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**SITE INVESTIGATION WORKPLAN  
FIRE STATION No. 3  
3200 SANTA RITA ROAD  
PLEASANTON, CALIFORNIA**

**August 10, 2007**

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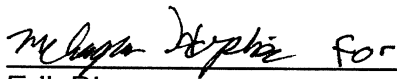
A Site Investigation Workplan Prepared for:

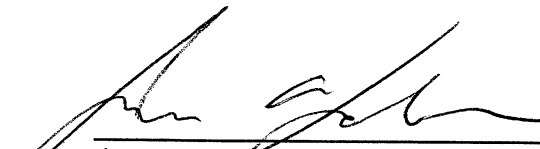
Mr. James W. Gotcher  
City of Pleasanton  
Public Works / Development Services  
200 Old Bernal Avenue  
P.O. Box 520  
Pleasanton, California 94566

**SITE INVESTIGATION WORKPLAN  
FIRE STATION No. 3  
3200 SANTA RITA ROAD  
PLEASANTON, CALIFORNIA**

File No.: 84855/FS3

Prepared by:

  
\_\_\_\_\_  
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Environmental Engineer

  
\_\_\_\_\_  
James A. Lehrman, PG, CHG  
Environmental Group Manager



**KLEINFELDER, INC.**  
7133 Koll Center Parkway  
Pleasanton, California 94566  
(925) 484-1700

August 10, 2007

**SITE INVESTIGATION WORKPLAN  
 FIRE STATION No. 3  
 3200 SANTA RITA ROAD  
 PLEASANTON, CALIFORNIA**

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**APPENDIXES**

- Appendix A Analytical Report
- Appendix B Site Plan with Proposed Boring Locations
- Appendix C Site Health and Safety Plan

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## 1 INTRODUCTION

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Kleinfelder (Kleinfelder) has prepared this Workplan on behalf of City of Pleasanton (Owner) to investigate a fuel release at Fire Station No. 3 located at 3200 Santa Rita Road in Pleasanton, California (site). This Workplan is being submitted in accordance with the request of the Alameda County Environmental Health (ACEH), Environmental Health Division.

### 1.1 OBJECTIVES AND SCOPE OF WORK

The objective of the investigation is to assess the possible impact of a petroleum hydrocarbon release on soil and groundwater beneath the site. To meet this objective the following scope of work will be implemented.

- Advance one direct-push soil boring at the location of the former USTs;
- Collect soil samples and a groundwater grab sample from the borehole for laboratory analysis; and
- Prepare a report of the investigation.

## 2 BACKGROUND INFORMATION

---

On September 12, 1996, two underground storage tanks (USTs) were removed from Fire Station No. 3 located at 3200 Santa Rita Road. The USTs were each 500 gallons in capacity; one contained gasoline and the other contained diesel fuel. According to the Fire Department's *Hazardous Materials Record of Inspection* prepared on the day of the UST removal, the piping elbows for both the diesel and gasoline USTs were rusted, corroded and had holes in them. Both the diesel and gasoline USTs were tar wrapped with no obvious holes or rust, but there was obvious contamination from pipe leakage and gasoline odors. Four soil samples were collected: one from beneath the gasoline UST at a depth of approximately 9.5 feet below ground surface (bgs); one from the south sidewall of the excavation at a depth of approximately 4 feet bgs; and two from the stockpile. The highest detected concentrations were in the sidewall sample, with total petroleum hydrocarbons (TPH) as diesel (TPHd) detected at 2,800 mg/kg. The deeper soil sample had only minor detected concentration with TPHd at 29 mg/kg. Benzene was not detected in any of the soil samples. A report dated October 14, 1996 by the UST removal contractor, W.A. Craig, includes additional detail, and recommended further excavation to remove additional soil containing petroleum hydrocarbons.

According to a report by Ecology Recovery Associates (ERA), dated January 6, 1997, ERA excavated additional soil from the site and coordinated disposal of the contaminated soil. On November 27, 1996 approximately 12 additional cubic yards (cy) of soil from along the south side of the excavation was removed. A sample collected from a gravel layer at 2 feet bgs contained TPHd at 12,000 mg/kg, however, two additional samples collected from a dense clay below the gravel layer had no detectable TPHd concentrations. On December 19, 1996 approximately 7 additional cy of soil was excavated from the south sidewall. A sample collected from the remaining gravel layer detected only 2 mg/kg TPHd.

On June 26, 2007, at the request of the City of Pleasanton, Kleinfelder supervised the drilling of a soil boring at the location of the former USTs. The objective of the drilling was to assess the impact of the fuel release on soil and groundwater beneath the site, with the intention of obtaining regulatory case closure. However, due to a greater than anticipated depth to groundwater and the depth limitation of the drilling rig, the boring

was terminated at a depth of 28 feet below ground surface (bgs). No indications of soil contamination were observed in the boring, however groundwater was not encountered. A soil sample was collected from the boring at a depth of approximately 12 bgs. The only detected concentration in this sample was TPHd at 2.2 mg/kg. A copy of the analytical report for that sample is included as Appendix A.

### 3 FIELD ACTIVITIES

---

This section describes the proposed field activities at the site. The following topics are discussed in this section:

- Field Preparation Activities
- Soil Sampling
- Groundwater Sampling
- Decontamination of Sampling Equipment
- Investigation-Derived Waste Management

The project activities will be conducted under the supervision of a California Professional Geologist (PG) or Professional Engineer (PE). Kleinfelder will contract with state-licensed drillers, analytical laboratories, surveyors and hazardous materials contractors and transporters, as needed.

#### 3.1 FIELD PREPARATION ACTIVITIES

Kleinfelder will prepare and submit a drilling permit application to Zone 7 Water Agency. The application will include the proposed boring location, site map, and a description of activities. A site plan / sketch with the proposed boring location is included in Appendix B.

Kleinfelder will visit the site and mark the proposed boring location with white paint. Underground Service Alert will be notified at least two working days prior to the initiation of the drilling activities, as required by law. In addition, Kleinfelder will contract with a private utility locator to visit the site and check for utilities within a five-foot radius of the drilling locations.

#### 3.2 SOIL SAMPLING

The soil samples collected during this investigation will be completed using a truck-mounted, direct-push drill rig to minimize generated waste. If necessary, asphalt or concrete overlying borehole locations will be cored prior to drilling. The boreholes will

be advanced using direct-push drilling methods to five feet below the first encounter of groundwater (anticipated at approximately 55 feet bgs). Pre-inserted sample liners will be collected and the desired sample intervals will be selected for laboratory analysis. The soil will be screened with a PID and visually inspected to identify areas of impacted soil. One soil sample will be collected at approximately 50 feet below ground surface (ft bgs), unless another sample interval is identified as being impacted. The ends of each sample interval will be covered with Teflon<sup>®</sup> sheets and capped with plastic end caps. Samples will be placed in a cooler with ice for transport to the laboratory following chain-of-custody protocol. A Kleinfelder geologist or engineer will oversee the sampling activities and will prepare a log of the soils encountered in each boring.

### 3.3 GROUNDWATER SAMPLING

During this investigation one groundwater grab sample will be collected from the proposed boring. The groundwater sample will be collected at a depth of five feet below the first encounter of groundwater, anticipated at approximately 55 feet bgs. Once the boring is advanced to a depth of approximately 60 feet bgs, as described in Section 3.2, a small diameter polyvinyl chloride (PVC) pipe with a 10 foot screen section will be inserted to the bottom of the borehole. The groundwater sample will be collected using small diameter disposable bailer. Groundwater samples collected for analysis will be placed in appropriate containers, labeled, and placed into Ziploc<sup>™</sup> plastic bags. The samples will be placed in a cooler with ice for transport to the laboratory following chain-of-custody protocol.

### 3.4 ANALYTICAL TESTING

Soil and groundwater samples will be submitted for TPHg, TPHd, BTEX and fuel oxygenates analysis. Analyses will be performed using the following methods:

- TPHg and TPHd by EPA Test Method 8015M; and
- VOCs by EPA Test Method 8260;



### 3.5 BACKFILLING

Following the collection of groundwater samples, the PVC pipe will be withdrawn from the borehole. The boring will be sealed from the bottom to ground surface with neat cement grout (one 94-pound sack of Portland cement to approximately 5 gallons of water) and finished with cold asphalt or concrete patch to match the existing surface.

### 3.6 DECONTAMINATION OF SAMPLING EQUIPMENT

Prior to performing field activities, the sampling equipment will be pre-cleaned. All sampling equipment will be decontaminated prior to collecting each soil sample. The decontamination procedures will include: (1) removal of gross contamination by scraping, pulling or brushing (as necessary) followed by a tap water rinse; (2) Liquinox™ or equivalent equipment wash; (3) tap water rinse; and (4) deionized water rinse.

### 3.7 INVESTIGATION-DERIVED WASTE MANAGEMENT

Investigation-derived waste (IDW), such as decontamination rinsate fluids, soil cuttings and discarded groundwater will be separately drummed and temporarily held at the site in a labeled, U.S. Department of Transportation-approved, 55-gallon steel drum for later disposal pursuant to the City's direction.

## 4 QUALITY ASSURANCE/QUALITY CONTROL

---

This section describes the field and laboratory quality assurance/quality control (QA/QC) procedures that will be implemented during implementation of this workplan.

### 4.1 FIELD PROCEDURES

The following four formats will be used to document the implementation of field activities:

- Field data sheets;
- Photo-documentation record;
- Sample labels; and
- Chain-of-custody form.

#### 4.1.1 *Field Data Sheets*

Field data sheets will be completed in the field to document field activities. The data sheets will include: daily field reports, air monitoring records, and geologic boring logs.

#### 4.1.2 *Photo-documentation Record*

Photographs will be used to document the field activities. These photographs will be logged and placed into the report, as appropriate.

#### 4.1.3 *Sample Labels*

Sample labels will be completed in waterproof ink at the time of sample collection and before the sample is placed into the cooler. The following information will be included on the sample label: sample number, date and time, sample location and client, analysis and laboratory, preservative, samplers' initials, and project number.

#### 4.1.4 Chain-of-Custody

A chain-of-custody record will be completed as soil and groundwater samples are collected, so that samples do not have to be removed from the cooler prior to delivery to the laboratory. The record will be checked for completeness at the end of each day samples are collected and signed. It will then be hand-delivered with the samples to the laboratory. Information on the chain-of-custody record will include: sample data and time, sample ID and location, matrix, number of containers, required analyses, preservative, turnaround time, project manager's name, project number, project name and location, laboratory name, and sampler signatures.

#### 4.2 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

All analytical testing will be performed by a Cal/EPA ELAP-accredited hazardous-waste fixed-base laboratory. The laboratory will be responsible for maintaining custody of the samples, and for maintaining all associated records documenting that custody. Upon receipt of the samples, the laboratory will check the original chain-of-custody documents and compare them with the labeled contents of each sample container for accuracy and traceability.

## 5 REPORT PREPARATION

---

Following completion of the site investigation and receipt of the soil and groundwater analytical results, a letter report will be prepared to document the activities, findings, and conclusions of the investigation and to provide recommendations. The report will be submitted to the City of Pleasanton and will include:

- Introduction, purpose, and objectives of the investigation;
- Site map showing borehole locations;
- Presentation of soil and groundwater analytical results (tables and plates) in the context of regulatory agency action levels and guidelines;
- Certified laboratory analytical reports and chain-of-custody records; and
- Conclusions and recommendations for future work, if appropriate.

The investigation and the report preparation will be conducted under the direct supervision of and will be signed by a California Professional Geologist (PG) or Professional Engineer (PE).

## 6 SCHEDULE

---

Kleinfelder will begin implementation of this workplan as soon as approval has been granted by City of Pleasanton and the ACEH. The field preparation activities will be completed first, including securing the required permits and approvals from Zone 7 Water Agency. Kleinfelder will then schedule the utility clearance and drilling subcontractors. The actual fieldwork is anticipated to take one day.

Analytical results will be available one week after submittal of the samples to the laboratory. Kleinfelder will prepare a draft of the letter report and submit the draft to the City approximately two weeks after receipt of the analytical results. After incorporating the City's comments, we will finalize the report for submittal to the ACEH.

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## 7 QUALIFICATIONS

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Kleinfelder maintains current licenses, certifications, and training required for hazardous waste operations in the State of California, including:

- State of California Contractors State License Board General Engineering Contractor (A) License; and
- Federal Occupation Safety and Health Administration (OSHA) 40-hour health and safety training for hazardous waste operations (29 CFR 1910.120) certifications for all site workers.

The drilling contractor selected by Kleinfelder will have the following certifications and training:

- Class C-57 Contractor's License for the State of California; and
- Federal Occupation Safety and Health Administration (OSHA) 40-hour health and safety training for hazardous waste operations (29 CFR 1910.120) certifications for all site workers.

The laboratory contractors selected by Kleinfelder will have the following certifications:

- Current Cal/EPA ELAP accreditation for all the analytical methods used.

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## 8 HEALTH AND SAFETY

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A Health and Safety Plan is included in Appendix C. The Health and Safety Plan was prepared in accordance with Federal OSHA and California Department of Safety and Health (DOSH) requirements outlined in 29 CFR Part 1910.120[jj]; Title 8, CCR, Section 5192.

The site-specific HASP provides general guidelines for decision points in site safety planning, and will establish personnel protection standards and mandatory safety practices and procedures. The HASP covers the following subjects:

- Emergency contacts to be used in the event of an accident or exposure;
- Description of site hazards, both physical and chemical;
- On-site monitoring and personnel protection;
- Project team organization and responsibilities;
- Site control measures; and
- Decontamination procedures.

The provisions of the HASP will be mandatory for all onsite personnel; all Kleinfelder subcontractors shall conform to this plan at a minimum.

## 9 LIMITATIONS

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

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

During the course of the performance of Kleinfelder's services, hazardous materials may be discovered. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage or



treatment of hazardous materials within the meaning of any governmental statute, regulation or order. The Client will be solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. The Client will be responsible for all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

Regulations and professional standards applicable to Kleinfelder's services are continually evolving. Techniques are, by necessity, often new and relatively untried. Different professionals may reasonably adopt different approaches to similar problems. As such, our services are intended to provide the Client with a source of professional advice, opinions and recommendations. Our professional opinions and recommendations 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 the Client. Consequently, no warranty or guarantee, expressed or implied, is intended or made.

# **APPENDIX A**

## **ANALYTICAL REPORT**

**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mccampbell.com E-mail: main@mccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

Kleinfelder, Inc. 7133 Koll Center Pkwy, #100 Pleasanton, CA 94566	Client Project ID: #84855/S&A; Pleasanton Fire	Date Sampled: 06/26/07
		Date Received: 06/26/07
	Client Contact: Jim Lehrman	Date Reported: 07/03/07
	Client P.O.:	Date Completed: 07/03/07

**WorkOrder: 0706693**

July 03, 2007

Dear Jim:

Enclosed are:

- 1). the results of 1 analyzed sample from your **#84855/S&A; Pleasanton Fire project**,
- 2). a QC report for the above sample
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

WorkOrder: 0706693

ClientID: KFP

EDF     Excel     Fax     Email     HardCopy     ThirdParty

Report to:

Jim Lehrman  
Kleinfelder, Inc.  
7133 Koll Center Pkwy, #100  
Pleasanton, CA 94566

Email: jlehrman@kleinfelder.com  
TEL: (925) 484-170    FAX: (925) 484-583  
ProjectNo: #84855/S&A; Pleasanton Fire  
PO:

Bill to:

Accounts Payable  
Kleinfelder Inc.  
7133 Koll Center Pkwy, #100  
Pleasanton, CA 94566

Requested TAT: 5 days

*Date Received 06/26/2007*

*Date Printed: 06/26/2007*

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0706693-002	SR-1-12	Soil	6/26/07 2:21:00	<input type="checkbox"/>	A	A	A										

**Test Legend:**

1	G-MBTEX S	2	MBTEXOXY-8260B S	3	TPH(D) S	4		5	
6		7		8		9		10	
11		12							

The following SampID: 002A contains testgroup.

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **Kleinfelder, Inc.**

Date and Time Received: **6/26/07 8:15:28 PM**

Project Name: **#84855/S&A; Pleasanton Fire**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0706693** Matrix Soil

Carrier: EnviroTech

**Chain of Custody (COC) Information**

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

- All samples received within holding time? Yes  No
- Container/Temp Blank temperature Cooler Temp: 6.8°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA

-----

Client contacted:

Date contacted:

Contacted by:

Comments:





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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
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Kleinfelder, Inc.  7133 Koll Center Pkwy, #100  Pleasanton, CA 94566	Client Project ID: #84855/S&A; Pleasanton Fire	Date Sampled: 06/26/07
	Client Contact: Jim Lehrman	Date Received: 06/26/07
	Client P.O.:	Date Analyzed: 06/27/07
		Date Extracted: 06/26/07

### Oxygenates and BTEX by GC/MS\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0706693

Lab ID	0706693-002A				Reporting Limit for DF =1
Client ID	SR-1-12				
Matrix	S				
DF	1				

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND				0.005	NA
Benzene	ND				0.005	NA
t-Butyl alcohol (TBA)	ND				0.05	NA
Diisopropyl ether (DIPE)	ND				0.005	NA
Ethylbenzene	ND				0.005	NA
Ethyl tert-butyl ether (ETBE)	ND				0.005	NA
Methyl-t-butyl ether (MTBE)	ND				0.005	NA
Toluene	ND				0.005	NA
Xylenes	ND				0.005	NA

### Surrogate Recoveries (%)

%SS1:	98			
%SS2:	99			
%SS3:	99			

### Comments

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

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

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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







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Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0706693

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 28966				Spiked Sample ID: 0706679-014A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	0.60	93.2	103	10.2	109	108	1.09	70 - 130	30	70 - 130	30
MTBE	ND	0.10	93.6	95.2	1.73	103	103	0	70 - 130	30	70 - 130	30
Benzene	ND	0.10	93.7	96.8	3.29	101	105	3.81	70 - 130	30	70 - 130	30
Toluene	ND	0.10	88.9	92.5	3.82	93.9	97.6	3.86	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	94.7	99.9	5.35	105	107	2.24	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	107	110	3.08	100	103	3.28	70 - 130	30	70 - 130	30
%SS:	84	0.10	95	76	21.7	95	97	2.05	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 28966 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0706693-002A	06/26/07 2:21 PM	06/26/07	06/29/07 9:56 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.



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Telephone: 877-252-9262 Fax: 925-252-9269

### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0706693

Analyte	EPA Method SW8015C		Extraction SW3550C			BatchID: 28922			Spiked Sample ID: 0706632-023A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	ND	20	111	112	0.616	113	110	2.31	70 - 130	30	70 - 130	30
%SS:	93	50	114	116	1.36	113	110	2.71	70 - 130	30	70 - 130	30

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

NONE

#### BATCH 28922 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0706693-002A	06/26/07 2:21 PM	06/26/07	06/27/07 9:16 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount Spiked)$ ;  $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

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



# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0706693

EPA Method SW8260B	Extraction SW5030B			BatchID: 28925				Spiked Sample ID: 0706632-023A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	107	110	3.32	104	102	2.31	70 - 130	30	70 - 130	30
Benzene	ND	0.050	123	118	4.39	117	112	4.43	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	103	103	0	101	102	0.409	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	109	111	2.37	103	105	2.79	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	117	114	2.77	108	102	5.42	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	128	126	2.03	119	119	0	70 - 130	30	70 - 130	30
Ethanol	ND	2.5	107	101	5.97	107	107	0	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	115	118	2.40	109	108	0.308	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	116	118	1.72	111	109	1.65	70 - 130	30	70 - 130	30
Toluene	ND	0.050	119	124	4.22	100	107	6.54	70 - 130	30	70 - 130	30
%SS1:	87	0.050	103	103	0	102	98	3.45	70 - 130	30	70 - 130	30
%SS2:	100	0.050	102	108	6.05	94	98	3.55	70 - 130	30	70 - 130	30
%SS3:	100	0.050	103	116	12.4	102	113	9.61	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 28925 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0706693-002A	06/26/07 2:21 PM	06/26/07	06/27/07 3:52 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - \text{Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

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

# **APPENDIX B**

## **Site Plan with Proposed Boring Locations**

CITY OF PLEASANTON FIRE DEPARTMENT  
 4444 RAILROAD ST  
 PLEASANTON, CALIF 94566  
 (415) 847-8114  
 LONG FORM HAZARDOUS MATERIALS MANAGEMENT PLAN

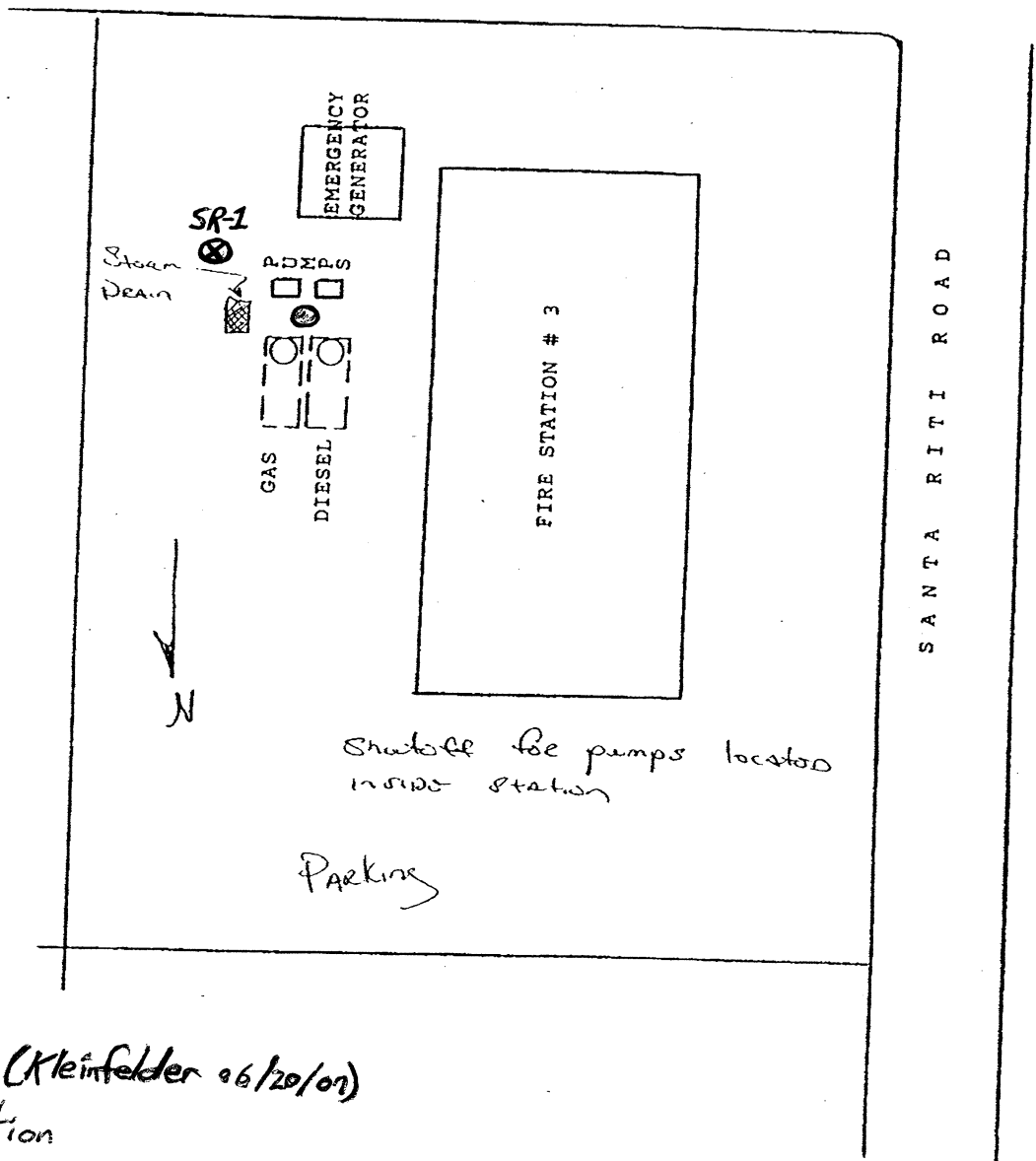
PLOT PLAN

ON THIS PAGE SKETCH A SIMPLE LINE DRAWING OF THE FACILITY SHOWING:

1. LOCATION OF HEATERS, AIR CONDITIONING EQUIPMENT, VENTILATORS, FANS, ETC.
2. LOCATION OF SHUT-OFF SWITCHES FOR ABOVE
3. SURFACE RUNOFF DETAILS-INCLUDE LOCATION OF STORM AND SANITARY SEWER DRAINS.
4. LOCATION OF ALL BUILDINGS AND STRUCTURES AND USES.
5. LOCATION OF CHEMICAL LOADING AREAS.
6. SHOW ADJACENT STREETS AND PROPERTY USES.
7. PARKING LOT LOCATION.
8. LOCATION OF ALL EMERGENCY RESPONSE EQUIPMENT.

INDICATE NORTH DIRECTION TOWARDS TOP OF PAGE.  
 DRAW TO LEGIBLE SCALE AND INDICATE SCALE.

NAME HAS POSITIVE BLDG



⊗ = Boring SR-1 (Kleinfelder 9/6/20/07)  
 ⊙ = Proposed Location

# **APPENDIX C**

## **HEATH AND SAFETY PLAN**

## SITE-SPECIFIC HEALTH AND SAFETY PLAN

**Project No.** 84855 **Date** August 10, 2007  
**Client** City of Pleasanton **Address** 200 Old Bernal Avenue  
**Site Contact** James Gotcher **Site Phone No.** 925-931-5684  
**Job Location** 3200 Santa Rita Road, Pleasanton, CA 94566  
**Work Objectives** Collecting soil vapor, soil and/or groundwater samples.

**Key Individuals:** **Project Manager** Jim Lehrman  
**Site Health and Safety** John Williams  
**Prepared by** Mehagan Hopkins, Erik Bluvas **Reviewer/Approver** Jim Lehrman  
**Hospital/Clinic** Pleasanton Urgent Care  
**Phone No.** 925-462-9300  
**Address:** 3128 Santa Rita Road, Pleasanton, CA  
**Paramedic** 911 **Fire Dept.** 911 **Police Dept.** 911

**Emergency/Contingency Plans:** Stop work and evaluate situation and stabilize victim(s). Notify health and safety officer or site project manager. Apply first aid and/or seek medical aid as necessary. Move injured personnel only if injuries permit. If necessary call Ambulance and/or Medical Personnel to transport injured to hospital. Refer to attached maps for location of nearest medical facility site. Health and Safety Officer to notify Client and appropriate personnel of situation.

**15 Minute Eyewash** not required **Fire Extinguisher** required **First Aid Kit** required

**Site Control Measures:** Do not allow unauthorized personnel into the work area.

**Personal Decontamination Procedures:** Disposable gloves will be utilized for soil sampling procedures. Skin that comes in contact with soil will be washed immediately with soap and water. Goggles should be worn during sampling to protect eyes. Hands and face shall be thoroughly washed prior to eating, drinking, smoking, or other hand to mouth contact. Soil will be removed as thoroughly as possible from outerwear (especially boots and shoes) before getting in vehicles.

## CHEMICAL HAZARDS

The primary chemicals of concern at the site are VOCs. Acute/chronic health effects associated with these and other chemicals are listed in the table below.

Chemical Name	Expected Concentration	Health Hazards
Fuel Hydrocarbons (i.e. gasoline); TPH-gasoline	Unknown	<u>Acute:</u> Headache, nausea, dizziness, skin/eye irritation, blurred vision, abdominal pains, vertigo, diarrhea, convulsions. <u>Chronic:</u> n/a
Total Petroleum Hydrocarbons (Diesel and other petroleum hydrocarbons); TPD-diesel	Unknown	<u>Acute:</u> skin, eye, and respiratory irritation; headache, dizziness. <u>Chronic:</u> n/a
Benzene	Unknown	<u>Acute:</u> Abdominal pain, headache, dizziness. <u>Chronic:</u> <b>Carcinogen</b> , anemia, leukemia,
Toluene	Unknown	<u>Acute:</u> Dermatitis (skin), respiratory irritant, headache, dizziness <u>Chronic:</u> n/a
Ethyl Benzene	Unknown	<u>Acute:</u> Skin/eye irritant, headache, dizziness <u>Chronic:</u> n/a
Xylenes	Unknown	<u>Acute:</u> Skin/eye irritant, headache, dizziness, drowsy <u>Chronic:</u> n/a

Notes:  $\mu\text{g}/\text{m}^3$  = Micrograms per cubic meter of air.  
 $\text{mg}/\text{kg}$  = milligrams per kilogram, approximately equivalent to parts per million (ppm)  
n/a = Not Applicable

### Respiratory Protection

The principal routes of potential exposure are inhalation and ingestion during field activities. However, at this time, Level D personal protective equipment without respiratory protection is anticipated. Kleinfelder site activities are not expected to generate significant quantities of dust. If site conditions are different or change, the need for respiratory protection will be reevaluated.



### PHYSICAL HAZARDS

Physical hazard during sampling consist of accidents that can occur during handling of sharp tools and injuries resulting form trips and falls. In general, these types of accidents will be minimized by the use of proper safety equipment (hard hat, safety glasses, steel-toed boots), good communication among all on-site personnel, and being alert to potential hazards. Safety hazards associated with this site requiring specific precautions are summarized below.

### PHYSICAL HAZARDS

<input checked="" type="checkbox"/> Heat	<input checked="" type="checkbox"/> Slip, Trip, Fall	<input type="checkbox"/> Excavations/Trench
<input checked="" type="checkbox"/> Cold	<input type="checkbox"/> Electrical Hazards	<input checked="" type="checkbox"/> Moving Equipment
<input checked="" type="checkbox"/> Wet	<input checked="" type="checkbox"/> Underground Hazards	<input type="checkbox"/> Confined Space
<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Overhead Hazards	
<input type="checkbox"/> Other _____		

### PERSONAL PROTECTIVE EQUIPMENT

R = Required

A = As Needed

<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Safety Eyegear: <u>glasses w/ side protection</u>
<input checked="" type="checkbox"/> Safety Boots	<input checked="" type="checkbox"/> Respirator (Type): Full-face <input type="checkbox"/> Half-face <input checked="" type="checkbox"/> A
<input checked="" type="checkbox"/> Orange Vest	<input checked="" type="checkbox"/> Filter Type: Organic vapor <input checked="" type="checkbox"/> Acid gas <input type="checkbox"/> HEPA <input checked="" type="checkbox"/> A
<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Gloves (Type): Neoprene <input type="checkbox"/> PVC <input checked="" type="checkbox"/> Nitrile
<input checked="" type="checkbox"/> Tyvek Coveralls	<input checked="" type="checkbox"/> Other <u>Mobile phone</u>
<input type="checkbox"/> 5 Minute Escape Respirator	

**In general, if air monitoring readings in workers' breathing zone exceed 5 ppm for 60 seconds or longer, upgrade to Level C (respirator, etc.) or vacate the immediate area.**

### MONITORING EQUIPMENT

<input type="checkbox"/> Organic Vapor Analyzer (FID)	<input checked="" type="checkbox"/> PID with lamp of <u>10.6 eV</u>
<input type="checkbox"/> Oxygen Meter	<input type="checkbox"/> Detector Tube (specify) _____
<input type="checkbox"/> Combustible Gas Meter	<input type="checkbox"/> Passive Dosimeter
<input type="checkbox"/> H <sub>2</sub> S Meter	<input type="checkbox"/> Air Sampling Pump
<input type="checkbox"/> W. B. G. T.	Filter Media _____

**ONSITE SAFETY MEETING ATTENDEES**

Signature	Name (Printed)/Title	Date

# Directions to Pleasanton, CA 94588, United States



## Summary and Notes

**START** **A** 3200 Santa Rita Rd, Pleasanton, CA 94588, United States

**FINISH** **B** 3128 Santa Rita Rd, Pleasanton, CA 94588, United States

**Total Distance: 0.8 miles, Total Time: 1 min (approx.)**

Add your notes here...

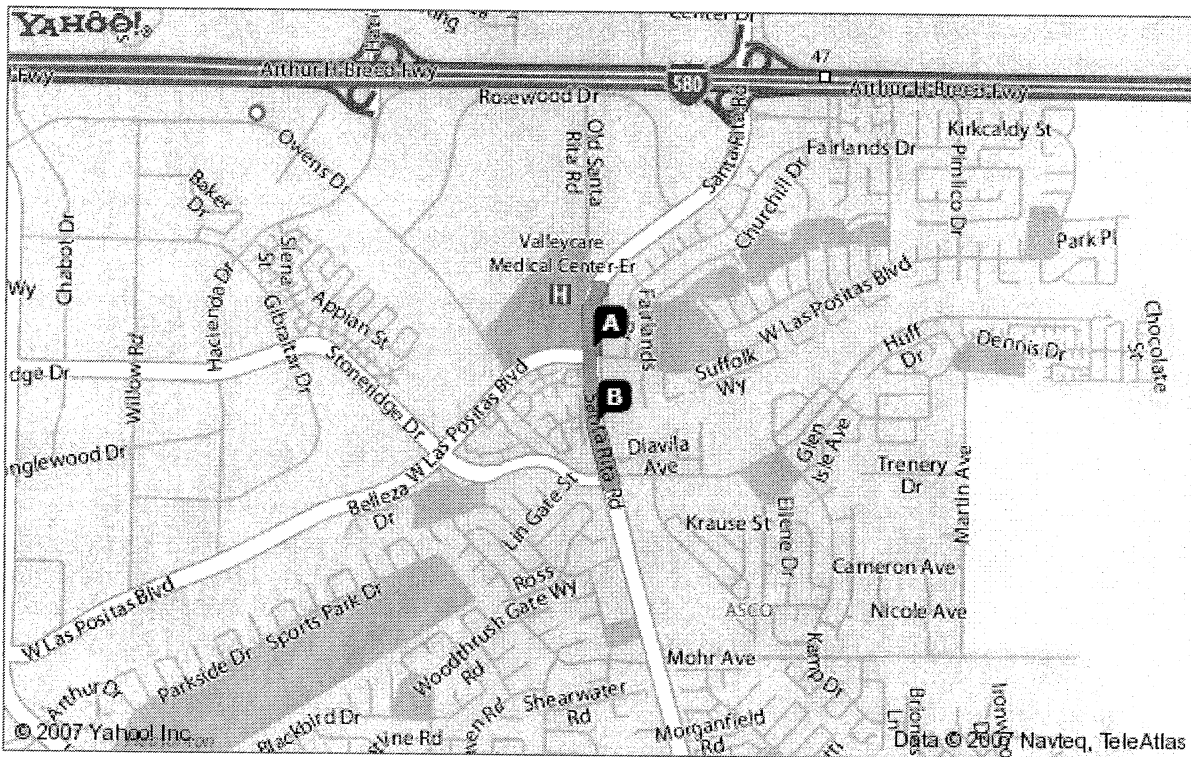
Distance

**A** 3200 SANTA RITA RD, PLEASANTON, CA 94588, UNITED STATES

- 1. Start at 3200 SANTA RITA RD, PLEASANTON go 0.2 mi
- 2. Make a U-Turn at OLD SANTA RITA RD onto SANTA RITA RD go 0.5 mi
- 3. Make a U-Turn at STONERIDGE DR onto SANTA RITA RD go 0.1 mi
- 4. Arrive at 3128 SANTA RITA RD, PLEASANTON

**B** 3128 SANTA RITA RD, PLEASANTON, CA 94588, UNITED STATES

Distance: 0.8 miles, Time: 1 mins



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