6/15/2004		8.42	10.02
	12/15/2004		8.00	10.44
	6/29/2005		9.51	8.93
	6/12/2006	21.45	8.25	13.20
	2/19/2007		8.12	13.33
	6/21/2007		9.00	12.45
	8/9/2007		8.62	12.83
	11/8/2007		8.60	12.85
	2/28/2008		7.20	14.25
	5/29/2008		8.55	12.90
	8/27/2008		8.76	12.69
	11/25/2008		8.63	12.82

Table II, Summary of Groundwater Elevation Measurements BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-3	8/6/1993	19.01	9.07	9.94
	1/12/1996		8.65	10.36
	4/16/1996		7.82	11.19
	7/15/1996		8.88	10.13
	10/16/1996		9.16	9.85
	12/15/1998		8.45	10.56
	1/18/2001		8.57	10.44
	4/25/2001		8.29	10.72
	3/17/03*		8.50	10.51
	6/23/2003		9.05	9.96
	9/18/2003		9.11	9.90
	12/15/2003		8.03	10.98
	6/15/2004		8.85	10.16
	12/15/2004		8.84	10.17
	6/29/2005		9.00	10.01
	6/12/2006	22.02	8.62	13.40
	2/19/2007		8.12	13.90
	6/21/2007		9.86	12.16
	8/9/2007		9.60	12.42
	11/8/2007		8.83	13.19
	2/28/2008		7.99	14.03
	5/29/2008		8.57	13.45
	8/27/2008		9.60	12.42
	11/25/2008		9.02	13.00
MW-4	6/12/2006	21.34	8.37	12.97
	2/19/2007		7.77	13.57
	6/21/2007		8.48	12.86
	11/8/2007		8.61	12.73
	2/28/2008		7.73	13.61
	5/29/2008		8.39	12.95
	8/27/2008		8.76	12.58
	11/25/2008		8.54	12.80

Table II, Summary of Groundwater Elevation Measurements BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-5	6/12/2006	22.53	8.75	13.78
	2/19/2007		8.61	13.92
	6/21/2007		9.05	13.48
	8/9/2007		9.17	13.36
	11/8/2007		9.11	13.42
	2/28/2008		8.18	14.35
	5/29/2008		9.06	13.47
	8/27/2008		9.31	13.22
	11/25/2008		9.03	13.50
MW-6	6/12/2006	21.97	8.59	13.38
	2/19/2007		7.93	14.04
	6/21/2007		9.83	12.14
	11/8/2007		9.58	12.39
	2/28/2008		9.90	12.07
	5/29/2008		8.50	13.47
	8/27/2008		9.52	12.45
	11/25/2008		8.80	13.17
MW-7	6/12/2006	21.21	8.31	12.90
	2/19/2007		7.85	13.36
	6/21/2007		8.51	12.70
	11/8/2007		8.68	12.53
	2/28/2008		7.81	13.40
	5/29/2008		8.60	12.61
	8/27/2008		8.72	12.49
	11/25/2008		8.70	12.51
MW-8	6/12/2006	20.97	8.37	12.60
	2/19/2007		7.99	12.98
	6/21/2007		8.53	12.44
	11/8/2007		8.61	12.36
	2/28/2008		7.79	13.18
	5/29/2008		8.61	12.36
	8/27/2008		8.76	12.21
	11/25/2008		8.56	12.41

Table II, Summary of Groundwater Elevation Measurements BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-9	6/12/2006	20.98	8.50	12.48
	2/19/2007		8.08	12.90
	6/21/2007		8.55	12.43
	11/8/2007		8.67	12.31
	2/28/2008		8.02	12.96
	5/29/2008		8.51	12.47
	8/27/2008		8.81	12.17
	11/25/2008		8.64	12.34

Notes:

TOC = Top of Casing

* = Initial data set collected under direction of Blymyer Engineers, Inc.

NM = Not measured

[1] = Resurveyed on February 7, or June 22, 2006 by CSS Environmental Services, In

Elevations in feet above mean sea level

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800
MW-1	8/6/1993	**17,000**	**7.1**	**8.4**	**9.2**	**53**	NA
	1/12/1996	**12,000**	**1,900**	**840**	**370**	**1,100**	NA
	4/16/1996	**3,500**	**700**	**55**	**100**	**180**	NA
	7/15/1996	**11,000**	**2,300**	**450**	**350**	**910**	NA
	10/16/1996	**21,000**	**4,200**	**2,200**	**650**	**2,600**	NA
	12/15/1998	**10,000**	**1,800**	**520**	**270**	**1,100**	<350
	1/18/2001	**11,000** [a]	**2,000**	**320**	**320**	**1,100**	<120
	4/25/2001	**2,100** [a, c]	**270**	**46**	**59**	**130**	<5.0
	3/17/2003*	**2,200** [a]	**260**	**19**	**36**	**54**	NA [d]
	6/23/2003	**6,100** [a]	**930**	**53**	**99**	**200**	NA
	9/18/2003	**3,800** [a]	**660**	**13**	**24**	**34**	NA
	12/15/2003	**260** [a]	**19**	**1.1**	<0.5	**1.5**	NA
	6/15/2004	**5,200** [a]	**520**	**13**	**38**	**39**	<50
	12/15/2004	**2,400** [a]	**370**	**8.2**	**13**	**14**	<15
	6/29/2005	**5,500** [a]	**750**	**27**	**94**	**140**	<100
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/19/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	6/21/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/28/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	5/29/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	8/27/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/25/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800
MW-1R	6/13/2006	**90** [a]	**24**	<0.5	<0.5	**1.9**	**7.0**
	2/19/2007	**200** [a]	**8**	**0.80**	**12**	**8.7**	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/9/2007	**870** [a]	**140**	**6.3**	**23**	**22**	<10
	11/8/2007	**3,800** [a]	**330**	**22**	**140**	**130**	<30
	2/28/2008	**150** [a]	**5.5**	<0.5	**3.9**	**2.2**	<5.0
	5/29/2008	**690** [a]	**44**	**2**	**35**	**7.8**	<5.0
	8/27/2008	**190** [a]	**14**	<0.5	**8.1**	**1.5**	<5.0
	11/25/2008	**130** [a]	**11**	<0.5	**10**	**1.5**	<5.0

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800
MW-2	8/6/1993	**2,700**	**1.3**	**1.7**	**2.0**	**8.1**	NA
	1/12/1996	**2,700**	**600**	**310**	**94**	**220**	NA
	4/16/1996	**190**	**39**	**11**	**10**	**14**	NA
	7/15/1996	**700**	**160**	**33**	**34**	**48**	NA
	10/16/1996	**190**	**48**	**8.2**	**10**	**13**	NA
	12/15/1998	**200**	**62**	**17**	**4.9**	**14**	**4.4** [b]
	1/18/2001	**300** [a]	**74**	**26**	**7.3**	**21**	**7.3**
	4/25/2001	<50 [c]	**4.5**	**2.2**	**0.6**	**1.9**	<5.0
	3/17/2003*	**78** [a]	**26**	**3.3**	**1.5**	**3.5**	NA [d]
	6/23/2003	**160** [a]	**51**	**1.6**	**1.2**	**1.8**	NA
	9/18/2003	<50	**2.1**	**<0.5**	**<0.5**	**<0.5**	NA
	12/15/2003	<50	**12**	<0.5	**<0.5**	**<0.5**	NA
	6/15/2004	**95** [a]	**15**	**1.3**	**1.8**	**1.2**	<30
	12/15/2004	**<50**	**11**	**0.97**	**0.6**	**0.9**	**7.8**
	6/29/2005	**130**	**29**	**2.0**	**3.3**	**3.4**	**6.7**
	6/13/2006	**150** [a]	**59**	**3.0**	**3.4**	**2.7**	**11**
	2/19/2007	**51** [a]	**8**	**1.6**	**1.0**	**2.8**	**7.1**
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/9/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	**160** [a]	**23**	**5.0**	**5.3**	**14**	<10
	2/28/2008	<50	**1.3**	<0.5	<0.5	<0.5	<5.0
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/27/2008	<50	**1.1**	<0.5	<0.5	<0.5	<5.0
	11/25/2008	<50	**1.2**	<0.5	<0.5	<0.5	<5.0

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800
MW-3	8/6/1993	**5,200**	**2.1**	**2.9**	**3.6**	**17**	NA
	1/12/1996	**4,500**	**280**	**180**	**120**	**470**	NA
	4/16/1996	**5,400**	**370**	**340**	**160**	**580**	NA
	7/15/1996	**1,800**	**200**	**220**	**66**	**250**	NA
	10/16/1996	**2,000**	**340**	**140**	**100**	**300**	NA
	12/15/1998	**1,400**	**200**	**39**	**72**	**150**	<22
	1/18/2001	**1,800** [a]	**240**	**41**	**86**	**120**	<10
	4/25/2001	**8,300** [a, c]	**300**	**330**	**200**	**1,100**	<20
	3/17/2003*	**2,100** [a]	**240**	**78**	**10**	**280**	NA [d]
	6/23/2003	<50	**2.5**	**0.6**	**0.69**	**1.4**	NA
	9/18/2003	<50	<0.5	<0.5	<0.5	<0.5	NA
	12/15/2003	**2,400**	**300**	**120**	**140**	**260**	NA
	6/15/2004	<50	**1.1**	<0.5	<0.5	<0.5	**6.2**
	12/15/2004	**1,600** [a]	**140**	**83**	**83**	**230**	<15
	6/29/2005	**230** [a]	**27**	**6.1**	**7.2**	**15**	<15
	6/13/2006	**68** [a]	**3.1**	**1.8**	<0.5	<0.5	<5.0
	2/19/2007	**280** [a]	**49**	**11**	**18**	**23**	<5.0
	6/21/2007	**1,500** [a]	**120**	**64**	**62**	**250**	<50
	8/9/2007	**2,400** [a]	**140**	**19**	**100**	**110**	<65
	11/8/2007	**440** [a]	**7.2**	**3.3**	**8.6**	**26**	<15
	2/28/2008	**320** [a]	**10**	**5.8**	**9.6**	**32**	<12
	5/29/2008	<50	**1.0**	<0.5	<0.5	<0.5	<5.0
	8/27/2008	<50	**1.3**	<0.5	<0.5	<0.5	<5.0
	11/25/2008	**61** [a]	**4.8**	**0.56**	**1.1**	**1.5**	<5.0

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California								
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)					
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	
MCL		N/A	1	150	700	1,750	13	
Drinking Water Source [1]		100	1	40	30	20	5	
Non-Drinking Water Source [2]		210	46	130	43	100	1,800	
MW-4	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	**5.7**	
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.9**	
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-5	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.6**	
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.4**	
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-6	6/13/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800
MW-7	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-8	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-9	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	**5.6**
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.6**
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	5/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/27/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/25/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0

Table III, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		210	46	130	43	100	1,800

Notes:

ug/L = micrograms per liter

TPH = Total Petroleum Hydrocarbons

EPA = Environmental Protection Agency

MTBE = Methyl *tert*-Butyl Ether

[1] = From Table A; RWQCB Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water; May 2008 Update

[2] = From Table B; RWQCB Environmental Screening Levels (ESLs); Groundwater IS NOT a Current or Potential Source of Drinking Water; May 2008 Update

RWQCB = California Regional Water Quality Control Board, San Francisco Bay Region

ESL = Environmental Screening Level

N/A = Not applicable

NA = Not analyzed

RBSL = Risk Based Screening Level

<x = Analyte not detected at reporting limit *x*

* = Initial data set collected under direction of Blymyer Engineers, Inc.

[a] = Laboratory note indicates the unmodified or weakly modified gasoline is significant.

[b] = Confirmed with EPA Method 8260.

[c] = Groundwater samples for MW-1 and MW-3 suspected to have been switched (mismarked) in field. First collection of groundwater samples after application of Hydrogen Peroxide on March 7, 2001.

[d] = Analysis conducted by EPA Method 8260. See Table III.

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds *Non-Drinking Water* ESL

Table IV, Summary of Groundwater Sample Fuel Oxygenate Analytical Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	EPA Method 8260B (ug/L)								
		TAME	TBA	EBD	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	MTBE
Drinking Water Source [1]		NV	12	0.05	0.5	NV	NV	NV	NV	5
Non-Drinking Water Source [2]		NV	18,000	150	200	NV	NV	NV	NV	1,800
MW-1	3/17/2003	**8.3**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**10.0**
	6/23/2003	**6.4**	<25	NA	NA	<2.5	NA	<2.5	NA	**8.0**
	9/18/2003	**5.3**	<25	NA	NA	<2.5	NA	<2.5	NA	**8.5**
	12/15/03[3]	**9.0**	<5.0	NA	NA	<0.5	NA	<0.5	NA	**12.0**
MW-2	3/17/2003	**2.1**	**6.0**	NA	NA	<0.50	NA	<0.50	NA	**13.0**
	6/23/2003	**4.5**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**11.0**
	9/18/2003	**0.7**	<25	NA	NA	<2.5	NA	<2.5	NA	**5.0**
	12/15/03[3]	**3.2**	**5.2**	NA	NA	<0.5	NA	<0.5	NA	**13.0**
	6/13/2006	**4.5**	**6.5**	<5.0	<5.0	<5.0	<50	<0.5	<500	**7.6**
MW-3	3/17/2003	**4.3**	**8.6**	NA	NA	<0.50	NA	<0.50	NA	**10.0**
	6/23/2003	**2.6**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**5.6**
	9/18/2003	**3.6**	<25	NA	NA	<2.5	NA	<2.5	NA	**10.0**
	12/15/03[3]	**2.7**	<5.0	NA	NA	<0.5	NA	<0.5	NA	**13.0**

Table IV, Summary of Groundwater Sample Fuel Oxygenate Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California										
Well ID	Sample Date	EPA Method 8260B (ug/L)								
		TAME	TBA	EBD	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	MTBE
Drinking Water Source [1]		NV	12	0.05	0.5	NV	NV	NV	NV	5
Non-Drinking Water Source [2]		NV	18,000	150	200	NV	NV	NV	NV	1,800
MW-4	6/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	**6.1**

Notes:

TAME = Methyl tert-Amyl Ether
TBA = tert-Butyl Alcohol
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
MTBE = Methly tert-butyl ether
(µg/L) = Micrograms per liter
NV = No value
NA = Not analyzed

[1] = From Table A; Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water

[2] = From Table B; RWQCB Environmental Screening Levels (ESLs); Groundwater IS NOT a Current or Potential Source of Drinking Water

[3] = In general after this date, fuel oxygenates were monitored using MTBE detected by EPA Method 8020B, as a proxy for the approximate concentration of the remaining fuel oxygenates.

Bold results indicate detectable analyte concentrations.
Note: Shaded cell indicates that detected concentration exceeds *Non-Drinking Water* ESL

Table V, Summary of Groundwater Intrinsic Bioremediation Field Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California						
Well ID	Sample Date	Field Meter Dissoved Oxygen (mg/L)	Field Meter Oxidation Reduction Potential (mV)	Field Test Kit Ferrous Iron (Fe 2+)	Field Meter Field Temperature (o F / o C)	Field Meter Field pH pH units
MW-1	3/17/2003	NA	NA	NA	60.4 / 60.0 *	7.1 / 7.3
	6/23/2003	0.4	NA	NA	61.0 / 61.0 *	6.9 / 6.9
	9/18/2003	0.4	NA	NA	65.1 / 62.9 *	7.1 / 6.9
	12/15/2003	1.1	NA	NA	13.1 / 13.4	6.8 / 6.7
	6/15/2004	0.1	NA	NA	64.5 / 63.4 *	6.9 / 7.0
	12/15/2004	NA	NA	NA	15.4 / 17.5	7.0 / 6.9
	6/29/2005	0.24 / 0.17	1.0	4.5	19.78 / 21.63	7.15 / 7.08
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/19/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	6/21/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/28/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	5/29/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	8/27/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/25/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
MW-1R	6/13/2006	0.87 / 0.37	172.9 / 172.9	0 / 0	17.31 / 17.36	6.90 / 6.92
	2/19/2007	0.48	8.0	NA	12.2 / 15.8	6.95 / 6.86
	6/21/2007	0.62	22.0	NA	19.6	7.1
	11/8/2007	0.3	-60	NA	64.4	6.9
	2/28/2008	0.28	156	0.0	63.2	6.98
	5/29/2008	0.72	97	0.6	17.3	7.12
	8/27/2008	0.18	65	0.0	66.2	6.8
	11/25/2008	0.17	-38	0.4	18.3	7.05

Table V, Summary of Groundwater Intrinsic Bioremediation Field Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California						
Well ID	Sample Date	Field Meter Dissoved Oxygen (mg/L)	Field Meter Oxidation Reduction Potential (mV)	Field Test Kit Ferrous Iron (Fe 2+)	Field Meter Field Temperature (o F / o C)	Field Meter Field pH pH units
MW-2	3/17/2003	NA	NA	NA	66.0 / 64.2 *	7.4 / 7.9
	6/23/2003	0.6	NA	NA	62.1 / 61.8 *	6.8 / 7.1
	9/18/2003	1.3	NA	NA	66.7 / 63.7 *	6.7 / 6.9
	12/15/2003	1.6	NA	NA	13.2 / 13.4	6.6 / 6.6
	6/15/2004	0.1	NA	NA	64.5 / 65.0 *	6.3 / 7.1
	12/15/2004	NA	NA	NA	16.9 / 17.0	7.1 / 7.1
	6/29/2005	0.19 / 0.24	0.7	0.7	18.58 / 21.18	7.12 / 7.13
	6/13/2006	0.80 / 0.42	168.0 / 168.0	0 / 0	17.49 / 17.70	6.97 / 6.98
	2/19/2007	0.2	80	NA	13.6 / 16.3	7.24 / 7.06
	6/21/2007	0.18	46	NA	18.3	7.1
	11/8/2007	0.4	209	NA	64.0	7.07
	2/28/2008	0.29	191	0.0	63.1	6.98
	5/29/2008	1.53	212	0.0	17.8	7.18
	8/27/2008	0.14	202	0.0	72.1	6.56
	11/25/2008	0.12	96	0.0	18.4	7.03
MW-3	3/17/2003	NA	NA	NA	63.3 / 60.9 *	7.4 / 7.6
	6/23/2003	0.7	NA	NA	66.4 / 66.9 *	7.3 / 7.2
	9/18/2003	0.4	NA	NA	63.7 / 62.6 *	7.1 / 7.1
	12/15/2003	1.6	NA	NA	14.7 / 15.1	6.5 / 6.4
	6/15/2004	0.0	NA	NA	63.1 / 62.3 *	7.5 / 7.1
	12/15/2004	NA	NA	NA	15.4 / 16.7	7.2 / 7.0
	6/29/2005	0.72 / 0.78	141.7 / -67.6	0.9	17.65 / 18.79	6.94 / 7.02
	6/13/2006	1.01 / 0.41	170.0 / 168.5	0 / 0	17.30 / 17.15	7.02 / 6.98
	2/19/2007	0.08	81	NA	13.7 / 15.6	7.10 / 6.95
	6/21/2007	0.10	39	NA	18.1	7.2
	11/8/2007	0.30	-30	NA	62.5	7.04
	2/28/2008	0.32	132	0.0	61.2	5.45
	5/29/2008	0.77	186	0.6	16.3	7.19
	8/27/2008	0.15	128	0.0	65.7	7.08
	11/25/2008	0.11	-40	0.0	17.8	7.05

Table V, Summary of Groundwater Intrinsic Bioremediation Field Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California						
Well ID	Sample Date	Field Meter Dissoved Oxygen (mg/L)	Field Meter Oxidation Reduction Potential (mV)	Field Test Kit Ferrous Iron (Fe 2+)	Field Meter Field Temperature (o F / o C)	Field Meter Field pH pH units
MW-4	6/12/2006	0.67 / 0.33	164.3 / 161.0	0.5 / 0	16.90 / 16.79	6.82 / 6.79
	2/19/2007	0.21	98	NA	13.7 / 15.0	7.14 / 7.03
	6/21/2007	0.31	118	NA	16.4	7.0
	11/8/2007	0.30	222	NA	62.7	6.96
	2/28/2008	0.28	173	0.0	61.6	7.01
	5/29/2008	1.07	228	0.0	16.2	6.81
	8/27/2008	0.20	217	0.0	72.7	6.83
	11/25/2008	0.11	153	0.1	17.6	6.95
MW-5	6/12/2006	0.61 / 0.31	175.2 / 169.0	0 / 0	18.40 / 18.01	7.01 / 6.94
	2/19/2007	1.98	-114	NA	12.7 / 14.1	6.93 / 6.73
	6/21/2007	1.23	99	NA	16.8	7.1
	11/8/2007	0.30	211	NA	63.9	6.85
	2/28/2008	0.26	213	0.0	62.6	7.14
	5/29/2008	0.80	249	0.0	16.5	7.18
	8/27/2008	0.11	265	0.0	64.7	6.46
	11/25/2008	0.07	175	0.0	17.8	6.99
MW-6	6/13/2006	3.10 / 0.81	181.2 / 174.8	0 / 0	17.25 / 17.32	6.94 / 6.83
	2/19/2007	0.21	-30	NA	14.6 / 15.6	6.58 / 6.74
	6/21/2007	0.26	102	NA	16.2	7.1
	11/8/2007	0.60	-8	NA	63.5	6.99
	2/28/2008	0.37	212	0.0	60.8	6.93
	5/29/2008	1.75	194	0.0	16.3	7.22
	8/27/2008	0.14	241	0.0	65.0	6.83
	11/25/2008	0.24	220	0.3	17.9	6.90

Table V, Summary of Groundwater Intrinsic Bioremediation Field Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California						
Well ID	Sample Date	Field Meter Dissoved Oxygen (mg/L)	Field Meter Oxidation Reduction Potential (mV)	Field Test Kit Ferrous Iron (Fe 2+)	Field Meter Field Temperature (o F / o C)	Field Meter Field pH pH units
MW-7	6/12/2006	0.59 / 0.27	172.5 / 171.8	0.5 / 0.2	18.14 / 18.00	6.90 / 6.87
	2/19/2007	0.10	110	NA	16.2 / 17.2	7.69 / 7.21
	6/21/2007	0.14	123	NA	17.3	7.0
	11/8/2007	0.30	227	NA	64.5	6.90
	2/28/2008	0.27	142	0.0	64.2	7.00
	5/29/2008	1.47	83	0.0	17.8	7.17
	8/27/2008	0.21	196	0.0	76.1	6.83
	11/25/2008	0.19	206	0.0	18.4	7.07
MW-8	6/12/2006	0.37 / 0.33	186.1 / 180.4	0 / 0	18.55 / 18.39	6.85 / 6.85
	2/19/2007	0.11	102	NA	15.2 / 16.6	7.23 / 7.07
	6/21/2007	0.12	111	NA	17.2	7.1
	11/8/2007	0.30	232	NA	64.3	7.01
	2/28/2008	0.26	206	0.0	63.1	7.08
	5/29/2008	1.23	72	0.0	17.5	7.22
	8/27/2008	0.26	190	0.0	74.8	6.29
	11/25/2008	0.13	212	0.0	19.0	7.03
MW-9	6/12/2006	2.01 / 1.87	206.0 / 191.0	0 / 0	16.88 / 16.91	6.63 / 6.66
	2/19/2007	0.08	101	NA	15.8 / 16.3	7.56 / 7.23
	6/21/2007	0.12	112	NA	16.5	7.1
	11/8/2007	0.40	230	NA	65.1	6.94
	2/28/2008	0.26	208	0.0	62.1	7.01
	5/29/2008	1.44	94	0.0	17.1	7.33
	8/27/2008	0.28	203	0.0	72.2	7.69
	11/25/2008	0.12	123	0.1	18.7	7.01

Notes: mV = Millivolts
mg/L = Milligrams per liter
^{o} F / ^{o} C = degrees Fahrenheit / degrees Centigrade
* = degrees Fahrenheit
2.6 / 2.2 = Initial reading (pre-purge) / Final reading (post-purge)
NA = Not analyzed

Table VI, Summary of Groundwater Intrinsic Bioremediation Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California					
Well ID	Sample Date	Method SM 5310B	Method E300.1		Method RSK 174
		CO_2	Nitrate (as N)	Sulfate	Methane
		mg/L			µg/L
MW-1	6/29/2005	490	<0.1	5	5,900
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed
MW-1R	6/13/2006	290	4.3	46	24
MW-2	6/29/2005	250	4.1	42	68
	6/13/2006	290	3.2	44	45
MW-3	6/29/2005	230	3.5	33	370
	6/13/2006	220	3.5	33	55
MW-4	6/12/2006	260	8.6	44	1.1
MW-5	6/12/2006	240	6.8	45	1.5
MW-6	6/13/2006	290	7.2	50	<0.5
MW-7	6/12/2006	260	6	51	<0.5
MW-8	6/12/2006	330	7.3	46	<0.5
MW-9	6/12/2006	240	8.3	44	1.1

Notes: SM = Standard Method
mg/L = Milligrams per liter
µg/L = Micrograms per liter
CO_2 = Carbon Dioxide

Table VII, Summary of Groundwater Bacteria Enumeration Analytical Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Aerobic Bacteria			
		Method 9215A (HPC) / SM 9215 B Modified			
		Hydrocarbon Degraders	Total Heterotrophs	Ratio	Target Hydrocarbons Tested
		cfu/ml		Percent	
MW-1R	4/27/2007	1,000	1,000	100	Gasoline/Diesel
	8/9/2007	2,000	10,000	20	Gasoline/Diesel
MW-2	4/27/2007	1,000	3,000	33	Gasoline/Diesel
MW-5	8/9/2007	300	3,000	10	Gasoline/Diesel
MW-6	4/27/2007	600	1,000	60	Gasoline/Diesel
MW-9	4/27/2007	200	300	67	Gasoline/Diesel

Notes: SM = Standard Method
cfu/ml = Colony forming units per milliliter

Figures

UNITED STATES GEOLOGICAL SURVEY 7.5' QUADS. "OAKLAND EAST, CA & SAN LEANDRO, CA", BOTH PHOTOREVISED 1981.

BLYMYER ENGINEERS, INC.

BEI JOB NO. 203004

DATE 3-19-03

0 1000 2000

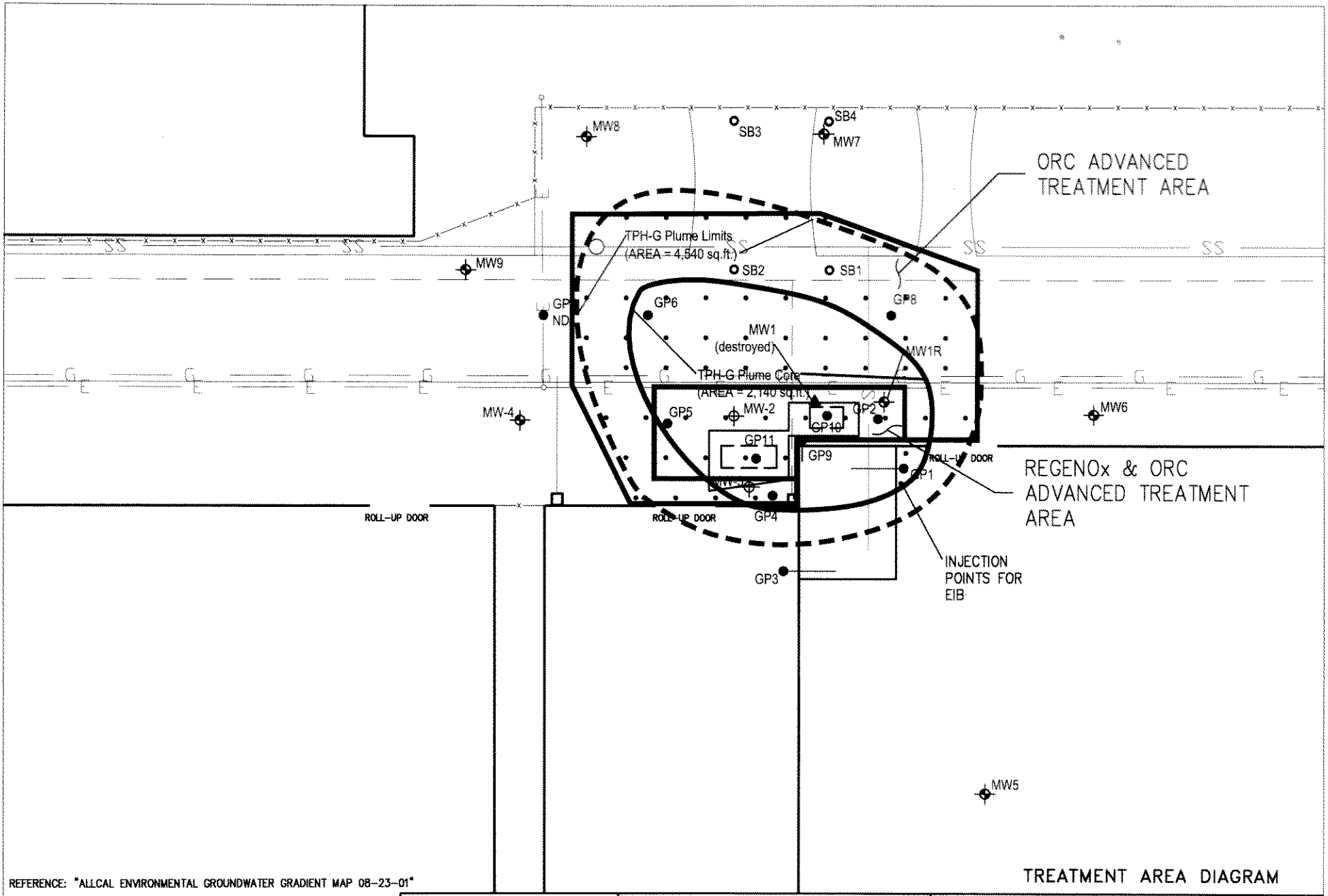
SCALE IN FEET

N

SITE LOCATION MAP

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 1



REFERENCE: "ALLCAL ENVIRONMENTAL GROUNDWATER GRADIENT MAP 08-23-01"

0 25
SCALE IN FEET

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
203004	02-08-07

LEGEND

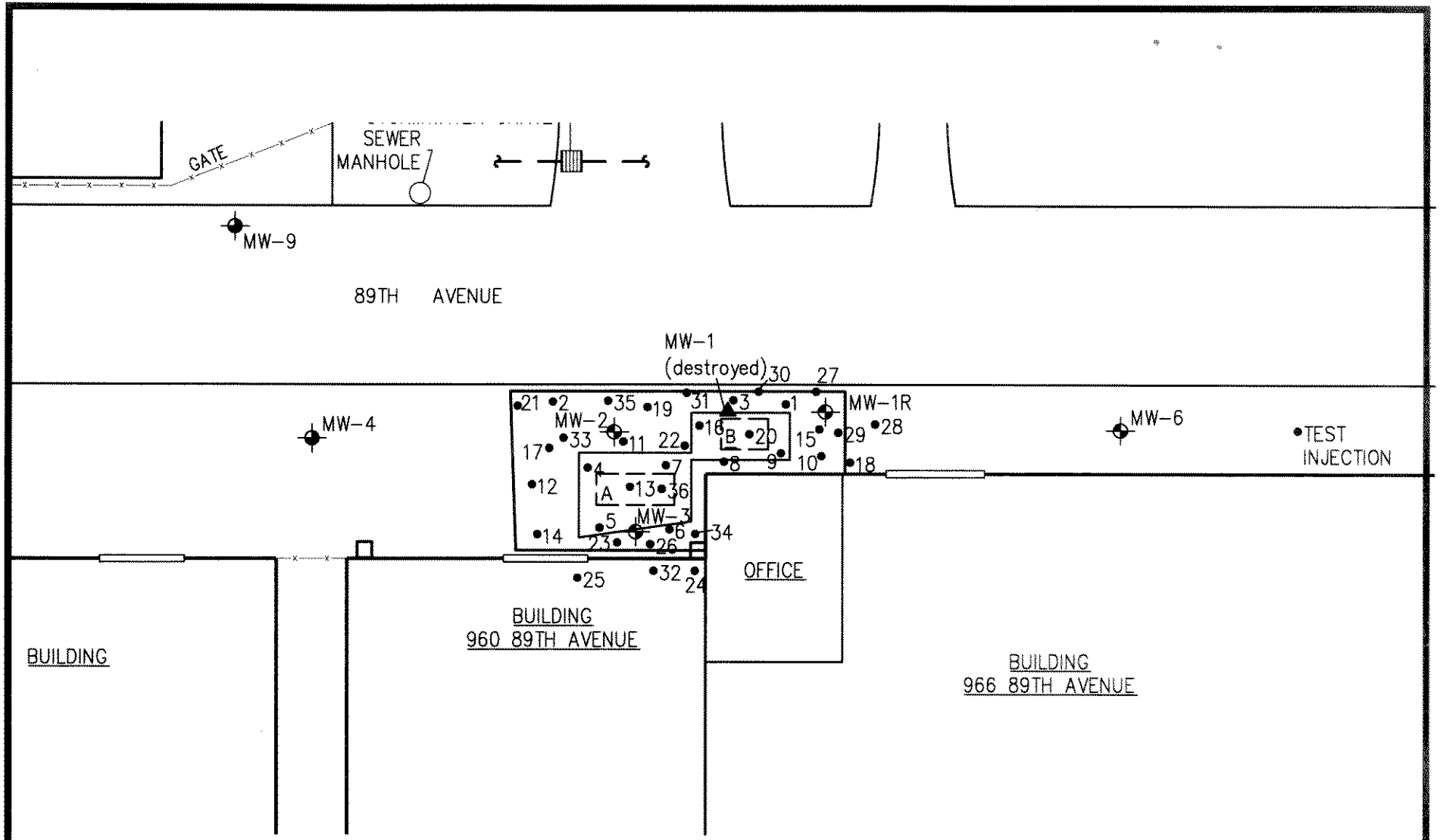
UST	UNDERGROUND STORAGE TANK
NS	NOT SAMPLED
ND	NOT DETECTED
⊕	GROUNDWATER MONITORING WELL
SB4	SOIL BORE (INSTALLED BY ALLCAL)
GP1	SOIL BORE
●	SOIL BORE-ANGLED
⊕	GROUNDWATER MONITORING WELL
▲	DESTROYED GW MONITORING WELL

SITE PLAN, TPH-G PLUME LIMITS WITH ESTIMATED INJECTION POINTS

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE
2

L:\Acad\2003dwg\203004\203004fig2L.dwg February 23, 2009 - 1:45PM LWittstock



A = APPROXIMATE LOCATION OF FORMER 1,000-GAL. GASOLINE UST

B = APPROXIMATE LOCATION OF FORMER 500-GAL. GASOLINE UST

0 20
SCALE IN FEET

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
203004	02-25-09

LEGEND
- UST UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- DESTROYED GW MONITORING WELL
- INJECTION BORE

INJECTION BORE LOCATIONS
FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 3

L:\Acad\2003dwg\203004\203004fig3e.dwg February 25, 2009 - 3:53PM LWittstock

Figure 4: Concentration of Benzene vs. Time in Well MW-3

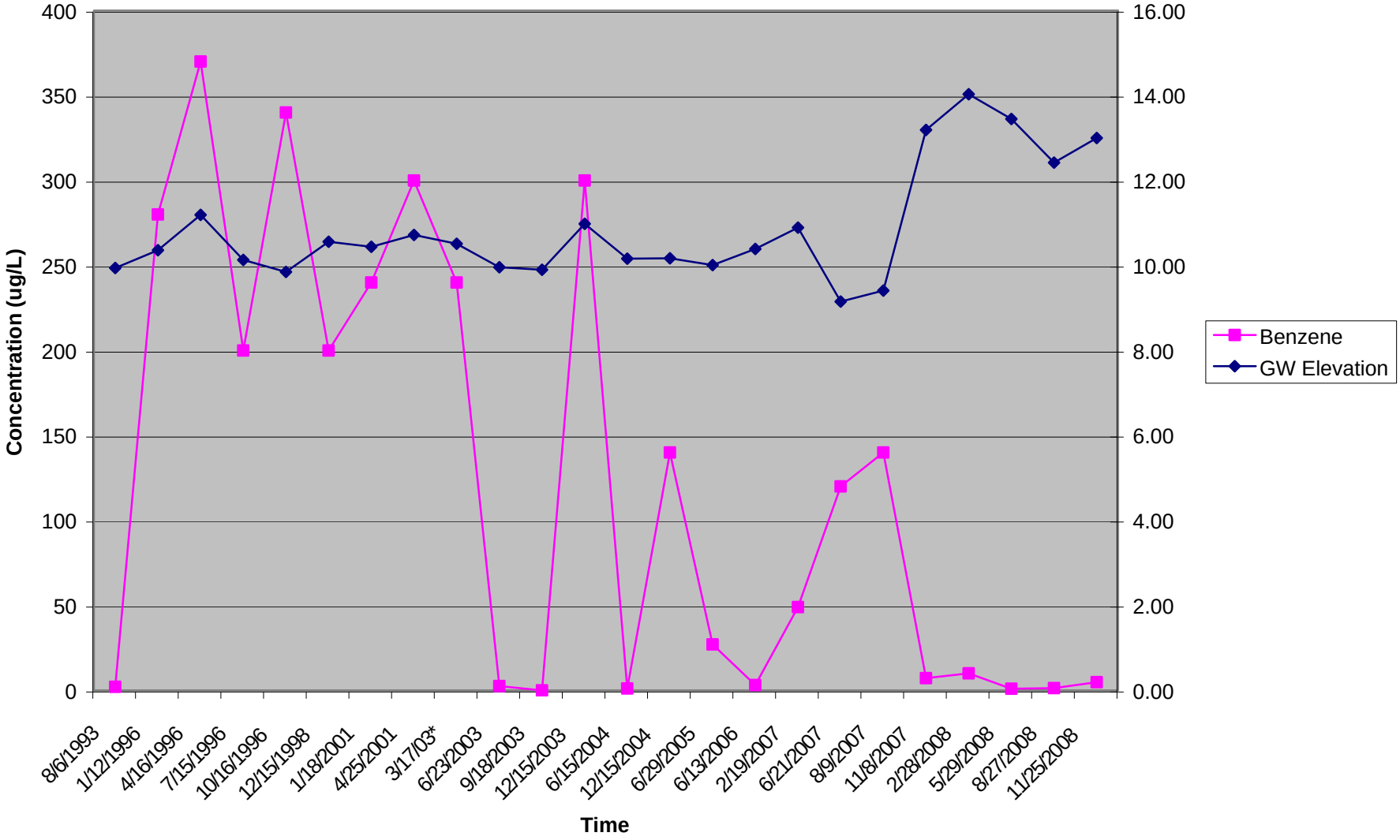


Figure 5: Concentration of TPHG vs. Time in Well MW-1 / MW-1R

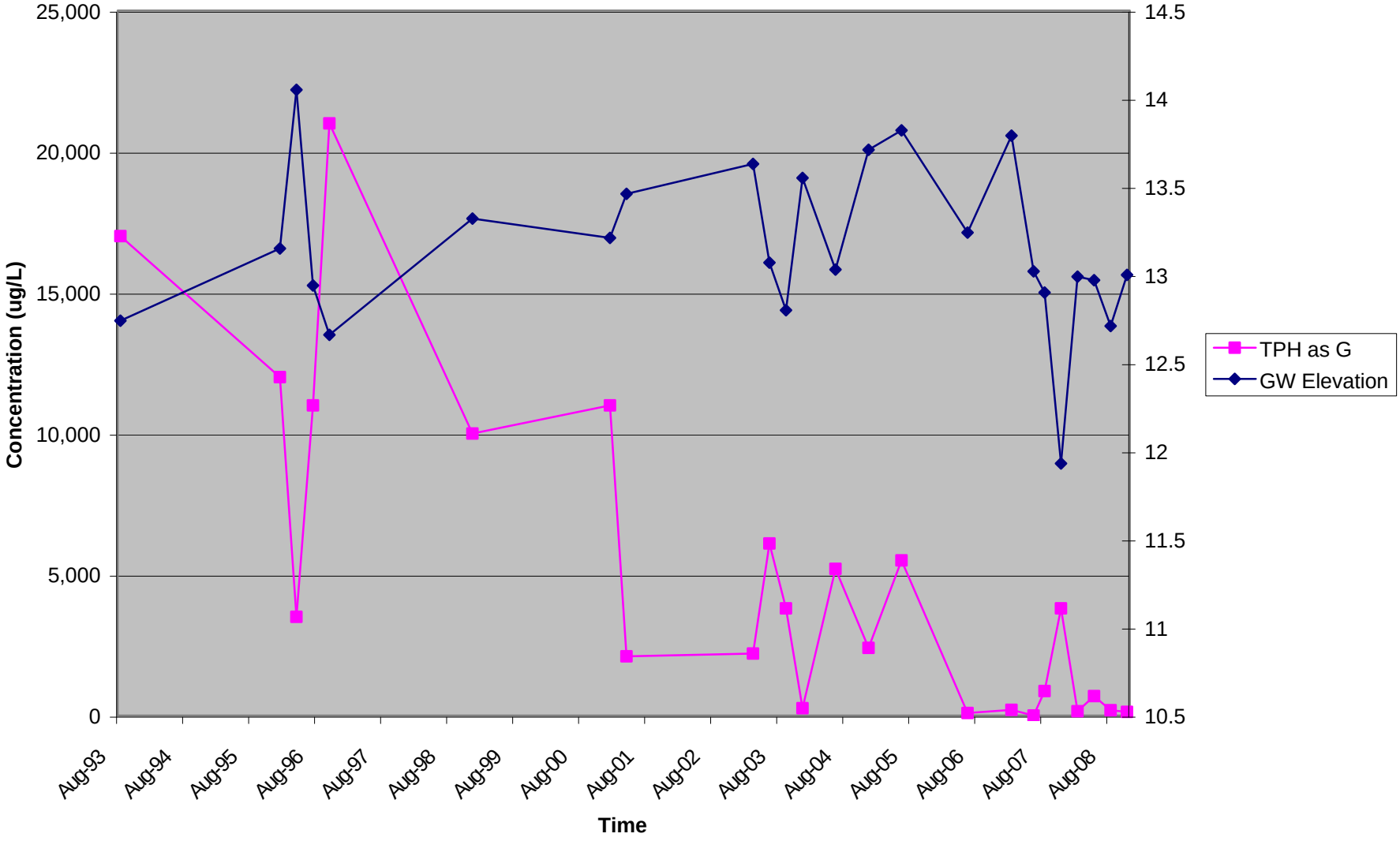


Figure 6: Concentration of Benzene vs. TIme in Well MW-1 / MW-1R

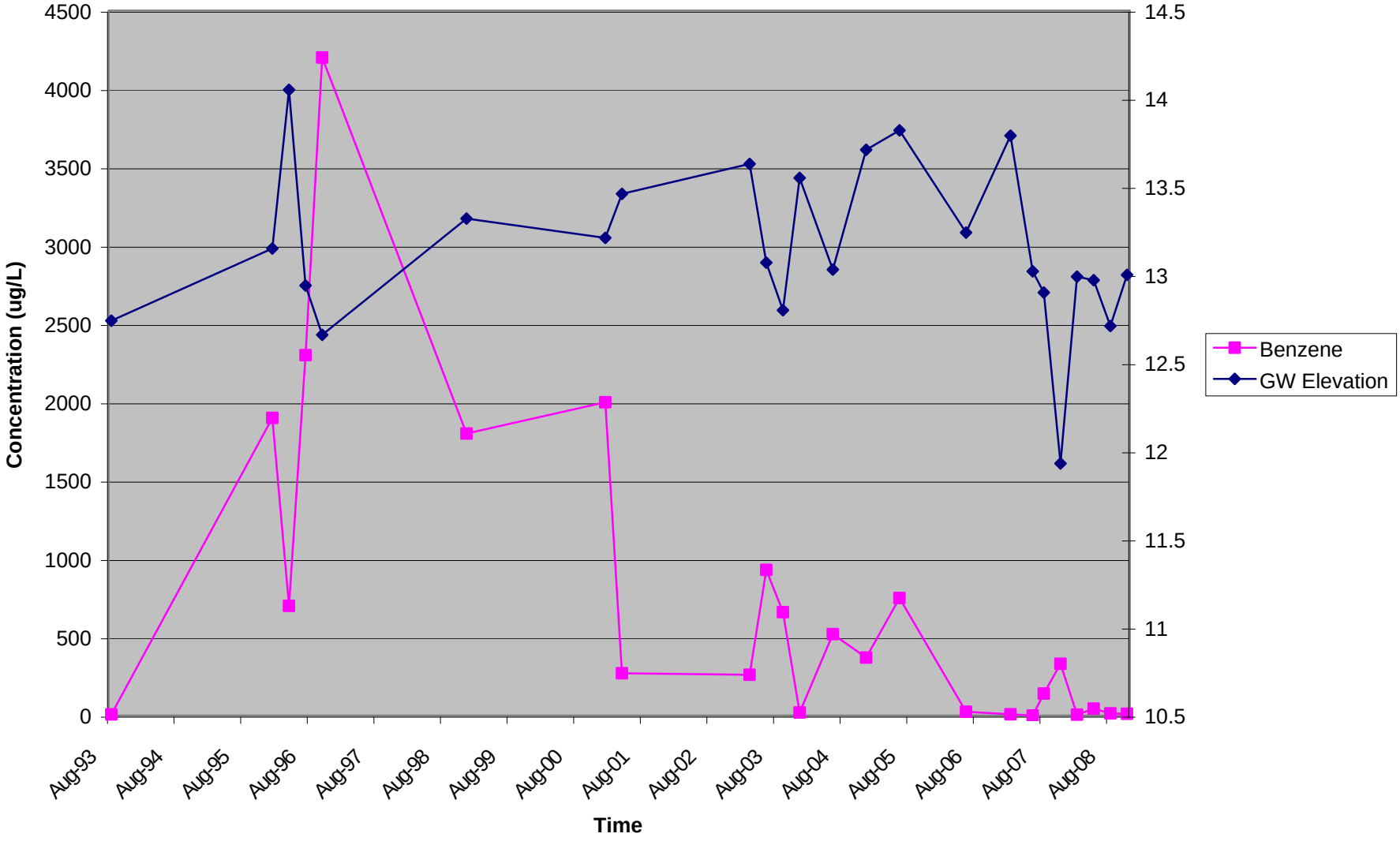
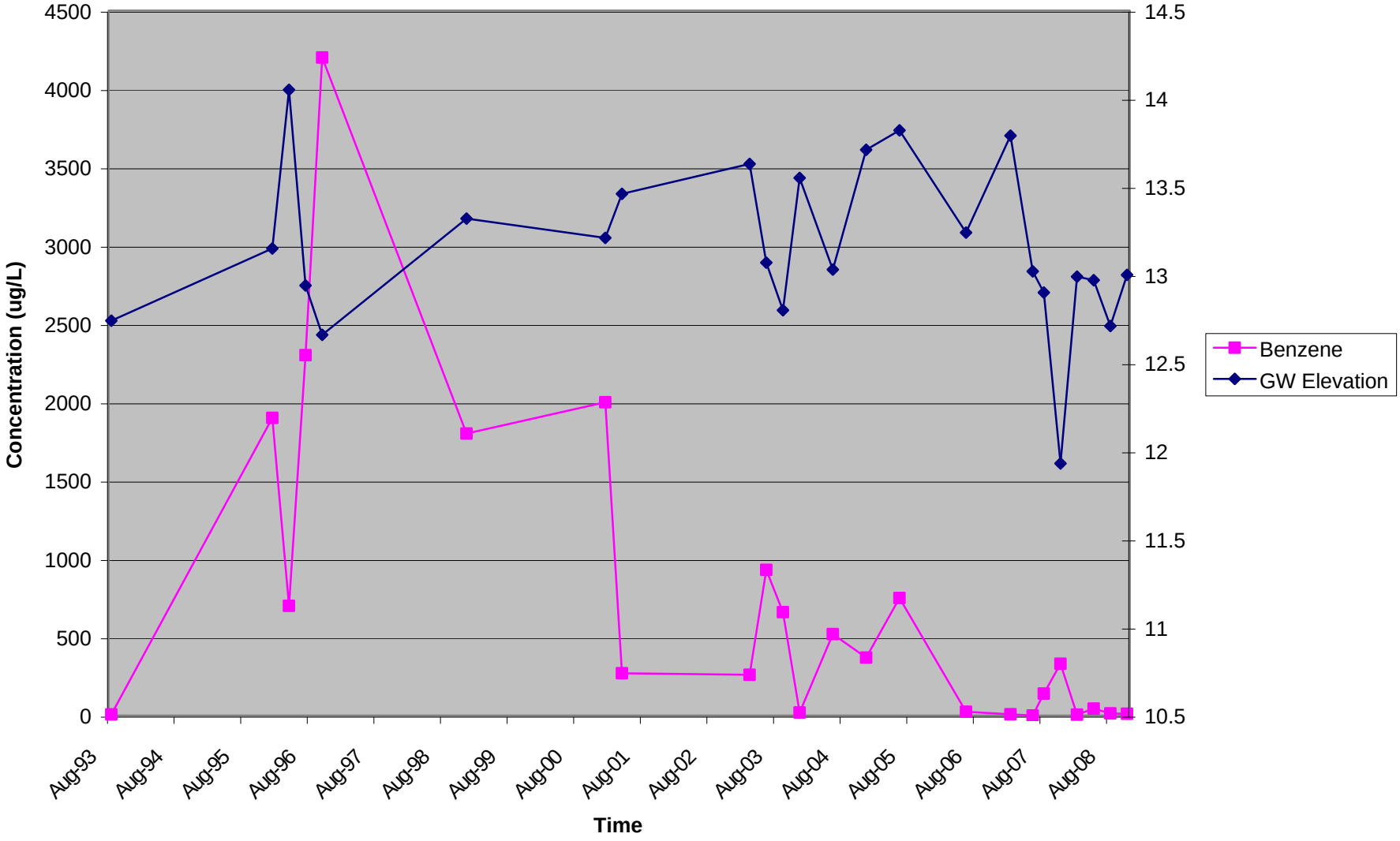


Figure 7: Concentration of Benzene vs. TIme in Well MW-1 / MW-1R



Appendix A

Drilling Permits

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 05/10/2007 By jamesy

Permit Numbers: W2007-0613
Permits Valid from 05/22/2007 to 09/30/2007

Application Id: 1178750044833
City of Project Site: Oakland
Site Location: Former Fiesta Beverages Faciity
966 89th Avenue
Project Start Date: 05/22/2007
Completion Date: 09/30/2007

Applicant: Blymyer Engineers, Inc. - Mark Detterman
1829 Clement Ave., Alameda, CA 94501
Phone: 510-521-3773
Property Owner: Ted Walbey
7150 Island Queen Dr., Sparks, NV 89436
Phone: 775-626-2865
Client: ** same as Property Owner **
Contact: Mark Detterman
Phone: 510-521-3773
Cell: 510-333-5032

Total Due: $200.00
Receipt Number: WR2007-0209 **Total Amount Paid:** $200.00
Payer Name : Mark E. Detterman Paid By: MC **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 86 Boreholes
Driller: Precision Drilling - Lic #: 636387 - Method: DP **Work Total: $200.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2007-0613	05/10/2007	08/20/2007	86	1.75 in.	16.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no

case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

CITY OF OAKLAND

PUBLIC WORKS AGENCY • 250 FRANK H. OGAWA PLAZA • SUITE 4344 • OAKLAND, CALIFORNIA 94612-2033

Transportation Services Division

Office (510) 238-3466
FAX (510) 238-7415
TDD (510) 839-6451

Traffic Engineering Services Analysis Fee Invoice

Date: May 24, 2007

TSD Invoice # : 07-0097

To: Mark Detterman
Company: Blymyer Engineers Inc.
Address: 129 Clement Avenue, Alameda 94501
Phone: 510-521-3773

Created/Received By: Joe Watson

Location	Description of Work	Project Name / Permit #	# of Hours *
966 89th Avenue	Lane Closure		1

Total Hours	**1**
TSD Service Rate	**$ 100.00**
Total Fee	**$ 100.00**

* - minimum 1 hour service

FOR CITY USE ONLY	
Cost Center No.	W659
Organization No.	30262
Account No.	45119
Fund No.	1750

Cc: Rosalie

P:\!Traffic\obstruction_permit\Walk-Ins Invoices\2004\TSD-07-0097.xls

APPLICATION FOR TRAFFIC CONTROL PLAN

Transportation Services Fee: $100/hour
(Check or Money Order Only)

City of Oakland

Public Works Agency
Transportation Services Division

Check the box that apply:
- ☐ **New Application** (Utility, Excavation)
- ☐ **Renewal Application**
- ☐ **New Development w/ Mgmt Plan**
- ☐ **City of Oakland Project**

Please read the following:

1. Processing time for a Traffic Control Application is a minimum of 10 working days.
2. Traffic Control review is scheduled only on Tuesdays and Thursdays from 8:30am thru 11:30am by appointment only.
3. A scheduled appointment by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plan
4. Please call ahead to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided 72 hour advance notice.
6. A completed traffic control application may be faxed to (510) 238-7415.
7. Incomplete traffic control applications will not be processed and will be returned to applicant.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. Upon receiving TSD approval of the traffic control plan, the applicant (or contractor) shall proceed to the Building Services Division of CEDA to obtain an "Obstruction Permit." CEDA is located at 250 Frank Ogawa Plaza, 2nd Floor, Oakland, CA 94612.

Contact Person: Mark Detterman Phone: 510/521-3773

Name of Company: Blymyer Engineers, Inc Fax: 510/865-2594

Address of Company: 1829 Clement Ave, Alameda 94501

Describe type of work to be performed: Install 8 to Vertical soil bores (13/4" dia) for soil + groundwater remediation of gasoline release (39 bores in public right of way).

Location of work: 960 + 960 89th Ave Between* E Street And* G Street

Between* And*

* Name the streets that are the boundaries of your work area.

Work date (s): 5/22/07 to 9/27/07 ☑ Mon-Fri ☐ Sat-Sun ☐ Mon-Fri ☐ Sat-Sun Work Hours: 7AM to 4PM

(A Total of 12 days with in This period)

Please Follow these Steps to Complete a Traffic Control Plan

A. **Drawing Area:** The full width of all streets adjacent to the site MUST be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.

B. **Include Street Names, Direction of Traffic on the Street, and North Arrow**

C. **Show Existing Number of Lanes in all Directions** (with any pavement arrows)

D. **Check the Box(s) that Apply:** All checked items MUST be shown on the drawing

- ☒ Lane Closure
- ☐ Street Closures (must provide detour plan)
- ☐ Use of Median
- ☐ Use Parking Lane
- ☐ Sidewalk Closure (must provide pedestrian walk way)

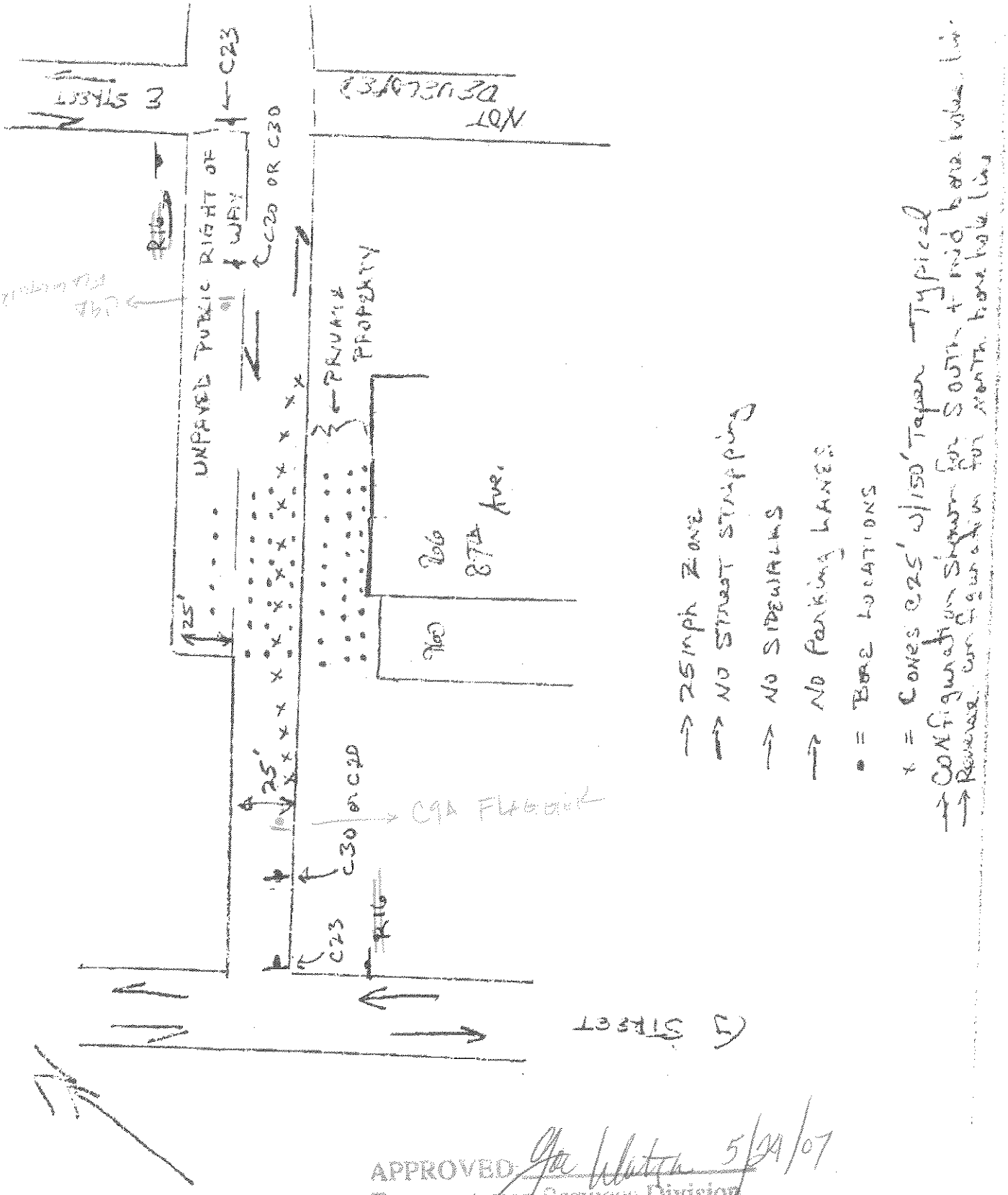
E. **Show All Dimensions** of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension.
(Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)

F. **Show the Name and Locations** of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

RENEWAL PROCESS: Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP in constructing a traffic control plan please refer to the "WATCH" hand book or chapter 5 of the MUTCD manual available online at: http://www.dot.ca.gov/hq/traffops/signtech/signdet/chp5/chap5.htm

For our Website: http://www.oaklandpw.com/transportation/traffic_control_plan.htm



APPROVED 5/29/07
Transportation Services Division
CITY OF OAKLAND

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
Project Number: TSD-07-0097
Reviewed By: JWatson
Date: 5/24/2007
Permit good from 5/25/07
to 6/15/07

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2000 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Caltrans Traffic Manual, Chapter 5 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	**Obstruction Period**	**North Bound**	**South Bound**	**East Bound**	**West Bound**
89th Avenue between between G Street and E Street	Mon. – Fri. 7am – 4pm	N/A	N/A	1-12' lane open minimum	

The Contractor Shall Also include all check item:

1. ☐ Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. ☒ Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. ☒ Provide advance notice to Oakland Police at (510) 615-5874 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. ☒ Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. ☒ For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. ☒ Flagger control is required. Certified Flagger is required.
7. ☐ Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. ☒ Pedestrian traffic shall be maintained and guided through the project at all times.
9. ☒ Provide advance notice to Business and Residence within 72-hours.
10. ☒ Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

Appendix B

Soil Bore Logs
(GP-10 and GP-11)

BLYMYER ENGINEERS, INC.

Soil Bore Log: GP10

Former Fiesta Beverage
960 & 966 89th Avenue
Oakland, CA

Job Number:	: 203004	Drilling Equipment	: Geoprobe
Date Drilled:	: June 7, 2007	Sample Method	: Continuous Sleeve
Logged By	: Mark Detterman	Soil Bore Diameter	: 1.75 inch
Drilling Company	: Precision Sampling	Total Drilled Depth	: 16.0 feet
Driller	: Rocky / Rodrigo		

Sample Recovery: Collected; Retained; Analyzed; Unrecovered

Water Level: Not available; 15 feet

(Grouted upon completion)

Depth in Feet	Blow Count	PID	Sample Recovery	Sample No.	DESCRIPTION	USCS	GRAPHIC
0					2 inches asphalt	Asphalt	
1					Greyish brown chipped GRAVEL, sandy, dry; FILL.	GP	
					Grey brown GRAVELLY SAND; dry; FILL.	SW	
2					Dark green SILTY CLAY, slight odor, soft, damp to moist; FILL?.		
3							
4		7.9		GP10-4.5		CL	
5							
6							
7		8.7			Dark green SILTY CLAY; slight odor; moist.		
8				GP10-7.5		CL	
9							
10							
11		65			Native organics noted; <5%.	CL	
12				GP10-11.5	Dark green SILTY CLAY; increasing percentage silt; increasing moisture, trace native organics; moist.	CL	
13							
14					Dark grey with greenish cast SILTY CLAY; increasing mositure (2 inch layer of GRAVELY CLAY at 14.25 ft).	CL	
15		13			Medium green CLAYEY SAND to SANDY CLAY; fine grained; driller calls harder; wet.	SC	
16				GP10-15.5	Light brown CLAYEY SAND; fine grained; wet.	SC	
					Bottom of bore: 16 feet		
17							
18							
19							
20							

PROFESSIONAL GEOLOGIST
MARK E. DETTERMAN
No. 1788
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA
8/9/07

08-27-2007 H:\Blymyer_Jobs\2003\203004 fiesta-oakland\BoreLogs\GP10.bor

BLYMYER ENGINEERS, INC.

Soil Bore Log: GP11

Former Fiesta Beverage
960 & 966 89th Avenue
Oakland, CA

Job Number:	: 203004	Drilling Equipment	: Geoprobe
Date Drilled:	: June 7, 2007	Sample Method	: Continuous Sleeve
Logged By	: Mark Detterman	Soil Bore Diameter	: 1.75 inch
Drilling Company	: Precision Sampling	Total Drilled Depth	: 16.0 feet
Driller	: Rocky / Rodrigo		

Sample Recovery: Collected; Retained; Analyzed; Unrecovered

Water Level: Not available; 8 feet

(Grouted upon completion)

Depth in Feet	Blow Count	PID	Sample Recovery	Sample No.	DESCRIPTION	USCS	GRAPHIC
0					2 inches asphalt	Asphalt	
1					Dark grey chipped GRAVEL, sandy, dry; FILL.	GP	
2					Tan recycled crushed granular (Well graded SANDY GRAVEL) FILL.		
3		5					
4				GP11-3.5		GW	
5							
6							
7		2.1			As above, very moist to wet at 6.5 to 7 feet.		
8				GP11-7.5	Dark grey to black SILTY CLAY, with small green colored blebs (< 1/8 inch); soft; damp to moist.	CL	
9					Tan to light brown SAND; very fine grained; flowing; wet.	SP	
10					Light brown to grey brown GRAVEL, subrounded fine to course grained with silt and fine grained sand (5%); wet.	GP	
11		65			Dark grey to black SILTY CLAY with two 1/2 inch black organic chunks; grades black deeper; very moist to wet.	CL	
12				GP11-11.5			
13					Tan to light brown SILTY CLAY; with dark green coloration along native rootlets (in place?); trace to moderate odor; wet.	CL	
14					Tan to light brown SAND; very fine grained; flowing; wet.	SP	
15		16			Light brown GRAVEL; fine to medium grained, with 10% very course grained; subrounded to subangular; wet.	GP	
16				GP11-5.5	Dark grey with greenish cast SILTY CLAY; wet.	CL	
17					Tan to light brown SILTY SAND; fine grained; with native organics; wet.	SM	
18					Bottom of bore: 16 feet		
19							
20							

PROFESSIONAL GEOLOGIST
MARK E. DETTERMAN
No. 1788
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

08-27-2007 H:\Blymyer_Jobs\2003\203004 fiesta-oakland\BoreLogs\GP11.bor

Appendix C

Laboratory Reports

McCampbell Analytical, Inc.
June 14, 2007

CytoCulture International, Inc.
May 4, 2007 and August 17, 2007

McCampbell Analytical, Inc.
"When Quality Counts"

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: #203004; Former Fiesta Beverages	Date Sampled: 06/07/07
		Date Received: 06/08/07
	Client Contact: Mark Detterman	Date Reported: 06/14/07
	Client P.O.:	Date Completed: 06/14/07

WorkOrder: 0706253

June 14, 2007

Dear Mark:

Enclosed are:

1). the results of **6** analyzed samples from your **#203004; Former Fiesta Beverages project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

BLYMYER
ENGINEERS, INC.
BEI
1829 Clement Avenue
Alameda, CA 94501 (510) 521-3773 FAX (510) 865-2594

BEIG 0706253

CHAIN OF CUSTODY RECORD

JOB #	PROJECT NAME/LOCATION
203004	Former Fiesta Beverages

SAMPLERS (SIGNATURE): Mark Detterman

TURNAROUND TIME: 5/std DAY(S)

DATE	TIME	COMP	GRAB	SAMPLE NAME/LOCATION	# OF CONTAINERS	TPH AS GASOLINE + BTXE (MOD EPA 8015/8020) / MTBE	TPH AS DIESEL (MOD EPA 8015)	VOC (EPA 624/8240)	SEMI-VOC (EPA 625/8270)	TRPH (EPA 418.1)	BTXE (EPA 8020/602)						HOLD	REMARKS
6/7/07	900		X	GP10-4	1 sleeve	NO												Hold @ Lab
↓	910		↓	GP10-7.5	↓	X												
	925			GP10-11.5		X												
	935			GP10-15.5		X												
	955			GP11-3.5														} Hold @ lab
	1010			GP11-7.5														
	1020			GP11-11.5		X												
	1030			GP11-15.5 (No arrow end)		X												
	1030			GP11-15.5 (arrow end)		X												

ICE / t° 8.4°C
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ___ CONTAINERS ___
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
PRESERVATION ___ VOAS | O & G | METALS | OTHER

REQUESTED BY: Mark Detterman

RESULTS AND INVOICE TO: Mark Detterman @ Blymyer Engineers

RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED BY: (SIGNATURE)
Mark Detterman	6/8/07 1135	[signature]	[signature]	6/8/07 1500	[signature]

RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE / TIME	REMARKS:

WHITE: Accompany Sample YELLOW: BEI, After Lab Signs PINK: Original Sampler

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0706253 **ClientID: BEIA**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Mark Detterman
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Email: MDetterman@blymyer.com
TEL: (510) 521-377 FAX: (510) 865-259
ProjectNo: #203004; Former Fiesta Beverages
PO:

Bill t
Accounts Payable
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Requested TAT: 5 days

Date Received **06/08/2007**
Date Printed: **06/08/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0706253-002	GP10-7.5	Soil	6/7/07 9:10:00 AM	☐	A											
0706253-003	BP10-11.5	Soil	6/7/07 9:25:00 AM	☐	A											
0706253-004	GP10-15.5	Soil	6/7/07 9:35:00 AM	☐	A											
0706253-007	GP11-11.5	Soil	6/7/07 10:20:00	☐	A											
0706253-008	GP11-15.5 (No Arrow)	Soil	6/7/07 10:30:00	☐	A											
0706253-009	GP11-15.5 (Arrow End)	Soil	6/7/07 10:30:00	☐	A											

Test Legend:

1	G-MBTEX_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

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

Sample Receipt Checklist

Client Name: **Blymyer Engineers, Inc.**
Date and Time Received: **6/8/07 6:24:02 PM**

Project Name: **#203004; Former Fiesta Beverages**
Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0706253** Matrix Soil
Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 8.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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Telephone: 877-252-9262 Fax: 925-252-9269

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: #203004; Former Fiesta Beverages	Date Sampled: 06/07/07
		Date Received: 06/08/07
	Client Contact: Mark Detterman	Date Extracted: 06/08/07
	Client P.O.:	Date Analyzed 06/09/07-06/14/07

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0706253

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	GP10-7.5	S	ND	ND	ND	ND	ND	ND	1	81
003A	BP10-11.5	S	450,a,m	ND<1.0	0.82	1.3	5.1	2.2	20	---#
004A	GP10-15.5	S	1.7,m	ND	ND	ND	ND	ND	1	83
007A	GP11-11.5	S	37,a	ND<0.10	0.24	0.079	0.81	0.48	2	---#
008A	GP11-15.5 (No Arrow)	S	ND	ND	ND	ND	ND	ND	1	96
009A	GP11-15.5 (Arrow End)	S	ND	ND	ND	ND	ND	ND	1	83

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0706253

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 28575	Spiked Sample ID: 0706164-008A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	111	104	6.21	94	117	21.9	70 - 130	30	70 - 130	30
MTBE	ND	0.10	104	100	3.37	90.5	95.3	5.16	70 - 130	30	70 - 130	30
Benzene	ND	0.10	97.5	95.3	2.34	86	91.5	6.22	70 - 130	30	70 - 130	30
Toluene	ND	0.10	104	102	1.31	79.8	89.8	11.8	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	105	103	2.05	93.3	108	15.0	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	117	113	2.90	96.3	103	7.01	70 - 130	30	70 - 130	30
%SS:	90	0.10	89	93	4.78	77	97	22.2	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 28575 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0706253-002A	06/07/07 9:10 AM	06/08/07	06/12/07 11:27 PM	0706253-003A	06/07/07 9:25 AM	06/08/07	06/11/07 10:24 PM
0706253-004A	06/07/07 9:35 AM	06/08/07	06/14/07 8:22 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

McCampbell Analytical, Inc.
"When Quality Counts"

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0706253

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 28626	Spiked Sample ID: 0706277-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	105	100	4.44	104	103	1.10	70 - 130	30	70 - 130	30
MTBE	ND	0.10	105	112	6.30	114	107	6.38	70 - 130	30	70 - 130	30
Benzene	ND	0.10	96.1	97.1	1.07	109	103	5.74	70 - 130	30	70 - 130	30
Toluene	ND	0.10	85.4	82.8	2.95	98.9	95	3.99	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	106	96.6	9.31	112	112	0	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	107	93	13.7	110	113	2.99	70 - 130	30	70 - 130	30
%SS:	84	0.10	118	111	5.60	118	122	3.43	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 28626 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0706253-007A	06/07/07 10:20 AM	06/08/07	06/12/07 2:50 AM	0706253-008A	06/07/07 10:30 AM	06/08/07	06/12/07 9:23 PM
0706253-009A	06/07/07 10:30 AM	06/08/07	06/09/07 5:08 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

CytoCulture International, Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA

Blymeyer Engineers
Address: 1829 Clement Ave.
Alameda, CA 94501
Tel: (510)-747-3068 Fax: (510) 865-2594
Project Manager: Mark Detterman

Reporting date: **May 4, 2007**
CytoCulture lab login: **07-58**
Project Name: **Dolan Rentals**
Project number: **070427-0A1**

Samples: Four water samples packed on ice were received 4/27/2007. The samples were stored at 4°C and assayed on the same day. Please see the attached chain of custody form.

AEROBIC
Hydrocarbon-Degrading and Total Heterotrophic Bacteria Enumeration Assays

Analysis Request: Enumeration of aerobic gasoline hydrocarbon-degrading bacteria and aerobic total heterotrophic bacteria by method 9215A (HPC)/ Standard Methods 9215B modified.

Carbon Source for Hydrocarbon-Degrading Bacteria: Pasteurized Chevron regular gasoline and diesel No. 2 were dissolved into agar plates as the sole carbon and energy source for the growth of aerobic hydrocarbon-degrading bacteria.

Protocol for Hydrocarbon-Degrading Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts medium at pH 6.8 with agar and hydrocarbons, without any other carbon sources or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of each sample (log dilution10^{0}) and log dilutions of each sample at 10^{-1}, 10^{-2}, and 10^{-3}. Hydrocarbon plates were counted after 6 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml). Each enumeration value represents a statistical average of the plate count data obtained from two of the four inoculating log dilutions assayed.

Carbon Source for Total Heterotrophic Bacteria: Growth medium was prepared with standard methods total plate count agar (Difco) containing a wide range of carbon sources derived from yeast extract, tryptone, pancreatic digest of casein and glucose.

Protocol for Total Heterotrophic Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts and 2.35% heterotrophic plate count agar at pH 6.8 without any other carbon source or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of each sample (log dilution 10^{0}) and log dilutions of each sample at log dilutions 10^{-1}, 10^{-2}, and 10^{-3}. The

heterotrophic plates were counted after 3 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml) of sample. Each enumeration value represents a statistical average of two of the four inoculating log dilutions assayed.

AEROBIC
Total Heterotrophic Bacteria and Hydrocarbon-Degrading Bacteria Enumeration Results

Client Sample Number	Sample Date	Hydrocarbon Degraders (cfu/ml)	Target Hydrocarbons Tested	Total Heterotrophs (cfu /ml)
MW-1R	4/27/2007	1×10^3	Gasoline/Diesel	1×10^3
MW-2	4/27/2007	1×10^3	Gasoline/Diesel	3×10^3
MW-6	4/27/2007	6×10^2	Gasoline/Diesel	1×10^3
MW-9	4/27/2007	2×10^2	Gasoline/Diesel	3×10^2
Sterile Water	4/27/2007	0	Gasoline/Diesel	0
Air Control	4/27/2007	0	Gasoline/Diesel	0
Positive Control	4/27/2007	7×10^9	Gasoline/Diesel	2×10^{10}

Reporting Limit for enumeration data is 1.0×10^1 cfu/ml.

A hydrocarbon-degrading bacteria positive control sample was run concurrently with each set of samples using a mixed flask culture of bacteria enriched from contaminated UST sites in Northern California.

CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field bioremediation protocols.

Sharon Huang
Laboratory Technician

Randall von Wedel, Ph.D.
Principal Biochemist

CytoCulture International, Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA

Blymeyer Engineers
Address: 1829 Clement Ave.
Alameda, CA 94501
Tel: (510)-747-3068 Fax: (510) 865-2594
Project Manager: Mark Detterman

Reporting date: **August 17, 2007**
CytoCulture lab login: **07-114**
Project Name: **Former Fiesta Beverage**
Project number: **070810- WW1**

Samples: Two water samples packed on ice were received 8/9/2007. The samples were stored at 4°C and assayed on the same day. Please see the attached chain of custody form.

AEROBIC
Hydrocarbon-Degrading and Total Heterotrophic Bacteria Enumeration Assays

Analysis Request: Enumeration of aerobic gasoline hydrocarbon-degrading bacteria and aerobic total heterotrophic bacteria by method 9215A (HPC)/ Standard Methods 9215B modified.

Carbon Source for Hydrocarbon-Degrading Bacteria: Pasteurized Chevron regular gasoline and diesel No. 2 were dissolved into agar plates as the sole carbon and energy source for the growth of aerobic hydrocarbon-degrading bacteria.

Protocol for Hydrocarbon-Degrading Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts medium at pH 6.8 with agar and hydrocarbons, without any other carbon sources or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of each sample (log dilution10^{0}) and log dilutions of each sample at 10^{-1}, 10^{-2}, and 10^{-3}. Hydrocarbon plates were counted after 8 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml). Each enumeration value represents a statistical average of the plate count data obtained from two of the four inoculating log dilutions assayed.

Carbon Source for Total Heterotrophic Bacteria: Growth medium was prepared with standard methods total plate count agar (Difco) containing a wide range of carbon sources derived from yeast extract, tryptone, pancreatic digest of casein and glucose.

Protocol for Total Heterotrophic Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts and 2.35% heterotrophic plate count agar at pH 6.8 without any other carbon source or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of each sample (log dilution 10^{0}) and log dilutions of each sample at log dilutions 10^{-1}, 10^{-2}, and 10^{-3}. The

heterotrophic plates were counted after 3 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml) of sample. Each enumeration value represents a statistical average of two of the four inoculating log dilutions assayed.

AEROBIC
Total Heterotrophic Bacteria and Hydrocarbon-Degrading Bacteria Enumeration Results

Client Sample Number	Sample Date	Hydrocarbon Degraders (cfu/ml)	Target Hydrocarbons Tested	Total Heterotrophs (cfu /ml)
MW-1R	8/09/2007	2×10^3	Gasoline/Diesel	1×10^4
MW-5	8/09/2007	3×10^2	Gasoline/Diesel	3×10^3
Sterile Water	8/10/2007	0	Gasoline/Diesel	0
Air Control	8/10/2007	0	Gasoline/Diesel	0
Positive Control	8/10/2007	1×10^{10}	Gasoline/Diesel	4×10^{11}

Reporting Limit for enumeration data is 1.0×10^1 cfu/ml.

A hydrocarbon-degrading bacteria positive control sample was run concurrently with each set of samples using a mixed flask culture of bacteria enriched from contaminated UST sites in Northern California.

CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field bioremediation protocols.

Sharon Huang
Laboratory Technician

Randall von Wedel, Ph.D.
Principal Biochemist

C:\CytoCulture2007\Cytolab\Lab reports\ Blymeyer Engineers\Water 07-114

CytoCulture Environmental Biotechnology
249 Tewksbury Avenue
Point Richmond, CA 94801-3829

CHAIN OF CUSTODY FORM

Project Name: Former Fiesta Beverage — Project No. 6781a-WW1	Purchase Order / LOG IN #: 07-114
Client Organization: Blymyer Engineers	Project Manager: MARK DETTERMAN
Address to Send Results: 1829 Clement Ave, Alameda, CA 94501	
Client Fax for Sending Data: (510) 865-2594 — mdetterman@blymyer.com	Client Contact / Project Manager: MARK DETTERMAN
Client Tel for Follow-up: (510) 747-3068	Client Sampler / Recorder: William Wong

Sample ID	Sampling		Matrix		Bacterial Plate Enumerations				Bacterial MPN Enumerations			Nutrient / Chemical Assays									
					Aerobic		Anaerobic		Anaerobic												
	Date	Time	Soil	Water	Hydrocarbon Degraders	Total Heterotrophs	Hydrocarbon Degraders	Total Heterotrophs	Nitrate Reducers	Iron Reducers	Sulfate Reducers	pH	mV	DO	NH3	PO4	NO3	SO4	Sulfide	Fe(II)	Fe(III)
MW-1R	8/10/07	0940		X	X	X															
MW-5	8/10/07	0855		X	X	X															

Chain of Custody Record	Signature of this form constitutes	a firm Purchase Order for services.	Payment DUE on Reporting Date.
Relinquished by: WILLIAM WONG	Date/Hr: 08-10-07	Received by:	Date/Hr: 8/9/07
Received for CytoCulture Lab	Date/Hr:	CytoCulture Lab Services — Tel: 510-233-0102, Fax: 510-233-3777	Please fax Chain of Custody form to CytoCulture prior to delivery.

CytoCulture Environmental Biotechnology
249 Tewksbury Avenue
Point Richmond, CA 94801-3829

Chain of Custody Form

RECEIVED 9/10 ALAMEDA COUNTY

Page 1 of 3

Project Name: Exxon Rentals	Project No. 040927-041
Purchase Order / LOG IN #:	
Client Organization: Blymyer Engineers	Project Manager: MARK DETTERMAN
Address to Send Results: 1829 Clement Ave, Alameda CA 94501	
Client Fax for Sending Data: (510) 865-2594 / mdetterman@blymyer.com	Client Contact / Project Manager: Mark Detterman
Client Tel for Follow-up: (510) 747-3068	Client Sampler / Recorder: David Allen

Sample ID	Sampling Date	Sampling Time	Matrix Soil	Matrix Water	Bacterial Plate Enumerations: Aerobic Hydrocarbon Degraders	Aerobic Total Heterotrophs	Anaerobic Hydrocarbon Degraders	Anaerobic Total Heterotrophs	Bacterial MPN Enumerations: Anaerobic Nitrate Reducers	Anaerobic Iron Reducers	Anaerobic Sulfate Reducers	Nutrient / Chemical Assays: pH	mV	DO	NH4	PO4	NO3	SO4	Sulfide	Fe(II)	Fe(III)
MW-1R	9/27/07	0814		X	X	X															
MW-2	"	0952		X	X	X															
MW-6	"	0920		X	X	X															
MW-9	"	0944		X	X	X															

Chain of Custody Record — Signature of this form constitutes a firm Purchase Order for services. Payment DUE on Reporting Date.

Relinquished by: David Allen	Date/Hr: 9/27/07 1055	Received by:	Date/Hr:
Received for CytoCulture Lab: Laura Schwartz	Date/Hr: 9/27/07 1600	CytoCulture Lab Services Tel: 510-233-0102 Fax: 510-233-3777	Please fax Chain of Custody form to CytoCulture prior to delivery.