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**FIRST QUARTER 2009  
GROUNDWATER MONITORING REPORT  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA**

**May 28, 2009**

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June 1, 2009

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

Subject: First Quarter 2009 Groundwater Monitoring Report, 700 Independent Road, Oakland, California, Fuel Leak Case No. RO0002900

Dear Mr. Wickham,

Enclosed is a Groundwater Monitoring Report for the first quarter 2009 for the property located at 700 Independent Road, Oakland, California. The quarterly groundwater monitoring report was prepared by Kleinfelder Inc. on behalf of EOP – Industrial Portfolio, LLC. This report was prepared and is being submitted to Alameda Health Care Services Agency, Environmental Health Services pursuant to your request in a letter to Mr. James Soutter dated September 10, 2008.

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

Sincerely,  
EOP – Industrial Portfolio, LLC.



James Soutter  
Director – Engineering

Enclosure: Groundwater Monitoring Report, 700 Independent Road, Oakland, California

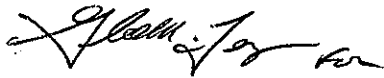
A Report Prepared for:

EOP - Industrial Portfolio, LLC  
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Chicago, IL 60606

**FIRST QUARTER 2009  
GROUNDWATER MONITORING REPORT  
700 INDEPENDENT ROAD  
OAKLAND, CALIFORNIA**

Kleinfelder Job No. 54504/8  
Fuel Leak Case No. RO0002900

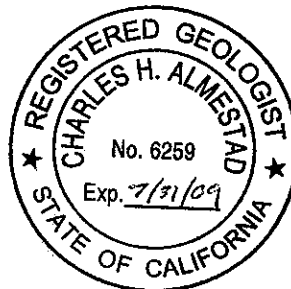
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May 28, 2009

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## 1.0 INTRODUCTION

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This report describes the First Quarter 2009 groundwater monitoring activities at 700 Independent Road, Oakland California (the site). The work was performed by Kleinfelder for EOP - Industrial Portfolio, LLC (EOP) in response to a request by Alameda County Environmental Health Services (ACEHS) staff in a letter to EOP dated June 13, 2007.

Kleinfelder performed the following field tasks:

- Collection of groundwater samples from the five existing monitoring wells for total petroleum hydrocarbon and volatile organic chemical analysis;
- Measurement of groundwater levels in the five monitoring wells; and
- Containment of the purge water generated during groundwater sampling for subsequent disposal.

## **2.0 BACKGROUND INFORMATION**

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This section presents a brief description of the site and a summary of previous investigations performed at the site.

### **2.1 SITE DESCRIPTION**

The site is located at 700 Independent Road, in an industrial area of Oakland, California, and is approximately five acres in size. The site is situated approximately 2,000 feet northwest of the McAfee Stadium (Plate 1). A one-story warehouse building, a parking lot and a railroad spur occupy the site (Plate 2). The site is currently leased for warehouse purposes. Near surface soils consist of clays and silty-clays with sandy inter-beds. First groundwater has generally been encountered during drilling at a depth of approximately eight to 10 feet below ground surface (bgs).

### **2.2 PREVIOUS INVESTIGATIONS**

Previous environmental work at the site includes the discovery and removal of an approximately 1,100-gallon capacity underground storage tank (UST) that had been used for fuel storage, and three subsequent subsurface investigations.

#### **2.2.1 UST Discovery and Removal**

A subsurface investigation performed for a prospective purchaser of the 700 Independent Road property uncovered the presence of petroleum hydrocarbons in soil and groundwater near the loading dock at the site. As a follow-up to this discovery, Kleinfelder searched regulatory agency records, performed a geophysical survey and identified a UST and associated piping in the vicinity of the western end of the loading dock.

On August 17, 2005, under permit from the City of Oakland Fire Department, Golden Gate Tank Removal, Inc., a subcontractor of Kleinfelder, removed and disposed of one 1,100-gallon UST. Confirmation soil samples were collected from the sidewalls and bottom of the excavation pit. The analytical results indicated the presence of petroleum hydrocarbons at concentrations exceeding Regional Water Quality Control Board (RWQCB), San Francisco Bay Region Environmental Screening Levels (ESLs). A

report documenting the UST removal process and summarizing the analytical results was prepared and submitted to the City of Oakland Fire Department on November 1, 2005.

Based on the concentrations of petroleum hydrocarbons present, the Fire Department referred the case to the ACEHS. The ACEHS became the lead government agency overseeing remedial actions at the site. The ACEHS assigned the Site Case Number RO0002900.

### **2.2.2 Subsequent Subsurface Investigations**

In a letter dated February 24, 2006, the ACEHS requested that EOP prepare and implement a work plan to delineate the extent of petroleum hydrocarbon impacted soil and groundwater at the site. On July 24, 25 and August 10, 2006, Kleinfelder performed a subsurface investigation consisting of the collection and analyses of soil and groundwater samples from 13 locations in the vicinity of the former UST. The analytical results of the soil samples indicated the presence of Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene and xylenes, at concentrations up to 810 milligrams per kilogram (mg/Kg), 3,000 mg/Kg, and 33,000 mg/Kg, respectively.

In groundwater, TPH-g and Total Petroleum Hydrocarbons as diesel (TPH-d) were detected at concentrations up to 42,000 micrograms per liter ( $\mu\text{g/L}$ ) and 4,190  $\mu\text{g/L}$ , respectively. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were reported at concentrations up to 13,800  $\mu\text{g/L}$ , 929  $\mu\text{g/L}$ , 2,810  $\mu\text{g/L}$ , and 3,140  $\mu\text{g/L}$ , respectively. The results of this investigation were summarized in the September 27, 2006 report titled *Site Field Investigation, 700 Independent Road, Oakland, California*, prepared by Kleinfelder.

In a letter dated October 6, 2006, the ACEHS requested that EOP prepare and implement a work plan to further delineate the horizontal and vertical extent of petroleum hydrocarbons at the site. The work plan was prepared by Kleinfelder and included plans for a soil vapor survey to assess potential indoor vapor intrusion into the warehouse; installation of three groundwater monitoring wells within the impacted area; performing a 2,000-foot radius groundwater well survey; identifying potential subsurface utility pathways; and uploading the site's information into the GeoTracker system.



Between March 4 and 7, 2007, Kleinfelder collected soil, soil-vapor, and groundwater samples, and installed three monitoring wells (MW-1 through MW-3) at the site. No chemicals of concern were reported at or above the 2007 RWQCB ESLs in the soil-vapor samples. In soil and groundwater, the highest petroleum hydrocarbon concentrations were reported in soil boring K-19 and in monitoring well MW-2, both located in the immediate vicinity of the former UST. In the soil sample collected from boring K-19, at a depth of 18-feet to 20-feet bgs, BTEX was reported at 11 mg/Kg, 26 mg/Kg, 33 mg/Kg, and 170 mg/Kg, respectively. In addition, TPH-g and TPH-d were reported at 1,900 mg/Kg and 200 mg/Kg, respectively. In the groundwater sample from MW-2, TPH-g and benzene were reported at 38 mg/L and 11.6 mg/L, respectively.

The analytical results for TPH-g and TPH-d in soil and groundwater samples collected from monitoring well (MW-1) and boring (K-18), located approximately 70 to 90-feet east from the former UST location, were also elevated (Plate 3). MW-1 and K-18 were believed at the time to be hydraulically side-gradient to the former UST. In soil samples collected from MW-1, TPH-g and TPH-d were reported at 12,000 mg/Kg and 588 mg/Kg at 19.5 feet bgs; BTEX at 19.5 feet bgs was reported at 63 mg/Kg, 250 mg/Kg, 310 mg/Kg, and 1,200 mg/Kg, respectively. In the groundwater sample from MW-1, TPH-g and benzene were reported at 3.3 mg/L and 0.162 mg/L respectively. To the north, west, and south of the former UST the extent of petroleum hydrocarbons in soil and groundwater was generally defined. Kleinfelder summarized the field activities and analytical results of the investigation in a report titled *Further Site Investigation Report, 700 Independent Road, Oakland, California*, and dated May 11, 2007.

In response to ACEHS' request for further investigation at the site, an additional subsurface investigation was conducted from January 21 to January 31, 2008. This investigation consisted of collecting and analyzing soil and groundwater samples from five borings (K-21 to K-25) to further characterize the vertical and horizontal extent of contamination associated with the former UST. The investigation also assessed whether potential offsite sources have contributed to petroleum hydrocarbons found in the subsurface at the site. Two additional groundwater monitoring wells were installed (MW-4 and MW-5).

No chemicals of concern were reported in soil at concentrations above the laboratory's reporting limit in the borings advanced during this scope of work.

No chemicals of concern were reported at concentrations at or above the laboratory's reporting limit in groundwater collected from the borings, except for TPH-g and TPH-d in the groundwater samples collected from MW-4 and MW-5. In the samples from MW-4 and MW-5 TPH-g was reported slightly above the laboratory's reporting limit, at 56- $\mu\text{g/L}$  and 55- $\mu\text{g/L}$ , respectively. In the sample collected from MW-5, TPH-d was reported at a concentration of 544  $\mu\text{g/L}$ . All of these concentrations are below their most current (May 2008) ESLs.

### **2.2.3 Previous Quarterly Groundwater Monitoring**

Periodic groundwater monitoring has been conducted at the site since March 2007 in MW-1, MW-2, and MW-3 and since January 2008 in MW-4 and MW-5. Table 1 presents the monitoring well construction details and Table 2 presents depth to water measurements and groundwater surface elevations. Table 3 presents final groundwater purge characteristics and Table 4 presents a summary of the chemical data. As part of the fourth quarter groundwater sampling event conducted in December 2007, analysis of total dissolved solids (TDS) was performed on groundwater samples collected from MW-1, MW-2, and MW-3 to confirm the high electrical conductivity (EC) measurements obtained with field instruments. Reported TDS levels ranged from 8,600,000  $\text{mg/L}$  to 17,000,000  $\text{mg/L}$  (Table 4).

San Francisco Regional Water Quality Control Board (SFRWQCB) Resolution No. 89-39, "Sources of Drinking Water," states that if the EC of groundwater exceeds 5000  $\mu\text{S/cm}$  EC (3,000  $\text{mg/L}$  TDS) the water is not expected to be reasonably suitable to supply a public water system. Therefore, based on Resolution 89-39 and the TDS data from the ground-water samples collected in December 2007, groundwater beneath the 700 Independent Road property cannot reasonably be considered to have an actual or potential beneficial use as a source for drinking water.

### **2.2.4 Chemical Injection Pilot Test**

In December 2008, a pilot test was performed to assess the effectiveness of in situ chemical oxidation to treat petroleum hydrocarbons in the subsurface and obtain design parameters for potential full scale implementation of chemical oxidation injection at the

site. The pilot test consisted of injecting of modified Fenton's reagent (containing hydrogen peroxide and an iron catalyst) into the subsurface. Injection was performed at 11 locations in the vicinity of the UST's former location, using direct push technology. Prior to oxidant injection baseline soil and groundwater samples were collected on December 1, 2008. Baseline soil and groundwater samples were collected from two borings drilled in the vicinity of the former UST and from wells MW-1, MW-2, and MW-3. Baseline groundwater sampling was carried out concurrent with the fourth quarter 2008 monitoring event. In addition to petroleum hydrocarbons, baseline soil and groundwater samples were analyzed for metals, major ions, hexavalent chromium, dissolved ferrous iron, alkalinity as calcium-carbonate, total organic carbon, and total dissolved solids.

Approximately one month following oxidant injection (January 12, 2009), soil borings were drilled for soil sampling and monitoring wells MW-1, MW-2 and MW-3 were sampled to assess the effectiveness of the pilot test. The results show the effectiveness of in situ chemical oxidation and further treatment was recommended and scheduled for the second quarter 2009. A description of the pilot test and a summary of results are included in a report titled In situ Chemical Oxidation Pilot Test Report, 700 Independent Road, Oakland California, and dated March 18, 2009.

## **3.0 FIELD ACTIVITIES**

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This section summarizes the monitoring activities performed during in the first quarter 2009 groundwater monitoring event.

### **3.1 GROUNDWATER MONITORING ACTIVITIES**

The first quarter 2009 groundwater-monitoring event took place on March 12, 2009. Prior to monitoring activities, field instrumentation was checked and calibrated.

#### **3.1.1 Water Level Measurements**

Prior to groundwater sample collection, the depth to water in each well was measured to the nearest 0.01-foot, using a clean, calibrated electronic water-level indicator. Water-level measurements were used to calculate the volume of water present in the well for purging purposes. Water level measurements were also made to assess groundwater flow patterns. Water level measurements and groundwater flow patterns are discussed in Section 4.1.

#### **3.1.2 Groundwater Sample Collection**

Upon completing water-level measurements, Kleinfelder purged the monitoring wells with disposable bailers. Prior to collecting samples for chemical analysis, the wells were purged of a minimum of three casing volumes of groundwater. During purging, pH, temperature, and EC were measured. Samples were collected when these field parameters became stable (three measurements within 10% of each other), or after three well casing volumes had been removed.

After purging, groundwater samples from each monitoring well were collected using a new disposable bailer. Groundwater samples were decanted into the appropriate laboratory-supplied containers. The containers were labeled and subsequently placed into a pre-chilled cooler with ice pending delivery to the laboratory for chemical analysis. Samples were delivered to a State-certified laboratory under chain of custody protocol.

### **3.1.3 Analytical Laboratory Parameters**

Torrent Laboratory, Inc., a state-certified analytical laboratory, performed the chemical analysis for the first quarter 2009 groundwater monitoring event. Samples were analyzed for the following parameters:

- TPH-d using Environmental Protection Agency (EPA) Method 8015M, and
- VOCs (including BTEX and methyl tert butyl ether (MTBE)) and TPH-g, using EPA Method 8260B.

### **3.2 DECONTAMINATION PROCEDURES**

Prior to performing groundwater level measurements, and between measurements at each well location, the electronic water level indicator probe and cable was cleaned with an Alconox™ water solution and subsequently rinsed with tap water, followed by distilled water. Equipment used to sample each well, including disposable bailers and twine, was dedicated to each well and disposed of after use.

### **3.3 INVESTIGATION-DERIVED WASTE (IDW) HANDLING PROCEDURES**

Investigation-derived wastes (IDW), consisting of well purge water and decontamination rinsate fluids were contained in one United States Department of Transportation (DOT)-approved 55-gallon drum. Prior to use, the drum was inspected for physical integrity and condition. The drum was left onsite with an appropriate label identifying the waste source location, physical contents, date, and generator's name.

## **4.0 MONITORING RESULTS**

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As described in Section 3, the first quarter 2009 groundwater monitoring event took place on March 12, 2009. On that date, water level measurements were made in the five site monitoring wells and the wells were sampled for chemical analysis. The groundwater samples were chemically analyzed at Torrent Laboratory Inc. (Torrent), a state-certified laboratory.

This section summarizes the water-level measurements and groundwater chemical analysis results. Table 1 provides monitoring well construction details. Plate 3 shows the location of the monitoring wells.

### **4.1 GROUNDWATER LEVELS**

On March 12, 2009, the depth to groundwater, measured from the top of casings ranged from 4.25 to 5.49 feet. Groundwater surface elevations ranged from 4.48 to 5.30 feet (NAVD, 1988). Table 2 presents a summary of groundwater level data. Since December 1, 2008, the last time Kleinfelder measured groundwater water levels, the groundwater surface elevation for MW-1, MW-2, MW-3, MW-4, and MW-5 rose approximately 1.38 feet, 1.08 feet, 1.02 feet, 0.99 feet, and 0.96 feet, respectively.

Water-level measurements were used to estimate groundwater surface elevation contours and groundwater flow patterns, shown on Plate 3. Based on the March 12, 2009 depth to groundwater data, groundwater beneath the site was estimated to flow to the south-southeast, and to the north. The hydraulic gradient varied considerably at the site and therefore was not estimated. The fourth quarter 2008 flow directions are similar to those found previously at the site.

### **4.2 GROUNDWATER SAMPLE RESULTS**

Groundwater samples were collected on March 12, 2009 from wells MW-1, MW-2, MW-3, MW-4, and MW-5 and analyzed for TPH-g, TPH-d, BTEX and MTBE. Groundwater purge data, groundwater analytical results, and quality assurance / quality control data are discussed in the following sections.

#### **4.2.1 Purge Characteristic Data**

Prior to groundwater sample collection, the wells were purged to allow the inflow of water from the water bearing zones. Temperature, pH and EC were measured during purging. Table 3 presents final purge characteristic data. As noted on Table 3, the EC levels were relatively high, ranging from 9,151  $\mu\text{mhos/cm}$  in MW-5 to 26,916  $\mu\text{mhos/cm}$  in MW-1. These EC data are high and consistent with previous EC results.

#### **4.2.2 Total Petroleum Hydrocarbons and Volatile Organics**

Groundwater analytical results are summarized in Table 4. Certified analytical laboratory reports are included in Appendix B.

##### **4.2.2.1 Environmental Screening Levels (ESLs)**

The SFRWQCB developed ESLs for use as initial indicators of potential impacts to human health or the environment. Kleinfelder compared the reported concentrations of each reported compound to its respective most-stringent ESL, as available and presented in the SFRWQCB's guidance document *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (Interim Final – November 2007, revised May 2008). Kleinfelder referenced the ESLs for groundwater where groundwater is not a current or potential source of drinking water based on the finding that the shallow groundwater at the site is not suitable as a source of drinking water per SFRWQCB Resolution No. 89-39 (see Section 2.2.3).

##### **4.2.2.2 Total Petroleum and Aromatic Hydrocarbon Results**

Groundwater samples from wells MW-1, MW-2, MW-3, MW-4, and MW-5 were analyzed for TPH-g and TPH-d, using EPA Methods 8260B and 8015M, respectively. In groundwater from MW-2 TPH-g and TPH-d concentrations were lower than in December 2008. TPH-g was reported in the sample from MW-2 at 42,000  $\mu\text{g/L}$  (compared to 53,000  $\mu\text{g/L}$ ) and TPH-d was reported at 862  $\mu\text{g/L}$  (compared with 965  $\mu\text{g/L}$ ). In MW-1 concentrations of TPH-g and TPH-d increased compared to December 2008. TPH-g was reported in the sample from MW-1 at 7,700  $\mu\text{g/L}$  (compared to 2,900  $\mu\text{g/L}$ ) and TPH-d was reported at 504  $\mu\text{g/L}$  (compared to 484  $\mu\text{g/L}$ ). These TPH-g and TPH-d results exceed their ESLs.

NO TPH-g and TPH-d was reported in groundwater samples from MW-3, MW-4, and MW-5, consistent with previous results.

Groundwater samples from wells MW-1, MW-2, MW-3, MW-4, and MW-5 were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tert butyl ether (MTBE) in March 2009 using EPA Method 8260B. Between December 2008 and March 2009, BTEX concentrations for the sample collected at MW-1 increased. During the same period, BEX concentrations at MW-2 decreased. Toluene, which was not detected at or above the reporting limit in the sample from MW-2 in December 2008, was reported in March 2009 at 91.5 ug/L, consistent with pre December 2008 results for that well. The benzene concentration in MW-2 decreased by about 50 percent to 10,300 ug/L (10,900 ug/L, duplicate). No BTEX compounds were reported in samples from MW-3, MW-4, and MW-5, consistent with previous results. MTBE was not reported in any of the samples analyzed in March 2009, consistent with previous results.

Concentrations reported for BTEX in the March 2009 sample from MW-1 exceeded ESLs for those compounds in March 2009. Concentrations reported for BEX in the March 2009 sample from MW-2 exceeded ESLs for those compounds.

#### **4.2.3 Quality Assurance / Quality Control**

For the current set of samples no laboratory quality assurance / quality control parameters deviated from accepted norms. Samples were preserved and transported to the laboratory under chain-of-custody control protocols. All samples were analyzed within holding times, method blanks were not found to contain chemicals of interest, and surrogate recoveries were within accepted ranges.

A duplicate sample was collected from monitoring well MW-2 and submitted to the laboratory under different sample identification. Comparison of the duplicate sample results to the primary sample results reveals good laboratory precision.



## 5.0 SUMMARY OF RESULTS

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This section presents a summary of the monitoring results from the groundwater monitoring event performed in March 2009.

### 5.1 Hydraulic Conditions

In March 2009 groundwater was inferred to flow to the south-southeast and north (Plate 3). This flow pattern is similar to groundwater flow patterns inferred in the past. Groundwater surface elevations rose by about one foot between December 2008 and March 2009 most likely the result of seasonal rainfall recharge.

### 5.2 Water Quality

TPH-d, TPH-g, benzene, ethylbenzene and xylenes were lower in the March 2009 groundwater sample from MW-2, reflecting the impacts of the in situ chemical oxidation pilot test. TPH-d, TPH-g, and BTEX concentrations were somewhat higher in the March 2009 groundwater sample from MW-1. No chemicals of concern were detected in groundwater from wells MW-3, MW-4, and MW-5.

Analytical quality control data were within accepted laboratory norms and consequently the analytical results are considered reliable.

## 6.0 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. All information gathered by Kleinfelder is considered confidential and will be released only upon written authorization of EOP or as required by law.

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.

## TABLES

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

Construction Details by Depth Intervals (Feet Below Ground Surface)								Survey Data			
								Top of Casing Elevation (Feet <sup>1</sup> )	Vault Elevation (Feet <sup>1</sup> )	Longitude	Latitude
Well ID	Installation Date	Boring Depth	Solid Casing	Screen Interval	Sand Pack	Bentonite Seal	Grout Seal				
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 / 20-25	0.75-6	9.53	9.85	-122.2054245	37.7568140
MW-3	3/5/2007	25.0	0.25-13	13-23	11-24	9-11	0.75-9	10.79	11.10	-122.2054503	37.7569371
MW-4	1/23/2008	25.0	0.25-15	15-25	14-25	13-14	0.75-13	9.61	10.35	-122.2051431	37.7570547
MW-5	1/23/2008	28.0	0.25-18	18-28	17-28	16-17	0.75-16	9.75	10.06	-122.2056247	37.7569999

**Notes:**

<sup>1</sup> Survey elevations North American Vertical Datum of 1988 (NAVD88), horizontal NAD 83.

Survey of MW-1, MW-2 and MW-3 by PLS Surveys, Inc., April 4, 2007

Survey of MW-4 and MW-5 by PLS Surveys, Inc., February 14, 2008

msl = mean sea level

**Table 2**

Depth to Water Measurements and Ground Water Surface Elevations  
EOP - 700 Independent Road, Oakland, California

Well ID	Date Measured	Depth to Water (feet)	Groundwater Surface Elevation (feet <sup>1</sup> )
MW-1	4/13/2007	4.67	4.97
	9/10/2007	5.15	4.49
	12/17/2007	5.29	4.35
	2/18/2008	5.91	3.73
	3/28/2008	4.41	5.23
	6/11/2008	4.73	4.91
	12/1/2008	5.91	3.73
	3/12/2009	4.53	5.11
MW-2	4/13/2007	4.61	4.92
	9/10/2007	5.42	4.11
	12/17/2007	5.02	4.51
	2/18/2008	4.78	4.75
	3/28/2008	4.35	5.18
	6/11/2008	4.65	4.88
	12/1/2008	5.33	4.20
	3/12/2009	4.25	5.28
MW-3	4/13/2007	5.75	5.04
	9/10/2007	6.26	4.53
	12/17/2007	6.16	4.63
	2/18/2008	5.55	5.24
	3/28/2008	5.63	5.16
	6/11/2008	5.90	4.89
	12/1/2008	6.51	4.28
	3/12/2009	5.49	5.30
MW-4	4/13/2007	--	--
	9/10/2007	--	--
	12/17/2007	--	--
	2/18/2008	5.08	4.53
	3/28/2008	5.12	4.49
	6/11/2008	5.00	4.61
	12/1/2008	6.07	3.54
	3/12/2009	5.08	4.53
MW-5	4/13/2007	--	--
	9/10/2007	--	--
	12/17/2007	--	--
	2/18/2008	5.25	4.50
	3/28/2008	5.32	4.43
	6/11/2008	5.86	3.89
	12/1/2008	6.23	3.52
	3/12/2009	5.27	4.48

**Notes:**

<sup>1</sup> Survey elevations North American Vertical Datum of 1988 (NAVD88).

Top of casing elevations for MW-1, MW-2 and MW-3 surveyed 4/4/07 by PLS Surveys, Inc.

Top of casing elevations for MW-4, and MW-5 surveyed 2/14/08 by PLS Surveys, Inc.

**Table 3**  
 Final Purge Characteristics in Groundwater  
 EOP - 700 Independent Road, Oakland, California

Well ID	Date Sampled	Gallons Purged	Final pH	Final Specific Conductivity (µmhos/cm)	Final Temperature (degrees C)
MW-1	9/10/2007	8.0	6.78	>3,999 <sup>a</sup>	18.7
	12/17/2007	10.0	6.84	>3,999 <sup>a</sup>	17.2
	3/28/2008	10.3	6.83	21,607	16.5
	6/11/2008	17.0	7.21	21,236	17.2
	12/1&2/2008	11.0	6.63	26,376	17.7
	3/12/2009	11.0	6.44	26,916	17.07
MW-2	9/10/2007	6.8	6.70	>3,999 <sup>a</sup>	19.4
	12/17/2007	7.0	6.70	>3,999 <sup>a</sup>	17.8
	3/28/2008	10.3	6.89	22,932	15.9
	6/11/2008	11.7	6.91	24,775	17.7
	12/1&2/2008	7.5	6.55	24,976	18.3
	3/12/2009	7.5	6.55	14,014	16.28
MW-3	9/10/2007	8.5	6.97	>3,999 <sup>a</sup>	22.3
	12/17/2007	9.0	7.11	>3,999 <sup>a</sup>	20.9
	3/28/2008	11.0	7.04	12,686	18.9
	6/11/2008	14.3	7.68	12,695	20.9
	12/1&2/2008	9.0	6.96	13,537	21.4
	3/12/2009	9.5	6.78	12,490	19.34
MW-4	1/31/2008	12.0	7.04	>3,999 <sup>a</sup>	18.7
	3/28/2008	16.0	7.15	12,069	17.8
	6/11/2008	16.0	7.71	13,331	19.7
	12/1&2/2008	10.0	7.04	12,824	20.8
	3/12/2009	10.0	6.87	14,278	19.41
MW-5	1/31/2008	12.0	6.85	>3,999 <sup>a</sup>	19.2
	3/28/2008	11.0	7.05	7,574	19.9
	6/11/2008	16.0	7.02	7,406	19.8
	12/1&2/2008	11.0	6.89	8,774	20.0
	3/12/2009	16.0	6.72	9,151	19.74

**Acronyms:**

a Exceeds equipment limits  
 C Celsius  
 µmhos/cm microsiemens per centimeter

**Table 4**  
 Total Petroleum Hydrocarbons, Volatile Organics and Total Dissolved Solids In Groundwater  
 700 Independent Road, Oakland, California

Sample Location	Date Sampled	TPH-d	TPH-g	Benzene	Butylbenzene (sec.)	1,2-Dichloroethane (EDC)	Ethylbenzene	Isopropylbenzene	Isopropyltoluene (4-)	Naphthalene	Propylbenzene (n-)	Toluene	Trimethylbenzene (1,2,4-)	Trimethylbenzene (1,3,5-)	Xylenes, total	Methyl tert butyl ether (MTBE)	Total Dissolved Solids (TDS)
MW-1	3/19/2007	<b>390a</b>	<b>3,300</b>	<b>162</b>	NA	<1.1	<b>60.2</b>	NA	NA	NA	NA	<b>205</b>	NA	NA	<b>351</b>	<1.1	NA
	9/10/2007	<b>315a</b>	<b>1,700b</b>	<b>145</b>	0.9	<0.500	<b>72.2</b>	11.6	2.42	7.69	20.8	56.1	94.6	17.1	<b>197</b>	<0.500	NA
	12/17/2007	186a	<b>1,510b</b>	<b>204</b>	2.41	<0.500	<b>78.6</b>	9.96	1.69	4.35	19	15.1	67	6.12	<b>56.7</b>	<0.500	14,000,000
	3/28/2008	<100	<b>12,000</b>	<b>1,020</b>	NA	NA	<b>161</b>	NA	NA	NA	NA	19.1	NA	NA	60.0	<1.10	NA
	6/11/2008	<b>235a</b>	<b>4,700</b>	<b>721</b>	<4.40	<4.40	<b>160</b>	18.9	NA	< <b>52.8</b>	<4.40	84.8	132	11.0	<b>126</b>	<4.40	NA
	12/1&2/2008	<b>484f</b>	<b>2,900</b>	<b>295</b>	<4.40	<4.40	<b>137</b>	36.7	NA	<b>298</b>	88.4	27.1	501	35.1	<b>218</b>	<4.40	14,000,000
	3/12/2009	<b>504</b>	<b>7,700</b>	<b>488</b>	NA	NA	<b>235</b>	NA	NA	NA	NA	<b>144</b>	NA	NA	<b>455</b>	<4.40	NA
MW-2	3/19/2007	<b>940a</b>	<b>38,000</b>	<b>11,600</b>	NA	<b>226</b>	<b>588</b>	NA	NA	NA	NA	<b>274</b>	NA	NA	<b>2,880</b>	<13.2	NA
	9/10/2007	<b>1690a</b>	<b>52,100b</b>	<b>15,800</b>	<22.0	<b>611</b>	<b>1,120</b>	69.1	<22.0	<b>231</b>	143	<b>552</b>	1,270	650	<b>5,420</b>	<22.0	NA
	12/17/2007	<b>3,770a</b>	<b>30,900b</b>	<b>13,300</b>	<22.0	<b>568</b>	<b>1,350</b>	73	<22.0	<b>227</b>	118	<b>172</b>	1,230	352	<b>2,330</b>	<22.0	17,000,000
	3/28/2008	<b>300c</b>	<b>47,000</b>	<b>12,600</b>	NA	NA	<b>619</b>	NA	NA	NA	NA	67.3	NA	NA	<b>1,040</b>	<22.0	NA
	6/11/2008	<b>1,030a</b>	<b>31,000</b>	<b>19,700</b>	<44.0	<b>542</b>	<b>1,090</b>	<88.0	NA	< <b>528</b>	<44.0	81.0	154	731	<b>1,410</b>	<44.0	NA
	12/1&2/2008	<b>965f</b>	<b>53,000</b>	<b>20,500</b>	<44.0	<b>468</b>	<b>1,240</b>	<88.0	NA	<b>196</b>	125	<44.0	1,200	66.9	<b>1,180</b>	<44.0	17,000,000
	3/12/2009	<b>862</b>	<b>40,000</b>	<b>10,300</b>	NA	NA	<b>1,050</b>	NA	NA	NA	NA	91.5	NA	NA	<b>980</b>	<44.0	NA
3/12/09 Dup	NA	<b>42,000</b>	<b>10,900</b>	NA	NA	<b>1,030</b>	NA	NA	NA	NA	95.9	NA	NA	<b>995</b>	<44.0	NA	
MW-3	3/19/2007	<100	<50	<0.500	NA	<0.500	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.5	<0.500	NA
	9/10/2007	<100	<50	<0.500	<0.500	<0.500	<0.500	<1.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.5	<0.500	NA
	12/17/2007	<100	<50	<0.500	<0.500	<0.500	<0.500	<1.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.5	<0.500	8,600,000
	3/28/2008	<100	<50	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
	6/11/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<6.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	NA
	12/1&2/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<1.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	7,700,000
	3/12/2009	<100	<50	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
MW-4	1/31/2008	< 100	56.0e	< 0.500	NA	NA	< 0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
	3/28/2008	<100	61d	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
	6/11/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<6.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	NA
	12/1&2/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<1.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	NA
	3/12/2009	<100	<50	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
MW-5	1/31/2008	<b>544f</b>	55.0e	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	< 1.50	<0.500	NA
	3/28/2008	<100	57d	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
	6/11/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<6.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	NA
	12/1&2/2008	<100	<50	<0.50	<0.50	<0.50	<0.50	<1.00	NA	<1.00	<0.50	<0.50	<0.50	<0.50	<1.50	<0.50	NA
	3/12/2009	<100	<50	<0.500	NA	NA	<0.500	NA	NA	NA	NA	<0.500	NA	NA	<1.50	<0.500	NA
ESL*		210	210	46	NE	200	43	NE	NE	24	NE	130	NE	NE	100	1,800	NE

**Notes:**

All results in micrograms per liter (ug/l). Values in bold exceed corresponding ESLs.

a - Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons and hydrocarbon peaks within the diesel range quantified as diesel.

b - Although TPH as gasoline is present, result is elevated due to the presence of non-target compounds within the gasoline quantitative range.

c - Although TPH as Gasoline constituents are present, results are elevated due to the presence of non-target compounds within range of C5-C12 quantified as Gasoline.

d - Does not match typical gasoline pattern. TPH value contains only non-target compounds within gasoline quantitative range.

e - Does not match typical gasoline pattern. Reported values are the result of presence of non-gasoline compounds within the gasoline quantitation range.

f - Sample chromatogram does not resemble typical diesel pattern. Hydrocarbons within the diesel range quantitated as diesel.

NE - Not established

NA - Not analyzed

\* ESL - Environmental Screening Levels from San Francisco Regional Water Quality Control Board, Interim Final - November 2007 (revised May 2008). Lowest level reported from:

Table B. Environmental Screening Levels. Groundwater IS NOT a current or potential drinking water source.

**Acronyms:**

TPH-d - Total Petroleum Hydrocarbons - diesel

TPH-g - Total Petroleum Hydrocarbons - gasoline

f - Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Hydrocarbons within the diesel range quantitated as diesel.

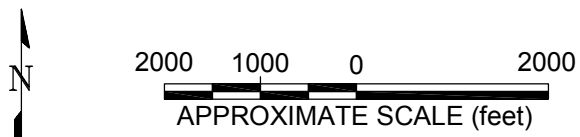


## PLATES

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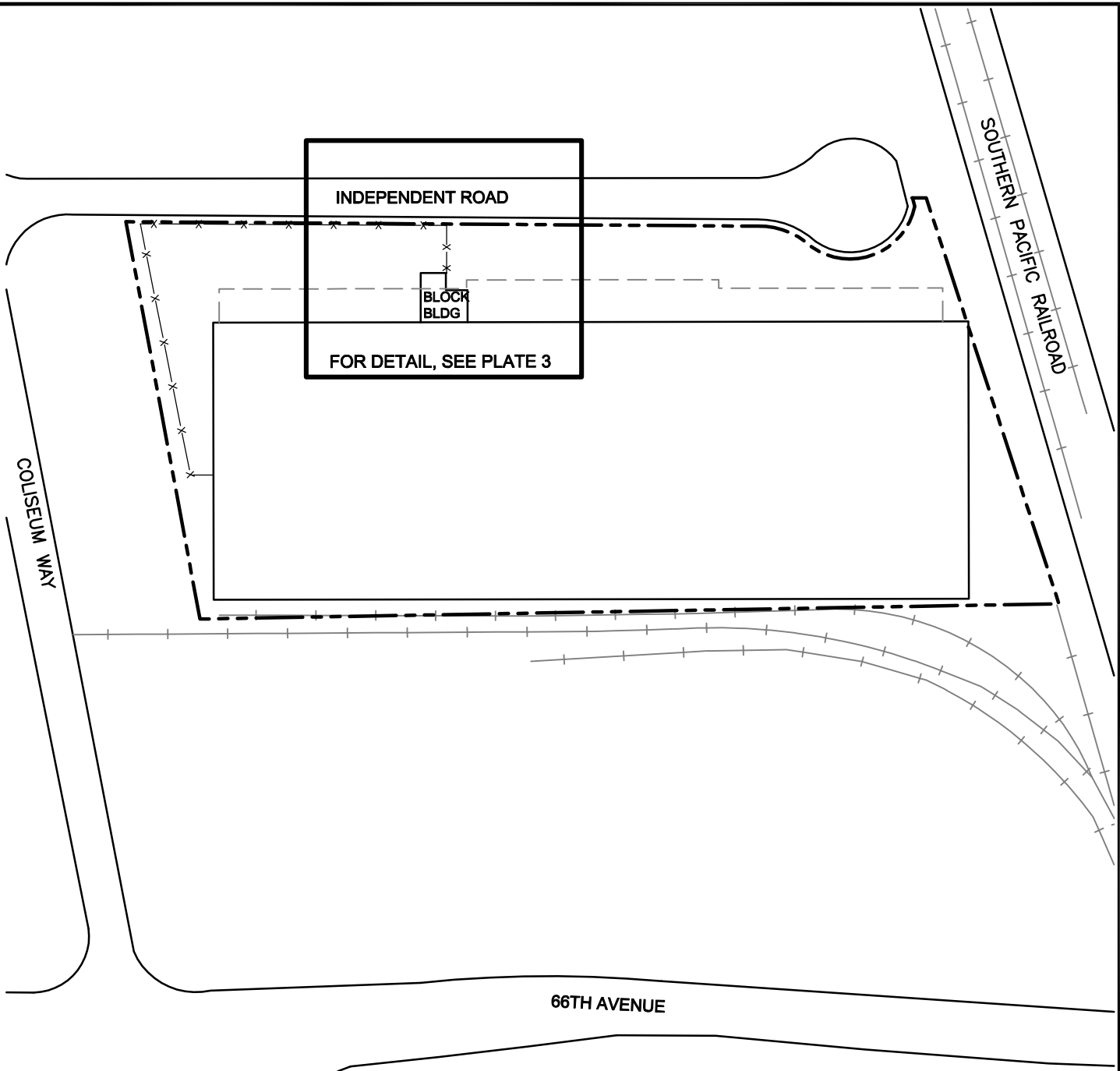
PROJECT NO.	54504 / 5B
DRAWN:	MAY 2008
DRAWN BY:	LGS
CHECKED BY:	CHA
FILE NAME:	
SITE-VIC.dwg	

**SITE VICINITY MAP**

700 INDEPENDENT ROAD  
 OAKLAND, CALIFORNIA

PLATE


**1**



- LEGEND**
- — — — — PROPERTY BOUNDARY
  - \* \* \* \* \* FENCE LINE
  - · · · · LIMITS OF BUILDING OVERHANG

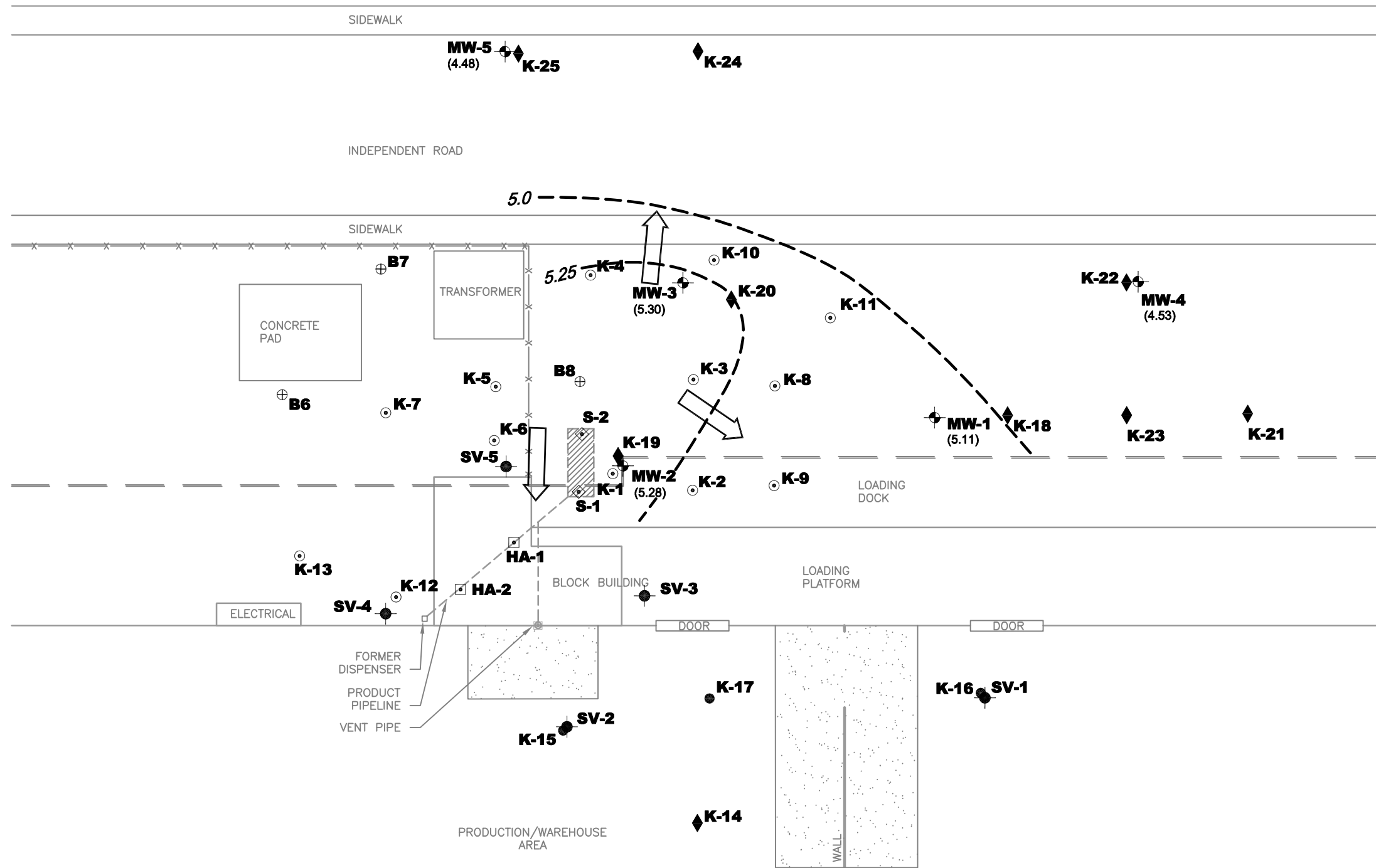
**NOTE: Locations are approximate.**

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	PROJECT NO. 54504 / 5B	<b>SITE PLAN: OVERALL</b>	PLATE  <b>2</b>
	DRAWN: MAY 2008		
	DRAWN BY: LGS	700 INDEPENDENT ROAD OAKLAND, CALIFORNIA	
	CHECKED BY: CHA		
FILE NAME: SP OVERALL.dwg			

PLOTTED: 20 May 2009, 9:24am, jsala

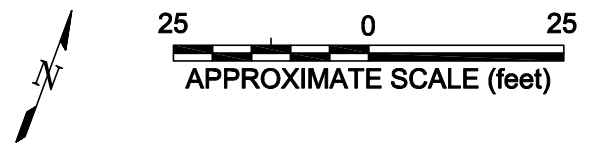
ATTACHED IMAGES: Images: contours.jpg Images: GW-CONT\_06-2008.jpg  
 ATTACHED XREFS: XRef: Eng-B\_11x17\_L\_StyleA.dwg  
 CAD FILE: D:\PROJECTS\54504\05-2009\ LAYOUT: GW contours



- 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 and February 2008)
  - SOIL BORING (Kleinfelder, 2006)
  - ⊕ SOIL BORING (Golder Associates, August 2004)
  - HAND AUGER
  - ◇ UST CONFIRMATION SOIL SAMPLE
  - (5.30) GROUNDWATER ELEVATION (NAVD, 1988)
  - 5.25 - - - GROUNDWATER ELEVATION CONTOURS (NAVD, 1988)
  - ➡ APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

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

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	PROJECT NO. 54504	<b>GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: MARCH 12, 2009</b>	PLATE  <b>3</b>
	DRAWN: MAY 2009		
	DRAWN BY: JDS	700 INDEPENDENCE ROAD OAKLAND, CALIFORNIA	
	CHECKED BY: CHA		
FILE NAME: GW-CONT_3-2009.dwg			

**APPENDIX A**  
**CHAIN-OF-CUSTODY RECORDS**

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PROJECT NO. 54504-7		PROJECT NAME Independent Rd		NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS										RECEIVING LAB: Torrent Lab Milpitas, CA	
L.P. NO. (PO. NO.)	SAMPLERS: (Signature/Number) Bart Stafford					TPH, G+BTX, XMTBE, CE, BZ, D, P, D, W, S, U, G, P, E, L, C, L, A, M, W										INSTRUCTIONS/REMARKS 5 Day TAT - Standard	
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX														
03/12/09	11:40	MW-1	Water	6	Various	X	X										001A
	14:00	MW-2				X	X										002A
	15:35	MW-3				X	X										003A
	12:40	MW-4				X	X										004A
		MW-5		*		X	X										005A
	14:05	MW-DUP		4		X											006A
																	(4) 40ml VOA
																	(2) Liter Amber

Relinquished by: (Signature) <i>Bart Stafford</i>	Date/Time 3/12/09 18:37	Received by: (Signature) <i>M. G. Choudasara</i>	Instructions/Remarks: Kleinfelder Charlie Almes tad 1970 Broadway, Suite 710 Oakland, CA 94612 (510) 628-9000 (t 219)	Send Results To: Charlie Almes tad via Email: calmes tad@kleinfelder.com
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		Attn:
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		

**APPENDIX B**

**CERTIFIED ANALYTICAL LABORATORY REPORTS**

---



March 23, 2009

Charlie Almestad  
KLEINFELDER  
1970 Broadway, Suite 710  
Oakland, CA 94612

TEL: (510) 628-9000

FAX (510) 628-9009

RE: 54504-7/Independent Rd

Order No.: 0903073

Dear Charlie Almestad:

Torrent Laboratory, Inc. received 6 samples on 3/12/2009 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.

Reported data is applicable for only the samples received as part of the order number referenced above.

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

3/23/09  
Date

Patti Sandrock  
QA Officer 





# 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:** Charlie Almestad  
KLEINFELDER

**Date Received:** 3/12/2009  
**Date Reported:** 3/23/2009

**Client Sample ID:** MW-1  
**Sample Location:** 54504-7/Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/12/2009 11:40:00 AM

**Lab Sample ID:** 0903073-001  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/17/2009	0.1	1	0.100	0.504x	mg/L	R18975
Surr: Pentacosane	SW8015B	3/17/2009	0	1	64.2-123	91.0	%REC	R18975
Note:x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Hydrocarbons within the diesel range quantitated as diesel.								
Benzene	SW8260B	3/18/2009	0.5	8.8	4.40	488	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	8.8	4.40	144	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	8.8	4.40	235	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	8.8	4.40	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	8.8	13.2	455	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	8.8	61.2-131	97.5	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	8.8	64.1-120	104	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	8.8	75.1-127	92.8	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	8.8	440	7700	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	8.8	58.4-133	86.7	%REC	G18988

Note: Although TPH as gasoline constituents are present, reported TPH value elevated due to presence of heavy end hydrocarbons within range of C5-C12 quantified as gasoline that bias the quantitation (possibly aged gasoline).

**Report prepared for:** Charlie Almestad  
KLEINFELDER

**Date Received:** 3/12/2009

**Date Reported:** 3/23/2009

**Client Sample ID:** MW-2  
**Sample Location:** 54504-7/Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/12/2009 2:00:00 PM

**Lab Sample ID:** 0903073-002  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/17/2009	0.1	1	0.100	0.862x	mg/L	R18975
Surr: Pentacosane	SW8015B	3/17/2009	0	1	64.2-123	89.0	%REC	R18975
Note:x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Hydrocarbons within the diesel range quantitated as diesel.								
Benzene	SW8260B	3/18/2009	0.5	88	44.0	10300	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	88	44.0	91.5	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	88	44.0	1050	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	88	44.0	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	88	132	980	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	88	61.2-131	104	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	88	64.1-120	103	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	88	75.1-127	89.1	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	88	4400	40000	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	88	58.4-133	86.2	%REC	G18988

**Report prepared for:** Charlie Almestad  
KLEINFELDER

**Date Received:** 3/12/2009  
**Date Reported:** 3/23/2009

**Client Sample ID:** MW-3  
**Sample Location:** 54504-7/Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/12/2009 3:35:00 PM

**Lab Sample ID:** 0903073-003  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/17/2009	0.1	1	0.100	ND	mg/L	R18975
Surr: Pentacosane	SW8015B	3/17/2009	0	1	64.2-123	87.0	%REC	R18975
Benzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	1	1.50	ND	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	1	61.2-131	113	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	1	64.1-120	96.0	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	1	75.1-127	86.8	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	1	50	ND	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	1	58.4-133	81.6	%REC	G18988

**Report prepared for:** Charlie Almestad  
KLEINFELDER

**Date Received:** 3/12/2009

**Date Reported:** 3/23/2009

**Client Sample ID:** MW-4  
**Sample Location:** 54504-7/Independent Rd  
**Sample Matrix:** WATER  
**Date/Time Sampled** 3/12/2009 12:40:00 PM

**Lab Sample ID:** 0903073-004  
**Date Prepared:**

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/17/2009	0.1	1	0.100	ND	mg/L	R18975
Surr: Pentacosane	SW8015B	3/17/2009	0	1	64.2-123	85.0	%REC	R18975
Benzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	1	1.50	ND	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	1	61.2-131	116	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	1	64.1-120	95.4	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	1	75.1-127	84.5	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	1	50	ND	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	1	58.4-133	83.1	%REC	G18988

**Report prepared for:** Charlie Almestad  
KLEINFELDER

**Date Received:** 3/12/2009

**Date Reported:** 3/23/2009

**Client Sample ID:** MW-5

**Lab Sample ID:** 0903073-005

**Sample Location:** 54504-7/Independent Rd

**Date Prepared:**

**Sample Matrix:** WATER

**Date/Time Sampled** 3/12/2009

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/17/2009	0.1	1	0.100	ND	mg/L	R18975
Surr: Pentacosane	SW8015B	3/17/2009	0	1	64.2-123	92.0	%REC	R18975
Benzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	1	0.500	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	1	1.50	ND	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	1	61.2-131	117	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	1	64.1-120	94.4	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	1	75.1-127	84.7	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	1	50	ND	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	1	58.4-133	80.7	%REC	G18988

**Client Sample ID:** MW-DUP

**Lab Sample ID:** 0903073-006

**Sample Location:** 54504-7/Independent Rd

**Date Prepared:** 3/18/2009

**Sample Matrix:** WATER

**Date/Time Sampled** 3/12/2009 2:05:00 PM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Benzene	SW8260B	3/18/2009	0.5	88	44.0	10900	µg/L	R18988
Toluene	SW8260B	3/18/2009	0.5	88	44.0	95.9	µg/L	R18988
Ethylbenzene	SW8260B	3/18/2009	0.5	88	44.0	1030	µg/L	R18988
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2009	0.5	88	44.0	ND	µg/L	R18988
Xylenes, Total	SW8260B	3/18/2009	1.5	88	132	995	µg/L	R18988
Surr: Dibromofluoromethane	SW8260B	3/18/2009	0	88	61.2-131	101	%REC	R18988
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2009	0	88	64.1-120	97.2	%REC	R18988
Surr: Toluene-d8	SW8260B	3/18/2009	0	88	75.1-127	95.3	%REC	R18988
TPH (Gasoline)	SW8260B(TPH)	3/18/2009	50	88	4400	42000	µg/L	G18988
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	3/18/2009	0	88	58.4-133	79.4	%REC	G18988

**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:** 0903073  
**Project:** 54504-7/Independent Rd

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G18988**

Sample ID <b>MB_G18988</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G18988</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273788</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	10.15	0	11.36	0	89.3	58.4	133				

Sample ID <b>LCS_G18988</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G18988</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273789</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	235.0	50	227	0	104	52.4	127				
Surr: 4-Bromofllurobenzene	10.78	0	11.36	0	94.9	58.4	133				

Sample ID <b>LCSD_G18988</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G18988</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273790</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	212.0	50	227	0	93.4	52.4	127	235	10.3	20	
Surr: 4-Bromofllurobenzene	10.36	0	11.36	0	91.2	58.4	133	0	0	0	

**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:** 0903073  
**Project:** 54504-7/Independent Rd

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R18975**

Sample ID	<b>WDSG090316A-MB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TPHDSG_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/16/2009</b>	RunNo:	<b>18975</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R18975</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>3/16/2009</b>	SeqNo:	<b>273575</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel-SG)	ND	0.100												
Surr: Pentacosane	0.08900	0	0.1	0	89.0	64.2	123							

Sample ID	<b>WDSG090316A-LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>TPHDSG_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/16/2009</b>	RunNo:	<b>18975</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R18975</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>3/16/2009</b>	SeqNo:	<b>273576</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel-SG)	0.7050	0.100	1	0	70.5	34.5	95.6							
Surr: Pentacosane	0.09400	0	0.1	0	94.0	64.2	123							

Sample ID	<b>WDSG090316A-LCS</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TPHDSG_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>3/16/2009</b>	RunNo:	<b>18975</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R18975</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>3/16/2009</b>	SeqNo:	<b>273577</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel-SG)	0.7450	0.100	1	0	74.5	34.5	95.6	0.705	5.52	30				
Surr: Pentacosane	0.09500	0	0.1	0	95.0	64.2	123	0	0	0				

<b>Qualifiers:</b>	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:** 0903073  
**Project:** 54504-7/Independent Rd

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R18988**

Sample ID <b>MB_R18988</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R18988</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273758</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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									
Surr: Dibromofluoromethane	12.36	0	11.36	0	109	61.2	131				
Surr: 4-Bromofluorobenzene	11.99	0	11.36	0	106	64.1	120				
Surr: Toluene-d8	9.270	0	11.36	0	81.6	75.1	127				

Sample ID <b>LCS_R18988</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R18988</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273759</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.62	0.500	17.04	0	91.7	66.9	140				
Toluene	17.46	0.500	17.04	0	102	76.6	123				
Surr: Dibromofluoromethane	10.52	0	11.36	0	92.6	61.2	131				
Surr: 4-Bromofluorobenzene	11.63	0	11.36	0	102	64.1	120				
Surr: Toluene-d8	10.90	0	11.36	0	96.0	75.1	127				

Sample ID <b>LCSD_R18988</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>3/18/2009</b>	RunNo: <b>18988</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R18988</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>3/18/2009</b>	SeqNo: <b>273760</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.40	0.500	17.04	0	102	66.9	140	15.62	10.8	20	
Toluene	16.23	0.500	17.04	0	95.2	76.6	123	17.46	7.30	20	
Surr: Dibromofluoromethane	10.01	0	11.36	0	88.1	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.34	0	11.36	0	99.8	64.1	120	0	0	0	
Surr: Toluene-d8	11.16	0	11.36	0	98.2	75.1	127	0	0	0	

**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