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May 11, 2007

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

**Subject: Fuel Leak Case No. RO0002900, Further Site Investigation,  
700 Independent Road, Oakland, California**

Dear Mr. Wickham,

Attached is a report titled *Further Site Investigation Report, 700 Independent Road, Oakland, California*. The report was prepared by Kleinfelder Inc. on behalf of Equity Office Properties – Industrial Portfolio, LLC. This report is being submitted to Alameda Health Care Services Agency, Environmental Health Services pursuant to your request in a letter to Mr. Peter A. McGing dated December 26, 2006.

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

Sincerely,  
Equity Office Properties – Industrial Portfolio, LLC.



Peter A. McGing, P.E.  
Vice President – Investments Engineering

**FURTHER SITE INVESTIGATION REPORT  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA**

**May 11, 2007**

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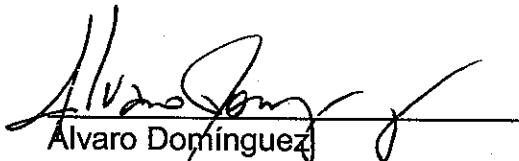
Further Site Investigation Report  
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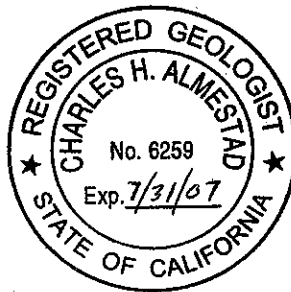
**FURTHER SITE INVESTIGATION REPORT  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA**

File No.: 54504/4

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May 11, 2007

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## 1.0 INTRODUCTION

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On behalf of Equity Office Properties – Industrial Portfolio, L.L.C. (EOP), Kleinfelder investigated subsurface environmental conditions at 700 Independent Road in Oakland, California (the Site) (Plate 1). The investigation was performed to further assess the horizontal and vertical extent of petroleum hydrocarbon impacts to soil and ground water associated with a leaking underground storage tank (UST) removed from the Site in August 2005. Alameda County Health Care Services Agency (ACHCSA) is providing regulatory oversight for the Site and has assigned the Site fuel leak case number RO0002900. This report summarizes the tasks, methods, observations, and results of the investigation.

The investigation work consisted of collecting and analyzing soil, soil-vapor, and groundwater samples to better characterize the vertical and lateral extent of contamination associated with the UST removed from the Site in August 2005. In addition, a survey of wells present within a 1,000-foot radius of the Site was performed to assess the presence of potential preferential pathways. The investigation was performed in response to the request for further investigation at the Site by the ACHCSA, and was performed in general accordance with Kleinfelder's *Workplan for Further Investigation, 700 Independent Road, Oakland, California*, dated December 12, 2006. The workplan was approved by the ACHCSA in a letter to Mr. Peter McGing dated December 26, 2006. In the ACHCSA's approval letter additional work was requested. That additional work was carried out and is summarized in this report.

## 2.0 BACKGROUND INFORMATION

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### 2.1 SITE DESCRIPTION

The 700 Independent Road property is located in an industrial area of Oakland, California (Site). The property is approximately five-acres in size and is located about 1,000 feet north of the McAfee Stadium (Plate 1). On the property is a one-story warehouse building, a parking lot and a railroad spur. Attached to the warehouse building on the north side is a concrete block building that is about 900 square feet in size (Plate 2). The facility has been used as a warehouse since the 1950's. Currently, the Eagle Bag Company manufactures and warehouses plastic bags at the site. Previous subsurface investigations indicate that near surface soils at the Site are predominantly clay and silty clay in texture, and that groundwater is generally encountered at about 8 feet to 10 feet below ground surface (bgs).

### 2.2 UST REMOVAL AND PREVIOUS ENVIRONMENTAL SITE INVESTIGATION SUMMARY

A prospective purchaser of the 700 Independent Road property discovered the presence of petroleum hydrocarbons in soil and groundwater near the loading dock on the subject property. As a follow up to this discovery, Kleinfelder searched regulatory agency records and found no records indicating the presence of a UST on the property. Kleinfelder then performed a geophysical survey and identified the presence of a UST and associated piping in the vicinity of the loading dock. On August 17, 2005, Kleinfelder removed and disposed of one 1,100-gallon UST, under permit with the City of Oakland. The tank was in poor condition, with several holes, and the soil underneath the tank was visibly impacted with petroleum hydrocarbons. Kleinfelder collected confirmation samples from the bottom of the excavation. Backfilling and compaction was performed on September 15 and 16, 2005. A Site plan, indicating the approximate location of the former UST and sample locations is presented in Plate 3.

The UST was found at about four feet bgs. A product pipeline was observed in the excavation about a foot below the top of the excavation. The product line from the tank had previously been traced using surface geophysical methods under the block building

(under a lunch room area) to an exterior corner between the block building and the main warehouse building. At this location a pedestal was observed where a fuel dispenser is believed to have existed. A vent line was observed on the side of the warehouse building and extending through the overhang of the warehouse roof. The product and vent lines were left in place when the tank excavation was backfilled. The depth of the product and vent pipelines below the floor of the block building is not known. No excavation activities other than those required to sample shallow soil were performed in the vicinity of the dispenser during UST removal work. Analytical results from the confirmation samples collected below the UST indicated the presence of total petroleum hydrocarbons as gasoline (TPH-g) at concentrations as high as 877 milligrams per kilogram (mg/kg) and total petroleum hydrocarbons as diesel (TPH-d) as high as 5,090 mg/kg. Kleinfelder summarized the tank removal work and analytical results in a report titled *Underground Storage Tank Removal Report, 700 Independent Road, Oakland, California*, dated November 1, 2005. The report was submitted to the City of Oakland Fire Department.

Given the concentrations of petroleum hydrocarbons present, the Fire Department referred the Site to ACHCSA for regulatory oversight. On February 24, 2006 the ACHCSA sent a letter requesting that EOP delineate the extent of the contamination associated with the recently removed UST. On July 24 and 25 and August 10, 2006 Kleinfelder performed the requested investigation, which consisted of collecting soil and groundwater samples from thirteen soil boring locations (K-1 through K-13, Plate 3) advanced in the vicinity of the former UST location. Eleven of the borings were advanced to depths ranging from 16-feet to 24-feet bgs, and two borings were advanced to a depth of 32 feet bgs. Groundwater was first encountered at depths ranging from 5.5 to 19 feet bgs.

The results of the investigation were summarized by Kleinfelder in the *Site Field Investigation Report*, dated September 27, 2006. In brief, benzene, toluene, ethylbenzene, and xylenes (BTEX) in soil were reported at concentrations up to 3,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), 2,400  $\mu\text{g}/\text{kg}$ , 17,000  $\mu\text{g}/\text{kg}$ , and 33,000  $\mu\text{g}/\text{kg}$ , respectively. TPH-g was detected as high as 810 milligrams per kilogram (mg/kg). In groundwater, BTEX was reported as high as 13,800 micrograms per liter ( $\mu\text{g}/\text{L}$ ), 929  $\mu\text{g}/\text{L}$ , 2,810  $\mu\text{g}/\text{L}$ , and 3,140  $\mu\text{g}/\text{L}$ , respectively. TPH-g and TPH-d were reported at concentrations up to 42 milligrams per liter (mg/L) and 4.19 mg/L respectively. The report was submitted to the ACHCSA.

In a letter to EOP dated October 6, 2006 the ACHCSA requested that EOP further assess the horizontal extent of petroleum hydrocarbon impacts to the subsurface. The request included the collection of soil and groundwater samples in the southeast direction of the former UST location, installation of three monitoring wells, assessment of the presence of petroleum hydrocarbons in soil vapor, a well survey, and an assessment of potential preferential pathways. In response a work plan was prepared by Kleinfelder titled *Work Plan for Further Site Investigation* and submitted to ACHCSA on December 12, 2006.

The workplan was approved by ACHCSA (letter dated December 26, 2006) with certain additional requests. Between March 4 and March 7, 2007, Kleinfelder advanced and collected soil and groundwater samples for chemical analysis from seven soil boring locations (K-14 through K-20), installed three monitoring wells, and collected soil-vapor samples from four sample locations in the warehouse building. The results of the field investigation and chemical analysis are summarized in subsequent sections of this report. Sampling locations from past investigations and for the current investigation are shown in Plate 3.

### 3.0 ENVIRONMENTAL FIELD INVESTIGATION

---

The scope of the environmental field investigation included:

- Obtaining drilling and well installation permits;
- Clearing utilities;
- Advancing seven soil borings to further assess the extent of petroleum hydrocarbons in soil and ground water (three borings planned to 25 feet bgs and four borings planned to 45 feet bgs);
- Installing three monitoring wells to an approximate depth of 25-feet below ground surface;
- Advancing five borings to an approximate depth of 5-feet bgs and collecting soil-vapor samples.

The following sections describe the field investigation as it was carried out.

#### 3.1 PRE-FIELD ACTIVITIES

Prior to drilling, Kleinfelder:

- Obtained the required drilling permit from the Alameda County Public Works Agency. A copy of the drilling permit is included in Appendix A;
- Retained the services of a private utility locator to clear proposed drilling locations;
- Informed Underground Service Alert (USA) of the planned drilling activities at the Site more than 48 hours prior to commencement of drilling activities (no member agency utility lines were identified [marked] in the planned work area);
- Retained Resonant Sonic International drilling company of Woodland, California to advance the soil boring probes and install the monitoring wells;
- Prepared a health and safety plan to establish protection standards and mandatory safety practices and procedures to follow during the field work; and
- Notified both the ACHCSA and Alameda County Public Works of the work schedule for potential inspections.

## 3.2 SUBSURFACE INVESTIGATION

The subsurface investigation was performed between March 4 and March 7, 2007 and included advancing seven soil borings for soil and groundwater sample collection, installing three monitoring wells, and advancing five probes for soil-vapor sample collection. The locations of the soil borings, soil-vapor probes and groundwater monitoring wells are shown in Plate 3.

### 3.2.1 Advancement of Soil Borings

Soil borings located within the warehouse were advanced using a Power Probe 9600 track mounted direct-push drill rig, a limited access rig. Before advancing the soil borings and soil-vapor borings inside the warehouse building, four-inch cores of the concrete slab were removed at the sampling locations. The exterior soil borings were drilled with a truck-mounted Geoprobe 5400 direct-push drill rig. The direct-push rigs advance a four-foot long steel tube using a hydraulic ram and a rotary hammer. The steel tube has an inside diameter of two inches and an interchangeable acrylic liner, which allows for a continuous sample through the entire depth of the borehole. The wells were installed using hollow stem auger drilling rig.

A total of seven soil borings were advanced. Of the three that were planned to a depth of about 25 feet bgs, two were terminated at 24 bgs (K-15 and K-16) and one boring (K-17) was advanced to 32 feet bgs to better assess the extent of petroleum impacts at that location. Of the four borings planned to be advanced to 45 feet bgs, three borings (K-18, K-19, and K-20) were terminated at 38 feet bgs due to drill rig refusal. K-14 was advanced to 45 feet bgs as planned.

The soil-stratigraphy at each soil-boring location was logged in the field and classified using the Unified Soil Classification System. The cores were screened with an organic vapor analyzer equipped with a photo-ionization detector (PID), and the PID readings obtained at different depths were recorded on the logs. Soil boring logs are included in Appendix B.

### 3.2.2 Soil Samples

Three to four soil samples were collected from each boring for chemical analysis. Soil sampling equipment was decontaminated between sample locations using a steam cleaner. Soil samples were collected for chemical analysis by cutting approximately 6-inch sections of the polyethylene liners. The depth of the samples was selected based on field observations, including petroleum odor, staining, and elevated PID readings. Soil samples for chemical analysis were sealed on both ends with Teflon sheets and end caps, labeled, and placed in a cooler filled with ice pending delivery to a California State-certified analytical laboratory. Samples were delivered under chain-of-custody protocol. A total of 37 soil samples were submitted to the analytical laboratory, three of which were placed on hold and not analyzed.

### 3.2.3 Grab Groundwater Samples

Grab groundwater samples for chemical analyses were collected from each soil boring. A temporary 3/4-inch poly vinyl chloride (PVC) well casing was inserted into each borehole and a disposable 1/2-bailer was lowered to retrieve groundwater samples for analysis of volatiles. A peristaltic pump, with new tubing in each sample location, was used to collect samples for total petroleum hydrocarbon as diesel (TPH-d) analysis. Groundwater samples were contained in laboratory-supplied containers, labeled, and stored in a cooler with ice pending delivery to the analytical laboratory under chain-of-custody protocol.

Temporary well casings were removed and discarded and the boreholes were grouted with neat cement from the bottom up, according to well permit requirements.

### 3.2.4 Soil-Vapor Samples

Probes for soil-vapor sample collection were advanced at five locations within the warehouse to five-feet bgs. Plate 3 shows the soil-vapor sample locations. After the probes were advanced with a soil-vapor sampling rod, the top of the borehole was sealed with hydrated bentonite, and a sampling tube was inserted through the sampling rod. The sampling tube was attached to two Summa canisters, one for purge and the other for sample collection. Before the valves were open, all the fittings, as well as the rod/bentonite seal interface were covered with shaving cream containing isopropanol to serve as leak detector. The purge canister valve was left open until the vacuum in the



canister was depleted. At that time the purge canister valve was closed and the sample canister valve opened. The sample canister valve was left open until the vacuum in the sample canister was depleted. Purging and sample collection took approximately 30 to 45 minutes, except for the soil-vapor samples collected at SV-3 and SV-5. The sample canister at SV-3 was left open overnight to allow the vacuum in the canister to deplete. A soil-vapor sample at SV-5 was not collected because after several hours of leaving the purge canister valve open, the vacuum had not decreased.

Soil cuttings and waste water, generated during well purging and steam-cleaning the sampling-equipment, were contained in Department of Transportation approved 55-gallon drums. The drums were stored on Site, in a fenced area, pending analysis and disposal arrangements.

### **3.2.5 Installation of Groundwater Monitoring Wells**

Three two-inch diameter PVC monitoring wells were drilled and installed on March 7, 2007. The location of the wells is shown in Plate 3.

The monitoring wells were constructed as follows. The soils in each well location were first logged from a core obtained using a direct push drilling equipment. Then the borings were reamed out with a hollow stem drill rig to install the monitoring wells. Ten feet of 0.02 inch factory slotted well screen was placed in each boring and a sand pack was placed around the well screen and extended up one to two feet above the well screen. Above the sand pack a two feet of bentonite was placed and allowed to hydrate using tap water. Neat cement grout was tremmied into the remaining hole up to within about nine inches of the ground surface. The well heads were completed in traffic-rated boxes. A locking cap was placed on the finished well. Well construction details are summarized in Table 1 and are included on the well logs in Appendix B.

The three wells were developed on March 12, 2007 by Resonant Sonic International. Well development was performed by surging the water in the well with a surge block followed by purging the water containing suspended sediments with a bailer. Well development was carried out until the water in the well was clear or at least ten wetted well volumes of water had been purged. The volume of purged water from wells MW-1, MW-2, and MW-3 totaled 19 gallons (well purged dry), 36 gallons and 45 gallons, respectively.

### 3.2.6 Monitoring Well Sampling

The monitoring wells were sampled on March 19, 2007. Using clean, unused disposable bailers the wells were purged of a minimum of three wetted well volumes of water prior to sampling. During the purging process, temperature, electrical conductivity and pH were monitored until these parameters stabilized. Final purge characteristic data for the wells are summarized in Table 2. Following well purging, the ground water samples were collected by decanting the water from the bailers into bottles provided by the analytical laboratory. The bottles were filled with no headspace remaining in the bottles. The bottles were then labeled and placed in an ice chest with ice for storage prior to transport to the analytical laboratory. As the samples were collected, a chain-of-custody form was prepared to accompany the samples to the laboratory. Kleinfelder transported the samples to the laboratory the same day they were collected. The chemical analyses performed are listed in Section 3.3.

### 3.2.7 Elevation Survey

On April 4, 2007 the latitude, longitude and elevations of monitoring well covers and tops of casings were surveyed by PLS Surveys Inc., a California licensed surveyor. The same day the longitude and latitude of the soil borings were also surveyed. Survey results for the monitoring wells are summarized on Table 1.

## 3.3 CHEMICAL ANALYSIS

Soil, soil-vapor and groundwater samples were submitted for analysis to Torrent Laboratory, Inc. of Milpitas, a California state-certified analytical laboratory. Samples were submitted in a cooler under chain-of-custody protocol. Torrent Laboratory was requested to perform the following analyses:

- Soil and groundwater samples from both, the soil borings and monitoring wells, were analyzed for:
  - Benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), 1,2 dibromoethane (EDB), 1,2-Dichloroethane (EDC), and total petroleum hydrocarbons as gasoline (TPH-g) using US Environmental Protection Agency (EPA) Method 8260B; and

- Total petroleum hydrocarbons as diesel (TPH-d) by EPA Method 8015B (A silica gel cleanup procedure was requested and performed on samples to be analyzed for TPH-d.)
- Soil vapor samples were analyzed for BTEX, isopropanol, and TPH-g using EPA Method TO-15.

## 4.0 SUMMARY OF FIELD INVESTIGATION RESULTS

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As described in Section 3, seven soil borings were advanced and three monitoring wells installed at the Site to further assess the horizontal and vertical extent of petroleum hydrocarbons in the subsurface at the Site. Previously 13 soil borings were advanced for this purpose. In addition, five soil-vapor probes were advanced within the warehouse area and adjacent to the concrete block building to assess the potential intrusion of volatiles into the building. The concentrations of analytes reported in the samples are compared to their corresponding Environmental Screening Levels (ESLs), published by the San Francisco Bay Region Regional Water Quality Control Board (RWQCB). ESLs were established as initial indicators of potential impacts to human health or the environment, and are not intended as cleanup criteria.

Soil and groundwater ESLs referenced in this report were obtained from the Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1 Summary Tier 1 Lookup Tables, California RWQCB, October 2005. Kleinfelder compared the reported analyte concentrations to the ESLs established for soils and groundwater less than three meters below ground surface in industrial areas where groundwater is a current or potential source of drinking water. The ESLs for soil-vapor reference were obtained from the Lookup Table E, Environmental Screening Levels Indoor Air and Soil gas (Vapor Intrusion Concerns). The following sub-sections describe the hydrogeology of the Site and summarize the analytical results of soil, groundwater and soil vapor samples.

### 4.1 SITE HYDROGEOLOGY

The soils underlying the site consist of inter-fingered near-shore deposits from San Francisco Bay and alluvial deposits. Cross-sections derived from boring logs are included as Plates 4 and 5. Cross-section locations are shown in Plate 3. The cross-sections illustrate the stratified nature of the soil deposits at the site. The near-surface soils at the site are generally clayey in texture. However, a thin discontinuous sandy (silty sand, sand, and gravel) and sandy clay layers are present in certain borings at about five and 12 feet bgs. Organic clays are also present in this general depth zone. At about 18 to 20 feet bgs a permeable water bearing zone is present that is about four to six feet thick. This zone is comprised of sands, silty sands, and sandy gravels that

can be horizontally traced between borings that were advanced to that depth. Below this permeable zone are clays (silty clay, clay, and sandy clay) to about 34 to 38 feet bgs where an additional laterally continuous permeable zone was encountered in three out of the four deep borings on site.

Monitoring wells were screened in the predominant water bearing zone (approximately 18 to 22 feet bgs) and water level measurements were made on April 13, 2007. Based on these water level measurements and survey elevation data ground water is inferred to flow toward the south with a hydraulic gradient of 0.003. Plate 6 contains inferred water level contours for April 13, 2007.

#### **4.2 SOIL VAPOR ANALYTICAL RESULTS**

Soil vapor probes were advanced in five locations but samples were collected from only four of these locations (SV-1 through SV-4). Collection of soil vapor at SV-4 was very slow as the Summa canister had to be left in place overnight to fill up. At location SV-5 no soil vapor entered the purge canister after two hours. The samples were analyzed for BTEX, isopropanol, and TPH-g using EPA Method TO-15. Plate 3 shows the locations of the soil vapor borings. Table 4 summarizes the soil-vapor analytical results. Copies of analytical laboratory reports are included in Appendix C.

No chemicals of concern were detected at or above the method reporting limit in borings SV-1 and SV-2 located within the warehouse building. Chemicals of concern were reported in soil vapor in borings SV-3 and SV-4, located on the east and west sides of the block building, but at concentrations below their respective ESLs. The fact that isopropanol was detected in the sample from SV-4 suggests some leakage from the ground surface in that location may have occurred; consequently the chemical data from that location may not be representative. The fact that no soil vapors were recovered in boring SV-5 and collection of vapors at SV-4 was very slow supports the conclusion that there is limited soil vapor permeability in the immediate vicinity of the block building. The low vapor permeability and the low chemical concentrations in the soil vapor suggest that vapor intrusion at the site is not a significant problem.

### 4.3 SOIL SAMPLES ANALYTICAL RESULTS

A total of 37 samples from nine locations (seven borings and two well locations) were collected for chemical analysis. Thirty of these samples, collected at depths ranging from 5.5 to 31.5 feet bgs, were analyzed. The soil samples were analyzed for BTEX, EDB, EDC, MTBE, and TPH-g using EPA Method 8260, and for TPH-d using EPA Method 8015 following a silica gel cleanup procedure. Reported concentrations of analytes detected in soil samples are summarized in Table 5. Copies of the analytical laboratory reports are included in Appendix C.

The greatest concentrations of volatiles and TPH-g were found in soil samples at depths ranging from approximately 18 to 20-feet bgs. The highest concentrations of these chemicals were found in soil samples collected from K-19 and MW-1 located in the vicinity of the former UST. BTEX concentrations in a soil sample from MW-1 at 19.5-feet bgs were reported at 63,000 µg/Kg, 250,000 µg/Kg, 310,000 µg/Kg, and 1,200,000 µg/Kg, while TPH-g and TPH-d were reported at 12,000,000 µg/Kg and 588,000 µg/Kg, respectively. Neither EDB nor EDC were detected at or above the method detection limit (25 µg/kg).

TPH-g was reported at concentrations exceeding the ESL of 100,000 µg/Kg, in soil samples collected from K-18 at 8.5-feet bgs (152,000-µg/Kg), K-19 at 7.5-feet bgs (189,000-µg/Kg) and 18-feet bgs (1,900,000-µg/Kg), and in the sample from MW-1 at 19.5-feet bgs (12,000,000-µg/Kg). Benzene was reported at concentrations exceeding ESLs in one or more of the soil samples from borings K-14, K-15, K-17, K-19 and MW-1. Ethylbenzene was reported above ESLs in samples from borings K-17, K-19 and MW-1. ESLs for xylenes and toluene were exceeded in samples from K-19 and MW-1.

No MTBE or EDB was reported in the samples at or above the reporting limits. EDC was reported in samples from K-19 at 25.5 and 31.5 feet bgs at 78 µg/Kg and 32 µg/Kg, respectively.

TPH-d was detected at concentrations exceeding the ESL of 100,000 µg/Kg in samples collected from K-17 at 23-feet bgs (114,000 µg/Kg), K-19 at 18-feet bgs (200,000 µg/Kg), and MW-1 at 19.5-feet bgs (590,000 µg/Kg).

Plates 7 and 8 display the distribution of TPHg and benzene and show the horizontal extent of TPH-g and benzene in the seven to 11 foot depth zone and 17 to 25 foot depth zones, respectively. The plates also show that the extent these compounds exceed ESLs is generally defined in the 7 to 11 foot and 17 to 25 foot depth zones, except to the east and the southwest.

Plates 4 and 5 contain geologic cross-sections which illustrate the vertical distribution of TPHg and benzene in soil. The highest concentrations of TPH-g and benzene were found in K-19 and MW-1 at about 18 and 19.5 feet bgs. Although soil sample results are limited at depth greater than about 25 feet, the available soil chemical analytical results and PID screening results tend to indicate that migration of petroleum hydrocarbons to depths greater than about 25 feet is limited and therefore not of significant concern.

#### 4.4 GROUND WATER ANALYTICAL RESULTS

Groundwater samples were collected from the seven boring locations (K-14 through K-20), and from the three recently installed monitoring wells (MW-1 through MW-3). Groundwater samples were analyzed for BTEX, EDB, EDC, MTBE, and TPH-g using EPA Method 8260, and for TPH-d using EPA Method 8015. Reported concentrations are summarized in Table 6. Copies of the analytical laboratory reports are included in Appendix C.

Reported concentrations of chemicals of concern in groundwater samples collected from K-14, K-15, K-16, K-20, and MW-3 were below their respective ESLs. Concentrations of EDB, EDC and MtBE were below their respective ESLs in all groundwater samples, except the groundwater sample from MW-2. EDC reported at 226-micrograms per liter ( $\mu\text{g/L}$ ) in the sample from MW-2.

Benzene was reported at concentrations above its ESL of 1  $\mu\text{g/L}$  in groundwater samples collected from K-15, K-17, K-18, K-19, MW-1, and MW-2. The highest concentrations of benzene were found in the groundwater samples collected from K-17 (2,780- $\mu\text{g/L}$ ), K-19 (5,170- $\mu\text{g/L}$ ), and MW-2 (11,600- $\mu\text{g/L}$ ).

TPH-d was reported at concentrations above its ESL (100 µg/L) in samples collected from K-15, K-17, K-18, K-19, MW-1, and MW-2. TPH-d concentrations in these samples ranged from 150 µg/L to 940 µg/L.

TPH-g was reported in concentrations above its ESL (100 µg/L) in samples collected from K-15, K-17, K-18, K-19, K-20, MW-1, and MW-3; at concentrations ranging from 671.6-µg/L (K-15) to 38,000-µg/L (MW-2).

Plate 9 shows the distribution of TPH-g and benzene in ground water and the extent of these compounds exceeding the lowest ESLs. The ESL limit line for the lowest ESLs indicates that the horizontal extent is generally defined except on the east and south west sides of the plume and possibly on the north. Where these limits may not be fully defined the actual limits are probably not far off as shown on the plate. The plate also shows the horizontal extent of benzene in ground water exceeding the vapor intrusion ESL. Although the benzene ESL for vapor intrusion may be exceeded in ground water, the soil vapor results suggest that vapor transmission in the soil is low and consequently soil vapor concentrations are also relatively low, so as to not be of significant concern.

Geological cross-sections shown in Plates 4 and 5 provide information on the vertical distribution of TPH-g and benzene in ground water at the site. As can be seen, high concentrations of TPH-g and benzene are found in shallow ground water in the immediate vicinity of the site, but the highest concentrations of these compounds are found at 18 to 24 foot depth. In the 18 to 24 foot depth zone horizontal migration of these compounds to the east (toward monitoring well MW-1) is evident. Review of TPH-g chromatograms in the vicinities of the former UST and MW-1 suggests that the petroleum hydrocarbons are from the same source, despite the observation that ground water tends to flow to the south (Plate 6) as opposed to the east, toward MW-1 from the former UST area.



## 5.0 POTENTIAL CONDUIT ASSESSMENT

---

### 5.1 POTENTIAL DEEP WELL CONDUIT SURVEY

Kleinfelder conducted an assessment of wells located within a 2000-foot radius of the subject site. Kleinfelder obtained well records from the State of California Department of Water Resources (DWR) and the Alameda County Public Works Agency including DWR Water Well Driller Reports, well location sketches/maps, boring logs, and well completion logs for 91 wells in the area. Twenty monitoring wells, two bore holes, and one destroyed well were identified within a 2000-foot of the former UST. Plate 10 shows the locations of wells identified within the 2000 foot search radius.

The deepest well identified within the search radius was 610 feet deep; however it was decommissioned in November 1984. This well was located more than 1400 feet east of the former UST. The casing of the well was perforated from 150-160 feet and 2-12 feet. The well was destroyed by filling it with native material from 0-1ft, neat cement from 1-22 feet and 140-160 feet, and pea-size gravel fill from 22-140 feet and 160-610 feet.

The majority of the wells identified within the search radius are located in a cluster approximately 1200 feet east of the subject site, on the western corner of the intersection of 66<sup>th</sup> Avenue and San Leandro Street. In this cluster are 16 monitoring wells, one destroyed well, and two boreholes. The deepest well in this cluster was destroyed as discussed above. The next deepest well is 36.5 feet deep. The other wells in the cluster range in depth from 11-26 feet, and the two bore holes are 8.5 and 9 feet deep.

The four remaining wells within the 2000-foot radius of the subject site are monitoring wells in a cluster located approximately 1500 feet north of the subject site on the northeastern side of San Leandro St., near its intersection with Seminary Avenue. The deepest well in this cluster is reported to be 21.5 feet deep.

Given that the offsite wells located in this study are 1) upgradient or side gradient of the former UST, 2) generally shallow (or destroyed), and 3) 1200 or feet more distant from

the former UST, these wells should not be considered potential deep well conduits with respect to the petroleum hydrocarbons found in groundwater at 700 Independent Road.

## 5.2 ASSESSMENT OF UTILITY CORRIDORS

The City of Oakland Public Works Agency and East Bay Municipal Utility District (EBMUD) were contacted for information on subsurface utilities in the vicinity of the site. EBMUD reported that potable water lines were installed at shallow depth (18-24 inches) and therefore trench fill surrounding these pipelines are not considered potential migration conduits.

Plate 10 shows the alignments of sewer and storm drain systems obtained from the Oakland Public Works Agency. As shown on Plate 10 the flow line of the sewer line opposite the site under Independent Road ranges in elevation from 0.28 feet at the east end of Independent Road to -2.3 feet at the intersection of Independent Road and Coliseum Way. As the water table at the site is at about elevation 5 feet the sewer line trench backfill could act as a conduit for containment migration. However, the ground water flow direction indicated by water level measurements made at the site (see Plate 6) is away from the street, to the south. This would indicate that the sewer line corridor is not acting as a conduit for petroleum hydrocarbon migration at the site.

## 6.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

---

The objectives of the investigation summarized in this report were to:

- Further define the hydrogeology
- Further define the horizontal and vertical extent of petroleum hydrocarbon impacts to soil and groundwater at the site;
- Assess potential vapor intrusion into the buildings;
- Identify and assess potential deep well conduits in the vicinity of the site, and
- Identify and assess subsurface utility lines that may represent conduits for horizontal contaminant migration.

To meet these objectives Kleinfelder advanced seven soil borings for geologic logging and collection of soil and ground water samples for chemical analysis; installed, surveyed and sampled three monitoring wells; advanced five soil borings for soil vapor sampling and analysis, measured water levels, obtained wells records from the Alameda County Public Works Agency and California Department of Water Resources; and obtained utility information from the City of Oakland and East Bay Municipal Utility District. Findings and conclusions from that work include:

### Hydrogeology

General site stratigraphy is illustrated in cross-sections in Plates 4 and 5. Two general water bearing zones were identified in which contaminant migration has occurred. These water bearing zones include sediments found at about seven to 11 feet bgs and 18 to 24 feet bgs. The 18 to 24 foot water bearing zone appears to be the more significant of the two as the permeable sediments in this zone are thicker and more continuous, and the chemical data indicates that this zone is the more significant preferential pathway for contaminant migration. The monitoring wells installed target this water bearing zone.

Well survey data and water level measurements made on April 13, 2007 indicate ground water flow to the south. The observation that some of the highest petroleum hydrocarbon concentrations occur to the east of the former UST, as opposed to the

south, suggests ground water flow patterns may be variable and additional ground water level measurements should be carried out in the future to better understand ground water flow at the site.

### Petroleum Hydrocarbons in Soil and Ground Water

The results of chemical analyses are summarized in Tables 5 and 6 and TPH-g and benzene concentrations and their distribution are displayed on site maps for soil in the two general depth zones (Plates 7 and 8) and for ground water (Plate 9). In addition TPH-g and benzene concentrations are posted on geologic cross-sections (Plates 4 and 5) to display the vertical distribution of these chemicals.

In general the highest concentrations of TPH-g (e.g. 42,000 µg/L in groundwater and 1,900,000 µg/kg in soil), TPH-d (e.g. 4190 µg/L in groundwater and 200,000 µg/kg in soil), and BTEX (e.g. 13,800 µg/L benzene in groundwater) are found in the vicinity of the former UST (borings K-1, K-2, and K-19) and these petroleum hydrocarbons extend down in this area to about 34 feet bgs. The second highest petroleum hydrocarbons concentrations occur to the east of the former UST at MW-1 and K-18 (e.g. 12,000,000 µg/kg TPH-g and 63,000 µg/kg benzene in soil).

The horizontal extent of petroleum hydrocarbons above ESLs is generally defined as shown on Plates 7, 8, and 9 except to the east and to the southwest. Further assessment of the extent of petroleum hydrocarbons to the east may be warranted given the relative concentrations found there. To the southwest the chemical concentrations appear to be falling off in that direction and horizontal extent above ESLs is likely limited in this location.

### Petroleum Hydrocarbons in Soil Vapor

Soil vapor samples were difficult to obtain in the vicinity of the block building due to the low vapor permeability of the near-surface soil found there. Soil vapor samples that were collected adjacent to the block building (SV-3 and SV-4) were found to contain petroleum hydrocarbons but at concentrations far below vapor intrusion ESLs. Soil vapor samples collected from beneath the warehouse were not found to contain petroleum hydrocarbons at or above the method detection limits. The low vapor permeability of the soils and the very low to non-detectable concentrations of petroleum

hydrocarbons in soil vapor indicates that the soil vapor intrusion into site buildings is likely not a problem.

### Potential Conduits

The closest offsite wells that were identified were up- or side-gradient, shallow, and more than 1200 feet distant. Consequently these wells should not be considered potential deep well conduits. The sewer line located under Independent Road is lower than the water table at the site and therefore trench gravels surrounding the sewer lines could act as a preferential pathway for contaminant migration. However, the inferred ground water flow direction is away from the sewer line and the distribution of petroleum hydrocarbons at the site does not suggest that the sewer line is a migration pathway.

### Recommendations

Kleinfelder's recommendations for further action include:

- Further assess the horizontal extent of petroleum hydrocarbon to the east of the former UST in the vicinity of well MW-1.
- Monitor water levels in monitoring wells quarterly to assess ground water flow directions.
- Resample the monitoring wells to confirm current results.
- Assess risks associated with the residual petroleum hydrocarbons at the site and perform a feasibility study to assess feasible options to remove or reduce petroleum hydrocarbons concentrations in the two identified areas of highest concentration.

## 7.0 LIMITATIONS

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Kleinfelder prepared this report in accordance with generally accepted standards of care that exist in Alameda County at this time. This report may be used only by EOP 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 EOP or as required by law. Non-compliance with any of these requirements by EOP 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 EOP agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use of non-compliance.

Kleinfelder offers various levels of investigation 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 EOP 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 reports 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. EOP 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. EOP 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.

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 EOP with a source of professional advice, opinions and recommendations. Our professional opinions and recommendations are/will be 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 EOP. Consequently, no warranty or guarantee, expressed or implied, is intended or made.

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## 8.0 REFERENCES

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Kleinfelder, 2005, Underground Storage Tank Report, 700 Independent Road, Oakland, California.

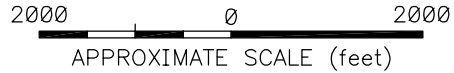
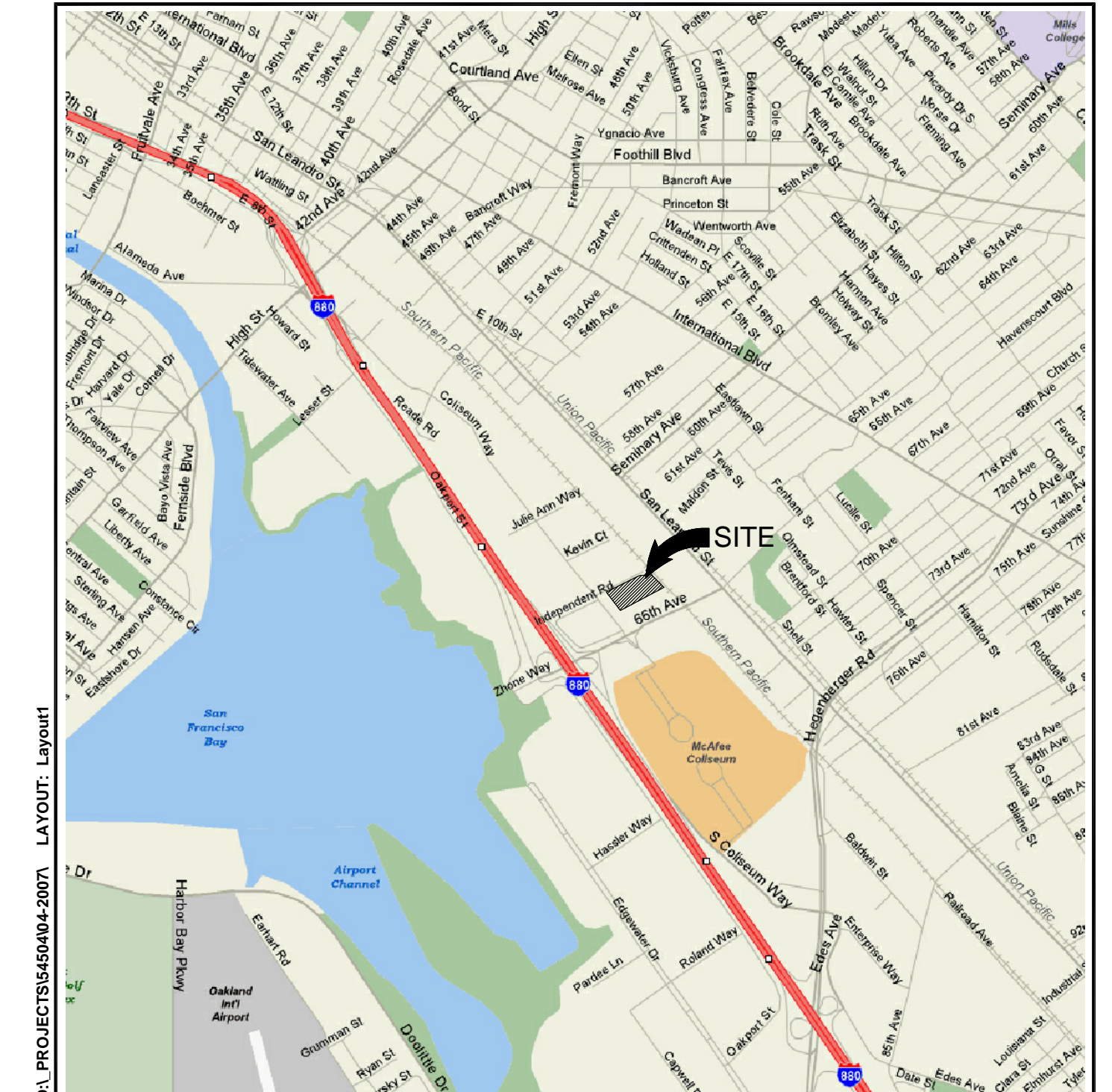
Kleinfelder, 2006, Site Investigation, 700 Independent Road, Oakland, California.

San Francisco Bay Regional Water Quality Control Board, Tier 1 Environmental Screening Levels, October 2005 version.



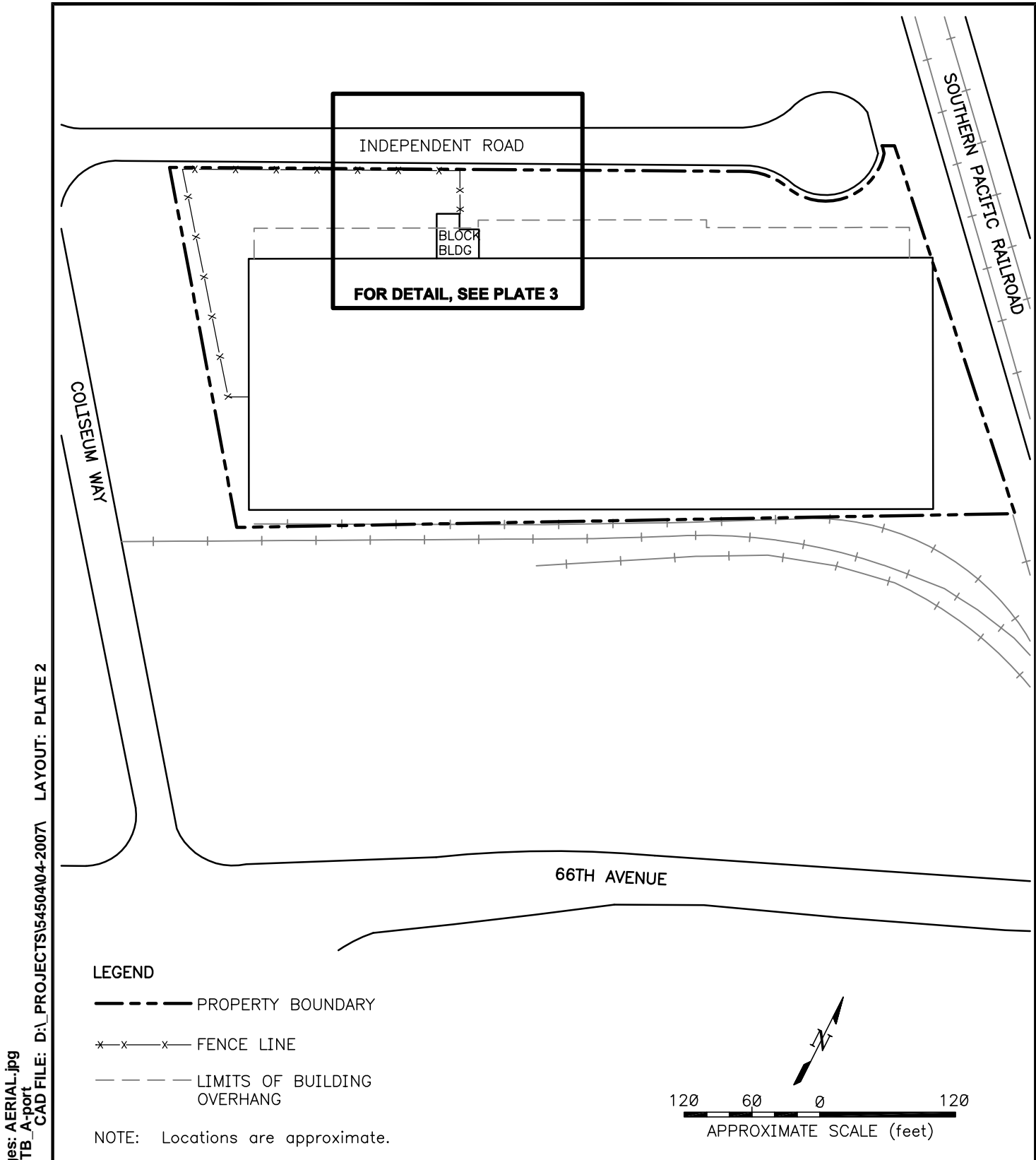
## PLATES

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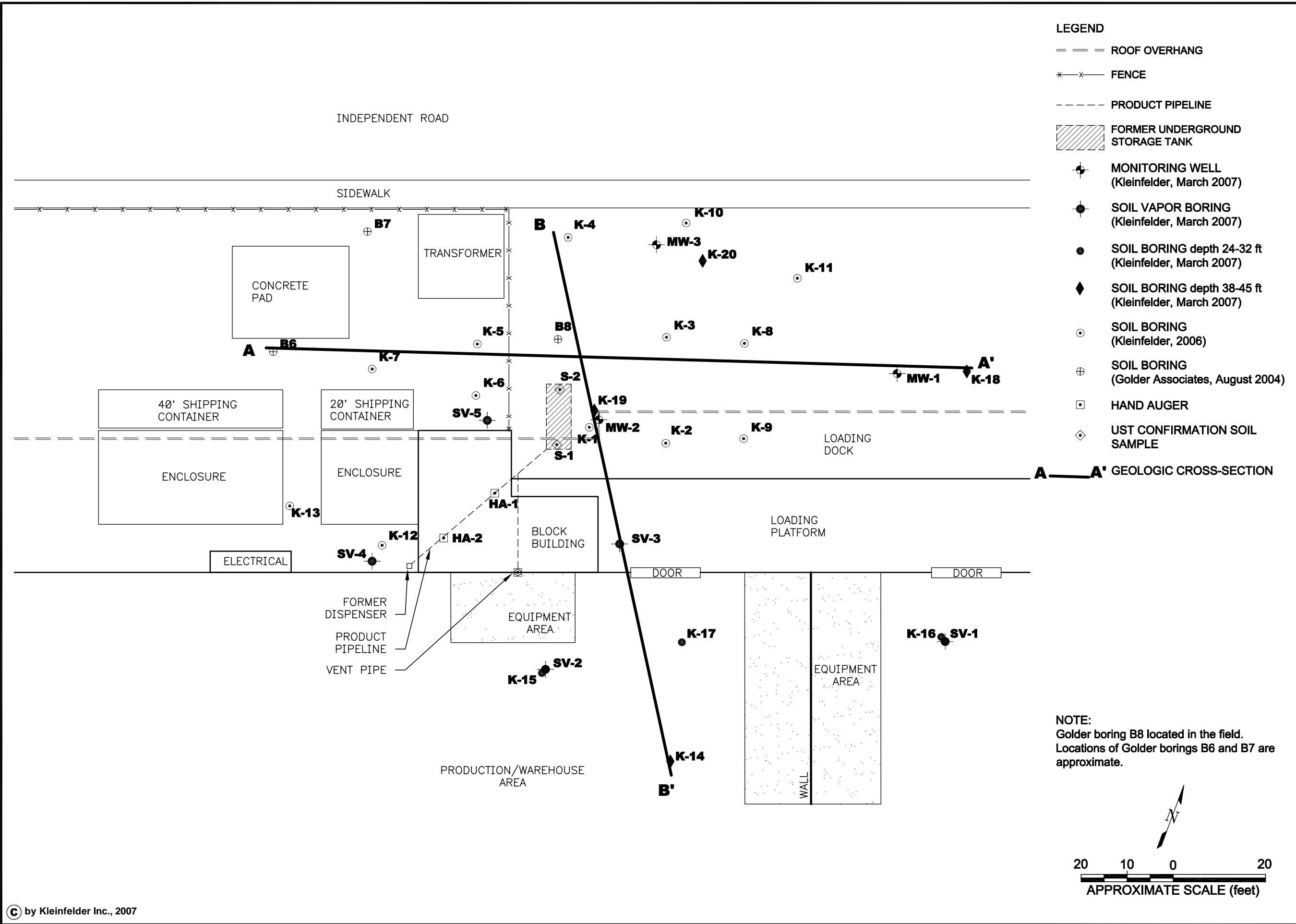
<b>KLEINFELDER</b>  1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH. 510-628-9000 FAX. 510-628-9009 www.kleinfelder.com	<b>SITE VICINITY MAP</b>		DRAWN BY: LGS
	700 INDEPENDENT ROAD OAKLAND, CALIFORNIA		REVISIED BY:
DRAWN: MAY 2007	APPROVED BY:	PROJECT NO. 54504	CHECKED BY: AD
			PLATE  <b>1</b>



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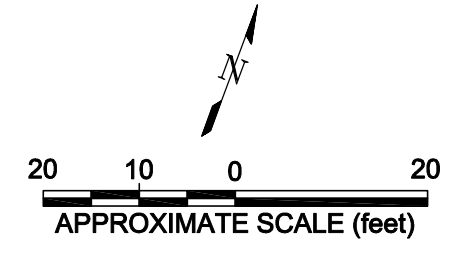
<p><b>KLEINFELDER</b></p> <p>1970 Broadway, Suite 710          Oakland, CA 94612-2212          PH. 510-628-9000 FAX. 510-628-9009          www.kleinfelder.com</p>	<p><b>SITE PLAN: OVERALL</b></p>		<p>DRAWN BY: J. Sala</p>
	<p>700 INDEPENDENT ROAD          OAKLAND, CALIFORNIA</p>		<p>REVISIED BY:</p> <p>CHECKED BY: C. Almadad</p>
<p>DRAWN: MAY 2007</p>	<p>APPROVED BY: _____</p>	<p>PROJECT NO. 54504</p>	<p>FILE NAMESP OVERALL.dwg</p> <p style="text-align: center; font-size: 2em;"><b>2</b></p>

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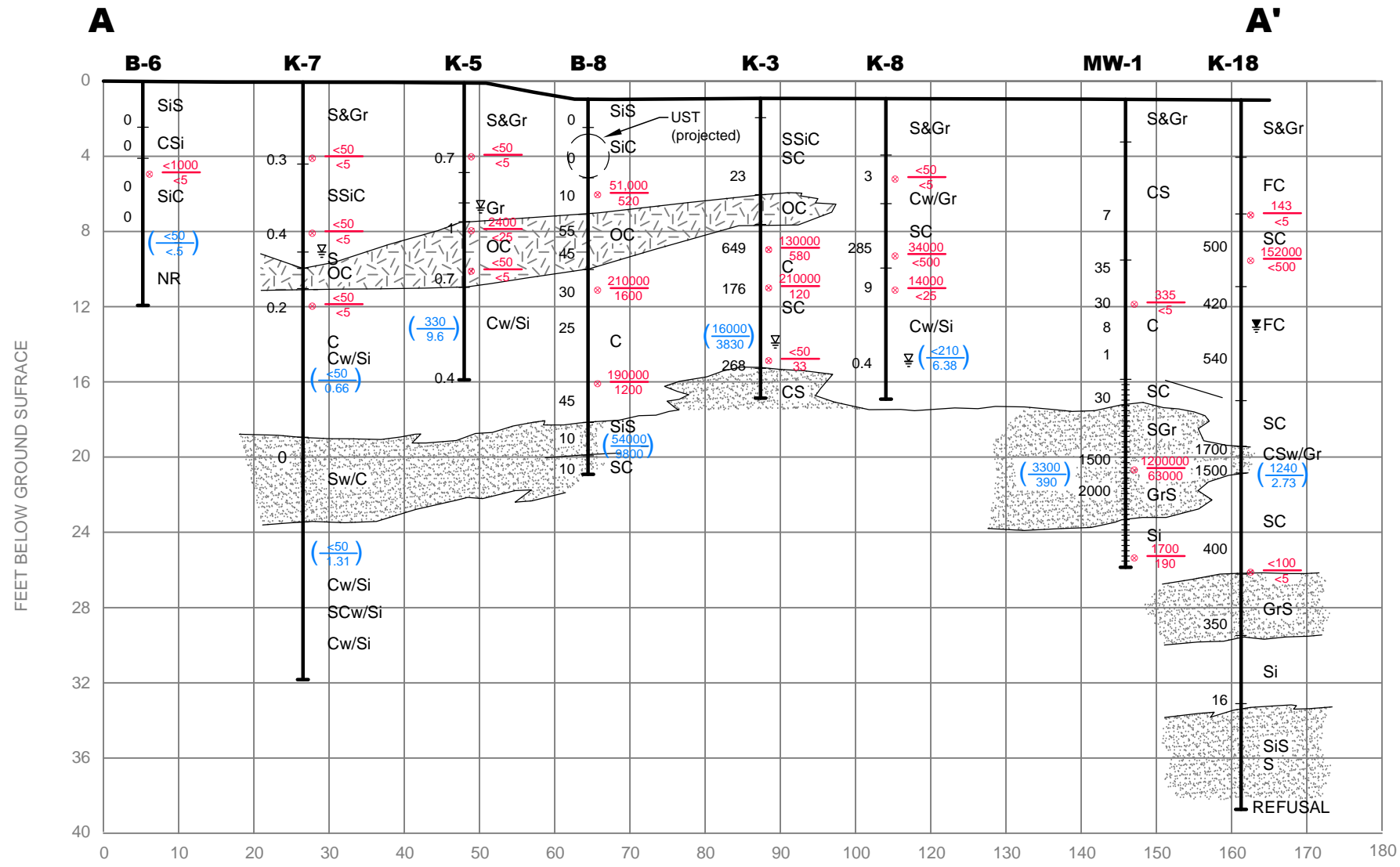
- LEGEND**
- — — ROOF OVERHANG
  - \* — \* — FENCE
  - - - - - PRODUCT PIPELINE
  - FORMER UNDERGROUND STORAGE TANK
  - MONITORING WELL (Kleinfelder, March 2007)
  - SOIL VAPOR BORING (Kleinfelder, March 2007)
  - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
  - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007)
  - SOIL BORING (Kleinfelder, 2006)
  - SOIL BORING (Golder Associates, August 2004)
  - HAND AUGER
  - UST CONFIRMATION SOIL SAMPLE
- A — A' GEOLOGIC CROSS-SECTION**

**NOTE:**  
 Golder boring B8 located in the field.  
 Locations of Golder borings B6 and B7 are approximate.



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DRAWN BY: L. Sue		PROJECT NO. 54504	
REVISED BY:		FILE NAME: SB_LOCATION.dwg	
CHECKED BY: C. Almestad		700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	
DATE: MAY 2007		APPROVED BY:	
		PROJECT NO. 54504	
		700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	
		FILE NAME: SB_LOCATION.dwg	
SOIL BORING LOCATIONS		PROJECT NO. 54504	
KLEINFELDER		PROJECT NO. 54504	
1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH. (510) 628-9000 FAX. (510) 628-9009 www.kleinfelder.com		PROJECT NO. 54504	
PLATE		3	



LEGEND

- C CLAY
- Si SILT
- S SAND
- Gr GRAVEL
- OC ORGANIC CLAY
- Sw/C SAND WITH CLAY
- NR NO RECOVERY
- UST UNDERGROUND STORAGE TANK
- ⊗  $\frac{2200}{27}$  TPH-g ( $\mu\text{g}/\text{Kg}$ ) IN SOIL  
B ( $\mu\text{g}/\text{Kg}$ ) IN SOIL
- ( $\frac{2200}{27}$ ) TPH-g ( $\mu\text{g}/\text{L}$ ) IN GROUNDWATER  
B ( $\mu\text{g}/\text{L}$ ) IN GROUNDWATER
- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- ∇ INITIAL WATER LEVEL
- ▾ STABILIZED WATER LEVEL
- ▬ SCREENING ZONE IN MONITORING WELL
- 500 ORGANIC VAPOR METER (PID) MEASUREMENT (ppm)

NOTE: Locations are approximate.

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**GEOLOGIC CROSS-SECTION A-A'**

DRAWN BY: J. Sala

REVISED BY:

CHECKED BY: C. Almestad

DATE: APPROVED BY:

MAY 2007

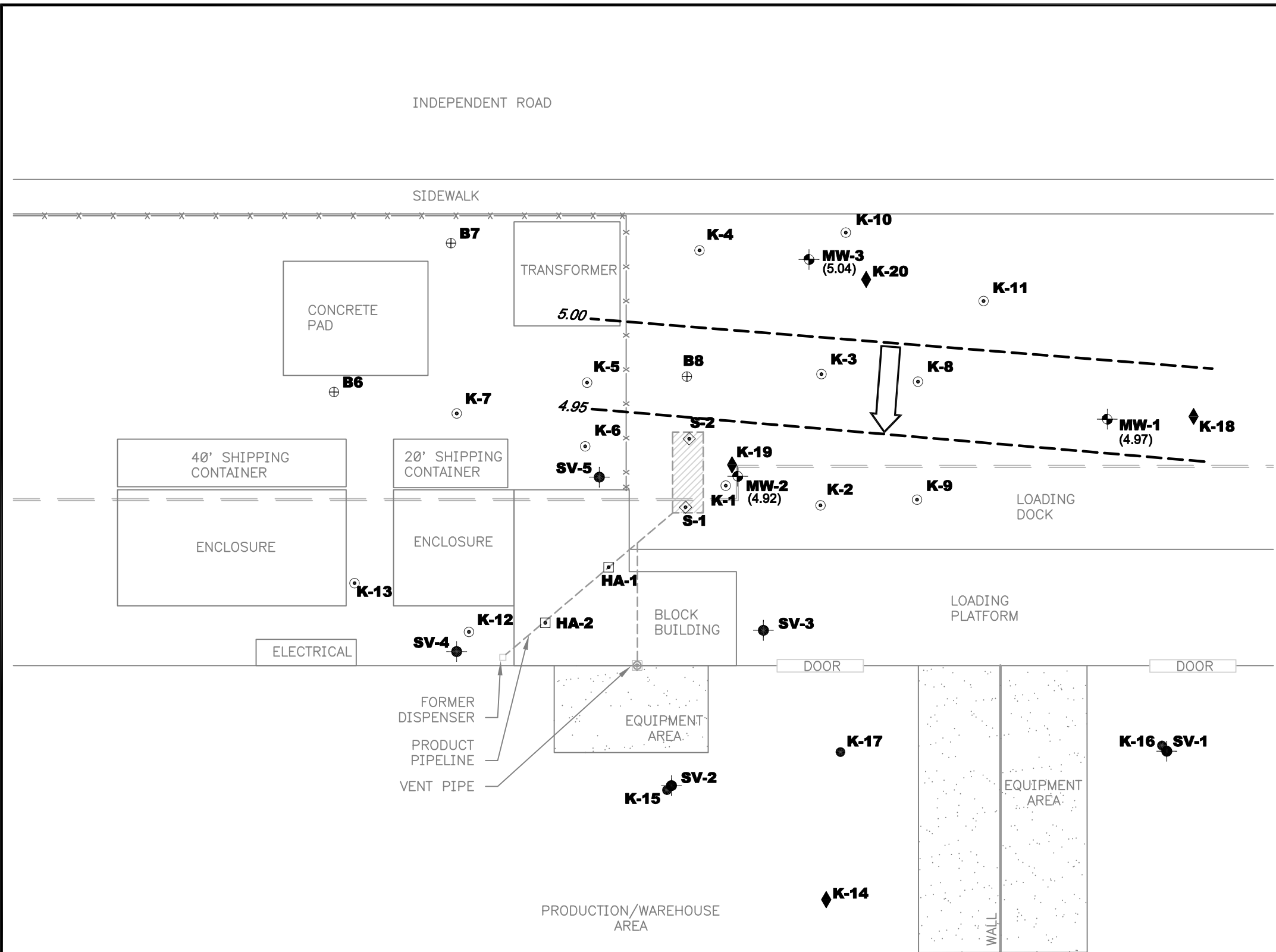
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 OAKLAND, CALIFORNIA

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**LEGEND**

- ROOF OVERHANG
- \*-x- FENCE
- - - - PRODUCT PIPELINE
- FORMER UNDERGROUND STORAGE TANK
- MONITORING WELL (Kleinfelder, March 2007)
- SOIL VAPOR BORING (Kleinfelder, March 2007)
- SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
- SOIL BORING depth 38-45 ft (Kleinfelder, March 2007)
- SOIL BORING (Kleinfelder, 2006)
- SOIL BORING (Golder Associates, August 2004)
- HAND AUGER
- UST CONFIRMATION SOIL SAMPLE
- (4.97) GROUNDWATER SURFACE ELEVATION (feet, msl)
- 5.00 GROUNDWATER SURFACE ELEVATION CONTOURS (feet, msl)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

**NOTE:**

Golder boring B8 located in the field. Locations of Golder borings B6 and B7 are approximate.

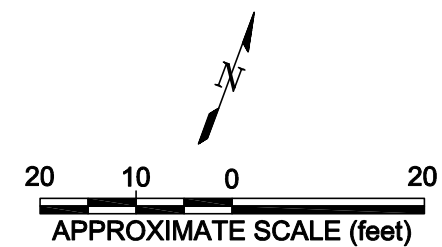
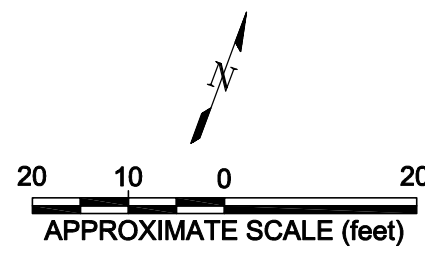
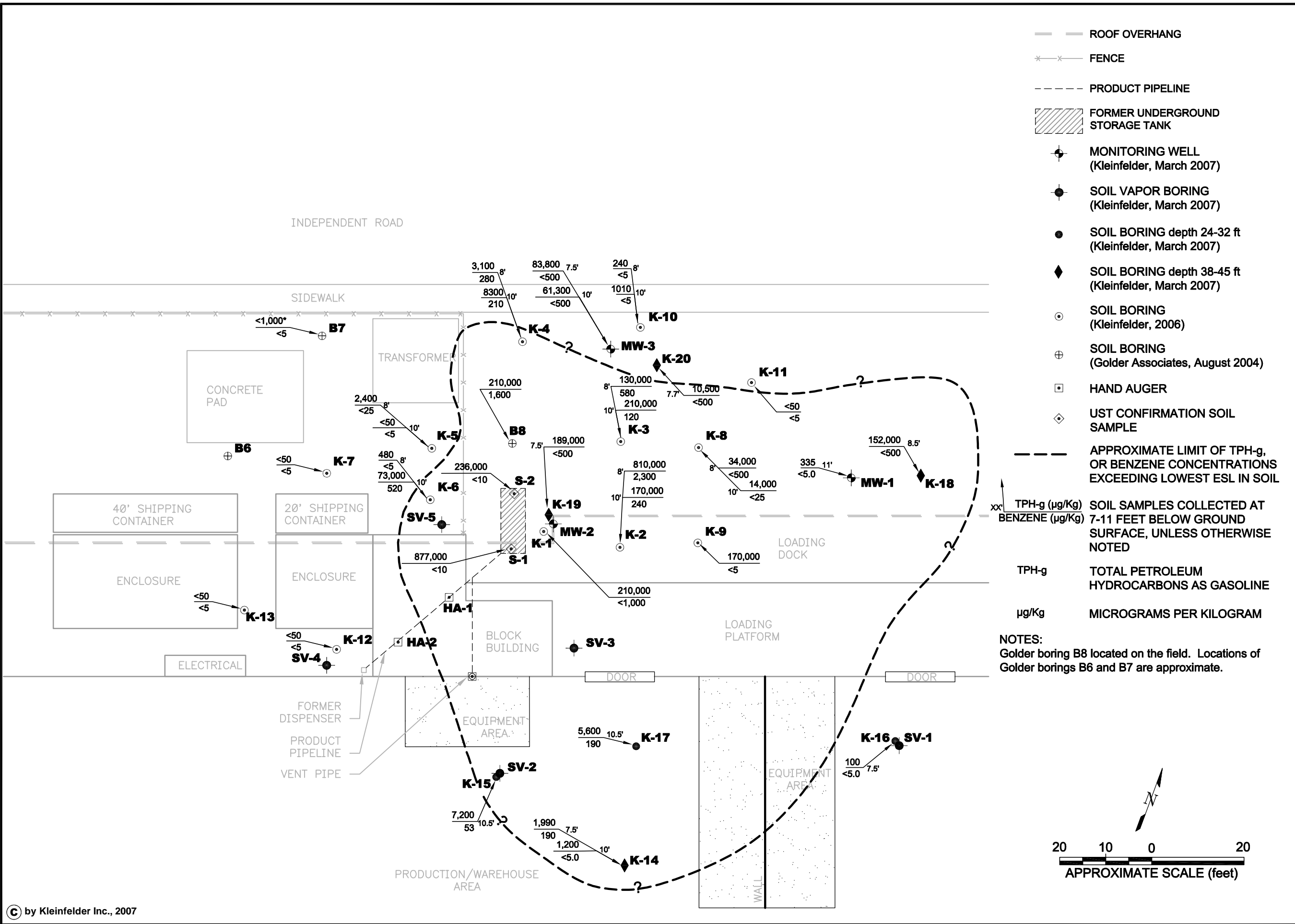


PLATE <span style="font-size: 2em; font-weight: bold;">6</span>	
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<p style="font-weight: bold; font-size: 1.1em;">GROUND WATER SURFACE ELEVATIONS          AND ESTIMATED GROUND WATER FLOW          APRIL 13, 2007</p> <p style="font-size: 0.8em;">700 INDEPENDENT ROAD          OAKLAND, CALIFORNIA</p> <p style="font-size: 0.7em;">PROJECT NO. 54504 FILE NAME: GW-CONT_4-2007.dwg</p>	
<p><b>DRAWN BY:</b> J. Sala</p> <p><b>REVISED BY:</b></p> <p><b>CHECKED BY:</b> C. Almestad</p> <p><b>DATE:</b> MAY 2007</p>	<p><b>APPROVED BY:</b></p>

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 Pie-L:\2007\07PROJ



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**TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND BENZENE IN SOIL AT 7' to 11' BELOW GROUND SURFACE**

700 INDEPENDENT ROAD  
 OAKLAND, CALIFORNIA

PROJECT NO. 54504 FILE NAME: SAMPLING.dwg

DRAWN BY: J. Sala

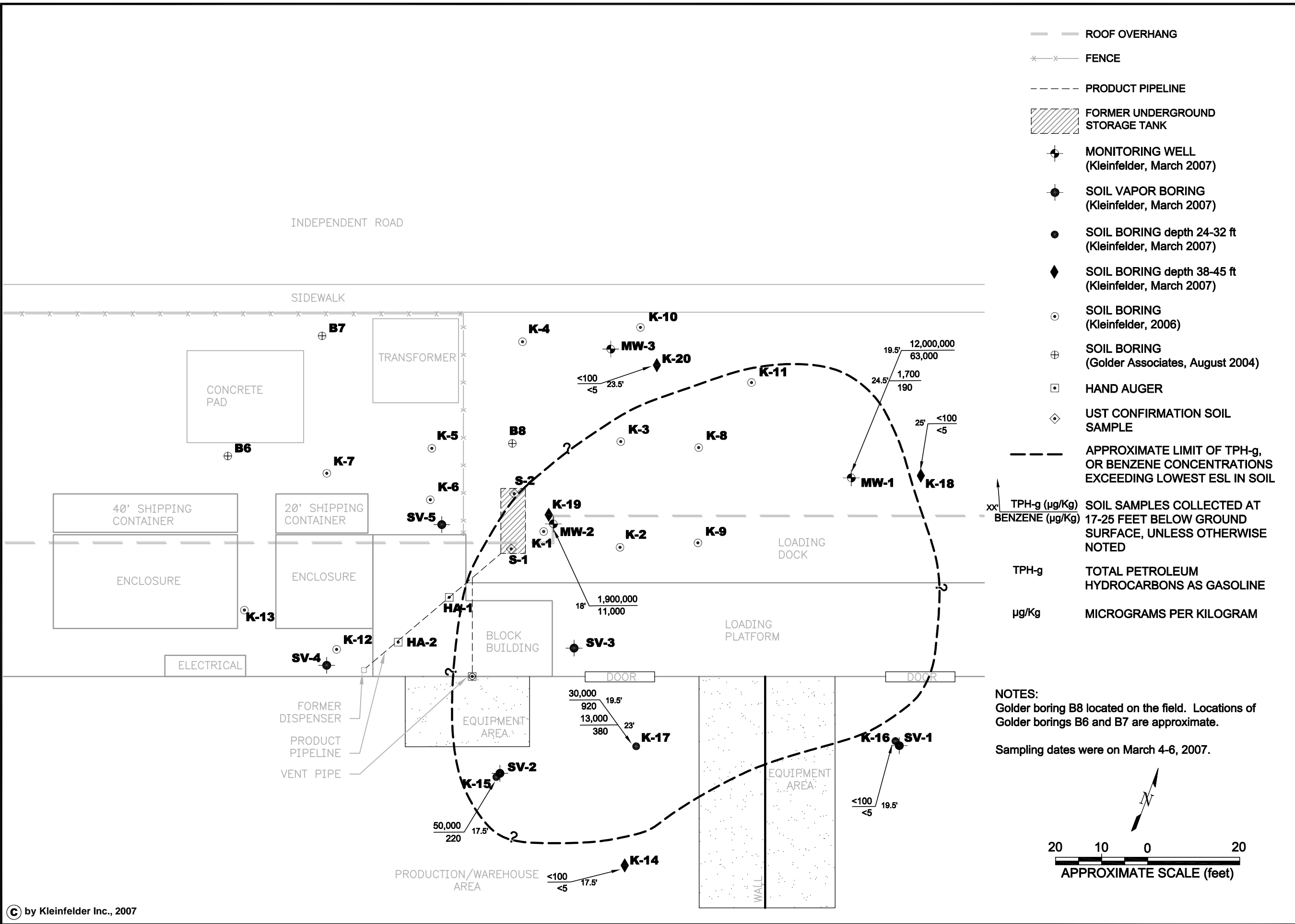
REVISED BY:

CHECKED BY: C. Almestad

DATE: APPROVED BY:  
 MAY 2007



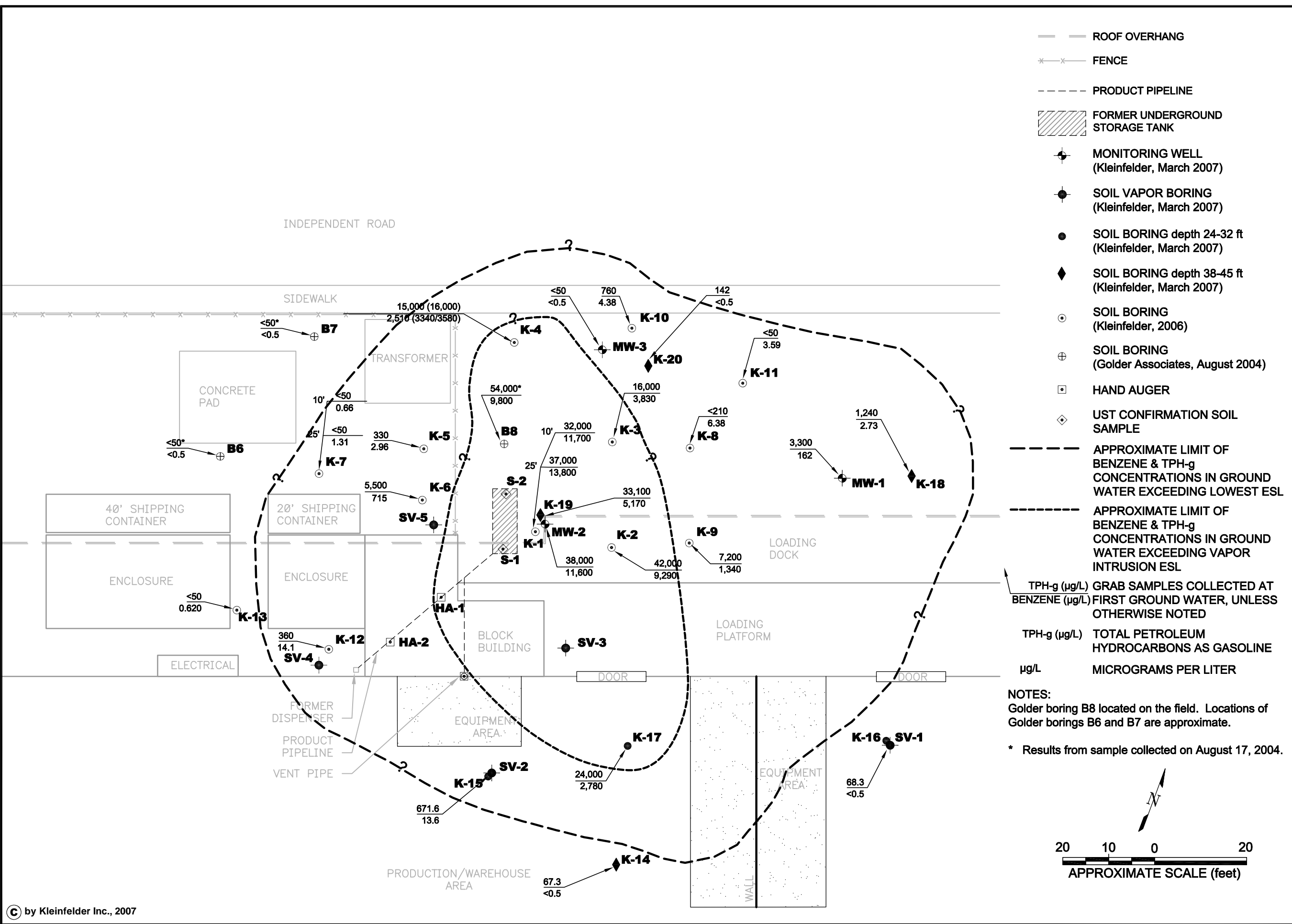
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- ROOF OVERHANG
- \*-\*- FENCE
- - - - PRODUCT PIPELINE
- ▨ FORMER UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL (Kleinfelder, March 2007)
- ⊙ SOIL VAPOR BORING (Kleinfelder, March 2007)
- SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
- ◆ SOIL BORING depth 38-45 ft (Kleinfelder, March 2007)
- SOIL BORING (Kleinfelder, 2006)
- ⊕ SOIL BORING (Golder Associates, August 2004)
- HAND AUGER
- ◇ UST CONFIRMATION SOIL SAMPLE
- - - - APPROXIMATE LIMIT OF TPH-g, OR BENZENE CONCENTRATIONS EXCEEDING LOWEST ESL IN SOIL
- xx' TPH-g (µg/Kg) SOIL SAMPLES COLLECTED AT 17-25 FEET BELOW GROUND SURFACE, UNLESS OTHERWISE NOTED
- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- µg/Kg MICROGRAMS PER KILOGRAM

PLATE <span style="font-size: 2em; font-weight: bold;">8</span>	
<span style="font-size: 1.5em; font-weight: bold; color: red;">KLEINFELDER</span>	
1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH. (510) 628-9000 FAX. (510) 628-9009 <a href="http://www.kleinfelder.com">www.kleinfelder.com</a>	
<b>TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND BENZENE IN SOIL AT 17' to 25' BELOW GROUND SURFACE</b>	
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DRAWN BY: J. Sala REVISED BY: CHECKED BY: C. Almestad DATE: MAY 2007	APPROVED BY:

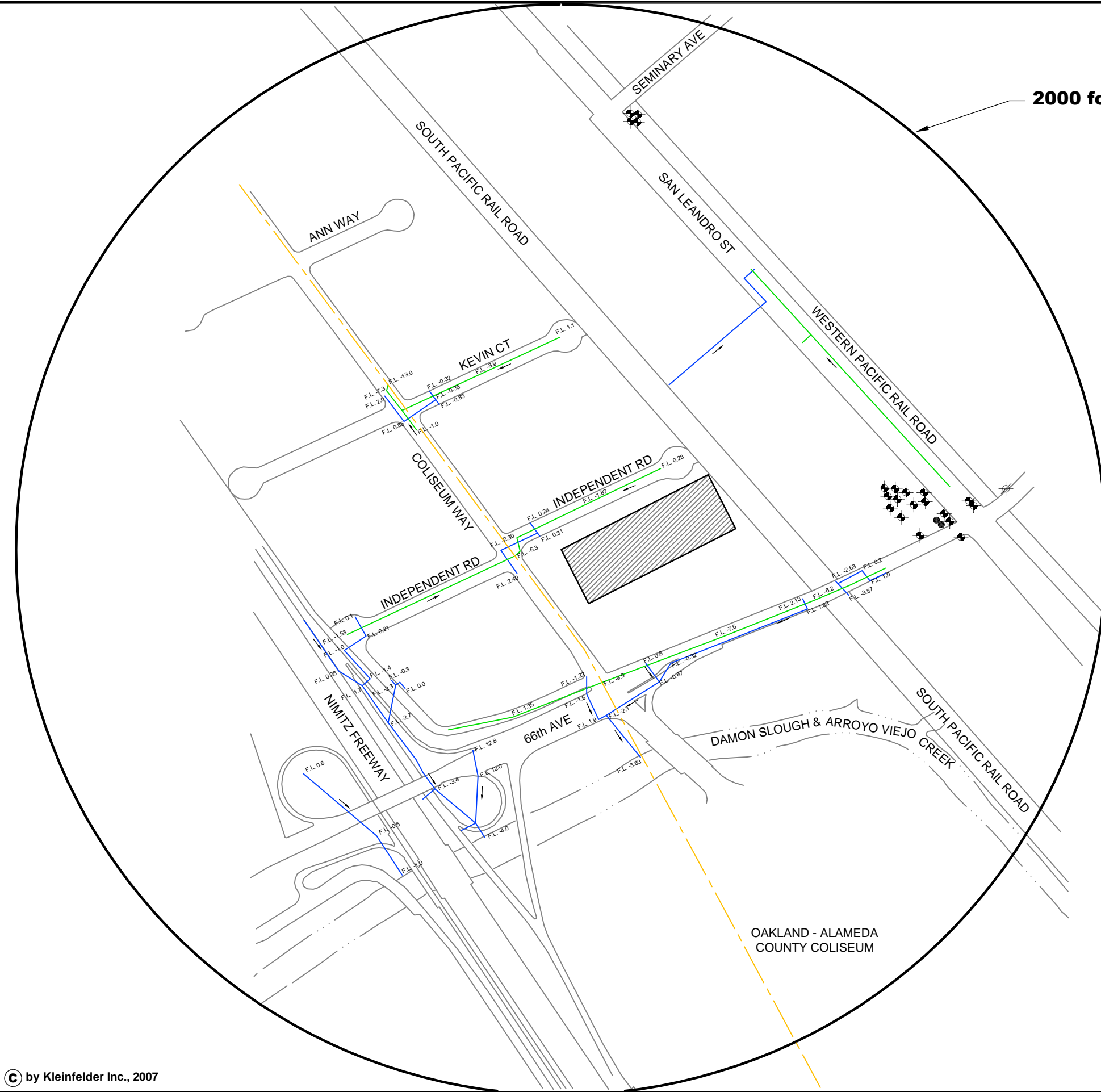
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CHECKED BY: C. Almestad		700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	
DATE: MAY 2007		APPROVED BY:	
		TOTAL PETROLEUM HYDROCARBONS AS GASOLINE AND BENZENE IN GROUND WATER SAMPLES	
		KLEINFELDER	
		1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH. (510) 628-9000 FAX. (510) 628-9009 www.kleinfelder.com	
		PLATE 9	




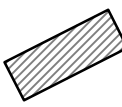



ATTACHED IMAGES: Images: 700IndRd-EBMUDmap.jpg  
 ATTACHED XREFS: XRef: TB\_B-size  
 CAD FILE: D:\PROJECTS\154504\04-2007\ LAYOUT: Layout1  
 File-L:\2007\07PROJ

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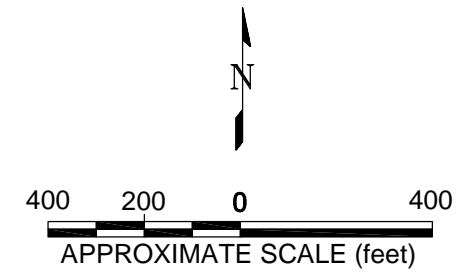


2000 foot radius

LEGEND

-  MONITORING WELL
-  BOREHOLE
-  DESTROYED WELL
-  BUILDING
-  STORM CONDUIT
-  SANITARY SEWER
-  63" SOUTH INTERCEPTOR

NOTES: Locations are approximate.



REFERENCE:  
 East Bay Municipal Utility District,  
 drawing number 1506B462 & 1506B460,  
 dated 4/5/2007 & 8/11/2006 . Alameda  
 County, Sanitary Sewer & Storm Conduit  
 map

DRAWN BY: J. Sala		PROJECT NO. 54504	
REVISED BY:		FILE NAME: WELL INVENTORY.dwg	
CHECKED BY: G. Fuson		700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	
DATE: MAY 2007		APPROVED BY:	
		WELL INVENTORY AND SUBSURFACE UTILITY MAP	
		KLEINFELDER	
		1970 Broadway, Suite 710 Oakland, CA 94612-2212 PH. (510) 628-9000 FAX. (510)628-9009 www.kleinfelder.com	
		PLATE 10	

## TABLES

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**Table 1**  
**Monitoring Well Construction Details**  
**700 Independent Road**  
**Oakland, California**

Construction Details by Depth Intervals (Feet below Ground Surface)								Survey Data			
Well No.	Installation Date	Boring Depth	Solid Casing	Screen Interval	Sand Pack	Bentonite Seal	Grout Seal	Top of Casing Elevation (Feet)	Vault Elevation (Feet)	Longitude	Latitude
MW-1	3/5/2007	25.0	0.25-15	15-25	13-25	11-13	0.75-11	9.64	9.96	-122.2052412	37.7569160
MW-2	3/5/2007	25.0	0.25-10	10-20	8-20	6-8	0.75-6	9.53	9.85	-122.2054245	37.7568140
MW-3	3/5/2007	25.0	0.25-13	13-23	11-13	9-11	0.75-9	10.79	11.10	-122.2054503	37.7569371

**Notes:**

Survey elevations North American Vertical Datum of 1988 (NAVD88)

Survey by PLS Surveys, Inc., April 4, 2007

**Table 2**  
**Summary of Final Purge Characteristic Data**  
**700 Independent Road**  
**Oakland, California**

Well No.	Date Sampled	Gallons Purged	Final pH	Final Specific Conductivity ( $\mu\text{hos/cm}$ )	Final Temp. (degrees C)
MW-1	3/19/2007	4.5	7.56	3999 <sup>a</sup>	16.7
MW-2	3/19/2007	9.3	7.14	3999 <sup>a</sup>	15.9
MW-3	3/19/2007	9.0	7.40	3999 <sup>a</sup>	20.0

Notes:

a = Suspected equipment malfunction

**Table 3**  
 Depth to Water Measurements and Ground Water Surface Elevations  
 700 Independent Road  
 Oakland, California

Well Number	Measuring Point Elevation	April 13, 2007	
		Depth to Water (feet, msl)	Ground Water Surface Elevation (feet, msl)
MW-1	9.64	4.67	4.97
MW-2	9.53	4.61	4.92
MW-3	10.79	5.75	5.04

Notes:  
 Top of casing elevations surveyed 4/4/07 By PLS Surveys Inc.  
 msl = Mean sea level  
 NM = Not measured

**Table 4**  
**Reported Volatile Organic Compounds and Gasoline in Soil Vapor**  
 EOP - 700 Independent Road, Oakland, California

Analytes ( $\mu\text{g}/\text{m}^3$ )	SV-1	SV-2	SV-3	SV-4	SV-5	ESL
Benzene	< 1.8	< 1.8	< 1.8	5.9	NC	290
Toluene	< 1.9	< 1.9	< 1.9	33	NC	180,000
Ethyl Benzene	< 2.2	< 2.2	< 2.2	6.2	NC	1,200,000
m,p-Xylene	< 4.0	< 4.0	< 4.0	27	NC	NE
o-Xylene	< 2.2	< 2.2	6.40	10	NC	NE
Xylenes, total	ND	ND	6.40	37	NC	410,000
MTBE	< 1.8	< 1.8	< 1.8	< 1.8	NC	31,000
Isopropanol	< 4.0	< 4.0	< 4.0	34	NC	NE
TPH-g	< 8,800	< 35,000	< 350	38,600j	NC	72,000

**Notes:**

\* ESL - Environmental Screening Levels from San Francisco Regional Water Quality Control Board, October 2005, Table E. Shallow Soil Gas Screening Levels ( $\leq 3$  meters bgs).

NC = No soil vapor collected in canister after 4 hours.

NE = Not established

ND = Not detected, reporting limits provided above.

j = Although the TPH as gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of gasoline but within the TPH as gasoline quantitation range.



**Table 5**

Reported Volatile Organic Compounds and Total Petroleum Hydrocarbons in Soil  
EOP - 700 Independent Road, Oakland, California

Sample ID	Depth (ft. bgs)	VOC (µg/Kg)							TPH-g (µg/Kg)	TPH-d (µg/Kg)
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC		
K-1	8	< 1,000	< 1,000	<b>5,400</b>	<b>4,500</b>	< 2,000	< 1,000	< 1,000	<b>210,000</b>	9,800b
	10	<b>250</b>	54	1,900	<b>2,900</b>	< 100	< 50	< 50	<b>220,000</b>	8,600b
	19	<b>3,000</b>	< 1,000	<b>7,100</b>	<b>17,000</b>	< 2,000	< 1,000	< 1,000	<b>420,000</b>	10,500b
K-2	4	< 5	<b>5,300</b>	< 5	< 15	< 100	< 0.005	< 5	< 50	12,000b
	8	<b>2,300</b>	2,400	<b>17,000</b>	<b>33,000</b>	< 4,000	< 2,000	< 2,000	<b>810,000</b>	18,000b
	10	<b>240</b>	< 25	510	560	< 50	< 25	< 25	<b>170,000</b>	5,700b
K-3	8	<b>580</b>	< 500	2,600	<b>3,400</b>	< 1,000	< 500	< 500	<b>130,000</b>	6,300b
	10	<b>120</b>	< 25	410	360	< 50	< 25	< 25	<b>210,000</b>	3,300b
	14	33	< 5	10	< 15	< 10	< 5	< 5	< 50	< 200
K-4	4	27	< 25	< 25	< 75	< 50	< 25	< 25	2,200	< 200
	8	<b>280</b>	< 25	28	< 75	< 50	< 25	< 25	3,100	< 200
	10	<b>210</b>	< 50	210	< 150	< 1,000	< 50	< 50	8,300	< 200
K-5	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	8	< 25	< 25	< 25	< 75	< 50	< 25	< 25	2,400a	13,000c
	10	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
K-6	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	480a	62,000c
	10	<b>520</b>	< 500	3,000	1,600	< 1,000	< 500	< 500	73,000	12,000b
K-7	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	12	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
K-8	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	32,000d
	8	< 500	< 500	< 500	< 1,500	< 1,000	< 500	< 500	34,000a	8,400b
	10	< 25	< 25	85	< 75	< 50	< 25	< 25	14,000	< 200
K-9	4	7.2	< 5	< 5	24	< 10	< 5	< 5	270a	< 200
	8	< 5	< 5	<b>3,600</b>	< 15	< 10	< 5	< 5	<b>170,000a</b>	7,900b
K-10	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	240a	< 200
	10	< 5	< 5	10	< 15	< 10	< 5	< 5	1,010a	< 200
K-11	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
K-12	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	2,800b
	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
K-13	4	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
	8	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	< 200
HA-1		< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	5,480
HA-2		< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 50	3,400c
ESL		44	2,900	3,300	2,300	23	0.33	4.5	100,000	100,000

### Table 5 (cont.)

Reported Volatile Organic Compounds and Total Petroleum Hydrocarbons In Soil  
EOP - 700 Independent Road, Oakland, California

Sample ID	Depth (ft. bgs)	VOC (µg/Kg)							TPH-g (µg/Kg)	TPH-d (µg/Kg)
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC		
K-14	5.5	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
	7.5	<b>190</b>	15	< 5	22	< 10	< 5	< 5	1,990b	18,000f
	10	< 5	< 5	< 5	< 15	< 10	< 5	< 5	1,200	< 200
	17.5	< 5	< 5	< 5	70	< 10	< 5	< 5	< 100	< 200
K-15	10.5	<b>53</b>	< 5	< 5	170	< 10	< 5	< 5	7,200	< 200
	15	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
	17.5	<b>220</b>	< 25	910	1,100	< 10	< 25	< 25	50,000	4,800d
K-16	7.5	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	3700g
	11.5	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
	19.5	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
K-17	10.5	<b>190</b>	< 25	< 25	150	< 50	< 25	< 25	5,600	12,700d
	19.5	<b>920</b>	< 500	<b>3,600</b>	2,000	< 100	< 500	< 500	30,000	7,300d
	23	<b>380</b>	190	400	670	< 50	< 25	< 25	13,000	<b>114,000d</b>
	27.5	7.2	< 5	7.8	< 15	< 10	< 5	< 5	176	2,300d
K-18	6	< 5	< 5	< 5	< 15	< 10	< 5	< 5	143	< 200
	8.5	< 500	< 500	720	< 1,500	< 100	< 500	< 500	<b>152,000h</b>	18,700d
	25	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	2,300d
K-19	7.5	< 500	< 500	<b>4,600</b>	<b>5,800</b>	< 100	< 500	< 500	<b>189,000j</b>	17400d
	18	<b>11,000</b>	<b>26,000</b>	<b>33,000</b>	<b>170,000</b>	<10,000	< 5,000	< 5,000	<b>1,900,000j</b>	<b>200,000d</b>
	25.5	<b>760</b>	140	400	1,900	< 50	< 25	<b>78</b>	29,000j	9,890d
	31.5	<b>160</b>	< 12.5	13	49	< 25	< 12.5	<b>32</b>	780	< 200
K-20	7.7	< 500	< 500	< 500	< 1,500	< 100	< 500	< 500	10500m	< 200
	14	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
	23.5	< 5	< 5	< 5	< 15	< 10	< 5	< 5	< 100	< 200
MW-1	11	< 5	< 5	< 5	< 15	< 10	< 5	< 5	335h	< 200
	19.5	<b>63,000</b>	<b>250,000</b>	<b>310,000</b>	<b>1,200,000</b>	< 50	< 25	< 25	<b>12,000,000</b>	<b>588,000d</b>
	24.5	<b>190</b>	14	89	130	< 10	< 5	< 5	1,700	< 200
MW-3	7.5	< 500	< 500	< 500	< 1,500	< 100	< 500	< 500	83,800m	< 200
	10	< 500	< 500	< 500	< 1,500	< 100	< 500	< 500	61,300m	10,600d
	15.5	< 5	< 500	< 5	< 15	< 10	< 5	< 5	< 100	< 200
ESL		44	2,900	3,300	2,300	23	0.33	4.5	100,000	100,000

**Notes:**

- a - Does not match typical gasoline pattern. TPH value due to presence of non-target compounds within the TPH-g quantitation range.
  - b - Although TPH-g compounds are present, the reported result is elevated due to the presence of non-target compounds within the TPH-g quantitation range.
  - c - While TPH-g compounds are present, the pattern does not match typical gasoline pattern. TPH value includes significant amount of non-target compounds.
  - d - Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel.
  - e - Does not match typical pattern. TPH value due to presence of non-target compounds within the TPH-g quantitation range (light end).
  - f - Sample chromatogram does not resemble typical diesel pattern (discrete peaks). Unidentified hydrocarbon peaks within the diesel range quantitated as diesel.
  - g - Sample chromatogram does not resemble typical diesel pattern. Diesel result is carry over from TPH as motor oil quantitation range.  
Hydrocarbons and hydrocarbon peak within the diesel range quantitated as diesel.
  - h - Not typical gasoline. TPH value does not include typical gasoline compounds.
  - j - Although TPH-g compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of gasoline but within the TPH-g quantitation range.
  - k - Two fuels present. The first fuel is lighter than diesel. The second is heavier than diesel but lighter than motor oil. Hydrocarbons within the diesel range quantitated as diesel.
  - m - Not typical gasoline. TPH value does not include any target compounds.
- \* ESL - Environmental Screening Levels from San Francisco Regional Water Quality Control Board, October 2005, Table A. Shallow Soils (≤ 3 meters bgs), Groundwater is a current or potential source of drinking water.  
Where ESL has been exceeded, sample result in bold.

Samples from K-1 through K-13 collected: July 24, 25, and August 10, 2006  
Samples from K-14 through K20, MW-1 and MW-3 collected March 4 - 6, 2007

**Acronyms**

bgs	below ground surface	MTBE	Methyl tert butyl ether
EDB	1,2 Dibromoethane (EDB)	TPH-g	Total Petroleum Hydrocarbons - gasoline
EDC	1,2 Dichloroethane(EDC)	TPH-d	Total Petroleum Hydrocarbons - diesel
ESL	Environmental screening level	mg/Kg	Milligrams per Kilogram
HA	Hand Auger sample collected along former dispenser line	µg/Kg	Micrograms per Kilogram
NE	Not established	VOC	Volatile Organic Compound

**Table 6**

Reported Volatile Organic Compounds and Total Petroleum Hydrocarbons in Ground Water  
EOP - 700 Independent Road, Oakland, California

Boring Number	K-1A	K-1B	K-2	K-3	K-4	K-4	K-5	K-6	ESL
Total Boring Depth (feet)	16	32	16	16	16		16	16	
Depth to First (Free) Water (ft.)	8.5		5.5	13	6		6.5	8	
Sample Depth (ft.)	10	25				duplicate			
Date Sample Collected	7/25/2006	7/25/2006	7/24/2006	7/24/2006	7/24/2006	7/24/2006	7/25/2006	7/25/2006	
TPH-g (µg/L)	<b>32,000</b>	<b>37,000</b>	<b>42,000</b>	<b>16,000</b>	<b>15,000</b>	<b>16,000</b>	<b>330</b>	<b>5,500</b>	100
TPH-d (µg/L)	<b>655b</b>	<b>4,190b</b>	<b>400b</b>	<222	<b>1,100b</b>	<b>670b</b>	< 159	< 143	100
TPH-mo (µg/L)	NA	NA	NA	NA	NA	NA	NA	NA	100
Benzene (ug/L)	<b>11,700</b>	<b>13,800</b>	<b>9,290</b>	<b>3,830</b>	<b>2,510</b>	<b>3,580 / 3,340</b>	<b>2.96</b>	<b>715</b>	1
Toluene (ug/L)	<b>88</b>	<b>584</b>	<b>929</b>	<b>148</b>	62.4 / <105	<42.0 / <4.20	2.08	19.2	40
Ethylbenzene (ug/L)	<b>1,230</b>	<b>757</b>	<b>2,810</b>	<b>620</b>	<b>1,050 / 346</b>	<b>597 / 580</b>	<1.0	<b>389</b>	30
Xylenes, total (ug/L)	<b>788</b>	<b>2,500</b>	<b>3,140</b>	<b>305</b>	59.6 / <315	<126.0 / 26.6	<3.0	<b>34.7</b>	20
MTBE (ug/L)	<10.5	<10.5	<42.0	<4.2	<10.5 / <105	<42.0 / 27.5	<1.0	<4.2	5
EDB (ug/L)	<10.5	<10.5	<42.0	<4.2	<10.5 / <105	<42.0 / <4.20	<1.0	<4.2	0.05
EDC (ug/L)	206	586	71.4	<4.2	<10.5 / <105	<42.0 / <4.20	<1.0	<4.2	0.5

Boring Number	K-7A	K-7B	K-8	K-9	K-10	K-11	K-12	K-13	ESL
Total Boring Depth (ft.)	16	32	16	16	20	16	24	24	
Depth to First (Free) Water (ft.)	9		14	5.5	18.5	13	18	19	
Sample Depth (ft.)	10	25							
Date Sample Collected	7/25/2006	7/25/2006	7/25/2006	8/10/2006	8/10/2006	8/10/2006	8/10/2006	8/10/2006	
TPH-g (µg/L)	< 50	< 50	< 210	<b>7,200</b>	<b>760</b>	< 50	<b>360</b>	< 50	100
TPH-d (µg/L)	< 182	< 118	<b>452b</b>	<b>371b</b>	< 115	< 179	< 137	NA	100
TPH-mo (µg/L)	NA	NA	NA	< 264	< 230	< 358	< 274	NA	100
Benzene (ug/L)	0.66	<b>1.31</b>	<b>6.38</b>	<b>1,340</b>	<b>4.38</b>	<b>3.59</b>	<b>14.1</b>	0.620	1
Toluene (ug/L)	<0.5	<0.5	<4.2	23.6	2.20	3.15	1.55	2.38	40
Ethylbenzene (ug/L)	<0.5	<0.5	<b>39.6</b>	<b>355</b>	22.8	1.28	19.7	0.880	30
Xylenes, total (ug/L)	<1.5	<1.5	<12.6	<b>130</b>	3.70	4.35	<b>21.1</b>	2.79	20
MTBE (ug/L)	<0.5	<0.5	<4.2	<2.10	<0.5	<1.05	<0.5	<0.5	5
EDB (ug/L)	<0.5	<0.5	<4.2	<2.10	<0.5	<1.05	<0.5	<0.5	0.05
EDC (ug/L)	<0.5	<0.5	<4.2	<2.10	<0.5	<1.05	<0.5	<0.5	0.5

## Table 6 (cont.)

Reported Volatile Organic Compounds and Total Petroleum Hydrocarbons in Ground Water  
EOP - 700 Independent Road, Oakland, California

Boring Number	K-14	K-15	K-16	K-17	K-18	K-19	K-20	MW-1	MW-2	MW-3	ESL
Date Sample Collected	3/4/2007	3/4/2007	3/4/2007	3/4/2007	3/5/2007	3/6/2007	3/6/2007	3/19/2007	3/19/2007	3/19/2007	
TPH-g (µg/L)	67.3a	<b>671.6b</b>	68.3a	<b>24,000</b>	<b>1240c</b>	<b>33100b</b>	<b>142e</b>	<b>3,300</b>	<b>38,000</b>	< 50	100
TPH-d (µg/L)	< 100	< 100	< 112	<b>530d</b>	<b>150</b>	<b>370d</b>	< 100	<b>390d</b>	<b>940d</b>	< 100	100
TPH-mo (µg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
Benzene (µg/L)	< 0.5	<b>13.6</b>	< 0.5	<b>2,780</b>	<b>2.73</b>	<b>5,170</b>	< 0.5	<b>162</b>	<b>11,600</b>	< 0.5	1
Toluene (µg/L)	< 0.5	3.69	< 0.5	<b>150</b>	1.15	<b>235</b>	< 0.5	<b>205</b>	<b>274</b>	< 0.5	40
Ethylbenzene (µg/L)	< 0.5	7.43	< 0.5	<b>774</b>	28.8	<b>1,010</b>	< 0.5	<b>60.2</b>	<b>588</b>	< 0.5	30
Xylenes, total (µg/L)	< 1.5	<b>21.4</b>	< 1.5	<b>563</b>	14.1	<b>955</b>	< 1.5	<b>351</b>	<b>2,880</b>	< 1.5	20
MTBE (µg/L)	< 0.5	0.560	1.03	< 0.5	< 0.5	< 4.4	< 0.5	< 1.1	< 4.4	< 0.5	5
EDB (µg/L)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 4.4	< 0.5	< 1.1	< 4.4	< 0.5	0.05
EDC (µg/L)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<b>37.8</b>	< 0.5	< 1.1	<b>226</b>	< 0.5	0.5

### Notes:

- a - Does not match typical gasoline pattern. TPH value due to presence of non-target compounds within the TPH-g quantitation range.
  - b - Although TPH-g compounds are present, the reported result is elevated due to the presence of non-target compounds within the TPH-g quantitation range.
  - c - While TPH-g compounds are present, the pattern does not match typical gasoline pattern. TPH value includes significant amount of non-target compounds.
  - d - Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel.
  - e - Does not match typical pattern. TPH value due to presence of non-target compounds within the TPH-g quantitation range (light end).
  - f - Sample chromatogram does not resemble typical diesel pattern (discrete peaks). Unidentified hydrocarbon peaks within the diesel range quantitated as diesel.
  - g - Sample chromatogram does not resemble typical diesel pattern. Diesel result is carry over from TPH as motor oil quantitation range.  
Hydrocarbons and hydrocarbon peak within the diesel range quantitated as diesel.
  - h - Not typical gasoline. TPH value does not include typical gasoline compounds.
  - j - Although TPH-g compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of gasoline but within the TPH-g quantitation range.
  - k - Two fuels present. The first fuel is lighter than diesel. The second is heavier than diesel but lighter than motor oil. Hydrocarbons within the diesel range quantitated as diesel.
  - m - Not typical gasoline. TPH value does not include any target compounds.
- \* ESL - Environmental Screening Levels from San Francisco Regional Water Quality Control Board, October 2005, Table A. Shallow soils (≤ 3 meters bgs), Groundwater is a current or potential source of drinking water.

### Acronyms

EDB	1,2 Dibromoethane	NA	Not Analyzed
EDC	1,2 Dichloroethane	TPH-g	Total Petroleum Hydrocarbons - gasoline
ESL	Environmental Screening Level	TPH-d	Total Petroleum Hydrocarbons - diesel
mg/L	Milligrams per Liter	TPH-mo	Total Petroleum Hydrocarbons - motor oil
MTBE	Methyl tert butyl ether	µg/L	Micrograms per Liter

**APPENDIX A**  
**DRILLING PERMIT**

---

# Alameda County Public Works Agency - Water Resources Well Permit



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

**Application Approved on: 01/25/2007 By jamesy**

**Permit Numbers: W2007-0089 to W2007-0092**  
**Permits Valid from 03/05/2007 to 03/09/2007**

**Application Id:** 1169764170223  
**Site Location:** 700 Independent Road  
**Project Start Date:** 03/05/2007

**City of Project Site:**Oakland

**Completion Date:**03/09/2007

**Applicant:** Kleinfelder Inc - Alvaro Dominguez  
1970 Broadway Suite 710, Oakland, CA 94612  
**Property Owner:** Peter McGing EOP Industrial Portfolio LLC  
Two North Riverside Plaza - Suite 2100, Chicago, IL 60606  
**Client:** \*\* same as Property Owner \*\*  
**Contact:** Charles Almestad

**Phone:** 510-628-9000

**Phone:** --

**Phone:** 510-628-9000  
**Cell:** --

	<b>Total Due:</b>	\$1100.00
<b>Receipt Number: WR2007-0041</b>	<b>Total Amount Paid:</b>	\$1100.00
<b>Payer Name : Kleinfelder Oakland</b>	<b>Paid By: MC</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Well Construction-Monitoring-Monitoring - 3 Wells  
Driller: RSI - Lic #: 802334 - Method: DP

**Work Total: \$900.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2007-0089	01/25/2007	05/09/2007	MW-1	8.00 in.	2.00 in.	5.00 ft	20.00 ft
W2007-0090	01/25/2007	05/09/2007	MW-2	8.00 in.	2.00 in.	5.00 ft	20.00 ft
W2007-0091	01/25/2007	05/09/2007	MW-3	8.00 in.	2.00 in.	5.00 ft	20.00 ft

**Specific Work Permit Conditions**

1. 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.
  
2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
  
3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

## Alameda County Public Works Agency - Water Resources Well Permit

- Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
- Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 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.
- Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
- Minimum surface seal thickness is two inches of cement grout placed by tremie
- Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
- 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.

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Borehole(s) for Investigation-Environmental/Monitoring Study - 13 Boreholes

Driller: RSI - Lic #: 802334 - Method: DP

**Work Total: \$200.00**

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2007-0092	01/25/2007	05/09/2007	13	2.00 in.	50.00 ft

### Specific Work Permit Conditions

- 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.
- 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.
- 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.
- Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 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.
- 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.
- Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this

**Alameda County Public Works Agency - Water Resources Well Permit**

permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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**APPENDIX B**

**SOIL BORING AND MONITORING WELL BORING LOGS**

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Date Completed: 3/4/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 45.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							<b>NO RECOVERY</b>		
2							<b>SILTY SAND (SM)</b> - yellow-brown, angular gravels up to 1" diameter		
3									
4									
5					1		<b>SANDY SILT (ML)</b> - olive-brown, with small gravel		
6							- dark gray, hydrocarbon odor		
7							<b>CLAY (CH)</b> - olive-brown, plastic		
8							<b>NO RECOVERY</b>		
9					3		<b>SILTY CLAY (CL)</b> - dark gray - black, hydrocarbon odor		
10									
11					0		<b>SILTY CLAY (CL)</b> - black, moist - gravelly silts	▼	
12									
13					0		<b>CLAY (CH)</b> - olive, low moisture, medium plasticity		
14					0				
15					0				
16					0				
17					0				
18					0				
19					0				
20					0				
21					0				
22					0				
23					0		<b>POORLY GRADED SAND (SP)</b> - yellow-brown, moist to wet	▽	
24					0				
25					0		<b>SILTY CLAY (CL)</b> - olive		
26					0				
27					0		- gray-brown, plastic		
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-14**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-1**

5/11/2007 10:53:17 AM

Date Completed: 3/4/07

Sampler: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 45.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
29					0	[Diagonal Hatching]	<b>CLAY (CH)</b> - gray-brown, plastic		
30									
31					0		- occasional coarse sand		
32					0				
33									
34					0				
35					0	[Diagonal Hatching]	<b>SILTY CLAY (CL)</b> - olive gray, slight plasticity		
36									
37					0				
38									
39									
40						[Dotted Hatching]	<b>SILTY SAND (SM)</b> - brown, some small gravels		
41					0	[Diagonal Hatching]	<b>CLAY (CL)</b> - olive, stiff		
42									
43									
44									
45							<b>Boring terminated at approximately 45 feet.</b>		
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-14**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-1**

(cont'd)

5/11/2007 10:53:17 AM

Date Completed: 3/4/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 24.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							<b>NO RECOVERY</b>		
2									
3							<b>GRAVELLY SAND (SP)</b> - yellow-brown, with angular 1 inch gravel		
4							<b>GRAVELLY SAND (SP)</b> olive-brown		
5									
6									
7							<b>CLAYEY SAND (SC)</b> black, hydrocarbon odor		
8		X			8				
9									
10		X			40				
11							<b>CLAY (CH)</b> - gray, plastic		
12									
13									
14									
15		X					- stiff		
16							<b>NO RECOVERY</b>		
17									
18							<b>SILTY SAND (SM)</b> - olive		
19					8				
20							<b>POORLY GRADED SAND (SP)</b> olive, strong hydrocarbon odor		
21									
22		X			460				
23					180				
24					5		<b>SILTY SAND (SM)</b> - gray		
25							<b>Boring terminated at approximately 24 feet.</b>		
26									
27									
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-15**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-2**

5/11/2007 10:53:17 AM

Date Completed: 3/4/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 24.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							NO RECOVERY		
2									
3					0.1		POORLY GRADED (GM) - yellow-brown, silt-sand-gravel mix		
4							NO RECOVERY		
5									
6					0		POORLY GRADED GRAVELLY SAND (SP) - dark brown		
7									
8							NO RECOVERY		
9									
10									
11									
12							POORLY GRADED SAND (SP)		
13							NO RECOVERY		
14									
15					0		CLAYEY SAND (SC) - gray, low plasticity		
16							NO RECOVERY		
17									
18					0		CLAY (CL) - gray-brown, with occasional fine gravel		
19									
20							NO RECOVERY		
21									
22									
23					0		SANDY CLAY (CL) - gray-brown		
24							Boring terminated at approximately 24 feet.		
25									
26									
27									
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-16**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-3**

5/11/2007 10:53:17 AM

Date Completed: 3/4/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 32.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							<b>NO RECOVERY</b>		
2							<b>POORLY GRADED SAND with GRAVEL (SP)</b> - yellow-brown		
3									
4							<b>POORLY GRADED SILTY SAND (SM)</b> - gray		
5							<b>NO RECOVERY</b>		
6					5		<b>POORLY GRADED GRAVELLY SAND (SP)</b>		
7							<b>SAND (SM)</b> - sand-gravel mix		
8					11		<b>GRAVELLY CLAY (CL)</b> - dark gray		
9							<b>NO RECOVERY</b>		
10							<b>SILTY SAND with GRAVEL (SM)</b> - black, moist, strong hydrocarbon odor		
11							<b>CLAY (CH)</b> - gray, plastic		
12							<b>CLAY (CH)</b> - gray, plastic		
13									
14									
15							- stiff		
16							<b>CLAY (CH)</b> - gray, stiff, strong hydrocarbon odor		
17					400				
18									
19									
20					30		- olive, clay stiff		
21							<b>GRAVEL SAND (GC)</b> - olive, heavy hydrocarbon odor, gravel-sand-mix		
22					500				
23					1500				
24							<b>POORLY GRADED GRAVELLY SAND (SP)</b> - gray, moist to wet, strong hydrocarbon odor		
25									
26					900		<b>CLAY (CH)</b> - olive, stiff		
27									
28					8				

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-17**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-4**

5/11/2007 10:53:18 AM

Date Completed: 3/4/07

Sampler: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 32.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
29							CLAY (CH) - gray, stiff		
30		X			0.8				
31							Boring terminated at approximately 32 feet.		
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-17**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-4**

(cont'd)

5/11/2007 10:53:18 AM

Date Completed: 3/5/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							<b>ASPHALT</b> - approximately 6 inches thick		
2							<b>GRAVELLY SAND (SP)</b> - olive, poorly graded		
3							<b>FAT CLAY (CH)</b> - gray-brown, stiff		
4							- soft clay, slight hydrocarbon odor		
5							- black, moist		
6		⊗					<b>SANDY CLAY (CL)</b> - black, with coarse sand particles		
7									
8							- gray		
9		⊗			500		- gray, moist, strong hydrocarbon odor		
10							<b>FAT CLAY (CH)</b> - gray		
11									
12							- gray brown		
13							- stiff	▼	
14									
15									
16							<b>SANDY CLAY (CL)</b>		
17									
18									
19							<b>CLAYEY SAND (SC)</b> - olive, clayey sand-gravel mix		
20							<b>SANDY CLAY (CL)</b> - slightly plastic		
21									
22									
23							- olive, moderate plasticity		
24									
25									
26		⊗							
27							<b>POORLY GRADED GRAVELLY SAND (SP)</b> - wet		
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-18**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-5**

5/11/2007 10:53:18 AM



Date Completed: 3/5/07

Sampler: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
29							<b>POORLY GRADED GRAVELLY SAND (SP)</b> continued		
30							<b>SILT (ML)</b> - non plastic, stiff		
31							- stiff		
32									
33							<b>SILTS SAND (SM)</b> - fine sand with gravels		
34							- poorly graded, fine sands		
35									
36									
37							<b>CLAY (CL)</b> - stiff, slight plasticity		
38							<b>Boring terminated at approximately 38 feet.</b>		
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-18**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-5**

(cont'd)

5/11/2007 10:53:18 AM

Date Completed: 3/5/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							ASPHALT - approximately 6 inches thick		
2							POORLY GRADED CLAYEY SAND GRAVEL (SC) - yellow-brown		
3									
4							- gray		
5							NO RECOVERY		
6							GRAVELLY SAND CLAY (SC) wet, strong hydrocarbon odor		
7									
8					500		- black, moist, fine grained sand, hydrocarbon odor		
9							SILTY CLAY (CL) - gray, dry, hydrocarbon odor		
10					2500				
11									
12					420				
13					87				
14									
15					540				
16							NO RECOVERY		
17					50		SILTY SAND (SC) - yellow-brown, fine grained sand, hydrocarbon odor		
18					750		- gray-brown		
19							SAND (SP) - green, hydrocarbon odor		
20					1700				
21					150		CLAYEY SAND (SC) - fine grained sand		
22					1500		GRAVELLY SAND (SP) - green, heavy hydrocarbon odor		
23					500				
24							SILTY SAND (ML) - yellow-brown, fine grained sand, hydrocarbon odor		
25							LEAN CLAY (CL) - gray, medium plasticity, hydrocarbon odor		
26					400				
27					20				
28					170				
					350				

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-19**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-6**

5/11/2007 10:53:18 AM

Date Completed: 3/5/07

Sampler: Direct Push

Logged By: A. Dominguez


Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
29							<b>LEAN CLAY (CL)</b> - continued		
							- coarse sand particle		
30							- stiff		
31							<b>SILTY CLAY (CL)</b>		
32		⊗			16				
33							<b>CLAY (CL)</b> - olive-gray, slight plasticity, expansive		
34					0				
35					0		<b>SILTY SAND (ML)</b> - gray-brown, moist, fine grained sand		
36									
37		⊗			0		- dry		
38							<b>Boring terminated at approximately 38 feet.</b>		
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									

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	<b>LOG OF BORING NO. K-19</b>	PLATE
	EOP - INDEPENDENT ROAD 700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	<b>B-6</b>  (cont'd)
PROJECT NO. <b>54504-4</b>		

5/11/2007 10:53:19 AM

Date Completed: 3/6/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							<b>ASPHALT</b> - approximately 6 inches thick		
2					0		<b>POORLY GRADED GRAVELLY SAND (SP)</b>		
3					0		<b>CLAYEY SAND (SC)</b> - coarse sand mix		
4					0		- with gravel		
5					0		<b>ORGANIC CLAY (OL)</b> - black, strong hydrocarbon odor		
6					1.5				
7					1.5				
8					1.5				
9					1.5				
10					0		<b>SILTY CLAY (CL)</b> - olive-brown, slight plasticity		
11					0				
12					0				
13					0				
14					0		- very stiff		
15					0		- sandy clay		
16					0		- very stiff		
17					0				
18					0		<b>POORLY GRADED GRAVEL SANDS (SP)</b> - olive, moist		
19					0				
20					0		<b>SILTY CLAY (CL)</b> - gray-brown, stiff		
21					0				
22					0		<b>POORLY GRADED GRAVEL SANDS (SP)</b> - wet		
23					0				
24					0				
25					0		<b>SILTY SAND (ML)</b> - yellow-brown, dry, fine grained sand		
26					0				
27					0				
28					0				

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-20**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-7**

5/11/2007 10:53:19 AM

Date Completed: 3/6/07

Sampler: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 38.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
29							<b>SILTY SAND (ML)</b> - continued	▽	
30					0		- wet		
31							- dry		
32							<b>LEAN CLAY (CL)</b> - olive-brown, medium plasticity, stiff		
33					0				
34									
35									
36					0		- fine sand		
37							- very stiff		
38							<b>Boring terminated at approximately 38 feet.</b>		
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. K-20**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-7**

(cont'd)

5/11/2007 10:53:19 AM

Date Completed: 3/5/07  
 Logged By: A. Dominguez  
 Total Depth: 25.0 ft

Drilling method: Direct Push  
 Hammer Wt: None  
 Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							ASPHALT- approximately 6 inches thick		
2							POORLY GRADED SAND (SP)- olive, small gravel		
3							CLAYEY SAND (SC)- dark gray, wet, some gravel, gravel-clay mix		
4							NO RECOVERY		
5									
6		X			7		CLAYEY SAND (SC)- black, wet, some gravel, sand-gravel mix		Blank 2" casing
7							- gray		Neat cement grout
8									
9					35		CLAY (CH)- gray, stiff, plastic, hydrocarbon odor		
10					30				
11		X							
12					8		- very stiff		Bentonite
13									
14					1				
15		X					SANDY CLAY (CL)- red		
16					30		GRAVELLY SAND (SP)- gray		
17									
18							SAND-GRAVEL (SP)- wet, strong hydrocarbon odor		
19					1500				
20		X					SAND-GRAVEL-CLAY (SC)	▽	
21					2000		- free product in water		
22							SILT (ML)- olive, low plasticity		
23					0				
24					0				
25									
26							Boring terminated at approximately 25 feet.		
27									
28									

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<b>KLEINFELDER</b>	<b>LOG OF BORING NO. MW-1</b>	PLATE
	EOP - INDEPENDENT ROAD 700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	<b>B-8</b>
PROJECT NO. <b>54504-4</b>		

5/11/2007 10:53:19 AM

Date Completed: 3/6/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 25.0 ft

Notes: Stratigraphy taken from K-19

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							ASPHALT - approximately 6 inches thick		
2							POORLY GRADED CLAY SAND GRAVEL (SC) - yellow-brown		
3									Blank 2" casing Neat cement grout
4							- gray		
5							NO RECOVERY		
6							GRAVELLY SANDY CLAY (SC) wet, strong hydrocarbon odor		Bentonite
7							- black, moist, fine grained sand, hydrocarbon odor		
8									Sand 2/12
9							SILTY CLAY (CL) - gray, dry, hydrocarbon odor		
10									
11									
12									
13									
14									Screened 2" casing
15							NO RECOVERY		
16									
17							SILTY SAND (ML) - yellow-brown, fine grained sand, hydrocarbon odor		
18							- gray-brown		
19							SAND (SP) - green, hydrocarbon odor		
20							CLAYEY SAND (SC) - fine grained sand		
21							GRAVELLY SAND (SP) - green, heavy hydrocarbon odor		
22							SILTY SAND (ML) - yellow-brown, fine grained sand, hydrocarbon odor		Bentonite
23									
24							LEAN CLAY (CL) - gray, medium plasticity, hydrocarbon odor		
25							Boring terminated at approximately 25 feet.		
26									
27									
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. MW-2**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-9**

5/11/2007 10:53:20 AM

Date Completed: 3/6/07

Drilling method: Direct Push

Logged By: A. Dominguez

Hammer Wt: None

Total Depth: 25.0 ft

Notes: \_\_\_\_\_

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	OVA (ppm) PID/FID	USCS	Description	Remarks	Well Construction
1							ASPHALT - approximately 6 inches thick		
2							GRAVELLY SAND (SP)- olive		
3									
4							CLAYEY SAND (SC)- dark gray		
5					11		- gray		Neat cement grout Blank 2" casing
6									
7					4		CLAY (CH)- black, plastic, hydrocarbon odor		
8									
9							NO RECOVERY		
10					500		FAT CLAY (CH)- gray, plastic, hydrocarbon odor		Bentonite
11									
12					5		CLAYEY SILT (ML)- olive, slight plasticity		Sand 2/12
13									
14									
15					0				
16					0		CLAY/SILT (CL/ML)- moist, medium plasticity		
17					0				
18					0		SAND (SC)- yellow-brown, moist, fine grained		Screened 2" casing
19					0				
20							NO RECOVERY		
21					0		SAND (ML) - fine grained		
22							CLAYEY SILT (ML)		
23							LEAN CLAY (CL)- olive		
24									
25									
26							Boring terminated at approximately 25 feet.		
27									
28									

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**KLEINFELDER**

PROJECT NO. **54504-4**

**LOG OF BORING NO. MW-3**

EOP - INDEPENDENT ROAD  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA

PLATE

**B-10**

5/11/2007 10:53:20 AM



**APPENDIX C**

**ANALYTICAL LABORATORY REPORTS**

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# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

April 09, 2007 (Revision 2)

Alvaro Dominguez  
KLEINFELDER  
1970 Broadway, Suite 710  
Oakland, CA 94612

TEL: 510-628-9000

FAX

RE: 54504/4 - See case narrative for detail of revisions to the report.

Order No.: 0703019

Dear Alvaro Dominguez:

Torrent Laboratory, Inc. received 25 samples on 3/5/2007 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc, is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

  
Laboratory Director                      Date

Patti Sandrock  
QA Officer 



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

**Torrent Laboratory, Inc.**

Date: 09-Apr-07

CLIENT: KLEINFELDER  
Project: 54504/4  
Lab Order: 0703019

## CASE NARRATIVE

Per client request, silica gel clean-up procedures were employed on all TPHD samples.

Per Client request Soil vapor results re-issued in ug/m3

Rev1 (3/20/07)

Report revised to ensure that conversion from ppbv to ug/m3 results in equivalent RL and MDL for all compounds. All data is based on the most current ppbv MDL study with precise MDL value conversion to ug/m3 values. This correction eliminates the possibility of a positive value in one unit being reported as a non-detect in the other unit.

Rev 2 (4/0907)



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007

**Date Reported:** 3/13/2007

**Client Sample ID:** K14 @ 5.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-001  
**Date Prepared:** 3/5/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/5/2007	100	1	100	ND	µg/Kg	G12047
Surr: 4-Bromofluorobenzene	GC-MS	3/5/2007	0	1	57-127	88.0	%REC	G12047
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	81.3	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	ND	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	122	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	81.9	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	105	%REC	R12047

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K14 @ 7.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-002  
**Date Prepared:** 3/7/2007-3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	1990 x	µg/Kg	G12078
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	74.0	%REC	G12078
Note:x-Although TPH as Gasoline is present, result is elevated due to presence of non-target compounds within the TPH as Gasoline quantitation range.								
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	18 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	92.2	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern (discrete peaks). Unidentified hydrocarbon peaks within the diesel range quantitated as diesel								
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	190	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	15	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	22	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	93.1	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	121	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	116	%REC	R12047

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K14 @ 10  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-003  
**Date Prepared:** 3/5/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/5/2007	100	1	100	1200	µg/Kg	G12047
Surr: 4-Bromofluorobenzene	GC-MS	3/5/2007	0	1	57-127	50 S	%REC	G12047
Note:s-Outlying surrogate recovery observed.A duplicate analysis was performed with similar result indicating a matrix effect.								
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	89.9	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	70	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	123	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	123	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	120	%REC	R12047

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K14 @ 17.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-004  
**Date Prepared:** 3/5/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/5/2007	100	1	100	ND	µg/Kg	G12047
Surr: 4-Bromofluorobenzene	GC-MS	3/5/2007	0	1	57-127	82.0	%REC	G12047
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	80.6	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	ND	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	121	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	112	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	107	%REC	R12047

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K15 @ 10.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-005  
**Date Prepared:** 3/6/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/6/2007	100	5	500	7200	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	GC-MS	3/6/2007	0	5	57-127	82.0	%REC	R12077
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	84.3	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	53	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	170	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	90.2	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	114	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	121	%REC	R12047



**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K15 @ 15  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-006  
**Date Prepared:** 3/5/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/5/2007	100	1	100	ND	µg/Kg	G12047
Surr: 4-Bromofluorobenzene	GC-MS	3/5/2007	0	1	57-127	80.0	%REC	G12047
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	87.1	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
1,2-Dichloroethane (EDC)	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Benzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Ethylbenzene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Methyl tert-butyl ether (MTBE)	SW8260B	3/5/2007	10	1	10	ND	µg/Kg	R12047
Toluene	SW8260B	3/5/2007	5	1	5.0	ND	µg/Kg	R12047
Xylenes, Total	SW8260B	3/5/2007	15	1	15	ND	µg/Kg	R12047
Surr: 4-Bromofluorobenzene	SW8260B	3/5/2007	0	1	62.8-123	119	%REC	R12047
Surr: Dibromofluoromethane	SW8260B	3/5/2007	0	1	63.3-151	89.5	%REC	R12047
Surr: Toluene-d8	SW8260B	3/5/2007	0	1	60.8-124	107	%REC	R12047

Client Sample ID: K15 @ 17.5  
Sample Location: EOP-700 Independent Rd  
Sample Matrix: SOIL  
Date/Time Sampled 3/4/2007

Lab Sample ID: 0703019-007  
Date Prepared: 3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/7/2007	100	100	10000	50000	µg/Kg	G12078
Surr: 4-Bromofluorobenzene	GC-MS	3/7/2007	0	100	57-127	88.0	%REC	G12078
TPH (Diesel)	SW8015B	3/8/2007	2	1	2.00	4.8 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/8/2007	0	1	28-125	81.0	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
1,2-Dichloroethane (EDC)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Benzene	SW8260B	3/7/2007	5	5	25	220	µg/Kg	R12078
Ethylbenzene	SW8260B	3/7/2007	5	5	25	910	µg/Kg	R12078
Methyl tert-butyl ether (MTBE)	SW8260B	3/7/2007	10	5	50	ND	µg/Kg	R12078
Toluene	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Xylenes, Total	SW8260B	3/7/2007	15	5	75	1100	µg/Kg	R12078
Surr: 4-Bromofluorobenzene	SW8260B	3/7/2007	0	5	62.8-123	115	%REC	R12078
Surr: Dibromofluoromethane	SW8260B	3/7/2007	0	5	63.3-151	107	%REC	R12078
Surr: Toluene-d8	SW8260B	3/7/2007	0	5	60.8-124	120	%REC	R12078

**Client Sample ID:** K16 @ 7.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-008  
**Date Prepared:** 3/6/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/6/2007	100	1	100	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	GC-MS	3/6/2007	0	1	57-127	86.0	%REC	R12077
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	3.7 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	91.0	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern. Diesel result is carry over from TPH as motor oil quantitation range. Hydrocarbons and hydrocarbon peak within the diesel range quantitated as diesel								
1,2-Dibromoethane (EDB)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
1,2-Dichloroethane (EDC)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Benzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Ethylbenzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Methyl tert-butyl ether (MTBE)	SW8260B	3/6/2007	10	1	10	ND	µg/Kg	R12077
Toluene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Xylenes, Total	SW8260B	3/6/2007	15	1	15	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	SW8260B	3/6/2007	0	1	62.8-123	122	%REC	R12077
Surr: Dibromofluoromethane	SW8260B	3/6/2007	0	1	63.3-151	108	%REC	R12077
Surr: Toluene-d8	SW8260B	3/6/2007	0	1	60.8-124	107	%REC	R12077

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K16 @ 11.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-009  
**Date Prepared:** 3/6/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/6/2007	100	1	100	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	GC-MS	3/6/2007	0	1	57-127	88.0	%REC	R12077
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	88.2	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
1,2-Dichloroethane (EDC)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Benzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Ethylbenzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Methyl tert-butyl ether (MTBE)	SW8260B	3/6/2007	10	1	10	ND	µg/Kg	R12077
Toluene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Xylenes, Total	SW8260B	3/6/2007	15	1	15	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	SW8260B	3/6/2007	0	1	62.8-123	121	%REC	R12077
Surr: Dibromofluoromethane	SW8260B	3/6/2007	0	1	63.3-151	110	%REC	R12077
Surr: Toluene-d8	SW8260B	3/6/2007	0	1	60.8-124	108	%REC	R12077

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007

**Date Reported:** 3/13/2007

**Client Sample ID:** K16 @ 19.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-010  
**Date Prepared:** 3/6/2007-3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/6/2007	100	1	100	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	GC-MS	3/6/2007	0	1	57-127	84.0	%REC	R12077
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	ND	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	88.8	%REC	R12099
1,2-Dibromoethane (EDB)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
1,2-Dichloroethane (EDC)	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Benzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Ethylbenzene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Methyl tert-butyl ether (MTBE)	SW8260B	3/6/2007	10	1	10	ND	µg/Kg	R12077
Toluene	SW8260B	3/6/2007	5	1	5.0	ND	µg/Kg	R12077
Xylenes, Total	SW8260B	3/6/2007	15	1	15	ND	µg/Kg	R12077
Surr: 4-Bromofluorobenzene	SW8260B	3/6/2007	0	1	62.8-123	104	%REC	R12077
Surr: Dibromofluoromethane	SW8260B	3/6/2007	0	1	63.3-151	103	%REC	R12077
Surr: Toluene-d8	SW8260B	3/6/2007	0	1	60.8-124	106	%REC	R12077

Client Sample ID: K17 @ 10.5  
Sample Location: EOP-700 Independent Rd  
Sample Matrix: SOIL  
Date/Time Sampled 3/4/2007

Lab Sample ID: 0703019-011  
Date Prepared: 3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/7/2007	100	5	500	5600	µg/Kg	G12078
Surr: 4-Bromofluorobenzene	GC-MS	3/7/2007	0	5	57-127	78.0	%REC	G12078
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	12.7 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	93.7	%REC	R12099

Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.

1,2-Dibromoethane (EDB)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
1,2-Dichloroethane (EDC)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Benzene	SW8260B	3/7/2007	5	5	25	190	µg/Kg	R12078
Ethylbenzene	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Methyl tert-butyl ether (MTBE)	SW8260B	3/7/2007	10	5	50	ND	µg/Kg	R12078
Toluene	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Xylenes, Total	SW8260B	3/7/2007	15	5	75	150	µg/Kg	R12078
Surr: 4-Bromofluorobenzene	SW8260B	3/7/2007	0	5	62.8-123	123	%REC	R12078
Surr: Dibromofluoromethane	SW8260B	3/7/2007	0	5	63.3-151	110	%REC	R12078
Surr: Toluene-d8	SW8260B	3/7/2007	0	5	60.8-124	110	%REC	R12078

Note:S - High surrogate recovery attributed to TPH interference.

**Client Sample ID:** K17 @ 19.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-013  
**Date Prepared:** 3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/7/2007	100	100	10000	30000	µg/Kg	G12078
Surr: 4-Bromofluorobenzene	GC-MS	3/7/2007	0	100	57-127	88.0	%REC	G12078
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	7.3 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	78.7	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	100	500	920	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	100	500	3600	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	100	1000	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	100	1500	2000	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	100	62.8-123	98.1	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	100	63.3-151	111	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	100	60.8-124	116	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007

**Date Reported:** 3/13/2007

**Client Sample ID:** K17 @ 23  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-014  
**Date Prepared:** 3/7/2007-3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	100	10000	13000	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	100	57-127	90.0	%REC	G12103
TPH (Diesel)	SW8015B	3/9/2007	2	3	6.00	114 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	3	28-125	78.6	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
1,2-Dichloroethane (EDC)	SW8260B	3/7/2007	5	5	25	ND	µg/Kg	R12078
Benzene	SW8260B	3/7/2007	5	5	25	380	µg/Kg	R12078
Ethylbenzene	SW8260B	3/7/2007	5	5	25	400	µg/Kg	R12078
Methyl tert-butyl ether (MTBE)	SW8260B	3/7/2007	10	5	50	ND	µg/Kg	R12078
Toluene	SW8260B	3/7/2007	5	5	25	190	µg/Kg	R12078
Xylenes, Total	SW8260B	3/7/2007	15	5	75	670	µg/Kg	R12078
Surr: 4-Bromofluorobenzene	SW8260B	3/7/2007	0	5	62.8-123	118	%REC	R12078
Surr: Dibromofluoromethane	SW8260B	3/7/2007	0	5	63.3-151	109	%REC	R12078
Surr: Toluene-d8	SW8260B	3/7/2007	0	5	60.8-124	124	%REC	R12078



**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K17 @ 27.5  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-015  
**Date Prepared:** 3/7/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/7/2007	100	1	100	176 x	µg/Kg	G12078
Surr: 4-Bromofluorobenzene	GC-MS	3/7/2007	0	1	57-127	90.0	%REC	G12078
Note:x- Not typical pattern. Elevated gasoline result due to non-target compounds within the TPH as Gasoline quantitation range.								
TPH (Diesel)	SW8015B	3/9/2007	2	1	2.00	2.3 x	mg/Kg	R12099
Surr: Pentacosane	SW8015B	3/9/2007	0	1	28-125	87.2	%REC	R12099
Note:x- Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/7/2007	5	1	5.0	ND	µg/Kg	R12078
1,2-Dichloroethane (EDC)	SW8260B	3/7/2007	5	1	5.0	ND	µg/Kg	R12078
Benzene	SW8260B	3/7/2007	5	1	5.0	7.2	µg/Kg	R12078
Ethylbenzene	SW8260B	3/7/2007	5	1	5.0	7.8	µg/Kg	R12078
Methyl tert-butyl ether (MTBE)	SW8260B	3/7/2007	10	1	10	ND	µg/Kg	R12078
Toluene	SW8260B	3/7/2007	5	1	5.0	ND	µg/Kg	R12078
Xylenes, Total	SW8260B	3/7/2007	15	1	15	ND	µg/Kg	R12078
Surr: 4-Bromofluorobenzene	SW8260B	3/7/2007	0	1	62.8-123	112	%REC	R12078
Surr: Dibromofluoromethane	SW8260B	3/7/2007	0	1	63.3-151	111	%REC	R12078
Surr: Toluene-d8	SW8260B	3/7/2007	0	1	60.8-124	109	%REC	R12078

**Client Sample ID:** SV-1  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** AIR  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-017  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Gasoline	TO-14(MOD)	3/6/2007	352	25	8800	ND	µg/m <sup>3</sup>	G12083
Note: Due to dilution necessary as a result of matrix interference, data is reported to the MDL.								
Benzene	TO-15	3/5/2007	0.89	25	22	ND	µg/m <sup>3</sup>	R12083
Ethyl Benzene	TO-15	3/5/2007	0.311	25	7.8	ND	µg/m <sup>3</sup>	R12083
Isopropanol	TO-15	3/5/2007	1.63	25	41	ND	µg/m <sup>3</sup>	R12083
MTBE	TO-15	3/5/2007	0.51	25	13	ND	µg/m <sup>3</sup>	R12083
o-xylene	TO-15	3/5/2007	0.621	25	16	ND	µg/m <sup>3</sup>	R12083
Toluene	TO-15	3/5/2007	0.53	25	13	ND	µg/m <sup>3</sup>	R12083

Note: The reporting limits were raised due to significant concentration of non-target compounds (light end) Results reported to the MDL.

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** SV-2  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** AIR  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-018  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Gasoline	TO-14(MOD)	3/6/2007	352	100	35000	ND	µg/m <sup>3</sup>	G12083

Note: Due to dilution necessary as a result of matrix interference, data is reported to the MDL.

Benzene	TO-15	3/5/2007	0.89	100	89	ND	µg/m <sup>3</sup>	R12083
Ethyl Benzene	TO-15	3/5/2007	0.311	100	31	ND	µg/m <sup>3</sup>	R12083
Isopropanol	TO-15	3/5/2007	1.63	100	160	ND	µg/m <sup>3</sup>	R12083
MTBE	TO-15	3/5/2007	0.51	100	51	ND	µg/m <sup>3</sup>	R12083
o-xylene	TO-15	3/5/2007	0.621	100	62	ND	µg/m <sup>3</sup>	R12083
Toluene	TO-15	3/5/2007	0.53	100	53	ND	µg/m <sup>3</sup>	R12083

Note: The reporting limits were raised due to significant concentration of non-target compounds (light end) Results reported to the MDL.

**Client Sample ID:** K-14  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-020  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	ND	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	82.0	%REC	R12100

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K-14  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-021  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	50	1	50	67.3 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	58.4-133	104	%REC	G12102
Note: x - Does not match typical gasoline pattern. TPH value due to presence of non-target compounds within the TPH as Gasolinel quantitation range.								
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Benzene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Ethylbenzene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Toluene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Xylenes, Total	SW8260B	3/8/2007	1.5	1	1.50	ND	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	61.2-131	111	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	64.1-120	107	%REC	R12102
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	75.1-127	105	%REC	R12102

**Client Sample ID:** K-15  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-022  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	ND	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	59.0	%REC	R12100

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K-15  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-023  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	50	1	50	671.6 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	58.4-133	107	%REC	G12102
Note: x - Although TPH as Gasoline compounds are present, the reported result is elevated due to the presence of non-target compounds within the TPH as Gasoline quantitation range.								
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Benzene	SW8260B	3/8/2007	0.5	1	0.500	13.6	µg/L	R12102
Ethylbenzene	SW8260B	3/8/2007	0.5	1	0.500	7.43	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	0.5	1	0.500	0.560	µg/L	R12102
Toluene	SW8260B	3/8/2007	0.5	1	0.500	3.69	µg/L	R12102
Xylenes, Total	SW8260B	3/8/2007	1.5	1	1.50	21.4	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	61.2-131	98.1	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	64.1-120	108	%REC	R12102
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	75.1-127	86.8	%REC	R12102

**Client Sample ID:** K-16  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-024  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.112	ND	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	52.0	%REC	R12100

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/5/2007  
**Date Reported:** 3/13/2007

**Client Sample ID:** K-16  
**Sample Location:** EOP-700 Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703019-025  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	50	1	50	68.3 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	58.4-133	103	%REC	G12102
Note: x - Does not match typical gasoline pattern. TPH value due to presence of non-target compounds within the TPH as Gasoline quantitation range.								
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Benzene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Ethylbenzene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	0.5	1	0.500	1.03	µg/L	R12102
Toluene	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Xylenes, Total	SW8260B	3/8/2007	1.5	1	1.50	ND	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	61.2-131	113	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	64.1-120	103	%REC	R12102
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	75.1-127	90.1	%REC	R12102

**Definitions, legends and Notes**

<b>Note</b>	<b>Description</b>
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G12047**

Sample ID: <b>MB-G1</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>				Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>				
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12047</b>	TestNo: <b>GC-MS</b>				Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178475</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofluorobenzene	46.00	0	50	0	92.0	57	127				

Sample ID: <b>LCS-G1</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>				Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>				
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12047</b>	TestNo: <b>GC-MS</b>				Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178476</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	1200	100	1000	0	120	48.2	132				
Surr: 4-Bromofluorobenzene	49.00	0	50	0	98.0	57	127				

Sample ID: <b>LCSD-G1</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>				Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>				
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12047</b>	TestNo: <b>GC-MS</b>				Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178477</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	905.0	100	1000	0	90.5	48.2	132	1200	28.0	30	
Surr: 4-Bromofluorobenzene	43.00	0	50	0	86.0	57	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12078**

Sample ID: <b>MB-G3</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12078</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178354</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100								
Surr: 4-Bromofluorobenzene	45.00	0	50	0	90.0	57	127			

Sample ID: <b>LCS-G3</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12078</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178358</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1021	100	1000	0	102	48.2	132			
Surr: 4-Bromofluorobenzene	46.00	0	50	0	92.0	57	127			

Sample ID: <b>LCSD-G3</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12078</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178359</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1006	100	1000	0	101	48.2	132	1021	1.48	30
Surr: 4-Bromofluorobenzene	48.00	0	50	0	96.0	57	127	0	0	0

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12083**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-14 Gas pp</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12083</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178802</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	2.5									
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Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TO-14 Gas pp</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12083</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178807</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1319	2.5	1000	0	132	65	135				
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Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-14 Gas pp</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12083</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178808</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1172	2.5	1000	0	117	65	135	1319	11.8	50	
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**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178713</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	50									
Surr: 4-Bromofluorobenzene	10.90	0	11.36	0	96.0	58.4	133				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178714</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	171.5	50	227	0	75.6	52.4	127				
Surr: 4-Bromofluorobenzene	10.60	0	11.36	0	93.3	58.4	133				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>		Analysis Date: <b>3/9/2007</b>	SeqNo: <b>178715</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	205.4	50	227	0	90.5	52.4	127	171.5	18.0	20	
Surr: 4-Bromofluorobenzene	10.70	0	11.36	0	94.2	58.4	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12103**

Sample ID: <b>MB_G2</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178662</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100								
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88.0	57	127			

Sample ID: <b>LCS-G2</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178663</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1007	100	1000	0	101	48.2	132			
Surr: 4-Bromofluorobenzene	49.00	0	50	0	98.0	57	127			

Sample ID: <b>LCSD-G2</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178664</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	931.0	100	1000	0	93.1	48.2	132	1007	7.84	30
Surr: 4-Bromofluorobenzene	43.00	0	50	0	86.0	57	127	0	0	0

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12047**

Sample ID: <b>MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12047</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178046</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

CLIENT: KLEINFELDER  
 Work Order: 0703019  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12047

Sample ID: <b>MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12047</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178046</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	60.39	0	50	0	121	55.8	141				
Surr: Dibromofluoromethane	51.87	0	50	0	104	59.8	148				
Surr: Toluene-d8	52.02	0	50	0	104	55.2	133				

Sample ID: <b>LCS1</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12047</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178047</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.13	10	50	0	118	66.5	135				
Chlorobenzene	52.82	10	50	0	106	57.5	150				
Toluene	61.42	10	50	0	123	56.8	134				
Trichloroethene	50.78	10	50	0	102	57.4	134				
Surr: 4-Bromofluorobenzene	58.46	0	50	0	117	55.8	141				
Surr: Dibromofluoromethane	46.36	0	50	0	92.7	59.8	148				
Surr: Toluene-d8	49.79	0	50	0	99.6	55.2	133				

Sample ID: <b>LCSD1</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12047</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178048</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	48.80	10	50	0	97.6	66.5	135	59.13	19.1	30	
Chlorobenzene	54.02	10	50	0	108	57.5	150	52.82	2.25	30	
Toluene	50.95	10	50	0	102	56.8	134	61.42	18.6	30	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12047**

Sample ID: <b>LCSD1</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12047</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12047</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178048</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	53.11	10	50	0	106	57.4	134	50.78	4.49	30	
Surr: 4-Bromofluorobenzene	58.56	0	50	0	117	55.8	141	0	0	0	
Surr: Dibromofluoromethane	50.59	0	50	0	101	59.8	148	0	0	0	
Surr: Toluene-d8	51.87	0	50	0	104	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12077**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178340</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12077**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178340</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	59.78	0	50	0	120	55.8	141				
Surr: Dibromofluoromethane	54.61	0	50	0	109	59.8	148				
Surr: Toluene-d8	52.25	0	50	0	104	55.2	133				

Sample ID: <b>LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178341</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	58.15	10	50	0	116	66.5	135				
Chlorobenzene	48.90	10	50	0	97.8	57.5	150				
Toluene	59.87	10	50	0	120	56.8	134				
Trichloroethene	61.75	10	50	0	124	57.4	134				
Surr: 4-Bromofluorobenzene	63.45	0	50	0	127	55.8	141				
Surr: Dibromofluoromethane	48.25	0	50	0	96.5	59.8	148				
Surr: Toluene-d8	51.77	0	50	0	104	55.2	133				

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178342</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	60.93	10	50	0	122	66.5	135	58.15	4.67	30	
Chlorobenzene	53.16	10	50	0	106	57.5	150	48.9	8.35	30	
Toluene	60.24	10	50	0	120	56.8	134	59.87	0.616	30	

**Qualifiers:**    3    Recovery of the MS and/or MSD was out of control due to    4    The MS/MSD RPD was out of control due to matrix inter    Q    Spike recovery and RPD control limits do not apply result  
                       R    RPD outside accepted recovery limits                                        S    Spike Recovery outside accepted recovery limits



CLIENT: KLEINFELDER  
 Work Order: 0703019  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12077

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178342</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	60.41	10	50	0	121	57.4	134	61.75	2.19	30	
Surr: 4-Bromofluorobenzene	59.31	0	50	0	119	55.8	141	0	0	0	
Surr: Dibromofluoromethane	52.08	0	50	0	104	59.8	148	0	0	0	
Surr: Toluene-d8	51.97	0	50	0	104	55.2	133	0	0	0	

Sample ID: <b>0703019-010A MS</b>	SampType: <b>MS</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>						
Client ID: <b>B16 @ 19.5</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178554</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.10	5.0	50	0	118	66.5	135				
Toluene	58.31	5.0	50	0	117	56.8	134				
Surr: 4-Bromofluorobenzene	59.95	0	50	0	120	55.8	141				
Surr: Dibromofluoromethane	52.77	0	50	0	106	59.8	148				
Surr: Toluene-d8	54.50	0	50	0	109	55.2	133				

Sample ID: <b>0703019-010A MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12077</b>						
Client ID: <b>B16 @ 19.5</b>	Batch ID: <b>R12077</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178555</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.36	5.0	50	0	123	66.5	135	59.1	3.75	30	
Toluene	64.14	5.0	50	0	128	56.8	134	58.31	9.52	30	
Surr: 4-Bromofluorobenzene	61.36	0	50	0	123	55.8	141	0	0	0	
Surr: Dibromofluoromethane	53.52	0	50	0	107	59.8	148	0	0	0	
Surr: Toluene-d8	54.70	0	50	0	109	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

CLIENT: KLEINFELDER  
 Work Order: 0703019  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12078

Sample ID: <b>MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12078</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178638</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	5.0									
1,2-Dichloroethane (EDC)	ND	5.0									
Benzene	ND	5.0									
Ethylbenzene	ND	5.0									
Methyl tert-butyl ether (MTBE)	ND	10									
Toluene	ND	5.0									
Xylenes, Total	ND	15									
Surr: 4-Bromofluorobenzene	62.89	0	50	0	126	55.8	141				
Surr: Dibromofluoromethane	56.59	0	50	0	113	59.8	148				
Surr: Toluene-d8	51.83	0	50	0	104	55.2	133				

Sample ID: <b>LCS3</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12078</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178639</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	58.15	5.0	50	0	116	66.5	135				
Toluene	59.02	5.0	50	0	118	56.8	134				
Surr: 4-Bromofluorobenzene	61.26	0	50	0	123	55.8	141				
Surr: Dibromofluoromethane	50.67	0	50	0	101	59.8	148				
Surr: Toluene-d8	51.73	0	50	0	103	55.2	133				

Sample ID: <b>LCSD3</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12078</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12078</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/7/2007</b>	SeqNo: <b>178640</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.32	5.0	50	0	123	66.5	135	58.15	5.31	30	
Toluene	62.73	5.0	50	0	125	56.8	134	59.02	6.09	30	
Surr: 4-Bromofluorobenzene	61.83	0	50	0	124	55.8	141	0	0	0	
Surr: Dibromofluoromethane	51.57	0	50	0	103	59.8	148	0	0	0	
Surr: Toluene-d8	50.25	0	50	0	101	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12083**

Sample ID: <b>MBLK</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178398</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.28									
Ethyl Benzene	ND	0.093									
Isopropanol	ND	0.40									
m,p-Xylene	ND	0.12									
MTBE	ND	0.14									
o-xylene	ND	0.14									
Toluene	ND	0.14									
Surr: 4-Bromofluorobenzene	16.46	0	20	0	82.3	50	150				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178399</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.80	0.50	20	0	99.0	65	135				
Ethyl Benzene	19.59	0.50	20	0	98.0	65	135				
Isopropanol	24.08	10	20	0	120	65	135				
m,p-Xylene	39.28	0.50	40	0	98.2	65	135				
MTBE	19.97	0.50	20	0	99.8	65	135				
o-xylene	21.31	0.50	20	0	107	65	135				
Toluene	21.08	0.50	20	0	105	65	135				
Surr: 4-Bromofluorobenzene	16.82	0	20	0	84.1	50	150				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.02	0.50	20	0	95.1	65	135	19.8	4.02		
Ethyl Benzene	18.25	0.50	20	0	91.2	65	135	19.59	7.08		
Isopropanol	17.75	10	20	0	88.8	65	135	24.08	30.3		
m,p-Xylene	34.93	0.50	40	0	87.3	65	135	39.28	11.7		
MTBE	17.51	0.50	20	0	87.6	65	135	19.97	13.1		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter R RPD outside accepted recovery limits 4 The MS/MSD RPD was out of control due to matrix inter S Spike Recovery outside accepted recovery limits Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12083**

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-xylene	19.48	0.50	20	0	97.4	65	135	21.31	8.97		
Toluene	20.65	0.50	20	0	103	65	135	21.08	2.06		
Surr: 4-Bromofluorobenzene	21.11	0	20	0	106	50	150	0	0		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12099**

Sample ID: <b>SDSG070307A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12099</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12099</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178591</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	2.00									
Surr: Pentacosane	2.501	0	3.3	0	75.8	28	125				

Sample ID: <b>SDSG070307A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12099</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12099</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178592</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	26.19	2.00	33.33	0	78.6	26.6	128				
Surr: Pentacosane	2.812	0	3.3	0	85.2	28	125				

Sample ID: <b>SDSG070307A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12099</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12099</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178593</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	26.67	2.00	33.33	0	80.0	26.6	128	26.19	1.82	30	
Surr: Pentacosane	2.905	0	3.3	0	88.0	28	125	0	0	0	

Sample ID: <b>0703019-007A MS</b>	SampType: <b>MS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12099</b>						
Client ID: <b>B15 @ 17.5</b>	Batch ID: <b>R12099</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178608</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	29.17	2.00	33.33	4.832	73.0	26.6	128				
Surr: Pentacosane	2.838	0	3.3	0	86.0	28	125				

Sample ID: <b>0703019-007A MSD</b>	SampType: <b>MSD</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/7/2007</b>	RunNo: <b>12099</b>						
Client ID: <b>B15 @ 17.5</b>	Batch ID: <b>R12099</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178609</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	32.03	2.00	33.33	4.832	81.6	26.6	128	29.17	9.35	30	
Surr: Pentacosane	2.910	0	3.3	0	88.2	28	125	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12100**

Sample ID: <b>WDSG070308A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178612</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	0.100								
Surr: Pentacosane	0.07700	0	0.1	0	77.0	40	120			

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178613</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.4940	0.100	1	0	49.4	30	68.5			
Surr: Pentacosane	0.07900	0	0.1	0	79.0	46.8	104			

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCSD</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178614</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.5400	0.100	1	0	54.0	30	68.5	0.494	8.90	30
Surr: Pentacosane	0.08000	0	0.1	0	80.0	46.8	104	0	0	0

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,2,4-Trichlorobenzene	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.500									
1,2-Dibromoethane (EDB)	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dichloroethane (EDC)	ND	0.500									
1,2-Dichloropropane	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
Acetone	ND	100									
Benzene	ND	0.500									
Bromodichloromethane	ND	0.500									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon tetrachloride	ND	0.500									
Chlorobenzene	ND	0.500									
Chloroform	ND	1.00									
Chloromethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
cis-1,3-Dichloropropene	ND	0.500									
Dibromochloromethane	ND	0.500									
Dichlorodifluoromethane	ND	0.500									
Ethylbenzene	ND	0.500									
Hexachlorobutadiene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Methylene chloride	ND	5.00									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix interferences  
 R RPD outside accepted recovery limits

4 The MS/MSD RPD was out of control due to matrix interferences  
 S Spike Recovery outside accepted recovery limits

Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.500									
Styrene	ND	0.500									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	0.500									
Vinyl chloride	ND	0.500									
Xylenes, Total	ND	1.50									
Surr: Dibromofluoromethane	11.50	0	11.36	0	101	61.2	131				
Surr: 4-Bromofluorobenzene	12.60	0	11.36	0	111	64.1	120				
Surr: Toluene-d8	12.04	0	11.36	0	106	75.1	127				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178654</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.14	0.500	17.04	0	101	66.9	140				
Chlorobenzene	17.86	0.500	17.04	0	105	73.9	137				
Toluene	17.97	0.500	17.04	0	105	76.6	123				
Trichloroethene	12.09	0.500	17.04	0	71.0	69.3	144				
Surr: Dibromofluoromethane	13.71	0	11.36	0	121	61.2	131				
Surr: 4-Bromofluorobenzene	11.89	0	11.36	0	105	64.1	120				
Surr: Toluene-d8	12.60	0	11.36	0	111	75.1	127				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178655</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.80	0.500	17.04	0	98.6	66.9	140	17.14	2.00	20	
Chlorobenzene	17.51	0.500	17.04	0	103	73.9	137	17.86	1.98	20	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter R RPD outside accepted recovery limits 4 The MS/MSD RPD was out of control due to matrix inter S Spike Recovery outside accepted recovery limits Q Spike recovery and RPD control limits do not apply result



**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178655</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	20.69	0.500	17.04	0	121	76.6	123	17.97	14.1	20	
Trichloroethene	13.14	0.500	17.04	0	77.1	69.3	144	12.09	8.32	20	
Surr: Dibromofluoromethane	11.88	0	11.36	0	105	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.65	0	11.36	0	103	64.1	120	0	0	0	
Surr: Toluene-d8	12.97	0	11.36	0	114	75.1	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	60.06	0	50	0	120	55.8	141				
Surr: Dibromofluoromethane	54.07	0	50	0	108	59.8	148				
Surr: Toluene-d8	51.85	0	50	0	104	55.2	133				

Sample ID: <b>LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178659</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	61.39	10	50	0	123	66.5	135				
Chlorobenzene	57.26	10	50	0	115	57.5	150				
Toluene	60.94	10	50	0	122	56.8	134				
Trichloroethene	52.26	10	50	0	105	57.4	134				
Surr: 4-Bromofluorobenzene	59.45	0	50	0	119	55.8	141				
Surr: Dibromofluoromethane	48.93	0	50	0	97.9	59.8	148				
Surr: Toluene-d8	50.78	0	50	0	102	55.2	133				

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	57.50	10	50	0	115	66.5	135	61.39	6.54	30	
Chlorobenzene	47.52	10	50	0	95.0	57.5	150	57.26	18.6	30	
Toluene	62.63	10	50	0	125	56.8	134	60.94	2.74	30	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703019  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	60.72	10	50	0	121	57.4	134	52.26	15.0	30	
Surr: 4-Bromofluorobenzene	60.67	0	50	0	121	55.8	141	0	0	0	
Surr: Dibromofluoromethane	49.01	0	50	0	98.0	59.8	148	0	0	0	
Surr: Toluene-d8	52.25	0	50	0	104	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



KLEINFELDER

0703019

PROJECT NO. 54504/4		PROJECT NAME EOP-700 INDEPENDENT Rd		NO.	TYPE	ANALYSIS TPH <sub>9</sub> (EPA 8260) PTEX-MTHB (EPA 8260) EDB-EDC (EPA 8260) TPH <sub>d</sub> (EPA 8015)										RECEIVING LAB: TORRENT LABORATORIES	
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)			OF	OF											INSTRUCTIONS/REMARKS 1.2 Dichloroethane (EDC) 1.2 Dichter Dibromomethane (EDB)	

DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	CON- TAINERS	CON- TAINERS	ANALYSIS										INSTRUCTIONS/REMARKS			
3/4/07		B14 @ 5.5	Soil	1	hner	X	X	X	X							00	1	A	
		@ 7.5		1		X	X	X	X							00	2	A	
		@ 10		1		X	X	X	X							00	3	A	
		@ 17.5		1		X	X	X	X							00	4	A	
		B15 @ 10.5		1		X	X	X	X							00	5	A	
		@ 15		1		X	X	X	X							00	6	A	
		@ 17.5		1		X	X	X	X							00	7	A	
		B16 @ 7.5		1		X	X	X	X							00	8	A	
		@ 11.5		1		X	X	X	X							00	9	A	
		@ 19.5		1		X	X	X	X							00	10	A	
		B17 @ 10.5		1		X	X	X	X							00	11	A	
		@ 15.5		1		X	X	X	X							00	12	A	HOLD
		@ 19.5		1		X	X	X	X							00	13	A	
		@ 23		1		X	X	X	X							00	14	A	
		@ 27.5		1		X	X	X	X							00	15	A	
		@ 30		1		X	X	X	X							00	16	A	HOLD

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 3/4/7 7pm	Received by: (Signature) <i>[Signature]</i>	3/5 12-10	Instructions/Remarks: Please perform silica gel clean up on soil & groundwater samples for TPH-d analysis	Send Results To:
Relinquished by: (Signature)	Date/Time	Received by: (Signature)			KLEINFELDER 1970 Broadway SUITE 710 Oakland, CA 94612 (510) 628-9000
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)			Attn: <i>ALVARO DOMINGUEZ</i>



0703019

PROJECT NO. 54504/4		PROJECT NAME EOP-700 INDEPENDENT Rd			NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS										RECEIVING LAB: TORRENT LABORATORIES
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number) Alvaro Dominguez			CON-TAINERS			CON-TAINERS	TPH-g (TO15)	BTEX-MTBE (TO15)	IsoPropanol (TO15)	TPH-g (EPA8260)	BTEX-MTBE (EPA8260)	EPB #EDC (EPA8260)	TPH-d (EPA8015)	INSTRUCTIONS/REMARKS 1/2 Dichloroethane (EDC) 1/2 Dibromoethane (EDB)		
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX														
1	3/4/07	SV-1 (CAN 1416)	Soil/62	1	Summ	X	X	X					0	17	A		
2		SV-2 (CAN 1225)	"	1	"	X	X	X					0	18	A		
3		<del>SV-4 (CAN 1425)</del>	"	1	"	X	X	X					0	19	A		
4		Not Rec'd in container SV-3 (CAN 1242)	"	1	"	X	X	X					0	19	A		
5																	
6		B-14	Water	2	Amb				X	X	X	*	0	20	A		
7		B-14	Water	3	VOA				X	X	X		0	21	A		
8		B-15	↓	2	Amb							X	0	22	A		
9		B-15	↓	3	VOA				X	X	X		0	23	A		
10		B-16	↓	2	Amb							X	0	24	A		
11		B-16	↓	3	VOA				X	X	X		0	25	A		
12		<del>B-17</del>	Soil														
13		<del>B-17</del>	Soil														
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Send Results To:  
**KLEINFELDER**  
 1970 Broadway  
 SUITE 710  
 Oakland, CA 94612  
 (510) 628-9000  
 Attn: **ALVARO DOMINGUEZ**

Instructions/Remarks:  
 Please perform silica gel clean on soil & groundwater samples for TPH-d analysis.

**AD**  
 3/4/07

Relinquished by: (Signature) <i>Alvaro Dominguez</i>	Date/Time 3/4/07 7pm	Received by: (Signature) <i>[Signature]</i>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

April 09, 2007 (Revision 3)

Alvaro Dominguez  
KLEINFELDER  
1970 Broadway, Suite 710  
Oakland, CA 94612

TEL: 510-628-9000

FAX

RE: 54504/4 - See case narrative regarding revision details.

Order No.: 0703027

Dear Alvaro Dominguez:

Torrent Laboratory, Inc. received 15 samples on 3/6/2007 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc, is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

  
Laboratory Director

4/09/07  
Date

Patti Sandrock  
QA Officer 





# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

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**Torrent Laboratory, Inc.**

**Date:** 09-Apr-07

**CLIENT:** KLEINFELDER  
**Project:** 54504/4  
**Lab Order:** 0703027

## CASE NARRATIVE

Per client request, silica gel clean-up procedures were employed on all TPHD samples.

Per Client request Soil vapor results re-issued in ug/m3

Rev1 (3/20/07)

Report revised to ensure that conversion from ppbv to ug/m3 results in equivalent RL and MDL for all compounds. All data is based on the most current ppbv MDL study with precise MDL value conversion to ug/m3 values. This correction eliminates the possibility of a positive value in one unit being reported as a non-detect in the other unit.

Rev 2 (4/9/07)





# TORRENT LABORATORY, INC.

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Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K18  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-001  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	50	1	50	1240 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	58.4-133	178 S	%REC	G12102
Note: x - While TPH as Gasoline compounds are present, the pattern does not match typical gasoline pattern. TPH value includes significant amount of non-target compounds. S - High surrogate recovery attributed to TPH interference (heavy end hydrocarbons).								
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Benzene	SW8260B	3/8/2007	0.5	1	0.500	2.73	µg/L	R12102
Ethylbenzene	SW8260B	3/8/2007	0.5	1	0.500	28.8	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	0.5	1	0.500	ND	µg/L	R12102
Toluene	SW8260B	3/8/2007	0.5	1	0.500	1.15	µg/L	R12102
Xylenes, Total	SW8260B	3/8/2007	1.5	1	1.50	14.1	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	61.2-131	87.6	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	64.1-120	104	%REC	R12102
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	75.1-127	115	%REC	R12102

**Client Sample ID:** K18  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-002  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	0.15 x	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	78.0	%REC	R12100

Note x-Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel (see TPH as Gasoline data).

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K17  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/4/2007

**Lab Sample ID:** 0703027-003  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	50	44	2200	24000	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	44	58.4-133	121	%REC	G12102
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	0.5	8.8	4.40	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	0.5	8.8	4.40	ND	µg/L	R12102
Benzene	SW8260B	3/9/2007	0.5	44	22.0	2780	µg/L	R12102
Ethylbenzene	SW8260B	3/9/2007	0.5	8.8	4.40	774	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	0.5	8.8	4.40	ND	µg/L	R12102
Toluene	SW8260B	3/9/2007	0.5	8.8	4.40	150	µg/L	R12102
Xylenes, Total	SW8260B	3/9/2007	1.5	8.8	13.2	563	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	8.8	61.2-131	86.6	%REC	R12102
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	44	61.2-131	94.1	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	8.8	64.1-120	103	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	44	64.1-120	111	%REC	R12102
Surr: Toluene-d8	SW8260B	3/9/2007	0	8.8	75.1-127	102	%REC	R12102
Surr: Toluene-d8	SW8260B	3/9/2007	0	44	75.1-127	112	%REC	R12102

**Client Sample ID:** K17  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-004  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	0.53 x	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	95.0	%REC	R12100

Note x-Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel (see TPH as Gasoline data).

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K18@ 6  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-005  
**Date Prepared:** 3/8/2007-3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	143 x	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	70.0	%REC	G12103
Note:x-TPH value due to non-target individual peaks.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	82.1	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/8/2007	15	1	15	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	62.8-123	90.7	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	63.3-151	106	%REC	R12103
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	60.8-124	109	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K18@ 8.5  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-006  
**Date Prepared:** 3/9/2007-3/14/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/14/2007	100	100	10000	152000 x	µg/Kg	G12128
Surr: 4-Bromofluorobenzene	GC-MS	3/14/2007	0	100	57-127	94.0	%REC	G12128
Note: x - Not typical gasoline. TPH value does not include typical gasoline compounds.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	18.7 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	80.5	%REC	R12112
Note: x-Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/14/2007	5	100	500	ND	µg/Kg	R12128
1,2-Dichloroethane (EDC)	SW8260B	3/14/2007	5	100	500	ND	µg/Kg	R12128
Benzene	SW8260B	3/14/2007	5	100	500	ND	µg/Kg	R12128
Ethylbenzene	SW8260B	3/14/2007	5	100	500	720	µg/Kg	R12128
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2007	10	100	1000	ND	µg/Kg	R12128
Toluene	SW8260B	3/14/2007	5	100	500	ND	µg/Kg	R12128
Xylenes, Total	SW8260B	3/14/2007	15	100	1500	ND	µg/Kg	R12128
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2007	0	100	55.8-141	123	%REC	R12128
Surr: Dibromofluoromethane	SW8260B	3/14/2007	0	100	59.8-148	112	%REC	R12128
Surr: Toluene-d8	SW8260B	3/14/2007	0	100	55.2-133	117	%REC	R12128

Note: The reporting limits were raised due to significant amount of non-target compounds.

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007

**Date Reported:** 3/14/2007

**Client Sample ID:** K18@ 25  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-008  
**Date Prepared:** 3/8/2007-3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	ND	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	82.0	%REC	G12103
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	2.3 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	86.4	%REC	R12112
Note: x-Sample chromatogram does not resemble typical diesel pattern (discrete peaks). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/8/2007	15	1	15	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	62.8-123	121	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	63.3-151	115	%REC	R12103
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	60.8-124	106	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** MW1@ 11  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-010  
**Date Prepared:** 3/8/2007-3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	335 x	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	68.0	%REC	G12103
Note:x - Not typical gasoline. TPH value does not include typical gasoline compounds.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	82.6	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/8/2007	15	1	15	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	62.8-123	124	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	63.3-151	117	%REC	R12103
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	60.8-124	107	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** MW1@ 19.5  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-013  
**Date Prepared:** 3/9/2007-3/12/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/12/2007	100	10000	1000000	12000000	µg/Kg	G12116
Surr: 4-Bromofluorobenzene	GC-MS	3/12/2007	0	10000	57-127	82.0	%REC	G12116
TPH (Diesel)	SW8015B	3/12/2007	2	20	40.0	590 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	20	28-125	41.8	%REC	R12112
Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	5000	25000	ND	µg/Kg	G12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	5000	25000	ND	µg/Kg	G12103
Benzene	SW8260B	3/9/2007	5	5000	25000	63000	µg/Kg	G12103
Ethylbenzene	SW8260B	3/9/2007	5	5000	25000	310000	µg/Kg	G12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	5000	50000	ND	µg/Kg	G12103
Toluene	SW8260B	3/9/2007	5	5000	25000	250000	µg/Kg	G12103
Xylenes, Total	SW8260B	3/9/2007	15	5000	75000	1200000	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	5000	55.8-141	93.0	%REC	G12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	5000	59.8-148	120	%REC	G12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	5000	55.2-133	138 S	%REC	G12103

**NOTES:**

S - High surrogate recovery attributed to TPH interference. The method is in control as indicated by the MB & LCS.

Note:S - High surrogate recovery attributed to TPH interference.

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/6/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** MW1@ 24.5  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-014  
**Date Prepared:** 3/8/2007-3/13/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	1700	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	80.0	%REC	G12103
TPH (Diesel)	SW8015B	3/13/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/13/2007	0	1	28-125	119	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/8/2007	5	1	5.0	190	µg/Kg	R12103
Ethylbenzene	SW8260B	3/8/2007	5	1	5.0	89	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/8/2007	5	1	5.0	14	µg/Kg	R12103
Xylenes, Total	SW8260B	3/8/2007	15	1	15	130	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	62.8-123	121	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	63.3-151	109	%REC	R12103
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	60.8-124	122	%REC	R12103

**Client Sample ID:** SV-3(1242)  
**Sample Location:** EOP-700 INDEPENDENT RD  
**Sample Matrix:** VAPOR  
**Date/Time Sampled** 3/5/2007

**Lab Sample ID:** 0703027-015  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Gasoline	TO-14(MOD)	3/8/2007	352	1	350	ND	µg/m <sup>3</sup>	G12118
Benzene	TO-15	3/5/2007	1.6	1	1.6	ND	µg/m <sup>3</sup>	R12083
Ethyl Benzene	TO-15	3/5/2007	1.67	1	1.7	ND	µg/m <sup>3</sup>	R12083
Isopropanol	TO-15	3/5/2007	16.4	1	16	ND	µg/m <sup>3</sup>	R12083
m,p-Xylene	TO-15	3/5/2007	2.05	1	2.0	4.6	µg/m <sup>3</sup>	R12083
MTBE	TO-15	3/5/2007	1.81	1	1.8	ND	µg/m <sup>3</sup>	R12083
o-xylene	TO-15	3/5/2007	2.17	1	2.2	ND	µg/m <sup>3</sup>	R12083
Toluene	TO-15	3/5/2007	1.89	1	1.9	4.9	µg/m <sup>3</sup>	R12083



**Definitions, legends and Notes**

<b>Note</b>	<b>Description</b>
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178713</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofluorobenzene	10.90	0	11.36	0	96.0	58.4	133				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178714</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	171.5	50	227	0	75.6	52.4	127				
Surr: 4-Bromofluorobenzene	10.60	0	11.36	0	93.3	58.4	133				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/9/2007</b>	SeqNo: <b>178715</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	205.4	50	227	0	90.5	52.4	127	171.5	18.0	20	
Surr: 4-Bromofluorobenzene	10.70	0	11.36	0	94.2	58.4	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12103**

Sample ID: <b>MB_G2</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178662</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100									
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88.0	57	127				

Sample ID: <b>LCS-G2</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178663</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1007	100	1000	0	101	48.2	132				
Surr: 4-Bromofluorobenzene	49.00	0	50	0	98.0	57	127				

Sample ID: <b>LCSD-G2</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178664</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	931.0	100	1000	0	93.1	48.2	132	1007	7.84	30	
Surr: 4-Bromofluorobenzene	43.00	0	50	0	86.0	57	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12116**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178846</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100									
Surr: 4-Bromofluorobenzene	45.00	0	50	0	90.0	57	127				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178847</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	961.0	100	1000	0	96.1	48.2	132				
Surr: 4-Bromofluorobenzene	48.00	0	50	0	96.0	57	127				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/13/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/13/2007</b>	SeqNo: <b>178848</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	898.0	100	1000	0	89.8	48.2	132	961	6.78	30	
Surr: 4-Bromofluorobenzene	46.00	0	50	0	92.0	57	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12118**

Sample ID: <b>MB-G</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178901</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	200									
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Sample ID: <b>LCS-G</b>	SampType: <b>LCS</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178902</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1030	200	1000	0	103	65	135				
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Sample ID: <b>LCSD-G</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178903</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1030	200	1000	0	103	65	135	1030	0.0517	50	
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**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12128**

Sample ID: <b>MB-G</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/14/2007</b>	RunNo: <b>12128</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12128</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/14/2007</b>	SeqNo: <b>179052</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100								
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88.0	57	127			

Sample ID: <b>LCS-G</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/14/2007</b>	RunNo: <b>12128</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12128</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/14/2007</b>	SeqNo: <b>179053</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1022	100	1000	0	102	48.2	132			
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88.0	57	127			

<b>Qualifiers:</b>	3 Recovery of the MS and/or MSD was out of control due to	4 The MS/MSD RPD was out of control due to matrix inter	Q Spike recovery and RPD control limits do not apply result
	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery limits	

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12083**

Sample ID: <b>MBLK</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178398</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.28									
Ethyl Benzene	ND	0.093									
Isopropanol	ND	0.40									
m,p-Xylene	ND	0.12									
MTBE	ND	0.14									
o-xylene	ND	0.14									
Toluene	ND	0.14									
Surr: 4-Bromofluorobenzene	16.46	0	20	0	82.3	50	150				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178399</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.80	0.50	20	0	99.0	65	135				
Ethyl Benzene	19.59	0.50	20	0	98.0	65	135				
Isopropanol	24.08	10	20	0	120	65	135				
m,p-Xylene	39.28	0.50	40	0	98.2	65	135				
MTBE	19.97	0.50	20	0	99.8	65	135				
o-xylene	21.31	0.50	20	0	107	65	135				
Toluene	21.08	0.50	20	0	105	65	135				
Surr: 4-Bromofluorobenzene	16.82	0	20	0	84.1	50	150				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.02	0.50	20	0	95.1	65	135	19.8	4.02		
Ethyl Benzene	18.25	0.50	20	0	91.2	65	135	19.59	7.08		
Isopropanol	17.75	10	20	0	88.8	65	135	24.08	30.3		
m,p-Xylene	34.93	0.50	40	0	87.3	65	135	39.28	11.7		
MTBE	17.51	0.50	20	0	87.6	65	135	19.97	13.1		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12083**

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-xylene	19.48	0.50	20	0	97.4	65	135	21.31	8.97		
Toluene	20.65	0.50	20	0	103	65	135	21.08	2.06		
Surr: 4-Bromofluorobenzene	21.11	0	20	0	106	50	150	0	0		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12100**

Sample ID: <b>WDSG070308A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178612</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	0.100									
Surr: Pentacosane	0.07700	0	0.1	0	77.0	40	120				

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178613</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.4940	0.100	1	0	49.4	30	68.5				
Surr: Pentacosane	0.07900	0	0.1	0	79.0	46.8	104				

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCSD</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178614</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.5400	0.100	1	0	54.0	30	68.5	0.494	8.90	30	
Surr: Pentacosane	0.08000	0	0.1	0	80.0	46.8	104	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,2,4-Trichlorobenzene	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.500									
1,2-Dibromoethane (EDB)	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dichloroethane (EDC)	ND	0.500									
1,2-Dichloropropane	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
Acetone	ND	100									
Benzene	ND	0.500									
Bromodichloromethane	ND	0.500									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon tetrachloride	ND	0.500									
Chlorobenzene	ND	0.500									
Chloroform	ND	1.00									
Chloromethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
cis-1,3-Dichloropropene	ND	0.500									
Dibromochloromethane	ND	0.500									
Dichlorodifluoromethane	ND	0.500									
Ethylbenzene	ND	0.500									
Hexachlorobutadiene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Methylene chloride	ND	5.00									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix interferences  
 R RPD outside accepted recovery limits

4 The MS/MSD RPD was out of control due to matrix interferences  
 S Spike Recovery outside accepted recovery limits

Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.500									
Styrene	ND	0.500									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	0.500									
Vinyl chloride	ND	0.500									
Xylenes, Total	ND	1.50									
Surr: Dibromofluoromethane	11.50	0	11.36	0	101	61.2	131				
Surr: 4-Bromofluorobenzene	12.60	0	11.36	0	111	64.1	120				
Surr: Toluene-d8	12.04	0	11.36	0	106	75.1	127				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178654</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.14	0.500	17.04	0	101	66.9	140				
Chlorobenzene	17.86	0.500	17.04	0	105	73.9	137				
Toluene	17.97	0.500	17.04	0	105	76.6	123				
Trichloroethene	12.09	0.500	17.04	0	71.0	69.3	144				
Surr: Dibromofluoromethane	13.71	0	11.36	0	121	61.2	131				
Surr: 4-Bromofluorobenzene	11.89	0	11.36	0	105	64.1	120				
Surr: Toluene-d8	12.60	0	11.36	0	111	75.1	127				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178655</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.80	0.500	17.04	0	98.6	66.9	140	17.14	2.00	20	
Chlorobenzene	17.51	0.500	17.04	0	103	73.9	137	17.86	1.98	20	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter  
 R RPD outside accepted recovery limits 4 The MS/MSD RPD was out of control due to matrix inter  
 S Spike Recovery outside accepted recovery limits Q Spike recovery and RPD control limits do not apply result



**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

CLIENT: KLEINFELDER  
 Work Order: 0703027  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12103

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	60.06	0	50	0	120	55.8	141				
Surr: Dibromofluoromethane	54.07	0	50	0	108	59.8	148				
Surr: Toluene-d8	51.85	0	50	0	104	55.2	133				

Sample ID: <b>LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178659</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	61.39	10	50	0	123	66.5	135				
Chlorobenzene	57.26	10	50	0	115	57.5	150				
Toluene	60.94	10	50	0	122	56.8	134				
Trichloroethene	52.26	10	50	0	105	57.4	134				
Surr: 4-Bromofluorobenzene	59.45	0	50	0	119	55.8	141				
Surr: Dibromofluoromethane	48.93	0	50	0	97.9	59.8	148				
Surr: Toluene-d8	50.78	0	50	0	102	55.2	133				

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	57.50	10	50	0	115	66.5	135	61.39	6.54	30	
Chlorobenzene	47.52	10	50	0	95.0	57.5	150	57.26	18.6	30	
Toluene	62.63	10	50	0	125	56.8	134	60.94	2.74	30	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	60.72	10	50	0	121	57.4	134	52.26	15.0	30	
Surr: 4-Bromofluorobenzene	60.67	0	50	0	121	55.8	141	0	0	0	
Surr: Dibromofluoromethane	49.01	0	50	0	98.0	59.8	148	0	0	0	
Surr: Toluene-d8	52.25	0	50	0	104	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix interference  
 R RPD outside accepted recovery limits

4 The MS/MSD RPD was out of control due to matrix interference  
 S Spike Recovery outside accepted recovery limits

Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12112**

Sample ID: <b>SDSG070309A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178782</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	2.00									
Surr: Pentacosane	2.911	0	3.3	0	88.2	28	125				

Sample ID: <b>SDSG070313A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/13/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/13/2007</b>	SeqNo: <b>178897</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	2.00									
Surr: Pentacosane	3.874	0	3.3	0	117	28	125				

Sample ID: <b>SDSG070309A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178783</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	27.34	2.00	33.33	0	82.0	26.6	128				
Surr: Pentacosane	2.624	0	3.3	0	79.5	28	125				

Sample ID: <b>SDSG070309A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178784</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	24.41	2.00	33.33	0	73.2	26.6	128	27.34	11.3	30	
Surr: Pentacosane	2.372	0	3.3	0	71.9	28	125	0	0	0	

Sample ID: <b>0703027-014A MS</b>	SampType: <b>MS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>MW1@ 24.5</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178899</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	28.75	2.00	33.33	0	86.2	26.6	128				
Surr: Pentacosane	2.697	0	3.3	0	81.7	28	125				

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12112**

Sample ID: <b>0703027-014A MSD</b>		SampType: <b>MSD</b>		TestCode: <b>TPHDOSG_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>3/9/2007</b>		RunNo: <b>12112</b>	
Client ID: <b>MW1@ 24.5</b>		Batch ID: <b>R12112</b>		TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>		SeqNo: <b>178900</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	26.67	2.00	33.33	0	80.0	26.6	128	28.75	7.50	30	
Surr: Pentacosane	2.539	0	3.3	0	76.9	28	125	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12128**

Sample ID: <b>MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/14/2007</b>	RunNo: <b>12128</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12128</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/14/2007</b>	SeqNo: <b>179047</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703027  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12128**

Sample ID: <b>MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/14/2007</b>	RunNo: <b>12128</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12128</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/14/2007</b>	SeqNo: <b>179047</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	53.01	0	50	0	106	55.8	141				
Surr: Dibromofluoromethane	40.93	0	50	0	81.9	59.8	148				
Surr: Toluene-d8	50.48	0	50	0	101	55.2	133				

Sample ID: <b>LCS3</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/14/2007</b>	RunNo: <b>12128</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12128</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/14/2007</b>	SeqNo: <b>179048</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.17	10	50	0	92.3	66.5	135				
Chlorobenzene	40.16	10	50	0	80.3	57.5	150				
Toluene	51.05	10	50	0	102	56.8	134				
Trichloroethene	43.35	10	50	0	86.7	57.4	134				
Surr: 4-Bromofluorobenzene	47.88	0	50	0	95.8	55.8	141				
Surr: Dibromofluoromethane	47.99	0	50	0	96.0	59.8	148				
Surr: Toluene-d8	61.36	0	50	0	123	55.2	133				

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

PROJECT NO. 54504 / 4		PROJECT NAME EOP-700 Independent Rd		NO.	TYPE	ANALYSIS										RECEIVING LAB: TORRENT LABORATORIES			
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number) Alvaro Dominguez					OF	OF	TPHs (TO15)	BTEX-MHBE (TO15)	Isopropanol (TO15)	TPHs (EPA 8260)	BTEX-MHBE (EPA 8260)	EDC & EDB (EPA 8260)	TPH-d (EPA 8015)	INSTRUCTIONS/REMARKS 1,2 Dichloroethane (EDC) 1,2 Dibromoethane (EDB)				
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	CON-TAINERS	CON-TAINERS														
1	3/5/07	B18	Water	3	VOA				X	X	X							001A	
2		B18		2	Amber													002A	
3		B17 (dt. 15)		3	VOA				X	X	X							003A	
4		B17 → 3.4.07		1	Amber													004A	
5		one extra bottle with 1/10+ water																	
6		B18 @ 6	Soil	1	linr				X	X	X	X						005A	
7		B18 @ 8.5		1					X	X	X	X						006A	
8		B18 @ 10		1					X	X	X	X						HOLD 007A	
9		B18 @ 25		1					X	X	X	X						008A	
10																			
11		MW1 @ 6	Soil	1	linr				X	X	X	X						HOLD 009A	
12		MW1 @ 11		1					X	X	X	X						010A	
13		MW1 @ 14.5		1					X	X	X	X						HOLD 011A	
14		MW1 @ 17.5		1					X	X	X	X						HOLD 012A	
15		MW1 @ 19.5		1					X	X	X	X						013A	
16		MW1 @ 24.5		1					X	X	X	X						014A	
17																			
18		SV-3 (1242)	Soil-Vapor	1	Summ	X	X	X										015A	
19		CON																	
20																			

Relinquished by: (Signature) Alvaro Dominguez	Date/Time 3/5/07 8:30	Received by: (Signature) Paul Diaz 1:20	Instructions/Remarks: Please perform Silica gel clean up for in Soil & Groundwater Analysis for TPH-d	Send Results To:
Relinquished by: (Signature) Paul Diaz	Date/Time 3/6/07 2:30	Received by: (Signature) M. M. M.		KLEINFELDER 1970 Broadway SUITE 710 Oakland, CA 94612 (510) 628-9000
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		Attn: Alvaro Dominguez



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

April 09, 2007 (Revision 3)

Alvaro Dominguez  
KLEINFELDER  
1970 Broadway, Suite 710  
Oakland, CA 94612

TEL: 510-628-9000

FAX

RE: 54504/4 - See case narrative for revision details.

Order No.: 0703035

Dear Alvaro Dominguez:

Torrent Laboratory, Inc. received 18 samples on 3/7/2007 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc, is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

  
Laboratory Director

4/9/07  
Date

Patti Sandrock

QA Officer 





# TORRENT LABORATORY, INC.

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**Torrent Laboratory, Inc.**

Date: 09-Apr-07

CLIENT: KLEINFELDER  
Project: 54504/4  
Lab Order: 0703035

## CASE NARRATIVE

Per client request, silica gel clean-up procedures were employed on all TPHD samples.

Report re-issued to correct a login sequencing error. Originally sample B20 for MBTEX/TPHG/EDC/EDB was logged in as sample -015. This resulted in the disruption of the COC listed sequence of air/water/soil.. The sample was re-logged as sample -004B in order to report the data in the correct sequence as listed on the original CoC. As a result, sample -015 does not exist in the work order sample sequence. No QC was affected by this change.

Rev 1

Per Client request Soil vapor results re-issued in ug/m3

Rev 2 (3/20/07)

Report revised to ensure that conversion from ppbv to ug/m3 results in equivalent RL and MDL for all compounds. All data is based on the most current ppbv MDL study with precise MDL value conversion to ug/m3 values. This correction eliminates the possibility of a positive value in one unit being reported as a non-detect in the other unit.

Rev 3 (4/9/07)



# TORRENT LABORATORY, INC.

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Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** SV-4  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL-VAPOUR  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-001  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Gasoline	TO-14(MOD)	3/9/2007	352	10	3500	38600 x	µg/m <sup>3</sup>	G12118

Note:x -Although TPH as Gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of Gasoline but within the TPH as Gasoline quantitation range.

Benzene	TO-15	3/8/2007	1.82	1	1.8	5.9	µg/m <sup>3</sup>	R12083
Ethyl Benzene	TO-15	3/8/2007	2.21	1	2.2	6.2	µg/m <sup>3</sup>	R12083
Isopropanol	TO-15	3/8/2007	4	1	4.0	34	µg/m <sup>3</sup>	R12083
m,p-Xylene	TO-15	3/8/2007	4	1	4.0	27	µg/m <sup>3</sup>	R12083
MTBE	TO-15	3/8/2007	1.83	1	1.8	ND	µg/m <sup>3</sup>	R12083
o-xylene	TO-15	3/8/2007	2.21	1	2.2	10	µg/m <sup>3</sup>	R12083
Toluene	TO-15	3/8/2007	1.91	1	1.9	33	µg/m <sup>3</sup>	R12083

**Client Sample ID:** B19  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-002  
**Date Prepared:** 3/8/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	0.37 x	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	56.0	%REC	R12100

Note x-Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel (see TPH as Gasoline data).

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K19  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-003  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	50	44	2200	33100 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	44	58.4-133	101	%REC	G12102
Note:x -Although TPH as Gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of Gasoline but within the TPH as Gasoline quantitation range.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	0.5	8.8	4.40	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	0.5	8.8	4.40	37.8	µg/L	R12102
Benzene	SW8260B	3/9/2007	0.5	44	22.0	5170	µg/L	R12102
Ethylbenzene	SW8260B	3/9/2007	0.5	8.8	4.40	1010	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	0.5	8.8	4.40	ND	µg/L	R12102
Toluene	SW8260B	3/9/2007	0.5	8.8	4.40	235	µg/L	R12102
Xylenes, Total	SW8260B	3/9/2007	1.5	8.8	13.2	955	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	44	61.2-131	96.2	%REC	R12102
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	8.8	61.2-131	90.7	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	44	64.1-120	111	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	8.8	64.1-120	107	%REC	R12102
Surr: Toluene-d8	SW8260B	3/9/2007	0	44	75.1-127	97.6	%REC	R12102
Surr: Toluene-d8	SW8260B	3/9/2007	0	8.8	75.1-127	103	%REC	R12102



Report prepared for: Alvaro Dominguez  
KLEINFELDER

Date Received: 3/7/2007  
Date Reported: 3/14/2007

Client Sample ID: K20  
Sample Location: EOP-700 INDEPENDENT RD.  
Sample Matrix: WATER  
Date/Time Sampled 3/6/2007

Lab Sample ID: 0703035-004  
Date Prepared: 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	50	1	50	142 x	µg/L	G12102
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	1	58.4-133	107	%REC	G12102
Note: x - Does not match typical gasoline pattern. TPH value due to presence of non-target compounds within the TPH as Gasoline quantitation range (light end).								
TPH (Diesel)	SW8015B	3/8/2007	0.1	1	0.100	ND	mg/L	R12100
Surr: Pentacosane	SW8015B	3/8/2007	0	1	40-120	73.0	%REC	R12100
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
Benzene	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
Ethylbenzene	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
Toluene	SW8260B	3/9/2007	0.5	1	0.500	ND	µg/L	R12102
Xylenes, Total	SW8260B	3/9/2007	1.5	1	1.50	ND	µg/L	R12102
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	1	61.2-131	95.0	%REC	R12102
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	1	64.1-120	115	%REC	R12102
Surr: Toluene-d8	SW8260B	3/9/2007	0	1	75.1-127	104	%REC	R12102

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K19@7.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-005  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	100	100	10000	189000 x	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	100	57-127	84.0	%REC	G12103
Note:x -Although TPH as Gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of Gasoline but within the TPH as Gasoline quantitation range.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	17.4 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	85.8	%REC	R12112
Note:x- Two fuels present. The first fuel is a lighter than diesel. The second is heavier than diesel but lighter than motor oil. Hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	100	500	4600	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	100	1000	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	100	1500	5800	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	100	62.8-123	110	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	100	63.3-151	103	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	100	60.8-124	118	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K19@18  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-007  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	100	1000	100000	1900000	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	1000	57-127	88.0	%REC	G12103
Note:x -Although TPH as Gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of Gasoline but within the TPH as Gasoline quantitation range.								
TPH (Diesel)	SW8015B	3/13/2007	2	5	10.0	200 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/13/2007	0	5	28-125	66.5	%REC	R12112
Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	1000	5000	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	1000	5000	ND	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	1000	5000	11000	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	1000	5000	33000	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	1000	10000	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	1000	5000	26000	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	1000	15000	170000	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	1000	62.8-123	108	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	1000	63.3-151	117	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	1000	60.8-124	115	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K19@25.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-009  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	100	100	10000	29000 x	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	100	57-127	84.0	%REC	G12103
Note: x -Although TPH as Gasoline compounds are present, the reported value is elevated due to significant amount of heavy end hydrocarbons not typical of Gasoline but within the TPH as Gasoline quantitation range.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	9.9 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	81.5	%REC	R12112
Note: x-Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	5	25	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	5	25	78	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	5	25	760	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	5	25	400	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	5	50	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	5	25	140	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	5	75	1900	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	5	62.8-123	107	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	5	63.3-151	113	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	5	60.8-124	114	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K19@31.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-010  
**Date Prepared:** 3/8/2007-3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	780	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	86.0	%REC	G12103
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	85.7	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	2.5	12	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	2.5	12	32	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	2.5	12	160	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	2.5	12	13	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	2.5	25	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	2.5	12	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	2.5	38	49	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	2.5	62.8-123	116	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	2.5	63.3-151	109	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	2.5	60.8-124	108	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K20@7.7  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-012  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	100	100	10000	10500 x	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	100	57-127	64.0	%REC	G12103
Note:x- Not typical gasoline. TPH value does not include any target compounds.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	82.6	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	100	1000	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	100	500	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	100	1500	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	100	62.8-123	103	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	100	63.3-151	101	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	100	60.8-124	111	%REC	R12103

Note:The reporting limits were raised due to significant amount of non-target compounds.

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K20@14  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-013  
**Date Prepared:** 3/8/2007-3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/8/2007	100	1	100	ND	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/8/2007	0	1	57-127	66.0	%REC	G12103
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	79.8	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/8/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/8/2007	5	1	5.0	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/8/2007	15	1	15	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/8/2007	0	1	62.8-123	114	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/8/2007	0	1	63.3-151	99.8	%REC	R12103
Surr: Toluene-d8	SW8260B	3/8/2007	0	1	60.8-124	108	%REC	R12103

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** K20@23.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-014  
**Date Prepared:** 3/9/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/9/2007	100	1	100	ND	µg/Kg	G12103
Surr: 4-Bromofluorobenzene	GC-MS	3/9/2007	0	1	57-127	60.0	%REC	G12103
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	86.8	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/9/2007	5	1	5.0	ND	µg/Kg	R12103
1,2-Dichloroethane (EDC)	SW8260B	3/9/2007	5	1	5.0	ND	µg/Kg	R12103
Benzene	SW8260B	3/9/2007	5	1	5.0	ND	µg/Kg	R12103
Ethylbenzene	SW8260B	3/9/2007	5	1	5.0	ND	µg/Kg	R12103
Methyl tert-butyl ether (MTBE)	SW8260B	3/9/2007	10	1	10	ND	µg/Kg	R12103
Toluene	SW8260B	3/9/2007	5	1	5.0	ND	µg/Kg	R12103
Xylenes, Total	SW8260B	3/9/2007	15	1	15	ND	µg/Kg	R12103
Surr: 4-Bromofluorobenzene	SW8260B	3/9/2007	0	1	62.8-123	110	%REC	R12103
Surr: Dibromofluoromethane	SW8260B	3/9/2007	0	1	63.3-151	114	%REC	R12103
Surr: Toluene-d8	SW8260B	3/9/2007	0	1	60.8-124	112	%REC	R12103



**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007  
**Date Reported:** 3/14/2007

**Client Sample ID:** MW-3 @ 7.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-016  
**Date Prepared:** 3/9/2007-3/12/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/12/2007	100	100	10000	83800 x	µg/Kg	G12116
Surr: 4-Bromofluorobenzene	GC-MS	3/12/2007	0	100	57-127	84.0	%REC	G12116
Note:x- Not typical gasoline.TPH value does not include any target compounds.								
TPH (Diesel)	SW8015B	3/12/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/12/2007	0	1	28-125	82.6	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
1,2-Dichloroethane (EDC)	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Benzene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Ethylbenzene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Methyl tert-butyl ether (MTBE)	SW8260B	3/12/2007	10	100	1000	ND	µg/Kg	R12116
Toluene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Xylenes, Total	SW8260B	3/12/2007	15	100	1500	ND	µg/Kg	R12116
Surr: 4-Bromofluorobenzene	SW8260B	3/12/2007	0	100	62.8-123	109	%REC	R12116
Surr: Dibromofluoromethane	SW8260B	3/12/2007	0	100	63.3-151	102	%REC	R12116
Surr: Toluene-d8	SW8260B	3/12/2007	0	100	60.8-124	99.9	%REC	R12116

Note:The reporting limits were raised due to significant amount of non-target analytes.

**Client Sample ID:** MW-3 @ 10  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-017  
**Date Prepared:** 3/9/2007-3/12/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/12/2007	100	100	10000	61300 x	µg/Kg	G12116
Surr: 4-Bromofluorobenzene	GC-MS	3/12/2007	0	100	57-127	96.0	%REC	G12116

Note:x- Not typical gasoline.TPH value does not include any target compounds.

TPH (Diesel)	SW8015B	3/13/2007	2	1	2.00	10.6 x	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/13/2007	0	1	28-125	82.3	%REC	R12112

Note:x- Sample chromatogram does not resemble typical diesel pattern (See TPH as Gasoline data). Lighter end hydrocarbons within the diesel range quantitated as diesel.

1,2-Dibromoethane (EDB)	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
1,2-Dichloroethane (EDC)	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Benzene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Ethylbenzene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Methyl tert-butyl ether (MTBE)	SW8260B	3/12/2007	10	100	1000	ND	µg/Kg	R12116
Toluene	SW8260B	3/12/2007	5	100	500	ND	µg/Kg	R12116
Xylenes, Total	SW8260B	3/12/2007	15	100	1500	ND	µg/Kg	R12116
Surr: 4-Bromofluorobenzene	SW8260B	3/12/2007	0	100	55.8-141	114	%REC	R12116
Surr: Dibromofluoromethane	SW8260B	3/12/2007	0	100	59.8-148	103	%REC	R12116
Surr: Toluene-d8	SW8260B	3/12/2007	0	100	55.2-133	102	%REC	R12116

Note:The reporting limits were raised due to significant amount of non-target analytes.

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/7/2007

**Date Reported:** 3/14/2007

**Client Sample ID:** MW3 @ 15.5  
**Sample Location:** EOP-700 INDEPENDENT RD.  
**Sample Matrix:** SOIL  
**Date/Time Sampled** 3/6/2007

**Lab Sample ID:** 0703035-018  
**Date Prepared:** 3/9/2007-3/12/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/12/2007	100	1	100	ND	µg/Kg	G12116
Surr: 4-Bromofluorobenzene	GC-MS	3/12/2007	0	1	57-127	80.0	%REC	G12116
TPH (Diesel)	SW8015B	3/13/2007	2	1	2.00	ND	mg/Kg	R12112
Surr: Pentacosane	SW8015B	3/13/2007	0	1	28-125	80.4	%REC	R12112
1,2-Dibromoethane (EDB)	SW8260B	3/12/2007	5	1	5.0	ND	µg/Kg	R12116
1,2-Dichloroethane (EDC)	SW8260B	3/12/2007	5	1	5.0	ND	µg/Kg	R12116
Benzene	SW8260B	3/12/2007	5	1	5.0	ND	µg/Kg	R12116
Ethylbenzene	SW8260B	3/12/2007	5	1	5.0	ND	µg/Kg	R12116
Methyl tert-butyl ether (MTBE)	SW8260B	3/12/2007	10	1	10	ND	µg/Kg	R12116
Toluene	SW8260B	3/12/2007	5	1	5.0	ND	µg/Kg	R12116
Xylenes, Total	SW8260B	3/12/2007	15	1	15	ND	µg/Kg	R12116
Surr: 4-Bromofluorobenzene	SW8260B	3/12/2007	0	1	62.8-123	122	%REC	R12116
Surr: Dibromofluoromethane	SW8260B	3/12/2007	0	1	63.3-151	83.0	%REC	R12116
Surr: Toluene-d8	SW8260B	3/12/2007	0	1	60.8-124	104	%REC	R12116

**Definitions, legends and Notes**

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178713</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofluorobenzene	10.90	0	11.36	0	96.0	58.4	133				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178714</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	171.5	50	227	0	75.6	52.4	127				
Surr: 4-Bromofluorobenzene	10.60	0	11.36	0	93.3	58.4	133				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12102</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/9/2007</b>	SeqNo: <b>178715</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	205.4	50	227	0	90.5	52.4	127	171.5	18.0	20	
Surr: 4-Bromofluorobenzene	10.70	0	11.36	0	94.2	58.4	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12103**

Sample ID: <b>MB_G2</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178662</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100									
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88.0	57	127				

Sample ID: <b>LCS-G2</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178663</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	1007	100	1000	0	101	48.2	132				
Surr: 4-Bromofluorobenzene	49.00	0	50	0	98.0	57	127				

Sample ID: <b>LCSD-G2</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12103</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178664</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	931.0	100	1000	0	93.1	48.2	132	1007	7.84	30	
Surr: 4-Bromofluorobenzene	43.00	0	50	0	86.0	57	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12116**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178846</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	100									
Surr: 4-Bromofluorobenzene	45.00	0	50	0	90.0	57	127				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178847</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	961.0	100	1000	0	96.1	48.2	132				
Surr: 4-Bromofluorobenzene	48.00	0	50	0	96.0	57	127				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_S_</b> Units: <b>µg/Kg</b>	Prep Date: <b>3/13/2007</b>	RunNo: <b>12116</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12116</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/13/2007</b>	SeqNo: <b>178848</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	898.0	100	1000	0	89.8	48.2	132	961	6.78	30	
Surr: 4-Bromofluorobenzene	46.00	0	50	0	92.0	57	127	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G12118**

Sample ID: <b>MB-G</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178901</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	200									
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Sample ID: <b>LCS-G</b>	SampType: <b>LCS</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178902</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1030	200	1000	0	103	65	135				
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Sample ID: <b>LCSD-G</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-14(Mod)</b>	Units: <b>ppbv</b>	Prep Date:	RunNo: <b>12118</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12118</b>	TestNo: <b>TO-14(MOD)</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178903</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	1030	200	1000	0	103	65	135	1030	0.0517	50	
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**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix interferences  
 R RPD outside accepted recovery limits

4 The MS/MSD RPD was out of control due to matrix interferences  
 S Spike Recovery outside accepted recovery limits

Q Spike recovery and RPD control limits do not apply result



CLIENT: KLEINFELDER  
 Work Order: 0703035  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12083

Sample ID: <b>MBLK</b>	SampType: <b>MBLK</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178398</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.28									
Ethyl Benzene	ND	0.093									
Isopropanol	ND	0.40									
m,p-Xylene	ND	0.12									
MTBE	ND	0.14									
o-xylene	ND	0.14									
Toluene	ND	0.14									
Surr: 4-Bromofluorobenzene	16.46	0	20	0	82.3	50	150				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/5/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/5/2007</b>	SeqNo: <b>178399</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.80	0.50	20	0	99.0	65	135				
Ethyl Benzene	19.59	0.50	20	0	98.0	65	135				
Isopropanol	24.08	10	20	0	120	65	135				
m,p-Xylene	39.28	0.50	40	0	98.2	65	135				
MTBE	19.97	0.50	20	0	99.8	65	135				
o-xylene	21.31	0.50	20	0	107	65	135				
Toluene	21.08	0.50	20	0	105	65	135				
Surr: 4-Bromofluorobenzene	16.82	0	20	0	84.1	50	150				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	19.02	0.50	20	0	95.1	65	135	19.8	4.02		
Ethyl Benzene	18.25	0.50	20	0	91.2	65	135	19.59	7.08		
Isopropanol	17.75	10	20	0	88.8	65	135	24.08	30.3		
m,p-Xylene	34.93	0.50	40	0	87.3	65	135	39.28	11.7		
MTBE	17.51	0.50	20	0	87.6	65	135	19.97	13.1		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter R RPD outside accepted recovery limits 4 The MS/MSD RPD was out of control due to matrix inter S Spike Recovery outside accepted recovery limits Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12083**

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>TO-15</b>	Units: <b>ppbv</b>	Prep Date: <b>3/6/2007</b>	RunNo: <b>12083</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12083</b>	TestNo: <b>TO-15</b>		Analysis Date: <b>3/6/2007</b>	SeqNo: <b>178400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-xylene	19.48	0.50	20	0	97.4	65	135	21.31	8.97		
Toluene	20.65	0.50	20	0	103	65	135	21.08	2.06		
Surr: 4-Bromofluorobenzene	21.11	0	20	0	106	50	150	0	0		

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12100**

Sample ID: <b>WDSG070308A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178612</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	0.100									
Surr: Pentacosane	0.07700	0	0.1	0	77.0	40	120				

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178613</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.4940	0.100	1	0	49.4	30	68.5				
Surr: Pentacosane	0.07900	0	0.1	0	79.0	46.8	104				

Sample ID: <b>WDSG070308A-LCS</b>	SampType: <b>LCSD</b>	TestCode: <b>TPHDOSG_W</b>	Units: <b>mg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12100</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12100</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178614</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	0.5400	0.100	1	0	54.0	30	68.5	0.494	8.90	30	
Surr: Pentacosane	0.08000	0	0.1	0	80.0	46.8	104	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,2,4-Trichlorobenzene	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.500									
1,2-Dibromoethane (EDB)	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dichloroethane (EDC)	ND	0.500									
1,2-Dichloropropane	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
Acetone	ND	100									
Benzene	ND	0.500									
Bromodichloromethane	ND	0.500									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon tetrachloride	ND	0.500									
Chlorobenzene	ND	0.500									
Chloroform	ND	1.00									
Chloromethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
cis-1,3-Dichloropropene	ND	0.500									
Dibromochloromethane	ND	0.500									
Dichlorodifluoromethane	ND	0.500									
Ethylbenzene	ND	0.500									
Hexachlorobutadiene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Methylene chloride	ND	5.00									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix interferences  
 R RPD outside accepted recovery limits

4 The MS/MSD RPD was out of control due to matrix interferences  
 S Spike Recovery outside accepted recovery limits

Q Spike recovery and RPD control limits do not apply result

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12102**

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.500									
Styrene	ND	0.500									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	0.500									
Vinyl chloride	ND	0.500									
Xylenes, Total	ND	1.50									
Surr: Dibromofluoromethane	11.50	0	11.36	0	101	61.2	131				
Surr: 4-Bromofluorobenzene	12.60	0	11.36	0	111	64.1	120				
Surr: Toluene-d8	12.04	0	11.36	0	106	75.1	127				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178654</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.14	0.500	17.04	0	101	66.9	140				
Chlorobenzene	17.86	0.500	17.04	0	105	73.9	137				
Toluene	17.97	0.500	17.04	0	105	76.6	123				
Trichloroethene	12.09	0.500	17.04	0	71.0	69.3	144				
Surr: Dibromofluoromethane	13.71	0	11.36	0	121	61.2	131				
Surr: 4-Bromofluorobenzene	11.89	0	11.36	0	105	64.1	120				
Surr: Toluene-d8	12.60	0	11.36	0	111	75.1	127				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12102</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12102</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178655</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.80	0.500	17.04	0	98.6	66.9	140	17.14	2.00	20	
Chlorobenzene	17.51	0.500	17.04	0	103	73.9	137	17.86	1.98	20	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter S Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10									
1,1,1-Trichloroethane	ND	10									
1,1,2,2-Tetrachloroethane	ND	10									
1,1,2-Trichloroethane	ND	10									
1,1-Dichloroethane	ND	10									
1,2,4-Trichlorobenzene	ND	10									
1,2,4-Trimethylbenzene	ND	10									
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
1,2-Dichloropropane	ND	10									
1,3,5-Trimethylbenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
Benzene	ND	10									
Bromodichloromethane	ND	10									
Bromoform	ND	10									
Bromomethane	ND	10									
Carbon tetrachloride	ND	10									
Chlorobenzene	ND	10									
Chloroform	ND	10									
Chloromethane	ND	10									
cis-1,2-Dichloroethene	ND	10									
cis-1,3-Dichloropropene	ND	10									
Dibromochloromethane	ND	10									
Dichlorodifluoromethane	ND	10									
Ethylbenzene	ND	10									
Hexachlorobutadiene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
Methylene chloride	ND	50									
Naphthalene	ND	20									

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178658</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Styrene	ND	10									
Tetrachloroethene	ND	10									
Toluene	ND	10									
trans-1,2-Dichloroethene	ND	10									
Trichloroethene	ND	10									
Trichlorofluoromethane	ND	10									
Vinyl chloride	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	60.06	0	50	0	120	55.8	141				
Surr: Dibromofluoromethane	54.07	0	50	0	108	59.8	148				
Surr: Toluene-d8	51.85	0	50	0	104	55.2	133				

Sample ID: <b>LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178659</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	61.39	10	50	0	123	66.5	135				
Chlorobenzene	57.26	10	50	0	115	57.5	150				
Toluene	60.94	10	50	0	122	56.8	134				
Trichloroethene	52.26	10	50	0	105	57.4	134				
Surr: 4-Bromofluorobenzene	59.45	0	50	0	119	55.8	141				
Surr: Dibromofluoromethane	48.93	0	50	0	97.9	59.8	148				
Surr: Toluene-d8	50.78	0	50	0	102	55.2	133				

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	57.50	10	50	0	115	66.5	135	61.39	6.54	30	
Chlorobenzene	47.52	10	50	0	95.0	57.5	150	57.26	18.6	30	
Toluene	62.63	10	50	0	125	56.8	134	60.94	2.74	30	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12103**

Sample ID: <b>LCSD2</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/8/2007</b>	RunNo: <b>12103</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12103</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/8/2007</b>	SeqNo: <b>178660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	60.72	10	50	0	121	57.4	134	52.26	15.0	30	
Surr: 4-Bromofluorobenzene	60.67	0	50	0	121	55.8	141	0	0	0	
Surr: Dibromofluoromethane	49.01	0	50	0	98.0	59.8	148	0	0	0	
Surr: Toluene-d8	52.25	0	50	0	104	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703035  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12112**

Sample ID: <b>SDSG070309A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178782</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	2.00									
Surr: Pentacosane	2.911	0	3.3	0	88.2	28	125				

Sample ID: <b>SDSG070313A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/13/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/13/2007</b>	SeqNo: <b>178897</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	ND	2.00									
Surr: Pentacosane	3.874	0	3.3	0	117	28	125				

Sample ID: <b>SDSG070309A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178783</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	27.34	2.00	33.33	0	82.0	26.6	128				
Surr: Pentacosane	2.624	0	3.3	0	79.5	28	125				

Sample ID: <b>SDSG070309A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>3/9/2007</b>	RunNo: <b>12112</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12112</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/10/2007</b>	SeqNo: <b>178784</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)	24.41	2.00	33.33	0	73.2	26.6	128	27.34	11.3	30	
Surr: Pentacosane	2.372	0	3.3	0	71.9	28	125	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

CLIENT: KLEINFELDER  
 Work Order: 0703035  
 Project: 54504/4

## ANALYTICAL QC SUMMARY REPORT

BatchID: R12116

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12116</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178841</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	5.0									
1,2-Dichloroethane (EDC)	ND	5.0									
Benzene	ND	5.0									
Ethylbenzene	ND	5.0									
Methyl tert-butyl ether (MTBE)	ND	10									
Toluene	ND	5.0									
Xylenes, Total	ND	15									
Surr: 4-Bromofluorobenzene	56.99	0	50	0	114	55.8	141				
Surr: Dibromofluoromethane	48.95	0	50	0	97.9	59.8	148				
Surr: Toluene-d8	50.42	0	50	0	101	55.2	133				

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12116</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178842</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	54.21	5.0	50	0	108	66.5	135				
Toluene	49.68	5.0	50	0	99.4	56.8	134				
Surr: 4-Bromofluorobenzene	57.37	0	50	0	115	55.8	141				
Surr: Dibromofluoromethane	57.16	0	50	0	114	59.8	148				
Surr: Toluene-d8	58.99	0	50	0	118	55.2	133				

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_S_PE</b>	Units: <b>µg/Kg</b>	Prep Date: <b>3/12/2007</b>	RunNo: <b>12116</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12116</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/12/2007</b>	SeqNo: <b>178843</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	57.05	5.0	50	0	114	66.5	135	54.21	5.11	30	
Toluene	61.53	5.0	50	0	123	56.8	134	49.68	21.3	30	
Surr: 4-Bromofluorobenzene	57.87	0	50	0	116	55.8	141	0	0	0	
Surr: Dibromofluoromethane	41.34	0	50	0	82.7	59.8	148	0	0	0	
Surr: Toluene-d8	49.84	0	50	0	99.7	55.2	133	0	0	0	

**Qualifiers:** 3 Recovery of the MS and/or MSD was out of control due to matrix inter 4 The MS/MSD RPD was out of control due to matrix inter Q Spike recovery and RPD control limits do not apply result  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

PROJECT NO. 54504/4		PROJECT NAME EOR-700 Judap Rd			NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS										RECEIVING LAB: TORRENT LABORATORIES
L.P. NO. (P.O. NO.)		SAMPLERS: (Signature/Number)					DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	TPH <sub>g</sub> (TO15)	BTEX (TO15)	Isopropyl (TO15)	TPH <sub>g</sub> (EPA 8260)	BTEX -MABE (8260)	EDL+EDB (8260)	TPH-D (8015)
1	3/6/07	NO ID # date on sample	SV-4 (con 1415)	Soil Vapor	1	Sum2						X	X	X			
2																	
3			B19	Water	2	Ambr								X			002A
4			B19	Water	3	VDA	**		X	X	X						003A
5			B20	Water	2	Ambr								X			004A
6			B20	Water	3	VDA			X	X	X						015A
7																	
8			B19 @ 7.5	Soil	1	lner			X	X	X			X			005A
9			B19 @ 14.5	Soil	1	lner			X	X	X			X		HOLD	006A
10		18.5	B19 @ 18	Soil	1	lner			X	X	X			X			007A
11		19.5	B19 @ 20	Soil	1	lner			X	X	X			X		HOLD	008A
12			B19 @ 25.5	Soil	1	lner			X	X	X			X			009A
13			B19 @ 31.5	Soil	1	lner			X	X	X			X			010A
14		37	B19 @ 37.5	Soil	1	lner			X	X	X			X		HOLD	011A
15																	
16		8	B20 @ 7.7	Soil	1	lner			X	X	X			X			012A
17			B20 @ 14	Soil	1	lner			X	X	X			X			013A
18			B20 @ 23.5	Soil	1	lner			X	X	X			X			014A
19																	
20			Received 4 extra samplers														

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Instructions/Remarks:

Send Results To:

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Please perform site-specific clean up on soil & GW samples for TPH analysis.

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

Relinquished by: (Signature)

Date/Time

Received for Laboratory by: (Signature)

Attn:

Alvaro Dominguez



PROJECT NO. 54504/4		PROJECT NAME EOP Independent Rd			NO. OF CON- TAINERS	TYPE OF CON- TAINERS	ANALYSIS				RECEIVING LAB: Tarrant Laboratories	
L.P. NO. (P.O. NO.)	SAMPLES: (Signature/Number) Auto Sampling			MATRIX			TPH (8260)	BTEX-MBE (8260)	EDB+EDL (8260)	TPH.d (8015)	INSTRUCTIONS/REMARKS	
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.										
1	3/6/07	8	MW-3@7.5	Soil	1	limb	X	X	X	X		016 A
2			MW-3@10	↓	1	↓	X	X	X	X		017 A
3			MW3@15.5	↓	1	↓	X	X	X	X		018 A
4		20.5	MW3@21.5	↓	1	✓	X	X	X	X	HOLD	019 A
5	<div style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;">             3/8/07              DD           </div>											
6												
7												
8												
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11												
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14												
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16												
17												
18												
19												
20												

Relinquished by: (Signature) <i>Auto Sampling</i>	Date/Time 3/8/07 7:30 am	Received by: (Signature)	Instructions/Remarks: Silica gel clean up on TPH.d analysis	Send Results To: KLEINFELDER 1970 Broadway SUITE 710 Oakland, CA 94612 (510) 628-9000
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

March 26, 2007

Alvaro Dominguez  
KLEINFELDER  
1970 Broadway, Suite 710  
Oakland, CA 94612

TEL: 510-628-9000

FAX

RE: 54504/4

Order No.: 0703075

Dear Alvaro Dominguez:

Torrent Laboratory, Inc. received 6 samples on 3/19/2007 for the analyses presented in the following report.


All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

  
Laboratory Director

3/26/07  
Date

Patti Sandrock  
QA Officer 



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Rd. • Milpitas, CA 95035 • Ph: (408) 263-5258 • Fax: (408) 263-8293

[www.torrentlab.com](http://www.torrentlab.com)

**Torrent Laboratory, Inc.**

**Date:** 26-Mar-07

**CLIENT:** KLEINFELDER  
**Project:** 54504/4  
**Lab Order:** 0703075

**CASE NARRATIVE**

Per client request, silica gel clean-up procedures were employed on all TPH Diesel samples.





# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

**Report prepared for:** Alvaro Dominguez  
KLEINFELDER

**Date Received:** 3/19/2007  
**Date Reported:** 3/26/2007

**Client Sample ID:** MW-1  
**Sample Location:** EOP-700 IND. RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/19/2007 3:40:00 PM

**Lab Sample ID:** 0703075-001  
**Date Prepared:** 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/21/2007	0.1	1	0.100	0.39 x	mg/L	R12184
Surr: Pentacosane	SW8015B	3/21/2007	0	1	40-120	79.0	%REC	R12184

Note:- Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel..

**Client Sample ID:** MW-1  
**Sample Location:** EOP-700 IND. RD  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/19/2007 3:40:00 PM

**Lab Sample ID:** 0703075-002  
**Date Prepared:** 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/21/2007	50	8.8	440	3300	µg/L	G12172
Surr: 4-Bromofluorobenzene	GC-MS	3/21/2007	0	8.8	58.4-133	106	%REC	G12172
1,2-Dibromoethane (EDB)	SW8260B	3/20/2007	0.5	2.2	1.10	ND	µg/L	R12170
1,2-Dichloroethane (EDC)	SW8260B	3/20/2007	0.5	2.2	1.10	ND	µg/L	R12170
Benzene	SW8260B	3/20/2007	0.5	2.2	1.10	162	µg/L	R12170
Ethylbenzene	SW8260B	3/20/2007	0.5	2.2	1.10	60.2	µg/L	R12170
Methyl tert-butyl ether (MTBE)	SW8260B	3/20/2007	0.5	2.2	1.10	ND	µg/L	R12170
Toluene	SW8260B	3/20/2007	0.5	2.2	1.10	205	µg/L	R12170
Xylenes, Total	SW8260B	3/20/2007	1.5	2.2	3.30	351	µg/L	R12170
Surr: Dibromofluoromethane	SW8260B	3/20/2007	0	2.2	61.2-131	82.4	%REC	R12170
Surr: 4-Bromofluorobenzene	SW8260B	3/20/2007	0	2.2	64.1-120	101	%REC	R12170
Surr: Toluene-d8	SW8260B	3/20/2007	0	2.2	75.1-127	95.6	%REC	R12170



Report prepared for: Alvaro Dominguez  
KLEINFELDER

Date Received: 3/19/2007

Date Reported: 3/26/2007

Client Sample ID: MW-2  
Sample Location: EOP-700 IND. RD  
Sample Matrix: WATER  
Date/Time Sampled 3/19/2007 12:14:00 PM

Lab Sample ID: 0703075-003

Date Prepared: 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/21/2007	0.1	1.15	0.115	0.94 x	mg/L	R12184
Surr: Pentacosane	SW8015B	3/21/2007	0	1.15	40-120	85.1	%REC	R12184

Note: x- Sample chromatogram does not resemble typical diesel pattern. Lighter end hydrocarbons within the diesel range quantitated as diesel.

Client Sample ID: MW-2  
Sample Location: EOP-700 IND. RD  
Sample Matrix: WATER  
Date/Time Sampled 3/19/2007 12:14:00 PM

Lab Sample ID: 0703075-004

Date Prepared: 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/21/2007	50	88	4400	38000	µg/L	G12172
Surr: 4-Bromofluorobenzene	GC-MS	3/21/2007	0	88	58.4-133	106	%REC	G12172
1,2-Dibromoethane (EDB)	SW8260B	3/20/2007	0.5	8.8	4.40	ND	µg/L	R12170
1,2-Dichloroethane (EDC)	SW8260B	3/20/2007	0.5	8.8	4.40	226	µg/L	R12170
Benzene	SW8260B	3/23/2007	0.5	176	88.0	11600	µg/L	R12205
Ethylbenzene	SW8260B	3/20/2007	0.5	8.8	4.40	588	µg/L	R12170
Methyl tert-butyl ether (MTBE)	SW8260B	3/20/2007	0.5	8.8	4.40	ND	µg/L	R12170
Toluene	SW8260B	3/20/2007	0.5	8.8	4.40	274	µg/L	R12170
Xylenes, Total	SW8260B	3/20/2007	1.5	8.8	13.2	2880	µg/L	R12170
Surr: Dibromofluoromethane	SW8260B	3/23/2007	0	176	61.2-131	79.0	%REC	R12205
Surr: Dibromofluoromethane	SW8260B	3/20/2007	0	8.8	61.2-131	84.7	%REC	R12170
Surr: 4-Bromofluorobenzene	SW8260B	3/23/2007	0	176	64.1-120	104	%REC	R12205
Surr: 4-Bromofluorobenzene	SW8260B	3/20/2007	0	8.8	64.1-120	101	%REC	R12170
Surr: Toluene-d8	SW8260B	3/23/2007	0	176	75.1-127	111	%REC	R12205
Surr: Toluene-d8	SW8260B	3/20/2007	0	8.8	75.1-127	102	%REC	R12170

Report prepared for: Alvaro Dominguez  
KLEINFELDER

Date Received: 3/19/2007

Date Reported: 3/26/2007

Client Sample ID: MW-3  
Sample Location: EOP-700 IND. RD  
Sample Matrix: WATER  
Date/Time Sampled 3/19/2007 2:10:00 PM

Lab Sample ID: 0703075-005

Date Prepared: 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/21/2007	0.1	1	0.100	ND	mg/L	R12184
Surr: Pentacosane	SW8015B	3/21/2007	0	1	40-120	72.0	%REC	R12184

Client Sample ID: MW-3  
Sample Location: EOP-700 IND. RD  
Sample Matrix: WATER  
Date/Time Sampled 3/19/2007 2:10:00 PM

Lab Sample ID: 0703075-006

Date Prepared: 3/21/2007

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Gasoline)	GC-MS	3/21/2007	50	1	50	ND	µg/L	G12172
Surr: 4-Bromofluorobenzene	GC-MS	3/21/2007	0	1	58.4-133	114	%REC	G12172
1,2-Dibromoethane (EDB)	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
1,2-Dichloroethane (EDC)	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
Benzene	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
Ethylbenzene	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
Methyl tert-butyl ether (MTBE)	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
Toluene	SW8260B	3/20/2007	0.5	1	0.500	ND	µg/L	R12170
Xylenes, Total	SW8260B	3/20/2007	1.5	1	1.50	ND	µg/L	R12170
Surr: Dibromofluoromethane	SW8260B	3/20/2007	0	1	61.2-131	88.2	%REC	R12170
Surr: 4-Bromofluorobenzene	SW8260B	3/20/2007	0	1	64.1-120	95.5	%REC	R12170
Surr: Toluene-d8	SW8260B	3/20/2007	0	1	75.1-127	97.0	%REC	R12170

**Definitions, legends and Notes**

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

**CLIENT:** KLEINFELDER  
**Work Order:** 0703075  
**Project:** 54504/4

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G12172**

Sample ID <b>MB-G</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12172</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12172</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179719</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline) ND 50

Sample ID <b>LCS-G</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12172</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12172</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179720</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline) 218.0 50 227 41 78.0 52.4 127

Sample ID <b>LCSD-G</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12172</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G12172</b>	TestNo: <b>GC-MS</b>	Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179721</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline) 241.0 50 227 41 88.1 52.4 127 218 10.0 20

**Qualifiers:** E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703075  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12170**

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2007</b>	RunNo: <b>12170</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12170</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/20/2007</b>	SeqNo: <b>179691</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB)	ND	0.500
1,2-Dichloroethane (EDC)	ND	0.500
Benzene	ND	0.500
Ethylbenzene	ND	0.500
Methyl tert-butyl ether (MTBE)	ND	0.500
Toluene	ND	0.500
Xylenes, Total	ND	1.50

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2007</b>	RunNo: <b>12170</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12170</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/20/2007</b>	SeqNo: <b>179692</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	16.34	0.500	17.04	0	95.9	66.9	140
Toluene	15.42	0.500	17.04	0	90.5	76.6	123

Sample ID <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/20/2007</b>	RunNo: <b>12170</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12170</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/20/2007</b>	SeqNo: <b>179693</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	13.77	0.500	17.04	0	80.8	66.9	140	16.34	17.1	20
Toluene	14.63	0.500	17.04	0	85.9	76.6	123	15.42	5.26	20

**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703075  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12184**

Sample ID <b>WDSG070321A-MB</b>	SampType: <b>MBLK</b>	TestCode: <b>TPHDOSG_</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12184</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12184</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179939</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)

ND 0.100

Sample ID <b>WDSG070321A-LCS</b>	SampType: <b>LCS</b>	TestCode: <b>TPHDOSG_</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12184</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12184</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179940</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)

0.5220 0.100 1 0 52.2 30 68.5

Sample ID <b>WDSG070321A-LCS</b>	SampType: <b>LCSD</b>	TestCode: <b>TPHDOSG_</b>	Units: <b>mg/L</b>	Prep Date: <b>3/21/2007</b>	RunNo: <b>12184</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12184</b>	TestNo: <b>SW8015B</b>		Analysis Date: <b>3/21/2007</b>	SeqNo: <b>179941</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel)

0.5580 0.100 1 0 55.8 30 68.5 0.522 6.67 30

**Qualifiers:** E Value above quantitation range  
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

**CLIENT:** KLEINFELDER  
**Work Order:** 0703075  
**Project:** 54504/4

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R12205**

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W_PE</b>	Units: <b>µg/L</b>	Prep Date: <b>3/23/2007</b>	RunNo: <b>12205</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12205</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/23/2007</b>	SeqNo: <b>180334</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane (EDB)	ND	0.500									
1,2-Dichloroethane (EDC)	ND	0.500									
Benzene	ND	0.500									
Ethylbenzene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Toluene	ND	0.500									
Xylenes, Total	ND	1.50									

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W_PE</b>	Units: <b>µg/L</b>	Prep Date: <b>3/23/2007</b>	RunNo: <b>12205</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12205</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/23/2007</b>	SeqNo: <b>180335</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	14.11	0.500	17.04	0	82.8	66.9	140				
Toluene	15.98	0.500	17.04	0	93.8	76.6	123				

Sample ID <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W_PE</b>	Units: <b>µg/L</b>	Prep Date: <b>3/23/2007</b>	RunNo: <b>12205</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R12205</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/23/2007</b>	SeqNo: <b>180336</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	14.26	0.500	17.04	0	83.7	66.9	140	14.11	1.06	20	
Toluene	13.93	0.500	17.04	0	81.7	76.6	123	15.98	13.7	20	

**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

0703075

PROJECT NO. 54504/4		PROJECT NAME EOP-700 Ind. Rd.			NO. OF CON- TAINERS	TYPE OF CON- TAINERS	ANALYSIS										RECEIVING LAB: Torrent Laboratories	
L.P. NO. (P.O. NO.)		SAMPLERS: (Signature/Number) Gabriel Fuson					TPH-g (EPA 8260) BTEX-MTBE (EPA 8260) EDB & EDC (EPA 8260) TPH-d (EPA 8015)										INSTRUCTIONS/REMARKS 1,2 Dichloroethene (EDC) 1,2 Dibromoethane (EDB)	
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX															
3/19/07	15-40-00	MW-1	W	2	Amber													001 A
	15-40-00	MW-1	W	3	VOA	X	X	X										002 A
	12-14-00	MW-2	W	2	Amber													003 A
	12-14-00	MW-2	W	3	VOA	X	X	X										004 A
	14-10-00	MW-3	W	2	Amber													005 A
	14-10-00	MW-3	W	3	VOA	X	X	X										006 A
7																		
8																		
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Relinquished by: (Signature) <i>Gabriel Fuson</i>	Date/Time 3/19/07 17:00-00	Received by: (Signature) <i>[Signature]</i>	Instructions/Remarks: Please perform silica gel clean on groundwater samples for TPH-d analysis.	Send Results To: KLEINFELDER 1970 Broadway SUITE 710 Oakland, CA 94612 (510) 628-9000 Attn: <i>Alvaro Dominguez</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 03/19/07 6:10 P	Received by: (Signature) <i>[Signature]</i>		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		