Innovative Environmental Remediation, Inc.

February 8, 2010

Mr. Jerry Wickham, Hazardous Materials Specialist Alameda County Environmental Health Services Environmental Protection Division 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

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8:54 am, Feb 09, 2010

Alameda County Environmental Health

RE: High Vacuum Dual Phase Extraction Pilot Test and Interim Remedial Action Report

Eagle Gas Station 4301 San Leandro Street Oakland, California 94601

LOP StID# 2118 ACEH Case No. RO0000096 USTCF Claim No. 014551

Dear Mr. Wickham:

Innovative Environmental Remediation, Inc. (IERI) has prepared this report entitled "*High Vacuum Dual Phase Extraction Pilot Test and Interim Remedial Action Report*" for the above referenced site for your review. If you have any questions regarding this report, please do not hesitate to contact the undersigned at (925) 708-8387 or (925) 943-6445.

Sincerely, IERI

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

Enclosure

Innovative Environmental Remediation, Inc.

High Vacuum Dual Phase Extraction Pilot Test and Interim Remedial Action Report

Eagle Gas 4301 San Leandro Street Oakland, California 94601

LOP StID# 2118 Fuel Leak Case No. RO0000096 USTCF Claim No. 14551

Prepared for:

Ms. Farah Naz Mr. Muhammad Jamil

Prepared by:

Innovative Environmental Remediation, Inc. Walnut Creek, California

February 2010

Mr. Jerry Wickham Hazardous Materials Specialist

Alameda County Health Care Services Agency Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

RE: Eagle Gas Station 4301 San Leandro Street Oakland, California 94601

> LOP StID# 2118 Fuel Leak Case No. RO0000096 USTCF Claim No. 014551

Dear Mr. Wickham,

As the legally authorized representative of the above-referenced project location, I have reviewed the *High Vacuum Dual Phase Extraction Pilot Test and Interim Remedial Action Report* prepared by my consultant of record, Innovative Environmental Remediation, Inc. (IERI) of Walnut Creek, California. I declare, under penalty of perjury, that the information and/or recommendations contained in this document or report are true and correct to the best of my knowledge.

Sincerely,

Muhamid Jamil

Mr. Muhammad Jamil

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1. INTRODUCTION

Between 1999 and 2005, three interim remedial actions were proposed, but none of them have been implemented for the subject site located at 4301 San Leandro Street, Oakland, California. Their remedial approaches are summarized in Appendix A of the *Interim Remedial Action Work Plan* (ERS, 2009a). Based on the developed Site Conceptual Model and all the soil/groundwater investigations, as well as the groundwater monitoring/sampling results, the referred Work Plan proposed an effective interim remedial action and a pilot test. Alameda County Environmental Health's (ACEH's) review comments for the Work Plan are included in the July 9, 2009 letter (see Appendix A). ACEH also requested a work plan addendum to expand the discussion of field operations and monitoring during the proposed High Vacuum Dual Phase Extraction (HVDPE) event. The submitted *Work Plan Addendum for DPE Interim Remedial Action* (ERS, 2009b) was reviewed by ACEH. The regulatory concurrence of the 30-day interim remedial action and a pilot test using HVDPE is shown in ACEH's October 2, 2009 letter (see Appendix B).

At the request of Ms. Farah Naz and Mr. Muhammad Jamil, Innovative Environmental Remediation, Inc. (IERI) conducted the approved interim remedial action and pilot test from December 10, 2009 through January 10, 2010 (a total of 31 days). On behalf of Ms. Naz and Mr. Jamil, IERI prepared a technical report for the 2009 - 2010 interim remedial action and pilot test. The purposes of this technical report are:

- Presentation of the measured groundwater depth and induced vacuum in the observation wells selected for each sub-area of the subject site.
- Evaluation of the range of influence resulting from the stresses of HVDPE.
- Presentation of the measured HVDPE system data.
- Estimation of the amount of hydrocarbons removed from the subsurface.
- Evaluation of the performance of the interim remedial action based on the results of the abatement of soil vapor and groundwater.
- Identification of "hot spot" locations where higher contamination is located or more contaminants can be extracted.

The field recorded HVDPE system operational data and the laboratory reports for the collected vapor and groundwater samples are included in Appendices C and D.

1.1 Summary of Findings

(1) The estimated ranges of influence under HVDPE system vacuums between 13 and 15-inch mercury (Hg) for Target Areas A, B, and C ranged between 27 to 48 feet, 5 to 27 feet, and 10 to 38 feet, respectively.

(2) Elevated vapor concentrations were measured at wells D5 and EW-1. A "hot spot" likely exists in the vicinity of these two wells.

(3) The Horiba VOC Analyzer and the Tedlar bag provide data with similar quality. Based on the Horiba Analyzer and the Tedlar bag data, the average amount of petroleum hydrocarbons removed during the HVDPE pilot test and interim remediation was approximately 3,600 pounds, which is equivalent to 575 gallons of gasoline.

(4) The calculated mass removal rates for Target Areas A, B, and C were 5.45, 4.39, and 4.03 pounds per hour, respectively.

(5) The extracted total influent vapor concentrations approaching to the end of the tests for Target Areas A, B, and C were 2,000, 1,300, and 600 ppmv, respectively.

(6) In addition to extracting and treating 22,510 gallons of groundwater, about 5 gallons of floating product was also extracted from wells MW-8, IS-3, and D10.

(7) Comparing the summer 2009 semi-annual groundwater sampling and the groundwater data collected at the end of the interim remediation show that significant groundwater concentration reduction was observed in many wells, except for well MW-7D. However, the groundwater concentration change prior to and after the pilot test was not significant.

(8) "Hot spots" exist south of the building near wells EW-1, D5, D12, and D4 and north of the building near wells D3, IS-3, D1, and D2. Location of these "hot spots" is consistent with the center of the TPH-g and MTBE plumes.

1.2 Summary of Conclusions

(1) Based on the vacuum and groundwater concentration data, the deep groundwater zone is isolated from the shallow zone.

(2) Significant amounts of hydrocarbon still remain in the subsurface. Both vapor and groundwater concentration data indicate that the groundwater impact, particularly under Target Areas A and B, was not greatly reduced.

(3) Since significant vapor concentrations were measured at the end of the pilot test for each target area, and the groundwater impact remained at a similar level after interim remediation, 8 to 14 days of extraction was not sufficient for remediation.

(4) Based on the hydrocarbons removal rates and the quantity of mass removed, HVDPE has demonstrated to be an efficient remedial technology.

(5) Elevated vapor concentrations sustained in DPE wells D3, D4, D5, D12, EW-1, and IS-3. These wells should be the focus of extraction in the future remediation.

(6) Wells D7, D10, D11, and D12 appear to sufficiently influence the area under the building. Although wells D10 and D11 may not be productive for mass removal, these two wells can be used to generate a cone of depression to collect floating products.

2. BACKGROUND INFORMATION

2.1 Site Overview

The site, Eagle Gas Station, is located in a mixed residential and commercial area in the southern portion of the City of Oakland, Alameda County, California. The location is approximately 1,100 feet northeast of Interstate Highway 880, at the southern corner of the intersection of San Leandro Street and High Street (Figure 1). The site is an active gasoline service station and is bounded by commercial properties to the southeast and southwest, by High Street to the northwest, and San Leandro Street to the northeast. The Site Plan, with on-site well locations, is shown in Figure 2.

A more extensive overview of the local hydrogeology, UST removal history, site investigation history, and contaminants of concern is presented in the *Semi-Annual Groundwater Monitoring Report - Summer 2009* (ERS, 2009c).

2.2 DPE Wells Installed for HVDPE Pilot Test and Interim Remedial Action

Twelve 4-inch diameter DPE wells were installed from September 29 through October 1 and October 6 and 7, 2009. Based on the soil investigation and historical groundwater sampling data, only the shallow zone is contaminated at a maximum depth of 25 feet below ground surface (bgs). Thus, all the DPE wells were screened in the shallow zone above the depth of 25 feet bgs (ERS, 2009a). Wells D7, D10, D11, and D12 were angle wells with angles of 36, 40, 36, and 40 degree, respectively, relative to the vertical line. These four wells were screened from 10 to 30 feet along the slanted well casing. Eight vertical wells D1 through D6, D8, and D9 were screened from 8 to 23 feet bgs. It should be noted that well D9 was originally proposed as an angle well in the Interim Remedial Action Work Plan (ERS, 2009a). It was changed to a vertical well because too much pea gravel was found at the location proposed for D9 during drilling. Since the proposed D9 location was not appropriate for the installation of an angle well, the nearest vertical well D7 (also near the building) was changed to an angle well to substitute the function of well D9. Well EW-1 is an existing 4-inch diameter groundwater extraction well. The location map of all the DPE wells D1 through D12 and well EW-1 used for the pilot test/interim remediation, as well as the boundaries of the Total Petroleum Hydrocarbons as gasoline (TPH-g) and Methyl Tertiary Butyl Ether (MTBE) plumes are shown in Figure 3.

It should be noted that, except for the vapor wells, all the shallow observation wells selected for the pilot test were screened ranging from 6 to 25 feet bgs. This range

horizontally coincides with the screen interval described above for all the vertical DPE wells. Deep observation wells were screened from 33 to 45 feet bgs, and vapor wells were screened from 3 to 9 feet bgs.

3. INTERIM REMEDIAL ACTION AND PILOT TEST ACTIVITIES

Following IERI's notice to ACEH for the interim remedial action/pilot test (Appendix E), a mobile HVDPE system owned by CalClean, Inc. of Tustin, California was mobilized to the site on December 8, 2009. The HVDPE system included a water treatment unit containing two 500-pound activated-carbon vessels and a low-noise, truck-mounted Dual Phase Extraction (DPE) unit that included a high-vacuum/oil-sealed liquid-ring blower with a maximum design flow of 450 Actual Cubic Feet per Minute (ACFM) and a propane-fired thermal/catalytic oxidizer. (Note: since the extracted vapor concentration from the subject site was often relatively high, the oxidizer was mostly run in the thermal mode with the oxidation chamber temperature greater than 1,400°F from December 10, 2009 through January 4, 2010. Since the extracted vapor concentration was not higher than 10,000 ppmv, no vapor dilution by air was needed. The HVDPE system operational data is included in Appendix C.) The HVDPE unit was tested and started to extract sufficient groundwater from monitoring wells MW-2, MW-4, MW-7, and groundwater extraction wells EW-1 and EW-2. The extracted groundwater from these wells was stored in a 250-gallon holding tank and treated by the carbon treatment unit. Samples of treated groundwater were sent to a State of California certified laboratory, Associated Laboratories of Orange, California, overnight with a 24-hour turn-around-time. The laboratory analytical report was forwarded to the East Bay Municipal Utility District (EBMUD) on December 9, 2009 to complete the application for sewer discharge of treated groundwater. All the permits required for the interim remedial action/pilot test, including the EBMUD sewer special discharge permit (#50586682) and the air emission permit (Bay Area Air Quality Management District, Plant # 12568) are included in Appendix F.

One existing 4-inch diameter groundwater extraction well (EW-1) and twelve 4-inch diameter DPE wells, including four angle wells (D7, D10, D11, and D12) installed under the gas station building and eight vertical wells D1 through D6, D8, and D9, were used as dual-phase extraction wells. The heads of all extraction wells were properly sealed with FERNCO 1056-215 vacuum boots. The individual and combined-influent vapor concentrations of extraction wells were measured with a petroleum hydrocarbon Horiba Volatile Organic Carbon (VOC) Analyzer and also sampled with Tedlar bags in the field. The interim remedial action and pilot was performed continuously 24 hours a day for 31 days from December 10, 2009 through January 10, 2010.

According to the operation plan presented in Table 1 of the work plan addendum (ERS, 2009b), the interim remediation and pilot test was conducted for three sub-areas (Target Areas A, B, and C) associated with three test groups (Test Groups A, B, and C). The measured data was transferred, analyzed, and evaluated daily during the remedial action/pilot test. Based on the individual and combined-influent vapor concentrations, as well as the calculated contaminant mass removal rate, the operation of the HVDPE system and the selection of DPE wells were adjusted and modified. In addition, vapor wells VP-3, VP-4, and VP-6 listed in Table 1 of the work plan addendum (ERS, 2009b) were found covered or cemented on December 8, 2009. Thus, only the vacuum from vapor wells VP-2, approximately 24 feet west of well MW-7, and VP-5, approximately 10 feet east of EW-2, was measured during the pilot test. Wells VP-3, VP-4, and VP-6 were not available. The well head of monitoring well MW-2 was sealed off during the pilot test in order to prevent the extraction efficiency of D6. Based on the modifications described above, the extraction and/or observation wells originally selected for each test group shown in Table 1 of the work plan addendum (ERS, 2009b) were modified. All the wells adopted for the interim remedial action and pilot test are listed in Table 1 of this report. Groundwater samples and Tedlar bag air samples were collected from the observation wells specified in Table 1 of this report at the beginning and end of each test group. The collected water and air samples were also delivered to the State of California certified laboratory, Associated Laboratories, for analysis. Locations of the observation wells are also shown in Figure 3.

The groundwater depths of all the HVDPE extraction wells and observation wells for each test group were measured prior to the startup of each test group. The measured groundwater depth of each extraction well was used to determine the initial DPE stinger depth. Some of the initial stinger depths were adjusted during the interim remediation to improve the mass removal efficiency of the HVDPE system.

4. **RESULTS OF PILOT TEST AND INTERIM REMEDIAL ACTION**

Based on the Fourth Quarter 2008 (4Q08) groundwater sampling data, the delineated TPH-g and MTBE plumes were generally oriented in the south-north direction (see Figure 3). Thus, the DPE wells described in Section 2.2 are located primarily within the boundaries of the above plumes. Also, the pilot test groups A, B, and C focused on the sub-areas (Target Areas A, B, and C) south, north, and under the building, respectively. The pilot test/interim remediation was conducted sequentially in the order of Test Groups A, B, and C as shown in Table 1.

In general, the pilot test/interim remediation attempted to accomplish the following tasks:

Task 1 - The induced vacuums and groundwater depths measured from the observation wells (vapor wells and groundwater monitoring wells) assigned for each test group (see Table 1) were used to evaluate the range of influence created by the extraction wells.

Task 2 - The extracted vapor concentrations of individual wells and the combinedinfluent from a number of wells were measured to estimate the amount of contaminants removed from subsurface and assist in the adjustment of extraction wells during the interim remediation.

Task 3 - The change in vapor and groundwater concentrations measured or sampled at the beginning and end of each test group specified in Table 1 was used to evaluate the performance of the HVDPE system and the DPE wells, as well as to identify the location of 'hot spots" under the site.

The data and results of the above tasks are presented in the following sections:

4.1 Groundwater Depth and Induced Vacuum (Task 1)

During the HVDPE pilot test, the distribution of the induced vacuum in the subsurface caused by the vacuum in DPE wells and the associated hydraulic stress was measured in the observation wells. The field-measured vacuum and groundwater data presented in Appendix C fluctuated from time to time each day. Thus, only average values of vacuum were calculated to demonstrate the range of influence created by the HVDPE. The daily average vacuum and groundwater depth, as well as the average vacuum for the entire test period, in Target Areas A, B, and C are presented in Tables 2, 3, and 4, respectively. The stinger depth within each DPE well is also shown in Table 5.

4.2 Evaluation of Range of Influence (Task 1)

<u>Target Area A</u>

The five DPE wells D5, D6, D8, D9, and EW-1 were extracted at a system vacuum between 13- and 17-inch Hg. Most of the time, the system vacuum was maintained at 15-inch Hg. Average induced vacuums of 0.15, 0.25, 3.41, and 0.2 inch were measured in wells VP-2, VP-5, MW-4, and MW-7. The distance between D5 and VP-5 is approximately 48 feet and the distance between D8 and VP-2 is approximately 27 feet. The pilot test data shows that:

- The range of influence within Target Area A was between 27 and 48 feet under a total system vacuum of 15-inch Hg.
- Even though well MW-4D is only between 4.5 and 6 feet away from the extraction wells D5 and EW-1, respectively, no significant vacuums were measured in deep zone wells MW-4D and MW-7D.
- The test results indicate that the deep groundwater zone is isolated from the shallow zone. This conclusion is consistent with the available lithologic data.

<u>Target Area B</u>

Wells D1 through D4 were selected for the pilot test in Target Area B. The HVDPE was run at a system vacuum of 15-inch Hg during the test. Although wells D5 and EW-1 in Target Area A were retained for the continuous mass removal due to their elevated level of vapor concentrations, these two wells are far away from the Target Area B and should have no effect on the pilot test results. Observation wells MW-5, MW-6, and IS-1 are more than 25 feet from the nearest DPE wells. No significant vacuum was measured in wells MW-5, MW-6, and IS-1. Most interestingly, no significant vacuum was found in well MW-8, even though it is only 5 feet from DPE well D1. Induced vacuums of 0.39, 0.24, and 0.08 inch Hg were measured in wells IS-4, IS-6, and MW-3. These wells are 10, 27 and 18 feet from the nearest DPE well, respectively. The above data suggests that:

- The lithology in Target Area B likely is very heterogeneous. Depending on the soil permeability, the range of influence in Target Area B can be less than 5 feet and as far as 27 feet.
- The soil near well MW-8 may have low permeability. This explains the presence of floating product in this well.

<u>Target Area C</u>

Wells D5 and EW-1 were shut off during Test Group C because these two wells are close to Target Area C. Slant wells D7, D10, D11, and D12 were the major DPE wells for Target Area C. However, wells IS-3, MW-8, D3, and D4 were also connected to the vacuum system for various periods of time during Test Group C because floating product was found in wells MW-8 and IS-3, and elevated vapor concentration was measured in wells D3 and D4 during the Test Group B.

The system vacuum reduced to 13 inch-Hg because the slant wells have longer screen. No significant vacuum was measured in wells IS-1 and IS-4. Induced vacuums of 0.11, 1.46, 3.75, 0.51, and 0.06-inch Hg were measured in wells MW-7, MW-8, IS-3, IS-5, and VP-2, respectively. Most interestingly, an induced vacuum of 1.46-inch Hg, likely attributed by well D11, was measured in MW-8, which did not receive any vacuum from vertical DPE well D1. Since well D11 is a slant well also screened to a depth of 23 ft bgs like other vertical wells, the heterogeneity of Target Area B was again demonstrated. It is also interesting that floating product was not found in MW-8 during the Test Group B, while no vacuum was measured. However, when 1.46 and 3.75-inch Hg vacuums were measured in wells MW-8 and IS-3, floating product was observed in the two wells the day after the extraction of slant wells. This observation suggests that slant wells D10 and D11 likely generated a local groundwater cone of depression that collected floating product into the area near wells MW-8 and IS-3.

Since wells IS-3 and IS-5 are approximately 10 and 18 feet away from DPE wells D11 and D12, and the well VP-2 at a distance of 38 feet between wells D7 and D11, the pilot test results for Target Area C suggest that:

- The range of influence with slant wells D7, D10, D11, and D12 extracted together may range from 10 to 38 feet.
- Wells D7, D10, D11, and D12 can completely influence the impact area under the building.

4.3 DPE System Operation and HVDPE Data (Task 2)

The selected DPE wells shown in Table 1 were connected to the HVDPE system during the pilot test for each test group and the interim remediation. All DPE wells for Target Area A were individually extracted prior to the beginning of Test Group A. The measured vapor concentrations of individual wells at the beginning of the test were 3,190 (D5), 11 (D6), 158 (D8), 33 (D9), and 8,210 ppmv (EW-1). The combined vapor

concentration at the beginning of the pilot test/interim remediation for Target Area A on December 10, 2009 at 17:00 hour was 3,580 ppmv. The system was run at a vacuum of 17 inch-Hg with a combined inflow of 183 standard cubic feet per minute (scfm). The oxidation chamber temperature was 1,457 °F. The system data was measured hourly for 5 hours. After that, the measurement frequency was reduced to once every 4 hours until December 13, 2009. Measurement was then conducted five times daily until the end of the pilot test. The extracted vapor concentration from each individual DPE well was measured at 8:00 and 20:00 hour during the pilot test. The measured individual vapor concentrations were used to assist the valve and/or stinger depth adjustment, as well as to change the use of DPE wells. The initial vapor concentrations for wells D5, D6, D8, D9, and EW-1 at the beginning of the Test Group A suggest that:

• A "hot spot" exists in the vicinity of wells D5 and EW-1, which is consistent with the 4Q08 groundwater concentration data collected from monitoring well MW-4.

In order to enhance the total mass removal for both TPH and MTBE, as well as to remove the "hot spots," the following approaches were implemented during the pilot test and interim remediation:

1. Wells D5 and EW-1 were retained for the Test Group B. (Note: these two wells were thus continuously extracted for 22 days from December 10, 2009 until January 1, 2010.)

2. Stinger depth in the DPE wells was kept close to the bottom of the shallow zone to extract as much groundwater as possible. (Note: although hydrocarbons can be more effectively removed through the vapor phase, deeper stinger depth increases the extraction of groundwater impacted by MTBE.)

3. Stinger depth was kept near or above the middle of the well screen when the extracted individual vapor concentration was high or a "hot spot" was identified.

4. The monitoring wells were also extracted when floating product was found.

5. The oxidizer was converted from the thermal mode to the catalytic mode when the influent vapor concentration was near 1,100 ppmv.

The system operational data provided by CalClean is included in Appendix C.

4.4 Estimation of Hydrocarbon Mass Removal (Task 2)

The quantity of hydrocarbons removed through the extracted vapor was calculated based on the influent vapor concentration, influent flow rate, and extraction time interval. The formula used to calculate the mass of hydrocarbons removed through vapor phase is shown below:

Hydrocarbon Removed (lbs) = Influent Vapor Concentration (ppmv) x Influent Flow Rate (scfm) x Time Interval (minutes) x (4.16 μ g/L/ppmv) x (1 lb/453.6 g) x (1 g/10⁶ μ g) x 28.32 L/scfm

The Horiba VOC Analyzer data was used to calculate the amount of hydrocarbon mass removed. The calculated results are listed in Table 5. Based on the field measured vapor concentrations, the total mass of petroleum hydrocarbon (TPH) removed from Test Groups A, B, and C was approximately 1,830, 842, and 870 pounds, respectively, equivalent to 292, 134, and 139 gallons of gasoline. The average TPH mass removal rate for Test Groups A, B, and C was 5.45, 4.39, and 4.03 lbs/hr, respectively. The change of cumulative mass removal with time for Test Groups A, B, and C are shown in Figures 4 through 6.

The HVDPE removed a total of 3,542 pounds of petroleum hydrocarbons (equivalent to 565 gallons of gasoline) from the subject site during the 31-day interim remediation. The associated mass removal rates were relatively high compared with most petroleum hydrocarbon contaminated sites. However, the relatively straight slopes of the cumulative mass removal curves shown in Figures 5 and 6 suggest that:

• Significant amount of hydrocarbon still exists in the subsurface.

The mass removed was also calculated based on the influent concentrations determined by the Tedlar bag sampling data included in Table 13 and the average total system influent flow rate provided by CalClean. The total amount of hydrocarbons removed calculated based on the Tedlar bag data was 3,660 pounds, equivalent to 584 gallons of gasoline. It demonstrates that:

• The amount of mass removal calculated using the Tedlar bag data is very close to the amount determined by the Horiba Analyzer data.

5. PERFORMANCE OF THE HVDPE (TASK 3)

Diminishment of Extracted Vapor Concentrations

Hydrocarbons in the vadose zone, capillary fringe, and saturated zone can be extracted and/or stripped from the adsorbed and dissolved phases into the gas phase. As such, to improve the mass removal rate, the following operational measures were adopted during the operation: changing the extraction well, number of wells connected to the system, and the depth of stinger. Table 5 shows how these operational measures were adjusted and how the system vacuum was affected. During the system startup, the system vacuum varied between 13- and 17-inch Hg. After that, the system was maintained between 13- and 15-inch Hg during the pilot test depending on the number of wells connected to the system and the depth of stinger.

The data shown in Table 5 indicates that the measured influent vapor concentrations fluctuated significantly. In order to visualize the variation and the trend, the combined influent vapor concentrations for Target Areas A, B, and C are plotted in Figures 7, 8, and 9, respectively. The extracted vapor concentrations from Target Area A show that:

- Target Area A is highly impacted with the initial extracted vapor concentration greater than 3,000 ppmv (Note: A sudden reduction of extracted concentration was due to the temporary close off of wells D5 and EW-1 at 12:00 hour of December 16, 2009 for changing the stinger from 20 feet to 17 feet.)
- Extracted vapor concentration remained at a level of 2,000 ppmv close to the end of the extraction. It suggests that Target Area A still has elevated groundwater impact.

Similar to Target Area A, the extracted vapor concentrations from Target Area B show that:

- A relatively high vapor concentration of greater than 1,200 ppmv remained during the entire test period.
- The concentration level remained unchanged or increased.
- Target Area B was not cleaned up at the end of the test.

The extracted vapor concentrations from Target Area C show that:

- A relatively high vapor concentration of greater than 1,000 ppmv was maintained most time of the test.
- The extracted vapor concentration decreased during the test.
- The slant wells under the building were effective. However, the final combined influent vapor concentration for this area was still greater than 600 ppmv.

In addition to Figures 6, 7, and 8, the extracted vapor concentrations at the beginning and end of the test are presented in Tables 6, 7, and 8. The data for Target Area A presented in Table 6 shows that the extracted vapor concentrations at the end of the test were respectively 4 and 8 times lower than the beginning vapor concentrations for wells D5 and EW-1, where elevated groundwater impact was identified. The test results reveal that:

- Although Target Area A still has an elevated groundwater impact, HVDPE is an efficient technology.
- The fourteen-day interim remediation in Target Area A was not sufficient for Target Area A.

The extracted vapor concentrations at the beginning and the end of the test presented in Table 7 for Target Area B also show that:

- The extracted vapor concentrations at the end of the test in Target Area B were not significantly reduced.
- Target Area B still has an elevated groundwater impact. The 8-day interim remediation in Target Area B was not sufficient.

Based on the Horiba Analyzer and/or Tedlar bag data presented in Table 8 for Target Area C, the extracted vapor concentrations at the end of the test was 2 to 7 times lower than the beginning concentrations. However,

- Significant vapor concentrations remained at the end of the test.
- The 9-day interim remediation in Target Area C was not sufficient.

The above findings and conclusions were obtained based on the Horiba VOC Analyzer and Tedlar bag data. To confirm the reliability of the Horiba data, the laboratoryanalyzed Tedlar bag data was used. The collected Tedlar bag samples were analyzed by Associated Laboratories using EPA Method 8015M. All the available Horiba Analyzer and Tedlar bag data presented in Tables 6 through 8, as well as all the sampled data for system combined influent, are compiled and analyzed in Table 13. The average values and standard deviations reveal that:

- The Horiba VOC Analyzer and the Tedlar bag provide data with similar quality.
- The Horiba VOC Analyzer data has less variation and appears more consistent than the Tedlar bag data.

The Horiba Analyzer and Tedlar bag data have a strong correlation, with a calculated correlation coefficient of 0.9. To demonstrate the correlation and consistency, a scatter plot for Horiba Analyzer and Tedlar bag data is also plotted in Figure 10. All the data is scattered around the 45 degree theoretical line, where both the Horiba Analyzer and Tedlar bag values are identical. Since a large amount of Horiba Analyzer data is available and higher consistency is demonstrated by the Horiba VOC Analyzer, the calculated total mass removed with the Horiba Analyzer data is very reliable. The Tedlar Bag analysis data and the associated laboratory reports are included in Appendix D.

Diminishment of Concentrations in Groundwater

In addition to the removal of 3,542 pounds of hydrocarbons in the vapor phase, 22,510 gallons of groundwater were extracted by the DPE system during the interim remediation. The extracted groundwater was treated by activated carbon. To assist the performance evaluation, the TPH-g, benzene, and MTBE concentrations of the observation wells proposed in Table 1 are presented in Tables 9, 10, and 11. A significant reduction of TPH-g, benzene, and MTBE concentrations was only observed in wells MW-8 and IS-5. Slight MTBE and TPH-g concentration reduction was found in wells MW-3 and MW-4, respectively. Conversely, no significant concentration reduction or concentration increase was found in other wells. The above data suggests that:

• The reduction of groundwater impact was not shown during 31-day extraction; only the transient response was generated.

However, in order to demonstrate the effect of HVDPE, data from the Summer 2009 semi-annual sampling conducted on July 10, 2009 and the groundwater data collected near the end of the interim remedial action on January 7 – 8, 2010 are summarized in Table 12. The comparison shows that:

• A significant reduction of groundwater concentrations was observed, except in well MW-7D.

The above findings reveal that HVDPE provides positive influence on the reduction of local groundwater impact. However, long-term application of HVDPE is required to create a steady-state groundwater impact reduction.

Removal of Petroleum Hydrocarbons Mass

The petroleum hydrocarbons and MTBE were removed from the subsurface through vapor and dissolved phases. Although MTBE is highly soluble, a large percentage of MTBE could be stripped from the dissolved phase together with the dissolved hydrocarbons under a high vacuum and converted into vapor within the water-vapor separator (knock-out tank). As a result, the quantity of dissolved petroleum hydrocarbons and MTBE removed from the carbon vessel was relatively less compared with the vapor mass removed in oxidizer. Also, the amount of hydrocarbon/MTBE removed by the carbon vessel cannot be easily determined because their concentrations in the influent to the carbon vessels changed greatly during the HVDPE process. Although the amount of dissolved hydrocarbons and MTBE removed by the carbon vessels changed greatly during the the total of 22,510 gallons of groundwater was pumped and treated. In addition, approximately 5 gallons of brown, oily floating product was extracted from wells MW-8, IS-3, and D10. The floating product was pumped out from the knock-out tank and skimmed from the holding tank of the groundwater treatment unit.

After 14, 8, and 9 days of HVDPE, approximately 1,830, 842, and 870 pounds of hydrocarbons were removed from Target Areas A, B, and C, respectively. The associated mass removal rate was 5.45, 4.39, and 4.03 pounds per hour. These mass removal rates are greater than or close to the rates found from other petroleum hydrocarbon contaminated sites. The above data suggests that:

• Local groundwater impact remains at a similar level after interim remediation. However, based on the hydrocarbon mass removal rates and the amount of contaminant mass removed, the performance of the HVDPE system was outstanding.

Identification of Hot Spots

During the pilot test for Target Area A, the extracted vapor concentrations for DPE wells D6, D8, and D9 ranged between 14 and 198 ppmv, 21 and 192 ppmv, and 33 and

162 ppmv, respectively (see Appendix C). These concentrations are less than 200 ppmv, which is approaching a site closure level. The extracted concentrations for wells D5 and EW-1 were mostly high during the test, and remained greater than 1,000 ppmv at the end of the test. Similarly, during the pilot test for Target Area B, wells D3 and D4 frequently had higher vapor concentrations compared with wells D1 and D2. At the end of the test for Target Area B, the ending vapor concentrations for wells D1, D2, D3, D4, D5, and EW-1 were 548, 783, 2,040, 1,565, 1,074, and 1,016 ppmv (see Appendix C). For Target Area C, all slant wells D7, D10, D11, and D12 had elevated vapor concentrations of 2,060, 2,070, 1,621, and 6,450 ppmv, respectively, at the beginning of the test. Concentration level for D7 dropped off quickly in 3 days. Concentration levels for wells D10 and D11 reduced to relatively low levels of 421 ppmv and 341 ppmv after 6 and 9 days extraction, respectively. At the end of the Target Area C test, the ending vapor concentrations for wells D3, D4, D12, IS-3, and MW-8 were 741, 572, 799, 671, and 281 ppmv, respectively (See Appendix C).

The pilot test data indicates that:

- Elevated vapor concentrations sustained in DPE wells D3, D4, D5, D12, EW-1, and IS-3.
- A "hot spot" clearly exists south of the building near wells EW-1, D5, D12, and D4. Another "hot spot" exists north of the building near wells D3, IS-3, D1, and D2.
- Locations of these "hot spots" are consistent with the center of the TPH-g and MTBE plumes shown in Figure 3.

6. FINDINGS

Range of Vacuum Influence

- The range of influence within the Target A area is between 27 and 48 feet under total system vacuum of 15-inch Hg.
- No significant vacuums were measured in deep zone wells MW-4D and MW-7D; even though well MW-4D is only 4.5 and 6 feet away from the extraction wells D5 and EW-1, respectively.
- The lithology in Target Area B likely is very heterogeneous, including low permeability soil. Thus, the range of influence in Target Area B is less than 5 feet and as far as 27 feet. Consequently, floating product was found in wells MW-8 and IS-3.
- The range of influence with slant wells D7, D10, D11, and D12 extracted together may range from 10 to 38 feet.

Quantity of Removed Contaminants

- Elevated vapor concentrations were measured at wells D5 and EW-1 at the beginning of the Test Group A. Thus, a "hot spot" exists in the vicinity of these two wells, which is consistent with the 4Q08 groundwater data collected from monitoring well MW-4.
- Based on the Horiba Analyzer and Tedlar bag data, the calculated petroleum hydrocarbons removed during the 31-day interim remediation were respectively 3,542 and 3,660 pounds, equivalent to 565 and 584 gallons of gasoline.
- Based on the Horiba Analyzer data, 1,830, 842, and 870 pounds of hydrocarbons were removed from Target Areas A, B, and C, respectively. The associated mass removal rate was 5.45, 4.39, and 4.03 pounds per hour.
- In addition to extracting and treating 22,510 gallons of groundwater, approximately 5 gallons of floating product was extracted from wells MW-8, IS-3, and D10.

• The Horiba VOC Analyzer and the Tedlar bag provide data with similar quality. In addition, the Horiba Analyzer data has less variation and appears more consistent than the Tedlar bag data.

Diminishment of Extracted Vapor Concentrations

- Target Area A is highly impacted with the initial extracted vapor concentration greater than 3,000 ppmv. The vapor concentration remained at a level of 2,000 ppmv approaching the end of the extraction.
- Relatively high vapor concentrations of greater than 1,200 and 1,000 were maintained in Target Areas B and C. The ending concentrations of these two areas were greater than 1,300 and 600 ppmv, respectively.

Diminishment of Contaminant Concentrations in Groundwater

- Reduction of groundwater impact was not shown during 31-day extraction. Only a transient response was generated.
- Comparing the summer 2009 semi-annual groundwater sampling data and the groundwater data collected at the end of the interim remediation shows that a significant reduction of groundwater concentrations was observed in many monitoring wells, except for well MW-7D.

Identification of Hot Spots

- A "hot spot" clearly exists south of the building near wells EW-1, D5, D12, and D4. Another "hot spot" also exists north of the building near wells D3, IS-3, D1, and D2.
- The location of these "hot spots" is consistent with the center of the TPH-g and MTBE plumes.

7. CONCLUSIONS

- 1. The deep groundwater zone is isolated from the shallow zone based on the vacuum and groundwater concentration data, which is consistent with the local lithologic data.
- 2. Wells D7, D10, D11, and D12 can completely influence the area under the building. Although wells D10 and D11 may not be productive for mass removal, these two wells can be used to generate a cone of depression to collect floating product.
- 3. The plotted mass removal curves suggest that a significant amount of hydrocarbon still remains in the on-site subsurface. Additionally, both vapor and groundwater concentration data show that groundwater impact, especially under Target Areas A and B, was not greatly reduced.
- 4. Since significant vapor concentrations were measured at the end of the test for each target area, 8 to 14 days of extraction was not sufficient for each target area.
- 5. Although HVDPE provides a positive influence on the reduction of groundwater impact, the long-term use of HVDPE is required to generate a steady-state groundwater impact reduction.
- 6. Although the local groundwater impact remains at a similar level after an interim remediation, HVDPE was demonstrated to be an efficient remedial technology based on the hydrocarbon removal rates and the quantity of mass removed.
- 7. Elevated vapor concentrations were sustained in DPE wells D3, D4, D5, D12, EW-1, and IS-3. These wells should be the focus of extraction in the future remediation.

8. **RECOMMENDATIONS**

HVDPE was demonstrated to be an effective technology compatible with the site conditions. It extracted more than 3,600 pounds of petroleum hydrocarbons in 31 days through the pilot test and interim remediation activities. The ranges of influence of vacuum determined from the pilot test provide sufficient coverage for the groundwater plumes. However, the results of the pilot test and short-term interim remediation show that more contaminants likely remain in the subsurface; and 8 to 14 days of extraction was not sufficient.

Since the amount of contaminants remaining in the subsurface cannot be reliably determined and the mass removal rate varies with the contamination level, at least two additional 30-day extraction events are recommended. The first recommended cleanup event is in March 2010, near the end of the rainy season. The second cleanup event is in May 2010, before summer. These two cleanup events will remove more contaminants from the subsurface. The cleanup data will be used to estimate the length of time required to clean up the site before closure. Since the site has limited space and many people are walking around the site waiting for temporary employers during the day, the mobile HVDPE system is more preferable for this purpose. Progress reports will be prepared for each cleanup event. The results of these two additional extraction events will be used to decide whether a fix-based system should be installed.

REFERENCES

Environmental Risk Specialties (ERS), Interim Remedial Action Work Plan, May 2009a.

Environmental Risk Specialties (ERS), Work Plan Addendum for DPE Interim Remedial Action, August 2009b.

Environmental Risk Specialties (ERS), Semi-Annual Groundwater Monitoring Report -Summer 2009, July 2009c.

DISTRIBUTION LIST

Mr. Jerry Wickham, Senior Hazardous Materials Specialist (via electronic transmittal) Alameda County Health Care Services Agency Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Ms. Farah Naz (via U.S. Mail) C/o Mr. Muhammad Jamil 40092 Davis Street Fremont, CA 94538 Innovative Environmental Remediation, Inc.

CERTIFICATION

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

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

Sincerely,

INNOVATIVE ENVIRONMENTAL REMEDIATION, INC.

Jim Ho, PE #C68639



FIGURES



Innovative Environmental Remediation, Inc



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Legend

Φ	Extraction Well
۲	iSOC Well
+	Monitor Well, Deep
•	Monitor Well, Shallow
	Building Boundary



Site Plan Eagle Gas Station, 4301 San Leandro Street, Oakland, CA

2



Legend

•	HVDPE Well
	Extraction Well
۲	iSOC Well
+	Monitor Well, Deep
•	Monitor Well, Shallow
•	Vapor Well
	Building Boundary
ns	not sampled
*	Deep Zone Well, result not shown
20,000	TPHg Concentration, Dec 2008 (ug/L)
	TPHg Concentration contour
23,000	MTBE Concentration, Dec 2008 (ug/L)
	MTBE Concentration contour



Location Map of Interim Remedial Action DPE Wells Eagle Gas Station, 4301 San Leandro Street, Oakland, CA Figure 3

2,000 1,800 ... 1,600 1,400 +++++ Total TPH Mass Removed (lbs) 1,200 1,000 800 600 400 200 0 50 100 150 200 250 300 350 400 0

Figure 4. Cumulative Mass Removal (Target Area A)

Time (hours)



Figure 5. Cumulative Mass Removal (Target Area B)
Figure 6. Cumulative Mass Removal (Target Area C)





Figure 7. Change of Influent Vaport Concentration with Time (Target Area A)



Figure 8. Change of Influent Vaport Concentration with Time (Target Area B)



Figure 9. Change of Influent Vaport Concentration with Time (Target Area C)



Figure 10. Scatter Plot for Telar Bag versus Horiba Analyzer Data

TABLES

Target	Remedial Action	Test Period	Extraction/	Observation Wells	Sampling Wells and
Areas/	Extraction Wells		Test		Sampling Frequency
Test			Duration		
Groups			(days)		
A	D5, D6, D8, D9, and EW-1	December 10 through 24, 2009	14	VP-2, VP-5, MW-4, MW-4D, MW-7, MW-7D	 Vacuum and groundwater depth of observation wells measured every 4 hours Vapors from D5, D6, and D8 sampled on 1st and 14th day Wells MW-4 and MW-7 sampled on 1st and 14th day
В	D1, D2, D3, D4, D5, and EW-1	December 24, 2009 through January 1, 2010	8	MW-3, MW-5, MW-6, MW-8, IS-1, IS-4, and IS-6	 Vacuum and groundwater depth of observation wells measured every 4 hours Vapors from D2 and D4 sampled on 14th and 22nd day Wells MW-3, MW-5, and MW-8 sampled on 14th and 22nd day
С	D3, D4, D7, D10, D11, D12, IS-3, and MW-8	January 1 through 10, 2010	9	VP-2, MW-7, MW-8, IS-1, IS-3, IS-4, IS-5	 Vacuum and groundwater depth of observation wells measured every 4 hours Vapors from D7, D10, and D11 sampled on 22rd and 31th day Wells MW-8, IS-1, IS-4, and IS-5 sampled on 22rd and 31th day

Table 1. Operation of the DPE Wells for 2009 - 2010 Interim Remedial Action and Pilot Test

					Observa	ation Wells				
	VP-2	VP-5	M	N-4	MM	/-4D	MV	V-7	MV	V-7D
Parameters/	Vacuum	Vacuum	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth
Time	(inch Hg)	(inch Hg)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)
12/10/2009	0.10	0.09	3.15	10.50	0.09	16.96	0.14	23.57	0.00	16.95
12/11/2009	0.14	0.19	3.27	11.56	0.00	16.96	0.22	23.38	0.00	16.91
12/12/2009	0.04	0.34	3.45	11.44	0.00	16.88	0.33	23.15	0.03	16.87
12/13/2009	0.40	0.32	3.50	11.37	0.00	17.21	0.34	23.80	0.00	17.11
12/14/2009	0.19	0.31	3.48	11.28	0.00	17.25	0.34	24.73	0.00	17.09
12/15/2009	0.24	0.38	3.38	11.15	0.00	17.22	0.25	24.73	0.00	17.00
12/16/2009	0.12	0.50	3.38	11.10	0.00	17.24	0.15	23.51	0.00	17.01
12/17/2009	0.18	0.45	3.40	11.17	0.00	17.35	0.16	23.36	0.00	17.13
12/18/2009	0.14	0.32	3.44	11.20	0.00	17.27	0.17	23.75	0.00	16.94
12/19/2009	0.18	0.17	3.30	11.15	0.00	17.20	0.19	23.29	0.00	16.87
12/20/2009	0.09	0.24	3.32	11.18	0.00	16.86	0.16	21.63	0.00	16.44
12/21/2009	0.19	0.35	3.58	11.22	0.00	16.73	0.25	21.68	0.00	16.33
12/22/2009	0.05	0.02	3.50	11.67	0.00	16.52	0.13	21.89	0.00	16.82
12/23/2009	0.06	0.05	3.50	12.11	0.00	16.81	0.07	20.16	0.00	16.90
12/24/2009	0.06	0.09	3.57	12.00	0.00	16.92	0.11	20.20	0.00	16.85

Average	0.15	0.25	3.41

0.01

0.20

0.00

							Obserba	tion Wells						
	M	N-3	M١	N-5	MV	N-6	M	W-8	IS	-1	15	5-4	15	5-6
Parameters/	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth						
Time	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)						
12/24/2009	0.00	12.12	0.00	7.90	0.00	11.63	0.00	9.74	0.00	8.05	no data	no data	0.70	7.18
12/25/2009	0.00	12.13	0.00	8.60	0.00	11.62	0.00	9.19	0.00	8.04	no data	no data	0.72	8.02
12/26/2009	0.07	12.16	0.00	13.03	0.00	11.64	0.00	9.33	0.00	8.11	no data	no data	0.73	11.83
12/27/2009	0.07	12.30	0.00	10.84	0.00	11.60	0.00	9.41	0.00	7.87	no data	no data	0.00	10.86
12/28/2009	0.22	12.22	0.00	11.23	0.00	12.52	0.00	9.39	0.00	7.85	0.95	7.68	0.00	8.98
12/29/2009	0.13	12.26	0.00	8.53	0.00	11.72	0.00	9.37	0.00	9.94	0.58	8.03	0.00	8.21
12/30/2009	0.05	12.36	0.00	9.40	0.00	11.74	0.00	9.34	0.00	8.00	0.29	10.90	0.00	8.42
12/31/2009	0.13	12.39	0.00	13.11	0.00	11.77	0.00	9.36	0.00	8.11	0.06	11.27	0.00	8.72
1/1/2010	0.05	12.51	0.00	11.70	0.00	11.81	0.00	9.50	0.00	8.07	0.07	10.39	0.00	8.73
Average	0.08	1	0.00		0.00		0.00		0.00		0.39	ľ	0.24	

						Ob	servation W	ells					
	VP-2	М	W-7	М	W-8	I!	S-1	l!	5-3	15	5-4	l	S-5
Parameters/	Vacuum	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth	Vacuum	GW Depth
Time	(inch Hg)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)	(inch Hg)	(ft btc)
1/1/2010	0.06	0.10	18.35	1.35	12.07	0.10	8.27	3.70	16.67	0.00	9.10	0.00	9.76
1/2/2010	0.10	0.11	17.92	1.76	12.65*	0.01	8.62	3.82	10.86**	0.00	8.88	0.00	9.84
1/3/2010	0.04	0.12	17.52	1.42	12.80*	0.00	8.85	3.86	10.97**	0.00	8.83	0.00	9.93
1/4/2010	0.06	0.10	17.54	1.30	11.31*	0.00	8.90	3.60	11.80**	0.00	9.15	0.21	9.95
1/5/2010	0.05	0.06	18.04	DPE	DPE	0.00	8.92	DPE	DPE	0.00	9.12	0.18	9.90
1/6/2010	0.05	0.06	18.02	DPE	DPE	0.00	8.86	DPE	DPE	0.00	8.92	0.06	9.77
1/7/2010	0.10	0.26	17.96	DPE	DPE	0.00	8.86	DPE	DPE	0.00	8.96	0.24	9.94
1/8/2010	0.05	0.08	17.99	DPE	DPE	0.00	8.91	DPE	DPE	0.00	9.09	1.60	10.00
1/9/2010	0.06	0.06	18.09	DPE	DPE	0.00	8.76	DPE	DPE	0.00	9.22	1.34	10.03
1/10/2010	0.06	0.11	18.12	DPE	DPE	0.00	8.77	DPE	DPE	0.00	9.08	1.43	9.93
Average	0.06	0.11		1.46		0.01		3.75		0.00		0.51	

* ... 0 .1" - 0.5" floating product in MW-8

** ... 0.01" - 0.5" floating product in IS-3

	Time		Stin	ger Depth (ft	bgs)			Syster	n Data		Mass Re	moval (lbs)
Date/Time	Since DPE Began (hours)	D5	D6	D8	D9	EW-1	System Vacuum (in Hg)	Influent Flow (scfm)	Influent Conc. (ppmv)	Treated Effluent Conc. (ppmv)	Incremtal	Cumulative
12/10, 1600	0				DPE Sys	stem Starte	ed for Targe	t A			0.00	0.00
12/10, 1700	1	17	16	20	22	17	17	183	3,580		10.21	10.21
12/10, 1800	2	17	16	20	22	17	17	185	2,310		6.66	16.87
12/10, 1900	3	17	16	20	22	17	17	190	1,980		5.86	22.73
12/10, 2000	4	17	16	20	22	17	17	182	1,920		5.44	28.17
12/10, 2400	8	17	16	20	22	17	17	193	1,851		22.27	50.44
12/11, 0400	12	17	16	20	22	17	15	199	1,829		22.69	73.13
12/11, 0800	16	17	16	20	22	17	14	210	1,832		23.98	97.11
12/11, 1200	20	17	16	20	22	17	13	217	1,362		18.42	115.53
12/11, 1600	24	17	16	20	22	17	13	208	1,621		21.02	136.54
12/11, 2000	28	17	16	20	22	17	13	212	1,642		21.70	158.24
12/11, 2400	32	17	16	20	22	17	13	214	1,684		22.46	180.70
12/12, 0400	36	17	16	20	22	17	13	211	1,821		23.95	204.65
12/12, 0800	40	17	16	20	22	17	13	214	1,648		21.98	226.63
12/12, 1200	44	17	16	20	22	17	13	211	1,646		21.65	248.28
12/12, 1600	48	17	16	20	22	17	13	216	1,821		24.52	272.79
12/12, 2000	52	17	16	20	22	17	13	217	1,942		26.27	299.06
12/12, 2400	56	17	16	20	22	17	13	211	2,180		28.67	327.73
12/13, 0400	60	17	16	20	22	17	13	214	2,220		29.61	357.34
12/13, 0800	64	17	16	20	22	17	13	214	2,440		32.55	389.88
12/13, 1200	68	17	16	20	22	17	13	211	3,620		47.61	437.49
12/13, 1600	72	17	16	20	22	17	13	214	3,540		47.22	484.71
12/13, 2000	76	17	16	20	22	17	13	211	3,680		48.40	533.10
12/13, 2400	80	17	16	20	22	17	13	214	3,590		47.88	580.99
12/14, 0800	88	17	16	20	22	17	13	217	3,630		98.19	679.18
12/14, 1200	92	17	16	20	22	17	13	218	3,560		48.37	727.55
12/14, 1600	96	17	16	20	22	17	13	211	3,540		46.56	774.11
12/14, 2000	100	17	16	20	22	17	13	214	3,460		46.15	820.26
12/14, 2400	104	17	16	20	22	17	13	216	3,430		46.18	866.44
12/15, 0800	112	17	16	20	22	17	13	217	3,360		90.89	957.33

12/15, 1200	116	17	16	20	22	17	13	218	3,310	44.97	1002.30
12/15, 1600	120	17	16	20	22	17	13	214	3,280	43.75	1046.05
12/15, 2000	124	17	16	20	22	17	13	218	3,290	44.70	1090.75
12/15, 2400	128	17	16	20	22	17	13	214	3,230	43.08	1133.84
12/16, 0800	136	17	16	20	22	17	13	216	3,180	85.62	1219.46
12/16, 1200	140	20	16	20	22	20	18	184	726	8.33	1227.79
12/16, 1600	144	17	16	20	22	17	15	196	1,281	15.65	1243.43
12/16, 2000	148	20	16	20	22	20	15	194	1,232	14.90	1258.33
12/16, 2400	152	20	16	20	22	20	15	186	1,184	13.73	1272.06
12/17, 0800	160	20	16	20	22	20	15	198	1,146	28.29	1300.34
12/17, 1200	164	20	16	20	22	20	15	196	747	9.13	1309.47
12/17, 1600	168	20	16	20	22	20	15	198	784	9.68	1319.14
12/17, 2000	172	20	16	20	22	20	15	196	821	10.03	1329.17
12/17, 2400	176	20	16	20	22	20	15	196	819	10.01	1339.18
12/18, 0800	184	20	16	20	22	20	15	196	731	17.86	1357.04
12/18, 1200	188	17	16	20	22	17	15	198	643	7.94	1364.97
12/18, 1600	192	17	16	20	22	17	15	194	698	8.44	1373.41
12/18, 2000	196	17	16	20	22	17	15	194	584	7.06	1380.48
12/18, 2400	200	17	16	20	22	17	15	198	841	10.38	1390.85
12/19, 0800	208	17	16	20	22	17	15	196	742	18.13	1408.98
12/19, 1200	212	17	16	20	22	17	15	194	672	8.13	1417.11
12/19, 1600	216	17	16	20	22	17	15	198	684	8.44	1425.55
12/19, 2000	220	17	16	20	22	17	15	195	621	7.55	1433.10
12/19, 2400	224	17	16	20	22	17	15	198	648	8.00	1441.09
12/20, 0800	232	17	16	20	22	17	15	196	704	17.20	1458.30
12/20, 1200	236	17	16	20	22	17	15	193	613	7.37	1465.67
12/20, 1600	240	17	16	20	22	17	15	198	714	8.81	1474.48
12/20, 2000	244	17	16	20	22	17	15	196	722	8.82	1483.30
12/20, 2400	248	17	16	20	22	17	15	194	984	11.90	1495.20
12/21, 0800	256	17	16	20	22	17	15	196	1,281	31.30	1526.50
12/21, 1200	260	17	16	20	22	17	15	198	1,328	16.39	1542.89
12/21, 1600	264	17	16	20	22	17	15	198	1,421	17.54	1560.42
12/21, 2000	268	17	16	20	22	17	15	194	1,546	18.69	1579.12
12/21, 2400	272	17	16	20	22	17	15	196	1,596	19.50	1598.61
12/22, 0800	280	17	16	20	22	17	15	198	1,684	41.56	1640.18
12/22, 1200	284	17				17	15	117	1,742	12.70	1652.88

12/22, 1600	288	17				17	15	118	1,824		13.41	1666.30
12/22, 2000	292	17				17	15	114	1,866		13.26	1679.55
12/22, 2400	296	17				17	15	112	1,874		13.08	1692.64
12/23, 0800	304	17				17	15	112	1,878		26.22	1718.86
12/23, 1200	308	17				17	15	114	1,884		13.39	1732.24
12/23, 1600	312	17				17	15	118	1,836		13.50	1745.75
12/23, 2000	316	17				17	15	118	1,854		13.64	1759.38
12/23, 2400	320	17				17	15	114	1,896		13.47	1772.85
12/24, 0800	328	17				17	15	118	1,921		28.26	1801.11
12/24, 1200	332	17				17	15	118	1,978		14.55	1815.66
12/24, 1600	336	17	Targ	get A Comp	leted	17	15	118	1,976		14.53	1830.19
	Time			Stinger De	epth (ft bgs)			System Data	a	Mass Re	moval (lbs)
Doto/Timo	Since DPE							System	Influent	Influent		
Date/Time	Began	D1	D2	D3	D4	D5	FW-1	Vacuum	Flow	Conc	Incremtal	Cumulative
	(hours)	5.	51	20	5.	20		(in Ha)	(scfm)	(ppmy)	incronitar	oundativo
10/04 1000						tom Stort	d for Torge	((00000)	(PP)	0.00	1020 10
12/24, 1600	0	10	15	00					100	4 4 9 4	0.00	1830.19
12/24, 1700		10	15	22	10	17	17	15	198	1,134	3.50	1833.09
12/24, 2000	4	10	10	22	10	17	17	15	197	1,230	11.40	1040.09
12/24, 2400	0	10	10	22	10	17	17	15	201	1,204	31.60	1001.10
12/25, 0000	10	10	15	22	10	17	17	15	204	1,240	16.04	1092.00
12/25, 1200	20	10	15	22	10	17	17	15	200	1,249	17.13	1906.90
12/25, 1000	24	10	15	22	10	17	17	15	108	1,321	17.13	1920.02
12/25, 2000	20	10	15	22	10	17	17	15	190	1,204	16.00	1941.02
12/26 0800	40	16	15	22	16	17	17	15	208	1 346	34.90	1997.70
12/26 1200	40	16	15	22	16	17	17	15	208	1,040	16.83	2009 49
12/26 1600	48	16	15	22	16	17	17	15	207	1,200	19.62	2029 11
12/26 2000	52	16	15	22	16	17	17	15	198	1 424	17.57	2046 69
12/26, 2400	56	16	15	22	16	17	17	15	196	1,416	17.30	2063.98
12/27, 0800	64	16	15	22	16	17	17	15	204	1,436	36.52	2100.50
12/27, 1200	68	16	15	22	16	17	17	15	206	1.428	18.33	2118.84
12/27, 1600	72	16	15	22	16	17	17	15	208	1.324	17.16	2136.00
12/27, 2000	76	16	15	22	16	17	17	15	204	1,317	16.75	2152.75
12/27, 2400	80	16	15	22	16	17	17	15	208	1,341	17.39	2170.13
12/28, 0800	88	16	15	22	16	17	17	15	204	1,362	34.64	2204.77

12/28, 1200	92	16	15	22	16	17	17	15	206	1,314	16.87	2221.64
12/28, 1600	96	16	15	22	16	17	17	15	208	1,281	16.61	2238.25
12/28, 2000	100	16	15	22	16	17	17	15	204	1,234	15.69	2253.94
12/28, 2400	104	16	15	22	16	17	17	15	208	1,284	16.65	2270.58
12/29, 0800	112	16	15	22	16	17	17	15	206	1,246	32.00	2302.58
12/29, 1200	116	16	15	22	16	17	17	15	207	1,232	15.90	2318.47
12/29, 1600	120	16	15	22	16	17	17	15	204	1,231	15.65	2334.12
12/29, 2000	124	16	15	22	16	17	17	15	208	1,184	15.35	2349.47
12/29, 2400	128	16	15	22	16	17	17	15	206	1,128	14.48	2363.96
12/30, 0800	136	16	15	22	16	17	17	15	198	1,584	39.10	2403.05
12/30, 1200	140	16	15	22	16	17	17	15	196	1,622	19.81	2422.87
12/30, 1600	144	16	15	22	16	17	17	15	196	1,684	20.57	2443.44
12/30, 2000	148	16	15	22	16	17	17	15	198	1,567	19.34	2462.78
12/30, 2400	152	16	15	22	16	17	17	15	204	1,536	19.53	2482.31
12/31, 0800	160	16	15	22	16	17	17	15	206	1,484	38.11	2520.42
12/31, 1200	164	16	15	22	16	17	17	15	208	1,463	18.97	2539.38
12/31, 1600	168	16	15	22	16	17	17	15	204	1,432	18.21	2557.59
12/31, 2000	172	16	15	22	16	17	17	15	206	1,521	19.53	2577.12
12/31, 2400	176	16	15	22	16	17	17	15	204	1,554	19.76	2596.88
01/01, 0800	184	16	15	22	16	17	17	15	206	1,536	39.44	2636.32
01/01, 1200	188	16	15	22	16	17	17	15	208	1,421	18.42	2654.75
01/01, 1600	192	16	15	22	16	17	17	15	206	1,342	17.23	2671.98
			Target B	Completed								
	Time			Stinger De	epth (ft bgs)			System Data	à	Mass Re	moval (lbs)
	Since DPE							Curatam	Influent	Influent		
Date/Time	Began	07/102			D12	D2		System	Flow	Cono	Incremtel	Cumulativa
	(hours)	07/165	D10/D4		DIZ	03	D4/D11		FIOW (actm)	Conc.	incremia	Cumulative
	((in Hg)	(scim)	(ppmv)		
01/01, 1600	0				DPE Sys	stem Starte	ed for Targe	t C			0.00	2671.98
01/01, 1700	1	25	20	20	22	22	16	13	218	1,682	5.71	2677.69
01/01, 2000	4	25	20	20	22	22	16	13	222	2,030	21.07	2698.76
01/01, 2400	8	25	20	20	22	22	16	13	218	2,110	28.67	2727.43
01/02, 0800	16	25	20	20	22	22	16	13	224	1,984	55.40	2782.82
01/02, 1200	20	25	20	20	22	22	16	13	218	1,836	24.95	2807.77
01/02, 1600	24	25	20	20	22	22	16	13	218	1,762	23.94	2831.71

01/02, 2000	28	25	20	20	22	22	16	13	214	1,628	21.71	2853.43
01/02, 2400	32	25	20	20	22	22	16	13	218	1,536	20.87	2874.30
01/03, 0800	40	25	20	20	22	22	16	13	224	1,431	39.96	2914.26
01/03, 1200	44	25	20	20	22	22	16	13	222	1,346	18.62	2932.88
01/03, 1600	48	25	20	20	22	22	16	13	214	1,236	16.49	2949.37
01/03, 2000	52	25	20	20	22	22	16	13	218	1,227	16.67	2966.04
01/03, 2400	56	25	20	20	22	22	16	13	218	1,232	16.74	2982.78
01/04, 0800	64	25	20	20	22	22	16	13	216	1,186	31.93	3014.71
01/04, 1200	68	13/IS3	20	15/MW8	22	22	16	13	224	1,322	18.46	3033.17
01/04, 1600	72	13	20	15	22	22	16	13	224	1,334	18.62	3051.79
01/04, 2000	76	13	20	15	22	22	16	13	226	1,317	18.55	3070.34
01/04, 2400	80	13	20	15	22	22	16	13	224	1,384	19.32	3089.67
01/05, 0800	88	13	20	15	22	22	16	13	226	1,322	37.24	3126.91
01/05, 1200	92	13	20	15	22	22	16	13	224	1,318	18.40	3145.31
01/05, 1600	96	13	20	15	22	22	16	13	218	1,286	17.47	3162.79
01/05, 2000	100	13	20	15	22	22	16	13	216	1,184	15.94	3178.73
01/05, 2400	104	13	20	15	22	22	25/D11	13	226	946	13.33	3192.05
01/06, 0800	112	13	20	15	22	22	25	13	214	986	26.30	3218.35
01/06, 1200	116	13	20	15	22	22	25	13	218	1,058	14.38	3232.73
01/06, 1600	120	13	20	15	22	22	25	13	224	1,026	14.32	3247.05
01/06, 2000	124	13	20	15	22	22	25	13	226	987	13.90	3260.96
01/06, 2400	128	13	20	15	22	22	25	13	218	1,021	13.87	3274.83
01/07, 0800	136	13	20	15	22	22	25	13	224	1,017	28.40	3303.23
01/07, 1200	140	13	16/D4	15	22	22	25	13	226	994	14.00	3317.23
01/07, 1600	144	13	16	15	22	22	25	13	218	896	12.17	3329.40
01/07, 2000	148	13	16	15	22	22	25	13	226	1,043	14.69	3344.10
01/07, 2400	152	13	16	15	22	22	25	13	218	1,221	16.59	3360.69
01/08, 0800	160	13	16	15	22	22	25	13	224	963	26.89	3387.58
01/08, 1200	164	13	16	15	22	22	25	13	222	821	11.36	3398.94
01/08, 1600	168	13	16	15	22	22	25	13	224	841	11.74	3410.68
01/08, 2000	172	13	16	15	22	22	25	13	216	782	10.53	3421.21
01/08, 2400	176	13	16	15	22	22	25	13	218	734	9.97	3431.18
01/09, 0800	184	13	16	15	22	22	25	13	214	742	19.79	3450.97
01/09, 1200	188	13	16	15	22	22	25	13	218	678	9.21	3460.19
01/09, 1600	192	13	16	15	22	22	25	13	226	721	10.16	3470.34
01/09, 2000	196	13	16	15	22	22	25	13	228	622	8.84	3479.18

01/09, 2400	200	13	16	15	22	22	25	13	224	648	9.05	3488.23
01/10, 0800	208	13	16	15	22	22	25	13	226	638	17.97	3506.20
01/10, 1200	212	13	16	15	22	22	25	13	224	734	10.25	3516.45
01/10, 1600	216	13	16	15	22	22	25	13	242	776	81.93	3542.12
			Target C	Completed								

APPENDIX A

ALAMEDA COUNTY HEALTH CARE SERVICES



DAVID J. KEARS, Agency Director

AGENCY

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-93

July 9, 2009

Ms. Farah Naz c/o Mr. Muhammad Jamil 40092 Davis Street Fremont, CA 94538

Subject: Fuel Leak Case No. RO0000096 and Geotracker Global ID T0600143649, Eagle Gas, 4301 San Leandro Street, Oakland, CA 94601

Dear Ms. Naz:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the abovereferenced site including the work plan entitled, "*Interim Remedial Action Work Plan*," dated May 11, 2009 (Work Plan). The Work Plan proposes expanding the scope of a proposed dual-phase extraction (DPE) interim remedial action. The proposed changes to the scope of work include additional extraction wells and expanding the duration of the interim remedial action from 5 to 30 days.

The proposed installation of additional extraction wells is acceptable and may be implemented as proposed. However, the Work Plan includes minimal descriptions of the field operations and monitoring procedures during the DPE interim remedial action. Therefore, we request that you submit a Work Plan Addendum that expands the description of the proposed scope of work for the 30-day interim remedial action/pilot test. The Work Plan Addendum should include an expanded discussion of the field operations and monitoring during the DPE event that includes but is not limited to the following:

- Further discussion of permitting and treatment for extracted vapor and water.
- /Whether the stinger method will be used to apply vacuum and the expected vacuum ranges.
- Whether step tests will be performed including the number and duration of the step tests.
- Number of wells to be treated at one time and the criteria for continuing or discontinuing treatment in individual wells.
- Further description of the data to be collected during the DPE event including vacuum, vapor flow rates, water levels, groundwater flow rates, and vapor concentrations.
- Description of the method for sealing wells during DPE event.
- Discussion of the frequency of soil vapor sample collection.
- Further discussion of groundwater sampling.

We request that you submit a Work Plan Addendum to address the items above no later than September 4, 2009.

Ms. Farah Naz RO0000096 July 9, 2009 Page 2

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- September 4, 2009 Work Plan Addendum for DPE Interim Remedial Action
- November 17, 2009 Third Quarter 2009 Semi-annual Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004; the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in Please visit the SWRCB website for more information on these requirements PDF format). (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For

Ms. Farah Naz R00000096 July 9, 2009 Page 3

your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation. . ^.

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If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at Online case files are available for review at the following website: jerry.wickham@acgov.org. http://www.acgov.org/aceh/index.htm.

Sincerely,

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1115

5 B

. . .

erry Wickham, California PG 3766, CEG 1177, and CHG 297 Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Hazardous Materials Unit, 250 Frank Ogawa Plaza, Suite 3341, Oakland, CA 94612

Jim Ho, Environmental Risk Specialties, 1600 Riviera Avenue, Suite 310, Walnut Creek, CA 94596

Donna Drogos, ACEH Jerry Wickham, ACEH File

APPENDIX B

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

ALEX BRISCOE, Acting Director



ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

October 2, 2009

Ms. Farah Naz c/o Mr. Muhammad Jamil 40092 Davis Street Fremont, CA 94538

Subject: Fuel Leak Case No. RO0000096 and Geotracker Global ID T0600143649, Eagle Gas, 4301 San Leandro Street, Oakland, CA 94601 – Work Plan Approval

Dear Ms. Naz:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the abovereferenced site including the work plan entitled, "*Work Plan Addendum for DPE Interim Remedial Action*," dated August 11, 2009 (Work Plan Addendum). The Work Plan Addendum was prepared to address ACEH technical comments in our July 9, 2009 correspondence on the work plan entitled, "*Interim Remedial Action Work Plan*," dated May 11, 2009.

The Work Plan Addendum adequately addresses our July 9, 2009 technical comments. We request that you perform the proposed work and send us the reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- February 17, 2010 DPE Pilot Test Report
- March 16, 2010 First Quarter 2010 Semi-annual Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks

Ms. Farah Naz RO0000096 October 2, 2009 Page 2

(USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and <u>other</u> data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Ms. Farah Naz RO0000096 October 2, 2009 Page 3

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at <u>jerry.wickham@acgov.org</u>. Online case files are available for review at the following website: <u>http://www.acgov.org/aceh/index.htm</u>.

Sincerely,

Serry Wickham, California PG 3766, CEG 1177, and CHG 297 Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Hazardous Materials Unit, 250 Frank Ogawa Plaza, Suite 3341, Oakland, CA 94612

Jim Ho, Environmental Risk Specialties, 1600 Riviera Avenue, Suite 310, Walnut Creek, CA 94596

Donna Drogos, ACEH Jerry Wickham, ACEH Geotracker, File

APPENDIX C

Client:	IERI - JI	мно							Operato	or (s): 📘	ern	ard	Σ/Fc	<u>iusti</u>	no	····						•	
							<u> </u>		CTION	I WEL	LS						·- · ·	<u> </u>	VELL	S			_
		Well I.D		(P)	D	5		D	6		<u>D</u>	8			1	EM	-1						
	Initial D	epth To V	Vater DT	<u>π)</u> V (ft)	9.5	0		20 B*	30		4	2090		13.3	·50	900	<u>°05</u>		., .			Water Meter Readings	ŧ٢
Time	Unit	Air	TOX	Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Vacuum		Vacuum	DTW	Vacuum	DTW	Vacuum	DTW	- Housings	-
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	γμ₂υ ΡΡλην	(π)	"H ₂ O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units 7780	
12-10					ΟŊ		17'	ÓN		16'	PN		20'	ÓN	22	QN	17'	1					
1600			1	· ·	3190			[[158			33		BZID							-
1700	7	183	1457	3580											1								
1800	17	185	1439	2310																			-
1900	17	190	145 6	[9 BD																			
2000	17	182	1459	1920	32 <i>1</i> 0			14			38			44		6510						7910	
6000	16	193	1421	1851										,									
<u>]</u>																							
12-11																							
6400	15	199	1401	829																			
0890	ЦЦ	210	407	1832	2.820			94		ļ	115			34		8910						9230	
1200	<u>13</u>	217	1407	1362	2520			44		ļ	68			74		6280							_
1600 7000	13	708	1401	1621				A										[<u>.</u>				-
2000	13	$\frac{212}{2}$	1402	1642	2510			84			114			86		<u>6400</u>						9920	4
<u>1070</u>	13	21.9	1401	1684	,															4			4
																							+
															 								$\frac{1}{1}$
• •			- 4 / -	**			_	a.			en e			01	<u> </u>	a da						<u>. 5</u> .	+
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_		1 0						<u>م</u>		<u>.</u> . 111				<u>ل</u> ــــــــــــــــــــــــــــــــــــ			A 3.5-6 G				(to		Ţ
Comme	ents.	<u>L-0</u>	-01	100	K E	<u>rr</u>	<u> W</u>	ALE	K		USA	<u>1991 C</u>		<u>Qq)</u>	GRI	<u>) M M</u>	<u>U IL</u>) <u>AIF</u> (<u>(N</u>	<u>w-7</u>	<u>e 101</u>	<u>95. MW</u>	/-

			HI	GH VA	CUU	M		SVE	or	Х	DPE		FIEL	.D DA	TA S	SHEE	Т				CAL	CLEAN INC	2.
Project I	Location:	4301	SAN L	EANDRO) STRE	EET			City: C	DAKLA	ND			Site #: E	AGLI	EGAS			Date:	2,10	(71) 2009 '	4) 734-9137 Page 1-B	of 13
Client: I	ERI - JIN	n Ho							Operato	r (s): <u> </u> B	ernar	do	/Fau	stin)				+-			- <u>-</u>	
								na si	an an an An Casair	WEL	LS				1	OBSE	RVAT	ION W	/ELLS	3			
		Well I.D.			く	P-4			VP-5	;	VP-	2		MW-	Ч	MW-L	D	MW-	7	MW-	70		Cumul.
	Screen	nterval: F	rom-To (ft)			- <u>1. (1.</u> -				~~~~			2.4.	40	47.02	20	25+0	10	43-1	00	Water Meter	Water
Time	Unit	Air	TOX	V (ft) Vapor Inlet	Off/Oπ	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Vacuum	30 I DTW	Vacuum	DTW		<u>ס</u> ק עדת	Vacuum	5 DTW	Readings	Extracted
	Vacuum ("Hg.)	Flowrate (cfm)	Temp. (degF)	Conc. (ppmv)	VA((ppmv)	(ft)	Depth (feet)	VАс (рр тт∨)	(ft)	Depth (feet)	VAC (ppmv)	(ft)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
12/10																							
2000								0.02			0.10			3.10	10.15	0.12	16.95	0.12	23.57	0.00	16.95		
2400								0.15			0.10			3.20	10.84	0,05	16.96	0.16	23.57	0.00	16.95		
12/11															•		:						
0400								0.20			0,10			3-20	10.01	0.00	16.97;	0.16	73.57	0.00	16.95		
OBOC								030			0.10			3-30].	0.00	16.98	D.16	23.57	0.00	16.95		
1200								0.06			の一門			3-20	11.68	D-00	16.97	0.28	23:33	Ó₂00	16.91		
1600							_	0.30			0.18			3-20	11.61	0.00	16.93	0.24	23.27	0.00	16.84		
2000								()-30			0=18		/	3.40	11.62	0-00	16.94	0.26	23,28	0.00	16.87		
0006								0.00			0.12		-	3.3D	11,64	0-00	16.96	0-20	Z3.Z7	000	16.9Z		
and the second s																							
								an Martin											-		а — П - П		
12-12															ι		(4) - x				1		
6400								0.40			0.08			3.40	11-68	0.00	16.90	0.Z8	23,25	0.0-	16-86		
0950)							0.04			0-06			3.40	11-67	0,00	16-81	0-4Z	23-13	0.00	16-81		
1200								0=40			D-04			3 <i>•3</i> 0	1146	0.00	16-73	0-20	23-69	0.00	16-6(
1600								5.40			Oroz			3.40	11-26	000	16.78	0.32	23.((0.00	16.98		
7000								0.38			0-04			3~50	11.26	J-ŊÔ	16.97	0.42	23.14	0.1Z	16.96		
000C								0.42			0-07_			3.70	11.32	0°00	16.99	0:32	23,/8	0:04	16,97		
																				, i			-
																							·
Comme	nts:			2					,							E							

See I see and

			HI	GH VA	CUU	M		SVE	or	Х	DPE		FIEL	.D DA	TAS	SHEE	Т				CA	LCLEAN ING	с.
Project I	ocation	: 4301	SAN L	EANDRO	O STRI	EET			City: C	DAKLA	ND	1	1	Site #: E	AGL	E GAS			Date: []	<u> </u>	(71 2009 י	4) 734-9137 Page <u>Z-A</u>	of 13
Client: I	ERI - JI	м но							Operato	r (s): <u>.</u> B	erin	rd0/	Fau	stivic)								
		r				·	E)		TION	WEL	LS					OBSEI	RVAT	ION W	ELLS	5			
	_	Well I.D	•		D	5		<u>D6</u>			DB			D9	:	EW-	- [Cumul.
	Screen Initial D	Interval: epth To V	From-To Vater DT	(ft) N (ft)	2	<u>2+40</u> +50		<u>2</u>	<u>= 50</u> 20		<u>22</u> %-	<u>05</u>		12-	<u>50</u> 20	25 9	= 05					Water Meter	Water
Time	Unit	Air	тох	Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW	readings	Extracted
12-1Z	vacuum ("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	Depth (feet)	(ppmv)	(ft)	Depth (feet)	(ppmy)	(ft)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units 7220	gals
0400	ß	211	1401	1821	ON		17	90		161	ОŅ		70	ОМ	77'	ОN	17						
0810	ß	214	1402	1648	2670			96			102			64		6540						11530	3150
1700	13	团排	1402	1646																		10/200	5.00
1600	B	216	140Z	1821			-																
2000	13	217	1401	1942	3670			64			9,8			48		G710						10990	3600
0000	3	211	1401	2180				1														10 10 0	
12-13																							
0400	13	214	1400	2220																			
0800	13	214	1402	2440	3190			104			96			102		6680					·	11610	4Z30
1200	13	211	1401	36Z)																			
1600	13	214	1406	3'540																		· .	
2000	13	211	1401	3680	3120			108			76			109		6510						12/20	4740
0000	13	214	1400	3590																			
12-14				· •																			
6800	13	217	1401	3630	3Z)0			112			104			68		6420						12780	5400
1760	13	218	1400	3560																			
1600	13	211	1402	3540																			
2000	13	214	1401	3460	3230			122			192			55		5380						13110	5730
∞	13	216	140/	3430																			
Comme	nts:																						

			HI	GH VA	CUU	M		SVE	or	Х	DPE		FIEL	.D DA	TA S	SHEE	Т				CAI	LCLEAN INC	C.
Project l	ocation:	4301	SAN LI	EANDR) STRE	ET			City: 0	DAKLA	ND			Site #: E	AGLI	E GAS			Date:	2 13	(71 2009 /	4) 734-9137 Page Z-£	Sof 13
Client: I	eri - Jin	и но							Operato	r (s): 上	aus	ting	<u>)</u>										
							E)	TRAC	TION	WEL	LS				(OBSEI	RVAT	ION W	/ELLS	3			
		Well I.D.				Į		- VF	-5		NF	.2		MW-	Ц	MW.	-4D	MW-	-7	MW	-70		Cumul.
	Screen	Interval: F	rom-To (i	ft)				·····						24	.40	42	. 20	25	<u>,90</u>	43	3-00	Water Meter	Water
Time	Unit	Air	TOX	V (ft) Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	ې, ۲ Vacuum	3 <i>0</i> WTQ	Vacuum	<u>• 2 </u> סדע	Z ^c Vacuum	- 60 DTW	6° Vacuum	<u>45</u> πw	Readings	Extracted
	Vacuum ("Hg.)	Flowrate (cfm)	Temp. (degF)	Conc. (ppmv)	(ppmv)	(ft)	Depth (feet)	∨A< (ppmv)	VAC (ft)	Depth (feet)	VAC (ppmv)	(ft)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
12-13																							
0400								0.30			0-öZ			3-50	11-34	೦-೧೦	17.01	0.42	72.61	0000	17-11		
0900								0•3Z			0.06			3.40	11-38	0.00	171	0.32	23.5H	N=0Z	17014	··	
1200								0-34			OroZ			3-70	11.36	0 r 00	17.14	0-36	2372	0.006	17.12		
1600								D.32	_		0.02			3.80	11-32	D.00	17:28	0.32	23.84	0.00	1701		
2000							0.34			0-06			3.40	11.41	0.00	17-32	0.28	23.96	D= () O	17.14			
0000	0							6.78			D=04			3.20]],47	0-00	17.34	0.32	29.11	0r00	17.04		
an an An An An An																							
12-14																							
0800								0.14			0-02			3,40	11.32	A-00	17.18	0.38	24.64	0-00	17.07		
1200								0.40			0.22			3.50	11.36	0.00	17.24	0-30	24,72	0.05	17-05		
1600								0.40			0.22			3.60	11.22	0,00	17.28	D:30	24.76	D°00	17.11		
2000								0-30			0-24			340	11.24	0.00	17-26	0-40	24.78	0.00	17.14		
0000)000							0.30			0.24			350	11.26	0.00	17-27	0-32	24.76	0,0	17.9		
					4																		
Comme	nts:													·······									

							EX	TRAC	TION	WFI	15	<u></u>	<u> </u>		·	OBSE	RVAT		FUS	5			
		Well I.D.			DE	,		DG			08	<u> </u>		ng		FIN	- 1			<u> </u>			Cum
[Screen	Interval:	From-To ((ft)	22	2-40		2	0.50		Z2-	, · 40		22.	50	25	-05					Water Meter	Wat
	Initial D	epth To V	Vater DTV	// (ft)	q ,	<u>50</u>		2	<u>+30</u>		Q.	05		13.	30	9,	05					Readings	Extrac
rime	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	Temp. (degF)	(ppmv)	(ppmv)	OTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	UTW (ft)	Depth (feet)	(ppmv)	(ft)	Stinger Depth (feet)	Vacuum "H₂O	(ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H₂O	DTW (ft)	Vacuum "H ₂ O	(ft)	units	gal
17-15		<u> </u>			ON	()	17	0N		16	AN		70'	AN	77'	DN	17'					10100	
0800	13	217	1460	3360	7840			193			132		4.0	43	for the	3980						12590	671
1700	13	218	1400	310	20.			· ,						1 4			·					1.3.5	021
1600	13	214	1400	3280											-								
2000	13	218	1400	3290	Z410		<u> </u>	184			126			52		3710						14220	684
0000	13	Z14	1462	3230																			
1216																							
CAD	[3	216	1400	3180	2360		N.	198			104			63		34190	-:-					14350	69
200	18	194	1407	77.6	954		20'	124			58			761		2040	20'						
1600	15	196	1407	1281			17'										17'					318 a.	
2000	15	194	1407	1232	967		20	122			62			<u>24</u>		1746	20'					14930	74
5°00°0	15	186	1407	1184										<u> </u>									
12-17																							
0800	15	198	1-106	1146	962			116			38			16Z	· · ·	1821						15770	78
1200	15	196	1407	747	,,																		
1600	15	198	1403	784																			
2000	15	196	411	821	922			84			46			144	ſ	17.36						15610	82.
0000	12	196	1401	819				× .								1 1 1							

			HI	GH VA	CUUI	M		SVE	ог	Х	DPE		FIEL	D DA	TA S	SHEE	Г				CAL		<i></i>
Project	ocation:	4301	SAN L	EANDRO) STRE	EET			City: C	DAKLA	ND	\		Site #: E	AGL	E GAS			Date: [🕹	<u>111 - 15</u>	2009	4) 734-9737 Page <u>∃</u> Ω	of <u>13</u>
Client:	ERI - Jin	и но							Operato	r (s):	Fau	<u>sti i</u>	$\overline{\mathbb{O}}$									1	
							EX	TRAC		WEL	LS				(OBSE	RVAT	ION W	ELLS	5			
		Well I.D.			V	2-5		25	2_2		MV)-1-1		NW-	-HD	MM	-7	MiN	70				Cumul.
	Screen	Interval: F	From-To (ft)								24.4(2	42-	20	25	•90	43	- <u>00</u> -			Water Meter Readings	Water Extracted
Time	Initial De Unit	apth To V Air	TOX	V (ft) Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW) Stinger	/- Vacuum	DTW	Vacuum	, <u>30</u> DTW	Vacuum	<u>י א</u> דס w	Vacuum	DTW	recomgo	Exilacieu
	Vacuum ("Hall)	Flowrate (cfm)	Temp.	Conc.	VAC	(ft)	Depth (feet)	J4V (vmm)	(ft)	Depth (feet)		(ft)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
17-15	1197	(6111)	(acgi)	(ppmv)	(ppmv)	(14)	(1001)	()))))))	(/	(1001)	(PP7		(
0800					D+3D			0-76			3.20	11.17		0=00	17.76	N=24	24.72	റംനി	17.06				
1200					0.4Z			0-22			340	11.08		000	17-23	D-72	2474	000	16-98				
1600					0.47			D.Z4			3.40	11.17		0.00	17,22	0-26	2476	ϕ00	16,99				
200					D.36			0.26			3.50	11.14		$\dot{0},\dot{0}$	17.19	6-24	24,69	0.00	16=98				
0000					0,42			0°72			3.46	11-18		DiDO	17.71	0,28	<u>247</u> 2	0.00	16.97				
																						<u> </u>	
12-16																							
0800					0.36			0.28			<u>3, 50</u>	, -		0.00	17.32	0:32	2463	0.00	6.84				
1200					0.52			0.06		ļ	3.40	11.01		0.00	17.11	0.08	73:25	6.06	17,64				
1600					7.54			6.08			3.30	11.14	ļ	0.00	17.28	0.08	23.17	0.00	17.08				
2000				<u> </u>	0 - 52			0.06			3.40	11,12		0.00	17.7	0.14	23-24	0.00	17, [1	ļ			
0000					0,56			0.12			<u>3-30</u>	1		0.00	17.22	0.12	<u>23-TI</u>	0.00	17.02				
	ļ																					<u> </u>	
12-17										ļ							00.00						
0800					<u> </u>		<u> </u>	0-14			3.40	11-17		0.00	17.26	<u>6 </u>	13-18	0.60	17-04				
1200					0.56			0.28			3.50	11.22	•	0.00	17.32	0-14	23.24	0.00	17.06)			
160C					<u> ()-32</u>		<u> </u>	0,14	· .	ļ	3.40			0.00	17.46	D·18	13.32	0.00	1/014				
2000	· 				<u> 2032</u>	_		0.16		<u> </u>	3.50	11.67	1	0.00	17.76	0.27	12.46	0.00	11/08		<u> </u>		
000					D.46			0-18			3-20	111:18	ő	(),00	17:34	0.17	2354	D.()0	17.21				
	ents'	ļ.,	j	<u> </u>	0.10	<u> </u>	<u> </u>	<u>V-10</u>	1		0.20	<u>HI - 10</u>	4	<u>n.</u> 00	<u>, ריי</u>		<u>, , , , , , , , , , , , , , , , , , , </u>	0.00	<u>If I'' ••• (</u>	<u>.</u>	ł		<u></u>

			HI	GH VA	CUU	M		SVE	or	Х	DPE		FIEL	D DA	TA S	SHEE	Т				CAL		.
Project l	ocation:	4301	SAN L	EANDRO) STR	EET			City: C	AKLA	ND	١.,		Site #: E	AGLI	E GAS			Date: _	2,18	(71 2009	4) 734-9137 Page <u>4/A</u>	of <u>13</u>
Client: I	eri - Jin	и но							Operato	r (s):	Tavs	5+17	<u>10 </u>	NTr	CH							,	
							ÈEX	TRAC	TION	WEL	LS					OBSE	RVAT	ION W	ELLS	3			
		Well I.D.			DS)		D6			DR			D9		zω.	-						Cumul.
	Screen	interval: F	From-To (ft) M (#)	22.	<u>40</u>		$\frac{7c}{2}$	<u>-50</u>		22.	<u>40</u> 55		22	-50	45.	05					Water Meter Readings	Water Extracted
Time	Unit	Air	TOX	Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW		
	Vacuum ("Hot.)	Flowrate (cfm)	Temp. (deaF)	Conc. (ppmv)	(vmaa)	(ft)	Depth (feet)	(opmv)	(ft)	Depth (feet)	(vnqq)	(ft)	Depth (feet)	"H ₂ O	(11)	"H ₂ O	(11)	"H ₂ O	(π)	"H ₂ U	(ft)	7380	, gais
12-18	1	(,	(3-7	(Freedom)	NO		20'	ON		16	ЙÛ		ZOÍ	ON	22'	010	201						
0800	15	196	1405	731	698			152			128			123		1584						15950	8570
1200	15	198	1405	643			17'										17"						
1600	15	194	1407	698																1			
ZÔ00	15	194	1400	584	875			54			68			34		1111						16250	8870
6000	15	198	12100	841																4			
1219																							
0800	15	196	1400	742	824			37.			34.			47		1603						16410	9030
1200	15	194	1406	672	<u> </u>																		
1600	15	198	1401	684	\			- 112 - 112 - 111			1												
2000	13	195	1405	<u>621</u>	640-			46			60			52		1340						16720	<u>4340</u>
0000	15	198	1400	648											<u> </u>								
					ļ																		
12-10	1 -	100	ALC 6	-70/1	an			<u>-a</u>			71					11117			:	<u> </u>			9(76
0700	15	196	1400	104	921			0/			41			54		1912				 		1 1000	1620
1200	15	193	1447	613														·					
1600		11X 1 <i>41</i>	1701	17	1.2/1			-17			га		 	ЦГ		1401					· · ·	7775	Jain
(000	$ \rangle$	100	NACO UK	144 10011	105			14			27			10		11/01						11220	VIV
puu	15	174	140 (1704		ļ															<u> </u>		
	l		0	$\frac{1}{1}$		- x.	<u> </u> @110		[L.	<u>Г</u> -(,)	L	$\frac{1}{1}$		μ	L	<u>ו הי</u>	N/1		1 120	
Comm	ents.	1 4 1	0-00	<u>i st</u>	mer		CUT		1	KUW		<u>, ,</u>	hand the trad	•••• \$	<u>10</u>	<u> </u>	1 2		<u>, , , , , , , , , , , , , , , , , , , </u>	14 /	Grand J	} } ₹ ₩ ₹ #~	_1121

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			HI	GH VA	CUU	M		SVE	or	X	DPE		FIEL	.D DA	TA S	SHEE	Т				CA	LCLEAN ING) .
Project	ocation:	4301	SAN L	EANDRO) STRE	EET			City: C	DAKLA	AND	۱.		Site #: E	AGL	E GAS			Dale: 1	<u>18 - 18</u>	(7) 2009 (4) 734-9137 Page <u>4</u> 里	of <u>13</u>
Client:	eri - Jin	ИНО			r				Operato	r (š): 🕂	Faus	5711	<u>(10 /</u>	DIRE				1				•	
							EX	TRAC	TION	WEL	LS					OBSE	RVAT	ION W	/ELLS	3			
		Well I.D.			18	2-5		1	7-2		MI	N - L	-1	WW	-40	MW	1-7	MM	FID				Cumul.
	Screen	Interval: F	From-To (Vater DTV	(ft)							2	<u>4.40</u>		47.	<u>20</u>	<u>- 25</u> 74	-90	43.	00			Water Meter Readings	Water
Time	Unit	Air	TOX	Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On		Stinger	Vacuum	DTW	Z Vacuum		Vacuum	DTW	Vacuum	DTW	Resultigs	Extracted
	Vacuum ("Hq.)	Flowrate (cfm)	Temp. (deaF)	Conc.		(ff)	Depth (feet)		(ft)	Depth (feet)		(ft)	Depth (feet)	"H ₂ O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
17-18	<u>())</u>	()	(3.7	(PP)	(PP)	(14)	(1001)	(PP)		(1001)	(PP-11-7)	(14)	(
0800					0-4Z			0.14			3.60	11-14		0.00	17-46	0.12	23.62	0-00	17-32				
1200					0-30			0.18			350	11.18		6@0	17.78	n.20	<u>73-86</u>	0.00	16.96				
1600					<u>n-3Z</u>			0-12			3.40	11-21		0.00	17.24	6-18	13-87	0-65	16.84				
2000				· · ·	0-29			0-14			3,40	11.22		De00	17.21	0.22	23,74	0.00	16.76				
0.000	0·28 0.28							0.12			3.30	11.24		0.00	17.18	0.14	<u>23:68</u>	0.00	16.81				
12.10		-																					
0,800					0.14			0.18			2.40	11.17		0.00	17.77	1.10	אביבר	<u> </u>	14.85			· · · · ·	
1700					0, 17			0.7			3.70	11.72		6.00	17,14	$\mathcal{O}(8)$	7278	$h \cdot \omega$	16.97				
1600								0.14			3.30	11-12		0.00	17.18	0- ZZ	73:47	0,00	16.91			ŧ	
ZÓÚÓ					0.25			0.20	ala S		3.20	11.15		0.00	17.20	0.20	23,36	0.00	16-84	2			
000					D-22			0-18			3.40	11.14		0.00	17,19	0. R	<u> 73.1/</u>	0.00	16,91				
								0.12															
12-20																							
0800	300 0.24										3-40	11-18		(7.00	17.14	()•09	23.07	0.00	16.75				
17.00					0.15			0.06			340	11.21		0.00	16.84	0.10	71.25	J-00	(67)				
1600							0.06			370	11,17	ļ	().00	1680	0,18	2124	0.00	1625					
7000	7.000 D·28										<u> 3072</u>	11014		()000	16,14	0.Z1	21.22	()•())	16.26		<u> </u>	<u> </u>	
0000	0000 0-24										<u>3°h</u>	16/3		000	16.76	<u></u> ∆¤Z4	<u>71.2</u> A	0°06	16.24				

Comments:

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			HI	GH VA	CUU	M	· ·	SVE	ог	Х	DPE		FIEL	.D DA		SHEE	T ·				CAI	LCLEAN INC	
Project l	ocation	4301	SAN L	EANDR	O STRI	EET			City: C	DAKLA	ND		`	Site #: E	EAGL	E GAS			Date:	2,21,	(71 2009 '	4) 734-9137 Page <u>57</u> 4	of_#3
Client: I	ERI - JII	и но			<u></u>				Operato	r (s): <u>F</u>	<u>aus</u>	FINO			_				-				
							EΣ	TRAC	TION	WEL	LS					OBSE	RVAT	ION W	ELLS	6			
		Well I.D.			D	5		DG			D8		-	Dq		EM	- 1						Cumul.
	Screen	Interval:	From-To (ft)	22	<u>-•40</u>		<u></u>	.50		22.	<u>-10</u>		22.	50	20	5.05					Water Meter	Water
Time	Unit	Air	TOX	ν (π) Vapor Inlet	Off/On:		Stinger	Off/On		Stinger	<u>∩∢C</u> Off/On	DTW	Stinger	<u>しろ</u> *ご Vacuum	<u>50</u> DTW	Vacuum		Vacuum	DTW	Vacuum	DTW	Readings	Extracted
	Vacuum	Flowrate	Temp. (deaE)	Conc.	(nomu)	(4)	Depth	(opmu)	(4)	Depth (feet)	((6)	Depth	"H₂O	(ft)	[™] "H₂O	(ft)	"H ₂ O	(ft)	"H₂O	(ft)	units フロロム	gals
17_71	(119.)	(6011)	(បមព្វក)	(hhuna)		(11)	(ieet)		(11)		(ppmv)	(π)	(ieei)	ΔN	777	50	171					1380	
0,000	15	196	1465	1701	1771		<u> - </u> -				01	١	20	70	horiton	tuna	17					17477	10046
1200	15	198	1407	1328	9 Z Z-1:		<u> </u>	110			10			1-1		1790						11720	
1600	15	198	1402	1421																			
7000	15	194	1407	1546	1211			[[4			96			94		1294						17 580	10200
0000	15	196	1407	1596				i)(,											• •			11000	1040
<u>, , , , , , , , , , , , , , , , , , , </u>		* • •	1 1 (<u> </u>				· · ·	<u>, 1 56 2</u>							
17-72	200 15 196 140Z 1596 12.1 -72																·····						
0800	15	198	1400	1684	1674			98			63			54		17.32						17660	1/280
1200	15	117	1408	174Z	-			OFF	14-41		770	20.35		OFF	DRY	1-0-							(yes
1600	15	118	1409	18Z4							<u> </u>												
2000	15	114	1407	1866	1Z18											1321						177 10	10330
6000	15	11Z	1406	1874																			
12-23																							
0900	15	112	1408	1878	1231						5					1314						17800	104ZO
1700	15	114	1407	1884																			
1600	15	118	1406	1836															۲.				
2000	15	118	1406	1854	1342											1462			i			17900	10520
0000	15	114	1407	1896																			
Comme	nts:	2-2	<u> Z-09</u>	CLO	SED	D6	<u>, 08</u> ;	<u>, 109;</u>	<u>,</u>	110	$\hat{\mathbf{D}}$	by	Hir	n - H	0								
					· · · · · · · · · · · · · · · · · · ·												Ϋ́,						· • •

			HI	GH VA	CUU	M		SVE	or	X	DPE		FIEL	.D DA	TA S	SHEE	т				CA	CLEAN INC	C.
Project I	_ocation:	4301	SAN L	EANDRO) STRE	EET			City: C	DAKLA	AND			Site #: E	AGLI	EGAS			Date:	, <u>Zi</u> , Zi	(71 2009 ⁻	4) 734-9137 Page <u>51</u>	3of <u>[</u> 3
Client: I	ER! - JII	И НО							Operato	r (s):	FOUS	tino											
							EX	TRAC		WEL	LS				(OBSE	RVAT		/ELLS	3			
		Well I.D.			16	-5		N	P-2		M	N-11		MW-	40	ΜŴ	-7	MW	-7 D				Cumul.
	Screen	Interval: I	-rom-To (ft)								4.40		42.	20	25.	90	43-1	20			Water Meter	Water
Time	Initial De	epth To V Air	Vater DTV TOX	V (ft) Vanor Inlet	Off/On	υτω	Stinger	Off/On	DTW	Stinger		<u>•30</u>	Stinger	Vacium	ZI		<u>• 80</u>	Vacuum	6-95	Vacuum	DTM	Readings	Extracted
	Vacuum ("Hg.)	Flowrate (cfm)	Temp. (degF)	Conc.	VAC (ppmv)	(ft)	Depth (feet)	VAC (ppmv)	(ft)	Depth (feet)		(ft)	Depth (feet)	"H₂O	(ft)	"H ₂ O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
12-21																							
0,900					0,76			0-ZZ			3.60	11-21		000	1624	0-14	21.31	Nin	16.27				
1200					0.Z8			0.18			3.70	11.18		0m	16.97	0.18	21.34	1.00	16:28				
1600							1.18			3.40	11-21		0.00	16.60	(J-22	21.90	D.00	16-74					
Z000					0-40			D. 14			3060	11.28		0.00	16-61	0.32	Z I. 92	000	16,37				
0000	00 0 0 40)C 0 0 40							0-ZZ			3.60	1624		0:00	16.66	0=40	21.94	0.00	16591				
12-22																							
0900					D:09			<u>D.12</u>			3.50	1105		0,00	1624	0.34	21.98	0.00	16.80				
1200					0-06			D.DZ			3-60	11-74		0-00	16.28	0-06	71.96	0.00	16.74				
1600					D-08			0.04			3-40	11.81		0.00	16,54	0.08	21.94	0.00	16.82				
2000					0-06			0-04			3.50	11.72		0.00	16-66	0.06	21-86	0.00	16-94				
2000					0.12			0-04			3-50	12.01		0.00	16-86	0.09	21.72	0.00	16=9Z				
17-23																							
0200	<u>223</u>							0.08			2.40	12-05		0.00	1698	0.08	70216	0.00	16.94				
1200	200 0-04							0.06			3.50	17.07		6.00	16.97	D.Oh	70.09	0.00	16.85	~~.			
1600	1600 0.06							0.08			3.60	12-14		0.00	16.54	0.06	20.14	0.00	16.92				
7000	2000 0.04							0.04			3.40	12-17		0.00	16.68	0.08	20.18	0.00	16.84				
000C	0.06							2.0Z			3.60	12.14		0.00	16.86	0-08	20.22	0.00	16.96				
																			X				

Comments:

			HI	GH VA	CUU	M]SVE	or	Х	DPE		FIEL	.D DA	TAS	SHEE	Т				CA	LCLEAN IN	с.
Project l	.ocation:	4301	SAN L	EANDRO) STRI	EET			City: C	DAKLA	ND			Site #: E	AGL	E GAS			Date:]	2 1241/	(71 2009 ⁻	4) 734-9137 Page 64	of <u>13</u>
Client: I	eri - Jin	ИНО							Operato	r (s): 📘	<u>aus-</u>	Hinc)									_	
							Eک	(TRAC	TION	WEL	LS					OBSE	RVAT	ION W	ELL	S			
		Well I.D.			D5			D 6	i		D8			Dq		EW	-1						Cumul.
	Screen I	Interval;	From-To (ft)	<u>ZZ</u> .	40		20.	50		ZZ•1	40		22.	50	25.	05					Water Meter	Water
Time	Initial De	epth To V	Vater DTV	V (ft)	Q.5	50	Clingor	8.3	SO	C#====	8=0	5	Clinner	13.3		<i>ମ୍ବ</i> •	05		(1) (1) (1)			Readings	Extracted
, inne	Vacuum	Flowrate	Temp.	Vарог іліет Сопс.	Onion		Depth	Union		Depth	OmQn	UIW	Depth	vacuum "H₂O	(ft)	vacuum "H ₂ O	(ft)	vacuum "H₂O	(ft)	vacuum ″H₂O	(ft)	units	gals
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)									7380	
2-24					ON		17'	OFF			OFF			OFF		ON	17'						
0800	15	118	1400	1921	1354											1484						180 30	10650
1200	15	118	1407	1978																			
1.600	15	118	1400	1976																			
	÷ 			-s-1 20																			
							<u> </u>																
																					<u> </u>		I
						<u>.</u>										-							· · · ·
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														<u> </u>				L					
Comme	nts:	12-	24-0	<u>09 To</u>	OTAL	INL	EI	D 5,	EW-	- (0)	1200	(1978)	<u>3 PPM</u>	<u>40)</u>	. (TOUY	Id V	Jate	rM	W-4	0)	605	
	ИW	-7	@/	610 -								_											
			HI	GH VA	CUU	M		SVE	ог	Х	DPE		FIEL	D DA	TA S	SHEE	Т				CA	LCLEAN INC	
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Project	_ocation:	4301	SAN L	EANDRO) STRE	EET			City: C	DAKLA	ND			Site #: E	AGL	EGAS			Date:	2. 1241	71) 2009 ⁻	4) 734-9137 Page <u>6 B</u>	of <u>13</u>
Client:	ERI - JII	и но							Operato	r (s): <u>F</u>	<u>iaust</u>	1110							1				
							EX	TRAC	TION	WEL	LS					OBSEI	RVAT	ION W	ELLS	5]	
		Well I.D.			VP-	-5		VP-	-2		ΜV	J-4		MW-	4D	MW	-7	mw	7D				Cumul.
	Screen	Interval: I	-rom-To (ft)							2	4.40)	42.	20	- 25	.90	43	.00			Water Meter	Water
Time	Initial De	epth To V	Vater DTV	V (ft)	OffiOn	אידח	Stinger	OffiOn	ערדרי	Stinger	9	• <u>30</u>	Stinger	17.	21	Z4	<u>~ 80</u>	16:	<u>, 4 5</u>	Vacuum	DT14/	Readings	Extracted
14116	Vacuum	Flowrate	Temp.	Conc.		/ft\	Depth	VAC	(#)	Depth /fact)		(8)	Depth	vacuum "H₂O	(ft)	vacuum "H₂O	(ft)	vacuum "H₂O	(ft)	vacuum "H₂O	(ft)	units	gals
17-74	(19.7	(0111)	(degr)	(ppmv)	(ppinv)	(19	(ieer)	(Phine)	(14)	(1661)	(phina)	(11)	(ieel)										
0900					0.06			0.08			3.70	17.18		ቪስስ	1694	6.17	70.71	0,00	(.0r				
1200					Dinh			0.04			2.60	17-17		0.00	16.98	0-14	70.78	0.00	16.86				
1600					0.14			5.06			3,40	11.64		0.00	16.94	0.06	70.n5	0.00	16.84				
								0.00			0,,0			0.00	1007	0.00	0-0		1010 1				
																	-						
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Comme	ents:						- · · · · ·																

Client:	IER! - JI	мно							Operato	r (s): <u> </u>	ausi	011-1											
							<u>E)</u>	TRAC	TION	WEL	LS					OBSE	RVAT	TION W	ELL	5			
		Well I.D.			DH			DZ			DЗ			DЧ		EW)-\	D5)				Cum
	Screen	Interval: I	From-To (<u>(ft)</u>	22,	40		<u></u>	<u>55</u>		22	<u>.40</u>		22.5	5				· ·			Water Meter	Wate
Time	Unitial D	eptn Io V Air	TOX	V (tt) Vapor lolet	Dff/On	איזמ איזמ	Stinger			Stinger		וכ	Stinger	Vacuum		Vacuum	ארדרו	Vacuum	DTM	Vacuum	יאידמ	Readings	Extrac
	Vacuum	Flowrate	Temp.	Conc.	010,211	2	Depth	011/011	DIM	Depth	Oliron	5111	Depth	"H₂O	(ft)	"H₂O	(ft)	vacuum "H₂O	(ft)	"H₂O	(ft)	units	gal
1	(*Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)					_				7380	
12-24					ИO		16'	<u>ON</u>		151	ON		22'	01	16'	ON	17'	ON	17'				
1615	1.11	STP	-tel		3																		
1700	15	198	1418	1134	1284			318			2240			728									
2000	15	197	1467	1238	1321			384			2346			1211		1382		1283				18450	110
0000	15	201	1406	1284																			
17.75																							
0000	<u>і у</u> 117	7.50)LLOQ	17116	1107		<u> </u>	117 -			15 77	<u></u>		1/70		17/2		1 t at				10-78	
1200	15	204	1-108	1240	1192			413			1533			1643		1265		1141				185.20	1114
1/00	15	200	1400	1244		·																	
1600	15	208	1406	1321					-														
2006	15	148	1469	1264	1164			468	-		1523											18620	1124
000	15	196	1408	<u>132</u>																			
17-76																							
6800	15	208	1406	1346	958			704			2 <i>89</i> b			1598		1148		1704				1875D	113
1200	15	206	1407	1298										- 1								, <u> </u>	
1600	15	207	1405	1571																			
2006	ΪŚ	198	1408	1474	974			566			7710			1466		1134		1706				18860	1140
0000	15	196	1407	1416				5.00			<u>~ 1 ~</u>					1 ()		1200					1111
0000		10		1110																			
						_																	
Comme	ents: (2-24	1-09	7	Groo	n'd N	Note	eγ	MW	-3 (1	D 153	30,1	nw-	5 @;	154	DI M	เม-ลิ	0, 15	550				·

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			HI	GH VA	cun	M]sve	or	Х]DPE		FIEL	D DA		SHEE	Т				CA	LCLEAN IN	C.
Project	Location:	4301	SAN L	EANDRO) STRI	EET			City: (DAKLA	AND			Site #: E	EAGL	E GAS			Date:	Z ,24	, (71 / 2009	4) 734-9137 Page 1 B	of 13
Client:	IERI - JII	м но			¥:				Operato	ır (s):	Faus	tine	<u>n</u>		_						,	, ugo <u>1</u>	<u> </u>
							E۷	TRAC		I WEL	.LS			ſ		OBSE	RVAT	ION W	VELLS	S			
		Well I.D.	•		$= [\sqrt{N_{c}}]$	i Xu jin		iΜ.	W-3	,))	MV	1-5			1-6	M١	N_8	Is.	- 6	TS-			Cumul
•	Screen	Interval: I	-rom-To ((ft)				···•••••	<u>23.0</u>	4		15.50)	25	· 2.7	24	1.55	27	35	24.	87	Water Meter	Water
Time	Initial De Unit	epth To V Air	TOX	V (ft) Vapor Inlet	Off/On	- : wtu	Stinger	Off/On	<u> 2+ </u>	<u>3</u> Slinger	OffiOn	· 70	Stinger	11.	61	<u> </u>	· 17	7.	3	8-0		Readings	Extracted
,	Vacuum	Flowrate	Temp.	Conc.	6on		Depth			Depth	00/01		Depth	"H ₂ O	(ft)	vacuum "H₂O	(ft)	vacuum "H₂O	(ft)	Vacuum "H₂O	DTW (ft)	units	gals
17-74	(119.7	(6811)	(uegr)	(ppinv)	(ppmv)	(π)	(teet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)							[
1600	5	4RT																		 			
200	(7	11-1						11-00	12-13		7.00	7.96		0.00	1).(4	0.00	Q (2	0-64	714	0-00	8 25		
DnóO								<u>,,,,</u> U.U.D	17.1		0-00	7.90		0.00	11.67	0.00	<u>R</u> .90	0.76	7.77	Δορ	8.46		
								<u> </u>	1/			1.01			THOL	$\underline{0}00$	011	0.70	1.7.0	0-00	0.00		
12-25								<u>9. 8</u>	<u> </u>			<u> </u>											
0800								0.00	12,14		DID	B.41		0.00	11./2	0,00	9.00	0.70	7.9C	D.M	0 ~		
1200				· · · · · · · · · · · · · · · · · · ·				0.00	17.17		0.00	8.46		0.00	11.67	0.00	9.16	6.77	7.96	7.90	0-05 Q.04		
1600								hinu	17.14		0.60	8. SR		1. ND	11.61	0.00	9.74	0.72 0.70	7.98	1.00	0.0 1 Q 1		
2050								0.00	17.14		D.00	A.76		0-0-0 0-0-0	11.61	0.00	9.26	8.7)	Q-04	5.00	2.00		
0000								Dinh	12.13		D.60	0.77		<u> </u>	11.67	6.00	<u>9.27</u>	N.74	Q.11	n n0	0.00 D-00		
									<u>, , , , ,</u>		12-12-5	2) 1 1		V-V -		<u>v v v</u>	141	0.11	010	0.00	0.40		
12-26																							
0 800								0.60	12-13		0.00	8.97		0.00	11.61	0.00	9,78	0.77	Q.75	D.AL	9.10		
1200								0.17	17.16		0.05	12.05		6.60	11.67	$\frac{1}{2}$	9.46	7076	<u>כביט</u> דר הו	5-70	8.16		
1600								0.0	17.16		0.00	12.07		0.00 0.00	11.64	<u>ა იი</u>	q.27	<u>ה ה ה</u>	17.71	D.00	8.40		
2000								0.06	17.16		().00	3.07		0.00	11.62	n.m	9.34	7.17	17,72	D.06	<u>R11</u>		
0000								17	17.17		0.00	13.04		0.00	11.66	0.00	9.37	6.74	17.74	0.00	Q_17		
								<u>J 11</u>	· <u> </u>			1			11 UU	0.00	1	~ / 1	14-11	0.00	0-14		
]		[
Comme	nts:			1		I	I	. <u> </u>	I		L [1		I			l]		

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			H	GH VA	CUU	М		SVE	or	X	DPE		FIEL	.D DA	TAS	SHEE	Т				CA	LCLEAN IN	C.
Project	Location	: 4301	SAN L	EANDRO		EET			City: (DAKLA	ND			Site #: E	AGL	E GAS			Date: /	, 12 17	(71 2009	4) 734-9137 Page &A	of 13
Client:	IERI - JI	м но							Operato	r (s):	Fau.	<u>st11</u>	<i>16</i>									· · · · · · · · · · · · · · · · · · ·	·
							ΕX	TRAC	TION	WEL	LS					OBSEI	RVAT	ION W	/ELLS	3			
		Well I.D			DI			DZ	_		٥3			D4	;	Eω)-(05					Cumul.
	Screen	Interval:	From-To (ft)	2.2	40		720	55		22.	40		22.5	5	25	-65	2.2	-40			Water Meter	Water
Time	Unit	Air	TOX	V (tt) Vapor Inlet	<u>7</u> * Оff/Оп		Stinger	0ff/On		Stinger	* Off/On	<i>ן כ</i> עדס	Stinger	Vacuum		q, Vacuum	<u>65</u>	Q.	50 DTW	Vacuum		Readings	Extracted
	Vacuum	Flowrate	Temp.	Conc.			Depth			Depth	011/011	2111	Depth	"H ₂ O	(ft)	"H ₂ O	(ft)	"H ₂ O	(ft)	"H₂O	(ft)	units	gals
17 77	("Hg.)	(cim)	(deg⊢)	(ppmv)	(ppmv) (∆₁L)	(ft) :	(feet)	(ppmv) ∕∩N	(ft)	(feet) いくく	(ppmv) ∩∧\	(ft)	(feet) つつく	(SN)	177	DNI	157	<u> </u>	1-3			7380	
nam	15	704	1406	1426	966		10	EQ1		1.5	2010		44	UN VV7	16	1177	17	1707	1];			10000	T Interior
1200	15	201	1400	1428	100			204			2610			1462		11/1		1_01				19080	11/00
1600	15	708	1401	1374						-									· · · · · · · · · · · · · · · · · · · ·		<u> </u>		
2000	15	704	14/10	1317	984			532			754C	>		1466		1174		1769				19.120	11000
0000	15	208	1407	1241							<u> </u>			1100		1101		· • • •				11100	1000
	(17																					
12-28																						1	1. tor
0800	15	204	1401	136Z	972			528			757C)		1242		1112		1714				19730	11950
1200	15	206	1402	1314														<u> 1 2_1 (</u>				11200	11025
1600	15	208	1460	1281																			
2000	15	204	1401	1234	954			532			2180			1327		1104		1221				19390	12010
000	15	208	1400	1284				-															
17-29																							
DAND	15	206	1400	1246	576			$\leq \zeta $			1461			1715		CIRL		1189				19560	17190
1200	15	207	1400	1237							1 01			1				101				1100	12100
1600	15	204	1400	1231											L.								
2000	15	208	1400	1184	621			514			1315			1217		963		144				19730	17250
0000	15	206	1400	1128							<u></u> , , , ,			1		10-2		1 1 1 1				1120	
Comme	nts:																					·	

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			HI	GH VA	CUU	M		SVE	ог	X	DPE		FIFI	ם ח	ΤΔ	SHEE	т		1		CA		~
Project	location	4304	SANT		Оетр	сст	<u>L</u>]									8				CA (71	4) 734-9137	<i></i>
Client:	IERI - JI	. 4 501 И НО		LANDIN	0 31K				City: C		ans Tans	tw	\ <i>r</i> ^	Site #: E	EAGL	E GAS			Date: <u> </u>	<u>L 141</u>	/ 2009	Page <u>813</u>	of <u>13</u>
							E)			r (s):		2111	<u> </u>	1	•	OBSE				<u> </u>		1	
		Well D			Te	5 11		-AA		VVL.L		A111 C	 	DAN	6	UBSE	RVAI			5]
	Screen	Interval:	From-To (ft)		7-1		1.1	<u>73-0'</u>	4		25-50	5	75	7-7	<u>M()</u> 24	<u>1-0</u> -55	77	<u>>=0</u> ,25	1-2	- 1		Cumul.
	Initial D	epth To V	Vater DTV	V (ft)		7.5			12.13	2		7.70	2	11.	61	<u> </u>	17	7-	13	8-	91	Water Meter Readings	Extracted
Ime	Unit Vacuum	Air Flowrate	TOX Temp.	Vapor Inlet Conc.	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Vacuum "H ₂ O	DTW (ft)	Vacuum "H₂O	DTW (ft)	Vacuum ″H₂O	DTW (ft)	Vacuum ″H₂O	DTW (ft)	units	gals
•	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(fi)	(feet)										
12-27					ļ	 																	
1000					·			0.08	12.18		0.00	8.58		0.00	11.58	0.00	9-38	0-00	9-27	0.00	7.94		
1200								0.08	1219		0.00	8-59		0.00	11-56	0.00	4.40	0.00	8.28	0.00	7.86		
7000								6.06	12:50		0-00	12.93		0.00	11-61	0.00	944	0.00	1283	0.00	1.85		
$\frac{200}{nm/r}$		-						0.08	1232		0.06	1200		0.00	11-64	0-60	9,42	0.00	12.44	0-00	7.86		
wi								0.04	12.20		0.00	12:01		0,60	11062	<u>0.00</u>	4-41	0.00	12:48	0-66	7.84		
מררו																							
12-20 1250								N 57	17.71		().10	11 07		N.00	11 (1)	6 (h	0.111	<u>~ ~7</u>	17.11	5 0	7.04		
1200					STA	R.L.		0.01	11 07		0.00			0.00	11-60	0.00	<u>1.11</u>	$()^{*}00$	12.40	0.00	1.85		
1600					n:au	7.[)		10.04 10.04	10.51 17.71		Δh^{0}	17 01		0.00 h an	1271 (0.00	1·35 9 W	0.00 V00	X-02	<u>0.00</u>	<u>/°ðX</u>		
7000					0.00	7.70		0000	12-21		D-110	1201		<u>0°00</u> N.Ah	11.63 11.62	6.00	111	0.00	8.17	000	7.09		
<u>2000</u> 01060					1.10	<u>1' 10</u>		0- <u>34</u> 0-27	12 21		500	11.74		0.00	11.67	0,00	<u>1/36</u> 0 41	0.00	8-14	0.00	<u>182</u> 7 N		
<u> </u>					1.1.4	1.10		VSL	<u>i</u>		100	11.6.1		VYUV	11.01	0.00	1011	0.00	016	0.00	<u>1° 86</u>		
17-79																			•				
nado					1.20	7.84		0,44	17.74		ninn	8.40		ስ•ለቦ	רהוו	1.00	9.27	Λ <i>ι</i> Λή	Ruc	N.M	7 (1)		
1200			·		0.6	7.97		0.06	17.77		0-05	8-46		0-00	1)70	6-55	9-41	0.00	9-21	<u>\</u>	1.47		
1606					0.40	8.11		1-04	17.75		$\frac{1}{2}$	Q.58		D-06	11.7/	D-00	9.27	1,00	Q.70	0-00 1000	7.9U		
2000					6-20	8-14		0.04	17.76		$\int \frac{\partial u}{\partial t}$	8.57		0.00	11,77	0.00	9.26	5.00	8-71	1-10	7,96		
hano					Q=510	8+13		6.68	12.77		1.60	8.56		6.00		1.46	9,27	<u>h-</u> 60	9.77	0-00	7.90		
			-		0			- 00	1						<u>11' 11</u>		107		0 46	~ ~~	1 12		
Comme	nts:	12	28-0	7 PC	5-4	5	TART	- TA		ntu	$\frac{1}{(1)}$	ND				I	[
											<u></u> I	1 11 15 2	<u> </u>										

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HIGH VACUUM

FIELD DATA SHEET

CALCLEAN INC.

Project Location:	4301	SAN	LEANDRO	STREET
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Client: IERI - JIM HO

Operator (s):

City: OAKLAND

DPE

Site #: EAGLE GAS

(714) 734-9137 09 Page <u>9 A</u> of <u>13</u> 30,2009 Date: <u>1</u>2

							E>	TRAC			LS					OBSE	RVAT		/ELLS	3			
		Well I.D	•		DI			DZ			DR			DW		EW	-1	55					0
	Screen	Interval:	From-To (ft)	22.	40		Z2-	·55		22	- 40		22-	55	29	.05	Zaza	-40	-		Mater Metor	Water
Time	Initial D	epth To \	Nater DTV	V (ft)	8.1	<u>4</u>	1	17.	12		11-	51		8-10	6	9.	05	9-	50			Readings	Extracted
Time	Vacuum	Air Flowrate	Temp.	Conc.	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Off/Oπ	DTW	Stinger Depth	Vacuum "H₂O	DTW (ft)	Vacuum "H₂O	DTW (ft)	Vacuum "H₂O	DTW (ft)	Vacuum ″H₂O	DTW (ft)	units	gals
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)									7380	Ū
12-3()					ON		16'	ON		15'	ON		221	ON	16'	ON	17'	ON	171				
080	15	148	1401	1584	<u>584</u>			514			1482			966		784		1031				19770	12390
1200	15	196	1400	1622	J																		1 - 2 10
1600	15	196	1400	1684																			
2000	15	198	1400	1567	532	}		518			1474			896		941		1014			;	70040	1766
0000	15	204	1407	1536					:		1 1 100 1			010				· · · ·					12000
		, , , , , , , , , , , , , , , , , , ,																					
12-31																							
0800	15	Z06	141)	1484	748			598			1737			1077		10/4		QZ5				70070	1769n
1200	15	208	1401	1463	<u>_</u>						<u></u>			10 1		1001						2.0.0	120 10
1600	15	204	1401	1432																			
2000	15	206	1401	152)	786			564			1781			1634		1086		896				20570	131.90
0000)5	204	1407	1554										, , , ,		1.404		<u> </u>		· · ·			
	:																						
1-01											-												
0 8/10	15	206	1407	1536	761			582			16ZI			1017		1076		92/				20670	13290
1200	15	208	1400	1421	548			783			2040			1565		1016		1074					
600	15	206	1407	1342		16.ZI			20.32								14.21	,	17.48				
																	<u>_</u> ,		1				
																		ł					
Comme	nts:	- 01-	- 20	0	Gia	ond	Mat	er	MIN	<u>ا</u>	2,15	$\gamma_{0,N}$	111-5	501	510	. MIN	- 20	<u>ו</u> קבול (ന	[I
1-0) - '	Z010	to.	TAL'II	NLET		Q.	152	5 (1)	3468	PMU	DI	(O) 1	<u>53n (</u>	$\left(5 \right)$	7 PPM	$\frac{c}{\sqrt{2}}$)?. (<u>ッ</u> の15	35/7	74 5	(IMMS	
DB	Q 15	540 (2630	PPM	$\overline{\mathbf{N}}$	D4	0/10	5451	1580	PPN	11	EN	1-1	@19	550	(924	A DDI	MI)	<u> </u>	0 TC	E(1)	174 001	<u>~~</u>)
				•		, i		(;				- V					+ 1		<u></u>	<u> </u>	$\frac{\omega (n)}{\omega}$	<u>JI I YY'</u>	<u>~ \ `4 /</u>

				~			r]		r	7					·					• •		
í	1		HI	GH VA	CUU	M		SVE	ог	X	DPE	-	FIEL	D DA	TA :	SHEE	Т				CA	LCLEAN ING	.
Project	Location	: 4301	SAN L	EANDRO	O STR	EET			City: (DAKLA	AND			Site #: E	EAGL	E GAS			Date:	12 ,30	(71) 2009 (4) 734-9137 Page 9 B	of 13
Client:	IERI - JII	M HO			r				Operato	r (s): <u> </u>	<u>-aus</u>	<u>+1v</u>	10		-						,	<u>.</u> .	<u></u>
		·					Ελ	(TRAC	CTION	WEL	LS					OBSE	RVAT	ION W	VELLS	S		1	
	r	Well I.D.			T	5-4		M	w-3	3	ΜV	J-S		MW)-6	MW	-8	IS-	6	T<	-1		Cumul.
	Screen	Interval: I	From-To ((ft)		7- T (<u> </u>	3-04			25-51	<u>)</u>	25	-72-7	25-	55	27.	35	24	87	Water Meter	Water
Time	Unit	Air	TOX	Vapor Iniet	Off/On	<u> > </u> wта	Stinger	\ Off/On		Stinger	Off/On		U Stinger	<u>}</u> ∤∘ Vacuum		Vacuum		- / • Vacuum	13	81	0 / L DTM	Readings	Extracted
	Vacuum ("Ho)	Flowrate (cfm)	Temp.	Conc.	(nnmu)	(#)	Depth	(00000)	(0)	Depth			Depth	"H₂O	(ft)	: "H₂O	(ft)	"H ₂ O	(ft)	vacuum "H₂O	(ft)	units	gals
17-30	((0,11)	(degr)	(ppms)	VAC		(ieet)	(ppinv)	(11)	(ieet)	(ppmv)	(11)	(feet)			i E							
0800					1.00	8.21		Orale	17/2		NHC N. NI	070		000	11-71	5	9	6 010	0-7		7.00		
1200					mal	Real		0.90 ೧.৬4	17.04		0.00	0-64 Q.(0		10-00 5-00	11-11 11-11	0-00 h w	<u>1:35</u> 0 UI	(),00	<u>8.31</u>	000	1.90		
1600					0.30	17.91		0.07	17.70		Dorn	8-54		0.00	11.76	0.00	0 5/	0.0	0-71	$\frac{0.00}{0.00}$	8-0		
2000					0.40	1747		Danl	17.76		Dea D	B.67		0.00	11010	D-00	9.78	000	<u>8'58</u>	0-00	<u>8-04</u>		
0000					0.30	12,44		500	17.36		0-0 9 0.00	17.51		0.00	11.74	0-00	9.27	<u>0.00</u> Δεθά	VIL	0.00	8.07		
•						16.11		0.00	1~0		000	10.31		0.00	1171	()' <u>()</u> U	1.57	0 00	9 J7	0010	0.07		
12-31																							
0860	_				Ó.64	8.54		nnh	17-25		Non	12.01		0.00	11 7c	0.an	9.20	0.45	0 2/	Am	Q. 01		
1200					0.06	17.01		0.14	17.70		0.00	12.14		0.00 1.00	1176	0.00	9.78	0-00 0-00	0.36	0.60	0°06 Q 72		
1600					0.06	17.04		0.16	17.41		<u>0.00</u> わ.から	12,17		0.00	11.94	0.400	9.27	0-00	Q AU	0.60	0-12 9-14	•	
2000					0-06	12:08		D-14	17.42		<u>ν ήρ</u>	1218		Duch	117	0.10	9.41	1.60	0 M	0.00	0.07		
amp					0.08	17.14		0.17	17.4 /		0.00	12.17		0.60	11.77	0.00	9.46	0.00	8.92	0.00	818		
					\ <u>/</u>			<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>		* 00	<u>1_16</u>			V 1 4	0.00	<u>o' </u>	v 50	<u>* (0</u>	~ 44			
1-01																							
0800				• .	0000	12.11		0.04	17.51		0.00	13,18		0000	11.76	Dono	J.44	Δińħ	8.96	000	2.14		
1260					0-0Z	2.17	·	0.06	12-62		<u>0.40</u>	13077		0.00	11.84	0.60	9.47	000	8.27	n.hh	8.16		
1600					0.12	8-61		0.6	1241		0-00	8:71		0-00	11,84	n.m	9.41	0.00	Q.47	00.0	<u>0.00</u>		
						<u>, , , , , , , , , , , , , , , , , , , </u>		- **				<u>~ 1 ' -</u>		- 0-	<u></u> [<u>, , , , , , , , , , , , , , , , , , , </u>		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	0,11	<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>		
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			-																			·	
Comme	nte'			E			"			I.	1				1	[

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							E۷	TRAC	TION	I WEL	LS					OBSE	RVAT		/ELLS	S			
r		Well I.D.			D7			DI	0		DI	1		DIZ	>	D	3	D4					Cumu!
	Screen	Interval: I	From-To (ft) A/ (8)	$\frac{2^{9}}{10}$	1-90	· · · · · · · · · · · · · · · · · · ·	28	·30	· · · · · · · · · · · · · · · · · · ·	<u></u>	<u>1.50</u>)	29.	70	<u>Z</u>	<u>z-40</u>	22-5	55	+	· · · · · · · · · · · · · · · · · · ·	Water Meter	Wate
Time	Unit Vacuum	Air Flowrate	TOX Temp.	Vapor Inlet Conc.	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Off/On		Stinger Depth	1 <i>L_*</i> Vacuum "H₂O	DTW (ft)	Vacuum "H₂O	DTW (ft)	O' (Vacuum "H _z O	DTW (ft)	Vacuum "H _z O	DTW (ft)	units	gals
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feel)	(ppmv)	(ft)	(feet)	0.11	777		0.04			ļ	 	7380	
-01	CT	201			UN 7660		15	0N		201		[20'	ON	<u>LL</u>	and	LL	1.75	16"				
1700	12	710	1400	1687	2000			2070			1041			6450		786		10.55					
7000	13	277	1465	7020	1971		 	7410		-	1574			5010		1014		12021				70700	1700
2000	13	218	1406	7110	1(/ -1			<u> </u>			13-1			0010		1011		1201				<u>ш 700</u>	15 70
			1 1-0	<u> </u>						,													
-02																				,			
1900	13	7_24	1415	1984	1302			2730			984			Z5 <i>3</i> 0		1531		1434				21270	1389
1200	<u>i3</u>	218	1402	1836																			
660	13	218	1406	1 162	<u> </u>			D a T (
\underline{A}	13	214	1401	1628	<u> 784</u>			12/6			1128			1 756		1428		107.8				21700	<u> 1432</u>
000	13	418	103	1536		······								· · · · · ·									<u> </u>
1-2																							
5800	12	774	1467	1430	554			1709			217			1211		1286		1124		ingen Antonio	<u>\</u>	77131	1479
200	13	222	1400	1346				1201			014			1211		000		11-2-1	, ,			22100	13 110
600	13	214	1400	1236			·																
2666	13	218	12105	1227	818			1158		-	1018			1479		1145		1184				22470	15092
)000	13	Z18	1406	1232				•								,							
														,									

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HIGH VACUUM	SVE o	r X DPE	FIEL



CALC	LEAN	INC.
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Project Location:	4301	SAN	LEANDRO	STREET
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City:	OAKLAND	
	Fauctu	

Site #: EAGLE GAS

(714) 734-9137 Date: 101/2009 Page 10B of 13

Client: IERI - J	IM HO
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Operator (s): Faustino

							EXTRACTION WELLS								I	OBSE	RVAT	ION W	/ELLS	3			
		Well I.D.			MU	1-7		MU)-8	1/	NP	-2		IS-1		IS-	3	IS-	Ч	TS-	-5.		Cumul.
	Screen	Interval: I	From-To (ft)						•												Mater Meter	Water
	Initial D	epth To V	Vater DTV	V (ft)		17:0	79	13.	09					8.	56	10	87	8-80	1	9	66	Readings	Extracted
Time	Unit	Air	тох	Vapor Inlet	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Off/On	DTW	Stinger	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW	Vacuum	DTW		
	Vacuum	Flowrate	Temp.	Conc.	V/AC		Depth	VAC		Depth		VAC	Depth	"H₂O	(ft)	"H₂O	(ft)	"H2O	(ft)	″H₂O	(ft)	unils	gais
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feel)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)										
1-01								<u> </u>															
1600	ST,	79P	A		_ ر																		
2000					0.10	18.35		1050	12:05			0.06		0-10	8-20	3.60	16.65	QovQ	9,07	00.0	9.70		
0000					0-10	18-34		J. ZO	12:08			0:06		0.10	8-34	3.80	1695	000	9-12	()-00	981		
1-02																							
0980					10.17	17.99		1-40	13.69	FP		0.12		D.00	8.56	3.80	10.87	0.00	8.97	0.00	9.87		
1200					0-14	17.96		2.30	1/2.45	12:34		0.14		D-00	8-54	3-90	10.96	OrbO	896	h.00	9.88		
1600					0.11	17.93		2.40	12:45	12-35		0.10		0.05	8.58	3.70	0.82	0.00	8.8Z	0.00	9.85		
2010		<u>م</u>			0,10	17.81		1/30	12:40	12-25		0-10		0.00	8.66	3.80	10.60	0.00	8.81	0.05	9.81		
0006		• •			0.06	17.91		1.40	12.84	12.54		0.06		0.00	8.76	3.90	11:05	00.0	8-91	0.00	9.78		
			· · ·														1~.01		<u> </u>				
1-03		<u>.</u>												'e									
0800					0.14	17.45		1.40	17-78	17.55		0.04		0.00	<i>የ</i> ንና	3.80	11.07	1.00	Q-74	0.00	9.85	······	
1200					0.12	77.66		1.40	17.80	12.55		0.04		0.00	8.77	3.90	1.94	000	8.94	0,00	996		
1600			•	···	0-12	17.78		1.30	12.84	12.45		0.06		0.00	8.81	3.90	10.80	5.00	Q.74	0.00	9.89		
2000		× .			0.14	17.54		1.40	12.86	12.54		0.02		0.00	8.96	2.80	0.76	0.00	8.76	0.00	9.96		
2000					0.06	17.66		1.60	17.74	12.32		0.04		0.00	8.94	34n	11-07	0,00	3.96	0.00	9.9R		
<u> </u>		i			<u> </u>				<u></u>						<u> </u>	(- (U)	-	<u>, in</u>		
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Comments:

Project I	ocation	4301	HI			M]SVE	Or		DPE		FIEL	D DA		SHEE	Т		r	<u>م</u> د	CA.	LCLEAN INC 4) 734-9137	2.
Client: I	ERI - JI	мно			5 0 T A	(Operato			:+IN	()	Site #: E	EAGL	E GAS			Date: <u>I</u>	<u>רְטִ</u>	/ 20ØD	Page <u>ICA</u>	of <u>15</u>
			-		<u> </u>		EX	TRAC	CTION		LS		<u> </u>		•	OBSE	RVAT	ION V	VELLS	 3		1	
-		Well I.D			ГD			יס	0		\mathcal{D}	1)		DI	2	D^{2}	2	DL	-				Cumul.
	Screen	Interval:	From-To ((ft)	129.	90		2'	8.30			29.5	,0	29.	70	22	-40	22	.55			Water Meter	Water
Time	Unit	Air	TOX	/V (ft) Vapor Inlet	Off/On		Stinger	\ Off/On	L DTW	Stinger	Off/On	עזיע] שדע	> Stinger	Vacuum	20 DTW	Vacuum	<u>אדת</u>	R₁ Vacuum	<u>0</u> wta	Vacuum	עדת	Readings	Extracted
	Vacuum ("Hg.)	Flowrate (cfm)	Temp. (degF)	Conc. (ppmv)	(00MV)	(ft)	Depth (feet)	(onmy)	(ft)	Depth (feet)	(0000)	<i>(f</i> 1)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
1-04					()N	(,	251	θN	(1)	20	ON	(11)	201	AN	721	ON	72'	N	16'			1000	
0800	13	216	140	1186	66B			1214			817			1436		1173	âner ^{arma}	าก14				220:30	15/54
1145	13	224	1402	1188	ØFF			1-1-1			0FF			1100		11/2	···· ·	10.1					1.200
260	13	Z24	642	1322	ОN	15-3	131				0N	MWB	151	·									
600	13	224	644	1334	2630			B3Z			947			\328		964		912				23270	1589
2060	13	226	642	1317.																			,
200	13	224	646	1384																			
-05																							
2000	13	226	<u>648</u>	1322	1664			665			<u>658</u>			1097		871		875		-		23980	1660
<u>200</u>	13	224	642	1318																			
600	<u> 3</u>	218	646	1286				<u>Oast</u>								<u> </u>							
2000	13	216	642	184	1586			624			781	,		1186	<u> </u>	814		836			, <u>,</u> ,	24190	681
2300	13	224	646	$\frac{116}{000}$														832	OFF				
<u>200</u>	13	226	64 [946														ON			$^{+}V^{+}$		
-00 2010	12	711	C 217	00/	1770			577						tuna.		0,~7		~	25			5000	17 (0
2010	12	710	071 (u/	700	1326			266			181			1134		801			<u>755</u>	· .		25060	1 <u>1.67(</u>
600	$\frac{13}{12}$	770	647	10.50				÷															
70/0	13	226	644	987	1711			5 QII			(<u>_</u> QU			Vna/		סמר			456			75146	1776
m	13	218	$\frac{2}{647}$	1671	1-10			004		· · · ·	<u>UU1</u>			מו ער		0110				ļ			1 [/ []
	1.5	<u>-ι()</u>	<u> </u>	17 41																			
Comme	nts:	1-0	+-20	10 (205	ΕD	Dill.		1000	(861	, PP	MN	$) \subset$	<u>) (je</u> i	Γ Ω	$\overline{\mathbf{n}}$	Ø,	linic		2298	PM	\mathbb{N}	
-	64-	-201	0 C	NED)	MW	1-8	œ,	10	DA	1040	PM	$\overline{1}$	000	EN	$\overline{1}$	5-2	(® ,	1300	िं भि	ROPA	2MN	1	
1-0	Ч-	2010	Ú N	NITC	1AH	JGE '	TOC	CHITA	LITY	<u> </u>	- 05	- <u> </u>	1.05	ED	04	01	100	OPE	<u>n n</u>	\] @	111	5.447	PPID
							S., 87		- 201. 201.									:				<u> </u>	·

			HI	GH VA	CUU	М		SVE	or	Х	DPE	1 21	FIEL	D DA		SHEE	Т				CAI	.CLEAN IN(C .
Project	Location	4301	SAN L	EANDRO		EET			City: C	DAKLA	AND ,			Site #: E	EAGL	E GAS			Dale:	104	, (71 / 2009	4) 734-9137 Page (11)	3or 13
Client:	ieri - Jir	N HO							Operato	г (s): <u></u>	aust	-Ino	ł		-								
							EX	TRAC	CTION	WEL	LS				:	OBSE	RVAT	ION W	/ELLS	3			
		Well I.D.			MU)-7		MV	1-8		NP.	-2		IS-	·	IS-	Ń	IS-	-64	IS-	- 5		Cumul.
	Screen	Interval: F	-mon-To ((ft)	2	5-90		2	4.55					24.	87	24	.07	24.	89	16	<u> </u>	Water Meter	Water
Time	Initial De Unit	∋pth To V Air	Vater DTV	V (ft) Vanor tolet) Off/On		Stinger	<u>\3</u>	04	Stinger	OffiOn	אידת	Stinger	8.5	6 [DTW	10 ·	<u>97</u>	<u> </u>	<u>Ч</u>	900	6 <u>6</u>	Readings	Extracted
	Vacuum	Flowrate	Temp.	Conc.		2.11	Depth	Chron	5114	Depth	Omon		Depth	"H₂O	(ft)	"H _z O	(ft)	vacuum "H₂O	(ft)	"H _z O	(ft)	units	gals
	("Hg.)	(cím)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)										
1-04 10000								<u> HV</u>	12 - 1	τP	VAC			. .	0.07		1100						
1206					0.14	0		1.30	11.31	11.80	0.06			<u>0-00</u>	8-86	3.60	11.31	0.00	9-22	0-00	9-95		[]
100					0.06	17.32		CLC	1561) 1		0.04			0.00	8.91	CLC	15E	0.00	4.54	0.00	9-96		
100					0.12	1.1.16					0-06			0.00	<u>8∘86</u>			()•0()	8.81	0.30	9-91		
1200					0.1L	70%					0-08			0.00	8-44			0.00	4-04	0.18	9.98		
$\mu\omega$					ეაებ	1/284					()*04			0.00	0°42			<u>()•00</u>	9,14	0-14	4.96		
			_ ·,		[
1																							
1-05															A				0.6	· ·			
1090					0.08	18-01					0.04			0.00	18:15			()•00	4.95	0.44	9,91]
1200					0.06	18-02					0.06			0.00	846			0.00	8.85	0.12,	<u>9.91</u>		
1600					0.06	THE					0-04			0.00	811			0.00	8.91	0.16	9.84		
1200					0.04	1801					0.06			0.00	8.94			0.00	816	0-14	<u>4,41</u>		
10000					0.06	18.11					<u>D.04</u>			0.00	8-96			<u> 00 v</u> C	8,74	0.06	<u>4.92</u>		
1-06					0 · 7																0 - 1		
0800					0-06	17.84					0.06			0.00	8.84			0-00	5.41	0.04	4.86		
1200					<u>0-08</u>	18-01					0-06			0.00	1 <u>896</u>			0-00	8-94	0.69	9.98		
1600					0.06	18.41					<u>0-04</u>			0.00	8.98			<u>00`()</u>	8,96	(j.o.y	9.%		
2000					0-66	18-08					0.06			0-00	8-76			0.00	8-92	0-06	9-91		
0000					5-04	18-14					0-64			0000	8.74			Or OO	8.81	0-04	9.14		
Comme	nts:																						

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			HI	GH VA	CUU	M]SVE	or	X	DPE	ı	FIEL	D DA	TAS	SHEE	T				CA	LCLEAN IN	С.
Project	Location	: 4301	SAN L	EANDR	O STRI	EET			City: (DAKLA	ND		١	Sile #: E	AGL	E GAS			Date:	107	(77) / 20 9 9	14) 734-9137 Page <u>12 A</u>	rof <u>13</u>
Client:	IERI - JI	м но							Operato	ır (s):	+	105-	+1h	5			<u> </u>						
							E>	(TRAC	CTION	I WEL	LS					OBSE	RVAT	ION W	/ELLS	6			
		Well I.D	•		T:	5-3		D	<u>۱</u> 0	<u></u>	Μ'	N-¢	3	DIC	2	D3		DI	[Cumul.
	Screen	interval:	From-To ((ft)	24	1.07		2	8-30	2		1.6	1	29.	70	2.7	-40_	29	- 50			Water Meter	Water
Time	Initial D Unit	epth To V Air	Vater DT	V (ft) Vappr Inlet	0 ff/On	י <u>א</u> יק סדע	Stinger	Off/On	<u>+ 60</u>	Stinger	Off/On	<u>8-17</u>	Stinger	12.	20	Vacuum	5/	<u> -</u>		Vaguum	DTA	Readings	Extracted
	Vacuum	Flowrate	Temp.	Conc.	01.011	DIV	Depth	Onion	10100	Depth	Onion		Depth	vacuum "H₂O	(ft)	vacuun "H₂O	(ft)	vacuum "H₂O	(ft)	vacuum ″H₂O	(ft)	units	gals
1 . ~	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	0.1		0.1	224	0.1	0-1			73R0	
1-01			C 110	1015	UN		13	UN		20	$\frac{0}{10}$		115'	UN	<u>22</u>	ON	23	<u> </u>	25'				
0800	13	114	648	1011	1164			44	21.05	C-OEJ	64			<u>952</u>		768		388		 		26060	18680
1-2-	17	1-1-1	C/12	0011				<u>NO</u>	24	16			ļ										
$\frac{\mu \chi D}{\chi}$	13	140	645	144									ļ										·
1600	13	1210	046	970	110						1			1.2.7									
200	15	226	642	1043	1168			1042			42			1397		7 <i>8</i> 5		611				26150	18770
an	15	218	644	1221																			
1-08									,														
0800	13	224	646	963	723			<u>841</u>			416			873		GYR		G14				27070	19696
1200	13	222	643	821																			
600	13	224	642	841																			
2060	13	216	641	782	707			ନ୍ଟ୍ୟ			356			821		632		584		~ : 1		27300	19920
0000	13	218	643	734														1 A	. 1				
																			-				
1-07										(1				(;) (;			
(),400	13	214	642	742	913			764			435			958		69Z		538				28,130	2:0750
1200	13	218	646	678																			
1600	13	226	642	721												·							
Ż000	13	228	642	672	914			736			476			974		641		532			:	28300	20976
0010	13	224	638	648				, ,,,, ,,			1620			-+	5.							<u></u>	<u> </u>
Comme	ints:	10	7 - 26	<u>ייי</u> אור	(1)	$S \in \mathbb{F}$	\square	210	@, (5930)(47	100	mil	<u>Λ</u> ₽7	= N	<u><u>n</u>4</u>	(2) I	$\Lambda \Lambda \Lambda$	(9.60	OPM.	N. 71	I]	<u> </u>
		. ~			<u> </u>	· •	ياي	e	<u></u>	<u> </u>	<u> </u>	<u></u>		<u>, , , , , ,</u>	••••••••••••••••••••••••••••••••••••••	<u>, 1</u>		A 17	<u>Y Lou</u>	<u><u> </u></u>	<u>.v /</u>		
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			HI	GH VA	CUU	м		sve	or	Χ	DPE]		FIEL	.D DA	TAS	SHEE	Т				CA	LCLEAN INC	С.
Project	Location	4301	SAN L	EANDRO		EET			City: C	DAKLA	ND			Site #: E	AGL	E GAS			Date:	101	(71 2009 י	4) 734-9137 Page \ 25	of 13
Client:	ieri - Jii	и но							Operato	r (s):	Faus	<u>5+11</u>	10										
							EX	TRAC	TION	WEL	LS					OBSE	RVAT	ION W	ELLS	6			
		Well I.D.			M	w	7	IS	-4		IS	-5		IS-		NF	22						Cumul.
	Screen	Interval: I	From-To (ft)	2	25-9() d —	2	2-1-5	>	16	5.00		<u>_24</u>	-87							Water Meter	Water
Time	Unit	Air	TOX	V (tt) Vapor Iniet	Off/On	DTW	Stinger	خ Off/On	5= 89 4 DTW	Stinger	Off/On	•60 DTW	Stinger	<u>ð</u> ≁. Vacuum	5 <u>6</u> I dtw	Vacuum	wra	Vacuum	DTW	Vacuum	WTO	Readings	Extracted
	Vacuum	Flowrate	Temp.	Conc.			Depth			Depth			Depth	"H _z O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
107	(mg.)	(cim)	(degr)	(ppmv)	(ppmv)	(11)	(feel)	(ppmv)	(ft)	(feet)	(ppmv) 入心C	(ft)	(feet)										
0,800					0.10	17.0/		0-60	0 11		VIR	a au	 	5 01	071	A 30			·				
1700		·			D/0	11.76		0.00	0-11		h - 00	a 16		0-00	801	0.08							
1600					Delo	1700			<u>71-16</u> 10 0 0		0.00	0.07		0.00	010 \ 6 QU	000							
Dmo					Orio	1-199		0.00	8º11		0-10 0-10	1º14 9 10		0.00	001	0200							
Maria					0.4	180		0.00	8-94		Dala	9.94		0-00	0"11	$\frac{()^{r}}{()^{r}}$							
					0-1	10.01		0.00	011		0.01	112		0.00	<u>N°O</u>								
1-08																							
nAm					Ounh	17.99		0,00	8.90		1,60	9 94		A-05	9-01								
1700			•••••••		D.16	าสิน		Δn	9.11		1.Qn	1601		0.00	284	0.06							
1600					0-10	10.07		<u>Λ.</u> βh	a_{i} u		1.66	0.07		1.00	8-al	1 poil							
2000					000	18:04		0.00	9.16		1.40	10.11		1.00	Q.97	anah							
thon					ordh	17.91		1.00	9.04		1.60	10.04		0.00	2.49	0.04							
					<u> </u>	<u></u>		7 00	310 1		1 00	10.01		(VAL)	4/14								
1-ò9																							
0800					0.64	17.96		0.00	9.01		1,40	10.01		0.00	ያግረ	0.06							
1200					0.06	17.91		0.06	9.68		1.30	10.07		0-00	3.81	0.04							
1600					0.06	18-21		0.00	9.17		1.20	10.07		0-00	8-76	0=08							
Zavo					5-08	18.14		0°0°()	9.08		1.20	0.01		000	RAI	0.06			·				
nhôf					0.04	18-21		0.09	9,14		1-60	10.62		0.00	8.66	0.04							
				dara and a	1447 E F	<u>, , , ,</u>			<u> </u>			· · · · ·		<u> </u>	<u>v • -</u>	- 1							
Comme	nts:	L							I							I				I			

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	·		HI	GH VA	CUU	М]SVE	or	X]DPE		FIEL	_D DA	TA	SHEE	Т				СА	LCLEAN IN	C.
Project	Location	: 4301	SAN L	EANDR	O STR	EET			City: (DAKL	AND			Site #:	EAGL	E GAS			Date:	10,	(71 (2009)	14) 734-9137 Page <u>\3</u>	for 13
Client:	ieri - Jii	мно							Operato	or (s):	<u>-aus</u>	<u>+1n</u>	0		-								
					<u> </u>		Ε>	(TRAC	CTION	WEL	LS					OBSE	RVAT	ION W	VELLS	5			
	-	Well I.D.		<u></u>	<u> </u>	3-3		D	<u>ц</u>		N	NW-	3	Dr	2	DZ		DI					Cumul.
	Initial D	epth To V	Prom-To (Nater DTV	(ft) N (ft)	2	4.0] 	22	2.55			<u>24.8</u>		29	.70	22	. 40	29-	50			Water Meter	Water
Time	Unit	Air	тох	Vapor Inlet	Off/On		/ Stinger	í Off/On	DTW	Stinger	Off/Ол	<u>סין</u> שדם	Stinger	Vacuum		Vacuum	<u>ל ל</u> שדם	\ Vacuum	• 📿 dtw	Vacuum	DTW	Readings	Extracted
	("Hg.)	(cfm)	(degF)	(ppmv)	(ppmv)	(ft)	Depth (feet)	(vmaa)	(ft)	Depth (feet)	(nomv)	(ft)	Depth (feet)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	"H₂O	(ft)	units	gals
1-16					0N		131	ΟN	<u>, , , , , , , , , , , , , , , , , , , </u>	161	0N		15	ON	27		22	AN	255			1380	
080	13	Z26	642	638	821			647			254		1	947	<u> </u>	1.46	<u>(</u>	CCQ	from 18			00100	2170
1200	13	224	643	734				016			551			012		010		650				12/150	2150
1600	13	Z4Z	642	776	671	14.44		572	16.62		281	14.85		799	17.71	741	1741	341	25.10			79096	01255
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Comme	nts: -	- 10-	-2010) SA	MPL	<u>=</u> To	TAL	- TNL	ET	Q.	1510	(77)	6PPM	JCVI)3.0	1515	(74)	PPM	<u>) ((</u>)4 @	1570	(577 PF	MVD
T	5-3	@]	525	4611	ppm	v).	M	N- 8	@1	530	12	81 P	PINI	, D-1	2, 6	5 152	5 (-	799 Þ <i>l</i>	PANN). D-1	101	540(24	MADE IS
<u> </u>	DUM	LD U	JATE	<u>r</u> Fro	m_ ·	T's-	1 @	1605	_]	<u>5-4</u>	èl	610.	Ţ.	S- <u>5</u> @	1619	5. M	LW-	8 e	1600) <u>,</u>	1		<u></u>

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Project	Location	: 4301	SAN L	EANDRO		EET			City: (Site #: E	EAGL	EGAS			Data	,10,	(71	4) 734-9137 Basa 121	2, 12
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							E)	TRAC	TION	WEL	LS				-	OBSE	RVAT		/FIIS			ĺ	
	·	Well I.D			M	N-7		<u> </u>			5	5-5		T.S.	_)	10	2.7			-			Currul
	Screen	Interval:	From-To	(ft)		25,9	10		24-	55		16.0	0	24	.87		- f.,					Water Meter	Water
Time	Unitial D	epth To \ Air	Vater DT\ TOX	V (ft) Vanor Inlet	Off/On		79 Slinger	OffiOn	8.9	9	080-	9.6	6	8.	<u>56</u>							Readings	Extracted
	Vacuum ("Hol)	Flowrate	Temp.	Сопс.	(angu)	(8)	Depth		0177	Depth	Oil/On	DIVV	Stinger Depth	Vacuum "H₂O	(ft)	Vacuum "H₂O	DTW (ft)	Vacuum "H₂O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
1-10	(19.7	(Cirri)	(uegr)	(phuv)	(ppmv)	(π)	(teet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)										
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1700					0.14	18.17	<u></u>	0.05	9.00		1.40	40(0.00	0-17	0.03				·		······································	
1600					m. 66	18,9		0.00	9,17		1.20	0.01		0.00	0°0± \\r_Q	0.04							
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APPENDIX D

ASSOCIATED LABORATORIES 806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT	Calclean	(9977)	LAB REQUES	T 246441
	ATTN: Noel Shenoi			
	3002 Dow Ave.		REPORTED	12/28/2009
	#142			
	Tustin, CA 92780		RECEIVED	12/16/2009

PROJECT EAGLE GAS STATION, OAKLAND

SUBMITTER Client

COMMENTS Global ID: T0600143649

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	Client Sample Identification
1044114	D5
1044115	D6
1044116	D8
1044117	EW-1
1044118	TOTAL INLET
1044119	STACK

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, Edward S. Behare. Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental

Client:	Calclean					
Clim t C.	mult ID. T					

Client Sample ID: D5

1044114 Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 16:15 Sampled By:

Order #:

Analyte	Result	DF	DLR	Units	Date/An	alyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Benzene	9.3	10	0.1	Vppm	12/21/09	SW
Ethyl benzene	16	10	0.1	Vppm	12/21/09	SW
Methyl t - butyl ether	286	50	5.0	Vppm	12/21/09	SW
Toluene	84	50	0.5	Vppm	12/21/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Xylene (total)

Gasoline	2160	10	50.0	Vppm	12/21/09	SW

18

10

Vppm

12/21/09

SW

0.3

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client:	Calclean

Client Sample ID: D6

Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 16:30 Sampled By:

Analyte

Order #:

Result	DF	DLR	Units	Date/Analyst
--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

1044115

Benzene	0.35	1	0.01	Vppm	12/21/09	SW
Ethyl benzene	0.90	1	0.01	Vppm	12/21/09	SW
Methyl t - butyl ether	8.9	2	0.2	Vppm	12/21/09	SW
Toluene	2.0	1	0.01	Vppm	12/21/09	SW
Xylene (total)	2.6	1	0.03	Vppm	12/21/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	21	1	5.0	Vppm	12/21/09	SW
040011110						

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Client:	Calclear	n
Client Sa	mple ID:	D8

Order #: 1044116 Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 16:45 Sampled By:

Analyte

Result DF DLR Units Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Dangana	0.62	3	0.025	Vppm	12/21/09	SW
Ethyl honzono	3.5	3	0.025	Vppm	12/21/09	SW
Ethyl belizene	57	50	5.0	Vppm	12/21/09	SW
Methyl t - butyl ether	5.4	3	0.025	Vppm	12/21/09	SW
	7.4	3	0.075	Vppm	12/21/09	SW
Xylene (total)	<u> </u>	_				

8015B - Gasoline in Air - (Vppm & ug/L)

		100	2	1-0-5	Vnnm	12/21/09	SW	
Casalina		1201	3	12.5	vppm	12/21/07	0.11	
Gasoline	1							

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Client:	Calclean

Order #: 1044117 Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 17:00 Sampled By:

Client Sample ID: EW-1

Analyte

Result	DF	DLR	Units	Date/Analyst
i toount			011110	

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	36	100	1.0	Vppm	12/21/09	SW
Ethyl benzene	25	100	1.0	Vppm	12/21/09	SW
Methyl t - butyl ether	570	250	25.0	Vppm	12/21/09	SW
Toluene	143	100	1.0	Vppm	12/21/09	SW
Xvlene (total)	38	100	3.0	Vppm	12/21/09	SW
Xylene (total)	100	100	5.0	vppm	12/21/09	5 11

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	 7170	100	500.0	Vppm	12/21/09	SW
	the second se					

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Client Sample ID: TOTAL INLET

Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 17:10 Sampled By:

Order #:

Analyte

1044118

Result DF DLR Units Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	16	100	1.0	Vppm	12/21/09	SW
Ethyl benzene	14	100	1.0	Vppm	12/21/09	SW
Methyl t - butyl ether	312	100	10.0	Vppm	12/21/09	SW
Toluene	75	100	1.0	Vppm	12/21/09	SW
Xylene (total)	34	100	3.0	Vppm	12/21/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

	1 2570	100	500.0	Voom	12/21/00	SW
Gasoline	2570	100	200.0	vppm	12/21/09	5 11
Ousonne						

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Client: Calclean

Order #: 1044119 Matrix: AIR Date Sampled: 12/10/2009 Time Sampled: 17:20 Sampled By:

Client Sample ID: STACK

Analyte

Result DF DLR Units Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	0.06	1	0.01	Vppm	12/21/09	SW
Ethyl benzene	0.01	1	0.01	Vppm	12/21/09	SW
Methyl t - butyl ether	0.15	1	0.10	Vppm	12/21/09	SW
Toluene	0.33	1	0.01	Vppm	12/21/09	SW
Xvlene (total)	0.24	1	0.03	Vppm	12/21/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

		and the second se					
	•						
Gasoline		ND	1	5.0	Vppm	12/21/09	SW
Guboinie							

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample:	246443-122
Matrix:	AIR
Prep. Date :	December 21, 2009
Analysis Date:	December 21, 2009
Lab ID#'s in Batch:	246443, 246664, 246665, 246667, 246582, 246441, 246673

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

		Sample	Sample	
Test	Method	Result	Duplicate	%RPD
Gas	8015M	1,772.75	1,674.77	6
Renzene	8021B	16.12	15.32	5
Telvene	8021B	88.27	83.70	5
	8021B	11.91	10.15	16
Etnylbenzene Xylenes	8021B	52.52	44.60	16

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



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Chain of Custody Record

value	сан л	16,
3002	Dow,	#142

Company	3002 Dow, # Tustin, CA 92	142 2780	<u>.</u>	• <u> </u>	Phone	(714)	734-9	137]	A.L. ,	Job No.		·			<i>.</i>	2 24	64	, 너 (Page	<u> </u>	of
Project Manager	NOEL SI	HENOI			Fax	(714)	734-9	138			•	Anal	nalysis Requested					Те	est Instructio	ons & Col	nments
Project Name	GLE	GAS	STAT	ION	Project	#			·	5)	21	Ê				—					····
Site Name and <u>C</u> Address	AKLAT	JD ,	CA							G (801	MTBE (80	XYN (826				•					
Sample ID	Lab ID		Date	Time	Matrix	Cont Númbe	ainer er/Size	Pre	s.	-H-T-P-H-	BTEX/	BTENO	, . ,								
1 D 5		12/	10/09	1615	AIR	TEDI	_AR	NON	NE	X	X										
2 \supset 6				1630							I									a de la compañía de l	
3 <u>D</u> 8				1645																	
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5 TOTAL IN	LET			1710																·	
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Si	ample Receip	t - To Be	Filled By La	aborator	у		Relinqui: Sampler	shed by			1.	Re	linquis	hed by	/	·· •	2.	F	Relinquished by		3.
Total Number of Contain	ners	F	Properly Cooled	Y/N/NA	١		Signature	No	els	he	no	Sig	nature	:				5	Signature:		
Custody Seals Y / N / I	٨A	5	Samples Intact	Y / N / NA			Printed N	lame:			<u> </u>	Pri	nted N	ame:	., .			F	Printed Name:		
Received in Good Cond	ition Y/N	5	Samples Accept	ted Y/N	. •		Date: 12	/16/	09 T	ime:	BO	Da	te:			Time:		1	Date:	Time:	
	Τι	urn Arour	nd Time				Receive	t By:			ŀ	Re	ceived	By:			2.	- F	Received By:		3.
				_	,		Signatur	: Ç	el.	20	N	Sig	nature	:				5	Signature:		
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							Date	2-16	-V ("	nue:	\mathcal{N}	Da	ie:			Lime:		C)ate;	Time:	

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES 806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT	Calclean	(9977)	LAB REQUES	ST 246490
	3002 Dow Ave.		REPORTED	12/24/2009
	#142 Tustin, CA 92780		RECEIVED	12/16/2009
PROJECT	Γ Eagle Gas Station, Oakland			

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1044211	MW-4
1044212	MW-7
1044213	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, h Ichl (for)

Edward S. Behare, Ph.D. Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING Chemical Microbiological Environmental

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C	lient:	Calclear	n
Cl	ient Sa	mple ID:	MW-4

Order #: 1044211 Matrix: WATER Date Sampled: 12/09/2009 Time Sampled: 10:05 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst

8260B BTEX/MTBE

1310	50	50.0	ug/L	12/21/09	YL
883	50	250.0	ug/L	12/21/09	YL
74400	500	500.0	ug/L	12/22/09	YL
205 J	50	250.0	ug/L	12/21/09	YL
4150	50	250.0	ug/L	12/21/09	YL
ND	50	50.0	ug/L	12/21/09	YL
ND	50	50.0	ug/L	12/21/09	YL
ND	50	50.0	ug/L	12/21/09	YL
329000	500	5000.0	ug/L	12/22/09	YL
			Units	Control]	Limits
97			%	70 - 135	
95			%	70 - 135	
104			%	70 - 135	
101			%	70 - 135	
	1310 883 74400 205 J 4150 ND ND ND 329000 97 95 104 101	1310 50 883 50 74400 500 205 J 50 4150 50 ND 50 ND 50 ND 50 329000 500 97 95 104 101	1310 50 50.0 883 50 250.0 74400 500 500.0 205 J 50 250.0 4150 50 250.0 MD 50 50.0 ND 50 50.0 ND 50 50.0 ND 50 50.0 ND 50 50.0 97 97 97 95 104 101	1310 50 50.0 ug/L 883 50 250.0 ug/L 74400 500 500.0 ug/L 205 J 50 250.0 ug/L 4150 50 250.0 ug/L ND 50 250.0 ug/L ND 50 50.0 ug/L ND 50 50.0 ug/L ND 50 50.0 ug/L ND 50 50.0 ug/L 329000 500 5000.0 ug/L 97 % 95 % 104 % 101 %	1310 50 50.0 ug/L 12/21/09 883 50 250.0 ug/L 12/21/09 74400 500 500.0 ug/L 12/22/09 205 J 50 250.0 ug/L 12/21/09 4150 50 250.0 ug/L 12/21/09 ND 50 50.0 ug/L 12/21/09 329000 500 5000.0 ug/L 12/22/09 Units Control 12 97 % 70 - 135 95 % 70 - 135 104 % 70 - 135 101 % 70 - 135

8015B - Gasoline

Gasoline	110000	800	40000.0	ug/L	12/21/09 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	82			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1044212 Matrix: WATER Date Sampled: 12/09/2009 Time Sampled: 10:15 Sampled By:

|--|

Client: Calclean

Client Sample ID: MW-7

8260B BTEX/MTBE

_	Benzene	24	1	1	ug/L	12/21/09	YL
	Ethyl benzene	6.9	1	5	ug/L	12/21/09	YL
_	Methyl-tert-butylether (MTBE)	3000	25	25.0	ug/L	12/22/09	YL
	Toluene	ND	1	5	ug/L	12/21/09	YL
	Xylenes, total	2.2	1	5	ug/L	12/21/09	YL
	Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	12/21/09	YL
	Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	12/21/09	YL
	Tert-amylmethylether (TAME)	11	1	1.0	ug/L	12/21/09	YL
	Tertiary butyl alcohol (TBA)	46200	50	500.0	ug/L	12/22/09	YL
Surr	ogates				Units	Control]	Limits
	Surr1 - Dibromofluoromethane	100			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	97			%	70 - 135	
_	Surr3 - Toluene-d8	102			%	70 - 135	
-	Surr4 - p-Bromofluorobenzene	98			%	70 - 135	

8015B - Gasoline

Gasoline	4070	40	2000.0	ug/L	12/23/09	LT
Surrogates				Units	Control]	Limits
p-Bromofluorobenzene (Sur)	83			%	60 - 140	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Analyte	Result	DF	DLR	Units	Date/Analyst
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8260B BTEX/MTBE

	Benzene	ND	1	1	ug/L	12/20/09	YL
	Ethyl benzene	ND	1	5	ug/L	12/20/09	YL
	Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	12/20/09	YL
	Toluene	ND	1	5	ug/L	12/20/09	YL
	Xylenes, total	ND	1	5	ug/L	12/20/09	YL
_	Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	12/20/09	YL
_	Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	12/20/09	YL
	Tert-amylmethylether (TAME)	ND	1	1.0	ug/L	12/20/09	YL
	Tertiary butyl alcohol (TBA)	ND	1	10	ug/L	12/20/09	YL
Surro	gates				Units	Control]	Limits
-	Surr1 - Dibromofluoromethane	91			%	70 - 135	
_	Surr2 - 1,2-Dichloroethane-d4	98			%	70 - 135	
	Surr3 - Toluene-d8	102			%	70 - 135	
_	Surr4 - p-Bromofluorobenzene	101			%	70 - 135	

8015B - Gasoline

Gasoline	ND	1	50	ug/L	12/20/09 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	79			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-12

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Chain	of	Custody	Record
		CalClean Ing	

COLO	ean n	IC.	
3002	Dow,	#142	

	3002 Dow, #142						•)	46	490	
Company	Tustin, CA 92780)	- · · · · · · · · · · · · · · · · · · ·	Phone	(714) 73	4-9137] A.L.	Job No.				~	10	Page of	1
Project Manager	NOEL SHE	NOI		Fax	(714) 73	34-9138		•	Analy	sis Reg	uest	ed	-	Test Instructions & Com	nents
Project Name	GLEG	AS STAT	IN OF	Project	#		6	F		-		- <u>T</u>			
Site Name				·	······································		E	8	260	510		•			
Address	AKLAND	S, CA					8		S (8	8	,				
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Sample ID	Lab ID	Date	Time	Matrix	Contain Number/S	er Size Pres.	TPH	BTEX	BTEX/O	HAL					
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$\frac{3}{4}$ MW - 4		12/9/09	1005	Ŵ	3 V O	A 17CI	x		X	×					
5 MW-7		12/9/09	1015	S	BNOP	+ ++c1	×		X						
7															
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11	(SDA)	L TAT	\mathbb{Z}											· · ·	
12															
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14										-				TO 500143649	1
15										·				ALR-RPHAK	
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Sa	mple Heceipt - 1	o Be Filled By L	aboratory	/	Sa	mpler:		1.	Relin	quished b	у		2.	Relinquished by	3.
Total Number of Containe	ers	Properly Coolec	IY/N/NA		Sig	inature: Noch	he	no	Signa	iture:				Signature:	
Custody Seals Y / N / N	A	Samples Intact	Y / N / NA		Pri	nted Name:		ഹ	Printe	ed Name:				Printed Name:	
Received in Good Condit	tion Y/N	Samples Accep	ted Y/N		Da	12/16/i09	'ime:)	<u> 500</u>	Date:			Time:		Date: Time:	
	Turn	Around Time			Re	Ceived By:		1.	Rece	ived By:			2.	Received By:	3.
×	Signature:			napure: CER	U	X	Signa	Signature:				Signature:			
Normal	🗀 Rush	24 hrs.	- 4 y	□ 4 0 □ 72	hrs.	nted Name:		201	Printe	d Name:				Printed Name:	
					Dat	e: AAA	ime:	,501	Date:		_	Time:		Date: Time:	
istribution: White - Labora	tory Canary - Laborate	ory Pink - Project/Acco	unt Manager	Goldenrod	- Sampler/Origina	ator									

ASSOCIATED LABORATORIES 806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT	Calclean ATTN: Noel Shenoi	(9977)	LAB REQUES	ST 247240
	3002 Dow Ave. #142		REPORTED	01/11/2010
	Tustin, CA 92780		RECEIVED	12/31/2009
PROJECT	Γ Eagle Gas Station Oakland, CA			
SUBMIT	TER Client			

COMMENTS Global ID: T0600143649

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	Client Sample Identification
1047434	Total Inlet-12:00
1047435	D-5
1047436	D-8
1047437	D-9
1047438	D-6
1047439	EW-1
1047440	D-1
1047441	D-2
1047442	D-3
1047443	D-4
1047444	Total Inlet-17:05

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

SSOCIATED LABORATORIES by, . Behai Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental Client: Calclean Client Sample ID: Total Inlet-12:00

Order #: 1047434 Matrix: AIR Date Sampled: 12/24/2009 Time Sampled: 12:00 Sampled By:

Analyte	Result	DF	DLR	Units	Date/An	alyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Benzene	13	13	0.125	Vppm	01/05/10	SW
Ethyl benzene	6.3	13	0.125	Vppm	01/05/10	SW
Methyl t - butyl ether	130	50	5.0	Vppm	01/05/10	SW
Toluene	50	13	0.125	Vppm	01/05/10	SW
Xylene (total)	20	13	0.375	Vppm	01/05/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline 1190 13 62.5 Vppm 01/05/10 SW							
Gasoline 1190 13 62.5 Vppm 01/05/10 SW							
	Gasoline	1190	13	62.5	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047435	Client: Calclean
Matrix: AIR	Client Sample ID: D-5
Date Sampled: 12/24/2009	
Time Sampled: 12:25	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst	
BTEX/MTRE in Air - (Vppm & ug/L)						

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	0.15	1	0.01	Vppm	01/05/10	SW
Ethyl benzene	1.1	1	0.01	Vppm	01/05/10	SW
Methyl t - butyl ether	8.2	13	1.25	Vppm	01/05/10	SW
Toluene	1.4	1	0.01	Vppm	01/05/10	SW
Xylene (total)	2.9	1	0.03	Vppm	01/05/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	33	1	5.0	Vppm	01/05/10	SW

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047436	Client: Calclean
Matrix: AIR	Client Sample ID: D-8
Date Sampled: 12/24/2009	
Time Sampled: 12:35	
Sampled By:	

Analyte	Result			Units	Date/An	alyst
021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	0.15	1	0.01	Vppm	01/05/10	SW
Ethyl benzene	1.3	1	0.01	Vppm	01/05/10	SW
Methyl t - butyl ether	4.1	1	0.10	Vppm	01/05/10	SW

0.66

3.3

1

1

0.01

0.03

Vppm

Vppm

01/05/10

01/05/10

SW

SW

8015B - Gasoline in Air - (Vppm & ug/L)

Toluene

Xylene (total)

Gasoline	21	1	5.0	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047437	Client: Calclean
Matrix: AIR	Client Sample ID: D-9
Date Sampled: 12/24/2009	
Time Sampled: 12:45	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>					

Benzene	0.07	1	0.01	Vppm	01/05/10	SW
Ethyl benzene	0.28	1	0.01	Vppm	01/05/10	SW
Methyl t - butyl ether	1.4	1	0.10	Vppm	01/05/10	SW
Toluene	0.63	1	0.01	Vppm	01/05/10	SW
Xylene (total)	0.93	1	0.03	Vppm	01/05/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	13	1	5.0	Vppm	01/05/10	SW	
						*****	-

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047438	Client: Calclean
Matrix: AIR	Client Sample ID: D-6
Date Sampled: 12/24/2009	
Time Sampled: 13:00	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analys	t
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	0.10	1	0.01	Vppm	01/05/10 SW	
Ethyl benzene	0.56	1	0.01	Vppm	01/05/10 SW	
Methyl t - butyl ether	4.2	1	0.10	Vppm	01/05/10 SW	
Toluene	0.96	1	0.01	Vppm	01/05/10 SW	

8015B - Gasoline in Air - (Vppm & ug/L)

Xylene (total)

Gasoline	24	1	5.0	Vppm	01/05/10	SW

1.6

1

0.03

Vppm

01/05/10

SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
Client: Calclean Client Sample ID: EW-1

Analyte

Result	DF	DLR	Units	Date/Analyst
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8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	3.3	10	0.1	Vppm	01/05/10	SW
Ethyl benzene	3.7	10	0.1	Vppm	01/05/10	SW
Methyl t - butyl ether	20	10	1.0	Vppm	01/05/10	SW
Toluene	19	10	0.1	Vppm	01/05/10	SW
Xylene (total)	8.5	10	0.3	Vppm	01/05/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	519	10	50.0	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047440	Client: Calclean
Matrix: AIR	Client Sample ID: I
Date Sampled: 12/24/2009	
Time Sampled: 16:25	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Ana	lyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Benzene	6.1	13	0.125	Vppm	01/05/10	SW
Ethyl benzene	3.4	13	0.125	Vppm	01/05/10	SW
Methyl t - butyl ether	30	13	1.25	Vppm	01/05/10	SW
Toluene	57	13	0.125	Vppm	01/05/10	SW

D-1

8015B - Gasoline in Air - (Vppm & ug/L)

Xylene (total)

Gasoline	1040	13	62.5	Vppm	01/05/10 SW

9.4İ

13

0.375

Vppm

01/05/10

SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1047441	Client: Calclean
Matrix: AIR	Client Sample ID: D-2
Date Sampled: 12/24/2009	
Time Sampled: 16:35	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analy
<u> IB BTEX/MTBE in Air - (Vppm & ug/L)</u>					
Benzene	0.78	5	0.05	Vppm	01/05/10 SV
Ethyl benzene	1.8	5	0.05	Vppm	01/05/10 SV
Methyl t - butyl ether	62	13	1.25	Vppm	01/05/10 SV
Toluene	10	5	0.05	Vppm	01/05/10 SV
Xylene (total)	4.4	5	0.15	Vppm	01/05/10 SV

Gasoline	238	5	25.0	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



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ASSOCIATED LABORATORIES

Client:	Calclean	1
Client Sa	mple ID:	D-3

Analyte

8021B BTEX/MTBE in Air - (Vppm & ug/L)

14	25	0.25	Vppm	01/05/10	SW
6.2	25	0.25	Vppm	01/05/10	SW
122	25	2.5	Vppm	01/05/10	SW
57	25	0.25	Vppm	01/05/10	SW
13	25	0.75	Vppm	01/05/10	SW
	14 6.2 122 57 13	14 25 6.2 25 122 25 57 25 13 25	14 25 0.25 6.2 25 0.25 122 25 2.5 57 25 0.25 13 25 0.75	14 25 0.25 Vppm 6.2 25 0.25 Vppm 122 25 2.5 Vppm 57 25 0.25 Vppm 13 25 0.75 Vppm	14 25 0.25 Vppm 01/05/10 6.2 25 0.25 Vppm 01/05/10 122 25 2.5 Vppm 01/05/10 57 25 0.25 Vppm 01/05/10 13 25 0.75 Vppm 01/05/10

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1890	25	125.0	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Analyte	Result	DF	DLR	Units	Date/An	alyst
<u> 1B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Benzene	4.2	13	0.125	Vppm	01/05/10	SW
Ethyl benzene	1.5	13	0.125	Vppm	01/05/10	SW
Methyl t - butyl ether	40	13	1.25	Vppm	01/05/10	SW
Toluene	13	13	0.125	Vppm	01/05/10	SW
Xylene (total)	3.3	13	0.375	Vppm	01/05/10	SW

Gasoline	 588	13	62.5	Vppm	01/05/10	SW

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: Total Inlet-17:05

Analyta

Analyte	Result	DF	DLR	Units	Date/Analyst	
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Benzene	8.7	10	0.1	Vppm	01/05/10 SW	-

 2	••••	10	0.1	• • • • • • • • • • • • • • • • • • • •	01100110	5.11	
 Ethyl benzene	9.4	10	0.1	Vppm	01/05/10	SW	
 Methyl t - butyl ether	88	50	5.0	Vppm	01/05/10	SW	
Toluene	51	50	0.5	Vppm	01/05/10	SW	
 Xylene (total)	17	10	0.3	Vppm	01/05/10	SW	

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1760	10	50.0	Vppm	01/05/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

ASSOCIATED LABORATORIES **QA REPORT FORM**

QC Sample:	247240-444
Matrix:	AIR
Prep. Date :	January 5, 2010
Analysis Date:	January 5, 2010
Lab ID#'s in Batch:	247240, 247331

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

		Sample	Sample	
Test	Method	Result	Duplicate	%RPD
Gas	8015M	1,756.03	1,732.50	1
Benzene	8021B	8.66	8.81	2
Toluene	8021B	52.99	55.09	4
Ethylbenzene	8021B	9.41	9.11	3
Xylenes	8021B	16.79	14.61	14

ND = "U" - Not Detected

RPD = *Relative Percent Difference of Sample Result and Sample Duplicate*

RPD LIMITS = 20%

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



Chain of Custody Record

Calci	ean li	nc.
3002	Dow.	#142

Company	3002 Dow, #142 Tustin, CA 92780	·		Phone	(714)	734-91	137	A.L	. Job N	lo. ¹	2	17	2L	łO		Page of
Project Manager	NOEL SHE	NOI		Fax	(714)	734-9	138		•	ŀ	Analys	is Re	quest	ed		Test Instructions & Comments
Project Name	GLE GA	45 STAT	ION	Project	ŧ			2	51	1:	Î	-				
Site Name and	AKLANI	CA						١Ĕ	(80		839					
Address							•••	100	TBE		£					
Sample ID	Lab ID	Date	Time	Matrix	Conta Numbe	ainer r/Size	Pres.	TPH-(BTEX/N		BTEXO					
TOTAL INC	ET	12/24/09	1200	AIR	TEDL	AR	NONE	X	X							
2 D-5			1225				1	1	1				1			
° D-8			1235													
* D-9			1245					TT					1			
d-C °		1	1300													· · · · · · · · · · · · · · · · · · ·
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⁷			1625					\prod						<u> </u>		
⁸ D-2			1635	-				11-					+			
° D-3			1645					11-					+			· · · · · · · · · · · · · · · · · · ·
10 D-A			1655													
11 TOTAL INLI	=†	\checkmark	1705	V	``		$\neg \downarrow$		$\overline{\mathbf{v}}$			_				
12					-			¥					1			(EDF)
14																TO 1600143649
14															_	AIR=PPMV
15															_	
Sa	mple Receipt - To	b Be Filled By La	boratory	/		Relinquist Sampler:	ned by		1.	•	Relinc	uished	by	<u> </u>	2.	Relinquished by 3.
Total Number of Containe	ers	Properly Cooled	Y / N / NA			Signature:	Noce	She	no	5	Signat	ure:				Signature:
Custody Seals Y / N / N	٩	Samples Intact	Y / N / NA			Printed Na	ime:		nh - C		Printee	Name:				Printed Name:
Received in Good Condit	ion Y/N	Samples Accept	ed Y/N			Date: 12	131/109	Time:	1H		Date:			Time:		Date: Time:
-	Turn A	round Time				Received	By:	ĺ	 + \	+	Recei	red By:			2.	Received By: 3.
						Signaturez	FILL		-		Signat	ure:				Signature:
Normal	🗋 🔲 Rush	Same D 24 hrs.	ay		hrs.	Printed Na	me:		\		Printed	l Name:				Printed Name:
						Date:	2-01	Time:	tt4	-67-	Date:			Time:		Date: Time:
					l	<u> </u>				'	L					

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator



FAX 714/538-1209

CLIENT	Calclean ATTN: Noel Shenoi	(9977)	LAB REQUES	ST 247249
	3002 Dow Ave. #142		REPORTED	01/12/2010
	Tustin, CA 92780		RECEIVED	12/31/2009
PROJECT	Γ Eagle Gas Station			
SUBMIT	TER Client			

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	Client Sample Identification
1047519	MW-3
1047520	MW-5
1047521	MW-8
1047522	MW-4
1047523	MW-7
1047524	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by. Edward/S. Beharel P Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental Client: Calclean Client Sample ID: MW-3

Order #: 1047519 Matrix: WATER Date Sampled: 12/24/2009 Time Sampled: 15:30 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst

8260B BTEX/MTBE

-							
-	Benzene	15	1	1	ug/L	01/05/10	RP
_	Ethyl benzene	ND	1	5	ug/L	01/05/10	RP
-	Methyl-tert-butylether (MTBE)	1050	100	100.0	ug/L	01/06/10	RP
-	Toluene	ND	1	5	ug/L	01/05/10	RP
_	Xylenes, total	ND	1	5	ug/L	01/05/10	RP
_	Di-isopropyl ether (DIPE)	21	1	1.0	ug/L	01/05/10	RP
_	Ethyl-tertbutylether (ETBE)	1.4	1	1.0	ug/L	01/05/10	RP
_	Tert-amylmethylether (TAME)	23	1	1.0	ug/L	01/05/10	RP
	Tertiary butyl alcohol (TBA)	3.0000	100	1000.0	ug/L	01/06/10	RP
Surr	urrogates			•	Units	Control J	Limits
	Surr1 - Dibromofluoromethane	100			%	70 - 135	
_	Surr2 - 1,2-Dichloroethane-d4	102			%	70 - 135	
	Surr3 - Toluene-d8	106			%	70 - 135	
	Surr4 - p-Bromofluorobenzene	120			%	70 - 135	
					the first of the second s		

8015B - Gasoline

Gasoline	850	10	500.0	ug/L	01/06/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	91			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: MW-5

Order #: 1047520 Matrix: WATER Date Sampled: 12/24/2009 Time Sampled: 15:40 Sampled By:

Analyte	 Result	DF	DLR	Units	Date/Analyst	

8260B BTEX/MTBE

_								
	Benzene		7.9	1	1	ug/L	01/05/10	RP
	Ethyl benzene		ND	1	5	ug/L	01/05/10	RP
_	Methyl-tert-butylether (MTBE)		2330	100	100.0	ug/L	01/06/10	RP
	Toluene		ND	1	5	ug/L	01/05/10	RP
_	Xylenes, total	Ī	ND	1	5	ug/L	01/05/10	RP
_	Di-isopropyl ether (DIPE)		ND	1	1.0	ug/L	01/05/10	RP
	Ethyl-tertbutylether (ETBE)		9.7	1	1.0	ug/L	01/05/10	RP
	Tert-amylmethylether (TAME)		85	1	1.0	ug/L	01/05/10	RP
	Tertiary_butyl alcohol (TBA)		217000	200	2000.0	ug/L	. 01/08/10	RP
Surro	ogates	471			-	Units	Control]	Limits
_	Surr1 - Dibromofluoromethane		97			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4		107			%	70 - 135	
	Surr3 - Toluene-d8		104			%	70 - 135	
	Surr4 - p-Bromofluorobenzene		116			%	70 - 135	

8015B - Gasoline

Gasoline	1290	10	500.0	ug/L	01/05/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	113			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client:	Calcleau	n
Client Sa	mple ID:	MW-8

Order #: 1047521 Matrix: WATER Date Sampled: 12/24/2009 Time Sampled: 15:50 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	

8260B BTEX/MTBE

_							
_	Benzene	2210	10	10.0	ug/L	01/05/10	RP
	Ethyl benzene	74	10	50.0	ug/L	01/05/10	RP
	Methyl-tert-butylether (MTBE)	127000	1000	1000.0	ug/L	01/06/10	RP
	Toluene	ND	10	50.0	ug/L	01/05/10	RP
	Xylenes, total	207	10	50.0	ug/L	01/05/10	RP
_	Di-isopropyl ether (DIPE)	ND	10	10.0	ug/L	01/05/10	RP
_	Ethyl-tertbutylether (ETBE)	14	10	10.0	ug/L	01/05/10	RP
-	Tert-amylmethylether (TAME)	791	10	10.0	ug/L	01/05/10	RP
_	Tertiary butyl alcohol (TBA)	279000	1000	10000.0	ug/L	01/06/10	RP
Surre	ogates				Units	Control I	Limits
	Surr1 - Dibromofluoromethane	100			%	70 - 135	
. –	Surr2 - 1,2-Dichloroethane-d4	96			%	70 - 135	
	Surr3 - Toluene-d8	97		•	%	70 - 135	
	Surr4 - p-Bromofluorobenzene	114			%	70 - 135	

8015B - Gasoline

0.000

Gasoline	90100	1000	50000.0	ug/L	01/06/10	LT
Surrogates				Units	Control 1	Limits
p-Bromofluorobenzene (Sur)	90			%	60 - 140	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: MW-4

Order #: 1047522 Matrix: WATER Date Sampled: 12/24/2009 Time Sampled: 16:05 Sampled By:

Analyte

	Result	DF	DLR	Units	Date/Analyst
--	--------	----	-----	-------	--------------

8260B BTEX/MTBE

_	Benzene	1460	10	10.0	ug/L	01/05/10	RP
	Ethyl benzene	1080	10	50.0	ug/L	01/05/10	RP
	Methyl-tert-butylether (MTBE)	80800	100	100.0	ug/L	01/06/10	RP
_	Toluene	94	10	50.0	ug/L	01/05/10	RP
	Xylenes, total	3880	10	50.0	ug/L	01/05/10	RP
	Di-isopropyl ether (DIPE)	ND	10	10.0	ug/L	01/05/10	RP
_	Ethyl-tertbutylether (ETBE)	22	10	10.0	ug/L	01/05/10	RP
	Tert-amylmethylether (TAME)	788	10	10.0	ug/L	01/05/10	RP
_	Tertiary butyl alcohol (TBA)	460000	100	1000.0	ug/L	01/06/10	RP
Surre	ogates				Units	Control]	Limits
	Surr1 - Dibromofluoromethane	102			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	96			%	70 - 135	
	Surr3 - Toluene-d8	99		-	%	70 - 135	
	Surr4 - p-Bromofluorobenzene	114			%	70 - 135	

8015B - Gasoline

Gasoline	75100	800	40000.0	ug/L	01/06/10	LT
Surrogates				Units	Control I	Limits
p-Bromofluorobenzene (Sur)	96			%	60 - 140	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: MW-7

Order #: 1047523 Matrix: WATER Date Sampled: 12/24/2009 Time Sampled: 16:10 Sampled By:

Analy	te	Result	DF	DLR	Units	Date/Analyst	
							-

8260B BTEX/MTBE

Benzene	ND	10	10.0	ug/L	01/05/10	RP
Ethyl benzene	ND	10	50.0	ug/L	01/05/10	RP
Methyl-tert-butylether (MTBE)	14400	100	100.0	ug/L	01/06/10	RP
Toluene	ND	10	50.0	ug/L	01/05/10	RP
Xylenes, total	ND	10	50.0	ug/L	01/05/10	RP
Di-isopropyl ether (DIPE)	ND	10	10.0	ug/L	01/05/10	RP
Ethyl-tertbutylether (ETBE)	ND	10	10.0	ug/L	01/05/10	RP
Tert-amylmethylether (TAME)	43	10	10.0	ug/L	01/05/10	RP
Tertiary butyl alcohol (TBA)	20300	100	1000.0	ug/L	01/06/10	RP
Surrogates			• .	Units	Control]	Limits
Surr1 - Dibromofluoromethane	101			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	105			%	70 - 135	
Surr3 - Toluene-d8	100			%	70 - 135	
Surr4 - p-Bromofluorobenzene	114			%	70 - 135	

8015B - Gasoline

Gasoline	9380	100	5000.0	ug/L	01/06/10	LT
Surrogates				Units	Control]	Limits
p-Bromofluorobenzene (Sur)	98			%	60 - 140	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

8260B BTEX/MTBE

-	Benzene	ND	1	1	ug/L	01/05/10	RP
	Ethyl benzene	ND	1	5	ug/L	01/05/10	RP
	Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	01/05/10	RP
	Toluene	ND	1	5	ug/L	01/05/10	RP
-	Xylenes, total	ND	1	5	ug/L	01/05/10	RP
-	Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	01/05/10	RP
-	Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	01/05/10	RP
-	Tert-amylmethylether (TAME)	ND	1	1.0	ug/L	01/05/10	RP
-	Tertiary butyl alcohol (TBA)	ND	1	10	ug/L	01/05/10	RP
Surr	ogates				Units	Control 1	Limits
-	Surr1 - Dibromofluoromethane	101			%	70 - 135	
-	Surr2 - 1,2-Dichloroethane-d4	111			%	70 - 135	
-	Surr3 - Toluene-d8	99			%	70 - 135	
-	Surr4 - p-Bromofluorobenzene	121			%	70 - 135	

8015B - Gasoline

Gasoline	ND	ND 1 50 ug/L			
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	110			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: January 6, 2010

Analysis Date 1/6/10-1/7/10

Lab ID#'s in Batch: 247249, 247316, 247319, 247320, 247354, 247396, 247404.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	454	427	91	85	6

ND = Not Detected LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	94
LCS	106
LCSD	108

BFB = p-Bromofluorobenzene

%REC LIMITS = 70 - 130 RPD LIMITS = 30

ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G5-LCS&LCSD

Matrix: WATER

Prep. Date: January 5, 2010

Analysis Date 1/5/10-1/6/10

Lab ID#'s in Batch: 247249, 247217, 247252, 247268, 247272.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	455	460	91	92	1

ND = Not Detected

LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	110
LCS	112
LCSD	112

BFB = p-Bromofluorobenzene

%REC LIMITS	' =	70	-	130
RPD LIMITS	H	30		

QA / QC EPA Methods 8260 - GCMS # 3

Sample ID: *MS/MSD Water Sample* 247312-785 Date Prepared: January 5, 2010 Date Analyzed: 1/5-1/6/10 Sample Matrix: Water Units: μg/L

Lab ID#'s in Batch: 247249, 247312, 247248, 247134

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	56.40	53.80	113	108	5	22	59 - 172
МТВЕ	0.00	50.0	57.60	56.10	115	112	3	24	62 - 137
Benzene	0.00	50.0	55.10	53.10	110	106	4	24	62 - 137
Trichloroethene	0.00	50.0	44.60	44.50	89	89	0	21	66 - 142
Toluene	0.00	50.0	46.40	45.90	93	92	1	21	59 - 139
Chlorobenzene	0.00	50.0	45.60	46.20	91	92	1	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	51.90	104	59 - 172
МТВЕ	50.0	54.10	108	62 - 137
Benzene	50.0	53.00	106	62 - 137
Trichloroethene	50.0	43.90	88	66 - 142
Toluene	50.0	48.10	96	59 - 139
Chlorobenzene	50.0	47.10	94	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

	MB 1	MB 2	MS	MSD	LCS	Limits
Compound	% Rec					
Dibromofluoromethane	101	105	110	103	98	70 - 135
1,2-Dichloroethane-d4	111	109	106	104	99	70 - 135
Toluene-d8	99	102	96	92	95	70 - 135
p-Bromofluorobenzene	121	107	105	104	103	70 - 135

QA / QC EPA Methods 8260 - GCMS # 3

Sample ID: *MS/MSD Water Sample* 247354-053 Date Prepared: January 6, 2010 Date Analyzed: 1/6-1/7/10 Sample Matrix: Water Units: µg/L

Lab ID#'s in Batch: 247312, 247249, 247354, 247314, 247265

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	71.80	67.60	144	135	6	22	59 - 172
МТВЕ	0.00	50.0	58.90	57.20	118	114	3	24	62 - 137
Benzene	0.00	50.0	57.70	53.70	115	107	7	24	62 - 137
Trichloroethene	62.00	50.0	98.70	104.00	73	84	5	21	66 - 142
Toluene	0.00	50.0	46.80	48.50	94	97	4	21	59 - 139
Chlorobenzene	0.00	50.0	48.00	48.40	96	97	1	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	52.50	105	59 - 172
МТВЕ	50.0	55.20	110	62 - 137
Benzene	50.0	50.20	100	62 - 137
Trichloroethene	50.0	43.60	87	66 - 142
Toluene	50.0	47.50	95	59 - 139
Chlorobenzene	50.0	45.70	91	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoremothene	102	112	112	109	102	70 125
Dibioinoliuoromethane	102	113	112	100	102	70-135
1,2-Dichloroethane-d4	110	115	108	108	102	70 - 135
Toluene-d8	97	97	91	96	96	70 - 135
p-Bromofluorobenzene	115	114	105	99	108	70 - 135

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209

Chain	of	Custody	Record
		CalClean Inc.	2

Company	3002 Dow, #142 Tustin, CA 9278(2 D		Phone	(714) 734-9	137	٦	1-6-81-						247249
Project Manager	NOEL SHE	NOI		Fax	(714) 734-9	138	A.L.	JOD NO.	Analy	vsis F	eques	ted	-	Page of
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Address							18)		CYS (-	
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-(BTEXN	BTEX/OX					
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MW-3		12/24/09	1530	Ŵ	3 VOA	HCI	\times							
5 MW-5			1540						1			_		
6 MW-8			1550					ļ						· · · · · · · · · · · · · · · · · · ·
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Custody Seals Y / N / N	A	Samples Intact	Y / N / NA		Printed N	lame:			Prin	ted Nar	ne:		· · · · · ·	Printed Name:
Received in Good Condi	tion Y/N	Samples Accept	ed Y/N		Date: 12	1/31/109	Time:	141	Date): 		Time:		Date: Time:
	Turn	Around Time			Received	1 By:		1.	Rec	eived E	y:		2.	Received By: 3.
	, , , , , , , , , , , , , , , , , , ,				Signature	Gr		\neg	Sign	ature:				Signature:
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Distribution: White - Labora	itory Canary - Laborat	ory Pink - Project/Acco	unt Manager	Goldenrod	- Sampler/Originator					· · · · · · · · · · · · · · · · · · ·				

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator



FAX 714/538-1209

CLIENT	Calclean	(9977)	LAB REQUES	ST 247420
	ATTN: Noel Shenoi			
	3002 Dow Ave.		REPORTED	01/12/2010
	#142			
	Tustin, CA 92780		RECEIVED	01/06/2010
PROJECT	Γ EAGLE GAS STATION OAKLAND, CA			
SUBMIT	TER Client			
COMME	NTS Global ID: T0600143649			

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	Client Sample Identification
1048369	D-11
1048370	D-7
1048371	MW-8
1048372	IS-3
1048375	TOTAL INLET
1048376	D-1
1048377	D-2
1048378	D-3
1048379	D-4
1048380	EW-1
1048381	D-5

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, Edward S. Beharel Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental



FAX 714/538-1209

CLIENT	Calclean ATTN: Noel Shenoi	(9977)	LAB REQUEST 247420			
	3002 Dow Ave. #142		REPORTED	01/12/2010		
	Tustin, CA 92780		RECEIVED	01/06/2010		
PROJECT	Γ EAGLE GAS STATION OAKLAND, CA					
SUBMIT	TER Client					
COMME	NTS Global ID: T0600143649					

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1048382	D-7
1048383	D-10
1048384	D-11
1048385	D-12
1048386	TOTAL INLET

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, Edw Behare Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental

Lab request 247420 cover, page 2 of 2

Order #: 1048369 Matrix: AIR Date Sampled: 01/04/2010 Time Sampled: 10:00 Sampled By:

Client:	Calclear	n
Client Sa	mple ID:	D-11

Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					

Benzene	13	50	0.5	Vnnm	01/07/10
Ethyl benzene		50	0.5	Vppm	01/07/10
Methyl t - butyl ether	461	100	10.0	Vppm	01/07/10
Toluene	32	50	0.5	Vppm	01/07/10
Xylene (total)	25	50	1.5	Vppm	01/07/10

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	2220	50	250.0	Vppm	01/07/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



SW

SW SW

SW

SW

ASSOCIATED LABORATORIES

Order #: 1048370 Client: Calclean Matrix: AIR Client Sample ID: D-7 Date Sampled: 01/04/2010 Time Sampled: 10:10 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>					

Benzene	13	50	0.5	Vppm	01/07/10	SW
Ethyl benzene	25	50	0.5	Vppm	01/07/10	SW
Methyl t - butyl ether	161	50	5.0	Vppm	01/07/10	SW
Toluene	43	50	0.5	Vppm	01/07/10	SW
Xylene (total)	51	50	1.5	Vppm	01/07/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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Gasoline	2630	-50	250.0	Vppm	01/07/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order .#: 1048371	Client: Calclean
Matrix: AIR	Client Sample ID: MW-8
Date Sampled: 01/04/2010	
Time Sampled: 11:00	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
	1					

Benzene	14	50	0.5	Vppm	01/07/10	SW
Ethyl benzene	6.5	50	0.5	Vppm	01/07/10	SW
Methyl t - butyl ether	238	50	5.0	Vppm	01/07/10	SW
Toluene	25	50	0.5	Vppm	01/07/10	SW
Xylene (total)	15	50	1.5	Vppm	01/07/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	2100	50	250.0	Vppm	01/07/10	SW

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



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ASSOCIATED LABORATORIES

Order #: 1048372 Matrix: AIR Date Sampled: 01/04/2010 Time Sampled: 13:00 Sampled By: Client: Calclean Client Sample ID: 1S-3

Analyte

Result	DF	DLR	Units	Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	34	25	0.25	Vppm	01/07/10	SW
Ethyl benzene	47	25	0.25	Vppm	01/07/10	SW
Methyl t - butyl ether	593	100	10.0	Vppm	01/07/10	SW
Toluene	92	25	0.25	Vppm	01/07/10	SW
Xylene (total)	60	25	0.75	Vppm	01/07/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: TOTAL INLET

Order #: 1048375 Matrix: AlR Date Sampled: 01/01/2010 Time Sampled: 15:25 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					

Benzene	5.0	25	0.25	Vppm	01/07/10	SW
Ethyl benzene	9.2	25	0.25	Vppm	01/07/10	SW
Methyl t - butyl ether	54	25	2.5	Vppm	01/07/10	SW
Toluene	20	25	0.25	Vppm	01/07/10	SW
Xylene (total)	18	25	0.75	Vppm	01/07/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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Gasoline	1110	25	125.0	Vppm	01/07/10	SW	
							1

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048376 Matrix: AIR Date Sampled: 01/01/2010 Time Sampled: 15:30 Sampled By:

Client: Calclean Client Sample ID: D-1

Analyte	Result	DF	DLR	Units	Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	2.5	10	0.1	Vppm	01/08/10	SW
Ethyl benzene	3.2	10	0.1	Vppm	01/08/10	SW
Methyl t - butyl ether	26	10	1.0	Vppm	01/08/10	SW
Toluene	2.3	10	0.1	Vppm	01/08/10	SW
Xylene (total)	1.7	10	0.3	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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Gasoline	48	1	10	50.0	Vppm	01/08/10	SW

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048377 Matrix: AIR Date Sampled: 01/01/2010 Time Sampled: 15:35 Sampled By:

Client:	Calc	lear	1
Client Sa	mple	D:	D-2

Ar

nalyte	Result	DF	DLR	Units	Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	1.6	10	0.1	Vppm	01/08/10	SW
Ethyl benzene	4.3	10	0.1	Vppm	01/08/10	SW
Methyl t - butyl ether	21	10	1.0	Vppm	01/08/10	SW
Toluene	2.7	10	0.1	Vppm	01/08/10	SW
Xylene (total)	1.4	10	0.3	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	502	10	50.0	Vppm	01/08/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048378	Client: Calclean
Matrix: AIR	Client Sample ID: D-3
Date Sampled: 01/01/2010	
Time Sampled: 15:40	1
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst	
						_

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	12	25	0.25	Vppm	01/08/10	SW
Ethyl benzene	16	25	0.25	Vppm	01/08/10	SW
Methyl t - butyl ether	160	50	5.0	Vppm	01/08/10	SW
Toluene	6.3	25	0.25	Vppm	01/08/10	SW
Xylene (total)	28	25	0.75	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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Gasoline	1790	25	125.0	-Vppm	01/08/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Analyte	Result	DF	DLR	Units	Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	6.8	10	0.1	Vppm	01/08/10	SW
Ethyl benzene	12	10	0.1	Vppm	01/08/10	SW
Methyl t - butyl ether	48	10	1.0	Vppm	01/08/10	SW
Toluene	20	10	0.1	Vppm	01/08/10	SW
Xylene (total)	1.4	10	0.3	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1420	10	50.0	Vppm	01/08/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048380	Client: Calclean
Matrix: AIR	Client Sample ID: EW-1
Date Sampled: 01/01/2010	
Time Sampled: 15:50	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analys	t
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	2.9	25	0.25	Vppm	01/08/10 SW	
Ethyl benzene	7.6	25	0.25	Vppm	01/08/10 SW	
Methyl t - butyl ether	48	25	2.5	Vppm	01/08/10 SW	
Toluene	17	25	0.25	Vppm	01/08/10 SW	
Xylene (total)	19	25	0.75	Vppm	01/08/10 SW	

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1080	25	125.0	Vppm	01/08/10	SW

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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Order #: 1048381 Matrix: AIR Date Sampled: 01/01/2010 Time Sampled: 15:55 Sampled By: Client: Calclean Client Sample ID: D-5

Analyte	Result	DF	DLR	Units	Date/An	alyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	3.1	25	0.25	Vppm	01/08/10	SW
Ethyl benzene	5.6	25	0.25	Vppm	01/08/10	SW
Methyl t - butyl ether	65	25	2.5	Vppm	01/08/10	SW
Toluene	2.6	25	0.25	Vppm	01/08/10	SW
Xylene (total)	13	25	0.75	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	695	25	125.0	Vppm	01/08/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #:	1048382
Matrix: All	ξ
Date Sample	e d: 01/01/2010
Time Sampl	i ed: 16:40
Sampled By	:

Client: Calclean Client Sample ID: D-7

Analyte Result DF DLR Units Date/Analyst 8021B BTEX/MTBE in Air - (Vppm & ug/L) 8021B BTEX/MT

Benzene	4.6	25	0.25	Vppm	01/08/10	SW
Ethyl benzene	9.6	25	0.25	Vppm	01/08/10	SW
Methyl t - butyl ether	84	25	2.5	Vppm	01/08/10	SW
Toluene	17	25	0.25	Vppm	01/08/10	SW
Xylene (total)	25	25	0.75	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

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	1 1					
Gasoline	1040	25	125.0	Vppm	01/08/10	SW
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048383	Client: Calclean
Matrix: AIR	Client Sample ID: D-10
Date Sampled: 01/01/2010	
Time Sampled: 16:45	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	11	25	0.25	Vppm	01/08/10	SW
Ethyl benzene	7.4	25	0.25	Vppm	01/08/10	SW
Methyl t - butyl ether	528	100	10.0	Vppm	01/08/10	SW
Toluene	46	25	0.25	Vppm	01/08/10	SW
Xylene (total)	16	25	0.75	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1840	25	125.0	Vppm	01/08/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048384	Client: Calclean
Matrix: AIR	Client Sample ID: D-11
Date Sampled: 01/01/2010	
Time Sampled: 16:50	
Sampled By:	

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Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					
Benzene	4.2	25	0.25	Vppm	01/08/10 SW
Ethyl benzene	4.4	25	0.25	Vppm	01/08/10 SW
Methyl t - butyl ether	235	50	5.0	Vppm	01/08/10 SW
Toluene	20	25	0.25	Vppm	01/08/10 SW
Xylene (total)	7.3	25	0.75	Vppm	01/08/10 SW
8015B - Gasoline in Air - (Vppm & ug/L)	 	25	125.0		01/00/10 011
Gasonne	824	25	125.0	Vppm	01/08/10 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
Order #: 1048385	Client: Calclean
Matrix: AIR	Client Sample ID: D-12
Date Sampled: 01/01/2010	
Time Sampled: 16:55	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Ana	alyst
<u>8021B BTEX/MTBE in Air - (Vppm & ug/L)</u>						
Вепzепе	47	25	0.25	Vppm	01/08/10	SW
Ethyl benzene	76	25	0.25	Vppm	01/08/10	SW
Methyl t - butyl ether	543	125	12.5	Vnnm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Toluene

Xylene (total)

Gasoline	5930	25	125.0 Vppm	01/08/10 SW

247

112

125

25

1.25

0.75

Vppm

Vppm

01/08/10

01/08/10

SW

SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclear	n
Client Sample ID:	TOTAL INLET

Order #: 1048386 Matrix: AIR Date Sampled: 01/01/2010 Time Sampled: 17:00 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					

Benzene	10	10	0.1	Vppm	01/08/10	SW
Ethyl benzene	24	10	0.1	Vppm	01/08/10	SW
Methyl t - butyl ether	209	50	5.0	Vppm	01/08/10	SW
Toluene	60	50	0.5	Vppm	01/08/10	SW
Xylene (total)	42	10	0.3	Vppm	01/08/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1640	10	50.0	Vppm	01/08/10	SW_

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample:	247422-387
Matrix:	AIR
Prep. Date :	January 7, 2010
Analysis Date:	January 7, 2010
Lab ID#'s in Batch:	247422, 247423, 247403, 247443, 247444, 247445, 247446, 247420, 247498

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

		Sample	Sample	
Test	Method	Result	Duplicate	%RPD
Gas	8015M	874.70	886.83	1
Benzene	8021B	2.77	2.82	2
Toluene	8021B	16.90	17.30	2
Ethylbenzene	8021B	3.25	3.26	0
Xylenes	8021B	17.85	17.98	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample:	247420-386
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Matrix: AIR

Prep. Date : January 8, 2010

Analysis Date: January 8, 2010

Lab ID#'s in Batch: 247420, 247493, 247497, 247512, 247513, 247499

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

		Sample	Sample	
Test	Method	Result	Duplicate	%RPD
Gas	8015M	1,639.58	1,581.44	4
Benzene	8021B	9.98	9.73	3
Toluene	8021B	57.57	54.92	5
Ethylbenzene	8021B	23.73	23.40	1
Xylenes	8021B	42.59	41.94	2

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



Chain of Custody Record

Company	3002 Dow, #142 Tustin, CA 92780		· · · · · · · · · · · · · · · · · · ·	Phone	(714)	734-9	137		A.L.	Job No.		-		24	74	20	Page 1 of 7	
Project Manager	NOEL SHEN	101		Fax	(714) 734-9138						Analysis Requested					Test Instructions & Comme	ints	
Project Name	GLE GA	S STAT	ION	Project	₩		·		6	5	1a		·T		-	. –		
Site Name	AKLAND	C.A		······································					201	(80	8226							
Address	<u> </u>	1			<u>-</u>				8) (5)	11BE	KS							
Sample ID	Lab ID	Date	Time	Matrix	Cont Númb	tainer er/Size	Pre	s.	TPH-O	BTEX/N	AUEXION				•			
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4 IS-3			1300	\mathbf{x}				~	\downarrow	V					1-	-	· · · · · · · · · · · · · · · · · · ·	.=
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11													-				annan	
12														_			(EDF)	
13																	TO \$00143649	
14												•			+		AIR=PPMV	
15																		
Sa	mple Receipt - To	Be Filled By La	boratory	,	<u> </u>	Relinquis	hed by	<u>I</u>		1.	Reli	nquishe	ed by			2.	Relinquished by 3.	
Total Number of Containe	ers	Properly Cooled	Y/N/NA			Signature	No	ell	Min	no.	Sign	ature:		<u>, 18 10 10 10 10 10 10 10 10 10 10 10 10 10 </u>	,		Signature:	-
Custody Seals Y / N / N	A	Samples Intact	Y/N/NA			Printed N	ame:				Print	led Nan	ne:				Printed Name:	
Received in Good Condi	lion Y/N	Samples Accept	ed Y/N			Date:	161	19 Tir	ne: /	572	Date		·	Tir	ne:		Date: Time:	
	Turn A	round Time				Received	By:	· · · · · · · · · · · · · · · · · · ·	1	1.	Rec	eived B	ly:			2.	Received By: 3.	
			<u></u>			Signature	1.9	E	V_{2}		(sign	ature:					Signature:	
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-		See 27 183.		L 12	115.	Date: 51	lor-	Tin	ne: /	52	Date	:	<u>.</u>	Tir	 пе;		Date: Time:	-
Distribution: White - Labora	tory Canary - Laboratory	y Pink - Project/Acco	unt Manager	Galdenrod	- Sampler/O	riginator	100	μΩ_		<u></u>	<u></u>							

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



Chain of Custody Record

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CalClean Inc.	
 3002 Dow, #142	

Company	3002 Dow Tustin, CA	, #142 92780	<u>.</u>			Phone	(714)	734-9	137		Job N							2	47420
Project Manager	NOEL	SHENC)			Fax	(714)	734-9	138	<u>, , , ,</u>		<u>.</u> A	nalv	sis Re	aues	ted		Т	Test Instructions & Comments
Project Name		<u> </u>			00)	Project /	+				5	:	a		1	<u> </u>	÷	-	
Site Name and O Address	AKLA	-ND-1	C							3 (8015	1TBE (80		CYS (8260		-		•		
Sample ID	Lab 10	0	Da	ate	Time	Matrix	Cont Númbe	ainer er/Size	Pres.	TPH-(BTEX/N		BTEX/OX						
1 TOTAL INLE	7	Ň	11	/ 09	1525	AIR	TEDL	AR	NONE	$\overline{\times}$	X							-	
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1 D-3					1540					\prod									
⁵ D-4					1545														<u> </u>
⁶ EW −1					1550					Π									
D-5	,				1555														
ד-ת					1640														
° D - 10					1645								1						
$\mathcal{D} = 11$					1650														
D-12	<u></u>				1655														
TOTAL INC	= 1			,	1700			\checkmark	\checkmark	\checkmark	V					-			(EDF)
13																		-	TO \$00143649
14																			AIR=PPMV
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Sa	mple Rece	ipt - To B	e Fille	ed By La	boratory	1		Relinguis Sampler:	hed by		1.	•	Relin	quishe	d by		<u></u>	2.	Relinguished by 3.
Total Number of Contain	ers		Prope	erly Cooled	Y / N / NA			Signature	Noce	the	no	5	Signa	iture:		•			Signature:
Custody Seals Y / N / N	A		Samp	oles Intact	//N/NA			Printed N	ame:				Printe	ed Nam	e:				Printed Name:
Received in Good Condi	tion Y/N		Samp	oles Accepte	ed Y/N			Date: 1	16/109	Time:/	52	2	Date;	·		Time	:		Date: Time:
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									-060	Time:	120	70	Date:			Time	:		Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES 806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT	Calclean	(9977)	LAB REQUES	ST 247427
	ATTN: Noel Shenoi			
	3002 Dow Ave.		REPORTED	01/12/2010
	#142			
	Tustin, CA 92780		RECEIVED	01/06/2010
PROJECT	Γ Eagle Gas Station			
SUBMIT	TER Client			

COMMENTS Global ID: T0600143649

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	<u>Client Sample Identification</u>
1048419	IS-4
1048420	IS-5
1048421.	MW-3
1048422	IS-1
1048423	MW-8
1048424	MW-5
1048425	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LA BORATÓRIES by. \mathbf{E} Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental

Lab request 247427 cover, page 1 of 1

Analyte

Client: Calclean Client Sample ID: IS-4

Result	DF	DLR	Units	Date/Analyst
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8260B BTEX/MTBE

Benzene	119	100	100.0	ug/L	01/08/10	RP
Ethyl benzene	ND	100	500.0	ug/L	01/08/10	RP
Methyl-tert-butylether (MTBE)	812	100	100.0	ug/L	01/08/10	RP
Toluene	ND	100	500.0	ug/L	01/08/10	RP
Xylenes, total	ND	100	500.0	ug/L	01/08/10	RP
Di-isopropyl ether (DIPE)	ND	100	100.0	ug/L	01/08/10	RP
Ethyl-tertbutylether (ETBE)	ND	100	100.0	ug/L	01/08/10	RP
Tert-amylmethylether (TAME)	ND	100	100.0	ug/L	01/08/10	RP
Tertiary butyl alcohol (TBA)	167000	100	1000.0	ug/L	01/08/10	RP
Surrogates				Units	Control]	Limits
Surr1 - Dibromofluoromethane	95			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	122			%	70 - 135	
Surr3 - Toluene-d8	102			%	70 - 135	
Surr4 - p-Bromofluorobenzene	100			%	70 - 135	

8015B - Gasoline

Gasoline	4320	10	500.0	ug/L	01/08/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	116			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048420 Matrix: WATER Date Sampled: 01/01/2010 Time Sampled: 14:55 Sampled By:

Analyte

Client:	Calclean	n
Client Sa	mple ID:	IS-5

Result DF DLR Units Date/Analyst

8260B BTEX/MTBE

-							
~	Benzene	4600	100	100.0	ug/L	01/08/10	RP
~	Ethyl benzene	7300	100	500.0	ug/L	01/08/10	RP
_	Methyl-tert-butylether (MTBE)	30400	1000	1000.0	ug/L	01/08/10	RP
-	Toluene	ND	100	500.0	ug/L	01/08/10	RP
-	Xylenes, total	7400	100	500.0	ug/L	01/08/10	RP
_	Di-isopropyl ether (DIPE)	ND	100	100.0	ug/L	01/08/10	RP
_	Ethyl-tertbutylether (ETBE)	ND	100	100.0	ug/L	01/08/10	RP
	Tert-amylmethylether (TAME)	1050	100	100.0	ug/L	01/08/10	RP
	Tertiary butyl alcohol (TBA)	241000_	1000	10000.0	ug/L	01/08/10	RP
Surr	ogates				Units	Control 1	Limits
-	Surr1 - Dibromofluoromethane	104			%	70 - 135	
~	Surr2 - 1,2-Dichloroethane-d4	103			%	70 - 135	
	Surr3 - Toluene-d8	101			%	70 - 135	
	Surr4 - p-Bromofluorobenzene	100			%	70 - 135	

8015B - Gasoline

Gasoline		56700	200	10000.0	ug/L	01/08/10 LT
Surrogates					Units	Control Limits
p-Bromofluorobenzene (Sur)		100			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Client: Calclean Client Sample ID: MW-3

Order #: 1048421 Matrix: WATER Date Sampled: 01/01/2010 Time Sampled: 15:00 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	

8260B BTEX/MTBE

_	Benzene	ND	10	10.0	ug/L	01/08/10	RP
-	Ethyl benzene	ND	10	50.0	ug/L	01/08/10	RP
	Methyl-tert-butylether (MTBE)	820	10	10.0	ug/L	01/08/10	RP
	Toluene	ND	10	50.0	ug/L	01/08/10	RP
_	Xylenes, total	ND	10	50.0	ug/L	01/08/10	RP
_	Di-isopropyl ether (DIPE)	19	10	10.0	ug/L	01/08/10	RP
	Ethyl-tertbutylether (ETBE)	ND	10	10.0	ug/L	01/08/10	RP
	Tert-amylmethylether (TAME)	ND	10	10.0	ug/L	01/08/10	RP
-	Tertiary butyl alcohol (TBA)	32600	100	1000.0	ug/L	01/08/10	RP
Surr	ogates				Units	Control 1	Limits
-	Surr1 - Dibromofluoromethane	93			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	119			%	70 - 135	
_	Surr3 - Toluene-d8 -	106			%	70 - 135	
_	Surr4 - p-Bromofluorobenzene	103			%	70 - 135	

8015B - Gasoline

Gasoline	822	10	500.0	ug/L	01/07/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	106			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: <u>1048422</u> Matrix: WATER Date Sampled: 01/01/2010 Time Sampled: 15:05 Client: Calclean

Client Sample ID: 1S-1

Analyte	Result	DF	DLR	Units	Date/Analyst	
						JUL

8260B BTEX/MTBE

Sampled By:

-	Benzene	ND	1	1	ug/L	01/08/10	RP
	Ethyl benzene	ND	1	5	ug/L	01/08/10	RP
	Methyl-tert-butylether (MTBE)	153	1	1	ug/L	01/08/10	RP
	Toluene	ND	1	5	ug/L	01/08/10	RP
	Xylenes, total	ND]	5	ug/L	01/08/10	RP
_	Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	01/08/10	RP
_	Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	01/08/10	RP
	Tert-amylmethylether (TAME)	ND	1	1.0	ug/L	01/08/10	RP
-	Tertiary butyl alcohol (TBA)	7790	10	100.0	ug/L	01/08/10	RP
Surr	ogates				Units	Control]	Limits
-	Surr1 - Dibromofluoromethane	95			%	70 - 135	
-	Surr2 - 1,2-Dichloroethane-d4	118			%	70 - 135	
-	Surr3 - Toluene-d8	105		-	%	70 - 135	
-	Surr4 - p-Bromofluorobenzene	100			%	70 - 135	

8015B - Gasoline

Gasoline	360	1	50	ug/L	01/08/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	104			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1048423	Client: Calclean
Matrix: WATER	Client Sample ID: MW-8
Date Sampled: 01/01/2010	
Time Sampled: 15:20	
Sampled By:	

Analyte	Result	DF	DLR	Units	Date/Analyst	

8260B BTEX/MTBE

1370	25	25.0	ug/L	01/08/10	RP
ND	25	125.0	ug/L	01/08/10	RP
53500	1000	1000.0	ug/L	01/09/10	RP
ND	25	125.0	ug/L	01/08/10	RP
251	25	125.0	ug/L	01/08/10	RP
ND	25	25.0	ug/L	01/08/10	RP
ND	25	25.0	ug/L	01/08/10	RP
379	25	25.0	ug/L	01/08/10	RP
305000	1000	10000.0	ug/L	01/09/10	RP
			Units	Control 3	Limits
98			%	70 - 135	
104			%	70 - 135	
102			%	70 - 135	
100			%	70 - 135	
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8015B - Gasoline

Gasoline	52100	400	20000.0	ug/L	01/08/10	LT
Surrogates				Units	Control J	Limits
p-Bromofluorobenzene (Sur)	103			%	60 - 140	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Client: Calclean Client Sample ID: MW-5

Order #: 1048424 Matrix: WATER Date Sampled: 01/01/2010 Time Sampled: 15:15 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8260B BTEX/MTBE					,
Benzene	ND	100	100.0	ug/L	01/08/10 RP
Ethyl benzene	ND	100	500.0	ug/L	01/08/10 RP
Methyl-tert-butylether (MTBE)	3270	100	100.0	ug/L	01/08/10 RP
Toluene	ND	100	500.0	ug/L	01/08/10 RP
Xylenes, total	ND	100	500.0	ug/L	01/08/10 RP
Di-isopropyl ether (DIPE)	ND	100	100.0	ug/L	01/08/10 RP
Ethyl-tertbutylether (ETBE)	ND	100	100.0	ug/L	01/08/10 RP
Tert-amylmethylether (TAME)	ND	100	100.0	ug/L	01/08/10 RP
Tertiary butyl alcohol (TBA)	414000	1000	10000.0	ug/L	01/09/10 RP
Surrogates	•			Units	Control Limits
Surr1 - Dibromofluoromethane	96			%	70 - 135
Surr2 - 1.2-Dichloroethane-d4	121			%	70 - 135

8015B - Gasoline

Surr3 - Toluene-d8

Surr4 - p-Bromofluorobenzene

Gasoline	2450	20	1000.0	ug/L	01/07/10	LT
Surrogates				Units	Control I	Limits
p-Bromofluorobenzene (Sur)	105			%	60 - 140	

102

100

%

%

70 - 135

70 - 135

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Analyte	Result	DF	DLR	Units	Date/Analyst

8260B BTEX/MTBE

Benzene	ND	1	1	ug/L	01/07/10	RP
Ethyl benzene	ND	1	5	ug/L	01/07/10	RP
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	01/07/10	RP
Toluene	ND	1	5	ug/L	01/07/10	RP
Xylenes, total	ND	1	5	ug/L	01/07/10	RP
Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	01/07/10	RP
Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	01/07/10	RP
Tert-amylmethylether (TAME)	ND	1	1.0	ug/L	01/07/10	RP
Tertiary butyl alcohol (TBA)	ND	.1	10	ug/L	01/07/10	RP
Surrogates				Units	Control	Limits
Surr1 - Dibromofluoromethane	119			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	105			%	70 - 135	
Surr3 - Toluene-d8	91			%	70 - 135	
Surr4 - p-Bromofluorobenzene	93			%	70 - 135	

8015B - Gasoline

Gasoline	ND	1	50	ug/L	01/07/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	103			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G5-LCS&LCSD

Matrix: WATER

Prep. Date: January 7, 2010

Analysis Date 1/7/10-1/8/10

Lab ID#'s in Batch: 247356, 247427.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD	
TPH	8015M-G	ND	500	459	449	92	90	2	

ND = Not Detected

LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	103
LCS	105
LCSD	107

BFB = p-Bromofluorobenzene

%REC LIMITS = 70 - 130 RPD LIMITS = 30

ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: January 8, 2010

Analysis Date 1/8/10-1/9/10

Lab ID#'s in Batch: 247425, 247427, 247578.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD	
TPH	8015M-G	ND	500	419	423	84	85	1	

ND = Not Detected

LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	91
LCS	105
LCSD	104

BFB = p-Bromofluorobenzene

%REC LIMITS = 70 - 130 RPD LIMITS = 30

QA / QC EPA Methods 8260 - GCMS # 5

Sample ID: *MS/MSD Water Sample* 247547-841 Date Prepared: January 8, 2010 Date Analyzed: 1/8-1/9/10 Sample Matrix: Water Units: µg/L

Lab ID#'s in Batch: 247462, 245942, 247361, 247547, 247355, 247427, 247303, 247425

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	52.00	50.30	104	101	3	22	59 - 172
мтве	0.00	50.0	48.60	48.30	97	97	1	24	62 - 137
Benzene	0.00	50.0	47.80	46.60	96	93	3	24	62 - 137
Trichloroethene	0.00	50.0	49.90	46.10	100	92	8	21	66 - 142
Toluene	0.00	50.0	48.80	47.70	98	95	2	21	59 - 139
Chlorobenzene	0.00	50.0	47.30	46.50	95	93	2	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	49.60	99	59 - 172
МТВЕ	50.0	51.60	103	62 - 137
Benzene	50.0	47.10	94	62 - 137
Trichloroethene	50.0	50.10	100	66 - 142
Toluene	50.0	48.80	98	59 - 139
Chlorobenzene	50.0	48.00	96	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoromethane	93	95	105	107	106	70 - 135
1,2-Dichloroethane-d4	121	122	105	108	107	70 - 135
Toluene-d8	101	100	100	97	99	70 - 135
p-Bromofluorobenzene	100	105	99	98	99	70 - 135

8260 MSD-LCS 0108 W1.xls

QA / QC EPA Methods 8260 - GCMS # 5

Sample ID: *MS/MSD Water Sample* 247495-649 Date Prepared: January 7, 2010 Date Analyzed: 1/7-1/8/10 Sample Matrix: Water Units: μg/L

Lab ID#'s in Batch: 247404, 247265, 247316, 247303, 245942, 247406, 247405, 247495, 247427

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	51.90	50.10	104	100	4	22	59 - 172
МТВЕ	0.00	50.0	51.00	50.40	102	101	1	24	62 - 137
Benzene	0.00	50.0	49.80	48.30	100	97	3	24	62 - 137
Trichloroethene	0.00	50.0	51.50	49.10	103	98	5	21	66 - 142
Toluene	0.00	50.0	50.90	49.10	102	98	4	21	59 - 139
Chlorobenzene	0.00	50.0	50.00	48.00	100	96	4	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	49.90	100	59 - 172
МТВЕ	50.0	46.60	93	62 - 137
Benzene	50.0	46.90	94	62 - 137
Trichloroethene	50.0	46.80	94	66 - 142
Toluene	50.0	48.80	98	59 - 139
Chlorobenzene	50.0	47.90	96	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoromethane	91	119	107	104	104	70 - 135
1,2-Dichloroethane-d4	114	105	110	103	103	70 - 135
Toluene-d8	102	91	102	99	100	70 - 135
p-Bromofluorobenzene	102	93	100	97	102	70 - 135

Chain of Custody Record Edition inc. 3028 Rev et 2 Tusin, C42780 Book The Relativity + * Orange, CA 92888 Phone: (714) 734-9137 Lab. No. Book The Relativity + * Orange, CA 92888 Phone: (714) 734-9137 Lab. No. Phone: (714) 734-9137 Lab. No. Phone: (714) 734-9137 Lab. No. Phone: (714) 734-9137 Lab. No. Phone: (714) 734-9138 Lab. No. Pho											Ĺ	AS	SO	CIA	TEI	DL	AB	ORATORIES 7
3002 BW, #142 Phone (714) 734-9137 AL. Joh NA V/1/V/2/ open Name NOEL SHENOI Fax (714) 734-9138 Analysis Requested Test Instructions & Commen gent Name PACLE GAS STATION Felorit # Grow 1 Test Instructions & Commen gent Name OAKLAND, CA Oot 1 Test Instructions & Commen Test Instructions & Commen sample ID Lab ID Date Time Math Container Press. E Set Instructions & Commen Sample ID Lab ID Date Time Math Container Press. E Set Instructions & Commen TS - A 1/1/10 (Sob U 2. VOA H	Chain of C	Custody F	Record								8 F	806 1 Phon 1	Nort ne: (1	h Ba 714)	tavia 771-0	t = 0. 5900	rang I	ge, CA 92868 Fax: (714) 538-1209
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Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator



FAX 714/538-1209

CLIENT	Calclean	(9977)	LAB REQUES	ST 247637
	ATTN: Noel Shenoi			
	3002 Dow Ave. #142		REPORTED	01/13/2010
	Tustin, CA 92780		RECEIVED	01/11/2010
PROJECT	Γ EAGLE GAS STATION OAKLAND, CA			
SUBMIT	TER Client			

COMMENTS Global ID: T0600143649

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u> 1049143 1049144 Client Sample Identification TOTAL INLET D-11

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, Edu ato S. Behare, F Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING Chemical Microbiological Environmental Client: Calclean Client Sample ID: TOTAL INLET

Order #: 1049143 Matrix: AIR Date Sampled: 01/10/2010 Time Sampled: 15:10 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8021B BTEX/MTBE in Air - (Vppm & ug/L)					
	1				

Benzene	3.5	10	0.1	Vppm	01/12/10	SW
Ethyl benzene	12	10	0.1	Vppm	01/12/10	SW
Methyl t - butyl ether	76	25	2.5	Vppm	01/12/10	SW
Toluene	37	10	0.1	Vppm	01/12/10	SW
Xylene (total)	29	10	0.3	Vppm	01/12/10	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	803	10	50.0	Vppm	01/12/10 S
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1049144	Client: Calclean
Matrix: AIR	Client Sample ID: D-11
Date Sampled: 01/10/2010	
Time Sampled: 15:40	
Sampled By:	

Analyte Result DF DLR Units Date/Analyst 8021B BTEX/MTBE in Air - (Vppm & ug/L) 2.8 Benzene 10 0.1 Vppm 01/12/10 SW Ethyl benzene 6.2 10 0.1 Vppm 01/12/10 SW Methyl t - butyl ether 111 50 5.0 Vppm 01/12/10 SW Toluene 14 10 0.1 Vppm 01/12/10 SW Xylene (total) 15 10 0.3 Vppm 01/12/10

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	 397	10	50.0	Vppm	01/12/10	SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



SW

ASSOCIATED LABORATORIES

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



Chain of Custody Record

CalClean Inc.	
3002 Dow, #142	

Co	ompany	3002 Dow, #142 Tustin, CA 9278	0		Phone	(714) 734-	9137] A.L.	Job Ni	O.						20	+7637
Pr	oject Manager	NOEL SHE	ENOI	<u> </u>	Fax	(714) 734-	9138		* .	An	alys	sis Re	ques	ted		-	Test Instructions & Comments
Pr Sit an Ad	oject Name le Name d <u>6</u> Idress	AKLANS	AS STAT	ION	Project			3 (8015)	ITBE (8021)		(Anoza) er					· –	
	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-(BTEX/N								
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Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator



FAX 714/538-1209

CLIENT	Calclean ATTN: Noel Shenoi	(9977)	9977) LAB REQUEST	
	3002 Dow Ave.		REPORTED	01/18/2010
	$\frac{\#142}{1}$		PECEIVED	01/11/2010
			RECEIVED	01/11/2010
PROJECT	Eagle Gas Station Oakland, CA			
SUBMIT	TER Client			

COMMENTS Global ID: T0600143649

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1049158	MW-8
1049159	IS-1
1049160	IS-4
1049161	IS-5
1049162	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by, Edward S. Behare, Ph.D. Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING Chemical Microbiological Environmental

Lab request 247641 cover, page 1 of 1

Order #: 1049158 Matrix: WATER Date Sampled: 01/10/2010 Time Sampled: 16:00 Sampled By:

Analyte	Res	sult DF	DLR	Units	Date/Analyst

8260B BTEX/MTBE

_							
-	Benzene	ND	1000	1000.0	ug/L	01/12/10	RP
	Ethyl benzene	ND	1000	5000.0	ug/L	01/12/10	RP
_	Methyl-tert-butylether (MTBE)	7660	1000	1000.0	ug/L	01/12/10	RP
-	Toluene	ND	1000	5000.0	ug/L	01/12/10	RP
-	Xylenes, total	ND	1000	5000.0	ug/L	01/12/10	RP
_	Di-isopropyl ether (DIPE)	ND	1000	1000.0	ug/L	01/12/10	RP
	Ethyl-tertbutylether (ETBE)	ND	1000	1000.0	ug/L	01/12/10	RP
	Tert-amylmethylether (TAME)	ND	1000	1000.0	ug/L	01/12/10	RP
-	Tertiary butyl alcohol (TBA)	162000	1000	10000.0	ug/L	01/12/10	RP
Surr	urrogates				Units	Control 3	Limits
	Surr1 - Dibromofluoromethane	105			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	107			%	70 - 135	
_	Surr3 - Toluene-d8	101			%	70 - 135	
	Surr4 - p-Bromofluorobenzene	112			%	70 - 135	

8015B - Gasoline

Gasoline	4990	50	2500.0	ug/L	01/12/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	88			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1049159 Matrix: WATER Date Sampled: 01/10/2010 Time Sampled: 16:05 Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B BTEX/MTBE						
Benzene	12	10	10.0	ug/L	01/12/10 RP	-
Ethyl benzene	ND ND	10	50.0	ug/L	01/12/10 RP	
Methyl-tert-butylether (MTBE)	249	10	10.0	ug/L	01/12/10 RP	
Toluene	ND	10	50.0	ug/L	01/12/10 RP	
Xylenes, total	ND	10	50.0	ug/L	01/12/10 RP	
Di-isopropyl ether (DIPE)	ND	10	10.0	ug/L	01/12/10 RP	
Ethyl-tertbutylether (ETBE)	ND	10	10.0	ug/L	01/12/10 RP	
Tert-amylmethylether (TAME)	ND	10	10.0	ug/L	01/12/10 RP	

Client: Calclean

Client Sample ID: IS-1

	Tert-amylmethylether (TAME)		ND	10	10.0	ug/L	01/12/10 RP
-	Tertiary butyl alcohol (TBA)		27100	100	1000.0	ug/L	01/14/10 RP
Surr	ogates	6 ,				Units	Control Limits
-	Surr1 - Dibromofluoromethane		105			%	70 - 135
	Surr2 - 1,2-Dichloroethane-d4		104			%	70 - 135
	Surr3 - Toluene-d8		95			%	70 - 135
-	Surr4 - p-Bromofluorobenzene		108			%	70 - 135

8015B - Gasoline

Gasoline	433	5	250.0	ug/L	01/13/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	104			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



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Client: Calclean Client Sample ID: IS-4

Order #: 1049160 Matrix: WATER Date Sampled: 01/10/2010 Time Sampled: 16:10 Sampled By:

	Analyte	Resul	t DI	F DLR	Units	Date/An	alyst
<u>82601</u>	<u>3 BTEX/MTBE</u>						
	Benzene	l ne	20	0 200.0	ug/L	01/12/10	RP
	Ethyl benzene	NI	20	0 1000.0	ug/L	01/12/10	RP
	Methyl-tert-butylether (MTBE)	69	/ 20	0 200.0	ug/L	01/12/10	RP
	Toluene	NI NI	20	0 1000.0	ug/L	01/12/10	RP
	Xylenes, total	NE	20	0 1000.0	ug/L	01/12/10	RP

,

_	Di-isopropyl ether (DIPE)	ND	200	200.0	ug/L	01/12/10 RP
	Ethyl-tertbutylether (ETBE)	ND	200	200.0	ug/L	01/12/10 RP
	Tert-amylmethylether (TAME)	ND	200	200.0	ug/L	01/12/10 RP
_	Tertiary butyl alcohol (TBA)	153000	200	2000.0	ug/L	01/12/10 RP
Surr	ogates				Units	Control Limits
-	Surr1 - Dibromofluoromethane	102			%	70 - 135
	Surr2 - 1,2-Dichloroethane-d4	109			%	70 - 135
_	Surr3 - Toluene-d8	102			%	70 - 135
	Surr4 - p-Bromofluorobenzene	109			%	70 - 135

8015B - Gasoline

Gasoline	3990	10	500.0	ug/L	01/12/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	102			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Analyte	Result	DF	DLR	Units	Date/Analyst	

Client: Calclean

Client Sample ID: 1S-5

8260B BTEX/MTBE

-							
_	Benzene	1450	100	100.0	ug/L	01/14/10	RP
	Ethyl benzene	3880	100	500.0	ug/L	01/14/10	RP
_	Methyl-tert-butylether (MTBE)	4490	100	100.0	ug/L	01/14/10	RP
-	Toluene	ND	100	500.0	ug/L	01/14/10	RP
-	Xylenes, total	3890	100	500.0	ug/L	01/14/10	RP
_	Di-isopropyl ether (DIPE)	ND	100	100.0	ug/L	01/14/10	RP
_	Ethyl-tertbutylether (ETBE)	ND	100	100.0	ug/L	01/14/10	RP
_	Tert-amylmethylether (TAME)	168	100	100.0	ug/L	01/14/10	RP
-	Tertiary butyl alcohol (TBA)	158000	100	1000.0	ug/L	01/14/10	RP
Surr	ogates				Units	Control 1	Limits
	Surr1 - Dibromofluoromethane	110			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	110			%	70 - 135	
_	Surr3 - Toluene-d8	101			%	70 - 135	
	Surr4 - p-Bromofluorobenzene	112			%	70 - 135	
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8015B - Gasoline

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Gasoline	33300	50	2500.0	ug/L	01/12/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	106			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

Order #: 1049162
Matrix: WATER
Date Sampled:
Time Sampled:
Sampled By:

Client:	Calclean	1		
Client Sa	mple ID:	Laboratory	Method	Blank

Analyte Result DF DLR Units Date/Analyst

8260B BTEX/MTBE

-							
_	Benzene	ND	1	1	ug/L	01/12/10	RP
_	Ethyl benzene	ND	1	5	ug/L	01/12/10	RP
-	Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	01/12/10	RP
-	Toluene	ND	1	5	ug/L	01/12/10	RP
_	Xylenes, total	ND	1	5	ug/L	01/12/10	RP
	Di-isopropyl ether (DIPE)	ND	1	1.0	ug/L	01/12/10	RP
_	Ethyl-tertbutylether (ETBE)	ND	1	1.0	ug/L	01/12/10	RP
-	Tert-amylmethylether (TAME)	ND	1	1.0	ug/L	01/12/10	RP
-	Tertiary butyl alcohol (TBA)	ND	1	10	ug/L	01/12/10 R 01/12/10 R Control Lir 70 - 135 70 - 135 70 - 135	RP
Surr	ogates				Units	Control]	Limits
_	Surr1 - Dibromofluoromethane	98			%	70 - 135	
	Surr2 - 1,2-Dichloroethane-d4	104			%	.70 - 135	
_	Surr3 - Toluene-d8	102			%	70 - 135	
	Surr4 - p-Bromofluorobenzene	114			%	70 - 135	

8015B - Gasoline

Gasoline	ND	1	50	ug/L	01/12/10 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	92			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES

ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: January 12, 2010

Analysis Date 1/12/10-1/13/10

Lab ID#'s in Batch: 247603, 247641, 247642, 247652.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	403	426	81	85	6

ND = Not Detected LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

%REC LIMITS = 70 - 130 RPD LIMITS = 30

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	92
LCS	107
LCSD	109

BFB = p-Bromofluorobenzene

ASSOCIATED LABORATORIES LCS REPORT FORM

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: January 12, 2010

Analysis Date 1/12/10-1/13/10

Lab ID#'s in Batch: 247603, 247641, 247642, 247652.

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = $\mu g/L$

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	403	426	81	85	6

ND = Not Detected LCS Result = Lab Control Sample Result %REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	92
LCS	107
LCSD	109

BFB = p-Bromofluorobenzene

%REC LIMITS = 70 - 130 RPD LIMITS = 30

QA / QC EPA Methods 8260 - GCMS # 3

Sample ID: *MS/MSD Water Sample* 247642-163 Date Prepared: January 12, 2010 Date Analyzed: 1/12-1/13/10 Sample Matrix: Water Units: µg/L

Lab ID#'s in Batch: 247642, 247608, 247589, 247641, 247676

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	49.50	51.90	99	104	5	22	59 - 172
МТВЕ	0.00	50.0	48.70	55.40	97	111	13	24	62 - 137
Benzene	0.00	50.0	48.10	52.20	96	104	8	24	62 - 137
Trichloroethene	0.00	50.0	46.10	44.90	92	90	3	21	66 - 142
Toluene	0.00	50.0	48.60	48.90	97	98	1	21	59 - 139
Chlorobenzene	0.00	50.0	46.30	47.90	93	96	3	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	47.40	95	59 - 172
МТВЕ	50.0	51.70	103	62 - 137
Benzene	50.0	49.80	100	62 - 137
Trichloroethene	50.0	40.60	81	66 - 142
Toluene	50.0	45.30	91	59 - 139
Chlorobenzene	50.0	44.20	88	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

Compound	MB 1 % Rec	MB 2 % Rec	MS % Rec	MSD % Rec	LCS % Rec	Limits % Rec
Dibromofluoromethane	98	102	100	105	101	70 - 135
1,2-Dichloroethane-d4	104	108	103	103	103	70 - 135
Toluene-d8	102	101	99	93	94	70 - 135
p-Bromofluorobenzene	114	102	107	107	112	70 - 135

QA / QC EPA Methods 8260 - GCMS # 3

Sample ID: *MS/MSD Water Sample* 247714-495 Date Prepared: January 13, 2010 Date Analyzed: 1/13-1/14/10 Sample Matrix: Water Units: µg/L

Lab ID#'s in Batch: 247714, 247641, 247715

Compound	Sample Conc.	Spike Added	Spike Res	Dup Res	Spike % Rec	Dup % Rec	RPD	QC RPD	Limits % Rec
1,1-Dichloroethene	0.00	50.0	50.60	51.30	101	103	1	22	59 - 172
МТВЕ	0.00	50.0	51.30	53.30	103	107	4	24	62 - 137
Benzene	0.00	50.0	51.40	55.70	103	111	8	24	62 - 137
Trichloroethene	0.00	50.0	47.40	41.60	95	83	13	21	66 - 142
Toluene	0.00	50.0	49.20	46.40	98	93	6	21	59 - 139
Chlorobenzene	0.00	50.0	47.60	45.80	95	92	4	21	60 - 133

Sample ID: LCS

Compound	Spike Added	Spike Res	Spike % Rec	Limits % Rec
1,1-Dichloroethene	50.0	46.40	93	59 - 172
МТВЕ	50.0	46.60	93	62 - 137
Benzene	50.0	45.20	90	62 - 137
Trichloroethene	50.0	44.70	89	66 - 142
Toluene	50.0	49.00	98	59 - 139
Chlorobenzene	50.0	47.20	94	60 - 133

*=Outside QC limits due to high concentration in sample

If Sample Result > 4 times Spike Added, then "NC"

Surrogate Recovery

	MB 1	MB 2	MS	MSD	LCS	Limits
Compound	% Rec					
Dibromofluoromethane	105	109	104	108	95	70 - 135
1,2-Dichloroethane-d4	105	109	104	106	91	70 - 135
Toluene-d8	98	105	100	91	98	70 - 135
p-Bromofluorobenzene	112	109	106	103	102	70 - 135

806 North Batavia = Orange, CA 92868 Phone: (714) 771-6900 = Fax: (714) 538-1209



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CalClean Inc.	-	
3002 Dow, #14	42	

Company	3002 Dow, # Tustin, CA 92	#142 2780	<u>.</u>		Phone	(714)	734-91	137	A.L.	Job No							247641 Page of
Project Manager NOEL SHENOI				Fax	(714)	734-9	Analysis Requested						d	-	Test Instructions & Comments		
Project Name EAGLE GAS STATION Project #					2	দ্ধি	ĺ	(g)									
Site Name and OAKLAND, CA Address						G (801	MTBE (9	740/ 3AA	070) 61 V			, .					
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Received in Good Condition (Y) N Samples Accepted (Y) N				Date: (Time:	ime: Date:			Time:				Date: Time:				
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Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

APPENDIX E



Jimmy Ho <jimho.ier@gmail.com>

Notice for Interim Remedial Action/Pilot Test for the Eagle Gas Station (4301 San Leandro St., Oakland, Case # RO096)

2 messages

Jimmy Ho <jimho.ier@gmail.com> To: Jerry.Wickham@acgov.org

Tue, Dec 1, 2009 at 11:40 AM

Hello Jerry:

I would like to let you know that the IRA/Pilot Test accepted in your October 2, 2009 letter is tentatively scheduled to begin on December 7, 2009, pending the discharge permit from the East Bay MUD.

I also would like to let you know that ERS has been terminated by Mr. Jamil. The termination letter is attached herein. A hard copy of the letter will be mailed tomorrow. I am with Innovative Environmental Remediation, Inc. Please use this e-mail address and address/phone number shown on the letter for our future correspondence. Thanks you so much for working with me on this site closure project.

Best regards,

Jim

Jamil letter to ERS.pdf 421K

Jimmy Ho <jimho.ier@gmail.com> To: raheel400@hotmail.com, Thamilcat@yahoo.com Tue, Dec 1, 2009 at 12:18 PM

Hi Mr. Jamil, Shan:

I have informed Jerry of ACEH (see e-mail below) for the interim remedial action scheduled on December 7. It will last for 30 days. A slow period was selected based on Shan's suggestion. The owner of CalClean, the equipment contractor for the High Vacuum Dual Phase Extraction system, had met with me at the station in September to plan on the siting of the equipment so that business interference can be minimized.

I mailed you a contract that you requested last month when we met. Please sign and ask your daughter to sigh as well on both of them and mail one back to me. Please also sign a RR form for my future use. Thanks a lot.

Shan:

Could you please ask the gasoline suppliers to use a truck WITHOUT AN ATTACHED TRAILER to transport gasoline to the station between Dec. 7 through Jan. 7. This will greatly reduce the shut down of the equipment and maximize the system operation period. If you also can clearup the space by asking people staying away from the high vacuum system, that will be very helpful. If you have questions, please call me at my cell (925) 708-8387. We all like to get the site cleanup done as soon and as complete as possible. Thank you so much for your assitance and patience.

Best regards.

Jim
APPENDIX F



DAVID R. WILLIAMS DIRECTOR OF WASTEWATER

December 3, 2009

C E R T I F I E D M A I L (Return Receipt Requested) Certified Mail No. 7005 2570 0000 6629 6241

Mr. Noel Shenoi CalClean Inc. 3002 Dow Ave, #142 Tustin, CA 92780

Dear Mr. Shenoi:

Re: Wastewater Discharge Permit No. 5058668 2 Discharge Location: 4301 San Leandro Street, Oakland, CA

Enclosed is the CalClean Inc. Special Discharge Permit (Permit), effective December 7, 2009 through December 6, 2010, for your information and records. Please read the Permit terms and conditions and the enclosed *Special Discharge Permit Standard Terms and Conditions*, June 2009 Edition. As a Permit Holder, you are legally responsible for complying with all Permit conditions and requirements.

CalClean Inc. shall report to the Environmental Services Division any changes, permanent or temporary, to the premises or operations that significantly affect the quality or volume of the permitted discharge or deviate from the terms and conditions under which the Permit was granted.

If you have any questions regarding this Permit, please contact Molly Ong of the Environmental Services Division at (510) 287-1618.

Sincerely,

BENNETT K. HORENSTEIN Manager of Environmental Services

BKH:MKO:mko

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Enclosures

P.O. BOX 24055 . OAKLAND . CA 94623-1055 . (510) 287-1405

RECEIVED

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NOV 92	309 SPECIAL DISCHARGE PERMIT
EBMUD PERMIT NUMBER 505866	$\frac{82}{2}$ APPLICANT FORM
APPLICANT BUSINESS NAME	SIC CODE
CALCLEAN INC	4950
ADDRESS OF SITE DISCHARGING WASTEWATER	APPLICANT MAILING ADDRESS
4301 SAN LEANDRO ST. STREET ADDRESS	3002 DOW AVE #142 STREET ADDRESS
OAKLAND, CA 94601 CITY ZIP CODE	TUSTIN CA 92780 CITY ZIP CODE
CONTACT PERSONS APPLICANT	
NOEZ SHENOI PR	ESIDENT (714)936-2706 PHONE NUMBER
Consultant	
NAME TITL	E PHONE NUMBER
CONTRACTOR	
Deme	
NAME TITL	E PHONE NUMBER
Certif	ICATION
I understand that issuance of a Special Discharge Permit de Discharge Minimization or Pollution Prevention Permit.	pes not exempt or preclude the facility from being issued a
I understand that I am legally responsible for discharge of v Terms and Conditions of this Special Discharge Permit.	vastewater from the facility and for complying with the
I certify under penalty of law that this document and all atta in accordance with a system designed to assure that the qua information submitted. Based on my inquiry of the person of responsible for gathering information, the information subm accurate, and complete. I am aware that there are significal possibility of fine and imprisonment for knowing violations.	ichments were prepared under my direction or supervision lified personnel properly gather and evaluate the r persons who manage the system, or those persons directly uitted is, to the best of my knowledge and belief, true, nt penalties for submitting false information, including the
NOEL SHENOI	PRESIDENT
VollShene	11/5/09

DATE

SIGNATURE (SEE CERTIFICATION REQUIREMENTS ON INSTRUCTIONS)

e



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SPECIAL DISCHARGE PERMIT

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EBMUD PE	RMIT NUMBER	505 8	6682	APPLICANT FORM
Purpose : This informate each statement that apple	tion demonstrates the ies and supply requir	wastewater r ed informatic	neets establishe on.	ed criteria for a Special Discharge Permit. Check
Reasonable and cos describing what mea APROX 100-	t effective means of r ans were considered, 300 GPD WW	and why they	reuse of the way were not impl	emented. NOUR PROCESS, THE BALANCE
The wastewater is u T = wc = p A = SMA	nsuitable for dischar COST OVE L PROSECT	ge to the store	m sewer. Provi	ide explanation. AN NPDES PERMIT FOR
The wastewater is g <u>A301</u> The wastewater mee Wastewater Source WATER WE DUPING	enerated only within SAN LEAR ts source criteria. D Category from Speci NL BE GE SITE RB	the SD-1 was JDRO Sescribe the sc al Discharge I NERATE MEDIATI	tewater service ST OA' purce and opera Permit Standard DFR	e area. Provide location. KLAND tions generating the wastewater. Include the d Terms and Conditions, Section A, II. KGW EXTRATON
 The wastewater is dia Maximum Discle Wastewater volume Total Discharge 	ischarged during a linarge Duration: 34 and flow will not exc Volume: MAKAWA	mited period days S eed 100 gals/ gallons	of time. Start Date: 12 minute. MAX	3/09 Hours of Discharge: 24 HRS/DAY
Discharge to the sar year rain event (3.16 The side sewer throw local permits to use the Attach a site dia sewer, and same	itary sewer during a inches of rainfall in TANKS W ugh which the wastew nanholes or cleanout gram. Show facility ling location	rain even ma a 24-hour per the second second s for discharge location, prop	ty be prohibited riod). KEPT of arged has been ge. perty lines, was	d. Describe containment capacity during a 10- <u>NS ITE FOR TEMP STORAGE</u> <i>identified</i> . Applicant is responsible for obtaining tewater source, drainage plumbing, the side
Known and potential Attach a summar certified laborate	<i>pollutants present is</i> rized list of all pollut bry analytical report.	n the wastewa ant concentra	<i>iter are characi</i> tions present in	terized. the wastewater. Also include the complete
Treatment technolog discharge limits, and	y or best managemen sediment or silt doe	nt practices he s not enter co	ave been identij llection system.	fied that will result in the wastewater meeting
l) Describe pretr complies with שני	eatment or best man Ordinance No. 311 らい、一アロンハコ	A-03 wastewa	tices that will b ater discharge li ッピろいてい	e used to ensure the wastewater discharge imits or permit-specific limits as necessary.
(2) Attach a scher pretreatment s system modif	natic flow diagram o system as constructed ications are approved	f the pretreatu l. Field devia l and the pern	ment system. T ation from the d nit revised prior	The diagram must accurately depict the liagram is not allowed, unless pretreatment r to the discharge.



al Clean Inc. 50586682



Still Vessel O. - Prailer

Cal Wean Inc 28998505



When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.



Callean Inc. 5 0586682

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GENERAL CONDITIONS

- I. CalClean Inc. shall comply with all items of the *EBMUD Special Discharge Permit Standard Terms and Conditions*, most recent edition.
- II. CalClean Inc. shall discharge Special Discharge Wastewater only from the specific source described in the *Special Discharge Permit Terms & Conditions, Criteria and Fees* form. The discharge of all other wastewater must comply with *EBMUD Ordinance No. 311A-03*.
- III. CalClean Inc. shall immediately cease discharge of treated or managed Special Discharge Wastewater if not in compliance with any of the terms and conditions of this Special Discharge Permit.
- IV. CalClean Inc. shall comply with *EBMUD Ordinance No. 311A-03*, Title I, Section 5, which prohibits the discharge of storm water, drainage water, and groundwater to the community sewer.
 - ☑ This Special Discharge Permit is considered a waiver of the prohibition.
- V. CalClean Inc. shall comply with *EBMUD Ordinance No. 311A-03*, Title II, Section 2d, which prohibits discharge of wastewater directly into a manhole or other opening into the community sewer system.
 Image: This Special Discharge Permit is considered a waiver of the prohibition.
- VI. CalClean Inc. shall not discharge Special Discharge Wastewater authorized by this Special Discharge Permit after the expiration date.
- VII. CalClean Inc. shall obtain permission from applicable city agencies to discharge Special Discharge Wastewater to the community sewer.

COMPLIANCE REQUIREMENTS

- I. CalClean Inc. shall pretreat or manage all Special Discharge Wastewater prior to discharge to the community sewer. Pretreatment or management shall be sufficient to achieve compliance with the established Special Discharge Permit limits.
- II. CalClean Inc. shall post a sign in the work area stating "All Wastewater Discharge must comply with the Special Discharge Permit."
- III. CalClean Inc. shall not discharge wastewater to the community sewer within 24 hours of any storm event. A storm event is defined as "any precipitation heavier than a drizzle."
- IV. CalClean Inc. shall not exceed a discharge flow rate of 100 gallons/minute.

REPORTING REQUIREMENTS

CalClean Inc. shall submit a technical report on a bimonthly basis throughout the entire discharge period. The report shall include:

- Bi-monthly Self-Monitoring sample data for Total Identifiable Chlorinated Hydrocarbon (Volatile Organics), EPA Method 624, or 8260B. Sample point is the effluent from the final carbon vessel, just prior to entering the sanitary sewer.
- A bimonthly meter reading, including the total volume of Special Discharge Wastewater discharged to the sanitary sewer during the two month reporting period. The report shall include if applicable the total volume of Special Discharge Wastewater discharged from onsite baker tanks to the sanitary sewer.
- The total volume of Special Discharge Wastewater discharged to the sanitary sewer to date.
- The authorized signature and certification statement.

The report is due bimonthly by the last day of the second month. The first report is **due February 8, 2010**. The report shall be submitted to EBMUD staff through United States Postal Service or facsimile at (510) 287-0621.



WASTEWATER DISCHARGE LIMITS

CalClean Inc. shall not discharge Special Discharge Wastewater into the community sewer if the strength of the wastewater exceeds:

EBMUD Ordinance No. 311A-03 Wastewater Discharge Limits

INSPECTIONS

The District may conduct random, unannounced inspections to verify compliance with the terms and conditions of this Special Discharge Permit. CalClean Inc. shall grant District personnel access to the facility to conduct inspections and collect Special Discharge Wastewater samples.

ENFORCEMENT AND PENALTIES

Failure to comply with the terms and conditions of this Special Discharge Permit and Special Discharge Permit Standard Terms and Conditions, most recent edition, may result in enforcement actions, including violation follow-up fees, civil enforcement penalties, and administrative fines of up to \$5,000 per day.

RATES AND CHARGES

This Special Discharge Permit may be amended to include changes to rates and charges that may be established by the District during the term of this Special Discharge Permit.

CalClean Inc. shall be assessed the current wastewater treatment rate of \$0.02 per gallon. The wastewater treatment charges shall be based on the volumes reported in the bimonthly technical reports. A Permit application fee of \$945 shall also be assessed.

AUTHORIZATION

CalClean Inc. is hereby authorized to discharge Special Discharge Wastewater to the community sewer, subject to compliance with EBMUD Ordinance No. 311A-03, Special Discharge Permit Terms and Conditions, and billing conditions.

Effective: December 7, 2009

Expiration: December 6, 2010

and R Williams

Director, Wastewater Department

12/9/09

Date





Plant# 12568

Noel Shenoi Calclean Inc Page:

Expires: OCT 1, 2010

This document does not permit the holder to violate any District regulation or other law.

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ORIGINAL SENT TO:

Calclean Inc 151 Southgate Avenue Daly City, CA 94015

3002 Dow Ave, Suite 142 Tustin, CA 92680

Location: 151 Southgate Avenue Daly City, CA 94015

S# DESCRIPTION [Schedule] PAID ----1 CHEM> Contaminated soil remediation, Contaminated soil vapor 1008 Portable Vapor Extraction System [G1] Abated by: A1 Afterburner 2 CHEM> Contaminated soil remediation, Contaminated soil vapor 1008 Portable Vapor Extraction System [G1] Abated by: A2 Afterburner CHEM> Contaminated soil remediation, Contaminated soil vapor 3 1008 Portable Soil Vapor Extraction System [G1] Abated by: A3 Furnace-Firebox 3 Permit Sources, 0 Exempt Sources *** See attached Permit Conditions ***

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.





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Expires: OCT 1, 2010

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*** PERMIT CONDITIONS ***

Source#	1	subject	to	Condition	ID#	17354
Source#	2	subject	to	Condition	ID#	19779
Source#	3	subject	to	Condition	ID#	22646





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Expires: OCT 1, 2010

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*** PERMIT CONDITIONS ***

COND# 17354 applies to S# 1

Application 16676; Plant 12568: Source S-1, Portable Soil Vapor Extraction System

- The operator of this source shall notify the District at least 3 days prior to start-up of operation at any new location. The notification shall include:
 - a. Application Number (16676 & 1138) and Plant Number (12568)
 - b. Street address, including zip code, for the location where the equipment will be operated.
 - c. The name and telephone number of a contact person where the equipment will be operated.
 - d. The date of initial start-up and estimated duration of operations at that location.
 - e. The distance from the source to the outer boundary of the nearest K-12 school, or indication that the distance is greater than 1500 feet.

In the event that the start-up is delayed less than 5 days, the operator may provide telephone notice of said change to the assigned Plant Engineer in the Permit Services Division. If the start-up is delayed more than 5 days, written notification must be resubmitted.

- 2. This equipment shall not remain at any single location for a period in excess of 12 consecutive months, following the date of initial operation except as allowed under Section 2-1-220.10. If this portable equipment remains at any fixed location for more than 12 months, the portable permit will automatically revert to a conventional permanent location permit and will lose its portability. [Basis: Regulation 2-1-220.2]
- 3. This portable equipment, S-1, shall operate at all times in conformance with the eligibility requirements set forth in Regulation 2-1-220 for portable equipment.
- 4. This equipment is not to be operated within 1000 feet of the outer boundary of any K-12 school without specific authorization. Such operation will require the submittal of an application for a revised permit to operate so that the applicable requirements of the California Health and Safety Code Section 42301.6 may be met. These



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OPERATE

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*** PERMIT CONDITIONS ***

notification requirements have been satisfied for operation at the 2499 Chestnut Street in Oakland, California 94607. [Basis: Regulation 2-1-220.4]

5. This equipment shall be used exclusively for the removal of non-chlorinated volatile organic compounds associated with petroleum products from extracted soil vapor. This shall be demonstrated by onsite sampling required in condition 10 below.

6. Precursor Organic Compound (POC) emissions from Source S -1 shall be abated by Abatement device A-1, Dual-mode oxidizer, during all periods of operation. Soil vapor flow rate shall not exceed 500 scfm. [Basis: Regulation 8-47-301.1,2]

- 7. The POC abatement efficiency of abatement device A-1 shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as hexane). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, a minimum abatement efficiency of 97% shall be maintained. For inlet concentrations below 200 ppmv, a minimum abatement efficiency of 90% shall be maintained. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as hexane). In no event shall benzene emissions to the atmosphere exceed 0.250 pounds per day. Annual emissions of benzene shall not exceed 6.40 pounds per year.
- 8. While operating as a thermal oxidizer, the minimum operating temperature of A-1 shall not be less than 1400 degrees Fahrenheit. While operating as a catalytic oxidizer, the minimum operating temperature of A-1 shall not be less than 600 degrees Fahrenheit.
- 9. To determine compliance with Condition Number 8, the dual-mode oxidizer shall be equipped with continuous measuring and temperature recording instrumentation. The temperature data collected from the temperature recorder shall be maintained in a file which shall be available for District inspection for a period of at least 2 years following the date on which such data are recorded.



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PERMIT

OPERATE

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*** PERMIT CONDITIONS ***

- 10. To determine compliance with Condition 7, within 24 hours after start-up of the thermal/catalytic oxidizer at any new location, and within 24 hours of conversion from thermal to catalytic mode at an existing location, the operator of this source shall:
 - a. Analyze the inlet gas to determine the vapor flow rate and concentration of POC present.
 - b. Analyze exhaust gas to determine the flow rate, and the concentration of benzene and POC present.
 - c. Calculate the benzene emission rate in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The soil vapor flow rate shall be decreased, if necessary, to demonstrate compliance with Condition 7.
 - d. Calculate the POC abatement efficiency based on The inlet and outlet gas sampling analysis. For the purpose of determining compliance with condition 7, the POC concentration shall be reported as hexane.
 - e. Submit to the District's Permit Services Division the test results and emission calculations within one month from the testing date. Samples shall be analyzed according to modified EPA test methods 8015 and 8021 or their equivalent to determine the concentrations of POC and benzene.
- 11. Within 30 days from the completion of each treatment operation at a given location, the operator of this source shall provide the assigned Plant Engineer in the Permit Services Division with a summary showing the following information: a. The dates and total number of days that the equipment was at that location and the dates, and total number of days that the equipment was operated at that location. b. A summary of the abatement efficiency and benzene emission rate as determined and reported in the start-up sampling report required by condition 10e above. c. The results of any additionally performed emission test, analysis, or monitoring result logged in for the day of operation they were taken. d. The total throughput of contaminated soil vapor processed by S-1 at that location (indicated in cubic feet). e. The total emissions of benzene at that location based on the sampling results required by conditions 10 above (indicated in pounds).
- 12. Within 30 days after the end of every calendar year, the



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*** PERMIT CONDITIONS ***

operator of this source shall provide the assigned Plant Engineer in the Permit Services Division a year end summary showing the following information: a. The location(s) at which the equipment was operated including the dates operated at each location. b. The total throughput of contaminated soil vapor for the previous four quarters (indicated in cubic feet). c. The total benzene emissions for the previous four quarters (indicated in pounds). [Basis: Regulation 1-523]

- 13. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Permit to Operate. All measurements, records and data required to be maintained by the operator shall be retained for at least two years following the date the data is recorded. [Basis: Regulation 1-523]
- 14. Any non-compliance with these conditions shall be reported to the Compliance and Enforcement Division at the time that it is first discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well as the time of occurrence.

COND# 19779 applies to S# 2

1. The operator of this source shall notify the District at least 3 days prior to start-up of operation at any new location. The notification shall include:

a. Street address, including zip code, for the location where the equipment will be operated.
b. The name and telephone number of a contact person where the equipment will be operated.
c. The date of initial start-up and estimated duration of operations at that location.
d. The distance from the source to the



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*** PERMIT CONDITIONS ***

outer boundary of the nearest K-12 school, or indication that the distance is greater than 1500 feet.

In the event that the start-up is delayed less than 5 days, the operator may provide telephone notice of said change to the assigned Plant Engineer in the Permit Services Division. If the start-up is delayed more than 5 days, written notification must be resubmitted.

2. This equipment shall not remain at any single location for a period in excess of 12 consecutive months, following the date of initial operation except as allowed under Section 2-1-220.10. If this portable equipment remains at any fixed location for more than 12 months, the portable permit will automatically revert to a conventional permanent location permit and will lose its portability.

3. This portable equipment, S-2, shall operate at all times in conformance with the eligibility requirements set forth in Regulation 2-1-220 for portable equipment.

4. This equipment is not to be operated within 1000 feet of the outer boundary of any K-12 school. Such operation will require the submittal of an application for a revised permit to operate so that the applicable requirements of the California Health and Safety Code Section 42301.6 may be met.

5. This equipment shall be used exclusively for the removal of non-chlorinated volatile organic compounds associated with petroleum products from extracted soil vapor. This shall be demonstrated by onsite sampling required in condition 10 below.

6. Precursor Organic Compound (POC) emissions from Source S-2 shall be abated





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*** PERMIT CONDITIONS ***

by Abatement device A-2, Dual-mode oxidizer, during all periods of operation. Soil vapor flow rate shall not exceed 500 scfm.

7. The POC abatement efficiency of abatement device A-2 shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as C6). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, a minimum abatement efficiency of 97% shall be maintained. For inlet concentrations below 200 ppmv, a minimum abatement efficiency of 90% shall be maintained. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as C6). In no event shall benzene emissions to the atmosphere exceed 0.250 pounds per day. Annual emissions of benzene shall not exceed 6.70 pounds per year.

8. While operating as a thermal oxidizer, the minimum operating temperature of A-2 shall not be less than 1400 degrees Fahrenheit. While operating as a catalytic oxidizer, the minimum operating temperature of A-2 shall not be less than 600 degrees Farenheit.

9. To determine compliance with Condition Number 8, the dual-mode oxidizer shall be equipped with continuous measuring and temperature recording instrumentation. The temperature data collected from the temperature recorder shall be maintained in a file which shall be available for District inspection for a period of at least 2 years following the date on which such data are recorded.

10. To determine compliance with Condition 7, within 24 hours after start-up of the thermal/catalytic oxidizer at any new





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*** PERMIT CONDITIONS *** location, and within 24 hours of conversion from thermal to catalytic mode at an existing location, the operator of this source shall: Analyze the inlet gas to determine а. the vapor flow rate and concentration of POC present. b. Analyze exhaust gas to determine the flow rate, and the concentration of benzene and POC present. Calculate the benzene emission rate c. in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The soil vapor flow rate shall be decreased, if necessary, to demonstrate compliance with Condition 7. Calculate the POC abatement đ. efficiency based on the inlet and outlet gas sampling analysis. For the purpose of determining compliance with condition 7, the POC concentration shall be reported as hexane. Submit to the District's Permit е. Services Division the test results and emission calculations within one month from the testing date. Samples shall be analyzed according to modified EPA test methods 8015 and 8021 or their equivalent to determine the concentrations of POC and benzene. Within 30 days from the completion of each 11. treatment operation at a given location, the operator of this source shall provide the

assigned Plant Engineer in the Permit Services Division with a summary showing the following information: a. The dates and total number of days

that the equipment was at that location and the dates, and total number of days that the equipment



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*** PERMIT CONDITIONS ***

was operated at that location. b. A summary of the abatement efficiency and benzene emission rate as determined and reported in the start-up sampling report required by condition 10e above. The results of any additionally C. performed emission test, analysis, or monitoring result logged in for the day of operation they were taken. d. The total throughput of contaminated soil vapor processed by S-2 at that location (indicated in cubic feet). The total emissions of benzene at e. that location based on the sampling results required by conditions 10 above (indicated in pounds).

12. Within 30 days after the end of every calendar year, the operator of this source shall provide the assigned Plant Engineer in the Permit Services Division a year end summary showing the following information:

a. The location(s) at which the equipment was operated including the dates operated at each location.
b. The total throughput of contaminated soil vapor for the previous four quarters (indicated in cubic feet).
c. The total benzene emissions for the previous four quarters (indicated in previous for the previous four quarters (indicated in pounds).

13. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Permit to Operate. All measurements, records and data required to be maintained by the operator shall be retained for at least two years following the date the data is recorded.





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*** PERMIT CONDITIONS ***

14. Any non-compliance with these conditions shall be reported to the Compliance and Enforcement Division at the time that it is first discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well as the time of occurrence.

COND# 22646 applies to S# 3

- The operator of this source shall provide written notification to the Engineering Division at least 3 days prior to start-up of operation at any new location. The notification shall include:
 - a. Application Number (13287 & 16470) and Plant Number (12568).
 - b. Street address, including zip code, for the location where the equipment will be operated.
 - c. The name and telephone number of a contact person where the equipment will be operated.
 - d. The date of initial start-up and estimated duration of operations at that location.
 - e. The distance from the source to the outer boundary of the nearest K-12 school, or indication that the distance is greater than 1500 feet.

In the event that the start-up is delayed less than 5 days, the operator may provide telephone notice of said change to the assigned Plant Engineer in the Engineering Division. If the start-up is delayed more than 5 days, written notification must be resubmitted.

- 2. This equipment shall not remain at any single location for a period in excess of 12 consecutive months, following the date of initial operation except as allowed under Section 2-1-220.10. If this portable equipment remains at any fixed location for more than 12 months, the portable permit will automatically revert to a conventional permanent location permit and will lose its portability. [basis: Reg. 2-1-220.2]
- 3. This portable equipment, S-3, shall operate at all times in conformance with the eligibility requirements set forth in Regulation 2-1-220 for portable equipment.



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*** PERMIT CONDITIONS ***

- 4. This equipment is not to be operated within 1000 feet of the outer boundary of any K-12 school, unless the applicable requirements of the California Health and Safety Code Section 42301.6 have been met. This will require the submittal of an application for a revised permit to operate. These notification requirements have be satisfied for operation at 2500 Laurel Street in Napa, CA (94558). [basis: Reg. 2-1-220.4]
- 5. This equipment shall be used exclusively for the removal of non-chlorinated volatile organic compounds associated with petroleum products from extracted soil vapor. This shall be demonstrated by onsite sampling required in condition 10 below. [basis: Health Risk Management Policy]
- 6. Precursor Organic Compound (POC) emissions from S-3 shall be abated by abatement device A-3, thermal oxidizer during all periods of operation. Soil vapor flow rate shall not exceed 500 scfm. [basis: Reg. 8-47-301.1,2]
- 7. The POC abatement efficiency of abatement device A-3 shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as C6). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, a minimum abatement efficiency of 97% shall be maintained. For inlet concentrations below 200 ppmv, a minimum abatement efficiency shall be maintained. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as C6). In no event shall benzene emissions to the atmosphere exceed 0.250 pounds per day. Annual emissions of benzene shall not exceed 6.40 pounds per year. [basis: BACT; Health Risk Management Policy]
- At no time shall the minimum operating temperature of A-3 be less than 1400 degrees Fahrenheit.
- 9. To determine compliance with Condition Number 8, the thermal oxidizer shall be equipped with continuous measuring and temperature recording instrumentation. The temperature data collected from the temperature recorder shall be maintained in a file which shall be available





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*** PERMIT CONDITIONS ***

for District inspection for a period of at least 2 years following the date on which such data are recorded.

- 10. To determine compliance with Condition 7, within 24 hours after start-up of the thermal oxidizer at any new location, the operator of this source shall:
 - a. Analyze the inlet gas stream to determine the vapor flow rate and concentration of POC present.
 - b. Analyze exhaust gas to determine the flow rate, and the concentration of benzene and POC present.
 - c. Calculate the benzene emission rate in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The soil vapor flow rate shall be decreased, if necessary, to demonstrate compliance with Condition 7.
 - d. Calculate the POC abatement efficiency based on the inlet and exhaust gas sampling analysis. For the purpose of determining compliance with condition 7, the POC concentration shall be reported as hexane.
 - e. Submit to the District's Engineering Division the test results and emission calculations within one month from the testing date. Samples shall be analyzed according to modified EPA test methods 8015 and 8021 or their equivalent to determine the concentrations of POC and benzene.
- 11. Within 30 days from the completion of each treatment operation at a given location, the operator of this source shall provide the assigned Plant Engineer in the Engineering Division with a summary showing the following information:
 - a. The dates and total number of days that the equipment was at that location and the dates, and total number of days that the equipment was operated at that location.
 - b. A summary of the abatement efficiency and benzene emission rate as determined and reported in the start-up sampling report required by condition 10e above.
 - c. The results of any additionally performed emission test, analysis, or monitoring result logged in for the day of operation they were taken.
 - d. The total throughput of contaminated soil vapor processed by S-3 at that location (indicated in



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*** PERMIT CONDITIONS ***

cubic feet).

- e. The total emissions of benzene at that location based on the sampling results required by conditions 10 above. [basis: Reg. 1-523]
- 12. Within 30 days after the end of every calendar year, the operator of this source shall provide the assigned Plant Engineer in the Engineering Division a year-end summary showing the following information:
 - a. The location(s) at which the equipment was operated including the dates operated at each location.
 - b. The total throughput of contaminated soil vapor for the previous four quarters (indicated in cubic feet).
 - c. The total benzene emissions for the previous four quarters (indicated in pounds). [basis Reg. 1-523]
- 13. The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Permit to Operate. All measurements, records and data required to be maintained by the operator shall be retained for at least two years following the date the data is recorded. [basis Reg. 1-523]
- 14. Any non-compliance with these conditions shall be reported to the Compliance and Enforcement Division at the time that it is first discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well as the time of occurrence.

END OF CONDITIONS

Bay Area Air Quality ** SOURCE EMISSIONS ** Management District

PLANT #12568 Sep 30, 2009

		Anı	nual A	verage	lbs/day	
S#	Source Description	PART	ORG	NOx	SO2	CO
1	Portable Vapor Extraction System	_	. 08	_	_	_
2	Portable Vapor Extraction System	-	.15	_	-	-
3	Portable Soil Vapor Extraction System	-	.58	-	-	-
	TOTALS		.81			

** PLANT TOTALS FOR EACH EMITTED TOXIC POLLUTANT **

Pollutant	Name	Emissions	lbs/day

Benzene

.02

APPENDIX G

ALAMEDA COUNTY HEALTH CARE SERVICES



DAVID J. KEARS, Agency Director

AGENCY

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

July 24, 2009

Ms. Farah Naz c/o Mr. Muhammad Jamil 40092 Davis Street Fremont, CA 94538

Subject: Fuel Leak Case No. RO0000096 and Geotracker Global ID T0600143649, Eagle Gas, 4301 San Leandro Street, Oakland, CA 94601 – Groundwater Monitoring Requirements

Dear Ms. Naz:

The purpose of this correspondence is to inform you of changes to groundwater monitoring requirements for all fuel leak cases in California. The California State Water Resources Control Board (State Water Board) has approved Resolution No. 2009-0042 (Actions to Improve Administration of the UST Cleanup Fund and UST Cleanup Program). Resolution No. 2009-0042 states that, "Regional Water Board and LOP agencies shall reduce quarterly groundwater monitoring requirements to semiannual or less frequent monitoring at all site unless site-specific needs warrant otherwise and shall notify all responsible parties of the new requirements no later than August 1, 2009. If more than semiannual monitoring is required for a case, the responsible party and State Water board shall be notified of the rationale and the notice shall be posted on Geotracker."

Groundwater monitoring frequency for the site was previously modified to semi-annual and annual monitoring as proposed in a document entitled, "*Request for Modifying the Quarterly Groundwater Monitoring Program*," dated February 20, 2009, and approved by Alameda County Environmental Health (ACEH) in correspondence dated April 24, 2009. Therefore, no changes to the existing groundwater monitoring schedules are required for this site. Please continue semiannual groundwater monitoring and reporting in accordance with the established schedule.

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wiskham, California PG 3766, CEG 1177, and CHG 297 Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

APPENDIX H



Report Number: 71532 Date: 01/15/2010

Laboratory Results

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

Subject : 9 Water Samples Project Name : Eagle Gas Project Number :

Dear Dr. Ho,

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

Sincerely,

bel Kiff



Report Number : 71532 Date : 01/15/2010

Subject :9 Water SamplesProject Name :Eagle GasProject Number :

Case Narrative

Tert-Butanol results for sample MW-10 may be biased slightly high and are flagged with a 'J'. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

Matrix Spike/Matrix Spike Duplicate results associated with samples MW-4, MW-7, and IS-5 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.



Project Number :

Sample : MW-4		Matrix : \	Nater	Lab Number : 71532-01	
Sample Date :01/07/2010		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	510	90	ug/L	EPA 8260B	01/11/2010
Toluene	< 90	90	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	330	90	ug/L	EPA 8260B	01/11/2010
Total Xylenes	1100	90	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	34000	90	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	< 90	90	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 90	90	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	180	90	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	290000	500	ug/L	EPA 8260B	01/11/2010
TPH as Gasoline	< 9000	9000	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	98.5		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	01/11/2010
TPH as Diesel	3200	50	ug/L	M EPA 8015	01/11/2010
Octacosane (Diesel Surrogate)	86.2		% Recovery	M EPA 8015	01/11/2010



Project Number :

Sample : MW-7		Matrix : Water		Lab Number : 71532-02	
Sample Date :01/07/2010		Method			
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Toluene	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Total Xylenes	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	3600	400	ug/L	EPA 8260B	01/09/2010
Diisopropyl ether (DIPE)	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 4.0	4.0	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	7.8	4.0	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	9000	20	ug/L	EPA 8260B	01/11/2010
TPH as Gasoline	< 400	400	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	01/11/2010
TPH as Diesel	230	50	ug/L	M EPA 8015	01/13/2010
Octacosane (Diesel Surrogate)	86.6		% Recovery	M EPA 8015	01/13/2010



Project Number :

Sample : MW-7D		Matrix : Water		Lab Number : 71532-03	
Sample Date :01/08/2010	Measured	Method Reporting	Units	Analysis	Date
Benzene	350	0.50		EPA 8260B	01/11/2010
Toluene	10	0.50	ug/L ug/l	EPA 8260B	01/11/2010
Ethvlbenzene	62	0.50	ug/L	EPA 8260B	01/11/2010
Total Xylenes	420	0.50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	61000	150	ug/L	EPA 8260B	01/12/2010
Diisopropyl ether (DIPE)	0.71	0.50	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	9.2	0.50	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	360	0.50	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	200000	700	ug/L	EPA 8260B	01/12/2010
TPH as Gasoline	4900	50	ug/L	EPA 8260B	01/11/2010
(Note: Gasoline, but an unusually large prop	portion of alkyl	benzenes.)			
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	01/11/2010
TPH as Diesel (Note: MRL increased due to interference fr	< 1500 om Gasoline-r	1500 ange hydroc	ug/L arbons.)	M EPA 8015	01/11/2010
Octacosane (Diesel Surrogate)	86.8		% Recovery	M EPA 8015	01/11/2010



Project Number :

Sample : MW-9		Matrix : \	Nater	Lab Number : 71532-04	
Sample Date :01/07/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.52	0.50	ug/L	EPA 8260B	01/12/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Methyl-t-butyl ether (MTBE)	53	0.50	ug/L	EPA 8260B	01/12/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/12/2010
TPH as Gasoline (Note: Gasoline, but an unusually large pre-	120 portion of aliph	50 natics.)	ug/L	EPA 8260B	01/12/2010
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	01/12/2010
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	01/12/2010
TPH as Diesel	< 50	50	ug/L	M EPA 8015	01/12/2010
Octacosane (Diesel Surrogate)	92.3		% Recovery	M EPA 8015	01/12/2010



Project Number :

Sample : MW-9D		Matrix : Water		Lab Number : 71532-05	
Sample Date :01/08/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010
TPH as Gasoline (Note: Primarily due to Cis-1,2-Dichloroethe	110 ne and Trichlo	50 roethene.)	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	01/11/2010
TPH as Diesel	< 50	50	ug/L	M EPA 8015	01/12/2010
Octacosane (Diesel Surrogate)	88.5		% Recovery	M EPA 8015	01/12/2010



Project Number :

Sample : MW-10		Matrix : \	Water	Lab Number : 71532-06	
Sample Date :01/07/2010					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	270	0.90	ug/L	EPA 8260B	01/11/2010
Toluene	21	0.90	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	94	0.90	ug/L	EPA 8260B	01/11/2010
Total Xylenes	110	0.90	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	440	0.90	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	3.0	0.90	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 0.90	0.90	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	< 0.90	0.90	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	10 J	5.0	ug/L	EPA 8260B	01/11/2010
TPH as Gasoline	5400	90	ug/L	EPA 8260B	01/11/2010
(Note: Gasoline, but an unusually large p	proportion of ali	phatics.)			
1,2-Dichloroethane-d4 (Surr)	91.0		% Recovery	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	96.5		% Recovery	EPA 8260B	01/11/2010
TPH as Diesel (Note: MRL increased due to interference	< 500 e from Gasoline	500 e-range hydrod	ug/L carbons.)	M EPA 8015	01/11/2010
Octacosane (Diesel Surrogate)	85.4		% Recovery	M EPA 8015	01/11/2010


Project Number :

Sample : MW-10D		Matrix : \	Water	Lab Number : 71532-07			
Sample Date :01/07/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Ethyl-t-butyl ether (ETBE)	< 0.50 < 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Tert-amyl methyl ether (TAME)		0.50	ug/L	EPA 8260B	01/11/2010		
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010		
TPH as Gasoline (Note: Primarily due to Trichloroethene a	180 nd 1,1 Dichloroe	50 ethene.)	ug/L	EPA 8260B	01/11/2010		
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	01/11/2010		
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	01/11/2010		
TPH as Diesel	< 50	50	ug/L	M EPA 8015	01/12/2010		
Octacosane (Diesel Surrogate)	99.8		% Recovery	M EPA 8015	01/12/2010		



Project Number :

Sample : MW-11D		Matrix : V	Vater	Lab Number : 71532-08			
Sample Date :01/08/2010 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010		
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010		
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/11/2010		
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	01/11/2010		
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	01/11/2010		
TPH as Diesel (Note: Discrete peaks in Diesel range, atypi	120 cal for Diesel I	50 ⁼ uel.)	ug/L	M EPA 8015	01/11/2010		
Octacosane (Diesel Surrogate)	88.7		% Recovery	M EPA 8015	01/11/2010		



Project Number :

Sample : IS-5		Matrix : V	Vater	Lab Number : 71532-09			
Sample Date :01/07/2010		Mathad					
Parameter	Measured Value	Reporting Limit	Units	Analysis Method	Date Analyzed		
Benzene	2200	70	ug/L	EPA 8260B	01/11/2010		
Toluene	< 70	70	ug/L	EPA 8260B	01/11/2010		
Ethylbenzene	3200	70	ug/L	EPA 8260B	01/11/2010		
Total Xylenes	3100	70	ug/L	EPA 8260B	01/11/2010		
Methyl-t-butyl ether (MTBE)	8000	70	ug/L	EPA 8260B	01/11/2010		
Diisopropyl ether (DIPE)	< 70	70	ug/L	EPA 8260B	01/11/2010		
Ethyl-t-butyl ether (ETBE)	< 70	70	ug/L	EPA 8260B	01/11/2010		
Tert-amyl methyl ether (TAME)	210	70	ug/L	EPA 8260B	01/11/2010		
Tert-Butanol	140000	400	ug/L	EPA 8260B	01/11/2010		
TPH as Gasoline	29000	7000	ug/L	EPA 8260B	01/11/2010		
(Note: Gasoline, but an unusually large prop	ortion of alkyl	benzenes.)					
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	01/11/2010		
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	01/11/2010		
TPH as Diesel< 4000(Note: MRL increased due to interference from Gasoling)		4000 ange hydroc	ug/L arbons.)	M EPA 8015	01/11/2010		
Octacosane (Diesel Surrogate)	89.2		% Recovery	M EPA 8015	01/11/2010		

QC Report : Method Blank Data

Project Name : Eagle Gas

Project Number :

Parameter	Measured Value	Method Reportir Limit	ng Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reportir Limit	ng Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	01/11/2010	Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Octacosane (Diesel Surrogate)	96.5		%	M EPA 8015	01/11/2010	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
						Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/08/2010	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
			-			Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	1,2-Dichloroethane-d4 (Surr)	98.3		%	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Toluene - d8 (Surr)	104		%	EPA 8260B	01/11/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010						
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/11/2010	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
1.2-Dichloroethane-d4 (Surr)	98.3		%	EPA 8260B	01/11/2010	Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Toluene - d8 (Surr)	99.1		%	EPA 8260B	01/11/2010	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
						Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/12/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/12/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/12/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	1,2-Dichloroethane-d4 (Surr)	98.9		%	EPA 8260B	01/12/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010	Toluene - d8 (Surr)	105		%	EPA 8260B	01/12/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/11/2010						
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	01/11/2010						
Toluene - d8 (Surr)	98.6		%	EPA 8260B	01/11/2010						

KIFF ANALYTICAL, LLC

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

QC Report : Method Blank Data

Project Name : Eagle Gas

Project Number :

Parameter	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	01/11/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	01/11/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	01/11/2010
1,2-Dichloroethane-d4 (Surr)	98.4		%	EPA 8260B	01/11/2010
Toluene - d8 (Surr)	99.8		%	EPA 8260B	01/11/2010

		Method			
	Measured	Reporting	g	Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel														
	BLANK	<50	1000	1000	1020	1040	ug/L	M EPA 8015	1/11/10	102	104	2.34	70-130	25
Methyl-t-butyl ether														
	71509-01	110	40.3	40.2	149	147	ug/L	EPA 8260B	1/8/10	86.3	79.7	7.94	69.7-121	25
Benzene														
	71529-02	230	40.5	40.5	251	247	ug/L	EPA 8260B	1/11/10	53.4	43.7	19.9	80-120	25
Diisopropyl ether	71520 02	<0.50	30.8	30.8	35.8	34.0	ua/l		1/11/10	00.0	87 7	2 62	80 120	25
Ethyl-tert-butyl ethe	r r	~0.50	59.0	39.0	55.0	54.9	ug/L		1/11/10	90.0	07.7	2.02	00-120	25
	71529-02	<0.50	40.2	40.2	35.7	35.0	ug/L	EPA 8260B	1/11/10	88.7	87.0	1.99	76.5-120	25
Ethylbenzene	71529-02	14	40.2	40.2	52 1	51 4	ua/l	EPA 8260B	1/11/10	95.0	93.2	1 93	80-120	25
Methyl-t-butyl ether	11020 02		10.2	10.2	02.1	0111	ug/L			00.0	00.2	1.00	00 120	20
	71529-02	<0.50	40.6	40.6	35.2	35.5	ug/L	EPA 8260B	1/11/10	86.8	87.6	0.945	69.7-121	25
O-Xylene	71520-02	1 /	40.3	40.3	40.7	40.6	ua/l	EDA 8260B	1/11/10	07 <i>/</i>	07 3	0 147	79 7-120	25
P + M Xylene	11525-02	1.4	40.0	40.0	40.7	40.0	ug/L		1/11/10	57.4	91.5	0.147	19.1-120	20
	71529-02	0.89	39.2	39.2	39.4	38.8	ug/L	EPA 8260B	1/11/10	98.4	96.7	1.68	76.8-120	25

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KIFF ANALYTICAL, LLC

Project Number :

	Spiked	Sample	Spike	Spike Dup.	Spiked Sample	Duplicate Spiked Sample		Analysis	Date	Spiked Sample Percent	Duplicate Spiked Sample Percent	e Relative Percent	Spiked Sample Percent Recov.	Relative Percent Diff.
Parameter	Sample	Value	Lèvel	Level	Value	Value	Units	Method	Analyzed	Recov.	Recov.	Diff.	Limit	Limit
Tert-Butanol														
	71529-02	88	201	201	296	285	ug/L	EPA 8260B	1/11/10	103	97.6	5.70	80-120	25
Tert-amyl-methyl et	ther													
	71529-02	<0.50	40.2	40.2	34.5	34.4	ug/L	EPA 8260B	1/11/10	85.8	85.6	0.256	78.9-120	25
Toluene							-							
	71529-02	7.5	40.2	40.2	44.3	43.1	ug/L	EPA 8260B	1/11/10	91.4	88.5	3.22	80-120	25
Demonstra														
Benzene														
	71527-01	<0.50	40.6	40.6	39.6	39.2	ug/L	EPA 8260B	1/11/10	97.7	96.6	1.12	80-120	25
Diisopropyl ether														
	71527-01	<0.50	39.9	39.9	39.6	40.0	ug/L	EPA 8260B	1/11/10	99.4	100	0.895	80-120	25
Ethyl-tert-butyl ethe	er													
	71527-01	<0.50	40.3	40.3	41.1	40.6	ug/L	EPA 8260B	1/11/10	102	101	1.16	76.5-120	25
Ethylbenzene														
	71527-01	<0.50	40.3	40.3	41.3	41.6	ug/L	EPA 8260B	1/11/10	102	103	0.760	80-120	25
Methyl-t-butyl ether							-							
	71527-01	12	40.6	40.6	52.0	51.8	ua/L	EPA 8260B	1/11/10	99.6	99.1	0.498	69.7-121	25
P + M Xylene					-	-	0		-		-		-	-
-	71527-01	<0.50	39.2	39.2	40.9	41.7	ug/L	EPA 8260B	1/11/10	104	106	2.06	76.8-120	25

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KIFF ANALYTICAL, LLC

Project Number :

Paramotor	Spiked	Sample	Spike	Spike Dup.	Spiked Sample	Duplicate Spiked Sample) L Inite	Analysis	Date	Spiked Sample Percent	Duplicate Spiked Sample Percent	e Relative Percent	Spiked Sample Percent Recov.	Relative Percent Diff.
Tert-amvl-methyl et	ther	value	Levei	Levei	value	value	Units	Method	Analyzeu	Recov.	Recov.	Dill.		
rent amyr metnyr e	71527 01	<0.50	40.3	40.3	40.0	30.0	ua/l		1/11/10	00 /	00 1	0 306	78 0 120	25
Toluene	11527-01	×0.50	40.5	40.5	40.0	59.9	ug/L	LFA 0200B	1/11/10	33.4	33.1	0.500	10.9-120	20
	71527-01	<0.50	40.3	40.3	40.5	40.6	ug/L	EPA 8260B	1/11/10	100	101	0.339	80-120	25
Benzene														
	71527-02	<0.50	40.6	40.6	39.6	39.2	ua/L	EPA 8260B	1/11/10	97.7	96.6	1.14	80-120	25
Diisopropyl ether										••••				
	71527-02	<0.50	39.9	39.9	40.1	40.2	uq/L	EPA 8260B	1/11/10	100	101	0.317	80-120	25
Ethyl-tert-butyl ethe	er						0							
	71527-02	<0.50	40.3	40.3	39.0	38.8	ug/L	EPA 8260B	1/11/10	96.7	96.3	0.423	76.5-120	25
Ethylbenzene							-							
	71527-02	<0.50	40.3	40.3	41.8	41.5	ug/L	EPA 8260B	1/11/10	104	103	0.679	80-120	25
Methyl-t-butyl ether														
	71527-02	0.52	40.6	40.6	37.5	37.6	ug/L	EPA 8260B	1/11/10	91.0	91.3	0.327	69.7-121	25
O-Xylene														
	71527-02	<0.50	40.4	40.4	41.4	41.5	ug/L	EPA 8260B	1/11/10	102	103	0.286	79.7-120	25
P + M Xylene														
	71527-02	<0.50	39.2	39.2	40.3	40.1	ug/L	EPA 8260B	1/11/10	103	102	0.439	76.8-120	25

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KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol									<u> </u>		110001.			
	71527-02	<5.0	202	202	198	196	ug/L	EPA 8260B	1/11/10	98.3	97.2	1.12	80-120	25
Tert-amyl-methyl e	ther													
	71527-02	<0.50	40.3	40.3	38.9	38.6	ug/L	EPA 8260B	1/11/10	96.6	95.7	0.865	78.9-120	25
Toluene														
	71527-02	<0.50	40.3	40.3	43.0	42.2	ug/L	EPA 8260B	1/11/10	107	105	1.92	80-120	25
Benzene														
	71521-01	4.4	40.6	40.6	43.6	43.6	ug/L	EPA 8260B	1/12/10	96.6	96.6	0.0253	80-120	25
Diisopropyl ether							•							
	71521-01	1.4	39.9	39.9	40.9	40.2	ug/L	EPA 8260B	1/12/10	98.8	97.2	1.64	80-120	25
Ethyl-tert-butyl ethe	er													
	71521-01	<0.50	40.3	40.3	39.8	38.0	ug/L	EPA 8260B	1/12/10	98.9	94.2	4.82	76.5-120	25
Ethylbenzene														
	71521-01	0.62	40.3	40.3	41.0	40.0	ug/L	EPA 8260B	1/12/10	100	97.7	2.62	80-120	25
Methyl-t-butyl ether	•													
O Videre	71521-01	32	40.6	40.6	71.7	69.1	ug/L	EPA 8260B	1/12/10	98.2	91.6	6.90	69.7-121	25
O-Xylene	74504.04	.0.50	10.1		40.0	40.4			4/40/40	101	100	4.0.4	70 7 400	05
	71521-01	<0.50	40.4	40.4	40.8	40.4	ug/L	EPA 8260B	1/12/10	101	100	1.04	79.7-120	25

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KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	e Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene	-								-					
	71521-01	<0.50	39.2	39.2	38.8	38.4	ug/L	EPA 8260B	1/12/10	99.0	97.9	1.16	76.8-120	25
Tert-Butanol														
	71521-01	39	202	202	227	230	ug/L	EPA 8260B	1/12/10	93.0	94.2	1.31	80-120	25
Tert-amyl-methyl et	her													
	71521-01	<0.50	40.3	40.3	40.1	38.0	ug/L	EPA 8260B	1/12/10	99.6	94.3	5.39	78.9-120	25
Toluene														
	71521-01	<0.50	40.3	40.3	42.0	40.2	ug/L	EPA 8260B	1/12/10	104	99.7	4.27	80-120	25
Benzene														
	71527-03	1.6	40.6	40.6	39.9	39.3	ua/l	EPA 8260B	1/11/10	94.5	93.1	1.54	80-120	25
Diisopropyl ether							~. <u>9</u>			••				
	71527-03	<0.50	39.9	39.9	40.0	39.9	ug/L	EPA 8260B	1/11/10	100	100	0.320	80-120	25
Ethyl-tert-butyl ethe	r						U							
	71527-03	<0.50	40.3	40.3	40.7	40.4	ug/L	EPA 8260B	1/11/10	101	100	0.844	76.5-120	25
Ethylbenzene														
	71527-03	2.0	40.3	40.3	40.8	40.4	ug/L	EPA 8260B	1/11/10	96.2	95.3	0.941	80-120	25
Methyl-t-butyl ether														
	71527-03	43	40.6	40.6	86.9	86.3	ug/L	EPA 8260B	1/11/10	107	105	1.55	69.7-121	25

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	e Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
O-Xylene														
	71527-03	<0.50	40.4	40.4	40.0	39.8	ug/L	EPA 8260B	1/11/10	99.0	98.4	0.655	79.7-120	25
P + M Xylene														
	71527-03	<0.50	39.2	39.2	41.2	41.0	ug/L	EPA 8260B	1/11/10	105	104	0.418	76.8-120	25
Tert-Butanol														
	71527-03	31	202	202	236	236	ug/L	EPA 8260B	1/11/10	102	102	0.173	80-120	25
Tert-amyl-methyl et	her													
	71527-03	<0.50	40.3	40.3	38.6	38.5	ug/L	EPA 8260B	1/11/10	96.0	95.5	0.505	78.9-120	25
Toluene														
	71527-03	<0.50	40.3	40.3	39.1	38.6	ug/L	EPA 8260B	1/11/10	97.0	95.8	1.27	80-120	25

KIFF ANALYTICAL, LLC

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit	
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	1/8/10	90.4	69.7-121	
Benzene	40.6	ug/L	EPA 8260B	1/11/10	91.0	80-120	
Diisopropyl ether	39.9	ug/L	EPA 8260B	1/11/10	92.2	80-120	
Ethyl-tert-butyl ether	40.3	ug/L	EPA 8260B	1/11/10	92.2	76.5-120	
Ethylbenzene	40.3	ug/L	EPA 8260B	1/11/10	95.2	80-120	
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	1/11/10	90.4	69.7-121	
O-Xylene	40.4	ug/L	EPA 8260B	1/11/10	95.4	79.7-120	
P + M Xylene	39.2	ug/L	EPA 8260B	1/11/10	97.2	76.8-120	
Tert-Butanol	202	ug/L	EPA 8260B	1/11/10	96.1	80-120	
Tert-amyl-methyl ether	40.3	ug/L	EPA 8260B	1/11/10	86.2	78.9-120	
Toluene	40.3	ug/L	EPA 8260B	1/11/10	94.0	80-120	
Benzene	39.9	ug/L	EPA 8260B	1/11/10	104	80-120	
Diisopropyl ether	39.8	ug/L	EPA 8260B	1/11/10	106	80-120	
Ethyl-tert-butyl ether	40.2	ug/L	EPA 8260B	1/11/10	108	76.5-120	
Ethylbenzene	39.9	ug/L	EPA 8260B	1/11/10	106	80-120	
P + M Xylene	39.9	ug/L	EPA 8260B	1/11/10	106	76.8-120	
TPH as Gasoline	511	ug/L	EPA 8260B	1/11/10	108	80-120	
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	1/11/10	106	78.9-120	
Toluene	39.9	ug/L	EPA 8260B	1/11/10	105	80-120	

KIFF ANALYTICAL, LLC

Project Number :

					LCS	LCS Percent
Parameter	Spike Level	Units	Analysis Method	Date Analyzed	Percent Recov.	Recov. Limit
Benzene	40.2	ug/L	EPA 8260B	1/11/10	101	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	1/11/10	103	80-120
Ethyl-tert-butyl ether	40.5	ug/L	EPA 8260B	1/11/10	98.0	76.5-120
Ethylbenzene	40.2	ug/L	EPA 8260B	1/11/10	104	80-120
Methyl-t-butyl ether	40.8	ug/L	EPA 8260B	1/11/10	94.4	69.7-121
P + M Xylene	40.2	ug/L	EPA 8260B	1/11/10	99.7	76.8-120
TPH as Gasoline	512	ug/L	EPA 8260B	1/11/10	104	80-120
Tert-Butanol	203	ug/L	EPA 8260B	1/11/10	97.8	80-120
Tert-amyl-methyl ether	40.5	ug/L	EPA 8260B	1/11/10	102	78.9-120
Toluene	40.2	ug/L	EPA 8260B	1/11/10	107	80-120
Benzene	39.7	ug/L	EPA 8260B	1/12/10	99.2	80-120
Diisopropyl ether	39.6	ug/L	EPA 8260B	1/12/10	99.6	80-120
Ethyl-tert-butyl ether	40.0	ug/L	EPA 8260B	1/12/10	94.6	76.5-120
Ethylbenzene	39.7	ug/L	EPA 8260B	1/12/10	102	80-120
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	1/12/10	90.4	69.7-121
P + M Xylene	39.7	ug/L	EPA 8260B	1/12/10	97.1	76.8-120
TPH as Gasoline	512	ug/L	EPA 8260B	1/12/10	106	80-120
Tert-Butanol	200	ug/L	EPA 8260B	1/12/10	96.8	80-120
Tert-amyl-methyl ether	40.0	ug/L	EPA 8260B	1/12/10	97.1	78.9-120
Toluene	39.7	ug/L	EPA 8260B	1/12/10	104	80-120
Benzene	40.1	ug/L	EPA 8260B	1/11/10	98.5	80-120

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Diisopropyl ether	40.0	ug/L	EPA 8260B	1/11/10	104	80-120
Ethyl-tert-butyl ether	40.4	ug/L	EPA 8260B	1/11/10	105	76.5-120
Ethylbenzene	40.1	ug/L	EPA 8260B	1/11/10	98.5	80-120
Methyl-t-butyl ether	40.7	ug/L	EPA 8260B	1/11/10	100	69.7-121
P + M Xylene	40.1	ug/L	EPA 8260B	1/11/10	104	76.8-120
TPH as Gasoline	512	ug/L	EPA 8260B	1/11/10	105	80-120
Tert-Butanol	202	ug/L	EPA 8260B	1/11/10	102	80-120
Tert-amyl-methyl ether	40.4	ug/L	EPA 8260B	1/11/10	102	78.9-120
Toluene	40.1	ug/L	EPA 8260B	1/11/10	99.1	80-120

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