

Fiesta Beverages
7150 Island Queen Dr.
Sparks, NV 89436

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Alameda County
Environmental Health

12/21, 2007

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
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 Mr Chan,

"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

Fourth Quarter 2007 Groundwater Monitoring Event

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

December 4, 2007
BEI Job No. 203004

Prepared for:

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

Prepared by:

Blymyer Engineers, Inc.
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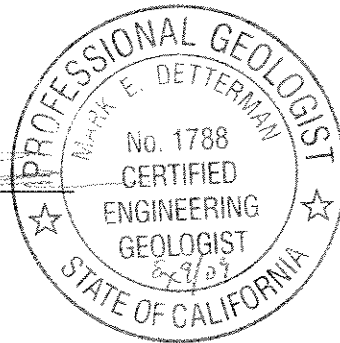
Limitations

Services performed by Blymyer Engineers, Inc. have been provided in accordance with generally accepted professional practices for the nature and conditions of similar work completed in the same or similar localities, at the time the work was performed. The scope of work for the project was conducted within the limitations prescribed by the client. This report is not meant to represent a legal opinion. No other warranty, expressed or implied, is made. This report was prepared for the sole use of the client, Fiesta Beverages.

Blymyer Engineers, Inc.

By: _____

Mark E. Detterman
Mark E. Detterman, CEG
Senior Geologist



And: _____

Michael S. Lewis
Michael S. Lewis, REA
Vice President, Technical Services

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1.0 Introduction and 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.

In June 1993, groundwater monitoring wells MW-1, MW-2, and MW-3 were installed. 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, a 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.

In November 1999, after obtaining appropriate permits, AllCal Property Services, Inc. (AllCal) installed four Geoprobe⁷ 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 a 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. A sheen was noted at that depth in SB-1. Groundwater samples were obtained from bores SB-1 and SB-2 after pushing the Geoprobe⁷ 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 Geoprobe⁷ bores.

After the review of the January 2001 groundwater monitoring report, the Alameda County Health Care Services Agency (ACHCSA) 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 ACHCSA. On September 17, 2003, a workplan for a Geoprobe⁷ investigation of the site was submitted to the ACHCSA. 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 ACHCSA, on February 17, 2004, Blymyer Engineers issued a *Letter of Intent to Proceed: Geoprobe⁷ 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) can 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 ACHCSA, 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 ACHCSA, it has been presumed that this was found reasonable and acceptable.

On December 14, 2004, Blymyer Engineers issued to the ACHCSA 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 a “repeatedly accessed location”. It was reasoned that data generated from these locations will assist in determining appropriate remedial actions, and in monitoring remedial progress.

On July 6, 2005, the new case manager for the ACHCSA, Mr. Barney Chan, issued the letter *Fuel Leak Case RO0000314* commenting on the December 14, 2004 report. The ACHCSA 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 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 ACHCSA issued the letter *Fuel Leak Case RO0000314* commenting on the Workplan. The ACHCSA 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 ACHCSA 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 ACHCSA 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 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 were predominantly compared to the *non-drinking water* ESL goals; however, the ACHCSA 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 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 ACHCSA 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 ACHCSA. The *Interim Corrective Action Plan* was submitted on February 7, 2007, and was approved by the ACHCSA 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. It

was not possible to inject the entire volume of RegenOx specified by Regenesis due to resurfacing of the injected material. 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. As a consequence, an additional round of RegenOx injection occurred on September 12 and 13, 2007. These events will be reported under separate cover.

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, as well as water return flow to the surface during remedial injection activities. A copy of the *Non-Hazardous Waste Manifest* is attached as Appendix A.

2.0 Groundwater Sample Collection and Analytical Methods

This report documents the interim sampling of groundwater conducted on August 9, 2007, and the Fourth Quarter 2007 groundwater monitoring event at the subject site (Figure 1). The quarterly groundwater sampling event was timed to allow for rebound in contaminant concentrations after the third RegenOx injection event on September 12 and 13, 2007.

Groundwater samples were collected from monitoring wells MW-1R, MW-2, and MW-3 to help determine the progress of the remedial actions at the site on August 9, 2007. Quarterly groundwater samples were collected from monitoring wells MW-1R and MW-2 through MW-9 on November 8, 2007. Both sets of groundwater samples were collected by Blaine Tech Services, Inc. (Blaine) in accordance with Blaine *Standard Operating Procedures* for groundwater gauging, purging, and sampling. A copy is included as Appendix B. Depth to groundwater was measured in the selected wells on August 9, 2007, and in all wells during the November 8, 2007, sampling event. Temperature, pH, conductivity, and turbidity were measured initially, and then after removal of each of three well casing volumes for each well. Dissolved Oxygen (DO) and the Oxygen-Reduction Potential (ORP) were measured post-purge in August and pre-purge in November. These measurements are generally useful in determining if an adequate supply of oxygen is present in groundwater to allow microbial growth. The groundwater depth measurements and details of the monitoring well purging and sampling for each event are presented on the *Well Monitoring Data Sheets* and *Well Gauging Data Sheets* generated by Blaine and included as Appendix C. Depth-to-groundwater measurements are presented in Table I. All purge and decontamination water was temporarily stored in a Department of Transportation-approved 55-gallon drum for future disposal by the owner.

The groundwater samples were analyzed by McCampbell Analytical, Inc., a California-certified laboratory, on a 5-day turnaround time. In August, groundwater samples from wells MW-1R, MW-2, and MW-3 were analyzed for TPH as gasoline by Modified EPA Method 8015; and BTEX and MTBE by EPA Method 8021B. In November, groundwater samples from all wells were analyzed for TPH as gasoline by Modified EPA Method 8015; and BTEX and MTBE by EPA Method 8021B. Tables II to V summarize

current and previous analytical results for groundwater samples. The laboratory analytical reports for both sampling events are included as Appendix D.

3.0 Groundwater Flow Data and Groundwater Sample Analytical Results

Previously surveyed top-of-casing (TOC) elevations were used to construct a groundwater gradient map (Figure 2). Groundwater depths during this monitoring event ranged between 8.60 to 9.80 feet below the top of the casings. In the wells monitored in the August 2007 event, depth to groundwater decreased an average of 0.13 feet from the June 2007 quarterly event. This is likely the result of the remedial injections, as the depth to groundwater in well MW-5 located upgradient of the injection area increased (as it also did in MW-1R), as is more typical for a late summer event. Depth to groundwater on average remained about the same in all wells between the June and the November monitoring event (decreasing an average of 0.003 feet); however, depth to groundwater in well MW-1R increased over one foot, while in well MW-3 it decreased over one foot. At other wells it increased and decreased but with smaller overall changes (all under 0.4 feet each, and generally about 0.1 feet). It is again likely that the larger changes in wells MW-1R and MW-3 are related to the injection events. The elevation of groundwater at well MW-1R was anomalous this quarter. As a consequence, the groundwater elevation at well MW-1R was excluded when determining the groundwater flow direction and gradient calculations this quarter. With well MW-1R excluded, groundwater predominantly appeared to flow to the west and to the north during this event. Flows to the west are generally consistent with historical data. Conversely, southern and eastern flow directions have been observed previously. It should be noted that such potential historic northerly flow directions would partially explain impacted soil north of the former UST locations (see soil bore GP8 in the *Remedial Investigation / Feasibility Study Report*, dated September 8, 2006). The average groundwater gradient was calculated to be approximately 0.010 feet/foot for the current monitoring event.

In general, concentrations of TPH as gasoline and BTEX rose sharply in wells MW-1R and MW-3 between the June and August sampling events, while these compounds remained non-detectable in well MW-2 during the same interval. Between the August and November sampling events, concentrations of TPH as gasoline and BTEX again rose sharply in well MW-1R, rose modestly in well MW-2, but decreased in well MW-3. The concentration of these compounds in the November 2007 sampling event in wells MW-2 and MW-3 are similar to recent pre-injection concentrations at these wells, but with differing ratios between the compounds, suggesting that these compounds have been mobilized from soil to groundwater, as would be anticipated. The increased concentrations of hydrocarbons in well MW-1R are

similar to those seen in well MW-1 prior to its destruction in May 2006. It should be noted that the third RegenOx injection event in September 2007 was selectively concentrated in the vicinity of wells MW-1R, MW-2, and upgradient of MW-3, and likely mobilized contaminants from soil to groundwater at these locations. These concentrations are viewed as temporary, yet indicate a continued source in the vicinity of, in particular, MW-1R.

Concentrations of MTBE were not detected in the three wells sampled during the August 2007 interim sampling event (wells MW-1R, MW-2, and MW-3), and were again not detected during the November sampling event, at elevated limits of detection. In November there were no detectable concentrations of TPH as gasoline, BTEX, or MTBE in all downgradient or cross gradient wells (MW-4 through MW-9), at good limits of detection.

Data gathered prior to remedial injections has provided evidence at the site for recontamination of groundwater upon rise up into contaminated soil (MW-3; Figures 3 and 4) as well as drainage from soil to groundwater as groundwater drops in elevation at the site (MW-1 / MW-1R; Figures 5 and 6). The November data for well MW-3 is a departure from the general trend, as the concentration of TPH as gasoline or benzene decreased while the groundwater elevation rose. This is likely due to the injection activities. The data from November for well MW-1R indicates a continuation of trends previously seen at destroyed well MW-1. It is currently suspected that granular backfill and soil immediately adjacent and beneath the 6-inch-diameter gas main located approximately 5 feet to the north of well MW-1R (and former MW-1) is providing a reservoir for hydrocarbons which cannot be easily and effectively reached. (For consistency all groundwater elevations in Figures 3 to 6 utilized the GeoTracker wellhead survey elevations to determine the groundwater elevation.)

Four quarters of groundwater samples have been analyzed for the fuel oxygenates di-isopropyl ether (DIPE), ethyl *tert*-butyl ether (ETBE), MTBE, *tert*-amyl methyl ether (TAME), and *tert*-butyl alcohol (TBA), by EPA Method 8260B. Ethanol and methanol have also been analyzed and were nondetectable. Due to the consistency of the data, fuel oxygenate analysis was eliminated. Only MTBE and TAME have been detected in groundwater (June 2003; Table III). Only MTBE has an MCL; listed at 13 Fg/L.

4.0 Intrinsic Bioremediation Groundwater Sample Analytical Results

Intrinsic bioremediation laboratory analytical parameters were not collected during the August or November sampling events; however, post- and pre-purge field parameters were collected, respectively. This discussion will focus only on the November event due to the limited data generated during the August 2007 interim sampling event. Tables IV and V present the analytical results of current and previous RNA indicator parameters. Microbial use of petroleum hydrocarbons as a food source is affected by the concentration of a number of chemical compounds dissolved in groundwater at a site. RNA monitoring parameters were established by research conducted by the Air Force Center for Environmental Excellence. The research results were used to develop a technical protocol for documenting RNA in groundwater at petroleum hydrocarbon release sites (Wiedemeier, Wilson, Kampbell, Miller and Hansen, 1995, *Technical Protocol for Implementing the Intrinsic Remediation with Long Term Monitoring for Natural Attenuation of Fuel Contamination Dissolved in Groundwater, Volumes I and II*, U.S. Air Force Center for Environmental Excellence, Brooks Air Force Base, Texas). The protocol focuses on documenting both aerobic and anaerobic degradation processes whereby indigenous subsurface bacteria use various dissolved electron acceptors to degrade dissolved petroleum hydrocarbons.

In the order of preference, the following electron acceptors and metabolic by-products are used and generated, respectively, by the subsurface microbes (aerobes, Mn – Fe reducers, and methanogens) to degrade petroleum hydrocarbons: oxygen to carbon dioxide, nitrate to nitrogen, insoluble manganese (Mn^{4+}) to soluble manganese (Mn^{2+}), insoluble ferric iron (Fe^{3+}) to soluble ferrous iron (Fe^{2+}), sulfate to hydrogen sulfide, and carbon dioxide to methane. With the exception of oxygen, the use of all other electron acceptor pathways by microbes indicates increasingly anaerobic degradation. Aerobic degradation takes place first, and oxygen inhibits anaerobic degradation. As oxygen is consumed and an anoxic zone develops, the Mn – Fe reducers and methanogens begin to grow and release dissolved Mn, dissolved Fe, and methane (Commission on Geosciences, Environment and Resources, *Natural Attenuation for Groundwater Remediation*, 2000). Investigation of each of these electron acceptor pathways was conducted in selected wells at the site as part of the evaluation of RNA chemical parameters. Previous analytical results appear to have documented oxygen and nutrient (nitrate) limited natural biodegradation at the site.

Microbial use of petroleum hydrocarbons as a food source is principally affected by the concentration of dissolved oxygen (DO) in the groundwater present at a site; it is the preferred electron acceptor for the biodegradation of hydrocarbons. DO was present in pre-purge groundwater in concentrations ranging from 0.3 milligrams per liter (mg/L) to 0.6 mg/L in the November 2007 event. Because standard purge and sample techniques were used in the current quarter in order to decrease labor and equipment costs, only pre-purge DO concentrations were collected due to the elevated potential to entrain oxygen in groundwater during sampling. As seen previously at the site, there has not been a good correlation between plume core and plume perimeter wells with respect to DO with the pre-purge readings; however, based on available information the lack of dissolved oxygen has been identified as a limiting factor retarding current biological activity.

ORP is another measure of the supply and use of oxygen at a site. The higher the reading in millivolts (mV), the more oxygenated the subsurface environment is, and the lower the readings, the more anaerobic or reducing the subsurface environment is. In general, there has been an increase in the ORP values across the well field, which continues this quarter, with the highest ORP values occurring outside the plume core. This appears to suggest that the strongest demand for oxygen continues to be located in the plume core.

For a more in-depth review of recent RNA parameters, please refer to the *Remedial Investigation / Feasibility Study Report*, dated September 8, 2006.

5.0 Conclusions and Recommendations

The following summary and conclusions were generated from the available data discussed above:

- Concentrations of TPH as gasoline and BTEX rose sharply in wells MW-1R and MW-3 between the June and August sampling events, yet remained non-detectable in well MW-2. Between the August and November sampling events, concentrations of TPH as gasoline and BTEX again rose sharply in well MW-1R, rose modestly in well MW-2, but decreased in well MW-3. The November 2007 concentrations in wells MW-2 and MW-3 are similar to recent pre-injection concentrations at these wells, but differing ratios between the compounds, suggest the compounds have been mobilized from soil to groundwater.
- Increased concentrations of hydrocarbon compounds in well MW-1R are similar to those seen in well MW-1 prior to its destruction in May 2006. The third RegenOx injection event in September 2007 was selectively concentrated in the vicinity of wells MW-1R, MW-2, and upgradient of MW-3, and likely mobilized contaminants from soil to groundwater at these locations.
- Concentration trends in plume core wells are viewed as temporary yet indicate a continued source in the vicinity of, in particular, MW-1R.
- Concentrations of MTBE were not detected in the three wells sampled in the August 2007 interim sampling event, and were not detected in these wells during the November sampling event, at elevated limits of detection the three plume core wells.
- There were no detectable concentration of TPH as gasoline, BTEX, or MTBE in all downgradient or cross gradient wells (MW-4 through MW-9), at good limits of detection.
- Data gathered prior to remedial injections provided evidence at the site for recontamination of groundwater upon rise up into contaminated soil (MW-3) as well as drainage from soil to groundwater as groundwater drops in elevation at the site (MW-1 / MW-1R). The November data for well MW-3 is a departure from the general trend, as the concentration of TPH as gasoline or benzene in groundwater decreased while the groundwater elevation rose, and is likely due to the injection activities. The data from November for well MW-1R indicates a continuation of trends previously

seen at destroyed well MW-1. It is currently suspected that granular backfill and soil adjacent to the 6-inch diameter gas main located within 5 feet well MW-1R is providing a reservoir for hydrocarbons which cannot be easily and effectively reached.

- There has not been a good correlation between plume core and plume perimeter wells with respect to DO with the pre-purge readings. Based on available information the lack of dissolved oxygen has been identified as a limiting factor retarding current biological activity.
- In general ORP values remain highest outside the plume core suggesting that the strongest demand for oxygen continues to be located in the plume core.
- Excluding the anomalous groundwater elevation at well MW-1R, groundwater predominantly appeared to flow to the west and to the north during this event. Flows to the west are generally consistent with historical data, while southern and eastern flow directions have been observed previously. A northerly flow direction may partially explain impacted soil north of the former UST locations such as at bore GP8. The average groundwater gradient was calculated to be approximately 0.010 feet/foot for the current monitoring event.

The following recommendations were generated from the available data discussed above:

- The next quarterly groundwater sampling event should occur in March 2008.
- Collection of limited RNA indicator data should be continued as a modest cost saving measure. The collection of DO and ORP data may help contribute to the understanding of biodegradation beneath the site. Collection of RNA indicator data can be resumed if a need is documented.
- Interim corrective actions should be continued in accordance with the approved ICAP. Future quarterly monitoring events can be used to gauge the effectiveness of corrective actions.
- A copy of this letter report will be forwarded to:

Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Tables

**Table I, 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	
	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	

**Table I, 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

**Table I, 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	
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	

**Table I, 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
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
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
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
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

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, Inc.

Elevations in feet above mean sea level

**Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	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	Destroyed
6/21/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed

**Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	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	6.30	23	22	<10
	11/8/2007	3,800^a	330	22	140	130	<30

Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	100	1,800
MW-2	8/6/1993	2,700	1	2	2	8	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	10	13	NA
	12/15/1998	200	62	17	5	14	4.4^b
	1/18/2001	300^a	74	26	7	21	7.3
	4/25/2001	<50 ^c	5	2	1	2	<5.0
	3/17/2003*	78^a	26	3	2	4	NA ^d
	6/23/2003	160^a	51	2	1	2	NA
	9/18/2003	<50	2	<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	2	1	<30
	12/15/2004	<50	11	0.97	1	1	7.8
	6/29/2005	130	29	2	3	3	6.7
	6/13/2006	150^a	59	3	3.4	2.7	11
	2/19/2007	51^a	8	1.6	1	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	

Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	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	

Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	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
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
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
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
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

**Table II, 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
<i>Drinking Water Source</i> ¹		100	1	40	30	20	5
<i>Non-Drinking Water Source</i> ²		500	46	130	290	100	1,800
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

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

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

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 III, 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
<i>Drinking Water Source</i> ¹		NV	12	0.05	0.5	NV	50,000	NV	NV	5
<i>Non-Drinking Water Source</i> ²		NV	18,000	152	204	NV	50,000	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
MW-4	6/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	6.1

**Table III, 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
<i>Drinking Water Source</i> ¹		NV	12	0.05	0.5	NV	50,000	NV	NV	5
<i>Non-Drinking Water Source</i> ²		NV	18,000	152	204	NV	50,000	NV	NV	1,800

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 ESL

Table IV, 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	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	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
MW-1R	11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	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
MW-2	11/8/2007	0.3	-60	NA	64.4	6.9
	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	

Table IV, 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	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
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	
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
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
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

**Table IV, 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	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	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
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
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

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

Table V, 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			
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
CO₂ = Carbon Dioxide

Figures



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



BLYMYER
ENGINEERS, INC.



SITE LOCATION MAP

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

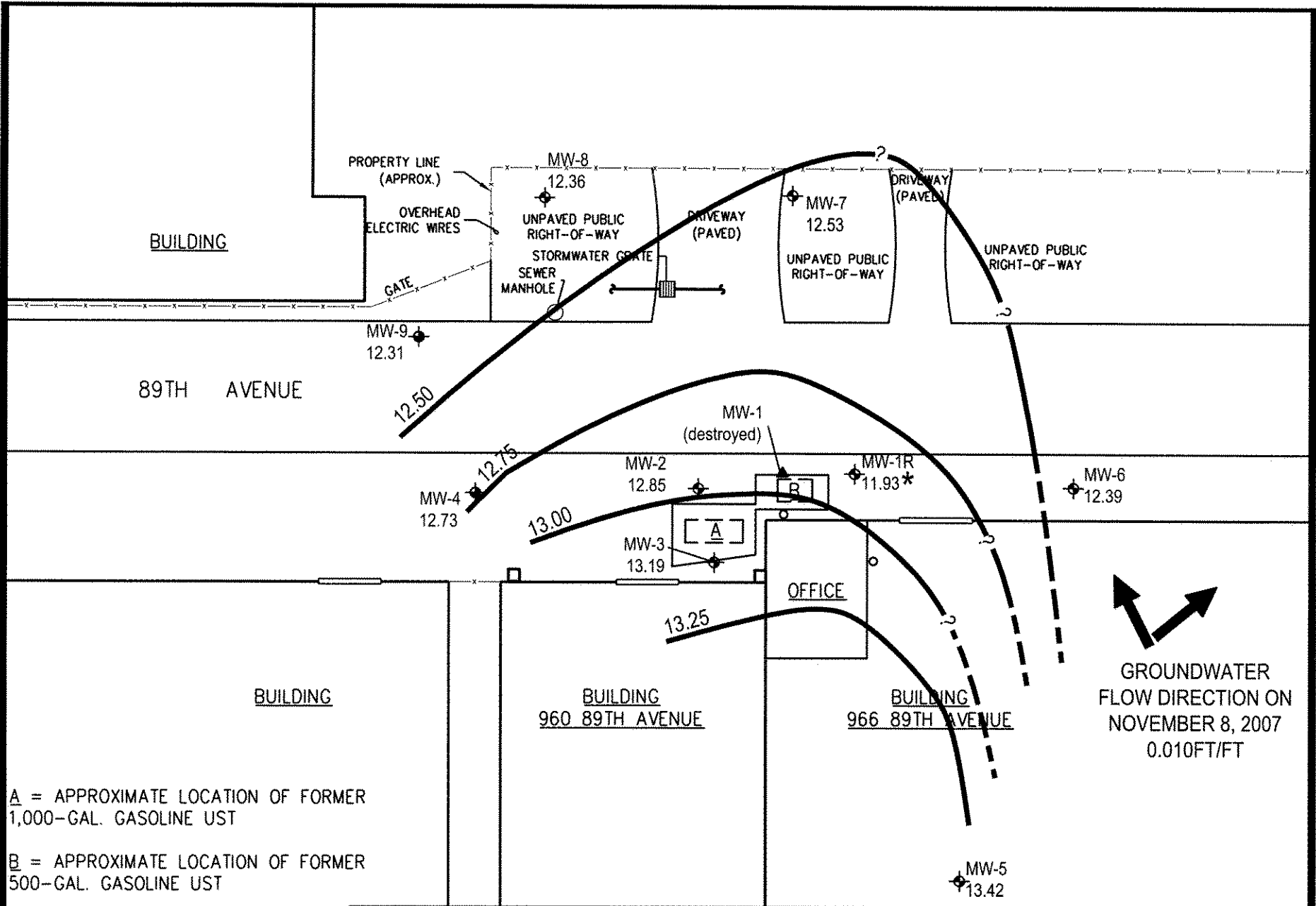
FIGURE

1

BEI JOB NO. 203004

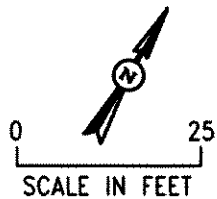
DATE 3-19-03

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

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






 BLYMYER ENGINEERS, INC.		LEGEND UST UNDERGROUND STORAGE TANK * ANOMOLOUS DATA; EXCLUDED FROM CONTOURING  GROUNDWATER MONITORING WELL  DESTROYED GW MONITORING WELL	SITE PLAN AND GROUNDWATER GRADIENT NOVEMBER 8, 2007 FORMER FIESTA BEVERAGE 966 89TH AVE. OAKLAND, CA	FIGURE 2

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

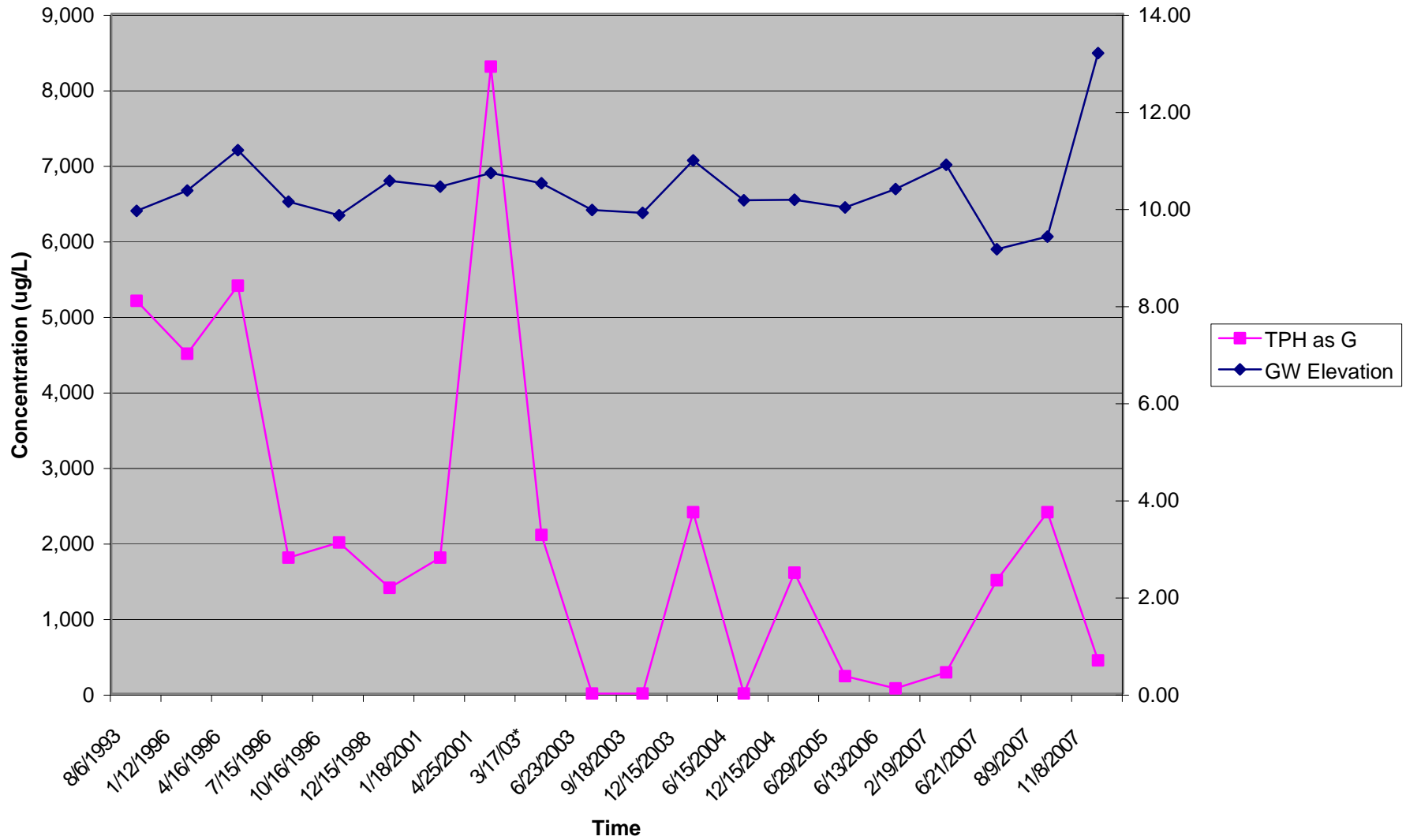


Figure 4: Concentration of Benzene vs. Time in Well MW-3

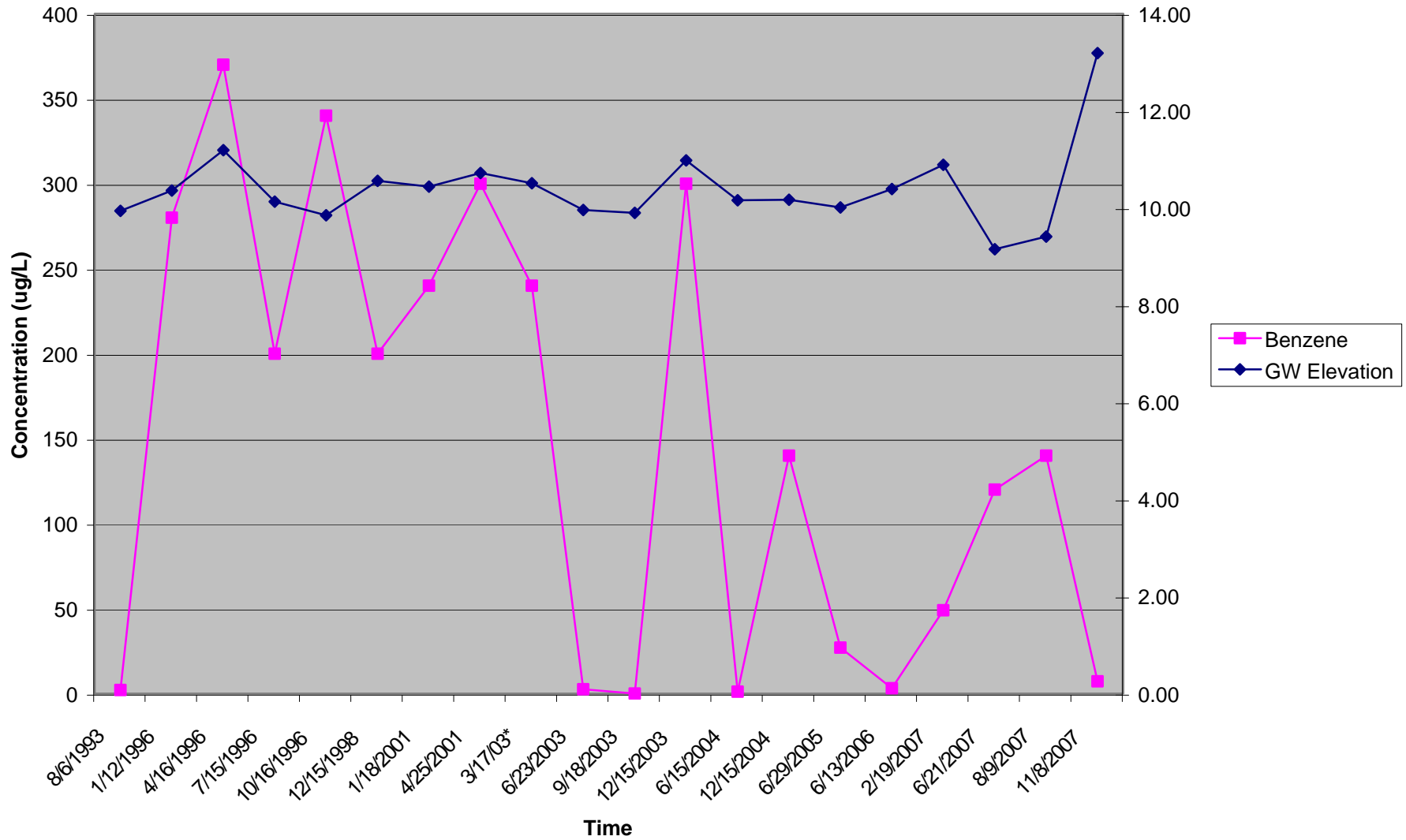


Figure 5: Concentration of TPHG vs. Time in Well MW-1 / MW-1R

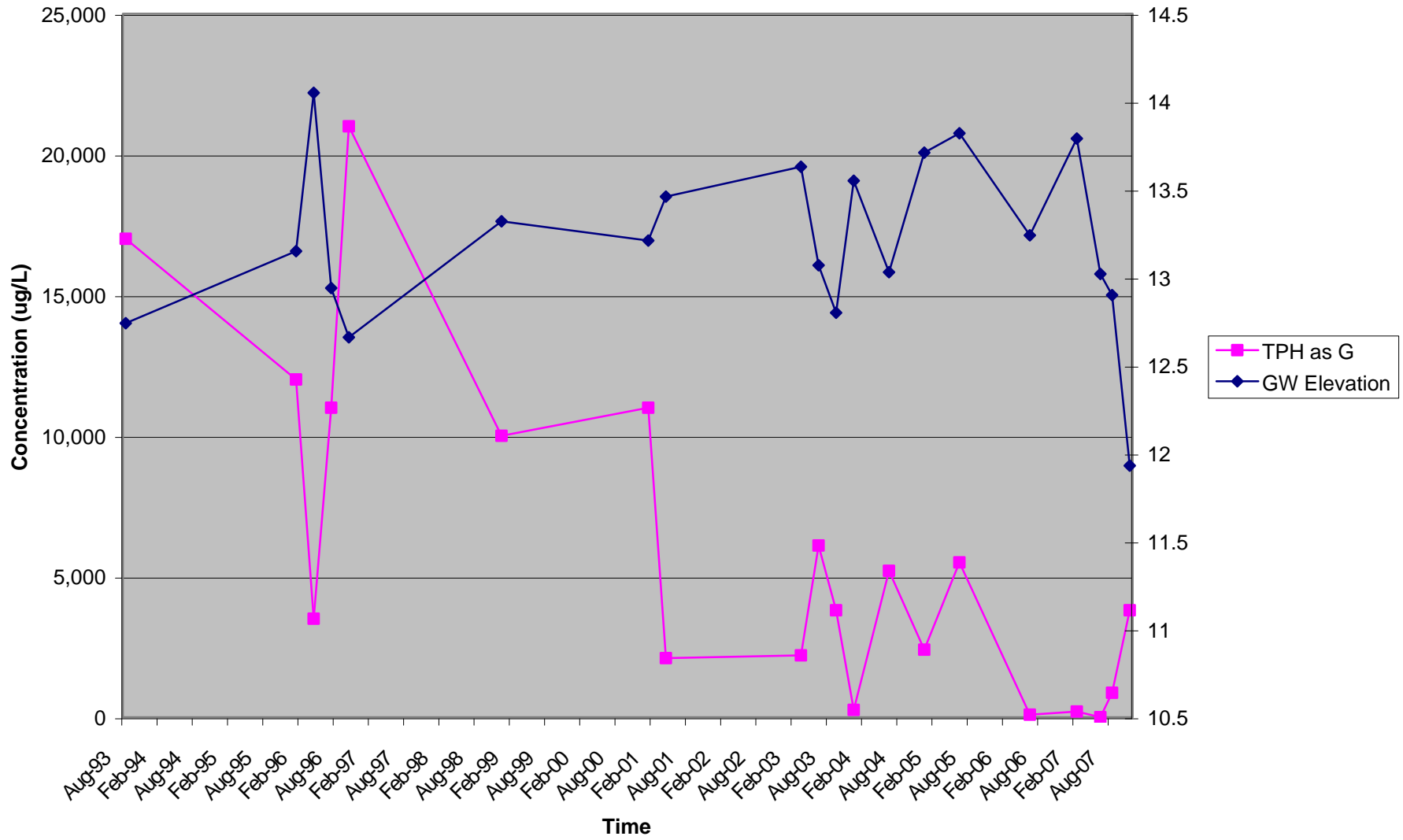
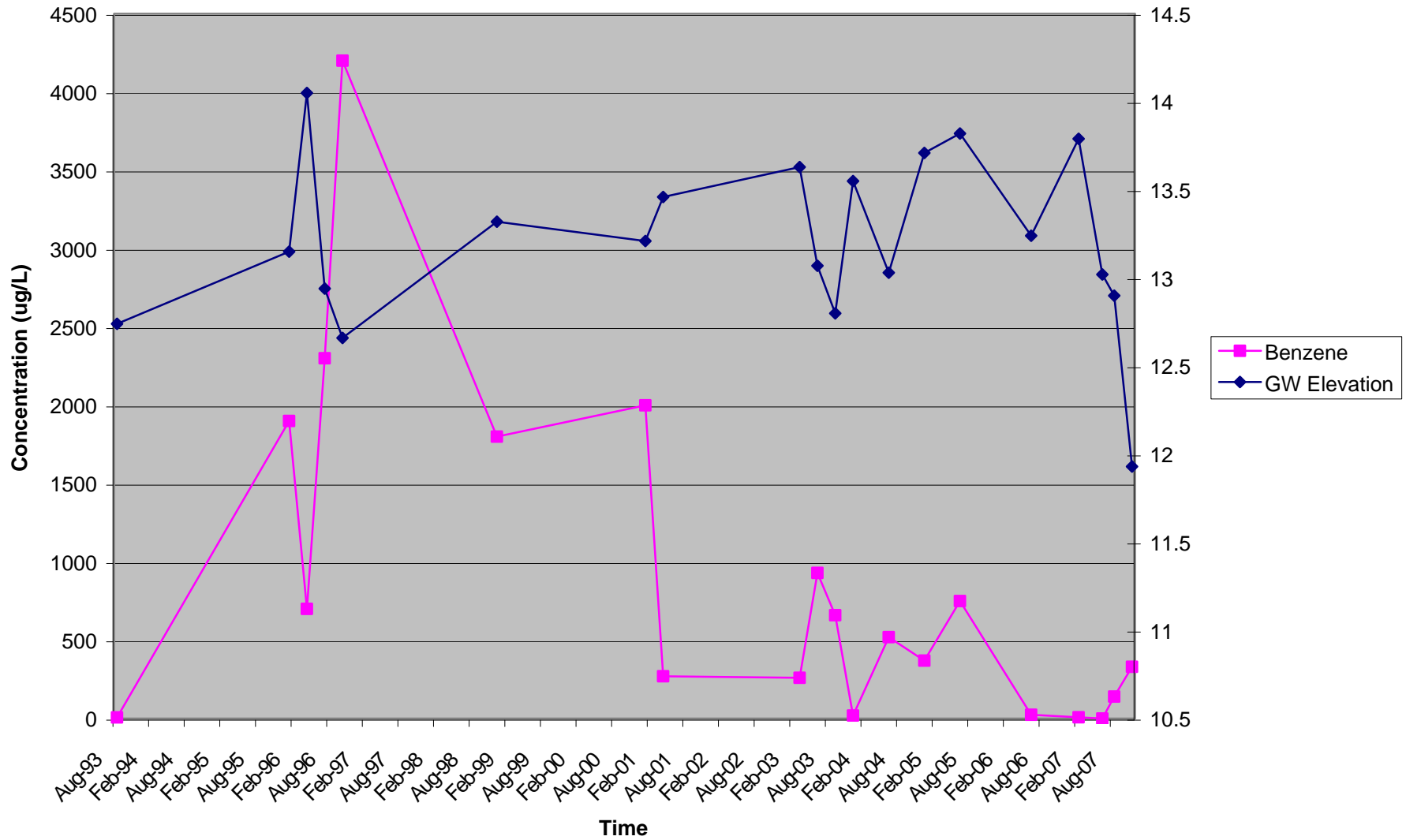


Figure 6: Concentration of Benzene vs. Time in Well MW-1 / MW-1R



Appendix A

**Soil and Groundwater Drum
*Non-Hazardous Waste Manifest***

08300705

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number		2. Page 1 of 1		3. Emergency Response Phone NRCES 610-749-1390		4. Waste Tracking Number 30018	
5. Generator's Name and Mailing Address FIESTA BEVERAGES 7150 ISLAND QUEEN DR. SPARKS NV 89436				Generator's Site Address (if different than mailing address) AT: TED WALBEY FIESTA BEVERAGES 986 89TH AVE OAKLAND CA 94621					
6. Transporter 1 Company Name NRC ENVIRONMENTAL SERVICES INC.				U.S. EPA ID Number CAR000030114					
7. Transporter 2 Company Name				U.S. EPA ID Number					
8. Designated Facility Name and Site Address Crosby & Overton, Inc. 1630 W. 17th Street Long Beach CA 90813				U.S. EPA ID Number CAD028409019					
Facility's Phone: 562-432-5445									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
		1. NON-HAZARDOUS WASTE, SOLID (SOIL CUTTINGS) PROFILE#51544			No.	Type	18000		NONE
		2. NON-HAZARDOUS WASTE, LIQUID, (PURGE WATER) (PROFILE#51545)			023	DM		P	
		3.			015	DM	750	G	
		4.			THE REFERENCED WASTE WAS RECEIVED, HANDLED AND STORED FOR SUBSEQUENT OFF-SITE DISPOSAL, TREATMENT OR REUSE. CROSBY & OVERTON, INC OPERATES THE FACILITY UNDER PERMITS GRANTED TO THEM, BY THE DEPARTMENT OF TOXIC SUBSTANCE CONTROL, TOGETHER WITH THE ENVIRONMENTAL PROTECTION AGENCY IN ACCORDANCE WITH THE PROVISIONS OF THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 TOGETHER WITH APPLICABLE FEDERAL AND STATE REGULATIONS. CROSBY & OVERTON HAS ALL OF THE NECESSARY PERMITS TO ACCEPT THE REFERENCED WASTE AND ALL THE WASTE HAS BEEN HANDLED ACCORDINGLY.				
13. Special Handling Instructions and Additional Information USE PROPER PERSONAL PROTECTIVE EQUIPMENT CONSULTANT: BLYMYER ENGINEERS, 1829, CLEMENT AVE, ALAMEDA, CA-94501 JOB/PO#: 30018 1 -> 23 x 55 DM 2 -> 15 x 55 DM									
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.									
Generator's/Officer's Printed/Typed Name TED WALBEY / Fiesta Beverages				Signature <i>Ted Walbey</i>		Month Day Year 8 28 07			
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
16. Transporter Acknowledgment of Receipt of Materials									
Transporter 1 Printed/Typed Name Tom Chimpky				Signature <i>Tom Chimpky</i>		Month Day Year 8 28 07			
Transporter 2 Printed/Typed Name				Signature		Month Day Year			
17. Discrepancy									
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
Manifest Reference Number:									
17b. Alternate Facility (or Generator) U.S. EPA ID Number									
Facility's Phone:									
17c. Signature of Alternate Facility (or Generator) Month Day Year									
18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a									
Printed/Typed Name Jed Dura				Signature <i>Jed Dura</i>		Month Day Year 8 28 07			

Appendix B

Standard Operating Procedures

Blaine Tech Services, Inc.

Blaine Tech Services, Inc.
Standard Operating Procedure

WATER LEVEL, SEPARATE PHASE LEVEL AND TOTAL WELL DEPTH MEASUREMENTS (GAUGING)

Routine Water Level Measurements

1. Establish that water or debris will not enter the well box upon removal of the cover.
2. Remove the cover using the appropriate tools.
3. Inspect the wellhead (see Wellhead Inspections).
4. Establish that water or debris will not enter the well upon removal of the well cap.
5. Unlock and remove the well cap lock (if applicable). If lock is not functional cut it off.
6. Loosen and remove the well cap. **CAUTION: DO NOT PLACE YOUR FACE OR HEAD DIRECTLY OVER WELLHEAD WHEN REMOVING THE WELL CAP. WELL CAP MAY BE UNDER PRESSURE AND/OR MAY RELEASE ACCUMULATED AND POTENTIALLY HARMFUL VAPORS.**
7. Verify and identify survey point as written on S.O.W.
 - TOC: If survey point is listed as Top of Casing (TOC), look for the exact survey point in the form of a notch or mark on the top of the casing. If no mark is present, use the north side of the casing as the measuring point.
 - TOB: If survey point is listed as Top of Box (TOB), the measuring point will be established manually. Place the inverted wellbox lid halfway across the wellbox opening and directly over the casing. The lower edge of the inverted cover directly over the casing will be the measuring point.
8. Put new Latex or Nitrile gloves on your hands.
9. Slowly lower the Water Level Meter probe into the well until it signals contact with water with a tone and/or flashing a light.
10. Gently raise the probe tip slightly above the water and hold it there. Wait momentarily to see if the meter emits a tone, signaling rising water in the casing. Gently lower the probe tip slightly below the water. Wait momentarily to see if the meter stops emitting a tone, signaling dropping water in the casing. Continue process until water level stabilizes indicating that the well has equilibrated.
11. While holding the probe at first contact with water and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Depth to Water column.
12. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable)

Water Level and Separate Phase Thickness Measurements in Wells Suspected of Containing Separate Phase

1. Establish that water or debris will not enter the well box upon removal of the cover.
2. Remove the cover using the appropriate tools.
3. Inspect the wellhead (see Wellhead Inspections).
4. Establish that water or debris will not enter the well upon removal of the well cap.

5. Unlock and remove the well cap lock (if applicable). If lock is not functional cut it off.
6. Loosen and remove the well cap. CAUTION: DO NOT PLACE YOUR FACE OR HEAD DIRECTLY OVER WELLHEAD WHEN REMOVING THE WELL CAP. WELL CAP MAY BE UNDER PRESSURE AND/OR MAY RELEASE ACCUMULATED AND POTENTIALLY HARMFUL VAPORS.
7. Verify and identify survey point as written on S.O.W.
 - TOC: If survey point is listed as Top of Casing (TOC), look for the exact survey point in the form of a notch or mark on the top of the casing. If no mark is present, use the north side of the casing as the measuring point.
 - TOB: If survey point is listed as Top of Box (TOB), the measuring point will be established manually. Place the inverted well box lid halfway across the well box opening and directly over the casing. The lower edge of the inverted cover directly over the casing will be the measuring point.
8. Put new Nitrile gloves on your hands.
9. Slowly lower the tip of the Interface Probe into the well until it emits either a solid or broken tone.
 - BROKEN TONE: Separate phase layer is not present. Go to Step 8 of Routine Water Level Measurements shown above to complete gauging process using the Interface probe as you would a Water Level Meter.
 - SOLID TONE: Separate phase layer is present. Go to the next step.
10. Gently raise the probe tip slightly above the separate phase layer and hold it there. Wait momentarily to see if the meter emits a tone, signaling rising water in the casing. Gently lower the probe tip slightly below the separate phase layer. Wait momentarily to see if the meter stops emitting a tone, signaling dropping water in the casing. Continue process until water level stabilizes indicating that the well has equilibrated.
11. While holding the probe at first contact with the separate phase layer and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Depth to Product column.
12. Gently lower the probe tip until it emits a broken tone signifying contact with water. While holding the probe at first contact with water and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Depth to Water column.
13. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable).

Routine Total Well Depth Measurements

1. Lower the Water Level Meter probe into the well until it lightens in your hands, indicating that the probe is resting at the bottom of well.
2. Gently raise the tape until the weight of the probe increases, indicating that the probe has lifted off the well bottom.
3. While holding the probe at first contact with the well bottom and the tape against the well measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Total Well Depth column.

4. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable).

Blaine Tech Services, Inc.
Standard Operating Procedure

WELL WATER EVACUATION (PURGING)

Purpose

Evacuation of a predetermined minimum volume of water from a well (purging) while *simultaneously* measuring water quality parameters is typically required prior to sampling. Purging a minimum volume guarantees that actual formation water is drawn into the well. Measuring water quality parameters either verifies that the water is stable and suitable for sampling or shows that the water remains unstable, indicating the need for continued purging. Both the minimum volume and the stable parameter qualifications need to be met prior to sampling. This assures that the subsequent sample will be representative of the formation water surrounding the well screen and not of the water standing in the well.

Defining Casing Volumes

The predetermined minimum quantity of water to be purged is based on the wells' casing volume. A casing volume is the volume of water presently standing within the casing of the well. This is calculated as follows:

$$\text{Casing Volume} = (\text{TD} - \text{DTW}) \text{ VCF}$$

1. Subtract the wells' depth to water (DTW) measurement from its total depth (TD) measurement. This is the height of the water column in feet.
2. Determine the well casings' volume conversion factor (VCF). The VCF is based on the diameter of the well casing and represents the volume, in gallons, that is contained in one (1) foot of a particular diameter of well casing. The common VCF's are listed on our Well Purge Data Sheets.
3. Multiply the VCF by the calculated height of the water column. This is the casing volume, the amount of water in gallons standing in the well.

Remove Three to Five Casing Volumes

Prior to sampling, an attempt will be made to purge all wells of a minimum of three casing volumes and a maximum of five casing volumes except where regulations mandate the minimum removal of four casing volumes.

Choose the Appropriate Evacuation Device Based on Efficiency

In the absence of instructions on the SOW to the contrary, selection of evacuation device will be based on efficiency.

Measure Water Quality Parameters at Each Casing Volume

At a minimum, water quality measurements include pH, temperature and electrical conductivity (EC). Measurements are made and recorded at least once every casing volume. They are considered stable when all parameters are within 10% of their previous measurement.

Note: The following instructions assume that well has already been properly located, accessed, inspected and gauged.

Prior to Purging a Well

1. Confirm that the well is to be purged and sampled per the SOW.
2. Confirm that the well is suitable based on the conditions set by the client relative to separate phase.
3. Calculate the wells' casing volume.
4. Put new Latex or Nitrile gloves on your hands.

Purging With a Bailer (Stainless Steel, Teflon or Disposable)

1. Attach bailer cord or string to bailer. Leave other end attached to spool.
2. Gently lower empty bailer into well until well bottom is reached.
3. Cut cord from spool. Tie end of cord to hand.
4. Gently raise full bailer out of well and clear of well head. Do not let the bailer or cord touch the ground.
5. Pour contents into graduated 5-gallon bucket or other graduated receptacle.
6. Repeat purging process.
7. Upon removal of first casing volume, fill clean parameter cup with purgewater, empty the remainder of the purgewater into the bucket, lower the bailer back into the well and secure the cord on the Sampling Vehicle.
8. Use the water in the cup to collect and record parameter measurements.
9. Continue purging until second casing volume is removed.
10. Collect parameter measurements.
11. Continue purging until third casing volume is removed.
12. Collect parameter measurements. If parameters are stable, stop purging. If parameters remain unstable, continue purging until stabilization occurs or the fifth casing volume is removed.

Purging With a Pneumatic Pump

1. Position Pneumatic pump hose reel over the top of the well.
2. Gently unreel and lower the pump into the well. Do not contact the well bottom.
3. Secure the hose reel.
4. Begin purging into graduated 5-gallon bucket or other graduated receptacle.
5. Adjust water recharge duration and air pulse duration for maximum efficiency.
6. Upon removal of first casing volume, fill clean parameter cup with water.
7. Use the water in the cup to collect and record parameter measurements.
8. Continue purging until second casing volume is removed.

9. Collect parameter measurements.
10. Continue purging until third casing volume is removed.
11. Collect parameter measurements. If parameters are stable, stop purging. If parameters remain unstable, continue purging until stabilization occurs or the fifth casing volume is removed.
12. Upon completion of purging, gently recover the pump and secure the reel.

Purging With a Fixed Speed Electric Submersible Pump

1. Position Electric Submersible hose reel over the top of the well.
2. Gently unreel and lower the pump to the well bottom.
3. Raise the pump 5 feet off the bottom.
4. Secure the hose reel.
5. Begin purging.
6. Verify pump rate with flow meter or graduated 5-gallon bucket
7. Upon removal of first casing volume, fill clean parameter cup with water.
8. Use the water in the cup to collect and record parameter measurements.
9. Continue purging until second casing volume is removed.
10. Collect parameter measurements.
11. Continue purging until third casing volume is removed.
12. Collect parameter measurements. If parameters are stable, stop purging. If parameters remain unstable, continue purging until stabilization occurs or the fifth casing volume is removed.
13. Upon completion of purging, gently recover the pump and secure the reel.

Blaine Tech Services, Inc.
Standard Operating Procedure

**SAMPLE COLLECTION
FROM GROUNDWATER WELLS USING BAILERS**

Sampling with a Bailer (Stainless Steel, Teflon or Disposable)

1. Put new Latex or Nitrile gloves on your hands.
2. Determine required bottle set.
3. Fill out sample labels completely and attach to bottles.
4. Arrange bottles in filling order and loosen caps (see Determine Collection Order below).
5. Attach bailer cord or string to bailer. Leave other end attached to spool.
6. Gently lower empty bailer into well until water is reached.
7. As bailer fills, cut cord from spool and tie end of cord to hand.
8. Gently raise full bailer out of well and clear of well head. Do not let the bailer or cord touch the ground. If a set of parameter measurements is required, go to step 9. If no additional measurements are required, go to step 11.
9. Fill a clean parameter cup, empty the remainder contained in the bailer into the sink, lower the bailer back into the well and secure the cord on the Sampling Vehicle. Use the water in the cup to collect and record parameter measurements.
10. Fill bailer again and carefully remove it from the well.
11. Slowly fill and cap sample bottles. Fill and cap volatile compounds first, then semi-volatile, then inorganic. Return to the well as needed for additional sample material.

Fill 40-milliliter vials for volatile compounds as follows: Slowly pour water down the inside on the vial. Carefully pour the last drops creating a convex or positive meniscus on the surface. Gently screw the cap on eliminating any air space in the vial. Turn the vial over, tap several times and check for trapped bubbles. If bubbles are present, repeat process.

Fill 1 liter amber bottles for semi-volatile compounds as follows: Slowly pour water into the bottle. Leave approximately 1 inch of headspace in the bottle. Cap bottle.

Field filtering of inorganic samples using a stainless steel bailer is performed as follows: Attach filter connector to top of full stainless steel bailer. Attach 0.45 micron filter to connector. Flip bailer over and let water gravity feed through the filter and into the sample bottle. If high turbidity level of water clogs filter, repeat process with new filter until bottle is filled. Leave headspace in the bottle. Cap bottle.

Field filtering of inorganic samples using a disposable bailer is performed as follows: Attach 0.45 micron filter to connector plug. Attach connector plug to bottom of full disposable bailer. Water will gravity feed through the filter and into the sample bottle. If high turbidity level of water clogs filter, repeat process with new filter until bottle is filled. Leave headspace in the bottle. Cap bottle.

12. Bag samples and place in ice chest.
13. Note sample collection details on well data sheet and Chain of Custody.

Appendix C

***Well Monitoring Data Sheets and Well Gauging Data,
Dated August 9, 2007 and November 8, 2007
Blaine Tech Services, Inc.***

SPH or Purge Water Drum Log

Client: Blymer
 Site Address: 966 89th Ave. Oakland CA

STATUS OF DRUM(S) UPON ARRIVAL						
Date	6/21/07	8/09/07				
Number of drum(s) empty:						
Number of drum(s) 1/4 full:		1				
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:	4					
Total drum(s) on site:	4 (All BTS)	4				
Are the drum(s) properly labeled?	Y	Y				
Drum ID & Contents:	XXXXXXXXXX	Purge H ₂ O				
If any drum(s) are partially or totally filled, what is the first use date:	injection	06/02/06				

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.
- If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.
- All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	6/21/07	08/09/07				
Number of drums empty:						
Number of drum(s) 1/4 full:	1					
Number of drum(s) 1/2 full:		1				
Number of drum(s) 3/4 full:						
Number of drum(s) full:	5 1 BTS 4 Non	5 1 BTS 4 Non				
Total drum(s) on site:	6	6				
Are the drum(s) properly labeled?	Y	Y				
Drum ID & Contents:	Purge H ₂ O	Purge H ₂ O				

LOCATION OF DRUM(S)
 Describe location of drum(s): Behind building through roll up door

FINAL STATUS						
Number of new drum(s) left on site this event	2	2/10/07				
Date of inspection:	6/21/07	8/09/07				
Drum(s) labelled properly:	Y	N/A				
Logged by BTS Field Tech:	DR	WW				
Office reviewed by:	mb					

WELLHEAD INSPECTION CHECKLIST

Date 08-09-07 Client BLYMER ENGINEERS
 Site Address 966 89th Ave OAKLAND, CA
 Job Number 070800-ww1 Technician WW, KF

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1R	X							
MW-2	X ^{ww}				DIRT X			
MW-3	X ^{ww}				DIRT X ^{ww}			
MW-5	X							

NOTES: MW-7: 2 1/2 Bolts missing

WELL GAUGING DATA

Project # 070809-ww1 Date 08-09-07 Client BLYMER ENGINEERS

Site 966 89th Ave. Oakland, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
MW-1R	0820	2					8.83	21.35	↓	
MW-2	0824	2				8.50	24.90 23.75			
MW-3	0834	2				9.60	24.90			
MW-5	0838	2				9.17	19.71	Inside		

WELL MONITORING DATA SHEET

Project #: 070807 ^{www} 070809-ww1	Client: <u>BLYMER Engineers Inc.</u>
Sampler: <u>WW, KF</u>	Date: <u>08-09-07</u>
Well I.D.: <u>MW-1R</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>21.35</u>	Depth to Water (DTW): <u>8.83</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.33</u>	

Purge Method: Bailer WATER Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
^{www} Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ ~~Dedicated Tubing~~
 Other: New 1/2 inch tubing

2.00 (Gals.) X 3 = 6.00 Gals.
 I Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0918	17.9	6.6	735	135	2	clear
0926	17.8	6.5	715	37	4	clear
0934	18.0	6.5	711	20	6	clear

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Date: 08-09-07 Sampling Time: 0940 Depth to Water: 9.10

Sample I.D.: MW-1R Laboratory: Kiff CalScience Other: HCC AMPBELL
Cytochrome

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

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.3	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	148	mV

WELL MONITORING DATA SHEET

Project #: <u>070809-ww1</u>	Client: <u>Blymes Engineers Inc.</u>
Sampler: <u>ww, KF</u>	Date: <u>8/09/07</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): <u>23.75</u>	Depth to Water (DTW): <u>8.62</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.65</u>	

Purge Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Positive Air Displacement Electric Submersible	Wattera <input checked="" type="checkbox"/> Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>New Tubing 1/4"</u>
--	--	--

$\underline{2.4} \text{ (Gals.)} \times \underline{3} = \underline{7.2} \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0957	18.5	6.8	665	17	2.4	clear
1007	18.9	6.9	691	72	4.8	clear
1017	19.1	7.3	664	24	7.2	clear DTW = 14.03

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>7.2</u>
Sampling Date: <u>8/09/07</u>	Sampling Time: <u>1110</u> Depth to Water: <u>9.03</u>
Sample I.D.: <u>MW-2</u>	Laboratory: Kiff CalScience Other: <u>McCampbell</u> <u>Cytoculture</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>see COC</u>
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: _____
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: <u>0.5</u> mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: <u>74</u> mV

WELL MONITORING DATA SHEET

Project #: 070809-ww1	Client: Blymyer
Sampler: WW, ICF	Date: 8/09/07
Well I.D.: MW-3	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 24.90	Depth to Water (DTW): 9.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.66	

Purge Method: Bailer	Watterra	Sampling Method: Bailer
Disposable Bailer	<input checked="" type="checkbox"/> Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: <u>New 1/4" tubing</u>

2.4 (Gals.) X	3	= 7.2 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1036	18.7	7.4	855	12	2.4	clear, odor
1047	17.9	7.3	863	7	4.8	" "
1057	18.1	7.2	820	8	7.2	" "

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 7.2	
Sampling Date: 8/09/07	Sampling Time: 1059	Depth to Water: 12-30
Sample I.D.: MW-3	Laboratory: Kiff CalScience	Other: <u>McCampbell</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>see COC</u>	
EB I.D. (if applicable): @ _____ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: 0.3 mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: 65 mV	

WELL MONITORING DATA SHEET

Project #: 070809-WW1	Client: BLYMER ENGINEERS
Sampler: WW, KF	Date: 08-09-07
Well I.D.: MW-5	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 19.71	Depth to Water (DTW): 9.17
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.28	

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

Other: _____

1.68 (Gals.) X 3 = 5.04 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0816	17.6	7.00	103	>1000	^{ww} 5.017	cloudy, brown
0848	17.6	7.0	691	>1000	^{ww} 70.34	" "
0851	17.7	6.8	687	>2000	5.04	" "

ORP

Did well dewater? Yes No Gallons actually evacuated: 5.0

Sampling Date: 08-09-07 Sampling Time: 0855 Depth to Water: 9.20

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other cy to culture

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

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

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

D.O. (if req'd):	Pre-purge: 0.3 ^{ww} mg/L	Post-purge: 0.3 mg/L
O.R.P. (if req'd):	Pre-purge: 226 ^{ww} mV	Post-purge: 226 mV

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB McC Campbell DHS # _____
 ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
 EPA RWQCB REGION _____
 LIA
 OTHER

CHAIN OF CUSTODY
 BTS # 071108-KP1

CLIENT Blymyer Engineers, Inc.

SITE Former Fiesta Beverage

966 89th Avenue

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-G (8015M)
 BTEX & MTBE (8021B)

SPECIAL INSTRUCTIONS
 Invoice and Report to : Blymyer Engineers, Inc.
 Attn: Mark Detterman
 EDF Format Required.

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	CONTAINERS		C	TPH-G (8015M)	BTEX & MTBE (8021B)									ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
				TOTAL																	
MW-1R	11/8/07	1115	W	3	HCL Voa		X	X													
MW-2		1138	W	3	HCL Voa		X	X													
MW-3		1145	W	3	HCL Voa		X	X													
MW-4		1011	W	3	HCL Voa		X	X													
MW-5		0850	W	3	HCL Voa		X	X													
MW-6		1133	W	3	HCL Voa		X	X													
MW-7		0911	W	3	HCL Voa		X	X													
MW-8		0930	W	3	HCL Voa		X	X													
MW-9	↓	0951	W	3	HCL Voa		X	X													

SAMPLING COMPLETED DATE 11/8/07 TIME 1145 SAMPLING PERFORMED BY K. Cordes, K.R. RESULTS NEEDED NO LATER THAN As contracted

RELEASED BY [Signature] DATE 11/8/07 TIME 1415 RECEIVED BY [Signature] DATE 11/8/07 TIME 1416

RELEASED BY _____ DATE _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____

WELLHEAD INSPECTION CHECKLIST

Date 11/8/07 Client BLXMYER
 Site Address 966 89th Ave, Oakland, CA
 Job Number 071108-KF1 Technician KF

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1R	X							
MW-2		2/2	solts	missing				
MW-3	X							
MW-4	X							
MW-5	X							
MW-6	X							
MW-7	X							
MW-8		cement surrounding PVC has a large hole						
MW-9		"						"

NOTES: _____

WELL GAUGING DATA

Project # 071108-1KF1 Date 11/8/07 Client BLYMYER

Site 966 89th Ave, Oakland, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes		
MW-1R	0817	2					9.80	21.50	TOC			
MW-2	0820	↓					8.60	23.81	↓			
MW-3	0830		odor				8.83	24.89				
MW-4	0824						8.61	21.78				
MW-5	0834						9.11	19.68				
MW-6	0759						9.58	19.74				
MW-7	0805						8.68	21.68				
MW-8	0810						8.61	19.86				
MW-9	0814		↓					8.67		22.01	↓	

WELL MONITORING DATA SHEET

Project #: 071108-KFI	Client: BLMYER
Sampler: KF, KR	Date: 11/13/07
Well I.D.: MW-1R	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth (TD): 21.50	Depth to Water (DTW): 9.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.14	

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

$1.9 \text{ (Gals.)} \times 3 = 5.7 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1107	63.5	6.92	938.9	>1000	1.9	silly
1109	64.1	6.88	944.2	71000	3.8	↓
1111	64.4	6.90	916.2	7100	5.7	↓

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 5.7
Sampling Date: 11.8.07 Sampling Time: 1115 Depth to Water: 11.50	
Sample I.D.: MW-1R Laboratory: Kiff CalScience Other: McCoy	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See CDC	
EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: 0.3 mg/L Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: -60 mV Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: 071108-KFI	Client: Blymer
Sampler: IC, CR	Date: 11/8/07
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 23.81	Depth to Water (DTW): 8.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.64	

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

2.4 (Gals.) X 3 = 7.2 Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp. (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1027	64.4	7.14	675	315	2.4	cloudy
1031	64.6	7.01	661	516	4.8	cloudy
1034	64.0	7.07	668	631	7.2	cloudy
					DTW = 17.81	

Did well dewater? Yes No Gallons actually evacuated: 7.2

Sampling Date: 11/8/07 Sampling Time: 1138 Depth to Water: 10.5

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

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

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

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

D.O. (if req'd):	Pre-purge:	0.4 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	209 mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071108-KF1	Client: BL/MYER
Sampler: KF, KR	Date: 11.8.07
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 21.78	Depth to Water (DTW): 8.61
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.24	

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

$2.1 \text{ (Gals.)} \times 3 = 6.3 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1004	62.5	7.05	643.4	509	2.1	cloudy
1006	62.5	6.95	641.2	797	4.2	cloudy
1008	62.7	6.96	641.7	>1000	6.3	brown

Did well dewater? Yes No Gallons actually evacuated: **6.3**

Sampling Date: **11.8.07** Sampling Time: **1011** Depth to Water: **9.28**

Sample I.D.: **MW-4** Laboratory: Kiff CalScience Other: **McLampall**

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

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

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

D.O. (if req'd):	Pre-purge:	0.3 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	222 mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071109-KF1	Client: BLMYER
Sampler: KF, KR	Date: 11.8.07
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth (TD): 19.68	Depth to Water (DTW): 9.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.22	

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

1.7 (Gals.) X **3** = **5.1** Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
840	63.5	6.91	660	>1000	1.7	brown
841	63.8	6.87	654	>1000	3.4	
844	63.9	6.85	652	>1000	5.1	↓

Did well dewater? Yes No Gallons actually evacuated: **5.1**

Sampling Date: **11.8.07** Sampling Time: **850** Depth to Water: **9.30**

Sample I.D.: **MW-5** Laboratory: Kiff CalScience Other **McCampbell**

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

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

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

D.O. (if req'd): Pre-purge: **0.3** mg/L Post-purge: **0.3** mg/L

O.R.P. (if req'd): Pre-purge: **211** mV Post-purge: **211** mV

WELL MONITORING DATA SHEET

Project #: 071108-KFI	Client: Blymer
Sampler: KF, KR	Date: 11/8/07
Well I.D.: MW-6	Well Diameter: ② 3 4 6 8 _____
Total Well Depth (TD): 19.74	Depth to Water (DTW): 9.58
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.61	

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

1.6 (Gals.) X	3	= 4.8 Gals.
I Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1126	63.4	6.92	702.2	185	1.6	clear
1128	63.6	6.94	708.7	478	3.2	cloudy
1130	63.5	6.99	722.6	71000	4.8	
					DTW =>	13.92

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 4.8	
Sampling Date: 11.8.07	Sampling Time: 1133	Depth to Water: 11.61
Sample I.D.: MW-6	Laboratory: Kiff CalScience Other: McCampbell	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC		
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:		
D.O. (if req'd): Pre-purge: 0.6 mg/L	Post-purge: mg/L	
O.R.P. (if req'd): Pre-purge: -8 mV	Post-purge: mV	

W L MONITORING DATA SHE

Project #: 071108-KF1	Client: Plymner
Sampler: KF, KR	Date: 11/8/07
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 21.68	Depth to Water (DTW): 8.68
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: RVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.28	

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

2.1	(Gals.) X	3	=	6.3	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0904	64.7	6.97	683	>1000	2.1	Brown, odor
0906	64.7	6.91	681	>1000	4.2	brown
0908	64.5	6.90	682	>1000	6.3	brown

Did well dewater? Yes No Gallons actually evacuated: 6.3

Sampling Date: 11/8/07 Sampling Time: 0911 Depth to Water: 8.80

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

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

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

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

D.O. (if req'd): Pre-purge: 0.3 mg/L Post-purge: ~~0.3-0.3~~ (ED) mg/L

O.R.P. (if req'd): Pre-purge: 227 mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 071108.KF1	Client: BLYMYER
Sampler: KF, KR	Date: 11.8.07
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth (TD): 19.86	Depth to Water (DTW): 8.61
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.86	

Purge Method: Bailer Waterra Sampling Method: Bailer

Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

Other: _____

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><u>1.8</u> (Gals.) X</td> <td style="width: 33%;"><u>3</u></td> <td style="width: 33%;">= <u>5.4</u> Gals.</td> </tr> <tr> <td>1 Case Volume</td> <td>Specified Volumes</td> <td>Calculated Volume</td> </tr> </table>	<u>1.8</u> (Gals.) X	<u>3</u>	= <u>5.4</u> Gals.	1 Case Volume	Specified Volumes	Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
<u>1.8</u> (Gals.) X	<u>3</u>	= <u>5.4</u> Gals.																					
1 Case Volume	Specified Volumes	Calculated Volume																					
Well Diameter	Multiplier	Well Diameter	Multiplier																				
1"	0.04	4"	0.65																				
2"	0.16	6"	1.47																				
3"	0.37	Other	radius ² * 0.163																				

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0922	65.4	6.98	745	>1000	1.8	shown
0926	65.7	7.00	764.6	>1000	3.6	
0927	64.3	7.01	763.3	>1000	5.4	↓

Did well dewater? Yes No Gallons actually evacuated: **5.4**

Sampling Date: **11.8.07** Sampling Time: **930** Depth to Water: **9.72**

Sample I.D.: **MW-8** Laboratory: Kiff CalScience Other **McCoyball**

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

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

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

D.O. (if req'd):	Pre-purge:	0.3 mg/L	Post-purge:		
O.R.P. (if req'd):	Pre-purge:	232 mV	Post-purge:		

WELL MONITORING DATA SHEET

Project #: 071108-KF1	Client: Plymex
Sampler: KF, KR	Date: 11/8/07
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 22.01	Depth to Water (DTW): 8.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.34	

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

2.1	(Gals.) X 3	= 6.3
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0944	64.4	7.11	645	272	2.1	Cloudy, odor
0946	64.8	6.95	643	686	4.2	" "
0948	65.1	6.94	643	794	6.3	" "

Did well dewater? Yes No Gallons actually evacuated: 6.3

Sampling Date: 11/8/07 Sampling Time: 0951 Depth to Water: 9.01

Sample I.D.: MW-9 Laboratory: Kiff CalScience Other: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: S.P. LOC

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

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

D.O. (if req'd):	Pre-purge:	0.4	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	230	mV	Post-purge:	mV

Appendix D

Analytical Laboratory Reports

Dated August 15, 2007 and November 15, 2007

McCampbell Analytical, Inc.

and

August 17, 2007

CytoCulture International, Inc.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta beverage	Date Sampled: 08/09/07
		Date Received: 08/10/07
	Client Contact: Mark Detterman	Date Reported: 08/15/07
	Client P.O.:	Date Completed: 08/15/07

WorkOrder: 0708317

August 15, 2007

Dear Mark:

Enclosed are:

- 1). the results of **3** analyzed samples from your **Former Fiesta beverage 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. McC Campbell 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

0708317

BTSS

ICE/w 11.40
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT VOAS O&G METALS OTHER

McC Campbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER
- RWQCB REGION _____

CHAIN OF CUSTODY

BTS # 070809-WW1

CLIENT

Blymyer Engineers, Inc.

SITE

Former Fiesta Beverage

966 89th Avenue

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-G (8015M)

BTEX & MTBE (8021B)

SPECIAL INSTRUCTIONS

Invoice and Report to : Blymyer Engineers, Inc.

Attn: Mark Detterman

EDF Format Required.

SAMPLE I.D.	DATE	TIME	MATRIX	CONTAINERS		C	TPH-G (8015M)	BTEX & MTBE (8021B)									ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
			S = SOIL W = H ₂ O	TOTAL																	
+ MW-1R	8/09/07	0940	W	3	HCL Voa		X	X													
(+) MW-2	8/09/07	1110	W	3	HCL Voa		X	X													
(+) MW-3	8/09/07	1059	W	3	HCL Voa		X	X													

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	8/09/07	1110	K. Cordes, W. Wang	As contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
W. Wang	08-09-07	1645	W. Wang	08-09-07	1647

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Mark Detterman (Sample Custodian)	8/10/07	1320	Mark Detterman	8-10-07	1320

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Mark Detterman	8/10	1600	Chaker	8/10/07	5:15pm

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0708317

ClientID: BEIA

EDF Excel Fax Email HardCopy ThirdParty

Report to:	Bill to:	Requested TAT: 5 days
Mark Detterman	Accounts Payable	
Blymyer Engineers, Inc.	Blymyer Engineers, Inc.	<i>Date Received 08/10/2007</i>
1829 Clement Avenue	1829 Clement Avenue	<i>Date Printed: 08/10/2007</i>
Alameda, CA 94501-1395	Alameda, CA 94501-1395	

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0708317-001	MW-1R	Water	8/9/2007 9:40:00	<input type="checkbox"/>	A	A											
0708317-002	MW-2	Water	8/9/2007 11:10:00	<input type="checkbox"/>	A												
0708317-003	MW-3	Water	8/9/2007 10:59:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

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.



Sample Receipt Checklist

Client Name: **Blymyer Engineers, Inc.**

Date and Time Received: **8/10/2007 5:13:08 PM**

Project Name: **Former Fiesta beverage**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0708317** Matrix Water

Carrier: Derik Cartan (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 shipping 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: 11.4°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:



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta beverage	Date Sampled: 08/09/07
		Date Received: 08/10/07
	Client Contact: Mark Detterman	Date Extracted: 08/11/07
	Client P.O.:	Date Analyzed 08/11/07

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0708317

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1R	W	870,a	ND<10	140	6.3	23	22	1	97
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	98
003A	MW-3	W	2400,a	ND<65	140	19	100	110	2	104

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/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 McC Campbell 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) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0708317

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 29928			Spiked Sample ID: 0708326-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	86.5	89.5	3.45	88.5	90	1.71	70 - 130	30	70 - 130	30
MTBE	ND	10	97.9	98.9	0.966	99	76	26.2	70 - 130	30	70 - 130	30
Benzene	ND	10	85.8	89.6	4.37	86.2	85.4	0.904	70 - 130	30	70 - 130	30
Toluene	ND	10	80	83.2	3.95	87	86.4	0.758	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	87.6	91.9	4.71	90.5	90.3	0.209	70 - 130	30	70 - 130	30
Xylenes	ND	30	85.3	90	5.32	99.7	100	0.334	70 - 130	30	70 - 130	30
%SS:	88	10	100	101	1.82	92	92	0	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 29928 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0708317-001A	08/09/07 9:40 AM	08/11/07	08/11/07 7:41 AM	0708317-002A	08/09/07 11:10 AM	08/11/07	08/11/07 9:11 AM
0708317-003A	08/09/07 10:59 AM	08/11/07	08/11/07 11:15 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.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta Beverage	Date Sampled: 11/08/07
		Date Received: 11/09/07
	Client Contact: Mark Detterman	Date Reported: 11/15/07
	Client P.O.:	Date Completed: 11/15/07

WorkOrder: 0711260

November 15, 2007

Dear Mark:

Enclosed are:

- 1). the results of **9** analyzed samples from your **Former Fiesta Beverage 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. McC Campbell 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

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

0711260

CONDUCT ANALYSIS TO DETECT

LAB **McCCampbell** DHS # _____
 ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

EPA RWQCB REGION _____
 LIA
 OTHER

CHAIN OF CUSTODY
 BTS # 071108-KP1

CLIENT **Blymyer Engineers, Inc.**

SITE **Former Fiesta Beverage**

966 89th Avenue

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-G (8015M)

BTEX & MTBE (8021B)

SPECIAL INSTRUCTIONS

 Invoice and Report to : Blymyer Engineers, Inc.
 Attn: Mark Detterman
 EDF Format Required.

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
-------------------	--------	-----------	--------------

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	TOTAL	CONTAINERS	TPH-G (8015M)	BTEX & MTBE (8021B)										
+	MW-1R	11/8/07	1115	W	3	HCL Voa	X	X									
+	MW-2		1138	W	3	HCL Voa	X	X									
+	MW-3		1145	W	3	HCL Voa	X	X									
+	MW-4		1011	W	3	HCL Voa	X	X									
+	MW-5		0850	W	3	HCL Voa	X	X									
+	MW-6		1133	W	3	HCL Voa	X	X									
+	MW-7		0911	W	3	HCL Voa	X	X									
+	MW-8		0930	W	3	HCL Voa	X	X									
+	MW-9		0951	W	3	HCL Voa	X	X									

ICE 11/16
GOOD CONDITION APPROPRIATE
HEAD SPACE ABSENT CONTAINERS
DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION VOAS TO B.G. METALS OTHER

SAMPLING COMPLETED DATE 11/8/07 TIME 1145 SAMPLING PERFORMED BY **K. Cordes, K.R.** RESULTS NEEDED NO LATER THAN As contracted

RELEASED BY <i>[Signature]</i>	DATE 11/8/07	TIME 1415	RECEIVED BY <i>[Signature]</i>	DATE 11/8/07	TIME 1416
--------------------------------	--------------	-----------	--------------------------------	--------------	-----------

RELEASED BY <i>[Signature]</i>	DATE 11/8/07	TIME 1200	RECEIVED BY <i>[Signature]</i>	DATE 11/9/07	TIME 1200
--------------------------------	--------------	-----------	--------------------------------	--------------	-----------

RELEASED BY <i>[Signature]</i>	DATE 11/9/07	TIME 1340	RECEIVED BY K. BURYS	DATE 11-9-07	TIME
--------------------------------	--------------	-----------	-----------------------------	--------------	------

SHIPPED VIA	DATE SENT	TIME SENT	Cooler #
-------------	-----------	-----------	----------

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0711260

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) 521-3773 FAX: (510) 865-2594
ProjectNo: Former Fiesta Beverage
PO:

Bill to:

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

Requested TAT: 5 days

Date Received: 11/09/2007

Date Printed: 11/09/2007

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0711260-001	MW-1R	Water	11/8/2007	<input type="checkbox"/>	A	A											
0711260-002	MW-2	Water	11/8/2007	<input type="checkbox"/>	A												
0711260-003	MW-3	Water	11/8/2007	<input type="checkbox"/>	A												
0711260-004	MW-4	Water	11/8/2007	<input type="checkbox"/>	A												
0711260-005	MW-5	Water	11/8/2007 8:50:00	<input type="checkbox"/>	A												
0711260-006	MW-6	Water	11/8/2007	<input type="checkbox"/>	A												
0711260-007	MW-7	Water	11/8/2007 9:11:00	<input type="checkbox"/>	A												
0711260-008	MW-8	Water	11/8/2007 9:30:00	<input type="checkbox"/>	A												
0711260-009	MW-9	Water	11/8/2007 9:51:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Kimberly Burks

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.



Sample Receipt Checklist

Client Name: **Blymyer Engineers, Inc.**

Date and Time Received: **11/9/2007 4:46:33 PM**

Project Name: **Former Fiesta Beverage**

Checklist completed and reviewed by: **Kimberly Burks**

WorkOrder N°: **0711260** Matrix Water

Carrier: Michael Hernandez (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 shipping 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: 11.6°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:



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta Beverage	Date Sampled: 11/08/07
		Date Received: 11/09/07
	Client Contact: Mark Detterman	Date Extracted: 11/12/07-11/14/07
	Client P.O.:	Date Analyzed 11/12/07-11/14/07

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0711260

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1R	W	3800,a	ND<30	330	22	140	130	1	93
002A	MW-2	W	160,a	ND<10	23	5.0	5.3	14	1	104
003A	MW-3	W	440,a	ND<15	7.2	3.3	8.6	26	1	97
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	90
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	90
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	91
007A	MW-7	W	ND	ND	ND	ND	ND	ND	1	106
008A	MW-8	W	ND	ND	ND	ND	ND	ND	1	126
009A	MW-9	W	ND	ND	ND	ND	ND	ND	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/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 McC Campbell 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) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0711260

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 31823			Spiked Sample ID: 0711251-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	100	96.8	3.30	99.9	99.2	0.718	70 - 130	30	70 - 130	30
MTBE	ND	10	87.2	88	1.01	90.2	88.8	1.63	70 - 130	30	70 - 130	30
Benzene	ND	10	90	87.7	2.64	92.1	92.3	0.262	70 - 130	30	70 - 130	30
Toluene	ND	10	91.2	88.8	2.61	92.6	92.8	0.239	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	96.6	93.8	2.98	97.7	98.8	1.08	70 - 130	30	70 - 130	30
Xylenes	ND	30	109	106	3.08	110	110	0	70 - 130	30	70 - 130	30
%SS:	101	10	89	90	0.293	92	90	2.45	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 31823 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711260-001A	11/08/07 11:15 AM	11/13/07	11/13/07 2:01 AM	0711260-002A	11/08/07 11:38 AM	11/13/07	11/13/07 2:31 AM
0711260-003A	11/08/07 11:45 AM	11/13/07	11/13/07 3:02 AM	0711260-004A	11/08/07 10:11 AM	11/13/07	11/13/07 3:32 AM
0711260-005A	11/08/07 8:50 AM	11/12/07	11/12/07 10:28 PM	0711260-006A	11/08/07 11:33 AM	11/12/07	11/12/07 11:02 PM
0711260-007A	11/08/07 9:11 AM	11/14/07	11/14/07 2:04 AM	0711260-008A	11/08/07 9:30 AM	11/13/07	11/13/07 12:10 AM
0711260-009A	11/08/07 9:51 AM	11/13/07	11/13/07 12:44 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.



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 dilution 10^0) 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

Mark Detterman

From: Biodiesel [Biodiesel@cytoculture.com]
Sent: Friday, August 24, 2007 4:24 PM
To: Mark Detterman
Subject: Report for Former Fiesta Beverage
Attachments: Water 07-114.doc; invoice 07-114.xls

Hi Mark,

As discussed, attached is the completed bacteria enumeration report and invoice for project # 07080-WW1. The signed version of the report and invoice will be mailed out to you today.

Have a Great Weekend,
Sharon

CytoCulture International, Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA
Tel; 510 233-6660
Fax: 510 233-3777

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