RO-210

# LETTER OF TRANSMITTAL

BLYMYER ENGINEERS, INC.

1829 Clement Avenue

Alameda, California 94501-1396

(510) 521-3773 FAX: (510) 865-2594

| | |
|---|---|
| DATE April 22, 2005 | BEI Job No. 202016 |
| ATTENTION: | **Mr. Robert Schultz** |
| SUBJECT: | Dolan Property |
| | Scarlett Ct. |
| | Dublin, CA |
| | Fuel Leak Case No. RO0000210 |

Alameda County Health Care Services Agency

Environmental Protection Division

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

Alameda County Health

APR 25 2005

Alameda County

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| 1 | 4/11/05 | | Blymyer Engineers; Final; *First Quarter 2005 Groundwater Monitoring Event* |
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REMARKS: Per the request of Michael Fitzpatrick, Trustee, a copy of this report is attached.

Please call if you have any questions.

COPY TO: File
Mr. Michael Fitzpatrick, Trustee
Mr. Peter MacDonald, Esquire

SIGNED: Mark Detterman

If enclosures are not as noted, kindly notify Blymyer Engineers, Inc. at once.

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Estate of Michael Dolan
Mr. Michael Fitzpatrick, Trustee
P.O. Box 31654
Walnut Creek, CA 94598

4 - 13 - , 2005

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

Re: Perjury Statement
Dolan Property, 6393 Scarlett Court, Dublin, California; RO-210

Dear Mr. Schultz,

"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."

Michael Fitzpatrick, Trustee

Michael Fitzpatrick, Trustee

c. Mr. Peter MacDonald, Esq.

BLYMYER
ENGINEERS, INC.

April 11, 2005
BEI Job No. 202016

Mr. Michael Fitzpatrick, Trustee
Estate of Michael Dolan
P.O. Box 31654
Walnut Creek, CA 94598

**Subject:** **First Quarter 2005 Groundwater Monitoring Event**
**Dolan Property**
**6393 Scarlett Court**
**Dublin, California**
**ACHCSA Fuel Leak Case No. RO0000210**

Dear Mr. Fitzpatrick:

This letter documents the First Quarter 2005 groundwater monitoring event at the subject site (Figure 1). This is the fifth groundwater monitoring event conducted by Blymyer Engineers, Inc. at the Dolan Property in Dublin, California.

## 1.0 Background

A 600-gallon underground storage tank (UST) was removed in February 1990 from the subject site (Figure 2). Although the UST had reportedly stored diesel more recently, soil and groundwater samples collected for laboratory analysis indicated that the contaminant of concern at the site was gasoline. Files maintained by the Alameda County Health Care Service Agency (ACHCSA) do not contain waste manifests for the disposal of soil, although a *Uniform Hazardous Waste Manifest* is present documenting the disposal of a 600-gallon UST. This suggests that contaminated soil may not have been removed from the site. In October 1990, five soil bores were installed at the site, and soil and grab groundwater samples were collected. Additional delineation work was conducted in November 1991, when groundwater monitoring wells MW-1 through MW-4 were installed to a depth of 20 feet below grade surface (bgs). Soil and groundwater samples were collected. In November 1992, 14 additional soil bores were installed, and soil and grab groundwater samples were collected from selected bore locations. Although there were several data gaps in the perimeter zone of soil and groundwater delineation, the soil and groundwater plumes were largely defined as a result of this investigation. The groundwater plume did not appear to extend offsite; however, a thin free-phase layer was present immediately adjacent to the former UST basin, and at a location approximately 40 feet to the east. Additional wells were proposed to fill the existing data gaps and to monitor the lateral extent of impacted groundwater and free-phase. As a consequence, in March 1995, wells MW-5 and MW-6 were installed to a depth of 10 feet bgs. Intermittent groundwater sample collection or groundwater monitoring has occurred at the facility since 1991. In an August 1998 letter, the ACHCSA suggested that a health risk analysis or the installation of an oxygen

releasing compound (ORC) might be appropriate for the site. Also in the August 1998 letter, the ACHCSA stated that groundwater sampling of wells MW-1, MW-3, MW-5, and MW-6 could be discontinued, stated that the sampling interval could be decreased to a semiannual basis, and requested resumption of groundwater monitoring.

In May 2002, Blymyer Engineers was retained by Mr. Michael Fitzpatrick, on behalf of Mr. Michael Dolan, to conduct semiannual groundwater sampling of wells MW-2 and MW-4, and to conduct a file review to help determine the next appropriate step at the site.

In May 2002, Blymyer Engineers located and rehabilitated the wells at the site. Well MW-5 required the most extensive rehabilitation work, and will require resurveying due to a change in well casing elevation. In June 2002, wells MW-2 and MW-4 were sampled, while depth to groundwater was measured all of the wells. Except for a slight increase in benzene in groundwater from well MW-4, the concentration of all analytes in the two wells decreased from the August 1997 sampling event. Based upon a review of the results, the ACHCSA recommended that well MW-5 be incorporated into the sampling program and that quarterly groundwater monitoring resume in order that contaminant concentrations and contaminant trends could be quickly generated for the recommended health risk assessment.

Two additional quarters were completed prior to the death of Mr. Dolan. Groundwater monitoring was on hold after January 2003 due to the Estate becoming established. During the groundwater monitoring event in December 2002, analysis for the fuel oxygenates was conducted by EPA Method 8260B. All fuel oxygenates were found to be non-detectable at good limits of detection. Consequently, all sporadic occurrences of methyl tert-butyl ether (MTBE) previously detected at the site have been attributed to 3-methyl-pentane, another gasoline related compound. This suggests that the release predates the use of MTBE and other fuel oxygenates as gasoline additives. All previously available data from the site has been tabulated on Tables I through III.

On June 13, 2003, a workplan was submitted to the ACHCSA in order to allow further subsurface delineation of impacted soil at the site. In a telephone conversation on June 16, 2003, Mr. Scott Seery mentioned that it was unlikely that he would be able to respond in a timely manner due to the work load at the ACHCSA, and noted that if a response was not issued 60 days after receipt, regulations stated that the workplan should be considered approved. Consequently, field work commenced on September 13, 2003. Nine Geoprobe® soil bores were installed at the site to augment existing soil data. The data indicated that the lateral and vertical extent of impacted soil at the site had been adequately delineated to relatively low concentrations, and the limits further refined for the purposes of determining appropriate remedial actions (*Geoprobe® Subsurface Investigation*, dated October 10, 2003).

Based on these data, and a lack of further comments by the ACHCSA, a *Remedial Action Plan* (RAP), dated April 6, 2004, was issued. The plan detailed overexcavation and construction

dewatering, as the principal method of remedial action. Introduction of ORC into the resulting excavation as an additional measure of insurance, should residual contamination be intentionally or unintentionally left in place, was also proposed. Use of ORC was proposed based on general knowledge that biodegradation of petroleum hydrocarbons is generally an oxygen limited process. A Request for Proposal (RFP) was generated in early May 2004 for contractor bidding purposes; however, it was not released due to a change in the timeline for sale closure. On September 2, 2004, Blymyer Engineers contacted Mr. Seery in order to determine the status of the RAP review. At that time, Mr. Seery notified Blymyer Engineers that Mr. Robert Schultz was the new case manager for the site. Mr. Schultz required time to review and become familiar with the file. On November 15, 2004, the ACHCSA issued a 5 page response letter (*Fuel Leak Case No. RO0000210*) requesting extensive further work and containing several deadlines. A December 31, 2004 deadline was established for a workplan for additional site characterization. The *Workplan for Additional Investigation and Letter Report*, dated December 23, 2004, was submitted to the ACHCSA on January 3, 2005.

In a letter dated January 24, 2005, the ACHCSA approved the workplan provided four conditions were met:

- A pilot hole was to be used to identify lithology prior to collection of a groundwater sample from a deeper water-bearing zone,
- Should additional groundwater wells be required, the ACHCSA would be consulted regarding well construction details,
- Should additional soil or groundwater samples be required, the ACHCSA would be kept informed of planned changes and consistent dynamic investigation procedures, and
- A 72-hour written advanced warning would be provided.

On February 18, 2005, Blymyer Engineers mobilized to the site to install two to three dual-tube direct-push soil bores in an attempt to collect the approved soil and groundwater samples. As a precursor to the mobilization, a conduit survey was conducted. However, due to poor soil recovery an additional mobilization to the site was required. After notifying, and obtaining approval from, the ACHCSA 72 hours in advance, a Cone Penetrometer Test (CPT) direct-push rig was mobilized to the site on March 28, 2005. These activities will be documented under separate cover. Prior to the March 28, 2005 mobilization, the ACHCSA approved a reduction in the quarterly analytical program, based on historical analytical trends. Specifically, hydrocarbon analysis of groundwater samples from wells MW-1, MW-3, and MW-6 was eliminated.

**2.0 Well Survey**

At the request of the ACHCSA, Blymyer Engineers contacted the Zone 7 Water Agency (Zone 7) in October 2002 and requested a 1/4-mile-radius well survey be conducted for the site. A copy of the well survey is attached as Appendix A. Five water supply wells were originally located within the

1/4-mile radius and a sixth was located east of the site, but outside the search radius. These wells are indicated by solid (functioning) or open (destroyed) triangles on the figure in Appendix A. According to Zone 7 (Mr. Wyman Hong, personal communication, October 2002), these wells are screened in a lower water bearing zone than site wells. Additionally, approximately eight contamination investigation sites were located in the vicinity of the site (one was located just outside the search radius). Monitoring wells at these sites are indicated by filled (functioning wells) or open (destroyed wells) diamonds. One of these sites is the subject site. Additional wells, in a miscellaneous or unknown category, were located by the Zone 7 search. These wells are indicated by a filled circle on the figure in Appendix A. These wells can include cathodic protection anode installations according to Mr. Hong.

In November 2002, the ACHCSA requested that copies of the water supply well bore logs be forwarded to the ACHCSA to verify the screening interval reported by Zone 7. Due to restrictions placed on the dissemination of private well information by state laws, the bore logs can only be forwarded directly to ACHCSA. However, pertinent data for the wells, as reported verbally by Zone 7, has been assembled in Table A-1, attached in Appendix A.

**3.0 Groundwater Sample Collection and Analytical Methods**

Groundwater samples were collected from all monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) on March 23, 2005. The 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 all wells at the site. Temperature, pH, conductivity, and turbidity were measured initially, and then after removal of each of three well casing volumes. Additionally, Remediation by Natural Attenuation (RNA) parameters, including dissolved oxygen (DO), the Oxidation Reduction Potential (ORP), and ferrous iron were monitored in the field. Both DO and ORP were monitored initially, and then post-purging. Purging was conducted with a positive air displacement pump in order to minimize entrainment of oxygen into the groundwater sample. Blaine utilized a downhole probe attached to an YSI meter to obtain the DO values during the present groundwater monitoring and sampling event. However, in the future, as requested by the ACHCSA, a flow cell will be utilized to obtain DO readings, and purging and sampling will be conducted using a low-flow pump. The groundwater depth measurements and details of the monitoring well purging and sampling are presented on the *Well Monitoring Data Sheets* and *Well Gauging Data* sheet 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 Department of Transportation-approved 55-gallon drums 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. Groundwater samples from wells MW-2, MW-4, and MW-5 were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline and as diesel by Modified

EPA Method 8015; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE by EPA Method 8021B. Groundwater samples from all wells were analyzed for Carbon Dioxide by Standard Method 5310B; Nitrate and Sulfate by Standard Method E300.1; and Methane by Method RSK 174. Tables II to V summarize current and previous analytical results for groundwater samples. Because MTBE was again detected using EPA Method 8021B, and because the lead scavengers 1,2-Dibromoethane (EDB) and 1,2-Dichloroethane (1, 2-DCA) had not been previously analyzed for at the most impacted well at the site (MW-2), this groundwater sample was selected for confirmation of the presence of all fuel oxygenates (*tert*-Butyl Alcohol [TBA], Di-isopropyl Ether [DIPE], Ethyl *tert*-Butyl Ether [ETBE], and Methyl *tert*-Amyl Ether [TAME]) as well as lead scavengers by EPA Method 8260B. The laboratory analytical report for the current sampling event is included as Appendix D.

**4.0 Petroleum Hydrocarbon Groundwater Sample Analytical Results**

Hydrocarbon analysis of groundwater samples from perimeter wells MW-1, MW-3, and MW-6 was not conducted during the current sampling event due to the lack of detectable results during the previous quarterly event. These data were consistent with all previous analytical data over an 11 to 13 year period for those wells. Except for the detection of MTBE at a concentration of 23 $\mu$g/L in well MW-5, this perimeter well also yielded a nondetectable concentration of petroleum hydrocarbons, consistent with the majority of historic groundwater analytical results at this location.

Only wells MW-2 and MW-4 have generally yielded consistent concentrations of petroleum hydrocarbons previously. During the current event, well MW-4 contained petroleum hydrocarbons at relatively low concentrations (120 $\mu$g/L TPH as gasoline and 5.0 $\mu$g/L toluene). Plume core well MW-2 yielded concentrations of all analytes at generally higher concentrations in comparison to the previous groundwater sampling event conducted in December 2004. A copy of the groundwater petroleum hydrocarbon analytical results can be found in Appendix D, and the results are summarized in Table II and Table III.

Because MTBE was again detected at the site using EPA Method 8021B, and because the lead scavengers EDB and 1, 2-DCA had not been previously analyzed for at the most impacted well at the site (MW-2), this groundwater sample was selected for confirmation of the presence of all fuel oxygenates and lead scavengers by EPA Method 8260B. Because EPA Method 8021B produces false MTBE positives due to the coelution of MTBE with 3-methyl-pentane, another gasoline compound, EPA Method 8260B is required to distinguish between the two chemicals. The analysis of groundwater from well MW-2 yielded a detectable result for 1, 2-DCA at a concentration of 5.4 $\mu$g/L. Other oxygenates and lead scavengers were not detected at elevated limits of detection due to the dilutions required because of the elevated hydrocarbon compound concentrations in the sample. The lack of MTBE in groundwater collected from well MW-2 is generally consistent with previous analysis for fuel oxygenates conducted in December 2002. These results again suggest that there may be potentially two separate releases at the site, an non-MTBE-bearing release as detected in

well MW-2 (screened between 5 and 20 feet bgs) and a MTBE-bearing release detected in well MW-5 (screened between 3 and 10 feet bgs). Of note is that EDB, 1, 2-DCA, ethanol, and methanol were not detected at good limits of detection in well MW-5. This suggests that portions of the release predate the use of fuel oxygenates as gasoline fuel additives.

The laboratory has previously included a note that the hydrocarbon quantified as TPH as diesel in wells MW-2 and MW-5 was present in the requested quantitation range (diesel), but that it did not resemble the fuel pattern requested. A review of the chromatograms from wells during the September 2002 quarter indicated that the hydrocarbon detected in the diesel range in groundwater from well MW-2 is associated with the heavy end of gasoline fuel (carbon range C4 to C12) which overlaps into the typical carbon range occupied by diesel (carbon range C10 to C22). However, the compound previously detected in well MW-5 suggests that it may be an aged diesel product as the smooth curve lay between carbon ranges C10 to C22.

**5.0 Intrinsic Bioremediation Groundwater Sample Analytical Results**

Tables IV and V present the analytical results of the 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. A copy of the results of groundwater intrinsic bioremediation analyses is included in Appendix D.

In the order of preference, the following electron acceptors and metabolic by-products are used and generated, respectively, by the subsurface microbes to degrade petroleum hydrocarbons: oxygen to carbon dioxide, nitrate to nitrogen, manganese ($Mn^{4+}$ to $Mn^{2+}$), ferric iron ($Fe^{3+}$) to ferrous iron ($Fe^{2+}$), sulfate to hydrogen sulfide, and carbon dioxide to methane. With the exception of oxygen, use of all other electron acceptor pathways indicate anaerobic degradation. Investigation of each of these electron acceptor pathways, with the exception of the manganese pathway, was conducted at the site as part of the evaluation of RNA chemical parameters.

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. Both pre-purge and post-purge values were recorded. DO was present in pre-purge groundwater in concentrations ranging from 0.1

milligrams per liter (mg/L) in most monitoring wells to 5.1 mg/L in the groundwater sample from upgradient well MW-1. Post-purge DO results were scattered, decreasing significantly in well MW-1, increasing in wells MW-4, MW-5, and MW-6, and remaining unchanged in wells MW-2 and MW-3. No single explanation can account for this scatter. It is believed that the pre-purge result from MW-1 is anomalous, the results from MW-2 and MW-3 are believed to be representative of formational groundwater at those locations, and the results from wells MW-4, MW-5, and MW-6 are either representative of formational groundwater or a result of use of a disposable bailer to collect groundwater samples from the wells.

The 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. These data are consistent with data collected during the previous groundwater monitoring event in December 2004. In pre-purge field measurements it is apparent that upgradient well MW-1 and downgradient well MW-3 contained the highest ORP readings, and that well MW-2, located in the core of the contamination plume, contained the lowest, most anaerobic environment at the site. Of interest, well MW-4, slightly downgradient of the release location contained slightly negative ORP values, and this again suggests that background ORP values may be undergoing re-establishment.

One of the by-products of microbial hydrocarbon degradation is the conversion of oxygen to carbon dioxide. Reviewing the generated data, upgradient well MW-1 and downgradient well MW-3 contain the lowest concentrations of carbon dioxide, presumed to be indicative of low microbial activity up- and down-gradient of the release. In general, the concentration of carbon dioxide increases in closer proximity to the release location, and thus is presumed to represent microbial activity in groundwater in the vicinity of the release. Well MW-2, located in the plume core, again contains the second highest concentration of carbon dioxide at the site. The higher concentration of carbon dioxide in groundwater obtained from well MW-5 again appears to be a bit unusual; however, in conjunction with the lower ORP value obtained from groundwater from well MW-5, microbial activity in well MW-5 is suggested.

Should oxygen be in insufficient supply in groundwater, the next preferred electron acceptor is nitrate, which creates denitrifying conditions. In denitrifying conditions, nitrate concentrations decrease in the contaminant plume over background nitrate concentrations. Groundwater nitrate concentrations are all relatively uniform and a decrease in nitrate concentrations is not readily apparent. This may suggest that sufficient oxygen may be present in groundwater without forcing the microbes to resort using nitrate as an electron acceptor. This can also indicate an area of naturally low nitrate concentrations.

Following the continuing trend of electron acceptors at the site, ferrous iron concentrations were evaluated at the site. Ferrous iron concentrations are expected to rise as subsurface microbes convert ferric iron to ferrous iron. Ferric iron concentrations were not quantified, however ferrous

iron concentrations ranged from 0.0 mg/L (wells MW-1, MW-3, MW-5, and MW-6) to 2.0 mg/L (MW-2). As would be expected, there is a distinct correlation between higher ferrous iron concentrations and more highly contaminated groundwater (wells MW-2 and MW-4), or in other words, with well locations more central to the contaminant release location. This indicates that microbes are utilizing iron to degrade contaminants in this area of the site. This suggests that groundwater beneath the site is naturally low in nitrate, as the microbes also appear to be using ferric iron as an electron acceptor. Wells furthest upgradient and downgradient (MW-1 and MW-3, respectively) contained non-detectable concentrations of ferrous iron. Shallower wells (MW-5 and MW-6) also contained non-detectable concentrations of ferrous iron. This appears to indicate that any microbial degradation of contaminants in wells MW-5 and MW-6 ceases prior to the conversion of ferric iron to ferrous iron.

Continuing the trend of electron acceptors at the site, sulfate concentrations were also evaluated as part of the evaluation of RNA chemical parameters. If utilized by the microbes, sulfate concentrations, like nitrate concentrations, decrease in the contaminant plume over background sulfate concentrations. This is the trend seen at the site. The highest concentrations of sulfate are again found in wells MW-1 and MW-5, as well as downgradient MW-3. These are taken to represent background, or natural sulfate concentrations in the site vicinity. As would be expected in this scenario, the lowest concentration of sulfate is found in well MW-2, in the plume core. This indicates that highly sulfate-reducing conditions are present at the site in the plume core. It is interesting to note that moderate-level sulfate concentrations are present in wells MW-4 and MW-6. These concentrations are taken to indicate that a modest recovery to background sulfate concentrations is underway at these well locations. Conversion of the sulfate to hydrogen sulfide can influence the pH of the groundwater (lower pH values with higher hydrogen sulfide concentrations). As in the previous quarter, this was again not observed at the site.

Further along the trend of electron acceptors, the conversion of carbon dioxide to methane was investigated at the site. The presence of methane in groundwater can be attributed to fermentation of natural organic matter as well as petroleum hydrocarbons. However, if utilized by the microbes, methane would increase relative to carbon dioxide. This is the trend observed at the site. Up- and downgradient wells (MW-1 and MW-3, respectively) again contained the lowest concentrations of methane, and is presumed to represent the degradation of natural organic matter, while plume core well MW-2 contained the highest concentration of methane. Groundwater from wells MW-4, MW-5, and MW-6 yielded relatively moderate concentrations of methane, and may indicate the beginning of the re-establishment of background methane concentrations. An analysis of groundwater from upgradient well MW-1, with high sulfate concentrations, very low methane concentrations, and "background" carbon dioxide concentrations, appears to indicate, as expected, that groundwater at well MW-1 is not impacted, that microbial activity is minimal, and microbial activity is at background levels.

## 6.0 Groundwater Flow Data

Previously surveyed top-of-casing (TOC) elevations were used to construct a groundwater gradient map (Figure 2). Wells MW-5 and MW-6 were not used to construct the map as the wells are screened at a shallower level than wells MW-1 through MW-4. Based on a review of the case file at the ACHCSA, groundwater elevations in wells MW-5 and MW-6 appear to have been historically consistently different than wells MW-1 through MW-4 at the site. Additionally, well MW-5 could not be used as the well has not been resurveyed after previous wellhead repairs. Groundwater depths during this monitoring event ranged between 1.14 to 3.40 feet below the top of the casings. On average, depth to groundwater decreased by approximately 1.32 feet across the site since the December 2004 monitoring and sampling event. As opposed to the previous quarterly event, there appears to be a slight difference in the groundwater level between the shallower and deeper well sets during this quarterly event. The direction of groundwater flow is more difficult to determine than typical this quarter. Based on available data it appears to be trending southeast to east. Historically, groundwater has generally flowed to the south to southwest at the site; however, in November 1993 groundwater was also documented to have flowed to the east. Groundwater monitoring and sampling for the current quarter occurred between heavy rain events. It may be possible that the poor condition of pavement (heavily cracked, inconsistently patched, well potholed, and intermittently absent in heavy traffic areas) may allow rapid rainwater infiltration into the subsurface. Shallow granular units, natural and former UST basin fill, also would further allow rapid infiltration of water. This could significantly effect the apparent direction of groundwater beneath the site. The average groundwater gradient was calculated at 0.015 feet/foot for this monitoring event.

## 7.0 Conclusions and Recommendations

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

- Hydrocarbon analysis of groundwater samples from perimeter wells MW-1, MW-3, and MW-6 was not conducted during the current sampling event due to the lack of detectable results during the previous quarterly event. This is consistent with over 11 to 13 years of analytical results.

- Except for the detection of MTBE at a concentration of 23 $\mu$g/L in well MW-5, the well yielded nondetectable concentrations of petroleum hydrocarbons, consistent with the majority of historic groundwater analytical results from this perimeter well.

- Plume core well MW-2 yielded concentrations of all analytes at generally higher concentrations in comparison to the previous groundwater sampling event conducted in December 2004.

- Except for the detection of 1, 2-DCA in well MW-2, and MTBE in well MW-5, all fuel oxygenates were nondetectable at elevated limits of detection.

- RNA chemical parameters were investigated to help determine the level of biological degradation of the petroleum hydrocarbons at the site. DO, ORP, carbon dioxide, nitrate, ferrous iron, sulfate, and methane were analyzed. Microbial use of petroleum hydrocarbons as a food source appears to be principally affected by the concentration of DO in the groundwater; it is the preferred electron acceptor for the biodegradation of hydrocarbons. Because each of the other electron acceptors, in the listed order, are preferred less by microbes to degrade hydrocarbons, and because each parameter was apparently fully utilized by microbes beneath the site, it appears that biological degradation of hydrocarbons is occurring in groundwater beneath the investigation area, and that the process is oxygen-limited.

- Groundwater beneath the site appears to be naturally low in nitrate.

- Groundwater flow appears to be towards the southeast to east and the average groundwater gradient was calculated at 0.015 feet/foot for this monitoring event. Monitoring and sampling occurred between heavy rainstorms, and due to a pavement surface in poor condition, as well as granular surficial units, rapid rain infiltration is likely to have affected the apparent flow direction and gradient.

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

- The next quarterly groundwater sampling event should occur in June 2005.

- Site wells should be resurveyed to allow the site to be incorporated into the state GeoTracker program. This has been requested by the ACHCSA to occur prior to the June 2005 event.

- A conduit survey has been conducted to determine if preferential pathways are present in the vicinity of the former UST basin. The results should be included in the site well resurvey.

- RNA indicators should continue to be monitored in all wells to help assess the effect of biodegradation at the site. A low-flow pump and a flow cell will be utilized in the future to collect groundwater samples and RNA readings.

- A copy of this letter report should be forwarded to:

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

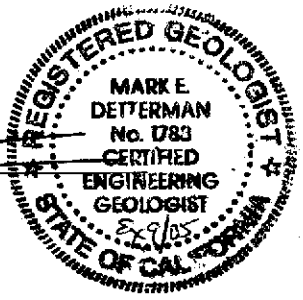
**8.0 Limitations**

Services performed by Blymyer Engineers have been provided in accordance with generally accepted professional practices for the nature and conditions of the 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.

Please call Mark Detterman at (510) 521-3773 with any questions or comments.

Sincerely,

Blymyer Engineers, Inc.




By: _____
Mark Detterman, C.E.G. 1788
Senior Geologist

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

Enclosures:

| | |
|---|---|
| Table I: | Summary of Groundwater Elevation Measurements |
| Table II: | Summary of Groundwater Sample Hydrocarbon Analytical Results |
| Table III: | Summary of Groundwater Sample Fuel Additive Analytical Results |
| Table IV: | Summary of Groundwater Intrinsic Bioremediation Field Results |
| Table V: | Summary of Groundwater Intrinsic Bioremediation Analytical Results |
| Figure 1: | Site Location Map |
| Figure 2: | Site Plan and Groundwater Gradient, March 23, 2005 |
| Appendix A: | Zone 7 Water Agency Well Search and Table A-1 |
| Appendix B: | *Standard Operating Procedures*, Blaine Tech Services, Inc. |
| Appendix C: | *Purge Drum Inventory Log, Wellhead Inspection Checklist, Well Gauging Data,* and *Well Monitoring Data Sheets,* Blaine Tech Services, Inc., March 23, 2005 |
| Appendix D: | Analytical Laboratory Report, McCampbell Analytical, Inc., dated March 31, 2005 |

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# *Tables*

| Table I, Summary of Groundwater Elevation Measurements<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | | |
|---|---|---|---|---|
| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
| MW-1 | 11/27/91 | 326.61 | 4.82 | 321.79 |
| | 9/30/92 | | 5.34 | 321.27 |
| | 4/7/94 | | 3.38 | 323.23 |
| | 8/12/94 | | 4.23 | 322.38 |
| | 11/29/94 | | 3.44 | 323.17 |
| | 3/21/95 | | 1.00 | 325.61 |
| | 5/22/95 | | 2.20 | 324.41 |
| | 8/24/95 | | 3.45 | 323.16 |
| | 2/12/96 | | 1.95 | 324.66 |
| | 2/5/97 | | Data | Missing |
| | 8/6/97 | | 3.60 | 323.01 |
| | 6/6/02* | | 2.89 | 323.72 |
| | 9/23/02 | | 3.48 | 323.13 |
| | 12/13/02 | | 3.18 | 323.43 |
| | 12/14/04 | | 2.76 | 323.85 |
| | 3/23/05 | | 1.14 | 325.47 |

| Table I, Summary of Groundwater Elevation Measurements<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | | |
|---|---|---|---|---|
| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
| MW-2 | 11/27/91 | 326.67 | 4.92 | 321.75 |
| | 9/30/92 | | 5.42 | 321.25 |
| | 4/7/94 | | 3.48 | 323.19 |
| | 8/12/94 | | 4.18 | 322.49 |
| | 11/29/94 | | 3.76 | 322.91 |
| | 3/21/95 | | 1.25 | 325.42 |
| | 5/22/95 | | 2.20 | 324.47 |
| | 8/24/95 | | 3.57 | 323.10 |
| | 2/12/96 | | 2.60 | 324.07 |
| | 2/5/97 | | 1.72 | 324.95 |
| | 8/6/97 | | 3.72 | 322.95 |
| | 6/6/02* | | 3.46 | 323.21 |
| | 9/23/02 | | 4.14 | 322.53 |
| | 12/13/02 | | 3.45 | 323.22 |
| | 12/14/04 | | 2.96 | 323.71 |
| | 3/23/05 | | 1.83 | 324.84 |

**Table I: Summary of Groundwater Elevation Measurements**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
|---|---|---|---|---|
| MW-3 | 11/27/91 | 326.58 | 4.96 | 321.62 |
| | 9/30/92 | | 5.46 | 321.12 |
| | 4/7/94 | | 3.66 | 322.92 |
| | 8/12/94 | | 4.37 | 322.21 |
| | 11/29/94 | | 3.60 | 322.98 |
| | 3/21/95 | | 1.62 | 324.96 |
| | 5/22/95 | | 2.73 | 323.85 |
| | 8/24/95 | | 3.76 | 322.82 |
| | 2/12/96 | | 2.45 | 324.13 |
| | 2/5/97 | | 1.99 | 324.59 |
| | 8/6/97 | | 3.83 | 322.75 |
| | 6/6/02* | | 3.66 | 322.92 |
| | 9/23/02 | | 4.66 | 321.92 |
| | 12/13/02 | | 3.66 | 322.92 |
| | 12/14/04 | | 3.52 | 323.06 |
| | 3/23/05 | | 1.83 | 324.75 |

| Table I, Summary of Groundwater Elevation Measurements<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | | |
|---|---|---|---|---|
| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
| MW-4 | 11/27/91 | 326.92 | 5.26 | 321.66 |
| | 9/30/92 | | 5.78 | 321.14 |
| | 4/7/94 | | 4.02 | 322.90 |
| | 8/12/94 | | 4.81 | 322.11 |
| | 11/29/94 | | 4.39 | 322.53 |
| | 3/21/95 | | 1.80 | 325.12 |
| | 5/22/95 | | 3.07 | 323.85 |
| | 8/24/95 | | 4.09 | 322.83 |
| | 2/12/96 | | 2.80 | 324.12 |
| | 2/5/97 | | 2.32 | 324.60 |
| | 8/6/97 | | 4.14 | 322.78 |
| | 6/6/02* | | 3.76 | 323.16 |
| | 9/23/02 | | 4.14 | 322.78 |
| | 12/13/02 | | 3.90 | 323.02 |
| | 12/14/04 | | 3.68 | 323.24 |
| | 3/23/05 | | 1.93 | 324.99 |

| Table I, Summary of Groundwater Elevation Measurements<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | | |
|---|---|---|---|---|
| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
| MW-5 | 3/21/95 | 326.50 | 2.10 | 324.40 |
| | 5/22/95 | | 2.93 | 323.57 |
| | 8/24/95 | | 1.57 | 324.93 |
| | 2/12/96 | | 2.78 | 323.72 |
| | 2/5/97 | | 2.24 | 324.26 |
| | 8/6/97 | | 3.02 | 323.48 |
| | 6/6/02* | ** | 2.79 | NM |
| | 9/23/02 | | 3.07 | NM |
| | 12/13/02 | | 3.14 | NM |
| | 12/14/04 | | 2.92 | NM |
| | 3/23/05 | | 2.39 | NM |

| Table I, Summary of Groundwater Elevation Measurements<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | | |
|---|---|---|---|---|
| Well ID | Date | TOC Elevation (feet) | Depth to Water (feet) | Water Surface Elevation (feet) |
| MW-6 | 3/21/95 | 327.23 | 3.24 | 323.99 |
| | 5/22/95 | | 4.70 | 322.53 |
| | 8/24/95 | | 4.95 | 322.28 |
| | 2/12/96 | | 4.50 | 322.73 |
| | 2/5/97 | | 3.68 | 323.55 |
| | 8/6/97 | | 4.79 | 322.44 |
| | 6/6/02* | | 4.81 | 322.42 |
| | 9/23/02 | | 5.10 | 322.13 |
| | 12/13/02 | | 4.88 | 322.35 |
| | 12/14/04 | | 4.61 | 322.62 |
| | 3/23/05 | | 3.40 | 323.83 |

Notes: TOC = Top of casing
* = Initial data set collected under direction of Blymyer Engineers, Inc.
** = Surveyed elevation not yet available
NM = Not measured
Elevations in feet above mean sea level

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 ($\mu$g/L) | | EPA Method 8020 or 8021B ($\mu$g/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-1 | 11/27/91 | <50 | NA | <0.3 | <0.3 | <0.3 | <0.3 | NA |
| | 9/30/92 | <50 | NA | <0.3 | <0.3 | <0.3 | <0.3 | NA |
| | 4/7/94 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | NA |
| | 8/12/94 | <50 | NA | 1 | 1 | <0.3 | <2 | NA |
| | 11/29/94 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 3/21/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 5/22/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 8/24/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/12/96 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 6/6/02* | NA | NA | NA | NA | NA | NA | NA |
| | 9/23/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/13/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/14/04 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| | 3/23/05 | NA | NA | NA | NA | NA | NA | NA |

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 (μg/L) | | EPA Method 8020 or 8021B (μg/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-2 | 11/27/91 | 170,000 | NA | 24,000 | 13,000 | 3,500 | 16,000 | NA |
| | 9/30/92 | 120,000 | NA | 24,000 | 15,000 | 3,800 | 17,000 | NA |
| | 4/7/94 | 120,000 | NA | 21,000 | 14,000 | 4,300 | 21,000 | NA |
| | 8/12/94 | 140,000 | NA | 17,000 | 10,000 | 4,300 | 18,000 | NA |
| | 11/29/94 | 90,000 | NA | 17,000 | 7,500 | 3,400 | 15,000 | NA |
| | 3/21/95 | 83,000 | NA | 17,000 | 8,000 | 3,800 | 17,000 | NA |
| | 5/22/95 | 82,000 | NA | 14,000 | 6,000 | 4,000 | 16,000 | NA |
| | 8/24/95 | 86,000 | NA | 13,000 | 8,100 | 3,700 | 16,000 | NA |
| | 2/12/96 | 78,000 | NA | 15,000 | 8,100 | 4,200 | 18,000 | NA |
| | 2/5/97 | 58,000 | NA | 11,000 | 6,900 | 3,500 | 15,000 | 480 |
| | 8/6/97 | 66,000 | NA | 7,000 | 9,200 | 3,500 | 16,000 | <500 |
| | 6/6/02* | 25,000 [a] | NA | 2,900 | 50 | 2,700 | 2,200 | <250 |
| | 9/23/02 | 14,000 [b] | 4,300 [c] | 2,700 | 81 | 2,100 | 1,800 | <250 |
| | 12/13/02 | 26,900 | 4,000 [c] | 1,120 | 91.0 | 1,480 | 2,370 | 197 [d] |
| | 12/14/04 | 21,000 [e] | 7,600 [b,c] | 1,700 | 120 | 1,600 | 2,400 | <60 |
| | 3/23/05 | 27,000 [e] | 15,000 [b,c,e] | 1,400 | 170 | 1,700 | 2,500 | <170 |

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 ($\mu$g/L) | | EPA Method 8020 or 8021B ($\mu$g/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-3 | 11/27/91 | <50 | NA | <0.3 | <0.3 | <0.3 | <0.3 | NA |
| | 9/30/92 | <50 | NA | <0.3 | <0.3 | <0.3 | <0.3 | NA |
| | 4/7/94 | <50 | NA | **2.5** | **5.5** | **0.9** | **5.1** | NA |
| | 8/12/94 | <50 | NA | <0.5 | <0.5 | <0.3 | <2 | NA |
| | 11/29/94 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 3/21/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 5/22/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 8/24/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/12/96 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/5/97 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | <5 |
| | 6/6/02* | NA | NA | NA | NA | NA | NA | NA |
| | 9/23/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/13/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/14/04 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| | 3/23/05 | NA | NA | NA | NA | NA | NA | NA |

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 ($\mu$g/L) | | EPA Method 8020 or 8021B ($\mu$g/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-4 | 11/27/91 | **11,000** | NA | **100** | **0.7** | **250** | **330** | NA |
| | 9/30/92 | **380** | NA | **3.5** | **2.4** | **8.9** | **3.4** | NA |
| | 4/7/94 | **1,100** | NA | **61** | **5.5** | **17** | **12** | NA |
| | 8/12/94 | **1,000** | NA | **3** | **1** | **8** | **4** | NA |
| | 11/29/94 | **1,100** | NA | **2** | **<0.5** | **10** | **6** | NA |
| | 3/21/95 | **1,400** | NA | **200** | **5** | **66** | **18** | NA |
| | 5/22/95 | **1,200** | NA | **60** | **1** | **12** | **8** | NA |
| | 8/24/95 | **400** | NA | **1** | <0.5 | **1** | <2 | NA |
| | 2/12/96 | **1,500** | NA | **130** | <0.5 | **120** | **51** | NA |
| | 2/5/97 | **1,200** | NA | **250** | **4.9** | **94** | **12** | **16** |
| | 8/6/97 | **330** | NA | **1.5** | <0.5 | <0.5 | <0.5 | <5 |
| | 6/6/02* | <50 | NA | **1.7** | <0.5 | <0.5 | <0.5 | <2.5 |
| | 9/23/02 | <50 | <48 | <0.5 | **1.3** | <0.5 | <0.5 | <2.5 |
| | 12/13/02 | <50 | **86** [c] | <0.5 | <0.5 | <0.5 | <1.5 | <0.5 |
| | 12/14/04 | **95** [h] | <50 | **2.6** | <0.5 | <0.5 | <0.5 | <5.0 |
| | 3/23/05 | **120** [h] | <50 | <0.5 | **5.0** | <0.5 | <0.5 | <5.0 |

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 ($\mu$g/L) | | EPA Method 8020 or 8021B ($\mu$g/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-5 | 3/21/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 5/22/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 8/24/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/12/96 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/5/97 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | <5 |
| | 6/6/02* | NA | NA | NA | NA | NA | NA | NA |
| | 9/23/02 | <50 | **310** [c] | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 |
| | 12/13/02 | <50 | **97** [c] | <0.5 | <0.5 | <0.5 | <1.5 | **0.720** [d] |
| | 12/14/04 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | **12** |
| | 3/23/05 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | **23** |

**Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | Modified EPA Method 8015 ($\mu$g/L) | | EPA Method 8020 or 8021B ($\mu$g/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPH as Gasoline | TPH as Diesel | Benzene | Toluene | Ethylbenzene | Total Xylenes | MTBE |
| MW-6 | 3/21/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 5/22/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 8/24/95 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/12/96 | <50 | NA | <0.5 | <0.5 | <0.5 | <2 | NA |
| | 2/5/97 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | <5 |
| | 6/6/02* | NA | NA | NA | NA | NA | NA | NA |
| | 9/23/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/13/02 | NA | NA | NA | NA | NA | NA | NA |
| | 12/14/04 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| | 3/23/05 | NA | NA | NA | NA | NA | NA | NA |
| RWQCB Groundwater ESL: Groundwater is Not a Current or Potential Drinking Water Resource (Table F-1b) | | 500 | 640 | 46 | 130 | 290 | 13 | 1,800 |

Table II, Continued; Summary of Groundwater Sample Hydrocarbon Analytical Results

Notes: $\mu$g/L = Micrograms per liter
TPH = Total Petroleum Hydrocarbons
MTBE = Methyl *tert*-butyl ether
NA = Not analyzed
<x = Less than the analytical detection limit (x)
EPA = Environmental Protection Agency
NV = No value established
* = Initial data set collected under direction of Blymyer Engineers, Inc.
[a] = Laboratory note indicates the result is an unidentified hydrocarbon within the C6 to C10 range.
[b] = Laboratory note indicates the result is gasoline within the C6 to C10 range.
[c] = Laboratory note indicates the result is a hydrocarbon within the diesel range but that it does not represent the pattern of the requested fuel.
[d] = MTBE analysis by EPA Method 8260B yielded a non-detectable concentration at a detection lin of 0.50 $\mu$g/L. See Table III.
[e] = Laboratory note indicates that unmodified or weakly modified gasoline is significant.
[f] = Laboratory note indicates that diesel range compounds are significant, with no recognizable patt
[g] = Laboratory note indicates that gasoline range compounds are significant.
[h] = Laboratory note indicates that no recognizable pattern is present.
[i] = Laboratory note indicates that a lighter than water immiscible sheen / product is present.

Bold results indicate detectable analyte concentrations.
Shaded results indicate analyte concentrations above the respective RWQCB ESL value.

**Table III, Summary of Groundwater Sample Fuel Additive Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Date | EPA Method 8260B | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | TAME (µg/L) | TBA (µg/L) | EDB (µg/L) | 1,2-DCA (µg/L) | DIPE (µg/L) | Ethanol (µg/L) | ETBE (µg/L) | Methanol (µg/L) | MTBE (µg/L) |
| MW-2 | 12/13/02 | <0.50 | <2,000 | NA | NA | <0.50 | NA | <0.50 | NA | <0.50 |
| | 3/23/05 | <5.0 | <50 | <5.0 | **5.4** | <5.0 | <500 | <5.0 | <5,000 | <5.0 |
| MW-5 | 12/14/04 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 | <50 | <0.5 | <500 | **12** |
| RWQCB Groundwater ESL: Groundwater is Not a Current or Potential Drinking Water Resource (Table F-1b) | | NV | 18,000 | 160 | 200 | NV | NV | 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 = Methyl *tert*-butyl Ether
(µg/L) = Milligrams per liter
NA = Not analyzed
NV = No value

**Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results**
**BEI Job No. 202016, Dolan Rentals,**
**6393 Scarlett Court, Dublin, California**

| Sample ID | Sample Date | Field Meter | Field Meter | Field Test Kit | Field Meter | Field Meter |
|---|---|---|---|---|---|---|
| | | Dissolved Oxygen | Oxidation Reduction Potential | Ferrous Iron ($Fe^{2+}$) | Field Temperature | Field pH |
| | | mg/L | mV | mg/L | °C | pH units |
| MW-1 | 12/14/04 | 0.2 / 2.0 | 224 / 160 | 0.1 | 18.8 | 6.9 |
| | 3/23/05 | 5.1 / 0.2 | 105 / 102 | 0.0 | 17.3 | 6.9 |
| MW-2 | 12/14/04 | 0.3 / 2.0 | -160 / -148 | 1.4 | 18.4 | 6.9 |
| | 3/23/05 | 0.1 / 0.1 | -133 / -145 | 2.0 | 16.6 | 7.0 |
| MW-3 | 12/14/04 | 0.3 / 0.6 | 171 / 165 | 0.1 | 19.4 | 7.2 |
| | 3/23/05 | 0.1 / 0.1 | 81 / 79 | 0.0 | 17.7 | 7.2 |
| MW-4 | 12/14/04 | 0.7 / 0.1 | -7 / -41 | 0.8 | 18.0 | 6.8 |
| | 3/23/05 | 0.1 / 0.4 | -17 / -19 | 1.2 | 15.9 | 6.9 |
| MW-5 | 12/14/04 | 0.5 / 2.0 | 5 / 532 | 0.1 | 17.9 | 7.1 |
| | 3/23/05 | 0.1 / 0.9 | -17 / 0 | 0.0 | 15.1 | 7.2 |
| MW-6 | 12/14/04 | 0.3 / 1.2 | 125 / -25 | 0.0 | 15.5 | 7.2 |
| | 3/23/05 | 0.1 / 0.8 | 52 / -4 | 0.0 | 13.9 | 7.2 |

Notes:

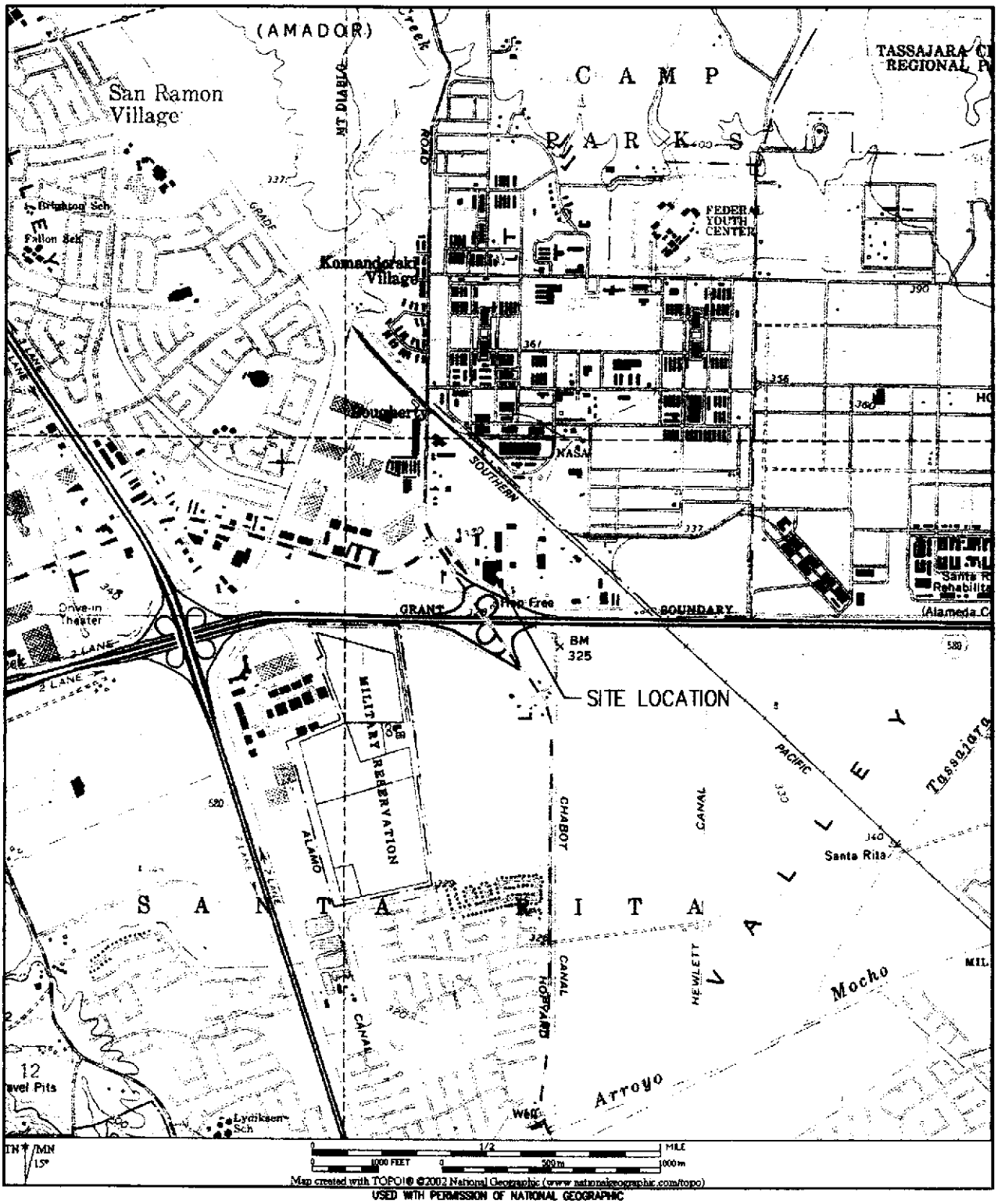
| | | |
|---|---|---|
| mV | = | Millivolt |
| mg/L | = | milligrams per liter |
| °C | = | degrees Centigrade |
| 2.6 / 2.2 | = | Initial reading (pre-purge) / Final reading (post-purge) |

**Table V, Summary of Groundwater Intrinsic Bioremediation Analytical Results**
**BEI Job No. 202016, Dolan Rentals**
**6393 Scarlett Court, Dublin, California**

| ID | Date | SM 5310B | Method E300.1 | | Method RSK 174 |
|---|---|---|---|---|---|
| | | $CO_2$ | Nitrate (as N) | Sulfate | Methane |
| | | mg/L | | | µg/L |
| MW-1 | 12/14/04 | 580 | <20 | 1,100 | 2.2 |
| | 3/23/05 | 180 | 0.41 | 620 | <0.5 |
| MW-2 | 12/14/04 | 940 | <5.0 | 220 | 4,700 |
| | 3/23/05 | 300 | 0.34 | 180 | 3,700 |
| MW-3 | 12/14/04 | 610 | <20 | 780 | <0.5 |
| | 3/23/05 | 160 | 0.20 | 560 | <0.5 |
| MW-4 | 12/14/04 | 680 | <10 | 760 | 170 |
| | 3/23/05 | 190 | 0.30 | 430 | 24 |
| MW-5 | 12/14/04 | 1,400 | <20 | 1,200 | 120 |
| | 3/23/05 | 390 | 0.66 | 640 | 57 |
| MW-6 | 12/14/04 | 790 | <10 | 460 | 180 |
| | 3/23/05 | 210 | 0.12 | 380 | 60 |

Notes:
SM = Standard Method
mg/L = Milligrams per liter
µg/L = Milligrams per liter
$CO_2$ = Carbon dioxide

## *Figures*




BLYMYER ENGINEERS, INC.

| BEI JOB NO. | DATE |
|---|---|
| 202016 | 6-27-02 |

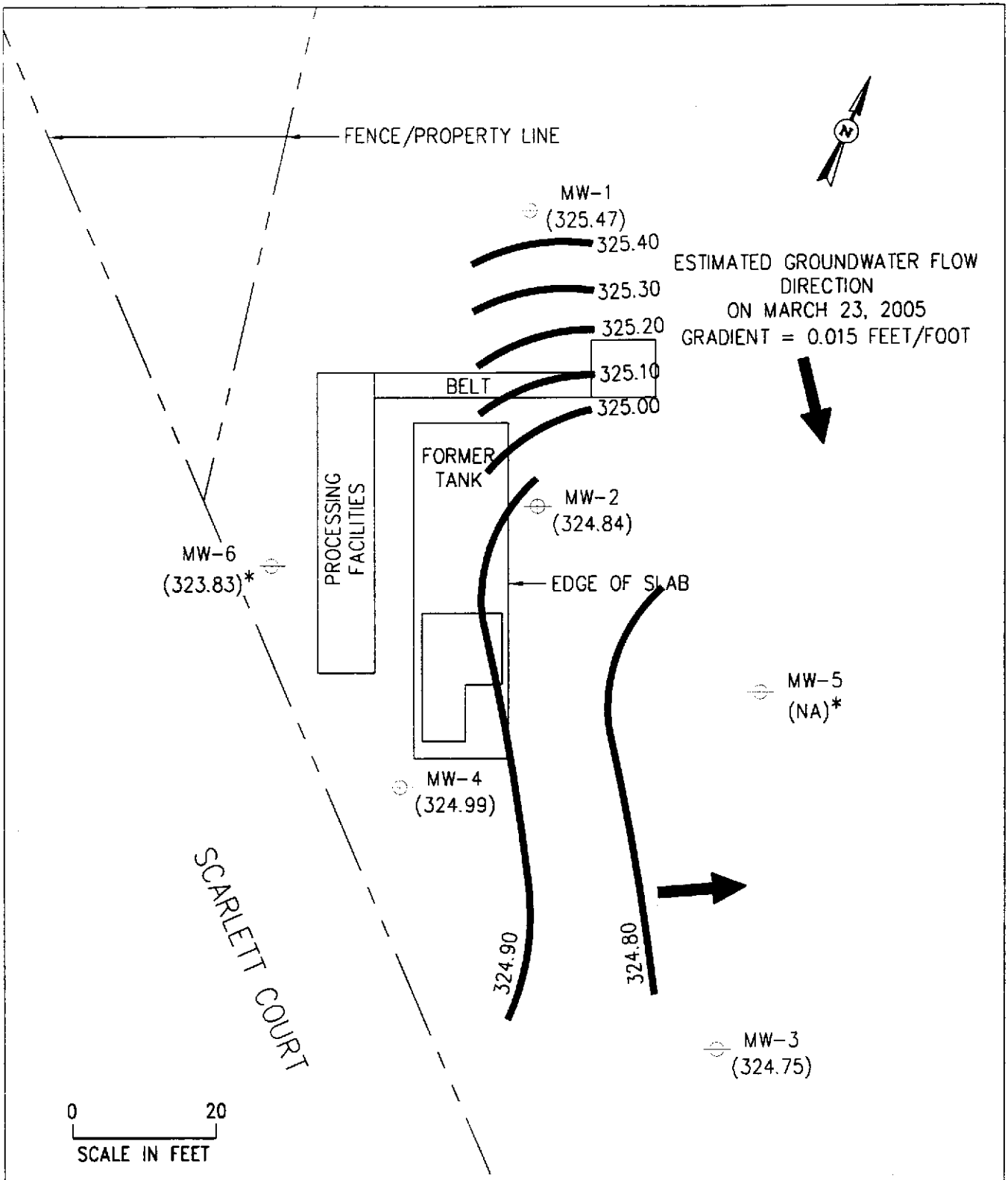
LEGEND

-

# SITE LOCATION MAP

FORMER DOLAN RENTAL PROPERTY
6393 SCARLETT COURT
DUBLIN, CA

FIGURE 1




BASED ON SITE PLAN GENERATED BY AQUA SCIENCE ENGINEERS, INC.

BLYMYER ENGINEERS, INC.

| BEI JOB NO. | DATE |
|---|---|
| 202016 | 4-6-05 |

LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- (325.47) GROUND WATER ELEV.
- (NA) GROUNDWATER ELEV. (NOT AVAILABLE)
- * GROUNDWATER ELEV. (NOT USED)
- GROUNDWATER ELEV. CONTOUR
- GROUNDWATER FLOW DIRECTION

SITE PLAN AND GROUNDWATER GRADIENT
MARCH 23, 2005
FORMER DOLAN RENTAL PROPERTY
6393 SCARLETT COURT
DUBLIN, CA

FIGURE 2

L:\Acad\2002dwg\202016\202016fig2e.dwg April 07, 2005 - 9:21AM lwittstock

# *Appendix A*

## *Water Supply Well Details*

## Zone 7 Water Agency

| Table A-1, Summary of Available Water Supply Well Bore Data<br>BEI Job No. 202016, Dolan Rentals<br>6393 Scarlett Court, Dublin, California | | | |
|---|---|---|---|
| Well ID. | Status | Screened Interval (feet bgs) | Notes |
| 3S/1E 6E1 | Destroyed | NA | --- |
| 3S/1E 6F2 | Not relocated in 1977; presumed destroyed | NA | 1st report 1959; drilled prior |
| 3S/1E 6G1 | Not relocated in 1977; presumed destroyed | NA | 1st report 1959; drilled prior |
| 3S/1E 6G4 | Present | 180 - 186 | --- |
| 3S/1E 6G6 | Present | 285 - 292 | --- |
| 3S/1E 6G5 | Present | 103 - 106 and 173 - 178 | 400 feet east of 3S/1E 6G6; outside 1/4- mile radius |

Notes: bgs = below grade surface
NA = Not available

# *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 HARMFULL 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 HARMFULL 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:

Casing Volume = (TD – DTW) 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*

***Purge Drum Inventory Log, Wellhead Inspection Checklist, Well Gauging Data,* and *Well Monitoring Data Sheets***
**dated March 23, 2005**
**Blaine Tech Services, Inc.**

BLAINE TECH SERVICES INC.

* Poly Drum has THICK Black product in it? Not labled properly.

# PURGE DRUM INVENTORY LOG

CLIENT Blymer Engineers Inc

SITE ADDRESS 6393 Scarlett Ct. Dublin, CA

| STATUS OF DRUM(S) UPON ARRIVAL | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of drum(s) **empty**: | | | | | | | |
| Number of drum(s) **1/4 full**: | | 1 | | | | | |
| Number of drum(s) **1/2 full**: | | | 1 | | | | |
| Number of drum(s) **3/4 full**: | | | | 1 * | 1 | | |
| Number of drum(s) **full**: | | | | 1 | 2 | | |
| **Total** drum(s) on site: | 0 | 1 | | 2 | 3 | | |
| **STATUS OF DRUM(S) AT DEPARTURE** | | | | | | | |
| Number of drum(s) **empty**: | | | | | | | |
| Number of drum(s) **1/4 full**: | 1 | | | | | | |
| Number of drum(s) **1/2 full**: | | 1 | | | | | |
| Number of drum(s) **3/4 full**: | | | | 2 | 1 | | |
| Number of drum(s) **full**: | | | 1 | 1 | 3 | | |
| **Total** drum(s) on site: | 1 | 1 | 1 | 3 | 4 | | |
| **LOCATION OF DRUM(S)** | | | | | | | |
| Is/Are drum(s) at wellhead(s)? | No | No | No | No | No | | |
| Describe location if drum(s) is/are located elsewhere: | On S. side of warehouse across from office Kiosk | | | | | | |
| Label drum(s) properly: | | Yes | Yes | purge H2O (SPH) Yes/No | Yes | | |
| **FINAL STATUS** | | | | | | | |
| Number of **new** BTS drum(s) left on site this event: | 1 | 0 | 0 | 1 | 1 | | |
| Date of Inspection: | 6/6/02 | 9/23/02 | 12/13/02 | 12/14/04 | 3/23/05 | | |
| Logged by BTS Field Technician: | DA. | BA | BD | MW | BA MW | | |
| Office Review by: | | | | | | | |

# WELLHEAD INSPECTION CHECKLIST



Date 3/23/05 ~~050323-3A1~~ Client Blymyer

Site Address Dolan Rentals

Job Number 050323-3A1 Technician Brian Alcorn

| 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-1 | | X | | | | | | |
| MW-2 | | X | | | | | | |
| MW-3 | | X | | | | | | |
| MW-4 | | X | | | | | | |
| MW-5 | | X | | | | | | |
| MW-6 | | | | | | | | |
| | | | | | | | | |
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NOTES:

# WELL GAUGING DATA

Project # 050323-BA1 Date 3/23/05 Client Blymyer

Site Dolan Rentals

| Well ID | 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 | CTD |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 2 | | | | | 1.14 | 19.34 | TOC | 1 |
| MW-2 | 2 | | | | | 1.83 | 19.76 | | 6 |
| MW-3 | 2 | | | | | 1.83 | 18.41 | | 2 |
| MW-4 | 2 | | | | | 1.93 | 18.64 | | 4 |
| MW-5 | 2 | | | | | 2.39 | 9.83 | | 5 |
| MW-6 | 2 | | | | | 3.40 | 9.90 | | 3 |
| | | | | | | | | | |
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# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 050323-BA1 | Client: Blymyer @ Dolan Rentals |
| Sampler: Brian Alcom | Date: 3/23/05 |
| Well I.D.: MW-1 | Well Diameter: (2) 3 4 6 8 ____ |
| Total Well Depth (TD): 19.34 | Depth to Water (DTW): 1.14 |
| 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]: | |

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

| 1 Case Volume | Specified Volumes | Calculated Volume |
|---|---|---|
| 3.0 (Gals.) X | 3 | = 9.0 Gals. |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 1" | 0.04 | 4" | 0.65 |
| 2" | 0.16 | 6" | 1.47 |
| 3" | 0.37 | Other | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or (µS)) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 0940 | 61.5 | 6.9 | 3,911 | >1,000 | 3.0 | gray |
| 0943 | 62.7 | 6.9 | 3,894 | 971 | 6.0 | " |
| 0946 | 63.1 | 6.9 | 3,895 | 495 | 9.0 | " |
| | | | | | | |
| | | | | | | $Fe^{2+} = 0$ |

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 3/23/05 Sampling Time: 0950 Depth to Water: 1.95

Sample I.D.: MW-1 Laboratory: Kiff [redacted] Other McCampbell

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

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

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

| | | | | | |
|---|---|---|---|---|---|
| D.O. (if req'd): | Pre-purge: | 5.1 DO mg/L | Post-purge: | 105 ORP | mV |
| ORP (if req'd): | Pre-purge: | 0.2 mV | Post-purge: | 102 | mV |

# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 050323-BA1 | Client: Blymyer @ Dolan Rentals |
| Sampler: Brian Alcorn | Date: 3/23/05 |
| Well I.D.: MW-2 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth (TD): 19.76 | Depth to Water (DTW): 1.83 |
| 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]: | |

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: ____

| 3.0 (Gals.) X | 3 | = | 9.0 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 | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or µS) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1209 | 60.6 | 7.0 | 3,385 | >1,000 | 3.0 | dark strong slight gray, odor, sheen |
| 1212 | 61.4 | 7.0 | 3,333 | >1,000 | 6.0 | " " " |
| 1215 | 61.8 | 7.0 | 3,306 | 922 | 9.0 | " " " |
| | | | | | | |
| | | | | | | $Fe^{2+}$ = 2.0 |

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 3/23/05 Sampling Time: 1220 Depth to Water: 6.71

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

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

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: | 0.1 mg/L | Post-purge: | 0.1 | mg/L |
| O.R.P. (if req'd): | Pre-purge: | -133 mV | Post-purge: | -145 | mV |

# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 050323-BA1 | Client: Blymyer @ Dolan Rentals |
| Sampler: Brian Alcorn | Date: 3/23/05 |
| Well I.D.: MW-3 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth (TD): 18.41 | Depth to Water (DTW): 1.83 |
| 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]: | |

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

2.75 (Gals.) X 3 = 8.25 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 | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or (µS)) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1011 | 62.8 | 7.2 | 2,961 | 579 | 2.75 | gray |
| 1014 | 63.5 | 7.2 | 2,923 | 223 | 5.5 | " |
| 1017 | 63.8 | 7.2 | 2,920 | 187 | 8.25 | " |
| | | | | | | |
| | | | | | | $Fe^{2+}$ ≠ ϕ |

Did well dewater? Yes (No) Gallons actually evacuated: 8.25

Sampling Date: 3/23/05 Sampling Time: 1020 Depth to Water: 2.51

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

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

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): | 0.1 | mg/L | (Post-purge): | 81 |
| ~~O.R.P.~~ (if req'd): | (Pre-purge): | 0.1 | ~~mV~~ | (Post-purge): | 79 mV |

# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 050323-B41 | Client: Blymyer @ Dolan Rentals |
| Sampler: Brian Alcorn | Date: 3/23/05 |
| Well I.D.: MW-4 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth (TD): 18.64 | Depth to Water (DTW): 1.93 |
| 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]: | |

Purge Method: Bailer; Disposable Bailer; ~~Positive Air Displacement~~; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

| 1 Case Volume | Specified Volumes | Calculated Volume |
|---|---|---|
| 2.75 (Gals.) X | 3 | = 8.25 Gals. |

| Well Diameter | Multiplier | Well Diameter | Multiplier |
|---|---|---|---|
| 1" | 0.04 | 4" | 0.65 |
| 2" | 0.16 | 6" | 1.47 |
| 3" | 0.37 | Other | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or (µS)) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1103 | 60.0 | 6.9 | 3,315 | 474 | 2.75 | gray |
| 1106 | 60.9 | 6.9 | 3,313 | 262 | 5.5 | " |
| 1109 | 60.6 | 6.9 | 3,318 | 146 | 8.25 | " |
| | | | | | | |
| | | | | | | $Fe^{2+}$ = 1.2 |

Did well dewater? Yes (No) Gallons actually evacuated: 8.25

Sampling Date: 3/23/05 Sampling Time: 1115 Depth to Water: 2.81

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

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

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: | 0.1 DO mg/L | Post-purge: | -17 ORP | mV |
| ~~O.R.P.~~ (if req'd): | Post Pre-purge: | 0.4 ↓ ~~mV~~ | Post-purge: | -19 | mV |

# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: 050323-BA1 | Client: Blymyer & Dolan Rentals |
| Sampler: Brian Alcorn | Date: 3/23/05 |
| Well I.D.: MW-5 | Well Diameter: (2) 3 4 6 8 ___ |
| Total Well Depth (TD): 9.83 | Depth to Water (DTW): 2.39 |
| 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]: | |

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

1.25 (Gals.) X 3 = 3.75 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 | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or µS) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1137 | 58.1 | 7.3 | 3,777 | 443 | 1.25 | gray |
| 1139 | 58.9 | 7.2 | 3,829 | 161 | 2.5 | " |
| 1141 | 59.1 | 7.2 | 3,852 | 66 | 3.75 | clear |
| | | | | | | |
| | | | | | | $Fe^{2+}$ = ∅ |

Did well dewater? Yes (No) Gallons actually evacuated: 3.75

Sampling Date: 3/23/05 Sampling Time: 1145 Depth to Water: 4.86

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

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

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: | 0.1 mg/L | Post-purge: | 0.9 | mg/L |
| O.R.P. (if req'd): | Pre-purge: | -17 mV | Post-purge: | ∅ | mV |

# WELL MONITORING DATA SHEET

| | |
|---|---|
| Project #: ~~MW-6~~ 050323-BA1 | Client: Blymyer Dolan Rentals |
| Sampler: Brian Alcorn | Date: 3/23/05 |
| Well I.D.: MW-6 | Well Diameter: (2) 3 4 6 8 ____ |
| Total Well Depth (TD): 9.90 | Depth to Water (DTW): 3.40 |
| 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]: | |

Purge Method: Bailer, Disposable Bailer, (Positive Air Displacement), Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other:_____

1.0 (Gals.) X 3 = 3.0 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 | radius² * 0.163 |

| Time | Temp (°F or °C) | pH | Cond. (mS or (µS)) | Turbidity (NTUs) | Gals. Removed | Observations |
|---|---|---|---|---|---|---|
| 1035 | 57.5 | 7.2 | 3748 | 428 | 1.0 | gray |
| 1037 | 57.7 | 7.2 | 3,833 | 112 | 2.0 | " |
| 1039 | 57.1 | 7.2 | 3,848 | 69 | 3.0 | clear |
| | | | | | | |
| | | | | | | $Fe^{2+}$ - 0 |

Did well dewater? Yes (No) Gallons actually evacuated: 3

Sampling Date: 3/23/05 Sampling Time: 1045 Depth to Water: 7.25

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other McCampbell

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

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: | Pre 0.1 | DO | mg/L | Post-purge: | Pre | 52 | ORP mg/L |
| ~~O.R.P.~~ (if req'd): | Pre-purge: | Post 0.8 | ↓ | mV | Post-purge: | Post | -4 | ↓ mV |

*Appendix D*

**Analytical Laboratory Report**
**dated March 31, 2005**
**McCampbell Analytical, Inc.**

**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Reported: 03/31/05 |
| | Client P.O.: | Date Completed: 03/31/05 |

**WorkOrder: 0503430**

March 31, 2005

Dear Mark:

Enclosed are:

1). the results of **6** analyzed samples from your **Dublin Concrete/Dolan Rentals project,**

2). a QC report for the above samples

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

4). a bill for analytical services.

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

Yours truly,

Angela Rydelius, Lab Manager

**McCampbell Analytical, Inc.**

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| | | |
|---|---|---|
| Blymyer Engineers, Inc. | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| 1829 Clement Avenue | | Date Received: 03/24/05 |
| Alameda, CA 94501-1395 | Client Contact: Mark Detterman | Date Extracted: 03/26/05 |
| | Client P.O.: | Date Analyzed: 03/26/05 |

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

Extraction method: SW5030B | Analytical methods: SW8021B/8015Cm | Work Order: 0503430

| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS |
|---|---|---|---|---|---|---|---|---|---|---|
| 002C | MW-2 | W | 27,000,a,h | ND<170 | 1400 | 170 | 1700 | 2500 | 33 | 109 |
| 004C | MW-4 | W | 120,m | ND | ND | 5.0 | ND | ND | 1 | 110 |
| 005C | MW-5 | W | ND | 23 | ND | ND | ND | ND | 1 | 98 |
| 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 McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Extracted: 03/24/05 |
| | Client P.O.: | Date Analyzed: 03/25/05-03/26/05 |

## Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0503430

| Lab ID | Client ID | Matrix | TPH(d) | DF | % SS |
|---|---|---|---|---|---|
| 0503430-002D | MW-2 | W | 15,000,d,b,h | 10 | 101 |
| 0503430-004D | MW-4 | W | ND | 1 | 95 |
| 0503430-005D | MW-5 | W | ND | 1 | 95 |

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

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

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Extracted: 04/01/05 |
| | Client P.O.: | Date Analyzed: 04/01/05 |

## Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0503430

| | | Reporting Limit for DF =1 | |
|---|---|---|---|
| Lab ID | 0503430-002C | | |
| Client ID | MW-2 | | |
| Matrix | W | | |
| DF | 10 | S | W |
| **Compound** | **Concentration** | ug/kg | µg/L |
| tert-Amyl methyl ether (TAME) | ND<5.0 | NA | 0.5 |
| t-Butyl alcohol (TBA) | ND<50 | NA | 5.0 |
| 1,2-Dibromoethane (EDB) | ND<5.0 | NA | 0.5 |
| 1,2-Dichloroethane (1,2-DCA) | 5.4 | NA | 0.5 |
| Diisopropyl ether (DIPE) | ND<5.0 | NA | 0.5 |
| Ethanol | ND<500 | NA | 50 |
| Ethyl tert-butyl ether (ETBE) | ND<5.0 | NA | 0.5 |
| Methanol | ND<5000 | NA | 500 |
| Methyl-t-butyl ether (MTBE) | ND<5.0 | NA | 0.5 |
| **Surrogate Recoveries (%)** | | | |
| %SS1: | 92 | | |
| **Comments** | | | |

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Extracted: 03/24/05 |
| | Client P.O.: | Date Analyzed: 03/28/05-03/29/05 |

**Inorganic Anions by IC***

Extraction method: E300.1 Analytical methods: E300.1 Work Order: 0503430

| Lab ID | Client ID | Matrix | Nitrate as N | Sulfate | DF | % SS |
|---|---|---|---|---|---|---|
| 0503430-001B | MW-1 | W | 0.41,h | 620 | 1 | 92 |
| 0503430-002B | MW-2 | W | 0.34 | 180 | 1 | 92 |
| 0503430-003B | MW-3 | W | 0.20 | 560 | 1 | 94 |
| 0503430-004B | MW-4 | W | 0.30 | 430 | 1 | 108 |
| 0503430-005B | MW-5 | W | 0.66 | 640 | 1 | 96 |
| 0503430-006B | MW-6 | W | 0.12 | 380 | 1 | 98 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | | W | 0.1 | 0.1 | | mg/L |
| | | S | NA | NA | | mg/Kg |

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high inorganic content; k) sample arrived with head space.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Extracted: 03/25/05 |
| | Client P.O.: | Date Analyzed: 03/25/05 |

## Methane

Extraction method: RSK174 Analytical methods: RSK174 Work Order: 0503430

| Lab ID | Client ID | Matrix | Methane | DF | % SS |
|---|---|---|---|---|---|
| 001A | MW-1 | W | ND | 1 | N/A |
| 002A | MW-2 | W | 3700 | 2000 | N/A |
| 003A | MW-3 | W | ND | 1 | N/A |
| 004A | MW-4 | W | 24 | 20 | N/A |
| 005A | MW-5 | W | 57 | 40 | N/A |
| 006A | MW-6 | W | 60 | 50 | N/A |

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

* water samples are reported in µg/L.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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| | | |
|---|---|---|
| Blymyer Engineers, Inc.<br>1829 Clement Avenue<br>Alameda, CA 94501-1395 | Client Project ID: Dublin Concrete/Dolan Rentals | Date Sampled: 03/23/05 |
| | | Date Received: 03/24/05 |
| | Client Contact: Mark Detterman | Date Extracted: 03/25/05 |
| | Client P.O.: | Date Analyzed: 03/30/05 |

## Inorganic Carbon as C*

Analytical Method: SM5310 B

Work Order: 0503430

| Lab ID | Client ID | Matrix | IC as CO2 | DF |
|---|---|---|---|---|
| 0503430-001A | MW-1 | W | 180 | 10 |
| 0503430-002A | MW-2 | W | 300 | 10 |
| 0503430-003A | MW-3 | W | 160 | 10 |
| 0503430-004A | MW-4 | W | 190 | 10 |
| 0503430-005A | MW-5 | W | 390 | 10 |
| 0503430-006A | MW-6 | W | 210 | 10 |
| Reporting Limit for DF = 1; ND means not detected at or above the reporting limit | | W | 1.0 mg/L | |
| | | S | NA | |

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg.

* Non-Purgeable Organic Carbon=NPOC; TOC=Total Organic Carbon; DOC=Dissolved Organic Carbon; POC=Purgeable Organic Cabon; IC=Inorganic Carbon.

i) liquid sample contains greater than ~1 vol. % sediment.

DHS Certification No. 1644

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# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

**EPA Method: SW8021B/8015Cm** **Extraction: SW5030B** **BatchID: 15551** **Spiked Sample ID: 0503423-006A**

| 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 | LCS / LCSD |
| TPH(btex)£ | ND | 60 | 91.3 | 95.2 | 4.23 | 96.4 | 91.7 | 5.04 | 70 - 130 | 70 - 130 |
| MTBE | ND | 10 | 89.2 | 92.6 | 3.79 | 95.4 | 96.4 | 1.03 | 70 - 130 | 70 - 130 |
| Benzene | ND | 10 | 101 | 105 | 3.79 | 111 | 103 | 6.82 | 70 - 130 | 70 - 130 |
| Toluene | ND | 10 | 104 | 106 | 2.48 | 103 | 97 | 6.32 | 70 - 130 | 70 - 130 |
| Ethylbenzene | ND | 10 | 103 | 106 | 3.10 | 106 | 101 | 5.27 | 70 - 130 | 70 - 130 |
| Xylenes | ND | 30 | 91 | 95.3 | 4.65 | 95 | 90.3 | 5.04 | 70 - 130 | 70 - 130 |
| %SS: | 105 | 10 | 107 | 108 | 1.31 | 111 | 108 | 3.55 | 70 - 130 | 70 - 130 |

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

NONE

## BATCH 15551 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-002C | 3/23/05 12:20 PM | 3/26/05 4:39 PM | 3/26/05 4:39 PM | 0503430-004C | 3/23/05 11:15 AM | 3/26/05 12:10 PM | 3/26/05 12:10 PM |
| 0503430-005C | 3/23/05 11:45 AM | 3/26/05 12:07 PM | 3/26/05 12:07 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.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644 _____QA/QC Officer

**McCampbell Analytical, Inc.**

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# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

| EPA Method: SW8015C | Extraction: SW3510C | | | BatchID: 15560 | | | Spiked Sample ID: N/A | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | LCS / LCSD |
| TPH(d) | N/A | 1000 | N/A | N/A | N/A | 107 | 101 | 6.10 | N/A | 70 - 130 |
| %SS: | N/A | 2500 | N/A | N/A | N/A | 86 | 87 | 1.15 | N/A | 70 - 130 |

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

NONE

BATCH 15560 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-002D | 3/23/05 12:20 PM | 3/24/05 7:35 PM | 3/25/05 1:13 PM | 0503430-004D | 3/23/05 11:15 AM | 3/24/05 7:35 PM | 3/26/05 3:26 AM |
| 0503430-005D | 3/23/05 11:45 AM | 3/24/05 7:35 PM | 3/26/05 4:31 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.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644 _____ QA/QC Officer

**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

# QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

| EPA Method: SW8260B | Extraction: SW5030B | BatchID: 15699 | Spiked Sample ID: 0504009-003A |
|---|---|---|---|

| 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 | LCS / LCSD |
| tert-Amyl methyl ether (TAME) | ND | 10 | 98.5 | 96 | 2.52 | 94.2 | 94.1 | 0.177 | 70 - 130 | 70 - 130 |
| t-Butyl alcohol (TBA) | ND | 50 | 87.8 | 86.1 | 1.93 | 88.8 | 90.8 | 2.26 | 70 - 130 | 70 - 130 |
| 1,2-Dibromoethane (EDB) | ND | 10 | 87.8 | 85.8 | 2.36 | 83.4 | 87.4 | 4.69 | 70 - 130 | 70 - 130 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 10 | 115 | 114 | 0.874 | 109 | 112 | 2.90 | 70 - 130 | 70 - 130 |
| Diisopropyl ether (DIPE) | ND | 10 | 113 | 107 | 5.11 | 98.8 | 101 | 1.93 | 70 - 130 | 70 - 130 |
| Ethanol | ND | 500 | 108 | 88.9 | 19.2 | 89.9 | 98.4 | 9.04 | 70 - 130 | 70 - 130 |
| Ethyl tert-butyl ether (ETBE) | ND | 10 | 98.8 | 96.2 | 2.60 | 90.4 | 92.2 | 1.89 | 70 - 130 | 70 - 130 |
| Methanol | ND | 2500 | 93.7 | 92.2 | 1.63 | 93.2 | 96.2 | 3.17 | 70 - 130 | 70 - 130 |
| Methyl-t-butyl ether (MTBE) | ND | 10 | 104 | 101 | 3.65 | 88.7 | 88.3 | 0.549 | 70 - 130 | 70 - 130 |
| %SS1: | 108 | 10 | 101 | 99 | 2.31 | 98 | 98 | 0 | 70 - 130 | 70 - 130 |

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

NONE

## BATCH 15699 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-002C | 3/23/05 12:20 PM | 4/01/05 5:34 PM | 4/01/05 5:34 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.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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# QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

| EPA Method: E300.1 | Extraction: E300.1 | | | BatchID: 15562 | | Spiked Sample ID: N/A | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Sample | Spiked | MS* | MSD* | MS-MSD* | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | mg/L | mg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | LCS / LCSD |
| Nitrate as N | N/A | 1 | N/A | N/A | N/A | 100 | 98.1 | 2.32 | N/A | 85 - 115 |
| Sulfate | N/A | 1 | N/A | N/A | N/A | 107 | 101 | 5.12 | N/A | 85 - 115 |
| %SS: | N/A | 0.10 | N/A | N/A | N/A | 92 | 91 | 1.18 | N/A | 90 - 115 |

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

NONE

BATCH 15562 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-001b | 3/23/05 9:50 AM | 3/24/05 7:33 PM | 3/28/05 7:43 PM | 0503430-001b | 3/23/05 9:50 AM | 3/24/05 7:33 PM | 3/29/05 1:21 AM |
| 0503430-002b | 3/23/05 12:20 PM | 3/24/05 7:33 PM | 3/28/05 8:14 PM | 0503430-002b | 3/23/05 12:20 PM | 3/24/05 7:33 PM | 3/29/05 1:52 AM |
| 0503430-003b | 3/23/05 10:20 AM | 3/24/05 7:33 PM | 3/28/05 8:45 PM | 0503430-003b | 3/23/05 10:20 AM | 3/24/05 7:33 PM | 3/29/05 2:23 AM |
| 0503430-004b | 3/23/05 11:15 AM | 3/24/05 7:33 PM | 3/28/05 9:15 PM | 0503430-004b | 3/23/05 11:15 AM | 3/24/05 7:33 PM | 3/29/05 2:53 AM |
| 0503430-005b | 3/23/05 11:45 AM | 3/24/05 7:33 PM | 3/28/05 9:46 PM | 0503430-005b | 3/23/05 11:45 AM | 3/24/05 7:33 PM | 3/29/05 3:24 AM |
| 0503430-006b | 3/23/05 10:45 AM | 3/24/05 7:33 PM | 3/28/05 10:17 PM | 0503430-006b | 3/23/05 10:45 AM | 3/24/05 7:33 PM | 3/29/05 3:55 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.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644 _____ QA/QC Officer

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# QC SUMMARY REPORT FOR RSK174

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

| EPA Method: RSK174 | Extraction: RSK174 | | | | BatchID: 15575 | | | Spiked Sample ID: N/A | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | LCS / LCSD |
| Methane | N/A | 1.5 | N/A | N/A | N/A | 107 | 103 | 3.70 | N/A | 80 - 120 |

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

NONE

BATCH 15575 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-001A | 3/23/05 9:50 AM | 3/25/05 | 3/25/05 5:05 PM | 0503430-002A | 3/23/05 12:20 PM | 3/25/05 | 3/25/05 6:41 PM |
| 0503430-003A | 3/23/05 10:20 AM | 3/25/05 | 3/25/05 5:37 PM | 0503430-004A | 3/23/05 11:15 AM | 3/25/05 | 3/25/05 6:13 PM |
| 0503430-005A | 3/23/05 11:45 AM | 3/25/05 | 3/25/05 4:07 PM | 0503430-006A | 3/23/05 10:45 AM | 3/25/05 | 3/25/05 4:36 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.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

# QC SUMMARY REPORT FOR SM5310 B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503430

| EPA Method: SM5310 B | Extraction: SM5310B | | | BatchID: 15586 | | Spiked Sample ID: N/A | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | mg/L | mg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | LCS / LCSD |
| IC as CO2 | N/A | 10 | N/A | N/A | N/A | 96.8 | 98.6 | 1.88 | N/A | 80 - 120 |

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

NONE

BATCH 15586 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0503430-001A | 3/23/05 9:50 AM | 3/25/05 | 3/30/05 7:27 PM | 0503430-002A | 3/23/05 12:20 PM | 3/25/05 | 3/30/05 7:39 PM |
| 0503430-003A | 3/23/05 10:20 AM | 3/25/05 | 3/30/05 7:51 PM | 0503430-004A | 3/23/05 11:15 AM | 3/25/05 | 3/30/05 8:03 PM |
| 0503430-005A | 3/23/05 11:45 AM | 3/25/05 | 3/30/05 8:30 PM | 0503430-006A | 3/23/05 10:45 AM | 3/25/05 | 3/30/05 8:43 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.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

**McCampbell Analytical, Inc.**
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0503430** **ClientID: BEIA**

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

TEL: (510) 521-3773
FAX: (510) 865-2594
ProjectNo: Dublin Concrete/Dolan Rentals
PO:

**Bill to:**
Blymyer Engineers, Inc.
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Requested TAT: **5 days**
*Date Received:* **03/24/2005**
*Date Printed:* **04/01/2005**

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 0503430-001 | MW-1 | Water | 3/23/05 9:50:00 AM | ☐ | B | | | A | A | A | | | | | | | | | |
| 0503430-002 | MW-2 | Water | 3/23/05 12:20:00 | ☐ | B | C | C | A | | A | D | | | | | | | | |
| 0503430-003 | MW-3 | Water | 3/23/05 10:20:00 | ☐ | B | | | A | | A | | | | | | | | | |
| 0503430-004 | MW-4 | Water | 3/23/05 11:15:00 | ☐ | B | | C | A | | A | D | | | | | | | | |
| 0503430-005 | MW-5 | Water | 3/23/05 11:45:00 | ☐ | B | | C | A | | A | D | | | | | | | | |
| 0503430-006 | MW-6 | Water | 3/23/05 10:45:00 | ☐ | B | | | A | | A | | | | | | | | | |

Test Legend:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 300_1_W | 2 | 9-OXYS_W | 3 | G-MBTEX_W | 4 | IC_W | 5 | PREDF REPORT |
| 6 | RSK174_W | 7 | TPH(D)_W | 8 | | 9 | | 10 | |
| 11 | | 12 | | 13 | | 14 | | 15 | |

**Prepared by: Melissa Valles**

**Comments:** 002 added for 9 Oxys on 4/1/05, per M.D on 5d

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.

Beia 0503430

# BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 050323-BA1

CLIENT: Blymyer Engineers, Inc.

SITE: Dublin Concrete/ Dolan Rentals
6393 Scarlett Ct
Dublin, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB: McCampbell DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to : Blymyer Engineers, Inc.
Attn: Mark Detterman
EDF Format Required
** Analyze the sample with the highest MTBE result for fuel oxygenates + Lead Scavengers EDB & 1,2-DCA.
8260M

| SAMPLE I.D. | DATE | TIME | MATRIX S= SOIL W=$H_2O$ | CONTAINERS TOTAL | TPH-G (8015M) | BTEX/MtBE (8021B)** | TPH-D (8015M) | Carbon Dioxide | Methane | Nitrate (48 hr. Hold Time) | Sulfate | 4oxy's added 4/01/05 SA | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + MW-1 | 3/23 | 0950 | W | 5 | | | | X | X | X | X | | | | | |
| + MW-2 | | 1220 | | 10 | X | X | X | X | X | X | X | X | | | | |
| + MW-3 | | 1020 | | 5 | | | | X | X | X | X | | | | | |
| + MW-4 | | 1115 | | 10 | X | X | X | X | X | X | X | | | | | |
| + MW-5 | | 1145 | | 10 | X | X | X | X | X | X | X | | | | | |
| + MW-6 | | 1045 | | 5 | | | | X | X | X | X | | | | | |
| + TripBlank | | 1300 | W | 1 | | | | | | | | | ON HOLD | RW 3/23/05 | | |

RCE/P
GOOD CONDITION
~~HEAD SPACE ABSENT~~
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

| | VOAs | O&G | METALS | OTHER |
|---|---|---|---|---|
| ~~PRESERVATION~~ | | | | |

SAMPLING COMPLETED: DATE 3/23/05 TIME 1300
SAMPLING PERFORMED BY: Brian Alcorn

RESULTS NO LATER THAN: As contracted

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| RELEASED BY | | | RECEIVED BY | 3/24/05 | 320 |
| RELEASED BY | 3/24/05 | 615 | RECEIVED BY | | |
| RELEASED BY | | | RECEIVED BY | | |

| | | | | DATE | TIME |
|---|---|---|---|---|---|
| | | | | 3/24/05 | 320 |
| | | | | 3/24/05 | 6:15 |
| | | | | | |

| SHIPPED VIA | DATE SENT | TIME SENT | COOLER # | |
|---|---|---|---|---|
| | | | | |