Certification Statement

Environmental Site Investigation Report

California Highway Patrol – Oakland
3601 Telegraph Avenue
Oakland, California

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.

A Shahid Jain 11/8/08

Mr. A. K. Jain
California Department of General Services
RESD/PSB/Seismic & Special Programs

Date

92451/SAC8M043

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November 14, 2008
File No. 92451-1

Mr. Jerry Wickham
Alameda County Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Environmental Site Investigation Report
California Highway Patrol – Oakland
3601 Telegraph Avenue, Oakland, California, 94609

Dear Mr. Wickham:

Attached is Kleinfelder's report describing the sampling activities and analytical results for the September 9 through 11, 2008, soil and groundwater investigation performed at the California Highway Patrol – Oakland facility located at 3601 Telegraph Avenue, Oakland, California. The objectives of this investigation included the following: (1) assessing the presence and extent of potential lead-impacted soil and groundwater associated with a demolished gun range building; and (2) further assessment of potential petroleum hydrocarbon impacts to soil and groundwater associated with an underground storage tank (UST) used to fuel patrol vehicles.

The dual investigations (lead and hydrocarbons) were conducted in conjunction with one another for efficiency. The lead investigation was conducted first, on September 9, 2009. The hydrocarbon investigation was conducted on September 10 and 11. Soil samples were collected using a direct push (Geoprobe™) rig and continuous cores. Groundwater was sampled using polyvinyl chloride (PVC) temporary screened wells with single-use screens placed into direct push borings.

During the lead investigation, thirty soil and two groundwater samples were submitted for the analysis of total lead. During the petroleum hydrocarbon investigation, five soil and seventeen groundwater samples were collected and analyzed for gasoline and gasoline-related constituents. The five soil samples also were analyzed for total lead to supplement the lead investigation. Detected concentrations were compared with the regulatory screening levels in the following documents:

- California Human Health Screening Levels (CHHSLs) for Soil (January 2005, Table 1), and
- San Francisco Bay Region – Regional Water Quality Control Board Screening Levels for Environmental Concerns at Sites with Contaminated Soil and Groundwater (ESLs) – Interim Final November 2007. Updated May 2008 (May 2008, Table B).

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This report includes the description of the soil and groundwater sampling field activities for ten soil borings in the footprint of the former gun range building, eight groundwater sample borings in and around the former UST area, analytical results for soil and groundwater samples, and conclusions based on the results.

This report is submitted for your review and consideration. If you have any questions regarding the report, please do not hesitate to contact us at 916-366-1701.

Sincerely,

KLEINFELDER WEST, INC.

Pamela A. Wee, D. Env.
Environmental Group Manager

Sue Gardner, P.G.
Project Geologist

cc: Mr. A.K. Jain, State of California, Department of General Services
Ms. Elizabeth DePaola, California Highway Patrol, Facilities Section
Lt. Mike Sherman, California Highway Patrol, Oakland Area

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November 14, 2008
File No. 92451-1

Mr. A.K. Jain
State of California
Department of General Services
RESD/PSB/Seismic & Special Programs
707 3rd Street, Suite 4-430
West Sacramento, California 95605

Subject: Environmental Site Investigation Report
California Highway Patrol – Oakland
3601 Telegraph Avenue, Oakland, California, 94609

Dear Mr. Jain:

This report describes the sampling activities and analytical results for the September 9 through 11, 2008 soil and groundwater investigation performed at the California Highway Patrol (CHP) – Oakland facility located at 3601 Telegraph Avenue, Oakland, California (Plate 1). The objectives of this investigation included the following: (1) assessing the presence and extent of remaining lead impacted soil and groundwater associated with a demolished gun range building at the CHP Oakland facility; and (2) further assessing the petroleum hydrocarbon impacts to soil and groundwater associated with an underground storage tank (UST) located at the facility.

This report presents descriptions of the direct push (Geoprobe™) soil and groundwater sampling for ten borings in the former building pad area, eight groundwater sample borings in the former UST area, analytical results for soil and groundwater samples, and conclusions based on the results.

BACKGROUND

Lead

A shooting range building was present at the CHP Oakland facility until demolition in June 2006. During demolition, approximately ten inches of lead-contaminated soil were removed. Analytical results for lead in confirmation samples collected during demolition activities suggested that remaining soils might be impacted by residual lead concentrations. In October 2006, at the request of the California Department of General Services (DGS), Kleinfelder

developed a sampling plan for further site investigation to assess the potential presence of residual lead concentrations at the site.

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In January 2007, Kleinfelder conducted soil and groundwater lead sampling using direct push technology in the footprint of the demolished shooting range building. Lead was not detected above laboratory reporting limits in the groundwater samples submitted for analysis. Lead was detected in soil samples at concentrations ranging from 4.22 mg/kg to 562 mg/kg. Kleinfelder reported the results of the January 2007 site investigation in a report dated March 26, 2007 (*Soil and Groundwater Investigation Report, California Highway Patrol – Oakland, 3601 Telegraph Avenue, Oakland, California*, *SAC/7R168*).

In a November 21, 2007 letter, Alameda County Department of Environmental Health (ACEH) requested that additional sampling be conducted to further assess and delineate the extent of lead impacts at the site. Additionally, ACEH requested that a scaled map showing area of excavation, former building foundation, types of surfaces (asphalt, concrete, bare ground, etc.) and the 2006 soil sampling locations be prepared and submitted to them. A work plan, which included a proposal for further sampling, and the requested scaled map were submitted by Kleinfelder to ACEH in May 2008. The Work Plan was approved by Mr. Jerry Wickham (ACEH regulator) in a letter dated July 11, 2008.

Petroleum Hydrocarbons

A UST at the site was upgraded in March 1997. A soil sample analyzed during upgrade activities indicated that hydrocarbon impact may have occurred. In January 2007, Kleinfelder conducted sampling of soil and groundwater in the vicinity of the former UST in conjunction with the aforementioned January 2007 direct push lead sampling investigation. Gasoline and methyl tertiary butyl ether (MTBE), a fuel oxygenate, were detected in groundwater samples analyzed during the January 2007 investigation.

Kleinfelder reported the results of the January 2007 site investigation in a report dated March 26, 2007 (*Soil and Groundwater Investigation Report, California Highway Patrol – Oakland, 3601 Telegraph Avenue, Oakland, California, SAC/7R168*).

In a November 21, 2007 letter ACEH requested a work plan for further site investigation. A site investigation work plan for sampling to further assess potential hydrocarbon impacts to soil and/or groundwater was submitted by Kleinfelder to ACEH in May 2008. The Work Plan was approved by Mr. Jerry Wickham (ACEH regulator) in a letter dated July 11, 2008.

The approved work plan for the lead and hydrocarbon sampling was implemented on September 9, 10, and 11, 2008. This report presents the field activities, analytical results and conclusions based on the results for the September 2008 site investigations.

SITE INVESTIGATION

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Pre Field Activities

Prior to conducting subsurface activities, Kleinfelder conducted a site visit to coordinate field activities with CHP site personnel, and to evaluate site conditions and direct push rig access. Proposed boring locations were marked with white paint and Underground Service Alert (USA) was notified of the upcoming work so underground utilities could be located and marked by subscribing utility companies. Additionally, Kleinfelder contracted a private underground utility locator (Subdynamic Locator Services) to evaluate potential subsurface utilities prior to penetration of the subsurface. On September 3, 2008, a Subdynamic Locator Services technician met with Kleinfelder representatives, conducted the utility survey, and marked the cleared boring locations with white paint. Kleinfelder also met with CHP personnel to clear borings prior to starting field work.

Prior to conducting the subsurface investigation, Kleinfelder prepared and submitted a boring permit, along with the required fees, to ACEH. The permit was approved on August 12, 2008. A copy of the approved Alameda County permit is included in Appendix A.

Field Activities

Soil and groundwater samples for both investigations were collected using a direct push sampling rig. To advance these borings, Kleinfelder contracted the services of Vannucci Technologies of Woodland, California. As required by ACEH, Vannucci is a C-57 licensed contractor. A Kleinfelder geologist logged and classified the soil using the Unified Soil Classification System and standard geologic techniques. Copies of Kleinfelder's boring logs and soil identification key sheets are included in Appendix B.

A total of 18 borings were advanced over a three day period. Ten borings were advanced for the primary purpose of investigating potential lead impacts, and eight borings were advanced for hydrocarbons. Nine of the 18 borings were advanced into a level graded former building pad with tan and light gray silty gravel and dry vegetation. The soils encountered below the silty gravel (GM) generally consisted of clayey gravel (GC) fill material with some concrete and brick rubble to approximately five feet below ground surface (bgs). The fill material was underlain by brown clayey gravel (GC) interbedded with gray to olive lean clay (CL). Nine borings were advanced into a parking lot paved with approximately 4 inches of asphalt concrete (AC). The AC was underlain by approximately 6 inches of aggregate base (AB) consisting of sand, silt and gravel. Soil encountered under the AB consisted predominantly of silty and lean clay (CL) to depths of approximately 12 to 16 feet bgs. The clay was typically underlain by sand-gravel mixtures with some silty and poorly graded sand or gravel lenses.

Soil samples were obtained from the borings by advancing a Geoprobe Macrocore™ sampler. This consisted of a 1.75-inch-diameter hollow rod with new plastic liners (single-use) inside. The probe was pushed through a 5-foot interval while the soil was collected and contained inside the plastic liner. Sections submitted for analysis were sealed with Teflon tape, capped, labeled, and placed in a cooler with pending transfer to the analytical laboratory.

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Groundwater samples were collected from the temporary PVC wells using new, disposable poly tubing with a ball check valve at one end. The water was pumped into bottles prepared by the analytical laboratory. These bottles were sealed, labeled, and placed in a cooler with ice pending transfer to the analytical laboratory.

To reduce the potential for cross-contamination between the direct push borings, the rods and sampling equipment were cleaned prior to advancing each boring. After completion, the borings were backfilled to ground surface with cement/bentonite grout in accordance with permit requirements. Kleinfelder scheduled a grout inspection with ACEH for each day of drilling/sampling and an ACEH representative was on-site for observation at various times.

Copies of Kleinfelder's Instrument Calibration Logs, XRF Sample Screening Data, Sample Data Sheets and Field Observation Data Sheet are presented in Appendix C.

Lead Sampling

Kleinfelder conducted soil sampling to further assess the horizontal and vertical extent of lead impacts in the footprint of the former shooting range building. During the January 2007 site investigation samples from the south side of the former building were collected and analyzed. The November 21, 2007 ACEH letter posed questions regarding other potential areas where lead may have accumulated. To address these concerns, nine sample locations were selected from the north side and midsection of the former shooting range building pad, with one sample location selected outside the pad of the former building for comparison (background) purposes. To aid in the selection of the boring locations, Kleinfelder used a Nitron X-ray Fluorescence (XRF) analyzer (screening tool) to screen surface soil for lead. Direct push borings were advanced to an approximate depth of five feet bgs at locations indicated on Plate 2.

Three soil samples from each of the ten lead borings were submitted for laboratory analysis (30 samples). An additional five soil samples from the September 10-11 hydrocarbon investigation were also submitted for lead analysis (for a total of 35 samples). The soil samples were submitted under chain-of-custody to Kiff Analytical of Davis, California for the following analysis:

- Total lead (EPA Test Method 6010B)

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In two of the ten lead sample locations, borings were advanced to first encountered groundwater (approximately 20 to 25 feet). One groundwater sample was obtained from each of these borings and sent to the laboratory for both lead and petroleum hydrocarbon analyses. These particular locations were sampled due to their distance and direction from the former UST. The groundwater samples were analyzed for the following compounds:

- TPH as gasoline (EPA 8260B)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) (EPA 8260B)
- Five Fuel Oxygenates (EPA 8260B)
- 1,2-DCA and EDB (EPA 8260B)
- Total lead (EPA 200.8)

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) maintain electronic data files available for public review for UST sites (an ftp site). Kleinfelder will submit the required electronic data to the Alameda County site.

Petroleum Hydrocarbons Investigation

Following the lead sampling investigation, Kleinfelder conducted soil and groundwater sampling at the site for investigation of petroleum hydrocarbon impacts associated with a formerly leaking UST. Data from Kleinfelder's previous (January 2007) site investigation were used to assist in selection of boring locations. A total of eight borings (GB-16 through GB-23) were advanced to evaluate the horizontal and vertical extent of impact. These boring locations are illustrated on Plate 3. The borings were drilled to the following depths:

- Borings GB-16 and GB-20 were drilled to 35 feet bgs
- Borings GB-17, GB-19, GB-21 and GB-23 were drilled to 30 feet bgs
- Boring GB-18 was drilled to 25 feet bgs
- Boring GB-22 was drilled to a depth of 40 feet bgs

Discrete groundwater sampling was requested by ACEH for the purpose of assessing groundwater at varying depths in varying locations. The information obtained from analyses of depth-discrete groundwater samples would be used, if necessary, for groundwater monitoring well design and placement. Kleinfelder's May 14, 2008 Work Plan proposed to collect three discrete groundwater samples from each boring at anticipated depths of 15, 20 and 25 feet bgs unless the boring was terminated due to refusal or samples could not be collected due to lack of groundwater. In one boring suspected of being located in proximity to a possible source of petroleum hydrocarbons, Kleinfelder proposed to collect groundwater samples at 15, 20, 25, 30 and 35 feet bgs, if possible.

In accordance with the approved May 14, 2008 Work Plan, discrete groundwater samples were collected at first encountered groundwater and at five foot intervals where possible. Groundwater was not encountered at 15 feet bgs in any of the borings. Groundwater was not encountered at 20 feet bgs in seven of the eight borings (except for GB-17). The table below shows the depths where water was encountered in sufficient volume for sample collection in each of the eight borings, GB-16 through GB-23.

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Groundwater Sampling Table

Boring Id/Total Depth	20 feet bgs	25 feet bgs	30 feet bgs	35 feet bgs	40 feet bgs
GB-16 (35 feet)	dry	dry	**sampled**	**sampled**	---
GB-17 (30 feet)	**sampled**	dry	dry	---	---
GB-18 (25 feet)	dry	**sampled**	---	---	---
GB-19 (30 feet)	dry	**sampled**	**sampled**	---	---
GB-20 (35 feet)	dry	**sampled**	**sampled**	dry	---
GB-21 (30 feet)	dry	**sampled**	**sampled**	---	---
GB-22 (40 feet)	dry	**sampled**	**sampled**	dry	**sampled**
GB-23 (30 feet)	dry	**sampled**	**sampled**	---	---

The method used to collect discrete groundwater samples is described below:

- The sampler was pushed by five foot intervals until groundwater was first observed. The probe hole was allowed to sit open for approximately 10-15 minutes to allow the groundwater elevation to equilibrate. A sounder was used to check for the presence and approximate volume of free groundwater.
- If groundwater was present, groundwater samples were collected from the temporary PVC wells using new, disposable poly tubing with a ball check valve at one end. The water was pumped into bottles prepared by the analytical laboratory. These bottles were sealed, labeled, and placed in a cooler with ice pending transfer to the analytical laboratory.
- If groundwater was not present, the probe hole was deepened by five foot increments and the process was repeated at each interval.
- Following collection of the initially observed groundwater, each boring (except for the final sampling in boring GB-22) was advanced another five feet and the process was repeated.

Borings GB-16 through BG-20, and boring GB-23 were advanced to evaluate the lateral extent of potential hydrocarbon impact. Boring GB-22 was advanced to assess the vertical extent of impact. A total of thirteen groundwater samples was collected during the hydrocarbon portion of the sampling investigation. (Note:

two groundwater samples collected during the lead sampling investigation are in addition to the samples mentioned above. Including these samples, a total of 15 groundwater samples were analyzed for gasoline and lead related constituents.) Boring and sampling locations are presented in Plate 2.

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One soil sample each from five of the eight boring locations was selected for chemical analyses. A photoionization detector (PID) was used to provide a qualitative screening of each boring. The PID measures ionizable compounds in the air in parts per million by volume (ppmv), and aids in the selection of samples to be submitted for laboratory analysis. PID readings were recorded on field logs and data sheets, except for the samples collected on September 09, 2008 when the PID was not available. Soil sample selections were based on field screening criteria such as odor, staining, and PID readings where available.

The soil and groundwater samples were stored in a cooler with ice throughout the day, and then transported to Kiff Labs to be analyzed for the following constituents using the cited test methods:

- TPH-gasoline (EPA 8260B)
- BTEX (EPA 8260B)
- 5 Fuel Oxygenates (EPA 8260B)
- 1,2-DCA and EDB (EPA 8260B)
- Total (soil) or dissolved (groundwater) lead (EPA 6010B)

ANALYTICAL RESULTS

Results of the chemical analyses of the samples indicated the following:

Lead in Soil Samples

Thirty-five soil samples (30 from lead borings, five from hydrocarbon borings) were submitted for total lead analyses. Total lead was detected in all 35 of the samples in concentrations ranging from 0.77 mg/kg (LB-1 at 2 feet bgs) to 910 mg/kg (LB-2 at 5 feet bgs). Table 1 summarizes the lead concentrations detected in soil samples. Copies of chain-of-custody and analytical laboratory reports are included in Appendix D.

Lead in Groundwater Samples

Seventeen groundwater samples (two from lead borings, 15 from hydrocarbon borings) were submitted for total lead analysis in groundwater. Lead was not detected above laboratory reporting limits in the groundwater samples (refer to Table 2 and Appendix D).

Hydrocarbons in Soil Samples

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Five soil samples (from hydrocarbon borings) were submitted for potential concentrations of gasoline and other related petroleum hydrocarbons. TPH-gasoline, BTEX and fuel oxygenates were not detected above laboratory reporting limits in the five soil samples (refer to Table 3 and Appendix D).

Hydrocarbons in Groundwater Samples

Seventeen groundwater samples (two from lead borings, 15 from hydrocarbon borings) were submitted to test for potential concentrations of gasoline and other related hydrocarbons. TPH-gasoline, BTEX and fuel oxygenates were not detected above laboratory reporting limits in the groundwater samples (refer to Table 2 and Appendix D).

Analytical results for soil and groundwater samples collected during this investigation were compared to the San Francisco Bay Regional Water Quality Control Board's (RWQCB) Environmental Screening Levels (ESLs) (RWQCB 2008). The ESLs are considered to be conservative values. The concentrations of chemicals below the corresponding ESLs can be assumed to not pose a significant, chronic threat to human health or the environment. The ESLs referenced were for residential sites (due to the close proximity of residences) and for commercial/industrial sites where groundwater is a current or potential source of drinking water. The local drinking water source is not local groundwater; a municipal water system supplies drinking water.

CONCLUSIONS AND RECOMMENDATIONS

- Soil and groundwater sampling was conducted to evaluate potential impacts to soil and/or groundwater associated with two areas of concern: 1) lead deposition from a former gun range building, and 2) gasoline leakage from an underground storage tank.
- The September 2008 sampling event was conducted at the request of ACEH as a follow up to an investigation conducted by Kleinfelder during January 2007.

Lead Investigation

The analytical results from the current investigation were combined with past results for the purpose of calculating an upper confidence limit (UCL) on the mean soil concentration. The purpose of calculating the UCL is to compare a conservative estimate of the mean soil concentration to the ESL and CHHSL. The upper 3.5 feet of soil were considered separately from the subsurface soil (> 3.5 ft bgs) because of the likely mechanism of lead deposition (i.e., from gun range activities), and different likely exposure pathways. Details of the UCL calculation are presented in Appendix E.

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The subsurface soil data include a statistical outlier result of 910 mg/kg in sample LB-2-5, collected at a depth of 5 feet bgs. (Refer to the discussion in Appendix E.) The result may be anomalous. It is possible, though less likely considering the depth, that the result is related to a localized area of lead impact. In either case, the result statistically is an outlier at the 1% significance level, and consequently does not represent the average soil characteristics. The UCL for subsurface soil was calculated omitting this value. The calculated mean lead concentration in subsurface soil is 26 mg/kg. The calculated UCL for subsurface soil is 117 mg/kg. The calculated mean lead concentration for near-surface soil is 59 mg/kg. The calculated UCL for near-surface soil is 215 mg/kg.

No pathway exists for exposure of receptors to subsurface soil under the residential scenario. Consequently, the residential ESL and CHHSL are inappropriate. Kleinfelder recommends comparing the subsurface soil concentrations to the commercial/industrial ESL for lead, which is 750 mg/kg. The current site use is commercial, the property owner is the State of California, and no foreseeable residential land use is likely.

For near-surface soil, the residential CHHSL is not appropriate because the value is based on the risk associated with ingesting plants that have taken up lead from the soil. The residential ESL is 200 mg/kg, based on urban area ecotoxicity. However, the only exposure pathway that is pertinent for residential receptor exposure is inhalation of windborne particulate. According to the RWQCB ESLs document, the commercial/ industrial ESL accounts for off-site residential receptor exposure to windborne dust originating from a commercial/industrial site (RWQCB, 2008; p. 6-11, ¶ 3). Consequently, the commercial/industrial ESL should be protective and should be used in lieu of the residential ESL.

The calculated UCLs for lead concentrations for both near-surface and subsurface soil are below the commercial/industrial ESL of 750 mg/kg. It is Kleinfelder's opinion that lead distribution has been characterized and that no further action is required with respect to investigation or remediation.

Petroleum Hydrocarbon Investigation

In 1997, during upgrade of the CHP gasoline UST, a soil sample that was analyzed indicated that a potential gasoline leak had occurred. During Kleinfelder's January 2007 site investigation, gasoline, BTEX and MTBE were detected in groundwater samples collected from six borings. At the request of ACEH, Kleinfelder conducted additional sampling at the site in September 2008 to assess and potentially delineate the extent of hydrocarbon impact at the site. The following summarizes the September 2008 hydrocarbon investigation findings:

- Eight borings were advanced in the vicinity of the reported hydrocarbon impact during Kleinfelder's September 2008 site investigation.

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- Five soil samples from the eight hydrocarbon borings were submitted for analyses. Gasoline and related hydrocarbon constituents were not detected above laboratory reporting limits in the five samples.
- Fifteen groundwater samples from the hydrocarbon borings were submitted for analyses. An additional two groundwater samples from the lead borings were submitted for analyses, along with the 15 hydrocarbon boring samples. Therefore, a total of 17 groundwater samples were analyzed for the presence of hydrocarbons.
- With the exception of one low level detection of total xylenes in boring GB-21 (0.53 μg/L), TPH as gasoline, BTEX and four of the five fuel oxygenates (DIPE, ETBE, TAME and TBA) were not detected above laboratory reporting limits in the 17 groundwater samples.
- The ESL ceiling value for taste and odor, where groundwater is not considered a current or potential source of drinking water, is 100 μg/L. (The value where drinking water is a current or potential source of drinking water is 20 μg/L.) Therefore, the low level concentrations of xylenes detected in boring GB-21 do not exceed the ESL.
- Low levels of MTBE were reported in six of the 17 groundwater samples analyzed. Concentrations ranged from 0.57 μg/L (GB-16 at 30 feet bgs) to 3.0 μg/L (GB-18 at 25 feet bgs). The ESL ceiling value taste, odor and appearance concerns for MTBE, where groundwater is not considered a current or potential source of drinking water, is 1800 μg/L. (The value where drinking water is a current or potential source of drinking water is 5.0 μg/L.) MTBE concentrations in groundwater samples analyzed during the September 2008 site investigation do not exceed the ESL.
- During the January 2007 site investigation, gasoline was detected in boring CHP-8 at a concentration of 4,300 μg/L. The depth-to-groundwater in boring CHP-8 was approximately 18.5 feet bgs. During the September 2008 site investigation, one boring (GB-22) was advanced approximately 5 feet to the east of CHP-8. In September 2008 groundwater was initially encountered at a depth of approximately 25 feet bgs. Gasoline was not detected in three groundwater samples submitted from GB-22 (25 feet, 30 feet and 40 feet). Therefore, Kleinfelder concludes that hydrocarbon impact from the leaking UST appears to be present above 25 feet bgs. (Note: tables and plates from previous sampling investigations are presented in Appendix F)

Kleinfelder has been informed by DGS that the UST present at CHP Oakland site is scheduled for removal and replacement by an above ground storage tank (AST) to be placed on the pad for the former gun range building. The construction of the AST has been placed on hold pending completion of Kleinfelder's sampling of the gun range pad soils for potential lead impact. This report recommends that ACEH allow construction activities to proceed.

Following ACEH approval, DGS plans to commence with the UST removal and AST installation. Kleinfelder recommends that oversight during tank removal activities include air monitoring for the protection of construction personnel and sampling of the tank pit sidewalls and bottom (soil and groundwater, if present). Kleinfelder recommends that DGS and ACEH evaluate potential monitoring and/or remediation options following UST removal construction and sampling activities.

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The State Water Resources Control Board UST Program – AB2886 requires electronic submittal of data associated with UST sites, which includes (but is not limited to) well survey data, analytical results, water level data, maps, and boring logs. Kleinfelder electronically submitted analytical results and water level data to the SWRCB through Geotracker. Confirmation numbers for the submittals as shown in Geotracker are included in Appendix G.

LIMITATIONS

Kleinfelder prepared this report in accordance with generally accepted standards of care that exist in Northern California at this time. This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance, but in no event later than one (1) year from the date of the report. All information gathered by Kleinfelder is considered confidential and will be released only upon written authorization of the client or as required by law. Non-compliance with any of these requirements by the client or anyone else, unless specifically agreed to in advance by Kleinfelder in writing, will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and the client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. Although risk can never be eliminated, more-detailed and extensive investigations yield more information, which may help understand and manage the level of risk. Since detailed investigation and analysis involves greater expense, our clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface investigations or field tests, may be performed to reduce uncertainties. Acceptance of this report will indicate that the client has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may be discovered. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results

from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. the client will be solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. The client will be responsible for all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

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Regulations and professional standards applicable to Kleinfelder's services are continually evolving. Techniques are, by necessity, often new and relatively untried. Different professionals may reasonably adopt different approaches to similar problems. As such, our services are intended to provide the client with a source of professional advice, opinions and recommendations. Our professional opinions and recommendations are based on our limited number of field observations and tests, collected and performed in accordance with the generally accepted engineering practice that exists at the time and may depend on, and be qualified by, information gathered previously by others and provided to Kleinfelder by the client. Consequently, no warranty or guarantee, expressed or implied, is intended or made.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,
KLEINFELDER WEST, INC.

Susan E. Gardner, P.G.
Project Geologist

Mike Lawson, P.E.
Senior Engineer

Brian Honea
Staff Geologist

Plates

1 – Site Location Map
2 – Site Diagram and Lead Sampling Locations Map
3 – Site Diagram and Hydrocarbon Sampling Locations Map

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Tables

1 – Lead Investigation – Summary of Analytical Results
2 – Summary of Analytical Results - Water
3 – Summary of Analytical Results - Soil

Appendices

A Alameda County Well Permit
B Boring Logs
C Sample Data Sheets
D Chain-of-Custody Forms and Laboratory Analytical Reports
E Calculation of Soil Upper Confidence Limit
F Tables from Previous Site Investigations
G Geotracker Confirmation Submittal Sheets

References

San Francisco Bay Region – Regional Water Quality Control Board Screening Levels for Environmental Concerns at Sites with Contaminated Soil and Groundwater (ESLs) – Interim Final November 2007. Updated May 2008 (May 2008, Table E-2 and F-1).

California Human Health Screening Levels for Soil California EPA, January 2005, Table 1.

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PLATES

Aerial: USGS, 2003

0 100 200 Feet

1 inch = 200 feet

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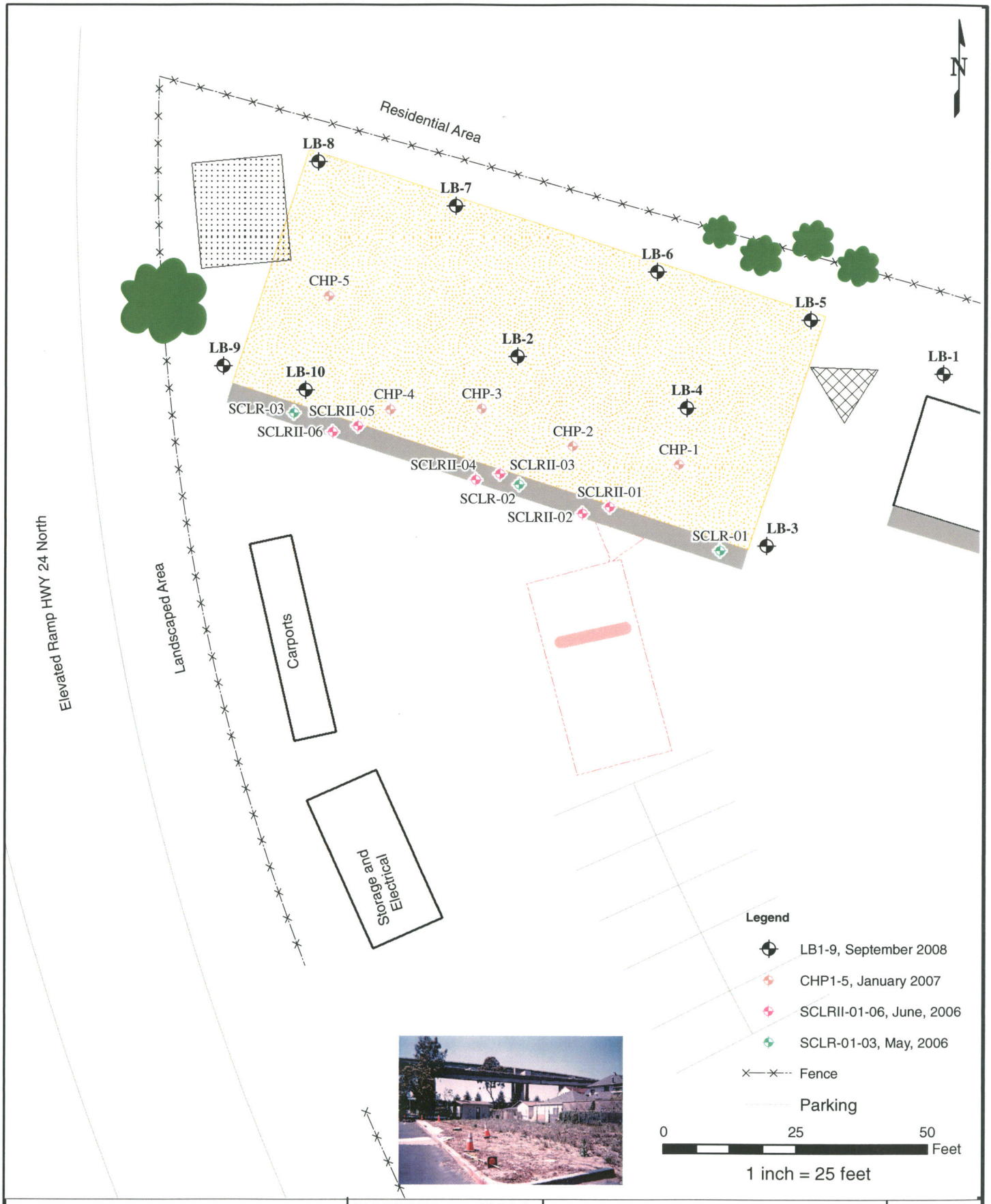
PROJECT NO.	92451-1
DRAWN:	5/13/08
DRAWN BY:	IPM
CHECKED BY:	SG
FILE NAME:	92451_SITE.MXD

SITE LOCATION MAP

CALIFORNIA HIGHWAY PATROL - OAKLAND
3601 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

PLATE

1



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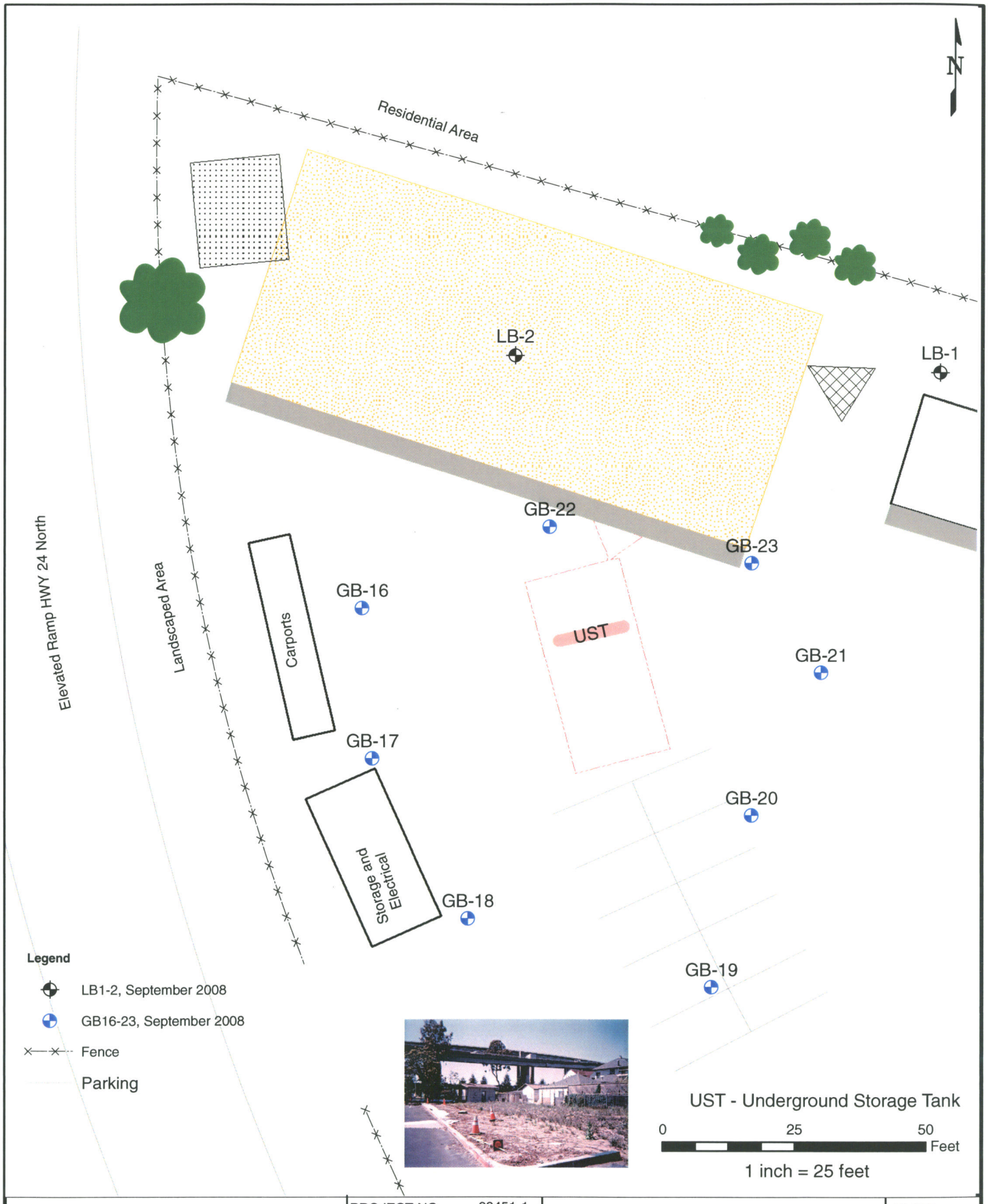
PROJECT NO.	92451-1
DRAWN:	5/13/08
DRAWN BY:	IPM
CHECKED BY:	SG
FILE NAME:	92451_LEAD.MXD

LEAD SAMPLING LOCATIONS MAP

CALIFORNIA HIGHWAY PATROL - OAKLAND
3601 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

PLATE
2



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PROJECT NO.	92451-1
DRAWN:	5/13/08
DRAWN BY:	IPM
CHECKED BY:	SG
FILE NAME:	92451_LEAD.MXD

HYDROCARBON SAMPLING LOCATIONS MAP

CALIFORNIA HIGHWAY PATROL - OAKLAND
3601 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

PLATE
3

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TABLES

Table 1
Lead Investigation
Summary of Analytical Results
California Highway Patrol Facility
3601 Telegraph Avenue, Oakland, California
Kleinfelder Project No.: 92451

Boring ID	Sample Date	Sample ID	Depth Interval (feet)	XRF[Note 1] (mg/Kg)	Total Lead[Note 2] (mg/kg)	Soluble Lead[Note 3] (mg/L)
California Human Health Screening Levels for Shallow Soils (mg/kg) Residential Land Use[Note 4]					*150 mg/kg*	NA
California Regional Water Quality Control Board, SF Bay RWQCB ESLs for Shallow Soils (mg/kg)[Note 5]					*Residential Land Use - 200 mg/kg* *Commercial Land Use - 750 mg/kg*	NA
LB-1 Soil	9/9/08	LB-1-2	0 - 2	**5.9**	**0.77**	NA
		LB-1-3.5	2 - 3.5	ND (<5)	ND (<0.50)	NA
		LB-1-5	4 - 5	ND (<5)	**7.7**	NA
LB-2 Soil	9/9/08	LB-2-2	0 -2	ND (<5)	**9.0**	NA
		LB-2-4	3 - 4	**105.5**	**220**	NA
		LB-2-5	4 - 5	**31.5**	**910**	**28.1 by citrate buffer and ND (<0.100) by DI Wet**
LB-3 Soil	9/9/08	LB-3-2	0 - 2	ND (<5)	**76**	NA
		LB-3-4	3 - 4	**16.5**	**19**	NA
		LB-3-5	4 - 5	ND (<5)	**5.9**	NA
LB-4 Soil	9/9/08	LB-4-2	0 - 2	**43.3**	**99**	NA
		LB-4-4	3 - 4	ND (<5)	**14**	NA
		LB-4-5	4 - 5	ND (<5)	**58**	NA
LB-5 Soil	9/9/08	LB-5-2	0 - 2	**20.8**	**79**	NA
		LB-5-4	3 - 4	ND (<5)	**6.3**	NA
		LB-5-5	4 - 5	ND (<5)	**8.5**	NA
LB-6 Soil	9/9/08	LB-6-2	0 - 2	**22.1**	**120**	NA
		LB-6-4	3 - 4	ND (<5)	**13**	NA
		LB-6-5	4 - 5	**29.5**	**10**	NA
LB-7 Soil	9/9/08	LB-7-2	0 - 2	**31.3**	**40**	NA
		LB-7-4	3 - 4	**18.0**	**4.5**	NA
		LB--7-5	4 - 5	ND (<5)	**11**	NA
LB-8 Soil	9/9/08	LB-8-2	0 - 2	**18.1**	**32**	NA
		LB-8-4	3 - 4	ND (<5)	**8.3**	NA
		LB-8-5	4 - 5	**16.4**	**10**	NA
LB-9 Soil	9/9/08	LB-9-2	0 - 2	ND (<5)	**61**	NA
		LB-9-4	3 - 4	ND (<5)	**14**	NA
		LB-9-5	4 - 5	ND (<5)	**56**	NA
LB-10 Soil	9/9/08	LB-10-2	0 - 2	**32.3**	**130**	NA
		LB-10-4	3 - 4	ND (<5)	**10**	NA
		LB-10-5	4 - 5	**12.9**	**53**	NA
GB-16 Soil	9/10/08	GB-16-4-5	4 - 5	NA	**3.93**	NA
GB-18 Soil	9/10/08	GB-18-4-5	4 - 5	NA	**6.42**	NA
GB-20 Soil	9/11/08	GB-20-13.5	13.5 - 15	NA	**5.11**	NA
GB-21 Soil	9/11/08	GB-21-3-4	3 - 4	NA	**5.17**	NA
GB-22 Soil	9/10/08	GB-22-4-5	4 - 5	NA	**4.10**	NA
Groundwater Samples						
LB-1	9/9/08	LB-1	NA	NA	ND (<0.001)	NA
LB-2	9/9/08	LB-2	NA	NA	ND (<0.001)	NA

Note 1: XRF: Nitron X-ray Fluorescence. XRF is field measurement and is not intended to produce laboratory quality results.
Note 2: Soil samples were analyzed by EPA Test Method 6010B. Groundwater samples were analyzed by Method 200.8.
Note 3: Analyses for solubility were performed twice, by EPA Test Method 6010B (citrate buffer) and by EPA Test Method 6010B -(DI Wet Test)
Note 4: California Environmental Protection Agency, CHHSLs, January 2005. Table 2.
Note 5: Environmental Screening Level (ESL) for groundwater, established by Region 2 California Regional Water Quality Control Board - SF Bay Region ESLs, May 2008. Table B. Shallow soils.
NA: Does not apply, not tested for the listed constituent
ND: Not detected above the laboratory reporting limit
ug/kg: Micrograms per kilogram (parts per billion)
mg/kg: Milligrams per kilogram (parts per million)
TPH: Total Petroleum Hydrocarbons
BTEX: Benzene, Toluene, Ethylbenzene, Total Xylenes

Table 2
Summary of Analytical Results - Water
CHP Oakland
Kleinfelder Project No.: 92451

Boring ID	Sample ID	Sample Date	Depth (feet)	TPH-Gasoline (ug/L)	BTEX (ug/L)	Fuel Oxygenates (ug/L)	Total Lead (mg/L)
Lead Borings							
LB-1	LB-1	9/9/08	20	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
LB-2	LB-2	9/9/08	25	ND (<50)	ND(< 0.50)	**MTBE 0.65**	ND (<0.001)
Hydrocarbon Borings							
GB-16	GB-16-30	9/10/08	30	ND (<50)	ND(< 0.50)	**MTBE 0.57**	ND (<0.001)
	GB-16-35	9/10/08	35	ND (<50)	ND(< 0.50)	**MTBE 0.90**	ND (<0.001)
GB-17	GB-17-20	9/9/08	20	ND (<50)	ND(< 0.50)	**MTBE 0.84**	ND (<0.001)
GB-18	GB-18-25	9/10/08	25	ND (<50)	ND(< 0.50)	**MTBE 3.0**	ND (<0.001)
GB-19	GB-19-25	9/11/08	25	ND (<50)	ND(< 0.50)	**MTBE 0.61**	ND (<0.001)
	GB-19-30	9/11/08	30	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
GB-20	GB-20-25	9/11/08	25	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
	GB-20-30	9/11/08	30	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
GB-21	GB-21-25	9/11/08	25	ND (<50)	**Total Xylenes 0.53**	ND (<0.50)	ND (<0.001)
	GB-21-30	9/11/08	30	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
GB-22	GB-22-25	9/10/08	25	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
	GB-22-30	9/10/08	30	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
	GB-22-40	9/10/08	40	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
GB-23	GB-23-25	9/11/08	25	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)
	GB-23-30	9/11/08	30	ND (<50)	ND(< 0.50)	ND (<0.50)	ND (<0.001)

Groundwater samples were analyzed by EPA Method Test Methods 8260B and 200.8
ug/L: Micrograms per liter (parts per billion)
mg/L: Milligrams per liter (parts per million)
TPH: Total Petroleum Hydrocarbons
BTEX: Benzene, Toluene, Ethylbenzene, Total Xylenes
Fuel Oxygenates Analyzed: Methyl tert-butyl ether (MTBE), di-isopropyl ether(DIPE), ethyl tertiary-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA)

Table 3
Summary of Analytical Results - Soil
CHP Oakland
Kleinfelder Project No.: 92451

Boring ID	Sample ID	Sample Date	Depth (feet)	TPH-Gasoline (mg/kg)	BTEX (mg/kg)	5 Fuel Oxygenates mg/kg)	Total Lead (mg/kg)
Hydrocarbon Borings							
GB-16	GB-16-4-5	9/10/08	4-5	ND (<1.0)	ND (<0.005)	ND (<0.005)	3.93
GB-18	GB-18-4-5	9/10/08	4-5	ND (<1.0)	ND (<0.005)	ND (<0.005)	6.42
GB-20	GB-20-13.5-15	9/11/08	13.5-15	ND (<1.0)	ND (<0.005)	ND (<0.005)	5.11
GB-21	GB-21-3-4	9/11/08	3-4	ND (<1.0)	ND (<0.005)	ND (<0.005)	5.17
GB-22	GB-22-4-5	9/10/08	4-5	ND (<1.0)	ND (<0.005)	ND (<0.005)	4.10

Soil samples were analyzed by EPA Test Methods 8260B and 6010B.
mg/kg: milligrams per kilogram (parts per million)
TPH: Total Petroleum Hydrocarbons
BTEX: Benzene, Toluene, Ethylbenzene, Total Xylenes

APPENDIX A

ALAMEDA COUNTY WELL PERMIT

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1 939

Application Approved on: 08/12/2008 **By** jamesy

Permit Numbers: W2008-0578
Permits Valid from 09/08/2008 **to** 09/12/2008

Application Id: 1218557780870 **City of Project Site:** Oakland
Site Location: CHP - California Highway Patrol, 3601 Telegraph Avenue, Oakalnd, CA
Project Start Date: 09/08/2008 **Completion Date:** 09/12/2008
Requested Inspection: 09/08/2008
Scheduled Inspection: 09/08/2008 at 1:00 PM (Contact your inspector, Ron Smalley at (510) 670-5407, to confirm.)

Applicant: Kleinfelder Inc. - Susan E. Gardner **Phone:** 916-366-1701
3077 Fite Cir., Sacramento, CA 95827
Property Owner: State of CA Dept. of General, SUCS Attn: A. K. **Phone:** 916-375-4891
Jain
707 3rd St. Suite 4-430, West Sacramento, CA 95827
Client: ** same as Property Owner **

Total Due: $230.00
Receipt Number: **Total Amount Paid:** $0.00
Payment Type: EXMPT PAYMENT EXEMPT

Works Requesting Permits:

Borehole(s) for Investigation-En vironmental/Moni torinig Study - 10 Boreholes
Driller: William Vannucci - Lic #: 814760 - Method: DP **Work Total: $230.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0578	08/12/2008	12/07/2008	10	3.00 in.	35.00 ft

Specific Work Permit Conditions

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

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

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

4. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and

Alameda County Public Works Agency - Water Resources Well Permit

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

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

PROGRAMS AND SERVICES

Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at:
399 Elmhurst Street
Hayward, CA 94544
For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org
For Drilling Permit information and process contact James Yoo at
Phone: 510-670-6633
FAX: 510-782-1939
Email: Jamesy@acpwa.org

Alameda County Public Works is the administering agency of General Ordinance Code, Chapter 6.88 . The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by California Water Code . The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

Drilling Permit Jurisdictions in Alameda County: There are four jurisdictions in Alameda County.

Location: Agency with Jurisdiction Contact Number

Berkeley City of Berkeley Ph: 510-981-7460
Fax: 510-540-5672

Fremont, Newark, Union City Alameda County Water District Ph: 510-668-4460
Fax: 510-651-1760

Pleasanton, Dublin, Livermore, Sunol Zone 7 Water Agency Ph: 925-454-5000
Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of **Oakland , Alameda , Piedmont , Emeryville , Albany , San Leandro , San Lorenzo , Castro Valley**, and **Hayward** . The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

Permits are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed permit application *(30 Kb)** , along with a site map, should be submitted at least **ten (10) working days prior to the planned start of work** . Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

Fees
Beginning April 11, 2005 , the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells (*Horizontal hillside dewatering and dewatering for construction period only), shall cost $300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost $200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: **Treasurer, County of Alameda**

Permit Fees are exempt to State & Federal Projects
Applicants shall submit a letter from the agency requesting the fee exemption.

Scheduling Work/Inspections :
Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact **James Yoo at 510-670-6633** to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspecto r will coordinate the inspection requirements as well as how the inspector can be reached if they are not at the site when Inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

Request for Permit Extension:
Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org . There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. **NO refunds** shall be given back after 90 days and the permit shall be deemed voided.

Cancel a Drilling Permit:
Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org . If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

Refunds/Service Charge:
A service charge of $25.00 dollars for the first check returned and $35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application **after** a permit has been issued will then be charged a service fee of $50.00 (fifty Dollars).

To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controll er to process claims, from all County departments for the refund of fees which do not exceed $500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is $1,500).

Refunds over the amounts must be authorized by t he Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors. The forms to request for refunds under $500.00 (Five Hundred Dollars) are available at this office or any County Offices. If t he amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

Enforcement
Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars ($500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such

violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

Enforcement actions will be determine d by this office on a case-by-case basis
Drilling without a permit shall be the cost of the permit(s) and a fine of $500.00 (Five Hundred Dollars).

Well Completion Reports (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specific ally authorized by government agencies.

See our website (www.acgov.org/pw_a/wells/index.sh tml) for links to additional forms.

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APPENDIX B

BORING LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM 2487)

MAJOR DIVISIONS				GRAPHIC LOG		TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS (More than half of material is larger than the #200 sieve)	GRAVELS (More than half of coarse fraction is larger than the #4 sieve)	CLEAN GRAVELS WITH <5% FINES	Cu≥4 and 1≤Cc≤3		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
			Cu<4 and/or 1>Cc>3		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		GRAVELS WITH 5 to 12% FINES	Cu≥4 and 1≤Cc≤3		GW-GM	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
					GW-GC	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
			Cu<4 and/or 1>Cc>3		GP-GM	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
					GP-GC	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
		GRAVELS WITH >12% FINES			GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
					GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
					GC-GM	CLAYEY GRAVELS, GRAVEL-SAND-CLAY-SILT MIXTURES
	SANDS (More than half of coarse fraction is smaller than the #4 sieve)	CLEAN SANDS WITH <5% FINES	Cu≥6 and 1≤Cc≤3		SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
			Cu<6 and/or 1>Cc>3		SP	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
		SANDS WITH 5 to 12% FINES	Cu≥6 and 1≤Cc≤3		SW-SM	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
					SW-SC	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
			Cu<6 and/or 1>Cc>3		SP-SM	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
					SP-SC	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
		SANDS WITH >12% FINES			SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
					SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
					SC-SM	CLAYEY SANDS, SAND-SILT-CLAY MIXTURES
FINE GRAINED SOILS (More than half of material is smaller than the #200 sieve)	SILTS AND CLAYS (Liquid limit less than 50)				ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY,
					CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
					CL-ML	INORGANIC CLAYS-SILTS OF LOW PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
					OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS (Liquid limit greater than 50)				MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT
					CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
					OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY

USCS (D2487) 92451LOGS.GPJ 11/12/08

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Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487)

CHP OAKLAND

PLATE

B-1

LOG SYMBOLS

	BULK / BAG SAMPLE	-4	PERCENT FINER THAN THE NO. 4 SIEVE (ASTM Test Method C 136)
	MODIFIED CALIFORNIA SAMPLER (2-1/2 inch outside diameter)	-200	PERCENT FINER THAN THE NO. 200 SIEVE (ASTM Test Method C 117)
	CALIFORNIA SAMPLER (3 inch outside diameter)	LL	LIQUID LIMIT (ASTM Test Method D 4318)
	STANDARD PENETRATION SPLIT SPOON SAMPLER (2 inch outside diameter)	PI	PLASTICITY INDEX (ASTM Test Method D 4318)
	CONTINUOUS CORE	TXCU	CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (EM 1110-1-1906)
	SHELBY TUBE	EI	EXPANSION INDEX (UBC STANDARD 18-2)
	ROCK CORE	COL	COLLAPSE POTENTIAL
	WATER LEVEL (level where first encountered)	UC	UNCONFINED COMPRESSION (ASTM Test Method D 2166)
	WATER LEVEL (level after completion)		
	SEEPAGE	MC	MOISTURE CONTENT (ASTM Test Method D 2216)

GENERAL NOTES

1. *Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual.*
2. *No warranty is provided as to the continuity of soil conditions between individual sample locations.*
3. *Logs represent general soil conditions observed at the point of exploration on the date indicated.*
4. *In general, Unified Soil Classification System designations presented on the logs were evaluated by visual methods. Where laboratory tests were performed, the designations reflect the laboratory test results.*

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Drafted By: D. Anderson	Project No.: 92451
Date: 11/12/2008	File Number: 92451Logs

LOG KEY

CHP OAKLAND

PLATE

B-2

KA-LOG_KEY 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater encountered at a depth of 20 feet.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 20 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-1 0- 2				**Asphalt Concrete** : Approximately 4 to 5 inches thick **Silty GRAVEL** (GM): Light gray, dry to moist, fine grained
		LB-1 3-3.5				
5		LB-1 4-5				
						Sandy SILT (ML): Light brown to yellow-brown, moist, very firm, trace fine gravel
10						
						Gravelly SAND (SW): Mottled brown, moist, dense, fine to coarse sand wet
15						
						Sandy GRAVEL (GM): Brown to yellow-brown, wet, dense, fine gravel
20		LB-1 (Groundwater)				Boring completed at a depth of 20 feet below existing site grade.
25						
30						
35						

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LOG OF BORING LB- 1

CHP OAKLAND

PLATE 1 of 1

B-3

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions: Graded level, low weeds, sandy gravel

Groundwater: Groundwater encountered at a depth of 25 feet.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 25 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Silty GRAVEL (GM): Tan, dry, fine grained (FILL)
		LB-2-2				
5		LB-2-4				**Gravelly SAND** (SW): Gray to dark gray, moist, dense, fine to coarse sand, fine gravel, trace brick pieces (FILL)
		LB-2-5				**Lean CLAY** (CL): Light gray to olive, very firm
						with trace fine gravel
10						**Clayey GRAVEL** (GC): Light brown with red and yellow-brown, moist to wet, dense, fine grained
15						**Clayey GRAVEL** (GC): Brown, moist, dense, fine grained
20						**Clayey GRAVEL** (GC): Brown, moist, dense, fine grained
						Clayey SAND (SC): Light gray, moist to wet, fine to medium grained, trace gravel
25		LB-2 (Groundwater)				**Sandy GRAVEL** (GW): Brown, wet, very dense, fine gravel, fine to coarse sand
						Boring completed at a depth of 25 feet below existing site grade.
30						
35						

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

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Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

LOG OF BORING LB-2

CHP OAKLAND

PLATE 1 of 1

B-4

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Silty GRAVEL (GM): Tan, dry, dense, fine grained
		LB-3-2				**Gravelly SAND** (SW): Brown to gray, moist, dense, with some clay, trace brick pieces, concrete
5		LB-3-4				
		LB-3-5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 3

CHP OAKLAND

PLATE 1 of 1

B-5

Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Silty GRAVEL (GM): Tan, dry, dense, fine grained
		LB-4-2				**Lean CLAY** (CL): Dark gray, moist, very firm
		LB-4-4				
5		LB-4-5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 4

CHP OAKLAND

PLATE 1 of 1

B-6

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Silty GRAVEL (GM): Tan, dry to moist
		LB-5-2				**Lean CLAY** (CL): Dark gray, moist, very firm, trace sandy seams, trace fine gravel, brick pieces
		LB-5-4				
5		LB-5-5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 5

CHP OAKLAND

PLATE 1 of 1

B-7

Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-6 2				**Silty GRAVEL** (GM): Light brown, dry, dense, fine grained, trace concrete and brick
		LB-6 4				**Lean CLAY** (CL): Dark gray, moist, firm
5		LB-6 5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

LOG OF BORING LB- 6

CHP OAKLAND

PLATE
1 of 1

B-8

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-7 2				**Silty GRAVEL** (GM): Tan, dry to moist, loose to dense, fine grained, with brick and concrete pieces
		LB-7 4				**Lean CLAY** (CL): Dark gray, moist, very firm, with some sand, brick pieces
5		LB-7 5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 7

CHP OAKLAND

PLATE 1 of 1

B-9

Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-8 2				**Silty GRAVEL** (GM): Tan, dry, dense, fine grained
		LB-8 4				**Lean CLAY** (CL): Gray, moist to wet, firm, low plasticity
5		LB-8 5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 8

CHP OAKLAND

PLATE 1 of 1

B-10

Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-9 2				**Silty GRAVEL** (GM): Tan to light brown, dry, dense, fine grained, brick pieces
						Lean CLAY (CL): Dark gray, very firm, brick, gravel common
		LB-9 4				
5		LB-9 5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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LOG OF BORING LB- 9

CHP OAKLAND

PLATE 1 of 1

B-11

Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:

Groundwater: Groundwater not encountered during drilling.

Method:

Equipment:

Date Completed: 9/9/2008

Logged By: B. Honea

Total Depth: 5 feet

Boring Diameter:

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
		LB-10 2				**Silty GRAVEL** (GM): Tan, dry, dense, fine grained, brick and concrete pieces common
		LB-10 4				**Lean CLAY** (CL): Dark gray, moist, very firm
5		LB-10 5				Boring completed at a depth of 5 feet below existing site grade.
10						
15						
20						
25						
30						
35						

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Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

LOG OF BORING LB-10

CHP OAKLAND

PLATE 1 of 1

B-12

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions: Asphalt concrete paved parking lot.

Groundwater: Groundwater encountered at depths of 30 and 35 feet.

Method: Direct Push

Equipment: Geoprobe

Date Completed: 9/10/2008

Logged By: B. Honea

Total Depth: 35 feet

Boring Diameter: 2 inch

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Asphalt Concrete
						Silty GRAVEL (GM):
						Lean CLAY (CL): Gray-brown, moist, very firm
5		GB-16-4-5 (Soil)		0.0		to dark gray
						to olive
10				0.5		with sand stringers
						Sandy CLAY (CL): Gray-orange, moist, very firm, fine grained
15				0.0		**Clayey SAND** (SC): Yellow-brown, moist to wet
						Silty SAND (SW): Yellow-brown, moist to wet, fine to coarse grained
20				0.0		**Silty SAND** (SM): Yellow-brown, moist, fine to coarse sand, some clay
				0.1		**Silty SAND/Sandy SILT** (SM-ML): Olive-brown, moist, fine sand
				0.1		increased moisture
						Lean CLAY with Sand (CL): Red-brown, moist, pockets of sandy silt, oxidation
25				0.1		
				0.1		**Sandy SILT** (ML): Yellow-brown, moist, very low plasticity, fine sand
				0.1		**Silty SAND** (SM): Olive-brown, moist to wet, fine to medium sand
30		GB-16-30 (Groundwater)		0.1		
35		GB-16-35 (Groundwater)				Boring completed at a depth of 35 feet below existing site grade.

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Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

LOG OF BORING GB-16

CHP OAKLAND

PLATE 1 of 1

B-13

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions: Asphalt concrete paved parking lot.

Groundwater: Groundwater encountered at a depth of 20 feet.

Method: Direct Push

Equipment: Geoprobe

Date Completed: 9/10/2008

Logged By: B. Honea

Total Depth: 30 feet

Boring Diameter: 2 inch

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Asphalt Concrete : Approximately 4 inches thick
						Sandy GRAVEL (GW): Brown, moist, dense, fine grained
						SILT (ML): Dark gray, moist to wet
						Lean CLAY (CL): Olive, moist, very firm
5						with trace fine gravel stringers
10						no gravel with 20% fine sand
15						moist to wet with trace gravel to 5%
						Clayey SAND (SC): Brown, moist to wet
						with gravel stringers, trace brick colored pieces
20		GB-17-20 (Groundwater)			▽	**Silty SAND** (SM): Light brown, wet, with 15 to 25% gravel
25						**Lean CLAY** (CL): Gray-brown, moist, very firm
30						Boring completed at a depth of 30 feet below existing site grade.
35						

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Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

LOG OF BORING GB-17

CHP OAKLAND

PLATE

1 of 1

B-14

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions: Asphalt concrete paved parking lot.

Groundwater: Groundwater encountered at a depth of 23 feet.

Method: Direct Push

Equipment: Geoprobe

Date Completed: 9/10/2008

Logged By: J. Pemberton

Total Depth: 25 feet

Boring Diameter: 2 inch

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Aggregate Base
						Sandy Lean CLAY (CL): Dark brown, moist, low plasticity, medium to coarse sand
				0.4		**Poorly Graded SAND** (SP): medium to coarse grained
						Silty SAND (SM): Dark brown, moist to wet, very low plasticity, fine sand
5		GB-18 4'-5'				**FILL** : pieces of brick
		GB-18 4.5' (Soil)				**Sandy SILT** (ML): Olive-brown, moist, low plasticity, fine sand
				0.2		oxidation and black nodules
				0.2		
10						some increase in fine to medium sand, trace coarse sand
						pockets of blue-gray sandy silt
15				3.4		**Silty SAND with Gravel** (SM): Blue-gray, moist, low plasticity, fine to medium sand, fine gravel, strong odor
				0.3		**Silty SAND with Gravel** (SM): Yellow-brown, moist, medium sand, fine to coarse gravel
						decrease in fines, no gravel or coarse sand
20				0.2		**Sandy SILT** (ML): Olive-brown, moist, low plasticity, fine sand, oxidation and black stringers
						Sandy SILT (ML): Yellow-brown, moist, fine to medium sand, low plasticity, black nodules and oxidation
						Silty SAND (SM): Yellow-brown, moist to wet, fine to medium sand
					▽	**Sandy SILT** (ML): Yellow-brown, moist, fine to medium sand, low plasticity, black nodules and oxidation
25		GB-18-25 (Groundwater)				Boring completed at a depth of 25 feet below existing site grade.
30						
35						

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Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

LOG OF BORING GB-18

CHP OAKLAND

PLATE 1 of 1

B-15

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:	Asphalt concrete paved parking lot.	Date Completed:	9/11/2008
Groundwater:	Groundwater encountered at depths of 25 and 30 feet.	Logged By:	J. Pemberton
		Total Depth:	30 feet
Method:	Direct Push	Boring Diameter:	2 inch
Equipment:	Geoprobe		

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Aggregate Base
				0.2		**Sandy Lean CLAY** (CL): Dark gray, moist, very fine sand
5				0.2		
						Sandy SILT (ML): Yellow-brown, moist, low plasticity, very fine sand, black nodules, oxidation
				0.1		
10						**Silty SAND with Gravel** (SM): Red-brown, moist, medium to coarse sand, fine gravel
				0.1		
				0.1		
15						**Sandy SILT** (SM): Yellow-brown-gray, moist to wet, low plasticity, fine to coarse sand, oxication and black nodules
				0.1		
						Silty SAND with Gravel (SM): Red-brown, moist, medium to coarse sand, fine gravel
				0.1		**Silty SAND with Gravel** (SM): Red-brown, moist to wet, medium to coarse sand, fine to coarse angular gravel
20						
25		GB-19-25 (Groundwater)		▽		
30		GB-19-30 (Groundwater)		▽		Boring completed at a depth of 30 feet below existing site grade.
35						

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LOG OF BORING GB-19

CHP OAKLAND

PLATE 1 of 1

B-16

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:	Asphalt concrete paved parking lot.	Date Completed:	9/11/2008
Groundwater:	Groundwater encountered at depths of 25 and 30 feet.	Logged By:	J. Pemberton
		Total Depth:	35 feet
Method:	Direct Push	Boring Diameter:	2 inch
Equipment:	Geoprobe		

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
0						**Aggregate Base**
						Sandy Lean CLAY (CL): Dark brown, moist, very fine sand
						yellow-brown
5						black nodules and oxidation
10						some fine to coarse gravel
						Silty SAND with Gravel (SM): Yellow-red-brown, moist, medium to coarse sand, fine to coarse gravel
15		GB-20-13.5 (Soil)				
						Silty SAND (SM): Yellow-brown-gray, moist to wet, medium to coarse sand, trace fine gravel
20						**Silty SAND with Gravel** (SM): Yellow-brown, moist, medium to coarse sand, fine gravel
						Poorly Graded SAND (SP): Yellow-brown, wet, medium to coarse sand
						Silty SAND with Gravel (SM): Yellow-brown, moist to wet, medium to coarse sand, fine gravel
25		GB-20-25 (Groundwater)		▽		
30		GB-20-30 (Groundwater)		▽		
35						Boring completed at a depth of 35 feet below existing site grade.

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LOG OF BORING GB-20

CHP OAKLAND

PLATE 1 of 1

B-17

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions:	Asphalt concrete paved parking lot.	Date Completed:	9/11/2008
Groundwater:	Groundwater encountered at depths of 25, 30, and 40 feet.	Logged By:	J. Pemberton
		Total Depth:	30 feet
Method:	Direct Push	Boring Diameter:	2 inch
Equipment:	Geoprobe		

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Asphalt Concrete
						SILT with Sand (ML): Dark brown, moist, low plasticity, very fine grained, with clay
		GB-21-3.4				
5						**Silty SAND** (SM): Yellow-brown, moist, very low plasticity, fine to medium grained, trace clay and coarse sand, trace oxidation and black nodules
						with gravel
						no gravel, increase in clay content
10						increase in medium to coarse sand
						Silty SAND with Gravel (SM): Yellow-red-brown, moist, low plasticity, medium to coarse sand, fine subrounded gravel
						Silty SAND (SM): Yellow-brown, moist, very low plasticity, fine sand, trace fine gravel, oxidation
15						
						Silty SAND with Gravel (SM): Brown, moist, dense
20						**Poorly Graded SAND** (SP): Orange-brown, moist, fine to medium grained
						Silty SAND with Gravel (SM): Red-brown, moist, medium to coarse sand, fine gravel
						Poorly Graded SAND (SP): Brown, moist to wet, dense, medium grained
						Silty SAND (SM): Brown, moist to wet, fine grained
						Well Graded GRAVEL with Sand (GP): Wet, fine to coarse subangular gravel
25		GB-21-25 (Groundwater)				**Silty SAND** (SM): Brown, wet, dense, fine to medium sand
30		GB-21-30 (Groundwater)				Boring completed at a depth of 30 feet below existing site grade.
35						

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

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LOG OF BORING GB-21

CHP OAKLAND

PLATE 1 of 1

B-18

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

Boring Location/ Surface Conditions: Asphalt concrete paved parking lot.

Groundwater: Groundwater encountered at depths of 25 and 30 feet.

Method: Direct Push

Equipment: Geoprobe

Date Completed: 9/11/2008

Logged By: J. Pemberton

Total Depth: 40 feet

Boring Diameter: 2 inch

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
						Aggregate Base
						Sandy Lean CLAY (CL): Dark brown, moist, very fine sand
5		GB-22-4.5				**Sandy SILT** (ML): Olive-brown, moist, very fine sand, black nodules and oxidation
10						**Silty SAND** (SM): Yellow-brown, moist, medium to coarse sand, some fine gravel, black nodules and oxidation
						Sandy SILT (ML): Yellow-brown, moist, low plasticity
						fine to coarse gravel present
15						**Silty SAND with Gravel** (SM): Blue-gray, moist, fine to coarse gravel, fine to medium sand
20						**Silty SAND with Gravel** (SM): Yellow-brown, moist to wet, medium to coarse sand, fine gravel
						increase in medium to coarse sand
25		GB-22-25 (Groundwater)				**Poorly Graded SAND** (SP): Red-brown, wet, medium to coarse sand
30		GB-22-30 (Groundwater)			▽	
35						dry

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Drafted By: D. Anderson Project No.: 92451

Date: 11/12/2008 File Number: 92451Logs

LOG OF BORING GB-22

CHP OAKLAND

PLATE 1 of 2

B-19

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
40		GB-22-40 (Groundwater)		▽		wet Boring completed at a depth of 40 feet below existing site grade.
45						
50						
55						
60						
65						
70						
75						

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LOG OF BORING GB-22

CHP OAKLAND

PLATE
2 of 2

B-19

Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

Boring Location/ Surface Conditions: Asphalt concrete paved parking lot.

Groundwater: Groundwater encountered at depths of 25 and 30 feet.

Method: Direct Push

Equipment: Geoprobe

Date Completed: 9/11/2008

Logged By: B. Honea

Total Depth: 30 feet

Boring Diameter: 2 inch

Depth (feet)	FIELD: Sample Type	FIELD: Sample No.	FIELD: Blows/foot	FIELD: PID (ppmv)	Graphic Log	DESCRIPTION
0						**Sandy Lean CLAY** (CL): Brown, dry, low plasticity, very fine sand, oxidation
5						gray-brown
						Silty SAND with Gravel (SM): Yellow-brown, moist, medium to coarse sand, fine to coarse subangular gravel
10						**Silty SAND/Sandy SILT** (SM-ML): Yellow-brown, moist, low plasticity, fine to medium sand
						Silty SAND with Gravel (SM): Yellow-brown, moist, medium to coarse sand, fine subangular gravel, oxidation
15						**Silty SAND** (SM): Yellow-brown, moist, fine to medium sand, oxidation
						Silty SAND with Gravel (SM): Yellow-brown, moist, medium to coarse sand, fine subangular gravel, oxidation
20						**Silty SAND** (SM): Gray, moist, low plasticity, fine to medium sand, trace fine gravel, oxidation
						Silty SAND (SM): Gray, moist, low plasticity, medium to coarse sand, trace fine gravel, oxidation
25		GB-23-25 (Groundwater)				slight increase in gravel, increase in moisture
						Poorly Graded GRAVEL with Sand (GP): Red-brown, moist to wet, medium to coarse sand, fine to coarse subangular gravel
30		GB-23-30 (Groundwater)				Boring completed at a depth of 30 feet below existing site grade.
35						

P-LOG_2006 BLOWS PER FOOT 92451LOGS.GPJ 11/12/08

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Drafted By: D. Anderson
Date: 11/12/2008
Project No.: 92451
File Number: 92451Logs

LOG OF BORING GB-23

CHP OAKLAND

PLATE
1 of 1
B-20

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APPENDIX C

SAMPLE DATA SHEETS

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INSTRUMENT CALIBRATION LOG

Sampler Name/No. B. HONEA

Date 9-10-08

Project No. 92451-1

Job Name CHP. OAKLAND

pH Meter (make/number) YSI 556 MPS

EC Meter (make/number) YSI 556 MPS

	Time	Temp.	pH4	pH7	pH10
Reading (initial)	0812	18.59	3.94		10.14
Calibration (initial)			4.00		10.00
Reading (intermediate)					
Calibration (intermediate)					
Reading (end of day)	1647	24.91	4.04		10.10

Comments:

	1413-umho		-umho
Reading (initial)	1393		
Calibration (initial)	1416		
Reading (intermediate)			
Calibration (intermediate)			
Reading (end of day)	1409		

Comments:

Turbidity Meter (make/number)

	NTU	NTU	NTU	Battery Check
Reading (Initial)				
Calibration				

D.O. Meter (make/number) YSI 556 MPS

	Hg in inches	Hg in mm	
Weather Service			
Reading (initial)	758.6 →		
Reading (adj.)			

INSTRUMENT CALIBRATION LOG

KLEINFELDER
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Sampler Name/No. P. Horan/699 **Date** 9-11-08

Project No. 92451-1 **Job Name** CHP. OAKLAND

pH Meter (make/number) YSI 556 MPS

	Time	Temp.	pH4	pH7	pH10
Reading (initial)	0840	17.75	4.00		9.96
Calibration (initial)			4.00		10.06
Reading (intermediate)					
Calibration (intermediate)					
Reading (end of day)	1444		4.12		10.04

Comments:

EC Meter (make/number) YSI 556 MPS

	1413-umho		-umho
Reading (initial)	1420		
Calibration (initial)	1413		
Reading (intermediate)			
Calibration (intermediate)			
Reading (end of day)	1418		

Comments:

Turbidity Meter (make/number)

	NTU	NTU	NTU	Battery Check
Reading (Initial)				
Calibration				

D.O. Meter (make/number) YSI 556 MPS

	Hg in inches	Hg in mm	
Weather Service			
Reading (initial)		756.4	
Reading (adj.)			

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PROJECT CHP OAKLAND PROJECT NO. 92451-1

SUBJECT XRF SAMPLE SCREENING BY Kyle #7103 DATE 9-9-08

REVIEWED BY DATE

(LAB)

BORING LOCATION	SAMPLE ID	DEPTH (FT)	XRF READING Pb (PPM)	TWO SIGMA 95% CONFIDENCE +/-	TIME ELAPSED	NOTES & COMMENTS
LB-1	LB-1-2	0-2'	5.9	7.7	20 secs	
LB-1	LB-1-3.5	3.5	ND	11	20	
LB-1	LB-1-5	5	ND	11	20	
LB-2	LB-2-2	0-2	ND	10	20	~~BRICK CHIPS~~ BRICK CHIPS
LB-2	LB2-4	3-4	105.5	17.3	20	BRICK CHIPS
(220) (910) LB-2	LB-2-5	4-5	31,5	11.2	20	
LB-3	LB-3-2	0-2	ND	13	20	
LB-3	LB-3-4	3-4	16.5	9.1	20	BRICK CHIPS
LB-3	LB-3-5	4-5	ND	12	20	CLAY
LB-4	LB-4.2	0-2	43.3	17.1	20	BRICK CHIPS
LB-4	LB-4-4	3-4	ND	14	20	CLAY
LB-4	LB-4-5	4-5	ND	11	20	CLAY
LB-5	LB-5-2	0-2	20.8	10.0	20	
LB-5	LB-5-4	3-4	ND	13	20	CLAY
LB-5	LB-5-5	4-5	ND	11	20	CLAY
LB-6	LB-6-2	0-2	22.1	10.0	20	
LB-6	LB-6-4	3-4	ND	14	20	CLAY
LB-6	LB-6-5	4-5	29.5	11.4	20	CLAY
LB-7	LB-7-2	0-2	31.3	9.7	20	BRICK CHIPS
LB-7	LB-7-4	3-4	18.0	9.3	20	BRICK CHIPS
LB-7	LB-7-5	4-5	ND	11	20	CLAY
LB-8	LB-8-2	0-2	18.1	13.4	20	BRICK CHIPS
LB-8	LB-8-4	3-4	ND	11	20	CLAY
LB-8	LB-8-5	4-5	16.4	9.3	20	CLAY

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PROJECT CHP OAKLAND PROJECT NO. 92451-1

SUBJECT XRF SAMPLE SCREENING BY [signature] #7103 DATE 9-9-08

REVIEWED BY DATE

BORING LOCATION	SAMPLE ID	DEPTH (FT)	XRF Pb READING (PPM)	TWO-SIGMA 95% CONFIDENCE +/-	TIME ELAPSED MAX	NOTES & COMMENTS
LB-9	LB-9-2	0-2	ND	13		ROCKS
LB-9	LB-9-4	3-4	ND	13	20	CLAY
LB-9	LB-9-5	4.5	ND	12	20	BRICK CHIPS
LB-10	LB-10-2	0.2	32.3	11.0	20	BRICK CHIPS & CERAMIC SHARDS ROCKS
LB-10	LB-10-4	3-4	ND	12	20	
LB-10	LB-10-5	4.5	12.9	8.5	20	CLAY BRICK CHIPS

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Sample Data Sheet

Page

Project Name: CHP OAKLAND
Project No.: 92451
Sampler Name/No.: 699 / BRIAN HOWARD

Site / Boring / Well / Barrel Number	Date	Time	Sample Number	Sample Interval (feet)	PID (ppm)	Receiving Lab	Analysis	Matrix
LB-1	9-9-08		LB1-2	0-2		KIFF	LEAD	SOIL
"	"		LB-1-3.5	3-4		"	"	"
"	"		LB-1-5	4-5		SAVE		"
"	"	0914	LB-1			KIFF		WATER
LB-2	9-9-08		LB-2-2	0-2		"		SOIL
"	"		LB-2-4	3-4		"		"
"	"		LB-2-5	4-5		SAVE		"
LB-2	9-9-08	1034	LB-2			KIFF		WATER
LB-3								

Kalen finished on separate sheet.

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Sample Data Sheet

Project Name CHP OAKLAND
Project No. 92451.1
Sampler Name/No. BRIAN E. HONEA / 1699

	Site / Boring / Well / Barrel Number	Date	Time	Sample Number	Sample Interval (feet)	PID (ppm)	Receiving Lab	Analysis	Matrix
	GB-17	9-9-08	1448	GB 17-20			KIFF		WATER
X	GB-16	9-10-08	833	GB-16-4-5	4 to 5		"		Soil
X	GB-16	9-10-08	903	GB-16-22-23	22 to 23		"		Soil
	GB-16	9-10-08	945	GB-16-30			K.iff		Water
	GB-16	9-10-08	1010	GB-16-35			K.iff		Water
X	GB-22	9-10-08	1037	GB-22-4.5	4 to 5		"		SOIL
X	GB-22	9-10-08	1105	GB-22-17-18	17 to 18		"		SOIL
	GB-22	9-10-08	1130	GB-22-25			K.iff		Water
	GB-22	9-10-08	1235	GB-22-30			"		"
	GB-22	9-10-08	1431	GB-22-40			"		"
X	GB-18	9-10-08	1455	GB-18-14.5			KIFF		SOIL
	GB-18	9-10-08	1534	GB-18-25			↓		WATER
X	GB-21	9-11-08	0835	GB-21-3-4	3 to 4		KIFF		SOIL
	GB-21		0905	GB-21-25					WATER
X	~~GB-23~~		~~1010~~	~~GB-23-8.5-10~~					
	GB-23		1035	GB-23-25			K.iff		Water
	GB-20	~~GB-20-30~~	1220	GB-20-25			K.iff		Water
	GB-23		1105	GB-23-30			"		"
	GB-20		1238	GB-20-30			"		WATER
	GB-19		1415	GB-19-30			"		"
V	GB-20		1205	GB-20-13.5-15			"		Soil

KLEINFELDER
FIELD OBSERVATION DATA SHEET

PROJECT NO. 92451 EMPLOYEE(S) NO. 699

	Location No.	Date M	Date D	Date Y	Military Time Hr.	Military Time Min.	Code Number*	Measurement	Alt. Msmt. (product)	Comments Arsenna
1	LB 1	9	9	08	11	22	0	13.62		99.0 est.
2	LB 2	9	9	08	11	17	0	14.45		elev. 100 ft assumed
3	GB-22	9	10	08	12	27	0	14.70		99.5 est.
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

* Code

0 Depth Water, Feet (TCC)
1 Water Level Elevation, Feet (MSL)
2 Depth Water, Feet (Cristy Box)
3 Depth Water/Product, Feet (TCC)
4 Water/Product Elevation, Feet (MSL)
5 Depth Water/Product, Feet (Cristy)
6 Oil Flow Rate, GPM
7 Cumulative Oil, Gallons
20 Pumping Depth, Feet
21 Pumping Rate, GPM
22 Pressure, PSI
23 Flow Rate, GPM
24 Stream Flow, CFS
60 Volume, mL
27 pH, Water Sample
28 pH, Probe (Lowered into Well)
29 Air Temperature (°C)
30 Water Temperature (°C)
31 Residual Chlorine
32 Dissolved Oxygen, mg/l
33 Specific Conductance, umhos/cm
34 Nitrogen as Ammonia, mg/l
35 Nitrate Nitrogen, mg/l
36 Precipitation, Inches/Day
39 Cumulative Gallons
40 Cumulative Acre-Feet
57 Residual Vacuum
58 Reset Vacuum (in centibars)

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APPENDIX D

CHAIN-OF-CUSTODY FORMS
LABORATORY ANALYTICAL REPORTS

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Pam Wee
Kleinfelder, Inc.
3077 Fite Circle
Sacramento, CA 95827

Subject : 20 Soil Samples and 2 Water Samples
Project Name : Site "K"
Project Number : 92451-1

Dear Ms. Wee,

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

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

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-1-2** Matrix : Soil Lab Number : 64642-01

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**0.77**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-1** Matrix : Water Lab Number : 64642-02

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-1-3.5** Matrix : Soil Lab Number : 64642-03

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**< 0.50**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-2-2** Matrix : Soil Lab Number : 64642-04
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**9.0**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-2-4** Matrix : Soil Lab Number : 64642-05
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**220**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-2** Matrix : Water Lab Number : 64642-06
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**0.65**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	111		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-3-2** Matrix : Soil Lab Number : 64642-07

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**76**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-3-4** Matrix : Soil Lab Number : 64642-08

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**19**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-4-2** Matrix : Soil Lab Number : 64642-09

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**99**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-4-4** Matrix : Soil Lab Number : 64642-10

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**14**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-5-2** Matrix : Soil Lab Number : 64642-11

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**79**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-5-4** Matrix : Soil Lab Number : 64642-12
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**6.3**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-6-2** Matrix : Soil Lab Number : 64642-13
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**120**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-6-4** Matrix : Soil Lab Number : 64642-14
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**13**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-7-2** Matrix : Soil Lab Number : 64642-15
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**40**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-7-4** Matrix : Soil Lab Number : 64642-16

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**4.5**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-8-2** Matrix : Soil Lab Number : 64642-17

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**32**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642
Date : 09/16/2008

Project Name : **Site "K"**
Project Number : **92451-1**

Sample : **LB-8-4** Matrix : Soil Lab Number : 64642-18
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**8.3**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-9-2** Matrix : Soil Lab Number : 64642-19

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**61**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-9-4** Matrix : Soil Lab Number : 64642-20

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**14**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-10-2** Matrix : Soil Lab Number : 64642-21

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**130**	0.50	mg/Kg	EPA 6010B	09/11/2008

KIFF Analytical LLC

Report Number : 64642

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Sample : **LB-10-4** Matrix : Soil Lab Number : 64642-22

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**10**	0.50	mg/Kg	EPA 6010B	09/11/2008

Report Number : 64642

Date : 09/16/2008

QC Report : Method Blank Data

Project Name : **Site "K"**

Project Number : **92451-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	09/11/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	98.2		%	EPA 8260B	09/15/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Report Number : 64642

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead	64642-01	0.77	50.0	50.0	47.2	46.9	mg/Kg	EPA 6010B	9/11/08	93.0	92.3	0.690	75-125	20
1,2-Dichloroethane	64721-04	<0.50	39.2	39.2	38.6	39.2	ug/L	EPA 8260B	9/15/08	98.7	100	1.37	70-130	25
Benzene	64721-04	<0.50	40.0	40.0	40.5	40.4	ug/L	EPA 8260B	9/15/08	101	101	0.317	70-130	25
Methyl-t-butyl ether	64721-04	<0.50	40.0	40.0	40.1	38.2	ug/L	EPA 8260B	9/15/08	100	95.4	4.84	70-130	25
Tert-Butanol	64721-04	<5.0	200	200	191	193	ug/L	EPA 8260B	9/15/08	95.7	96.8	1.16	70-130	25
Toluene	64721-04	<0.50	39.5	39.5	40.9	40.3	ug/L	EPA 8260B	9/15/08	104	102	1.54	70-130	25

Report Number : 64642

QC Report : Laboratory Control Sample (LCS)

Date : 09/16/2008

Project Name : **Site "K"**

Project Number : **92451-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	9/11/08	101	85-115
1,2-Dichloroethane	39.2	ug/L	EPA 8260B	9/15/08	98.2	70-130
Benzene	40.1	ug/L	EPA 8260B	9/15/08	102	70-130
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/15/08	89.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/15/08	94.2	70-130
Toluene	39.5	ug/L	EPA 8260B	9/15/08	101	70-130

Calscience Environmental Laboratories, Inc.

September 17, 2008

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 08-09-0992**
Client Reference: Site "K"

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/11/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Amanda Porter

Calscience Environmental
Laboratories, Inc.
Amanda Porter
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical		Date Received:	09/11/08
2795 2nd Street, Suite 300		Work Order No:	08-09-0992
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project: Site "K"

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LB-1	**08-09-0992-1-A**	**09/09/08 09:14**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08 19:46**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LB-2	**08-09-0992-2-A**	**09/09/08 10:34**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08 20:04**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-008-1,077**	**N/A**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08 17:14**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical		Date Received:	09/11/08
2795 2nd Street, Suite 300		Work Order No:	08-09-0992
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project Site "K"

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-09-1153-7	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	102	105	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/11/08
Work Order No: 08-09-0992
Preparation: EPA 3005A Filt.
Method: EPA 200.8

Project: Site "K"

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
08-09-1153-7	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915S03**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	101	101	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Kiff Analytical		Date Received:	N/A
2795 2nd Street, Suite 300		Work Order No:	08-09-0992
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project: Site "K"

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-008-1,077	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915L03F**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	102	100	85-115	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 08-09-0992

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Analytical LLC

2795 Second Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4808

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
714-895-5494

0992
COC No. ~~64642~~

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Scott Forbes

EDF Report? YES

Company/Address: Kiff Analytical

Recommended but not mandatory to complete this section:

Sampling Company Log Code: KFS

Phone No.: 530-297-4800 | FAX No.: 530-297-4808

Global ID: T0619763665

Project Number: 92451-1 | P.O. No.: 64642

Deliverables to (Email Address): inbox@kiffanalytical.com

Project Name: Site "K"

Project Address:

Sample Designation	Sampling Date	Sampling Time	Container / Preservative: 250ml Poly None	Matrix: Water	Analysis Request: ICP-MS 200.8 Dissolved (1)	TAT: 4-Days	For Lab Use Only
LB-1	09/09/08	09:14	1	X	X	X	1
LB-2	09/09/08	10:34	1	X	X	X	2

Relinquished by:	Date	Time	Received by:
Kiff Analytical	091008	1900	
Relinquished by:	Date	Time	Received by:
Relinquished by: COC102251996 18	Date 9-11-08	Time 0845	Received by Laboratory:

Remarks: Please refer to attached Test Detail.

Bill to: Accounts Payable

Test Detail for Kiff Work Order: 64642

ICP-MS 200.8 Dissolved (1)
Lead

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 08 - 09 - 0992

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KPA ANALYTICAL DATE: 9-11-08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature (For Air & Filter only).

___.___ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

3.6 °C Temperature blank.
___.___ °C IR thermometer.
_____ Ambient temperature (For Air & Filter only).

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact) : _____ Not Present: _____

Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC		✓	
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: WB

COMMENTS:

KLEINFELDER
Bright People. Right Solutions.

64642

1 of 2

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
92451-1	Site "K"	Kiff

L.P. NO. (PO. NO.):

SAMPLERS: (Signature/Number): #7103 / Brian Honea / 699

STAT / EDF

INSTRUCTIONS/REMARKS: retain remainder of soil for possible further testing

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: Total Lead (6010)	TPH-gas (8260)	BTEX (8260)	5-Oxygenates (8260)	1,2-DCA & EDF (8260)	Dissolved Lead (6010)	
1	9-9-08	0850	LB-1-2	SOIL	1	*	X						
2		0914	LB-1	water	5	**		X	X	X	X	X	PLEASE CALL SUE @
3		0900	LB-1-3.5	SOIL	1	*	X						916-366-2310 TO
4		0930	LB-2-2	SOIL	1	*	X						SPECIFY Pb METHOD
5		0940	LB-2-4	SOIL	1	*	X						ON 9-10-08
6		1034	LB-2	WATER	5	**		X	X	X	X	X	
7		1000	LB-3-2	SOIL	1	*	X						EDF Required
8		1010	LB-3-4				X						Global ID# T0619763665
9		1030	LB-4-2				X						
10		1040	LB-4-4				X						
11		1100	LB-5-2				X						
12		1110	LB-5-4				X						Not filtered in field
13		1130	LB-6-2				X						
14		1140	LB-6-4				X						Please lab filter
15		1200	LB-7-2				X						
16		1210	LB-7-4				X						
17		1230	LB-8-2				X						
18		1240	LB-8-4				X						
19		1300	LB-9-2				X						
20		1310	LB-9-4				X						

SAMPLE RECEIPT
Temp °C 10.7 Therm. ID# 311-2
Initial JSS Date 09/09/08
Time 1723 Coolant present: (Yes) No

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	9-9-08 1723	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for laboratory by: (Signature)
	090908 1723	[signature] A Kiff Analytical

Instructions/Remarks:
* plastic tube (Geoprobe)
** 4-HCl preserved VOAs and 1-250mL poly

Send Results To:
Pam Wee and Sue Gardner
pwee@kleinfelder.com
Attn: sgardner@kleinfelder.com

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC No 02573

KLEINFELDER
Bright People. Right Solutions.

64642

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
92451-1	SITE "K"	KIFF

L.P. NO. (PO. NO.):

SAMPLERS: (Signature/Number) [signature] #7103 / [signature] Horrea 699

INSTRUCTIONS/REMARKS: STANDARD TAT & EDF. RETAIN REMAINING SOIL FOR POSSIBLE FURTHER ANALYSIS

ANALYSIS: TOTAL LEAD (6010); TPH-GAS (8260); BTEX (8260); 5-OXYGENATES (8260); 1,2-DCA & EDB (8260); DISS LEAD (200)

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	TOTAL LEAD (6010)	TPH-GAS (8260)	BTEX (8260)	5-OXYGENATES (8260)	1,2-DCA & EDB (8260)	DISS LEAD (200)						INSTRUCTIONS/REMARKS
1	9-9-08	1330	LB-10-2	SOIL	1	*	X											21
2	↓	1340	LB-10-4	↓	1	*	X											EDF REQUIRED: 22
3																		GLOBAL ID# T0619763665
4																		
5																		
6																		★ NOT FILTERED IN FIELD
7																		PLEASE LAB FILTER
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	9-9-08 1723	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	090908 1723	[signature] Kiff Analytical

Instructions/Remarks:
* PLASTIC TUBE (GEO-PROBE)
** 4- HCL VOAS & 1-250mL POLY

Send Results To:
Pwee @KLEINFELDER.com
Sgardner
Attn: PAM WEE & SUE GARDNER

ENV-02 REV 05/08)

White – Sampler   Canary – Return Copy To Shipper   Pink – Lab Copy

CHAIN OF CUSTODY

COC № 02554

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Sue Gardner
Kleinfelder, Inc.
3077 Fite Circle
Sacramento, CA 95827

Subject : 5 Soil Samples and 15 Water Samples
Project Name : Site K
Project Number : 92451

Dear Ms. Gardner,

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

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

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-16-30** Matrix : Water Lab Number : 64701-01

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**0.57**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	99.8		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	94.7		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-16-35** Matrix : Water Lab Number : 64701-02

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**0.90**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	96.6		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-22-25** Matrix : Water Lab Number : 64701-03

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	94.0		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-22-30** Matrix : Water Lab Number : 64701-04

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.0		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-22-40** Matrix : Water Lab Number : 64701-05

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	91.8		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-18-25** Matrix : Water Lab Number : 64701-06

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	**3.0**	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	92.2		% Recovery	EPA 8260B	09/15/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-17-20** Matrix : Water Lab Number : 64701-07
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**0.84**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.6		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-21-25** Matrix : Water Lab Number : 64701-08
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**0.53**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.9		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-23-25** Matrix : Water Lab Number : 64701-09

Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	90.8		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-20-25** Matrix : Water Lab Number : 64701-10

Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	99.9		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	90.9		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-23-30** Matrix : Water Lab Number : 64701-11

Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.8		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-20-30** Matrix : Water Lab Number : 64701-12

Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/12/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	91.8		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-16-4-5** Matrix : Soil Lab Number : 64701-13
Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Sample : **GB-22-4-5** Matrix : Soil Lab Number : 64701-14

Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	112		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-18-4-5** Matrix : Soil Lab Number : 64701-15
Sample Date :09/10/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-21-3-4** Matrix : Soil Lab Number : 64701-16
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-20-13.5-15** Matrix : Soil Lab Number : 64701-17
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	09/12/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-21-30** Matrix : Water Lab Number : 64701-18
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.7		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-19-25** Matrix : Water Lab Number : 64701-19
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**0.61**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	91.6		% Recovery	EPA 8260B	09/16/2008

KIFF Analytical LLC

Report Number : 64701
Date : 09/17/2008

Project Name : **Site K**
Project Number : **92451**

Sample : **GB-19-30** Matrix : Water Lab Number : 64701-20
Sample Date :09/11/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	09/16/2008
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	09/16/2008
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/16/2008
Toluene - d8 (Surr)	92.4		% Recovery	EPA 8260B	09/16/2008

Report Number : 64701

Date : 09/17/2008

QC Report : Method Blank Data

Project Name : **Site K**

Project Number : **92451**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	09/12/2008
1,2-Dibromoethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane	< 0.0050	0.0050	mg/Kg	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	99.9		%	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	102		%	EPA 8260B	09/12/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/2008
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/2008
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	09/12/2008
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	09/12/2008
Toluene - d8 (Surr)	99.4		%	EPA 8260B	09/12/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	99.3		%	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	98.9		%	EPA 8260B	09/15/2008
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/15/2008
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/15/2008
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	09/15/2008
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	09/15/2008
Toluene - d8 (Surr)	92.9		%	EPA 8260B	09/15/2008

Report Number : 64701

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
1,2-Dichloroethane	64701-13	<0.0050	0.0388	0.0385	0.0356	0.0365	mg/Kg	EPA 8260B	9/12/08	91.6	94.8	3.37	70-130	25
Benzene	64701-13	<0.0050	0.0397	0.0394	0.0353	0.0355	mg/Kg	EPA 8260B	9/12/08	88.8	90.1	1.51	70-130	25
Methyl-t-butyl ether	64701-13	<0.0050	0.0397	0.0394	0.0299	0.0310	mg/Kg	EPA 8260B	9/12/08	75.4	78.9	4.42	70-130	25
Tert-Butanol	64701-13	<0.0050	0.198	0.196	0.175	0.188	mg/Kg	EPA 8260B	9/12/08	88.6	95.5	7.52	70-130	25
Toluene	64701-13	<0.0050	0.0391	0.0388	0.0312	0.0317	mg/Kg	EPA 8260B	9/12/08	79.8	81.5	2.10	70-130	25
1,2-Dichloroethane	64672-04	<0.50	39.1	39.2	39.1	36.4	ug/L	EPA 8260B	9/12/08	100	92.9	7.52	70-130	25
Benzene	64672-04	<0.50	40.0	40.0	39.5	38.8	ug/L	EPA 8260B	9/12/08	98.9	96.9	2.00	70-130	25
Methyl-t-butyl ether	64672-04	<0.50	39.9	40.0	38.9	36.3	ug/L	EPA 8260B	9/12/08	97.5	90.7	7.18	70-130	25
Tert-Butanol	64672-04	<5.0	199	200	187	183	ug/L	EPA 8260B	9/12/08	94.0	91.7	2.50	70-130	25
Toluene	64672-04	<0.50	39.4	39.5	39.4	39.3	ug/L	EPA 8260B	9/12/08	100	99.5	0.514	70-130	25
1,2-Dichloroethane	64732-02	<0.50	39.2	39.2	37.8	37.9	ug/L	EPA 8260B	9/15/08	96.4	96.6	0.190	70-130	25
Benzene	64732-02	<0.50	40.1	40.1	39.5	39.5	ug/L	EPA 8260B	9/15/08	98.5	98.4	0.0878	70-130	25
Methyl-t-butyl ether	64732-02	<0.50	40.1	40.1	38.7	38.5	ug/L	EPA 8260B	9/15/08	96.6	96.1	0.511	70-130	25
Tert-Butanol	64732-02	<5.0	200	200	199	196	ug/L	EPA 8260B	9/15/08	99.6	97.9	1.76	70-130	25
Toluene	64732-02	<0.50	39.5	39.5	37.9	37.7	ug/L	EPA 8260B	9/15/08	95.8	95.4	0.352	70-130	25
1,2-Dichloroethane	64744-11	0.59	39.2	39.2	41.1	40.2	ug/L	EPA 8260B	9/15/08	103	101	2.37	70-130	25
Benzene	64744-11	1.2	40.1	40.1	41.6	40.9	ug/L	EPA 8260B	9/15/08	101	99.0	1.81	70-130	25
Methyl-t-butyl ether	64744-11	<0.50	40.1	40.1	37.1	37.0	ug/L	EPA 8260B	9/15/08	92.6	92.2	0.378	70-130	25
Tert-Butanol	64744-11	<5.0	200	200	206	200	ug/L	EPA 8260B	9/15/08	103	99.8	3.09	70-130	25

Report Number : 64701

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene	64744-11	<0.50	39.5	39.5	37.3	36.4	ug/L	EPA 8260B	9/15/08	94.3	92.0	2.52	70-130	25

Report Number : 64701

QC Report : Laboratory Control Sample (LCS)

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,2-Dichloroethane	0.0387	mg/Kg	EPA 8260B	9/12/08	100	70-130
Benzene	0.0396	mg/Kg	EPA 8260B	9/12/08	95.6	70-130
Methyl-t-butyl ether	0.0395	mg/Kg	EPA 8260B	9/12/08	98.1	70-130
Tert-Butanol	0.197	mg/Kg	EPA 8260B	9/12/08	92.0	70-130
Toluene	0.0390	mg/Kg	EPA 8260B	9/12/08	95.7	70-130
1,2-Dichloroethane	39.2	ug/L	EPA 8260B	9/12/08	96.2	70-130
Benzene	40.1	ug/L	EPA 8260B	9/12/08	99.9	70-130
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/12/08	81.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/12/08	93.4	70-130
Toluene	39.5	ug/L	EPA 8260B	9/12/08	101	70-130
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	9/15/08	92.5	70-130
Benzene	40.0	ug/L	EPA 8260B	9/15/08	99.6	70-130
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/15/08	96.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/15/08	94.2	70-130
Toluene	40.0	ug/L	EPA 8260B	9/15/08	100	70-130
1,2-Dichloroethane	39.8	ug/L	EPA 8260B	9/15/08	102	70-130
Benzene	39.8	ug/L	EPA 8260B	9/15/08	102	70-130
Methyl-t-butyl ether	39.9	ug/L	EPA 8260B	9/15/08	94.0	70-130
Tert-Butanol	199	ug/L	EPA 8260B	9/15/08	98.1	70-130

Report Number : 64701

QC Report : Laboratory Control Sample (LCS)

Date : 09/17/2008

Project Name : **Site K**

Project Number : **92451**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	39.8	ug/L	EPA 8260B	9/15/08	95.4	70-130

KIFF ANALYTICAL, LLC

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

Calscience Environmental Laboratories, Inc.

September 19, 2008

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 08-09-1153**
Client Reference: Site K

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/12/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Amanda Porter

Calscience Environmental
Laboratories, Inc.
Amanda Porter
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/12/08
Work Order No: 08-09-1153
Preparation: EPA 3005A Filt.
Method: EPA 200.8

Project: Site K

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-16-30	**08-09-1153-1-A**	**09/10/08 09:45**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:03**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-16-35	**08-09-1153-2-A**	**09/10/08 10:10**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:06**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-22-25	**08-09-1153-3-A**	**09/10/08 11:30**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:15**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-22-30	**08-09-1153-4-A**	**09/10/08 12:35**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:18**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-22-40	**08-09-1153-5-A**	**09/10/08 14:31**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:21**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-18-25	**08-09-1153-6-A**	**09/10/08 15:34**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:24**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/12/08
Work Order No: 08-09-1153
Preparation: EPA 3005A Filt.
Method: EPA 200.8

Project: Site K

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-17-20	08-09-1153-7-A	09/09/08 14:48	Aqueous	ICP/MS A	09/15/08	09/16/08 18:43	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-21-25	08-09-1153-8-A	09/11/08 09:05	Aqueous	ICP/MS A	09/15/08	09/19/08 00:28	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-23-25	08-09-1153-9-A	09/11/08 10:35	Aqueous	ICP/MS A	09/15/08	09/19/08 00:31	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-20-25	08-09-1153-10-A	09/11/08 12:20	Aqueous	ICP/MS A	09/15/08	09/19/08 00:34	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-23-30	08-09-1153-11-A	09/11/08 11:05	Aqueous	ICP/MS A	09/15/08	09/19/08 00:37	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-20-30	08-09-1153-12-A	09/11/08 12:38	Aqueous	ICP/MS A	09/15/08	09/19/08 00:40	080915L03F

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical		Date Received:	09/12/08
2795 2nd Street, Suite 300		Work Order No:	08-09-1153
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project: Site K

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-21-30	**08-09-1153-18-A**	**09/11/08 09:27**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 00:43**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-19-25	**08-09-1153-19-A**	**09/11/08 13:54**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 01:06**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-19-30	**08-09-1153-20-A**	**09/11/08 14:15**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/19/08 01:09**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-008-1,077**	**N/A**	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08 17:14**	**080915L03F**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.00100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical	Date Received:	09/12/08
2795 2nd Street, Suite 300	Work Order No:	08-09-1153
Davis, CA 95616-6593	Preparation:	EPA 3050B
	Method:	EPA 6020

Project: Site K

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-16-4-5	**08-09-1153-13-A**	**09/10/08 08:33**	**Solid**	**ICP/MS A**	**09/12/08**	**09/18/08 23:47**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	3.93	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-22-4-5	**08-09-1153-14-A**	**09/10/08 10:37**	**Solid**	**ICP/MS A**	**09/12/08**	**09/18/08 23:50**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	4.10	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-18-4-5	**08-09-1153-15-A**	**09/10/08 14:55**	**Solid**	**ICP/MS A**	**09/12/08**	**09/18/08 23:53**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	6.42	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-21-3-4	**08-09-1153-16-A**	**09/11/08 08:35**	**Solid**	**ICP/MS A**	**09/12/08**	**09/18/08 23:56**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	5.17	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GB-20-13.5-15	**08-09-1153-17-A**	**09/11/08 12:05**	**Solid**	**ICP/MS A**	**09/12/08**	**09/19/08 00:00**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	5.11	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-10-002-1,218**	**N/A**	**Solid**	**ICP/MS A**	**09/12/08**	**09/15/08 13:16**	**080912L03**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.100	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/12/08
Work Order No: 08-09-1153
Preparation: EPA 3005A Filt.
Method: EPA 200.8

Project Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GB-17-20	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	102	105	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

Kiff Analytical		Date Received	09/12/08
2795 2nd Street, Suite 300		Work Order No:	08-09-1153
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project: Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
GB-17-20	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915S03**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	101	101	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/12/08
Work Order No: 08-09-1153
Preparation: EPA 3020A Total
Method: EPA 200.8

Project Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-09-1129-1	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/17/08**	**080915S03A**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	109	113	80-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

Kiff Analytical	Date Received	09/12/08
2795 2nd Street, Suite 300	Work Order No:	08-09-1153
Davis, CA 95616-6593	Preparation:	EPA 3020A Total
	Method:	EPA 200.8

Project Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
08-09-1129-1	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/17/08**	**080915S03A**

Parameter	PDS %REC	%REC CL	Qualifiers
Lead	108	75-125	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 09/12/08
Work Order No: 08-09-1153
Preparation: EPA 3050B
Method: EPA 6020

Project Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-1159-6	**Solid**	**ICP/MS A**	**09/12/08**	**09/15/08**	**080912S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	107	104	62-134	3	0-23	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Kiff Analytical		Date Received:	N/A
2795 2nd Street, Suite 300		Work Order No:	08-09-1153
Davis, CA 95616-6593		Preparation:	EPA 3005A Filt.
		Method:	EPA 200.8

Project: Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-008-1,077	**Aqueous**	**ICP/MS A**	**09/15/08**	**09/16/08**	**080915L03F**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	102	100	85-115	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Kiff Analytical		Date Received:	N/A
2795 2nd Street, Suite 300		Work Order No:	08-09-1153
Davis, CA 95616-6593		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Site K

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-10-002-1,218	**Solid**	**ICP/MS A**	**09/12/08**	**09/15/08**	**080912L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	101	98	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 08-09-1153

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Analytical LLC

2795 Second Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4808

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
714-895-5494

1153

COC No. 64701 Page 1 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Scott Forbes
Company/Address: Kiff Analytical
Phone No.: 530-297-4800 FAX No.: 530-297-4808
Project Number: 92451 P.O. No.: 64701
Project Name: Site K
Project Address:

EDF Report? YES

Recommended but not mandatory to complete this section:
Sampling Company Log Code: KFS
Global ID: T0619763665
Deliverables to (Email Address): inbox@kiffanalytical.com

Sample Designation	Sampling Date	Sampling Time	Container / Preservative: 250ml Poly None	Container / Preservative: Glass Jar / None	Matrix: Soil	Matrix: Water	Analysis Request: ICP-MS 200.8 Dissolved (1)	Analysis Request: ICP-MS 6020 (1)	TAT: 4-Days	For Lab Use Only
GB-16-30	09/10/08	09:45	1			X	X		X	1
GB-16-35	09/10/08	10:10	1			X	X		X	2
GB-22-25	09/10/08	11:30	1			X	X		X	3
GB-22-30	09/10/08	12:35	1			X	X		X	4
GB-22-40	09/10/08	14:31	1			X	X		X	5
GB-18-25	09/10/08	15:34	1			X	X		X	6
GB-17-20	09/09/08	14:48	1			X	X		X	7
GB-21-25	09/11/08	09:05	1			X	X		X	8
GB-23-25	09/11/08	10:35	1			X	X		X	9
GB-20-25	09/11/08	12:20	1			X	X		X	10

Relinquished by	Date	Time	Received by
Kiff Analytical	091108	1900	
00B10225198851	9/12/08	0800	Received by Laboratory:

Remarks: Please refer to attached Test Detail.

Bill to: Accounts Payable

KIFF Analytical LLC

2795 Second Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4808

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
714-895-5494

(1153)

COC No. **64701** Page 2 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Scott Forbes	EDF Report? YES
Company/Address: Kiff Analytical	Recommended but not mandatory to complete this section:
Phone No.: 530-297-4800 / FAX No.: 530-297-4808	Sampling Company Log Code: KFS
Project Number: 92451 / P.O. No.: 64701	Global ID: T0619763665
Project Name: Site K	Deliverables to (Email Address): inbox@kiffanalytical.com
Project Address:	

Sample Designation	Sampling Date	Sampling Time	Container / Preservative: 250ml Poly None	Container / Preservative: Glass Jar / None	Matrix: Soil	Matrix: Water	Analysis Request: ICP-MS 200.8 Dissolved (1)	Analysis Request: ICP-MS 6020 (1)	TAT: 4-Days	For Lab Use Only
GB-23-30	09/11/08	11:05	1			X	X		X	11
GB-20-30	09/11/08	12:38	1			X	X		X	12
GB-16-4-5	09/10/08	08:33		1	X			X	X	13
GB-22-4-5	09/10/08	10:37		1	X			X	X	14
GB-18-4-5	09/10/08	14:55		1	X			X	X	15
GB-21-3-4	09/11/08	08:35		1	X			X	X	16
GB-20-13.5-15	09/11/08	12:05		1	X			X	X	17
GB-21-30	09/11/08	09:27	1			X	X		X	18
GB-19-25	09/11/08	13:54	1			X	X		X	19
GB-19-30	09/11/08	14:15	1			X	X		X	20

	Date	Time		
Relinquished by: K-Tt Analytical	09/11/08	1900	Received by:	Remarks: Please refer to attached Test Detail.
Relinquished by:	Date	Time	Received by:	
Relinquished by: COB102251985]	9/12/08	0800	Received by Laboratory:	Bill to: Accounts Payable

H53

Test Detail for Kiff Work Order: 64701

ICP-MS 200.8 Dissolved (1)
Lead

ICP-MS 6020 (1)
Lead

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 08 - 09 - 1153

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KPP ANALYTICAL DATE: 9-12-08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature (For Air & Filter only).

___ ___.___ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

4.2 °C Temperature blank.
___ ___.___ °C IR thermometer.
_____ Ambient temperature (For Air & Filter only).

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact) : _____ Not Present: _____

Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC		✓	
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace			✓
Tedlar bag(s) free of condensation			✓

Initial: WB

COMMENTS:

KLEINFELDER
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64701

PROJECT NO.	PROJECT NAME
92451	Site K

L.P. NO. (PO. NO.)	SAMPLERS: (Signature/Number)
	Brian Homer / 699

RECEIVING LAB: KIFF STAT / EDF

INSTRUCTIONS/REMARKS: Retain Remainder of soil for possible further analysis

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: Total Lead (6010)	TPH-Gas (8260)	BTEX (8260)	5-Oxygenates (8260)	1,2 DCA + EDB (8260)	Dissolved Lead (200.8)	Total Lead (200.8)					
1	9/10/08	0945	GB-16-30	Water	5	**	X	X	X	X	X	X						01
2		1010	GB-16-35				X	X	X	X	X	X					EDF Required	02
3		1130	GB-22-25				X	X	X	X	X	X					Global ID # T0619763665	03
4		1235	GB-22-30				X	X	X	X	X	X						04
5		1431	GB-22-40				X	X	X	X	X	X						05
6		1534	GB-18-25				X	X	X	X	X	X						06
7	9-9-08	1448	GB-17-20				X	X	X	X	X	X						07
8	9-11-08	0905	GB-21-25				X	X	X	X	X	X						08
9		1035	GB-23-25				X	X	X	X	X	X						09
10		1220	GB-20-25				X	X	X	X	X	X						10
11		1105	GB-23-30				X	X	X	X	X	X						11
12		1238	GB-20-30				X	X	X	X	X	X						12
13	9/10/08	0833	GB-16-4-5	Soil	1	Poly Liner	X	X	X	X	X		X				Kleinfelder	13
14		1037	GB-22-4-5				X	X	X	X	X	**	X				3077 Fite Circle	14
15		1455	GB-18-4-5				X	X	X	X	X	**	X				Sacramento, CA 95827	15
16	9/11/08	0835	GB-21-3-4				X	X	X	X	X	**	X					16
17		[illegible]										**					SAMPLE RECEIPT	
18	9/11/08	1205	GB-20-13.5-15	Soil	1	Plyliner	X	X	X	X	X		X				Temp °C 2.3 Therm. ID# IR-2	17
19																	Initial IJB Date 09/10/08	
20																	Time 1627 Coolant present: (Yes) No	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	9/11/08 1648	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	09/10/08 1648	[signature] Jeff Anderson

Instructions/Remarks:
** 4- 40 mL HCl VOAs
1- 250 mL Poly

Send Results To:
pwee@kleinfelder.com
sgardner@kleinfelder.com
Attn: Sue Gardner & Pam Wee

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC № 02811

KLEINFELDER
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64701

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
92451	Sitek	KIFF STAT / EDF

L.P. NO. (PO. NO.):

SAMPLERS: (Signature/Number) [signature] /8641 for Brian Homer /64[illegible]

INSTRUCTIONS/REMARKS: Retain Remainder of soil for further Analysis

ANALYSIS: Total Lead (6010); TPH-Gas (8260); BTEX (8260); 5-Oxygenates (8260); 1,2 DCA + EDB (8260); Dissolved Lead (200.8); [illegible, struck out]

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO OF CON-TAINERS	TYPE OF CON-TAINERS	Total Lead (6010)	TPH-Gas (8260)	BTEX (8260)	5-Oxygenates (8260)	1,2 DCA + EDB (8260)	Dissolved Lead (200.8)						INSTRUCTIONS/REMARKS	
1	9/11/08	0927	GB-21-30	Water	5	*	X	X	X	X	X	X							18
2	↓	1354	GB-19-25	↓	↓	↓	X	X	X	X	X	X						EDF Required	19
3	↓	1415	GB-19-30	↓	↓	↓	X	X	X	X	X	X						Global ID #	20
4																		T0619763665	
5																			
6																			
7																			
8																			
9																			
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17																			
18																			
19																			
20																			

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	9/11/08 1648	—
Relinquished by: (Signature) —	Date/Time	Received by: (Signature) —
Relinquished by: (Signature) —	09/11/08 1648	Received for Laboratory by: (Signature) [signature] Kiff Analytical

Instructions/Remarks:
* 1- 250 mL Poly
4- 40 mL VOAs

Send Results To: Kleinfelder
3077 Fite Circle
Sacramento, CA 95827

Attn: Pam Wee pwee@kleinfelder.com
Sue Gardner sgardner@kleinfelder.com

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC № 02812

KIFF Analytical LLC

Report Number : 64854
Date : 09/25/2008

Sue Gardner
Kleinfelder, Inc.
3077 Fite Circle
Sacramento, CA 95827

Subject : 1 Soil Sample
Project Name : SITE "K"
Project Number : 92451-1

Dear Ms. Gardner,

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

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

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 64854
Date : 09/25/2008

Subject : 1 Soil Sample
Project Name : SITE "K"
Project Number : 92451-1

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with sample LB-2-5 for the analyte Lead were affected by the analyte concentrations already present in the un-spiked sample.

KIFF Analytical LLC

Report Number : 64854

Date : 09/25/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Sample : **LB-2-5** Matrix : Soil Lab Number : 64854-01

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**910**	5.0	mg/Kg	EPA 6010B	09/25/2008

Report Number : 64854

Date : 09/25/2008

QC Report : Method Blank Data

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	09/25/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Report Number : 64854

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/25/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead	64854-01	910	50.0	50.0	765	700	mg/Kg	EPA 6010B	9/25/08	0.00	0.00	8.84	75-125	20

Report Number : 64854

QC Report : Laboratory Control Sample (LCS)

Date : 09/25/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	9/25/08	105	85-115

KLEINFELDER
Bright People. Right Solutions.

64854

PROJECT NO.	PROJECT NAME	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS	RECEIVING LAB:
92451-1	SITE "K"			TOTAL LEAD (6010)	KIFF
L.P. NO. (P.O. NO.)	SAMPLERS (Signature/Number): Brian E. Homan /644				INSTRUCTIONS/REMARKS: RETAIN REMAINDER OF SOIL FOR POSS. FURTHER TESTING

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	TOTAL LEAD (6010)										INSTRUCTIONS/REMARKS
1	9-9-08	0939	L8-2-5	SOIL	1	*	X										01
2																	
3																	
4																	
5																	EDF REQUIRED
6																	GLOBAL ID # T0619763665
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Instructions/Remarks:	Send Results To:
Brian E. Homan	9/18/08 1605		* POLY TUBE (GEOPROBE)	PWCE & sgardner@kleinfelder.com
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	STANDARD TAT	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		Attn:
	091808 1605	[signature] Kiff Analytical		

SAMPLE RECEIPT
Temp °C 30.6 Therm. ID# .R2
Initial JJC Date 091808
Time 1605 COC Cont present: Yes / No

ENV-02 REV 05/08) White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

№ 02645

KIFF Analytical LLC

Report Number : 64854
Date : 09/25/2008

Sue Gardner
Kleinfelder, Inc.
3077 Fite Circle
Sacramento, CA 95827

Subject : 1 Soil Sample
Project Name : SITE "K"
Project Number : 92451-1

Dear Ms. Gardner,

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

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

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 64854
Date : 09/25/2008

Subject : 1 Soil Sample
Project Name : SITE "K"
Project Number : 92451-1

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with sample LB-2-5 for the analyte Lead were affected by the analyte concentrations already present in the un-spiked sample.

KIFF Analytical LLC

Report Number : 64854
Date : 09/25/2008

Project Name : **SITE "K"**
Project Number : **92451-1**

Sample : **LB-2-5** Matrix : Soil Lab Number : 64854-01
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**910**	5.0	mg/Kg	EPA 6010B	09/25/2008

Report Number : 64854

Date : 09/25/2008

QC Report : Method Blank Data

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	09/25/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Report Number : 64854

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/25/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead	64854-01	910	50.0	50.0	765	700	mg/Kg	EPA 6010B	9/25/08	0.00	0.00	8.84	75-125	20

Report Number : 64854

QC Report : Laboratory Control Sample (LCS)

Date : 09/25/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	9/25/08	105	85-115

Calscience
Environmental
Laboratories, Inc.

October 10, 2008

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 08-10-0334**
Client Reference: Site "K"

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/4/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Amanda Porter

Calscience Environmental
Laboratories, Inc.
Amanda Porter
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical		Date Received:	10/04/08
2795 2nd Street, Suite 300		Work Order No:	08-10-0334
Davis, CA 95616-6593		Preparation:	T22.11.5. All
		Method:	EPA 6010B

Project: Site "K"

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LB-2-5	**08-10-0334-1-A**	**09/09/08 09:39**	**Solid**	**ICP 5300**	**10/06/08**	**10/08/08 12:38**	**081008LA2**

Parameter	Result	RL	DF	Qual	Units
Lead	28.1	0.100	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-05-006-4,293**	**N/A**	**Solid**	**ICP 5300**	**10/06/08**	**10/08/08 12:30**	**081008LA2**

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical		Date Received:	10/04/08
2795 2nd Street, Suite 300		Work Order No:	08-10-0334
Davis, CA 95616-6593		Preparation:	T22.11.5. All
		Method:	EPA 6010B

Project Site "K"

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-10-0178-5	**Solid**	**ICP 5300**	**10/06/08**	**10/08/08**	**081008SA2**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	99	102	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

Kiff Analytical		Date Received:	N/A
2795 2nd Street, Suite 300		Work Order No:	08-10-0334
Davis, CA 95616-6593		Preparation:	T22.11.5. All
		Method:	EPA 6010B

Project: Site "K"

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-05-006-4,293	**Solid**	**ICP 5300**	**10/08/08**	**081008-la-2**	**081008LA2**

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Lead	5.00	5.37	107	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 08-10-0334

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Analytical LLC
2795 Second Street, Suite 300
Davis, CA 95618
Lab: 530.297.4800
Fax: 530.297.4808

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
714-895-5494

0334

COC No. **64854** Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Scott Forbes

EDF Report? YES

Company/Address: Kiff Analytical

Recommended but not mandatory to complete this section:

Sampling Company Log Code: KFS

Phone No.: 530-297-4800 FAX No.: 530-297-4808

Global ID: T0619763665

Project Number: 92451-1 P.O. No.: 64854

Deliverables to (Email Address): inbox@kiffanalytical.com

Project Name: SITE "K"

Project Address:

Sample Designation	Sampling Date	Sampling Time	Container / Preservative: Sleeve None	Matrix: Soil	Analysis Request: WET Lead (Citrate Buffer)	Analysis Request: Waste Extraction Test Prep	TAT: 4-Days	For Lab Use Only
LB-2-5	09/09/08	09:39	1	X	X	X	X	I

Relinquished by:	Date	Time	Received by:
Kiff Analytical	100308	1900	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory: 10/04/08 9:40 (CE)

Remarks:

Bill to: Accounts Payable

B10225199332

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 08 - 10 - 0334

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF DATE: 10-04-08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature (For Air & Filter Only).
___ ___ . ___ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

04.0 °C Temperature blank.
___ ___ . ___ °C IR Thermometer.
_____ Ambient temperature (For Air & Filter Only).

Initial: KN

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact) : _____ Not Present: _____

Initial: KN

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC		✓	
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: KN

COMMENTS:

KLEINFELDER
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64854

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
92451-1	SITE "K"	KIFF

L.P. NO. (PO. NO.):

SAMPLERS: (Signature/Number): Brian E. Honea /1644

ANALYSIS: TOTAL LEAD (6010)

INSTRUCTIONS/REMARKS: RETAIN REMAINDER OF SOIL FOR POSS. FURTHER TESTING

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	TOTAL LEAD (6010)	INSTRUCTIONS/REMARKS
1	9-9-08	0939	LB-2-5	SOIL	1	*	X	01
2								
3								
4								
5								EDF REQUIRED
6								GLOBAL ID # T0619763665
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Brian E. Honea	9/18/08 1605	
	091808 1605	Received for Laboratory by: (Signature) K.A. Analytical

Instructions/Remarks:
* POLY TUBE (GEOPROBE)
STANDARD TAT

Send Results To:
PWCE
& sgardner@kleinfelder.com

Attn:

SAMPLE RECEIPT
Temp °C 30.6 Therm. ID# .R2
Initial JJC Date 091808
Time 1605 COC Content present: Yes / No (circled)

ENV-02 REV 05/08) White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

№ 02645

KIFF Analytical LLC

Report Number : 65104
Date : 10/07/2008

Pam Wee
Kleinfelder, Inc.
3077 Fite Circle
Sacramento, CA 95827

Subject : 9 Soil Samples
Project Name : SITE "K"
Project Number : 92451-1

Dear Ms. Wee,

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

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

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 65104

Date : 10/07/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Sample : **LB-1-5** Matrix : Soil Lab Number : 65104-01

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**7.7**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-3-5** Matrix : Soil Lab Number : 65104-02

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**5.9**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-4-5** Matrix : Soil Lab Number : 65104-03

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**58**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-5-5** Matrix : Soil Lab Number : 65104-04

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**8.5**	0.50	mg/Kg	EPA 6010B	10/07/2008

KIFF Analytical LLC

Report Number : 65104

Date : 10/07/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Sample : **LB-6-5** Matrix : Soil Lab Number : 65104-05

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**10**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-7-5** Matrix : Soil Lab Number : 65104-06

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**11**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-8-5** Matrix : Soil Lab Number : 65104-07

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**10**	0.50	mg/Kg	EPA 6010B	10/07/2008

Sample : **LB-9-5** Matrix : Soil Lab Number : 65104-08

Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**56**	0.50	mg/Kg	EPA 6010B	10/07/2008

KIFF Analytical LLC

Report Number : 65104
Date : 10/07/2008

Project Name : **SITE "K"**
Project Number : **92451-1**

Sample : **LB-10-5** Matrix : Soil Lab Number : 65104-09
Sample Date :09/09/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	**53**	0.50	mg/Kg	EPA 6010B	10/07/2008

Report Number : 65104

QC Report : Method Blank Data

Date : 10/07/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	10/03/2008

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Report Number : 65104

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/07/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead	65112-01	5.4	50.0	50.0	56.8	56.4	mg/Kg	EPA 6010B	10/3/08	103	102	0.618	75-125	20

Report Number : 65104

QC Report : Laboratory Control Sample (LCS)

Date : 10/07/2008

Project Name : **SITE "K"**

Project Number : **92451-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	10/3/08	106	85-115

KLEINFELDER
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65104

PROJECT NO.	PROJECT NAME
92451-1	SITE "K"

L.P. NO. (PO. NO.)

SAMPLERS: (Signature/Number) Brian E. Horen / 1699

RECEIVING LAB: KIFF

INSTRUCTIONS/REMARKS: STANDARD TAT

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: TOTAL LEAD by 6010B	SOLUBLE LEAD using CITRATE BUFFER									
1	9-9-08	0905	LB1-5	SOIL	1	POLY TUBE	X										01
2		1015	LB3-5		1		X										02
3		1044	LB4-5		1		X									EDF REQUIRED	03
4		1114	LB5-5		1		X									GLOBAL ID# T0619763665	04
5		1143	LB-6-5		1		X										05
6		1214	LB-7-5		1		X										06
7		1245	LB-8-5		1		X										07
8		1315	LB-9-5		1		X										08
9		1345	LB-10-5		1		X										09
10																	
11			~~LB-2-5~~					~~X~~	~~X~~							~~* LB-2-5 IS ON HOLD AT KIFF LABORATORY IN DAVIS, CA ALREADY~~	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

SAMPLE RECEIPT
Temp °C 11.0 Therm. ID# IR-2
Initial RLM Date 100108
~~Time 1530 Coolant present: Yes~~ (No)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Brian E. Horen	9/12/08 0730	KA SAMPLE CONTROL #1
SAMPLE CONTROL #1	10-1-08 1115	
	10-1-08 1536	Kiff Analytical

Instructions/Remarks:

Send Results To:
Pwee
sgardner@kleinfelder.com
Attn:

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC № 02647

KLEINFELDER
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APPENDIX E

STATISTICAL CALCULATIONS

CALCULATION OF SOIL UPPER CONFIDENCE LIMIT

Soil lead data were subjected to statistical analysis using ProUCL Version 4.0 software published by the USEPA Office of Research and Development to calculate the upper confidence limit on the soil concentration mean at the 95% level (95% UCL). The data were analyzed as a combined set and several subsets, including near-surface soils (0-3.5 feet bgs), and subsurface soils (> 3.5 feet bgs). Attention was also given to four samples in particular. Soil boring LB-1 is located outside the expected extent of lead impacts from the former building activities, and may not be representative of soil conditions nearer the former building location. Three samples were collected from boring LB-1. Also, inspection of the soil data shows the lead concentration in sample LB-2-5 (910 mg/kg) is much greater than any other result, and may not represent average soil conditions. The data subsets were evaluated with and without data from these four samples. The evaluation process is described in the following paragraphs.

Outlier Tests

Outlier evaluation using the Rosner test and Dixon tests was performed on the combined data set and on subsets representing near-surface soil and subsurface soil. The ProUCL software identified the 910 mg/kg concentration in sample LB-2-5 as a statistical outlier at the 1% significance level for combined data set and the subsurface data set. This signifies that there is less than a 1% probability that the result is representative of the average soil conditions. This may be because of a sampling anomaly, or may be related to localized high concentrations that differ from the rest of the site. The data sets were evaluated with and without the 910 mg/kg result.

Goodness of Fit

Lilliefors and Shapiro-Wilk tests were performed on each data set to evaluate whether the data sets fit either a normal (Gaussian) or a lognormal distribution. Gamma distribution tests were performed on each data set to evaluate fit with a gamma distribution. None of the data sets were normally distributed. The surface soil subset appeared to fit both lognormal and gamma distributions. The combined data set and the subsurface subset did not exhibit any discernable pattern. The surface soil subset was evaluated by calculating the gamma UCL. The combined data set and the subsurface soil subset were evaluated using several nonparametric methods.

Calculation of UCLs

The UCL was calculated for each data set under several conditions. Output from the ProUCL software is attached following the text in this Appendix.

The combined soil data set was evaluated with 1) all samples, 2) the outlier result omitted, 3) the results from LB-1 omitted, and 4) the outlier and LB-1 results omitted. Non-parametric methods were used because the data did not fit a discernable pattern. Based on the data set characteristics (size and standard deviation), the ProUCL software recommended use of the UCL calculated by the Chebyshev inequality method at the 97.5% confidence level. Omission of data from LB-1 caused the UCL to increase slightly. Inclusion of the outlier predictably increased the variance of the data and the UCL. Based on the depth from which the outlier sample was collected and the magnitude of departure from the next lower analytical values, the selected UCL for the combined data set was based on results without LB-1 and outlier data. The mean concentration was calculated as 80.5 mg/kg and the 97.5% UCL is 191.8 mg/kg.

The surface soil data set was evaluated with 1) all samples and 2) the results from LB-1 omitted. The surface soil data fit the lognormal and gamma distributions. Calculation of UCLs from methods based on the gamma distribution are considered more reliable than calculations based on log-transformed data, so the ProUCL software recommended use of the UCL calculated by the approximate gamma method at the 95% confidence level. Again, omission of data from LB-1 caused the UCL to increase slightly. The selected UCL for the surface soil data set was based on results without LB-1. The mean concentration was calculated as 58.9 mg/kg and the 95% UCL is 215.4 mg/kg.

The subsurface soil data set was evaluated with 1) all samples, 2) the outlier result omitted, and 3) the outlier and LB-1 results omitted. Again, non-parametric methods were used because the data did not fit a discernable pattern. Because the data subsets are smaller, the ProUCL software recommended use of the UCL calculated by the Chebyshev inequality method at the 99% confidence level. As with the combined data set, the selected UCL for the combined data set was based on results without LB-1 and outlier data. The mean concentration was calculated as 25.6 mg/kg and the 99% UCL is 117.4 mg/kg.

Evaluation of Results

For statistical analysis of the combined data set to be valid, the collected data are required to be drawn from one population. Because of the former use of the building location as a shooting range, it would be expected that the near-surface soils would exhibit different characteristics from the subsurface soils. The data were evaluated as a combined set and as two subsets. Because the results from evaluation of the subsets differ from the results of the combined data set evaluation, it was judged that separate evaluations are more representative of site conditions.

Because of the depth at which the outlier result was obtained, it is unlikely to have been caused by shooting range activities. Although it may be the result of demolition activities, it is judged more likely to be an anomalous result. Either way, it is not representative of the average soil conditions. Consequently, it was omitted from the statistical analysis of the data sets. However, if including the outlier result in UCL calculations is required, the results the surface soil results are unaffected. The subsurface UCL would increase from 117.4 to 408.1 mg/kg. However, in this case, use of the 99% Chebyshev UCL is probably overly conservative. The 97.5% Chebyshev UCL for this case is 278.1 mg/kg, and would be the proposed UCL for the subsurface soil if the outlier result is included.

	Outlier Tests for Selected Variables
User Selected Options	
From File	U:\MLawson\Projects\92451 CHP Oakland\Full Lead Sample Set.wst
Full Precision	OFF
Test for Suspected Outliers with Dixon test	1
Test for Suspected Outliers with Rosner test	1

Rosner's Outlier Test for All Samples

Number of data: 53

Number of suspected outliers: 1

#	Mean	sd	Potential outlier	Test value	Critical value (5%)	Critical value (1%)
1	93.31	166.44	910	4.91	3.151	3.504

For 5% Significance Level, there is 1 Potential Outlier

Therefore, Observation 910 is a Potential Statistical Outlier

For 1% Significance Level, there is 1 Potential Outlier

Therefore, Observation 910 is a Potential Statistical Outlier

Rosner's Outlier Test for Surface Samples

Number of data: 27

Number of suspected outliers: 1

#	Mean	sd	Potential outlier	Test value	Critical value (5%)	Critical value (1%)
1	126.4	149.99	562	2.9	2.86	3.18

For 5% Significance Level, there is 1 Potential Outlier

Therefore, Observation 562 is a Potential Statistical Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Subsurface Samples

Number of data: 26

Number of suspected outliers: 1

#	Mean	sd	Potential outlier	Test value	Critical value (5%)	Critical value (1%)
1	58.94	175.47	910	4.85	2.84	3.16

For 5% Significance Level, there is 1 Potential Outlier

Therefore, Observation 910 is a Potential Statistical Outlier

For 1% Significance Level, there is 1 Potential Outlier

Therefore, Observation 910 is a Potential Statistical Outlier

	General UCL Statistics for Full Data Sets
User Selected Options	
From File	U:\MLawson\Projects\92451 CHP Oakland\Full Lead Sample Set.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

All Samples

General Statistics

Number of Valid Observations	53	Number of Distinct Observations	47
Number of Missing Values	1		

Raw Statistics		**Log-transformed Statistics**	
Minimum	0.5	Minimum of Log Data	-0.693
Maximum	910	Maximum of Log Data	6.813
Mean	93.31	Mean of log Data	3.24
Median	14	SD of log Data	1.686
SD	168		
Coefficient of Variation	1.801		
Skewness	3.023		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.29	Lilliefors Test Statistic	0.168
Lilliefors Critical Value	0.122	Lilliefors Critical Value	0.122
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	132	95% H-UCL	215.3
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	239
95% Adjusted-CLT UCL	141.5	97.5% Chebyshev (MVUE) UCL	299.3
95% Modified-t UCL	133.6	99% Chebyshev (MVUE) UCL	417.8
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.476	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	195.9		
nu star	50.48		
Approximate Chi Square Value (.05)	35.16	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0455	95% CLT UCL	131.3
Adjusted Chi Square Value	34.81	95% Jackknife UCL	132
		95% Standard Bootstrap UCL	130.8
Anderson-Darling Test Statistic	2.687	95% Bootstrap-t UCL	150.3
Anderson-Darling 5% Critical Value	0.817	95% Hall's Bootstrap UCL	156.6
Kolmogorov-Smirnov Test Statistic	0.222	95% Percentile Bootstrap UCL	135.8
Kolmogorov-Smirnov 5% Critical Value	0.129	95% BCA Bootstrap UCL	139.5
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	193.9
		97.5% Chebyshev(Mean, Sd) UCL	237.5
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	323
95% Approximate Gamma UCL	133.9		
95% Adjusted Gamma UCL	135.3		
Potential UCL to Use		Use 97.5% Chebyshev (Mean, Sd) UCL	237.5

All Samples Minus Outlier

General Statistics

Number of Valid Observations	52	Number of Distinct Observations	46
Number of Missing Values	2		

Raw Statistics		Log-transformed Statistics	
Minimum	0.5	Minimum of Log Data	-0.693
Maximum	562	Maximum of Log Data	6.332
Mean	77.6	Mean of log Data	3.171
Median	14	SD of log Data	1.625
SD	124.3		
Coefficient of Variation	1.602		
Skewness	2.231		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.274	Lilliefors Test Statistic	0.167
Lilliefors Critical Value	0.123	Lilliefors Critical Value	0.123
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	106.5	95% H-UCL	176.9
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	198.2
95% Adjusted-CLT UCL	111.7	97.5% Chebyshev (MVUE) UCL	247.4
95% Modified-t UCL	107.4	99% Chebyshev (MVUE) UCL	344
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.515	Data do not follow a Discernable Distribution (0.05)	
Theta Star	150.7		
nu star	53.55		
Approximate Chi Square Value (.05)	37.74	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0454	95% CLT UCL	106
Adjusted Chi Square Value	37.36	95% Jackknife UCL	106.5
		95% Standard Bootstrap UCL	105.8
Anderson-Darling Test Statistic	2.589	95% Bootstrap-t UCL	117.9
Anderson-Darling 5% Critical Value	0.812	95% Hall's Bootstrap UCL	110.3
Kolmogorov-Smirnov Test Statistic	0.226	95% Percentile Bootstrap UCL	106.6
Kolmogorov-Smirnov 5% Critical Value	0.13	95% BCA Bootstrap UCL	111.5
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	152.8
		97.5% Chebyshev(Mean, Sd) UCL	185.3
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	249.2
95% Approximate Gamma UCL	110.1		
95% Adjusted Gamma UCL	111.2		
Potential UCL to Use		Use 97.5% Chebyshev (Mean, Sd) UCL	185.3

All Samples Minus LB-1

General Statistics

Number of Valid Observations	51	Number of Distinct Observations	45
Number of Missing Values	3		

Raw Statistics		Log-transformed Statistics	
Minimum	0.77	Minimum of Log Data	-0.261
Maximum	910	Maximum of Log Data	6.813
Mean	96.81	Mean of log Data	3.341
Median	14	SD of log Data	1.615
SD	170.4		
Coefficient of Variation	1.76		
Skewness	2.962		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.287	Lilliefors Test Statistic	0.178
Lilliefors Critical Value	0.124	Lilliefors Critical Value	0.124
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	136.8	95% H-UCL	207.4
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	230.5
95% Adjusted-CLT UCL	146.6	97.5% Chebyshev (MVUE) UCL	287.7
95% Modified-t UCL	138.4	99% Chebyshev (MVUE) UCL	400.1
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.496	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	195.1		
nu star	50.62		
Approximate Chi Square Value (.05)	35.28	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0453	95% CLT UCL	136.1
Adjusted Chi Square Value	34.91	95% Jackknife UCL	136.8
		95% Standard Bootstrap UCL	136
Anderson-Darling Test Statistic	2.673	95% Bootstrap-t UCL	159.5
Anderson-Darling 5% Critical Value	0.813	95% Hall's Bootstrap UCL	167.5
Kolmogorov-Smirnov Test Statistic	0.22	95% Percentile Bootstrap UCL	137.3
Kolmogorov-Smirnov 5% Critical Value	0.131	95% BCA Bootstrap UCL	148.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	200.8
		97.5% Chebyshev(Mean, Sd) UCL	245.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	334.2
95% Approximate Gamma UCL	138.9		
95% Adjusted Gamma UCL	140.4		
Potential UCL to Use		Use 97.5% Chebyshev (Mean, Sd) UCL	245.8

All Samples Minus LB-1 and Outlier

General Statistics

Number of Valid Observations	50	Number of Distinct Observations	44
Number of Missing Values	4		

Raw Statistics		Log-transformed Statistics	
Minimum	0.77	Minimum of Log Data	-0.261
Maximum	562	Maximum of Log Data	6.332
Mean	80.54	Mean of log Data	3.271
Median	14	SD of log Data	1.552
SD	125.9		
Coefficient of Variation	1.564		
Skewness	2.174		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.658	Shapiro Wilk Test Statistic	0.922
Shapiro Wilk Critical Value	0.947	Shapiro Wilk Critical Value	0.947
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	110.4	95% H-UCL	169.1
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	190.9
95% Adjusted-CLT UCL	115.7	97.5% Chebyshev (MVUE) UCL	237.4
95% Modified-t UCL	111.3	99% Chebyshev (MVUE) UCL	328.6
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.539	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	149.6		
nu star	53.85		
Approximate Chi Square Value (.05)	37.99	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0452	95% CLT UCL	109.8
Adjusted Chi Square Value	37.6	95% Jackknife UCL	110.4
		95% Standard Bootstrap UCL	110
Anderson-Darling Test Statistic	2.594	95% Bootstrap-t UCL	120
Anderson-Darling 5% Critical Value	0.809	95% Hall's Bootstrap UCL	117.1
Kolmogorov-Smirnov Test Statistic	0.225	95% Percentile Bootstrap UCL	110.3
Kolmogorov-Smirnov 5% Critical Value	0.132	95% BCA Bootstrap UCL	117.3
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	158.2
		97.5% Chebyshev(Mean, Sd) UCL	191.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	257.8
95% Approximate Gamma UCL	114.2		
95% Adjusted Gamma UCL	115.4		
Potential UCL to Use		Use 97.5% Chebyshev (Mean, Sd) UCL	191.8

	General UCL Statistics for Full Data Sets
User Selected Options	
From File	U:\MLawson\Projects\92451 CHP Oakland\Full Lead Sample Set.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Surface Samples

General Statistics

Number of Valid Observations	27	Number of Distinct Observations	26
Number of Missing Values	27		

Raw Statistics		**Log-transformed Statistics**	
Minimum	0.5	Minimum of Log Data	-0.693
Maximum	562	Maximum of Log Data	6.332
Mean	126.4	Mean of log Data	3.749
Median	64.2	SD of log Data	1.884
SD	152.8		
Coefficient of Variation	1.209		
Skewness	1.419		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.791	Shapiro Wilk Test Statistic	0.925
Shapiro Wilk Critical Value	0.923	Shapiro Wilk Critical Value	0.923
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	176.6	95% H-UCL	994.4
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	655
95% Adjusted-CLT UCL	183.4	97.5% Chebyshev (MVUE) UCL	845.9
95% Modified-t UCL	177.9	99% Chebyshev (MVUE) UCL	1221
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.532	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	237.6		
nu star	28.73		
Approximate Chi Square Value (.05)	17.49	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0401	95% CLT UCL	174.8
Adjusted Chi Square Value	16.93	95% Jackknife UCL	176.6
		95% Standard Bootstrap UCL	173.5
Anderson-Darling Test Statistic	0.4	95% Bootstrap-t UCL	189.9
Anderson-Darling 5% Critical Value	0.801	95% Hall's Bootstrap UCL	183.4
Kolmogorov-Smirnov Test Statistic	0.13	95% Percentile Bootstrap UCL	176.1
Kolmogorov-Smirnov 5% Critical Value	0.177	95% BCA Bootstrap UCL	180.9
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	254.6
		97.5% Chebyshev(Mean, Sd) UCL	310.1
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	419.1
95% Approximate Gamma UCL	207.6		
95% Adjusted Gamma UCL	214.4		
Potential UCL to Use		Use 95% Approximate Gamma UCL	207.6

Surface Samples Minus LB-1

General Statistics

Number of Valid Observations	25	Number of Distinct Observations	24
Number of Missing Values	29		

Raw Statistics		Log-transformed Statistics	
Minimum	6.31	Minimum of Log Data	1.842
Maximum	562	Maximum of Log Data	6.332
Mean	136.5	Mean of log Data	4.087
Median	76	SD of log Data	1.494
SD	154.5		
Coefficient of Variation	1.132		
Skewness	1.333		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.807	Shapiro Wilk Test Statistic	0.91
Shapiro Wilk Critical Value	0.918	Shapiro Wilk Critical Value	0.918
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	189.3	95% H-UCL	480.6
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	435.3
95% Adjusted-CLT UCL	196.1	97.5% Chebyshev (MVUE) UCL	551.4
95% Modified-t UCL	190.7	99% Chebyshev (MVUE) UCL	779.4
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.665	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	205.3		
nu star	33.24		
Approximate Chi Square Value (.05)	21.06	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0395	95% CLT UCL	187.3
Adjusted Chi Square Value	20.4	95% Jackknife UCL	189.3
		95% Standard Bootstrap UCL	186.9
Anderson-Darling Test Statistic	0.576	95% Bootstrap-t UCL	202.8
Anderson-Darling 5% Critical Value	0.786	95% Hall's Bootstrap UCL	194.8
Kolmogorov-Smirnov Test Statistic	0.139	95% Percentile Bootstrap UCL	187.8
Kolmogorov-Smirnov 5% Critical Value	0.182	95% BCA Bootstrap UCL	195.8
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	271.2
		97.5% Chebyshev(Mean, Sd) UCL	329.5
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	444
95% Approximate Gamma UCL	215.4		
95% Adjusted Gamma UCL	222.4		
Potential UCL to Use		Use 95% Approximate Gamma UCL	215.4

General UCL Statistics for Full Data Sets	
User Selected Options	
From File	U:\MLawson\Projects\92451 CHP Oakland\Full Lead Sample Set.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Subsurface Samples

General Statistics

Number of Valid Observations	26	Number of Distinct Observations	22
Number of Missing Values	22		

Raw Statistics		Log-transformed Statistics	
Minimum	4.5	Minimum of Log Data	1.504
Maximum	910	Maximum of Log Data	6.813
Mean	58.94	Mean of log Data	2.712
Median	10	SD of log Data	1.285
SD	178.9		
Coefficient of Variation	3.036		
Skewness	4.674		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.324	Shapiro Wilk Test Statistic	0.789
Shapiro Wilk Critical Value	0.92	Shapiro Wilk Critical Value	0.92
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	118.9	95% H-UCL	71.68
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	75.47
95% Adjusted-CLT UCL	151	97.5% Chebyshev (MVUE) UCL	94.03
95% Modified-t UCL	124.3	99% Chebyshev (MVUE) UCL	130.5
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.441	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	133.6		
nu star	22.95		
Approximate Chi Square Value (.05)	13.05	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0398	95% CLT UCL	116.7
Adjusted Chi Square Value	12.56	95% Jackknife UCL	118.9
		95% Standard Bootstrap UCL	115.7
Anderson-Darling Test Statistic	4.007	95% Bootstrap-t UCL	498.5
Anderson-Darling 5% Critical Value	0.815	95% Hall's Bootstrap UCL	350.6
Kolmogorov-Smirnov Test Statistic	0.342	95% Percentile Bootstrap UCL	125.2
Kolmogorov-Smirnov 5% Critical Value	0.182	95% BCA Bootstrap UCL	166.7
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	211.9
		97.5% Chebyshev(Mean, Sd) UCL	278.1
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	408.1
95% Approximate Gamma UCL	103.6		
95% Adjusted Gamma UCL	107.7		
Potential UCL to Use		Use 99% Chebyshev (Mean, Sd) UCL	408.1

Subsurface Minus Outlier

General Statistics

Number of Valid Observations	25	Number of Distinct Observations	21
Number of Missing Values	23		

Raw Statistics		Log-transformed Statistics	
Minimum	4.5	Minimum of Log Data	1.504
Maximum	220	Maximum of Log Data	5.394
Mean	24.9	Mean of log Data	2.548
Median	10	SD of log Data	0.995
SD	44.39		
Coefficient of Variation	1.783		
Skewness	3.858		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.471	Shapiro Wilk Test Statistic	0.829
Shapiro Wilk Critical Value	0.918	Shapiro Wilk Critical Value	0.918
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	40.09	95% H-UCL	34.75
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	40.46
95% Adjusted-CLT UCL	46.82	97.5% Chebyshev (MVUE) UCL	49.14
95% Modified-t UCL	41.23	99% Chebyshev (MVUE) UCL	66.21
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.8	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	31.13		
nu star	40		
Approximate Chi Square Value (.05)	26.51	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0395	95% CLT UCL	39.5
Adjusted Chi Square Value	25.76	95% Jackknife UCL	40.09
		95% Standard Bootstrap UCL	39
Anderson-Darling Test Statistic	2.702	95% Bootstrap-t UCL	64.12
Anderson-Darling 5% Critical Value	0.778	95% Hall's Bootstrap UCL	87.16
Kolmogorov-Smirnov Test Statistic	0.308	95% Percentile Bootstrap UCL	41.07
Kolmogorov-Smirnov 5% Critical Value	0.18	95% BCA Bootstrap UCL	48.81
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	63.6
		97.5% Chebyshev(Mean, Sd) UCL	80.35
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	113.2
95% Approximate Gamma UCL	37.57		
95% Adjusted Gamma UCL	38.66		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	63.6

Subsurface Minus Outlier and LB-1

General Statistics

Number of Valid Observations	24	Number of Distinct Observations	20
Number of Missing Values	24		

Raw Statistics		Log-transformed Statistics	
Minimum	4.5	Minimum of Log Data	1.504
Maximum	220	Maximum of Log Data	5.394
Mean	25.62	Mean of log Data	2.569
Median	10	SD of log Data	1.011
SD	45.2		
Coefficient of Variation	1.764		
Skewness	3.779		

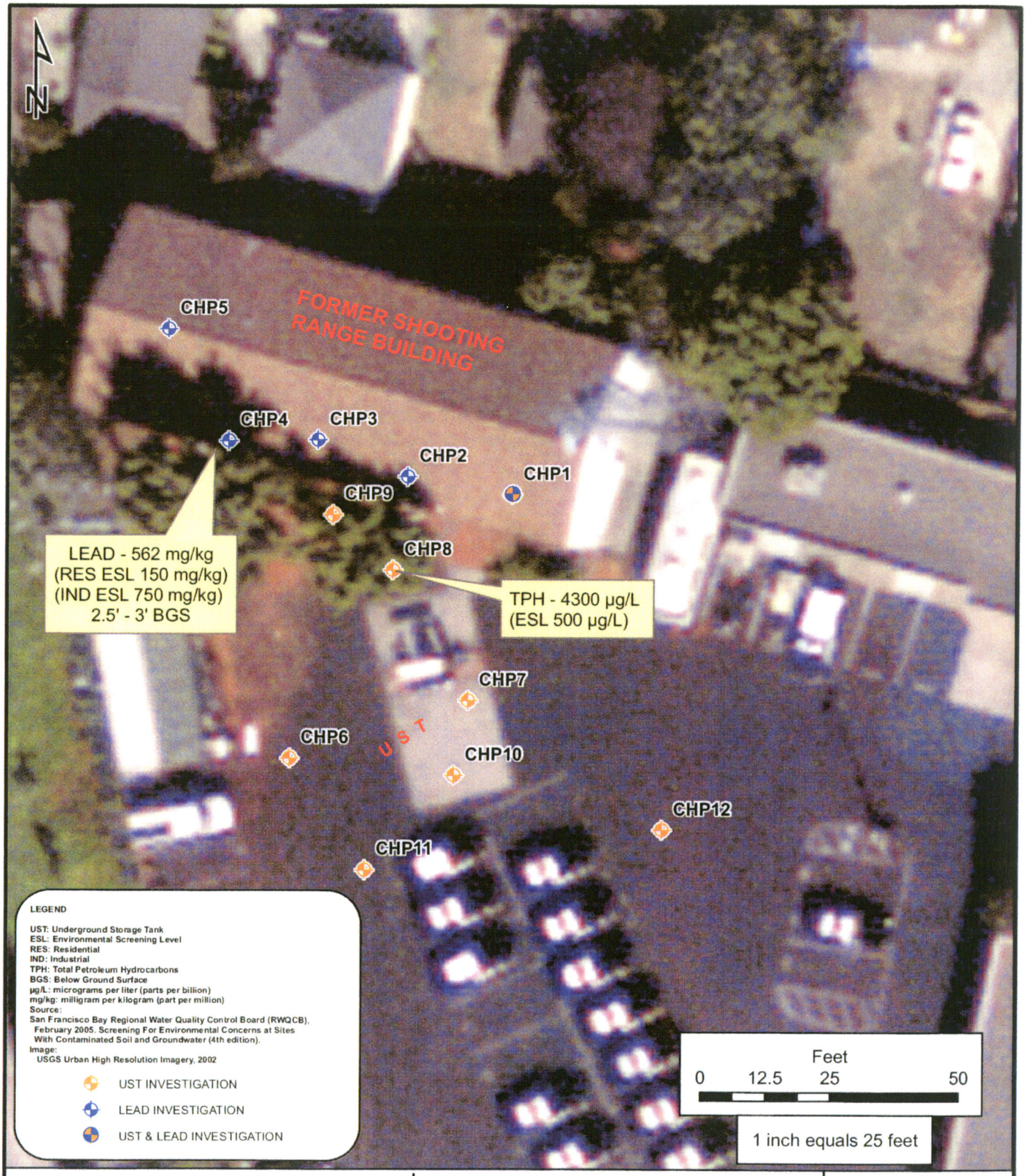
Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.479	Shapiro Wilk Test Statistic	0.836
Shapiro Wilk Critical Value	0.916	Shapiro Wilk Critical Value	0.916
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	41.43	95% H-UCL	37.03
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	42.64
95% Adjusted-CLT UCL	48.4	97.5% Chebyshev (MVUE) UCL	51.97
95% Modified-t UCL	42.62	99% Chebyshev (MVUE) UCL	70.28
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.789	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	32.45		
nu star	37.89		
Approximate Chi Square Value (.05)	24.79	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0392	95% CLT UCL	40.79
Adjusted Chi Square Value	24.05	95% Jackknife UCL	41.43
		95% Standard Bootstrap UCL	40.29
Anderson-Darling Test Statistic	2.492	95% Bootstrap-t UCL	67.48
Anderson-Darling 5% Critical Value	0.777	95% Hall's Bootstrap UCL	90.33
Kolmogorov-Smirnov Test Statistic	0.305	95% Percentile Bootstrap UCL	42.08
Kolmogorov-Smirnov 5% Critical Value	0.184	95% BCA Bootstrap UCL	51.75
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	65.83
		97.5% Chebyshev(Mean, Sd) UCL	83.23
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	117.4
95% Approximate Gamma UCL	39.15		
95% Adjusted Gamma UCL	40.36		
Potential UCL to Use		Use 99% Chebyshev (Mean, Sd) UCL	117.4

KLEINFELDER
Bright People. Right Solutions.

APPENDIX F

PREVIOUS SITE INVESTIGATIONS



KLEINFELDER
1970 Broadway # 710
Oakland, CA 94612
(510) 628-9000

BORING LOCATION MAP

CHP OAKLAND
DGS
OAKLAND, CALIFORNIA

DRAFTED BY:
REVISED BY: IPM
CHECKED BY:
PLATE: 2

DRAWN:
APPROVED BY:
PROJECT NO:
FILE NAME:

Table 1: Analytical Results for Total Lead for Soil Samples
CHP Oakland: 3601 Telegraph Avenue, Oakland, CA

Boring ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	Total Lead (mg/kg) ESL[a]=150 mg/kg	Soluble Lead (mg/L)\by DI WET
1	CHP1-1	0-0.5	1-25-07	7.23	---
	CHP1-2	**2.5-3.0**	**1-25-07**	**125**	0.116
	CHP1-3	3.5-4.0	1-25-07	8.16	---
	CHP1-4	5.0-5.5	1-25-07	5.43	---
	CHP1-15	15.0-15.5	1-25-07	5.96	---
2	CHP2-1	0-0.5	1-25-07	7.28	---
	CHP2-2	**2.5-3.0**	**1-25-07**	**64.2**	ND
	CHP2-3	3.5-4.0	1-25-07	5.80	---
	CHP2-4	5.0-5.5	1-25-07	5.08	---
3	CHP3-1	0-0.5	1-25-07	6.62	---
	CHP3-2	2.5-3.0	1-25-07	37.0	---
4	CHP4-1	0-0.5	1-25-07	8.47	---
	CHP4-2	**2.5-3.0**	**1-25-07**	**562**	ND
	CHP4-3	3.5-4.0	1-25-07	56.6	---
	CHP4-4	5.0-5.5	1-25-07	5.26	---
5	CHP5-1	0-0.5	1-25-07	11.5	---
	CHP5-2	2.5-3.0	1-25-07	6.31	---
6	CHP6-18	17.5-18.0	1-24-07	4.22	---
8	CHP8-18	18.0-18.5	1-24-07	3.93	---
9	CHP9-16	15.5-16.0	1-24-07	4.29	---
10	CHP10-16	15.5-16.0	1-24-07	3.99	---
11	CHP11-10	9.5-10.0	1-24-07	5.73	---
12	CHP12-13	12.0-13.0	1-24-07	5.95	---

Notes:

[a] ESLs are for shallow soils (<3 m bgs) and residential land use where groundwater is not a current or potential source of drinking water

Analytical results for additional six soil samples collected at locations CHP1-2, and -4 are shaded

mg/kg: milligrams per kilogram (parts per million)

mg/L: milligrams per liter (parts per million)

bgs: below ground surface

CHP: California Highway Patrol

DI WET: Deionized (DI) water Waste Extraction Test (WET)

ESL: Environmental Screening Level

ID: Identification number

ND: None detected above laboratory reporting limits

--- : not analyzed for the listed constituent

Highest concentrations of lead are listed in **bold**

Table 2: Analytical Results for Petroleum Hydrocarbon Constituents for Soil Samples

CHP Oakland: 3601 Telegraph Avenue, Oakland, CA

Analyte (mg/kg)	CHP1-15	CHP6-18	CHP8-18	CHP9-16	CHP10-16	CHP11-10	CHP12-13
Sample Depth	**15-15.5 feet bgs**	**17.5-18 feet bgs**	**18-18.5 feet bgs**	**15.5-16 feet bgs**	**15.5-16 feet bgs**	**9.5-10 feet bgs**	**12-13 feet bgs**
Date Sampled	**1/25/2007**	**1/24/2007**	**1/24/2007**	**1/24/2007**	**1/24/2007**	**1/24/2007**	**1/24/2007**
1,2-Dichloroethane	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Benzene	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Di-Isopropyl ether	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
ETBE	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Ethylbenzene	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Ethylene Dibromide (1,2-Dibromomethane)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Methyl Tertiary Butyl Ether	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
TAME	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Tert-butyl Alcohol	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Toluene	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
Total Xylenes	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
TPH-GRO	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:

bgs: below ground surface

mg/kg: milligram per kilogram (parts per million)

CHP: California Highway Patrol

ETBE: Ethyl t-butyl ether

ND: Not detected

TAME: Tert-amyl methyl ether

TPH-GRO: Total petroleum hydrocarbon-gasoline range organics

Table 3: Analytical Results for Dissolved Lead for Groundwater Samples

CHP Oakland: 3601 Telegraph Avenue, Oakland, CA

Boring ID	Sample ID	Date Sampled	Dissolved Lead (µg/L)
CHP-1	CHP-GW1	1-25-07	5.0 (ND)
CHP-2	CHP-GW2	1-25-07	5.0 (ND)
CHP-3	CHP-GW3	1-25-07	5.0 (ND)
CHP-4	CHP-GW4	1-25-07	5.0 (ND)
CHP-5	CHP-GW5	1-25-07	5.0 (ND)
CHP-6	CHP-GW6	1-24-07	5.0 (ND)
CHP-8	CHP-GW8	1-24-07	5.0 (ND)
CHP-9	CHP-GW9	1-24-07	5.0 (ND)
CHP-10	CHP-GW10	1-24-07	5.0 (ND)
CHP-11	CHP-GW11	1-24-07	5.0 (ND)
CHP-12	CHP-GW12	1-24-07	5.0 (ND)

Notes:
µg/L: micrograms per liter (parts per billion)
CHP: California Highway Patrol
ID: Identification number
GW: Groundwater
ND: None detected

Table 4: Analytical Results for Petroleum Hydrocarbon Constituents for Groundwater Samples

CHP Oakland: 3601 Telegraph Avenue, Oakland, CA

		Sample ID and Date Sampled						
Analyte (µg/L)	ESL[a] (µg/L)	CHP-GW1	CHP-GW6	CHP-GW8	CHP-GW9	CHP-GW10	CHP-GW11	CHP-GW12
		1/24/2007	1/24/2007	1/24/2007	1/24/2007	1/24/2007	1/24/2007	1/24/2007
1,2-Dichloroethane		ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Benzene	46	ND(0.50)	ND(0.50)	2.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Di-Isopropyl ether		ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
ETBE		ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Ethylbenzene	290	ND(0.50)	ND(0.50)	2.4	ND(0.50)	2.0	ND(0.50)	ND(0.50)
Ethylene Dibromide (1,2-Dibromomethane)		ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Methyl Tertiary Butyl Ether	1,800	ND(0.50)	15	0.97	1.0	38	7.1	0.56
TAME		ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Tert-butyl Alcohol		ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
Toluene	130	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	2.2	ND(0.50)	ND(0.50)
Total Xylenes	100	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	7.4	ND(0.50)	ND(0.50)
TPH-GRO (ug/L)	500	ND(50)	ND(50)	4300	ND(50)	ND(50)	130	ND(50)

Notes:

a. ESLs assuming a potential discharge of groundwater into marine or estuary water system, where contaminants are present in deep soils (>3 m bgs), there is residential land use, and groundwater is not a current or potential source of drinking water.

µg/L: micrograms per liter (parts per billion)

BTEX: Benzene, toluene, ethylbenzene, and total xylenes.

CHP: California Highway Patrol

ETBE: Ethyl t-butyl ether

ID: Identification

GW: Groundwater

ND: Not detected

TAME: Tert-amyl methyl ether

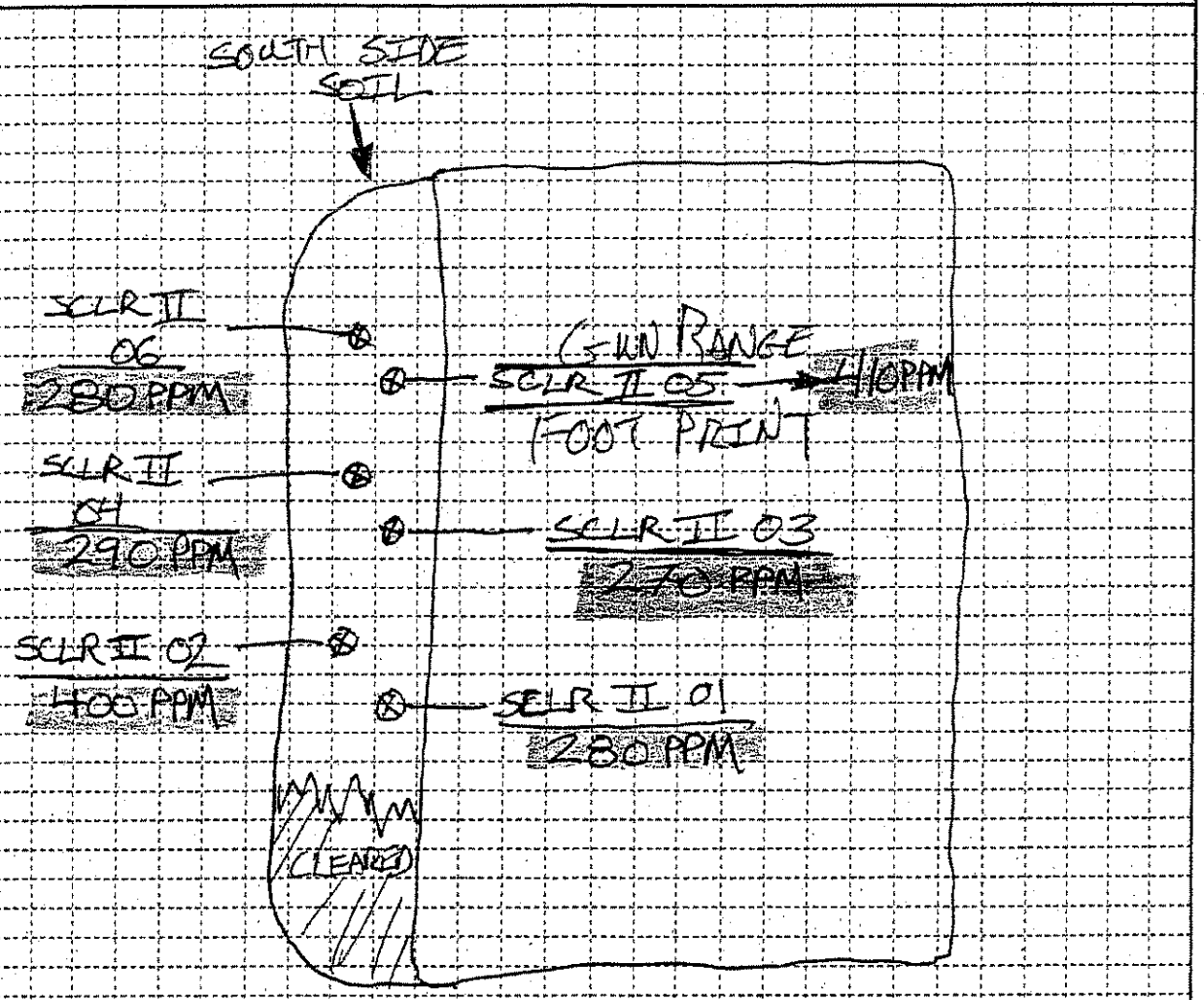
TPH-GRO: Total petroleum hydrocarbon-gasoline range organics

CSC BUILDING SKETCH & PLOTTING WORKSHEET

[redacted]

Sketch By: MIKE EBERLE | Date of Sketch: 20 JUNE 2006

Building(s) show on this sketch: OVERHEAD REFLECTIVE VIEW OF CHP SHOOTING RANGE.



Comments: SAMPLES TAKEN 14 JUNE 2006

CALIFORNIA CUT OFF 5 PPM OR LOWER

North

275 Rose Avenue, Suite 206 • Pleasanton, CA 94566 • Phone 925 931-0100 • Fax 925 931-0108

APPENDIX G

GEOTRACKER

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

CHP - OAKLAND - T0619763665
3601 TELEGRAPH
OAKLAND, CA 946092426

* DENOTES THAT A SUBMITTAL HAS BEEN AUTO-RECEIVED

EDF SUBMITTALS

CONF NUM	TITLE	QUARTER	SUBMITTED BY	SUBMIT DATE	STATUS		
5025404572	JANUARY 2007 SAMPLING RESULTS	Q1 2007	STEVEN C. DALTON	5/14/2008	RECEIVED ON 6/12/2008		QC REPORT
2696122229	JANUARY 2007 SAMPLING RESULTS	Q1 2007	STEVEN C. DALTON	5/14/2008	RECEIVED ON 6/12/2008		QC REPORT
3783992946	LABS, SEPTEMBER 2008	Q3 2008	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL	QC REPORT
7406597316	LABS, SEPTEMBER 2008	Q3 2008	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL	QC REPORT
4248577296	LABS, SEPTEMBER 2008	Q3 2008	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL	QC REPORT
2936802744	LABS, SEPTEMBER 2008	Q3 2008	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL	QC REPORT
7655979990	LABS, SEPTEMBER 2008	Q3 2008	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL	QC REPORT

GEO_XY SUBMITTALS

NO GEO_XY SUBMITTALS FOR THIS FACILITY.

GEO_Z SUBMITTALS

NO GEO_Z SUBMITTALS FOR THIS FACILITY.

GEO_WELL SUBMITTALS

NO GEO_WELL SUBMITTALS FOR THIS FACILITY.

GEO_MAP SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS	
9331435265	GEO_MAP	STEVEN C. DALTON	5/13/2008	RECEIVED ON 6/12/2008	
4643112003	GEO_MAP	STEVEN C. DALTON	5/13/2008	RECEIVED ON 6/12/2008	
4537112176	GEO_MAP	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
4775509059	GEO_MAP	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL

GEO_BORE SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS	
2730654060	BORING LOG GB-16	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
7666261970	BORING LOG GB-17	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
2770262777	BORING LOG GB-18	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
7785500645	BORING LOG GB-19	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
9579974114	BORING LOG GB-20	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
1288036525	BORING LOG GB-21	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
5722530543	BORING LOG GB-22	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
3326582968	BORING LOG GB-23	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
8852156698	BORING LOG LB-1	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
5531967639	BORING LOG LB-1 THRU GB-23	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
3295076668	BORING LOG LB-2	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
4874847888	BORING LOG LB-3	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
7821337640	BORING LOG LB-4	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
6672760486	BORING LOG LB-5	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
3108344859	BORING LOG LB-6	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
8190933704	BORING LOG LB-7	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
8172337412	BORING LOG LB-8	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
7061489284	BORING LOG LB-9	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
3963344752	BORING LOG LB-9	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL
6961089909	BORING LOG LB-10	STEVEN C. DALTON	11/12/2008	PENDING	DELETE SUBMITTAL

GEO_REPORT SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS
9247252523	CHP 2007, PART 1	STEVEN C. DALTON	5/8/2008	RECEIVED ON 6/12/2008
8379292368	CHP 2007, PART 2	STEVEN C. DALTON	5/8/2008	RECEIVED ON 6/12/2008

NAME CHANGE SUBMITTALS

NO NAME CHANGE SUBMITTALS FOR THIS FACILITY.

DUPLICATE FACILITY SUBMITTALS

NO DUPLICATE FACILITY SUBMITTALS FOR THIS FACILITY.