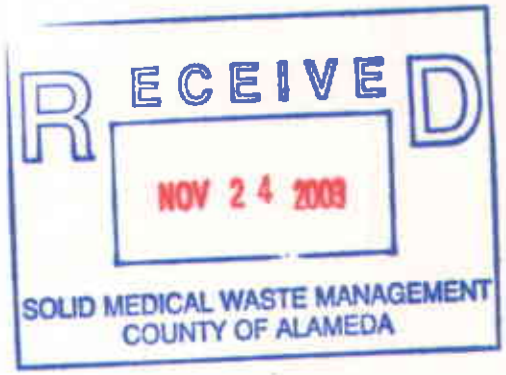
Environmental Consultants

6601 Koll Center Parkway
Suite 140
Pleasanton, CA 94566

925 426-0080
FAX 925 426-0707
www.scsengineers.com

SCS ENGINEERS

November 21, 2003
File No.: 01203087.00



Ms. Eva Chu
Alameda County Health
Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-9335

Subject: Groundwater Monitoring, Soil Vapor Survey, and Source Removal Report, Friesman Ranch Property, Livermore, California

Dear Ms. Chu:

SCS Engineers is pleased to submit the subject report for the Friesman Ranch Property, located at 1600 Friesman Road in Livermore, California (Site), on behalf of Children's Hospital Medical Foundation. This report describes activities at the Site conducted between July and October 2003. The work conducted included third quarter 2003 groundwater monitoring, a soil vapor survey of the fuel release area, fuel system source removal, and non-fuel related waste removal. This report includes a request for regulatory closure of the Site fuel leak case.

We trust that the attached submittal meets your requirements. Should you require any additional information and/or clarification, please call me at (925) 426-0080.

Very truly yours,

James A. Lehrman, RG, CHG
Senior Technical Manager

Attachments

cc: Ms. Lorraine Del Prado, Children's Hospital Medical Foundation
Ms. Leah Goldberg, Hansen, Bridgett, Marcus, Vlahos and Rudy, LLP

RO-284

GROUNDWATER MONITORING, SOIL VAPOR SURVEY, AND SOURCE REMOVAL REPORT FRIESMAN RANCH PROPERTY 1660 FRIESMAN ROAD LIVERMORE, CALIFORNIA

Prepared for:

Children's Hospital and Research Center Foundation
5225 Dover Street
Oakland, California 94609-1809

Prepared by:

SCS Engineers
6601 Koll Center Parkway, Suite 140
Pleasanton, California 94566

November 21, 2003
File No. 01203087.00

List of Figures

List of Tables

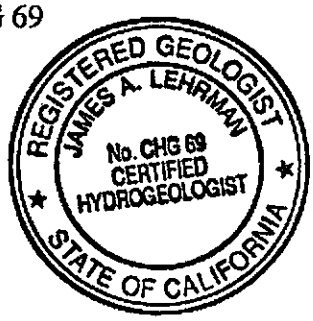
List of Appendixes

This Groundwater Monitoring, Soil Vapor Survey, and Source Removal Report for the Friesman Ranch Property, Livermore, California, dated November 21, 2003 has been prepared and reviewed by the following:

Emily Harris
Staff Geologist

Alex Naughton
Project Scientist
Registered Environmental Assessor No. 7819

James A. Lehrman
Senior Technical Manager
California Registered Geologist #5032
California Certified Hydrogeologist #HG 69
SCS ENGINEERS



GROUNDWATER MONITORING, SOIL VAPOR SURVEY, AND SOURCE REMOVAL REPORT FRIESMAN RANCH PROPERTY 1660 FRIESMAN ROAD LIVERMORE, CALIFORNIA

1 INTRODUCTION

1.1 OBJECTIVES AND SCOPE OF WORK

This report describes activities conducted between July and October 2003 at the Friesman Ranch Property (Site), a former dairy, which is located at 1600 Friesman Road, in Livermore, California. The overall objective of the work performed is to bring the Site to regulatory closure for the Site fuel release case, and to prepare the Site for possible redevelopment. Work was conducted by SCS Engineers (SCS) and subcontractors, and included Third Quarter 2003 Groundwater Monitoring, a Soil Vapor Survey of the fuel release area, fuel system source removal, and non-fuel related waste removal. A Site Location Map is included as Figure 1, and a Site Plan is presented as Figure 2.

The objectives of groundwater sampling activities performed were to track spatial and temporal variations in groundwater conditions, and assess current Site groundwater conditions. To meet these objectives, the following scope of work was performed: groundwater monitoring including water-level measurements and collection of water quality samples for chemicals-of-concern (COCs) and biological attenuation (bio-attenuation) parameters; evaluation of bio-attenuation parameters; and reporting of groundwater monitoring results and conclusions.

Soil vapor sampling at the Site was performed to assess possible volatilization to indoor air as an exposure pathway, as described in the exposure assessment section of the Risk-Based Corrective Action (RBCA) Tier 2 Evaluation performed by Kleinfelder, Inc. (Kleinfelder, 1997b).

The apparent source of petroleum hydrocarbon contamination at the Site was a former heating oil aboveground storage tank (AST) used to fuel two boilers in the Site dairy building (Kleinfelder, 1997b). Heating oil is typically composed of diesel range and gasoline range hydrocarbons (Bruya, 1993). In order to remove remaining secondary sources of petroleum hydrocarbon contamination at the Site, in August and September 2003 SCS removed the two boilers, the metal shed which historically housed the former heating oil AST, the underground fuel piping and affected soil.

In order to prepare the Site for possible redevelopment, SCS removed certain non-petroleum hydrocarbon materials from the vicinity of the dairy building. These materials included drums of sodium silicate solution, and an old trash incinerator.

1.2 BACKGROUND

The Site was first developed in the 1910s with houses, barns and outbuildings associated with the former on-site dairy. Dairy operations ceased in 1971, and since that time the Site has been used for residential housing. During a Phase I Environmental Site Assessment conducted in 1997, petroleum hydrocarbons were detected in soil samples collected from the vicinity of the two boilers and in soil and groundwater samples collected in the driveway between the boilers and the metal shed which historically housed the fuel oil AST (Kleinfelder, 1997a).

Six groundwater monitoring wells were installed at the Site in 1997, at which time a quarterly groundwater sampling plan was initiated. Two additional wells were installed at the Site in 1999. A quarterly groundwater sampling program currently remains in effect; SCS conducted a sampling event in July 2003.

1.2.1 Previous Investigations

A Phase I Environmental Site Assessment and Limited Soil and Groundwater Sampling Report was completed in July 1997 by Kleinfelder (Kleinfelder, 1997a). Recommendations included additional soil sampling in the area between the boilers and the metal shed which housed the former heating oil AST, and the removal of various materials and debris from the Site.

In October 1997, Kleinfelder completed a report entitled *Remedial Investigation, RBCA Tier 2 Evaluation and Remedial Action Plan (Kleinfelder, 1997b).* Recommendations included the installation of one new monitoring well and a quarterly groundwater monitoring schedule with samples being analyzed for petroleum hydrocarbons.

Groundwater monitoring reports for the Site have been generated by Kleinfelder, ATC Associates (ATC), and SCS since September 1997.

2 GROUNDWATER MONITORING, THIRD QUARTER 2003

This section of the report describes the results of the Third Quarter 2003 Groundwater Monitoring Event at the Site.

2.1 Field Activities

Groundwater sampling activities were performed by SCS on July 21, 2003. Figure 2 shows the locations of the existing groundwater monitoring wells.

2.1.1 Groundwater Monitoring Activities

The eight Site wells (KMW-1 through KMW-8) were monitored for depth to groundwater during this event; only wells KMW-1, KMW-6, KMW-7 and KMW-8 were sampled. The goal of these activities was to measure water levels and collect water quality samples that accurately represent stabilized aquifer conditions. Prior to sampling, field instrumentation was successfully calibrated and/or checked before opening the monitoring wells.

2.1.1.1 Water Level Measurement

Prior to purging, the wells were opened and ventilated for a minimum of 0.5 hour, and the depth to water was then measured in the wells to the nearest 0.01-foot using a clean, calibrated electronic water-level indicator. Water-level data were used to calculate the required purge volumes for sampling. Measurements were recorded on Well Sampling Records (Appendix A).

2.1.1.2 Groundwater Sample Collection

Upon completion of the water-level measurements, SCS purged the monitoring wells by using a submersible pump and dedicated disposable tubing. During purging, aquifer parameters (hydrogen ion index [pH], temperature, electrical conductivity, dissolved oxygen, and oxidation-reduction potential [ORP]) were measured to evaluate whether the water from each well had stabilized prior to sampling (see Appendix A for field readings). The wells were purged until a minimum of three casing volumes of water were removed, and aquifer parameters appeared to stabilize. Water levels were allowed to recover to 80 percent of static levels before sampling.

Water samples from each well were collected using disposable polyvinyl chloride (PVC) bailers. Groundwater monitoring well samples were placed in appropriate containers (40-millilter [ml] glass volatile organic analysis [VOA] vials, 1-liter amber glass bottles and

500-ml polyethylene bottles), labeled, and the containers were then placed in Ziploc™ plastic bags. The samples were stored in an ice chest packed with loose water-based ice maintained at 4 +/- 2 degrees Celsius (°C) for delivery to the laboratory.

2.1.2 Analytical Laboratory Parameters

Groundwater monitoring well samples were analyzed for the following parameters:

- Total petroleum hydrocarbons as gasoline (TPH-g) using Modified United States Environmental Protection Agency (EPA) Method 8015C;
- Total petroleum hydrocarbons as diesel (TPH-d) using Modified EPA Method 8015C;
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B;
- Methyl tertiary-butyl ether (MTBE) using EPA Method 8021B;
- Alkalinity using Standard Methods for Water and Wastewater (SM) 2320B;
- Ferrous Iron (Fe^{+2}) using EPA Method 200.7;
- Sulfate (SO_4^{-2}) and Nitrate (NO_3^-) using EPA Method 300.1;
- Biological Oxygen Demand (BOD) using (SM) 5210B (wells KMW-1 and KMW-6 only); and
- Chemical Oxygen Demand (COD) using EPA Method 410.4 (wells KMW-1 and KMW-6 only).

2.1.3 Quality Assurance/Quality Control Sample Collection

Normal quality assurance/quality control (QA/QC) sampling includes the laboratory preparation and analysis of a trip blank that accompanies the ice chest to and from the laboratory, and the collection of a blind duplicate from one sampling location. For this event, one blind duplicate QA/QC sample was collected from well KMW-6.

During this sampling event, a trip blank was not analyzed; however, a trip blank will be analyzed during the next groundwater sampling event. Because only dedicated and/or new equipment was used to purge the wells and collect the samples, no equipment blank was collected.

2.1.4 Investigation-Derived Waste Handling Procedures

Investigation-derived wastes (IDW – purge water and decontamination rinsate liquids) were containerized on-site in labeled, United States Department of Transportation (DOT)-approved 55-gallon drums.

Drums were inspected prior to use for physical integrity and condition. Each drum was labeled to identify the waste source location, physical contents, date of collection and generator's name. A total of three drums (containing monitoring well purge water and decontamination rinsate liquids) of IDW were generated during this quarter's monitoring activities. The drums were transported to an appropriate licensed disposal/recycling facility by Cameron Environmental of Torrance, CA.

2.1.5 Site Restoration

Following completion of monitoring activities, the work area was left in a presentable and workable condition as near as practicable to original conditions.

2.2 SUMMARY OF GROUNDWATER MONITORING RESULTS

Water-level measurements were recorded on July 21, 2003. Groundwater samples were collected from four of the eight monitoring wells on the Site and submitted for analysis. The samples were analyzed at McCampbell Analytical, Inc. (McCampbell) of Pacheco, California, a laboratory certified by the California Department of Health Services (DHS) Environmental Laboratory Accreditation Program (ELAP) for the specific analyses performed.

Appendix B contains certified analytical laboratory reports and chain-of-custody records. Table 1 contains historical water level and free-product thickness measurements. Groundwater analytical results for the COCs are summarized in Table 2.

2.2.1 Water Levels

As part of the groundwater monitoring event, water levels were measured in monitoring wells KMW-1 through KMW-8 on July 21, 2003. Depths to water ranged from 12.59 to 15.08 feet below ground surface (bgs) in wells KMW-3 and KMW-5 respectively (Table 1). In July 2003, groundwater flow was to the west-northwest with a hydraulic gradient of approximately 0.01. Figure 3 shows the Site groundwater elevation contours for the July 2003 event. These results are generally consistent with the previous groundwater monitoring event in April 2003.

2.2.2 Groundwater Samples

A total of four monitoring wells (KMW-1 and KMW-6 through KMW-8) were sampled and analyzed for TPH-g, TPH-d, BTEX, MTBE and bio-parameters. Analytical results are summarized in Tables 2 and 4. Figure 4 shows the Site groundwater analytical results for the COCs for the July 2003 event.

2.2.2.1 Chemicals of Concern

Total Petroleum Hydrocarbons as Gasoline
TPH-g was detected at concentrations of 4,300 micrograms per liter (µg/L) in KMW-6 and 1,500 µg/L in KMW-7, but was not detected in the other wells. TPH-g concentrations detected in both samples are consistent with historical concentrations detected at the same locations (Table 2).

Total Petroleum Hydrocarbons as Diesel
TPH-d was detected at concentrations of 1,600 µg/L in KMW-6 and 830 µg/L in KMW-7, but was not detected in the other wells. TPH-d concentrations detected in both samples are consistent with historical concentrations detected at the same locations (Table 2).

Aromatic Hydrocarbons
Certain aromatic hydrocarbons were detected in monitoring wells KMW-6 and KMW-7, but were not detected in the other wells. Benzene was detected in excess of its drinking water maximum contaminant level (MCL), which is 1 µg/L, at concentrations of 89 µg/L in KMW-6 and 2.8 µg/L in KMW-7. Toluene was detected below its MCL (150 µg/L) at a concentration of 3.0 µg/L in KMW-6, and was not detected in any other wells. Ethylbenzene was detected below its MCL (700 µg/L) at concentrations of 130 µg/L in KMW-6 and 8.3 µg/L in KMW-7. Total xylenes were detected below the MCL (1,750 µg/L) at concentrations of 70 µg/L in KMW-6 and 28 µg/L in KMW-7. These results are consistent with historical concentrations detected at the same locations (Table 2).

Methyl Tertiary-Butyl Ether
MTBE was not detected in any of the sampled wells. These results are consistent with historical findings (Table 2).

2.2.2.2 Bio-Parameters

Dissolved Oxygen
Dissolved Oxygen (DO) is the most thermodynamically favored electron acceptor used in the biodegradation of fuel hydrocarbons. During aerobic biodegradation, DO concentrations decrease.

DO was measured in the field (Table 4), however, the DO measurements obtained this quarter appear to be elevated due to disturbance of well water by a bailer, which was used to retrieve water for the DO measurements during this event. During past events a down-hole probe was used to measure DO; this technique will be used again for future events.

Oxidation-Reduction Potential
The Oxidation-Reduction Potential (ORP) of groundwater is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. It influences and is influenced by the nature of biologically mediated degradation of COCs.

ORP ranged from -64 millivolts (mV) to -61 mV in wells in which COCs were detected (KMW-7 and KMW-6) (Table 4). ORP ranged from 4.7 mV to 165 mV in wells in which COCs were not detected (KMW-1 and KMW-8). These values generally indicate oxidizing conditions outside the COC plume and reducing conditions inside the plume.

Hydrogen-ion Index (pH) and Temperature
The pH and temperature of the shallow groundwater were at levels conducive for the metabolic activity of bacteria capable of degrading fuel hydrocarbons (Table 4).

Ferrous Iron
In some cases, Ferric Iron (Fe^{+3}) acts as an electron acceptor during anaerobic biodegradation of petroleum hydrocarbons. During this process, Fe^{+3} is reduced to Ferrous Iron (Fe^{+2}). Ferrous Iron can thus be used as an indicator of anaerobic degradation of petroleum compounds. Ferrous Iron (Fe^{+2}) was detected in wells in which COCs were detected (KMW-6 and KMW-7) at respective concentrations of 0.17 and 0.16 mg/L. Ferrous Iron concentrations ranged from 0.16 to 0.21 mg/L in wells in which COCs were not detected (KMW-1 and KMW-8) (Table 4).

Alkalinity
In general, areas impacted by petroleum hydrocarbons exhibit higher total alkalinity than that seen in background areas. This is expected because microbially mediated reactions causing biodegradation of these compounds will cause an increase in total alkalinity of the system. Alkalinity was reported at levels ranging from 377 mg/L in KMW-1 to 517 mg/L in KMW-6 (Table 4). In the impacted areas (i.e., wells KMW-6 and KMW-7), the average alkalinity was 478.5 mg/L. In areas outside the petroleum hydrocarbon plume, the average alkalinity was 413.5 mg/L.

Nitrate
After DO has been depleted in the petroleum hydrocarbon impacted areas, nitrate may be used as an electron acceptor for anaerobic biodegradation via denitrification. Nitrate concentrations are used to estimate the mass of petroleum hydrocarbons that can be degraded by this process. Nitrate was not detected in the wells sampled (Table 4).

Sulfate
After DO, nitrate and Fe^{+3} have been depleted in the impacted area, sulfate may be used as an electron acceptor for anaerobic degradation. The process is termed sulfate reduction and results in the production of sulfide. Sulfate concentrations ranged from 3.3 mg/L to 99 mg/L within the impacted area (i.e., wells KMW-6 and KMW-7) (Table 4). Concentrations in KMW-1 and KMW-8 were 79 mg/L and 110 mg/L, respectively. Samples from the impacted area exhibited the lowest and second to highest sulfate concentrations.

Biological Oxygen Demand
BOD is a measure of the demand for oxygen in the subsurface by biological processes. BOD levels ranged from <2.0 mg/L in well KMW-1 (outside the plume) to 3.2 mg/L in well KMW-6 (inside the plume).

Chemical Oxygen Demand
COD is a measure of the demand for oxygen in the subsurface by chemical processes. COD was not detected above the reporting limit of 20 mg/L in either of the two samples (KMW-1 and KMW-6) analyzed for COD. This indicates that except for biological demands, there are no significant demands for oxygen in this environment.

2.2.2.3 Quality Assurance/Quality Control Samples

The QA/QC samples collected and analyzed during this groundwater monitoring event included one blind duplicate sample. The results for this QA/QC sample are summarized on Table 3 and certified analytical laboratory reports are contained in Appendix B.

2.2.2.4 Blind Duplicate Sample

One blind duplicate sample (KMW-16) was collected from monitoring well KMW-6 on July 21, 2003. This duplicate sample was analyzed for TPH-g, TPH-d, BTEX, and MTBE. The Relative Percent Differences (RPDs) for TPH-d, TPH-g, benzene, toluene, ethylbenzene and total xylenes (the analytes detected) were 6.5, 6.7, 7.0, 53.7, 0.0, and 2.8 percent, respectively (Table 3). The RPDs for TPH-g, benzene, ethylbenzene, and total xylenes for Third Quarter 2003 were within the acceptable range, with the exception of toluene. However, the absolute difference between the toluene concentrations in the sample and in the duplicate is very small (2.2 ug/L), and does not appear to be significant.

2.3 GROUNDWATER MONITORING SUMMARY AND CONCLUSIONS

The summary and conclusions presented in this section are based on research implemented, information collected, and interpretations developed during this and previous investigations performed at the property. The data evaluated in this report was collected by SCS during July 2003. The summary and conclusions that follow are presented in the categories of field activities and groundwater chemistry.

2.3.1 Field Activities

- Field activities performed consisted of the Third Quarter 2003 groundwater monitoring event.
- Water level measurements and the collection of water quality samples were conducted. The samples collected were analyzed for COCs (TPH-g, TPH-d, BTEX, and MTBE), bio-attenuation parameters (DO, ORP, alkalinity, Ferrous Iron, nitrate, sulfate, BOD and COD).
- Prior to the initiation of field activities, and between sampling locations, all equipment was decontaminated.

- Purge water and decontamination rinsate liquids were containerized and stored on-site in DOT-approved 55-gallon drums. The drums were transported to an appropriate licensed disposal/recycling facility.
- Following completion of field activities, the work area was left in a presentable and workable condition, as nearly as practicable to original conditions.

2.3.2 Groundwater Chemistry

- Only two groundwater monitoring well samples (KMW-6 and KMW-7) contained detectable concentrations of petroleum hydrocarbon compounds. Groundwater samples collected from monitoring wells KMW-1 and KMW-8 did not contain detectable concentrations of petroleum hydrocarbon compounds.
- The plume is confined to the Site and is stable. Concentrations of COCs continue to generally decrease with time, indicating that natural processes are working to remediate the plume.
- The subsurface environment appears to be poorly oxygenated. It appears that anaerobic processes (such as iron reduction from Fe^{+3} to Fe^{+2}) are operating to decrease the concentrations of COCs in the groundwater.
- The BOD and COD concentrations indicate that the addition of oxygen to the plume of petroleum hydrocarbons would enhance microbial activity.

3 SOIL VAPOR SURVEY

SCS performed a soil vapor survey on July 22, 2003 in general accordance with the April 22, 2003 Workplan prepared by ATC. The Workplan was approved by Alameda County Environmental Health Services Agency (ACEHSA) in a letter dated June 2, 2003. Soil vapor probes were installed under SCS supervision at 12 locations on the Site in the area of the petroleum hydrocarbon plume. Ten samples and one duplicate sample were collected from approximately 3 feet bgs and analyzed for TPH-g, BTEX, and MTBE in accordance with the Workplan.

3.1 FIELD PREPARATION ACTIVITIES

Underground Service Alert was notified at least two days prior to the soil vapor survey, to evaluate boring locations for underground utilities. In addition, Cruz Brothers Locators of Scott's Valley, California conducted a utility survey at the Site on July 21, 2003. The 12 selected locations were confirmed to be clear of underground utilities.

Prior to drilling activities, a drilling permit was obtained from Zone 7 Water Agency (short for Alameda County Flood Control and Water Conservation District), authorizing drilling to a depth of 4 feet bgs to collect soil vapor samples. Soil vapor probe permit documentation is included as Appendix C.

3.2 SAMPLING METHODOLOGY

SCS personnel directed Vironex Inc. of San Leandro, California, a C-57 licensed drilling contractor, to perform soil vapor sampling activities at the Site on July 22, 2003. Soil vapor samples were obtained from locations in the central portion of the Site in the vicinity of wells KMW-7 and KMW-6. The locations were positioned in the area of observed highest dissolved hydrocarbon concentrations in groundwater. Soil vapor sampling locations are shown on Figure 5.

Soil vapor probes were installed at 12 locations on the Site to depths of approximately 3 feet bgs (see Figure 2). Soil vapor extraction equipment was pushed directly into subsurface soils to the desired depth using a Geoprobe™ truck-mounted direct-push hydraulic sampling rig. Soil vapor samples were recovered by slightly retracting the probe and exposing sampling ports at the drive point. Vapor was extracted through polyethylene tubing attached to the drive tip using a regulator which maintained a 200 cc (ml) per minute flow rate while purging and collecting samples. After the line had been purged, the vapor samples were extracted from the line and captured and stored in Tedlar bags with the use of a vacuum box. Clean tubing was utilized for each sample.

Soil conditions were too dense and tight at location SV-4 to yield a vapor sample. Even after purging at a vacuum of approximately 30 inches of mercury for five to ten minutes at a depth of three feet bgs, and then at a depth of five feet bgs, no vapor sample could be

recovered from location SV-4. Soil vapor sample SV-3 could not be analyzed because upon arrival at the analytical laboratory it was observed that the Tedlar bag had deflated, apparently due to a leak, and did not contain sufficient volume for analysis.

The soil vapor samples were analyzed at McCampbell for TPH-g using EPA Method 8015, and BTEX and MTBE using EPA method 8021. The laboratory was instructed to confirm any MTBE detections using EPA Method 8260.

3.3 FIELD QUALITY ASSURANCE/QUALITY CONTROL

SCS obtained two Tedlar bag samples from sample location SV-1, so that one could serve as a blind duplicate. The blind duplicate sample was submitted to the analytical laboratory under the alias SV-13, and was analyzed by the same methods used for other soil vapor samples.

3.4 ANALYTICAL RESULTS

TPH-g, BTEX, and MTBE were not detected in any of the Site soil vapor samples analyzed. Soil vapor survey results are summarized in Table 5 and laboratory analytical reports are included in Appendix B.

3.5 SOIL VAPOR SURVEY SUMMARY AND CONCLUSIONS

SCS performed a soil vapor survey on July 22, 2003 in general accordance with the April 22, 2003 Workplan prepared by ATC. Twelve soil vapor probes were installed at locations on the Site in the vicinity of previously observed dissolved hydrocarbons in groundwater. Ten samples and one duplicate sample were analyzed for TPH-g, BTEX, and MTBE in accordance with the Workplan. The parameters analyzed, including TPH-g, BTEX, and MTBE, were not detected in any of the soil vapor samples analyzed. Based on results of the soil vapor survey, it is not anticipated that chemical volatilization to indoor air is an exposure pathway for COCs at this Site.

4 FUEL SYSTEM SOURCE REMOVAL

The primary source for the groundwater contamination at the Site appears to be the area of the former above-ground storage tank (AST), which supplied fuel to boilers in the dairy building. The underground fuel piping and the affected soil also appear to have been secondary sources of contamination. In an effort to remove the remaining sources of petroleum hydrocarbon contamination, SCS removed the boilers, fuel piping, associated fuel system equipment, and soil affected by the release of petroleum hydrocarbons in the vicinity of the fuel system equipment.

In order to perform the source removal activities, certain key activities had to be completed in advance, including abatement of asbestos insulating the boilers, relocation of electrical service running through the dairy building, and demolition of a portion of the dairy building to access the boilers and fuel system equipment. These activities, as well as the actual source removal related activities, are described in the following sections.

4.1 ASBESTOS ABATEMENT

Visual observation of the boilers in the dairy building by SCS prior to the source removal effort indicated that one or both of the boilers were insulated with asbestos containing material (ACM), therefore, the ACM had to be abated prior to the removal and disposal of the boilers. A licensed asbestos abatement contractor, PARC Services, Inc. (PARC) of Livermore, California, was subcontracted by SCS to perform the abatement work. PARC removed the housing from the eastern boiler, which revealed only fiberglass insulation. PARC determined that only the western boiler, which appeared to be older, contained ACM, and that only this boiler required abatement.

PARC began the asbestos abatement work at the Site on July 30, 2003. PARC set up containment around the asbestos abatement work area; the work area was cordoned off and posted, polyethylene sheeting was placed to completely enclose the work area, and blowers equipped with high efficiency particulate air (HEPA) filters were used to pull air through the work space. The asbestos abatement workers were equipped with Level C personal protective equipment (PPE) which included air purifying respirators and Tyvek coveralls. The workers removed the ACM from the boiler and placed the removed material in plastic bags for disposal. The asbestos abatement work was completed on July 31, 2003. The ACM was transported from the Site by World Environmental and Energy, Inc. of West Sacramento, California, and disposed of at Norcal Waste Systems Hay Road Landfill in Vacaville, California, under a Uniform Hazardous Waste Manifest. A copy of the manifest in included in Appendix D.

After PARC completed their asbestos abatement work, SCS requested a third party Certified Asbestos Consultant (CAC) to inspect the work Site and to evaluate PARC's performance. MECA Consulting Inc. (MECA), of Pleasant Hill, California, visited the Site on July 31, 2003. MECA verified that PARC used all appropriate engineering

controls in performing the abatement work, and that regulated asbestos materials were not visually present in the work area. Documentation of the asbestos removal is included in Appendix D.

4.2 ELECTRICAL SERVICE RELOCATION

The source removal effort required re-location of electrical service for the on-site water supply well, which is located to the east of the dairy building, on the opposite side of Arroyo Los Positas. The electrical service for the well ran through a dilapidated portion of the dairy building that had to be removed in order to access the boilers, and sections of the fuel lines. The water supply well serves the Friesman property residences, most of which are currently occupied; therefore operation of the well pump could not be discontinued or interrupted for more than a brief period of time.

In order to re-locate the electrical service SCS installed two new power poles at the Site, one on either side of Arroyo Los Positas, from July 24 to 25, 2003. SCS subcontracted a licensed electrician, McIntire Electric, of Boulder Creek, California, to perform the relocation of the electrical service from July 28 to 29, 2003. McIntire Electric re-located the electric meter base, installed a new 100 amp 120/230 volt three phase 12 circuit NEMA 3R load center, installed a new ground rod, re-strung the wire to the well pump onto the new and existing poles, and installed two dedicated weather-proof GFI protected 120 volt receptacles for general use. The electrical service for the well pump was not interrupted for a significant period of time.

4.3 DAIRY BUILDING DEMOLITION/ REMOVAL OF BOILERS

The source removal effort required the location and excavation of the underground fuel piping running from the former AST to the boilers, excavation of affected soil, and removal of a portion of the dairy building in order to access and remove the fueling system equipment and boilers.

SCS personnel removed a portion of the dairy building in order to access and remove the boilers, on August 12, 13, and 14, 2003. The eastern boiler was approximately 3-feet by 8-feet in area, and the western boiler encompassed an approximately 3-feet by 5-feet area. The stockpiles of debris generated were hauled to the Republic Landfill in Livermore, California by Mid Coast Transportation, Inc of Alamo, California. Figure 6 shows the former locations of the dairy building and boilers.

4.4 SOIL EXCAVATION/ PIPING REMOVAL

On August 20, 2003, approximately 2-feet of soil was removed from the former AST location, 2 to 2.5-feet of soil was removed from the former boiler areas, and 1-foot of soil was removed from areas surrounding associated fuel piping. Removed soil included near-surface soil with observable staining and/or odors in the vicinity of the former AST,

boilers, and fuel system equipment. A photo-ionization detector (PID) was used to screen the excavated soil for organic vapors; however there were no significant PID readings.

Additional soil was removed from the area of the former AST and the eastern former boiler on September 18, 2003, in response to analytical results from confirmation soil samples (discussed in Section 4.7). An additional 1-foot of soil was removed from the former AST area, and an additional 2.5-feet of soil was removed from the former eastern boiler area. Soil with observable staining was removed, and a PID was used to screen the excavated soil. There were no significant PID readings. A total of approximately 24 cubic yards of soil were excavated from the fuel system area.

4.4.1 Air Monitoring

A MiniRAE photo-ionization detector (PID) was used to monitor for Volatile Organic Carbons (VOCs) within the work area during excavation activities. No significant readings were recorded. In an effort to limit the generation of dust during excavation activities, water obtained from a Site faucet was sprayed onto the work area with a hose. Field records, including field notes and PID measurement logs, are on file at the SCS Pleasanton office.

4.5 CONFIRMATION SOIL SAMPLING

Confirmation soil samples were collected from areas where the boilers and the AST were formerly located, and along former piping which extended from the former AST to the boilers. Following source removal on August 20, 2003, a total of six samples were collected from these areas at depths ranging from 1 to 2.5 feet bgs. Samples were collected in areas around the former boilers and AST, where impacts were anticipated, as well as one sample for every 20-feet of piping. Sample locations are shown on Figure 6, and additional details are included in Table 6.

Samples were collected by pushing pre-cleaned brass tubes into the ground by gently tapping a rubber mallet against the edge of the sample tube. Following sample collection, each sleeve was capped with Teflon liners and plastic caps. A label noting the date of collection, sample number, and project number was affixed to each sample, and each sample was placed into a plastic zip-lock bag. The soil samples were then placed in an ice chest maintained at approximately 4 degrees Celsius prior to being either hand delivered to, or picked up by, McCampbell Analytical under chain-of-custody protocol.

4.6 STOCKPILE SOIL SAMPLING

One stockpile was created for soil excavated from areas where fuel system sources were removed. As stated above, approximately 24 cubic yards of soil were excavated from the

fuel system area. Following soil excavation, the stockpile was characterized by collecting a four-point composite sample. The analytical result of the stockpile composite sample is discussed below.

4.7 ANALYTICAL RESULTS

4.7.1 Initial Confirmation Samples

Confirmation samples (FRCS-1 through FRCS-6) were collected on August 20, 2003, and analyzed for BTEX, MTBE, and TPH-g by EPA Method 8021, and TPH-d by EPA Method 8015. Sample locations are shown on Figure 6, and sample depths are included in Table 6.

Concentrations of BTEX and MTBE were not detected in the confirmation samples, with the exception of toluene in sample FRCS-5, where a concentration of 0.015 mg/kg was reported. Likewise, TPH-g was detected only in sample FRCS-5 at a concentration of 3.4 milligrams per kilogram (mg/kg). A summary of the analytical results for the confirmation samples from the fuel system area is included in Table 6. Confirmation sample FRCS-5 was collected from the center of the excavation in the area of the former AST. The environmental screening level (ESL) for TPH-g in shallow soil, where groundwater is a current or potential drinking water resource, is 100 mg/kg (SFBRWQCB, 2003).

Concentrations of TPH-d were detected in all samples collected on August 20, 2003, with the exception of sample FRCS-2, at concentrations ranging from 1.2 mg/kg to 280 mg/kg. The ESL for TPH-d in shallow soil, where groundwater is a current or potential drinking water resource, is also 100 mg/kg. Two of the samples exhibited TPH-d concentrations greater than the ESL; sample FRCS-3, which was collected from the northeastern corner of the former eastern boiler, and sample FRCS-5, collected from the center of the former AST area.

4.7.2 Additional Confirmation Samples

Because concentrations of TPH-d exceeded the ESLs in two of the initial confirmation samples, additional soil was excavated from these areas, and addition confirmation samples were collected. Sample locations FRCS-3 and FRCS-5 were re-sampled on September 18, 2003 following the additional excavation in these areas. The additional confirmation sample collected from location FRCS-3 exhibited a TPH-d concentration of 1.2 mg/kg at a depth of 4.5 feet bgs, and the additional confirmation sample collected from location FRCS-5 contained 8.5 mg/kg TPH-g at a depth of 3 feet bgs. These concentrations are well below the ESL of 100 mg/kg, therefore no additional excavation was performed. No visible indications or odors of petroleum hydrocarbons remained after the additional excavation. The sample locations are shown on Figure 6, and sample depths are included in Table 6.

4.7.3 Stockpile Samples

Analytical results for the four-point composite stockpile sample, identified as FRSP, showed no detectable concentrations of TPH-g, BTEX or MTBE. A TPH-d concentration of 88 mg/kg was detected in the stockpile composite sample.

4.8 TRANSPORTATION AND DISPOSAL

SCS supervised the removal of the stockpiled soil from the Site on October 29, 2003. SCS loaded the soil into dump trucks for transportation for disposal to Republic Vasco Road Landfill in Livermore, California. Transportation was provided by Mid Coast Transportation Inc. of Alamo, CA. Copies of the waste manifests are included in Appendix E.

4.9 FUEL SYSTEM SOURCE REMOVAL SUMMARY

In an effort to remove the remaining sources of petroleum hydrocarbon impacts from the Site, between August 20, 2003 and September 18, 2003, SCS removed two boilers from the dairy building, underground fuel piping, and impacted soil. Preliminary activities included the asbestos abatement, relocation of electrical lines servicing an on-site water supply well, and removal of a portion of the dairy building. Air monitoring for VOCs was conducted within the work area during all work activities.

The results of confirmation sampling indicate that the any remaining concentrations of petroleum hydrocarbons are below the ESLs in the areas sampled. The petroleum hydrocarbon-impacted soil at the Site appears to be sufficiently removed.

5 NON-FUEL RELATED WASTE REMOVAL

This section of the report describes the removal of non-fuel related items from the Site, including six drums containing sodium silicate solution, and an incinerator with associated ash and soil.

5.1 REMOVAL OF CLEANING SOLUTION

Six drums containing sodium silicate solution were located to the east of the barn south of the dairy building. The drums were apparently left by a former tenant / painting contractor. Sodium silicate solution is typically used for cleaning, has a high pH, and therefore can have a harmful effect on the environment if released. These drums had exterior corrosion, were in generally poor condition, and it appeared to have been stationary for long period of time. In order to avoid a possible release of the drum contents, and to provide proper disposal of the drums and their contents, SCS subcontracted Foss Environmental Services (Foss) of Alameda, California, a licensed hazardous waste hauler, to remove the drums from the Site. Foss measured the pH of the drum contents at approximately 10.

On August 6, 2003, Foss removed the six drums of sodium silicate solution from the Site. Foss transported the material to D/K Environmental in Vernon, California for disposal/treatment/recycling under temporary EPA ID number CAC 002 568 131. A copy of the Uniform Hazardous Waste Manifest for this material, and a certificate of treatment/recycling are included in Appendix E.

5.2 INCINERATOR DEMOLITION

An incinerator was located on the property approximately 50 feet to the east of the metal shed which formerly housed the AST. According to a nephew of late Mr. Freisman, the incinerator was only used to burn trash. However, due to concerns of high concentrations of metals associated with the ash from the incinerator, and in order to prepare the site for possible future re-development, the incinerator was removed by SCS personnel.

5.3 SOIL EXCAVATION

On August 20, 2003, SCS demolished the incinerator and excavated approximately 6-inches of surface soil from the vicinity of the former incinerator. Soil in this area was observed as consisting of silty sand and gravel, with debris and ash at the surface. Based on the results of confirmation samples, described below, an additional 1.5-feet of soil was excavated from the vicinity of the former incinerator on September 18, 2003. A total of approximately 24 cubic yard of soil was excavated from the vicinity of the incinerator. No ash was observed in the soil at this final depth of 2-feet.

5.4 CONFIRMATION SOIL SAMPLING

On August 20, 2003, after all visible ash was removed from the surface of the incinerator area, four confirmation soil samples were collected from an approximate depth of 0.5-foot. Sample INCS-1 was collected from the approximate center of the former incinerator location, and samples INCS-2 through INCS-4 were collected from as far as 10 feet south of the former incinerator. The confirmation sample locations are shown on Figure 6.

Based on the results of the initial confirmation samples, additional soil excavation was performed on September 18, 2003, and locations INCS-2, INCS-3, and INCS-4 were re-sampled from a depth of 2 feet. Incinerator sample locations are shown on Figure 6 and depths are included in Table 7.

5.5 STOCKPILE SOIL SAMPLING

A separate stockpile was created for soil excavated from the vicinity of the former incinerator. Following soil excavation, the stockpile was characterized by collecting a four-point composite sample. The analytical result of the stockpile composite sample is discussed below.

5.6 ANALYTICAL RESULTS

5.6.1 Initial Confirmation Samples

The four initial confirmation samples collected in the incinerator area (INCS-1 through INCS-4) were analyzed for cadmium, chromium, lead, nickel, and zinc by EPA Method 6010A, arsenic by EPA Method 7010, and mercury by EPA Method 7471B. Sample locations are shown on Figure 6, and summary of the analytical results are included in Table 7.

All four samples contained detectable concentrations of chromium, which ranged from 30.4 mg/kg to 50.2 mg/kg; none of these concentrations were greater than the ESL for chromium of 58 mg/kg. Nickel was detected in all four samples at concentrations ranging from 40.4 mg/kg to 51.4 mg/kg; however, no sample concentrations exceeded the ESL for nickel of 150 mg/kg. Mercury was detected in samples INCS-2 and INCS-4 at concentrations of 0.080 mg/kg and 0.12 mg/kg, respectively; neither concentration of mercury was greater than the ESL of 2.5 mg/kg.

Lead was detected in all four initial confirmation samples at concentrations ranging from 90.4 mg/kg to 342 mg/kg. Sample INCS-2 contained lead at the highest concentration detected, which exceeded the ESL of 200 mg/kg. All four initial confirmation samples contained zinc concentrations, which ranged from 146 mg/kg to 1,250 mg/kg. Sample INCS-2 exhibited zinc at the maximum concentration detected, which exceeded the zinc

ESL of 600 mg/kg. Cadmium was detected in all four initial incinerator samples at concentrations ranging from 1.5 mg/kg to 3.3 mg/kg. Samples INCS-2, INCS-3, and INCS-4 exhibited concentrations which exceeded the ESL for cadmium of 1.7 mg/kg. All four samples exhibited arsenic concentrations between 3.4 mg/kg and 31 mg/kg. The arsenic ESL of 5.5 mg/kg was also exceeded in initial confirmation samples INCS-2, INCS-3, and INCS-4.

Because concentrations of lead, zinc, cadmium and arsenic were detected in initial confirmation samples in excess of their respective ESLs, additional soil excavation was performed in the vicinity of the incinerator to a depth of two feet, which appeared to be well below the depth of impact from incinerator ash.

5.6.2 Additional Confirmation Samples

Sample locations INCS-2, INCS-3, and INCS-4 were re-sampled at a depth of 2 feet on September 18, 2003, following additional excavation. Mercury was not detected in these samples. Sample locations are shown on Figure 6, and sample depths are included in Table 7.

All three samples contained chromium, nickel, lead and zinc at concentrations below their respective ESLs. Cadmium was detected in all three samples at concentrations ranging from 2.0 to 2.2 mg/kg, which slightly exceeds the cadmium ESL of 1.7 mg/kg. Likewise, arsenic was detected in all three samples at concentrations ranging from 5.9 to 11.4 mg/kg, which is also slightly in excess of the ESL for arsenic of 5.5 mg/kg.

Although concentrations of cadmium and arsenic were detected in the confirmation samples slightly in excess of their respective ESLs, these detected concentrations appear to be within the range of naturally occurring background. Typical arsenic concentrations found in soil at locations around Livermore and Alameda County range from approximately 9.3 to 19.1 ppm; Cadmium concentrations typically range between 1.5 and 3.3 ppm in the region (Oakland Public Works, 2000). Because the remaining metals concentrations were within the range of background, and because the soil impacted by ash appeared to have been removed, additional soil excavation in the vicinity of the incinerator was not performed.

5.6.3 Stockpile Sample

Analytical results for the initial incinerator composite stockpile sample, identified as INSP (collected before the additional soil excavation), showed that all metals analyzed were detected in stockpile soil. Concentrations of cadmium, chromium, and lead were 10.8 mg/kg, 88.8 mg/kg, and 620 mg/kg, respectively. Nickel and zinc were detected at respective concentrations of 53 mg/kg and 1,860 mg/kg. Arsenic and mercury were detected at respective concentrations of 13 mg/kg and 0.076 mg/kg.

Following the additional soil excavation conducted on September 18, 2003, the soil pile had increased by a factor of about 3, and therefore was it was re-sampled by collecting another four-point composite. Concentrations of cadmium, chromium, and lead were 2.8 mg/kg, 33.8 mg/kg, and 48.4 mg/kg, respectively. Nickel, zinc and arsenic were detected at respective concentrations of 53.6 mg/kg, 120 mg/kg, and 10.2 mg/kg. Mercury was not detected. A summary of the analytical results are presented in Table 7.

5.7 TRANSPORTATION AND DISPOSAL

SCS supervised the removal of the stockpiled soil from the Site on October 29, 2003. SCS loaded the soil into dump trucks for transportation for disposal to Republic Vasco Road Landfill in Livermore, California. Transportation was provided by Mid Coast Transportation Inc. of Alamo, CA. Copies of the waste manifests are included in Appendix E.

5.8 SUMMARY OF NON-FUEL RELATED WASTE REMOVAL

On August 6, 2003, six drums containing sodium silicate solution were removed from the Site and transported by Foss for disposed at DK Environmental. On August 20, 2003, an incinerator which was located east of the dairy building on the Site was removed, along with surrounding ash and soil. Additional soil was removed from the area on September 18, 2003. Confirmation soil samples were collected on August 20, 2003 and September 18, 2003 and analyzed for metals.

Incinerator confirmation samples INCS-2, INCS-3, and INCS-4, collected from a final depth of 2 feet bgs, contained cadmium and arsenic at concentrations greater than ESLs. However, the concentrations detected are within the range of naturally occurring background in the region. Concentrations of cadmium and arsenic found at the Site are thought to represent natural conditions, and therefore further excavation would be ineffective. Other metals detected in the area surrounding the former incinerator were at concentrations below there respective ESLs.

Final confirmation soil sample analytical results indicate that impacted soil in the area of the former incinerator has been removed.

6 CLOSURE REQUEST

6.1 SUMMARY OF INVESTIGATIVE AND REMEDIAL ACTIVITIES TO DATE

Phase I and Phase II investigations at the Site were conducted by Kleinfelder in July and October 1997. Based on findings of those investigations, six groundwater monitoring wells were installed in 1997, and two additional wells were installed in 1999. Quarterly groundwater monitoring has been conducted at the Site since September 1997. Since June 1999, four wells have been monitored, and depth to groundwater is measured on a quarterly basis at all eight wells. SCS conducted the Third Quarter 2003 groundwater monitoring in July 2003. A soil vapor survey, which is described in this report, was conducted by SCS in July 2003.

As discussed in this report, in August and September 2003, SCS removed sources of petroleum hydrocarbon contamination from the affected area of the Site near the old dairy building. Sources of contamination included the former AST, two boilers, underground fuel piping, and soil affected by the release of petroleum hydrocarbons in the vicinity of the fuel system equipment.

6.2 EXTENT OF ENVIRONMENTAL IMPACTS

Groundwater in the vicinity of wells KMW-6 and KMW-7 is impacted with petroleum hydrocarbons, which is thought to have resulted from a release associated with the former AST, and related equipment including two boilers to which the AST supplied fuel, and the underground fuel piping. Soil surrounding the fuel system equipment and boilers was found to be impacted as well. The AST, two boilers, associated piping, and impacted soil in these areas have been removed.

The extent of petroleum hydrocarbons in groundwater was defined in the Remedial Investigation performed by Kleinfelder (Kleinfelder, 1997b). A figure from the Kleinfelder Remedial Investigation (Plate 9) showing the lateral extent of BTEX in groundwater, base on the extensive groundwater grab sampling performed in 1997, is in included in Appendix F. This picture of the lateral extent of petroleum hydrocarbons in groundwater correlates very well with the data collected over the past 6 years from the groundwater monitoring wells. The groundwater monitoring data shows that the plume has been stable over this time period, and that petroleum hydrocarbon concentrations within the plume have generally been decreasing.

Stratagraphic cross section A-A' (Figure 7) runs though the petroleum hydrocarbon plume and shows the concentrations of benzene in groundwater from the July 2003 monitoring event. (The line of cross section is shown on Figure 4). The cross section runs from up-gradient monitoring well KMW-1 located near Arroyo Los Positas, through monitoring wells KMW-7 and KMW-6 (the only wells that have had detectable

concentrations of petroleum hydrocarbons) to down-gradient well KMW-8. The cross section shows the well construction details, as well as the soil types encountered in each of the wells. As can be seen from this, only clays were encountered in the wells shown on the cross section. The cross section also shows the ground surface, the water table (based on the July 2003 monitoring event) and the groundwater gradient. Arroyo Las Positas shows as a "losing stream"; its channel lies above the water table, water is mounded beneath it, and groundwater gradient is directed away from the arroyo. This is consistent with the northwesterly directed groundwater gradient observed from the monitoring events conducted at the Site since 1997.

6.3 CLOSURE RATIONALE

The former AST, which supplied fuel to boilers in the dairy building, was likely the primary source of the Site groundwater contamination. The underground fuel piping and affected soil also appear to have been secondary sources of contamination. The AST was removed previously by others. As described is Section 4 of this report, SCS removed the boilers, the fuel piping, the associated fuel system equipment, and soil affected by the release of petroleum hydrocarbons in the vicinity of the fuel system equipment in August and September 2003. The results of soil confirmation sampling indicate that remaining concentrations of petroleum hydrocarbons in soil are below the ESLs. Based on the confirmation sampling results, the petroleum hydrocarbon-impacted soil at the Site appears to have been sufficiently removed.

Quarterly groundwater monitoring results from the Site collected since 1997 indicate that the petroleum hydrocarbon plume is confined to the area of monitoring wells KMW-7 and KMW-6, as described Section 2, and Section 6.2. The groundwater analytical results show that concentrations of TPH-g, TPH-d, and BTEX in the plume are steady to decreasing. This petroleum hydrocarbon-impacted groundwater plume is stable and is limited to a relatively small area of the Site. Benzene is the only compound detected in groundwater at concentrations greater that its' ESL, and benzene has only been detected in wells KMW-7 and KMW-6 at the Site.

Natural bio-attenuation parameters have been monitored at the Site since October 2002, and indicate that natural biodegradation of the plume is occurring, as discussed in detail in Section 2. These bio-attenuation processes are expected to continue at the Site, and the plume will continue to degrade naturally over time.

The soil vapor survey conducted by SCS in July 2003 demonstrated that TPH-g, MTBE, and BTEX compounds are not present in soil vapor in the vicinity of the petroleum hydrocarbon plume. This shows that the volatilization to indoor air pathway does not appear to exist at the Site.

A relatively small volume of shallow groundwater at the Site is impacted by petroleum hydrocarbons at fairly low levels. However, this shallow groundwater is not being used, nor is it anticipated to be used in the future, as re-development of the Site will include piping in City water for future Site needs.

Deeper groundwater is unlikely to be affected by the shallow groundwater plume. A well survey of existing nearby water supply wells conducted in March 2003 (ATC, 2003a) showed that closest water supply wells are a good distance away from the plume (approximately 350 feet in the up-gradient direction, and 700 feet in the down-gradient direction). In addition, the well logs reviewed indicate that the nearby wells have at least a fifty-foot well seal, and that clay was encountered from approximately 20 to 60 feet bgs, or more. Based on their distance from the plume, their well construction, and the clay encountered in the upper 60 feet of these wells, it is unlikely that the Site petroleum hydrocarbon plume would impact any of the nearby water supply wells (ATC, 2003a).

In addition to the above stated technical reasons for requesting regulatory closure, there is a practical need for obtaining closure related to the future use of the property. As stated previously, there are plans for possible future re-development of the Site. This re-development will almost certainly require the closure of the Site's fuel release case. The open fuel release case is an impediment to Site re-development.

7 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This report describes activities conducted from July through October 2003 at the Friesman Ranch Property. The work was conducted by SCS included third quarter 2003 groundwater monitoring, a soil vapor survey, fuel system source removal, and non-fuel related waste removal.

The Third Quarter 2003 groundwater monitoring event was conducted by SCS on July 21, 2003, and consisted of water level measurements and the collection of water quality samples. The samples collected were analyzed for COCs (TPH-g, TPH-d, BTEX, and MTBE), and bio-attenuation parameters (DO, ORP, alkalinity, Ferrous Iron, nitrate, sulfate, BOD and COD). Samples from groundwater monitoring wells KMW-6 and KMW-7 contained petroleum hydrocarbon compounds in concentrations consistent with past results. Groundwater samples collected from monitoring wells KMW-1 and KMW-8 did not contain detectable concentrations of petroleum hydrocarbon compounds.

SCS performed a soil vapor survey on July 22, 2003. Twelve soil vapor probes were installed at locations in the vicinity of dissolved hydrocarbon plume. Samples were analyzed for TPH-g, BTEX, and MTBE. No TPH-g, BTEX, or MTBE were detected in any of the soil vapor samples analyzed.

Between August 20, 2003 and September 18, 2003, SCS removed two boilers from the dairy building on the Site, along with underground fuel piping and impacted soil. Field activities included asbestos abatement; electrical service relocation, removal of fuel system equipment, soil excavation, and confirmation soil sampling. Initial confirmation samples showed concentrations of TPH-d greater than the ESL at two locations, therefore additional soil excavation and confirmation sampling was conducted on September 18, 2003. A total of approximately 24 cubic yards of soil was excavated from the fuel system area. The final confirmation sample concentrations were well below the ESL for TPH-d of 100 mg/kg.

On August 6, 2003, six drums containing sodium silicate solution were removed from the Site and appropriately transported and disposed. On August 20, 2003, an incinerator was removed from the Site, along with associated ash and soil. Confirmations samples indicated that some samples had concentrations of metals greater than their ESLs. Additional soil was therefore excavated from the area on September 18, 2003. A total of approximately 24 cubic yards of soil was excavated from the incinerator area. Final confirmations samples showed remaining metals concentrations within the range of naturally occurring background concentrations in this region.

Concentrations of cadmium and arsenic in the final confirmation samples collected in the vicinity of the former incinerator were slightly in excess of ESLs, but are thought to represent natural background conditions. Further excavation in this area would therefore be ineffective. All other metals detected in the area surrounding the former incinerator were at concentrations below ESLs.

7.1 CONCLUSIONS

Analytical results from the most recent and the previous groundwater monitoring events indicate that the plume is stable and generally decreasing in concentration. Natural processes are working to remediate the plume, and therefore concentrations of the COCs will continue to decrease with time.

Based on results of the soil vapor survey, which showed no detectable concentration of petroleum hydrocarbons in soil vapor, volatilization to indoor air is not an exposure pathway for COCs at this Site.

Primary and secondary sources of the petroleum hydrocarbon contamination at the Site have been removed. The results of soil confirmation sampling following excavation activities in the fuel system area indicate that impacted soil has been removed to levels below the ESLs.

Non-fuel related waste has been removed from the Site including 6 drums sodium silicate solution, and a trash incinerator. Final confirmation samples indicate that impacted soil in the area of the former incinerator has been sufficiently removed.

7.2 RECOMMENDATIONS

One final groundwater monitoring event is recommended prior to Site closure. Water levels should be measured and groundwater quality samples should be collected from monitoring wells KMW-1, KMW-6, KMW-7 and KMW-8. Groundwater quality samples collected from the four monitoring wells should be analyzed for TPH-g, TPH-d, BTEX and MTBE, as well as bio-attenuation parameters.

Soil and soil vapor confirmation sample results obtained during activities conducted by SCS between July and September 2003 have shown that sources contributing to historic groundwater contamination have been sufficiently removed. Results of the Third Quarter 2003 Groundwater Monitoring event show that the hydrocarbon groundwater plume on Site remains stable and is not affecting neighboring properties. There are no environmental conditions evident to SCS which remain at the Site, and therefore no further action, and Site Closure, is recommended.

8 REFERENCES

ATC Associates, Inc., April 22, 2003(a). *Quarterly Groundwater Monitoring Report, First Quarter 2003, Friesman Ranch Property, Livermore, California.*

ATC Associates, Inc., April 22, 2003(b). *Workplan for Soil Vapor Survey, Friesman Ranch Property, Livermore, California.*

Bruya, James E., April 8, 1993. *Petroleum Hydrocarbons: What Are They? How Much Is Present? Where Do They Go?* Workshop Material Prepared For: Hazmacon '93, San Jose, CA.

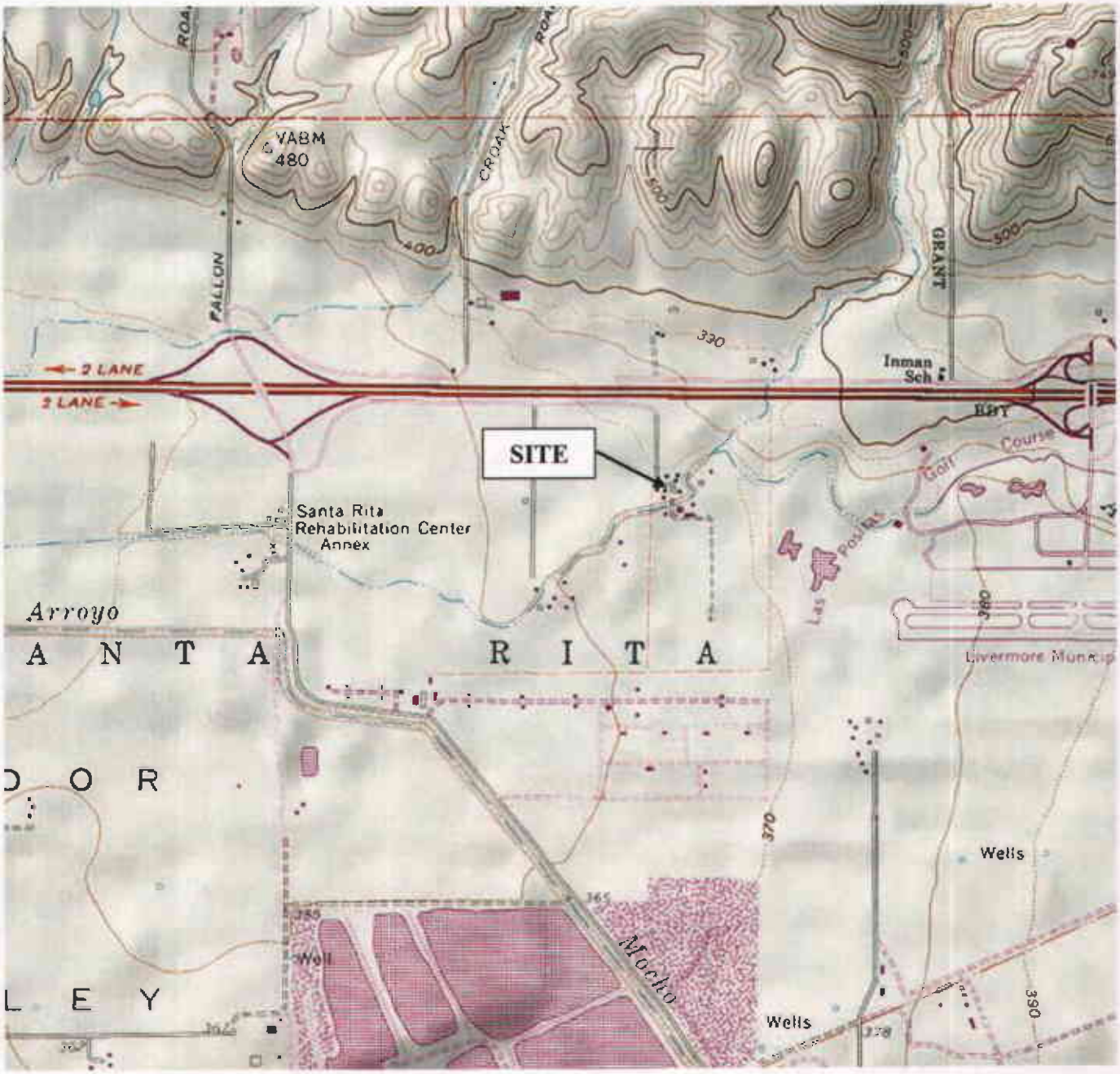
California Regional Water Quality Control Board, San Francisco Bay Region (SFBRWQCB), July 2003. *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables.*

Kleinfelder, Inc., July 8, 1997(a). *Phase I Environmental Site Assessment and Limited Soil and Groundwater Sampling Report, Friesman Road Property, Livermore California.*

Kleinfelder, Inc., October 17, 1997(b). *Remedial Investigation, RBCA Tier 2 Evaluation and Remedial Action Plan.*

Kleinfelder, Inc., February 17, 1999. *Well Installation and Quarterly Groundwater Monitoring Report, Friesman Ranch Property, Livermore, California.*

Oakland Public Works Agency, January 1, 2000. Oakland Urban Land Redevelopment Program: Guidance Document. (City of Oakland, Survey of Background Metal Concentrations)



0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

Printed from TOPO! ©2000 Wildflower Productions (www.topo.com)

N W E S

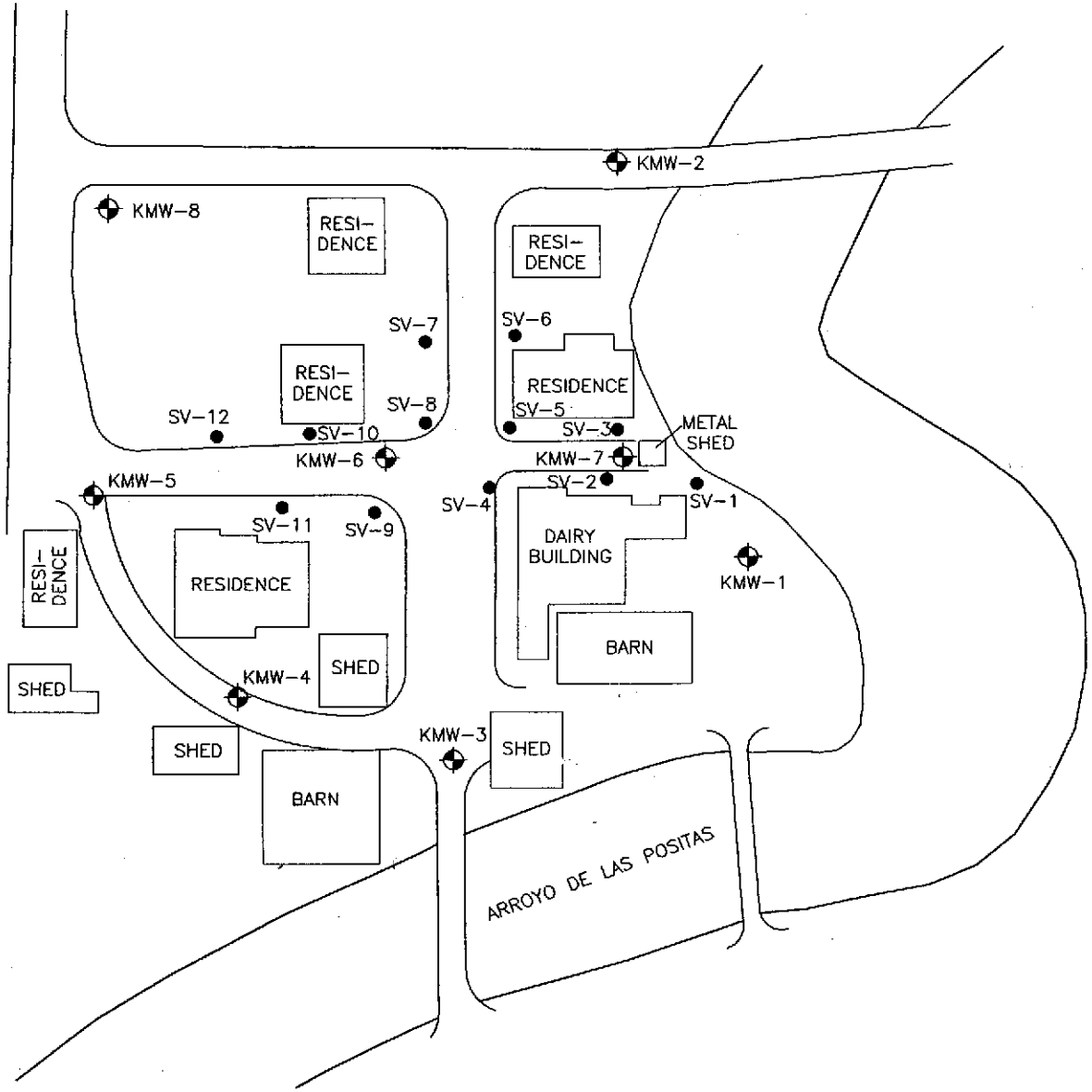
SOURCE: UNITED STATES GEOLOGICAL SURVEY *LIVERMORE QUADRANGLE, CALIFORNIA 7.5 MINUTE SERIES (TOPOGRAPHIC)* MAP. OBTAINED FROM THE 2000 NATIONAL GEOGRAPHIC TOPO SOFTWARE..

SCS ENGINEERS 6601 Koll Center Pkwy, Ste. 140 Pleasanton, CA 94566 (925) 426-0080		
PROJECT NO: 01203087.00		
DESIGNED BY: ATC	SCALE: SHOWN	REVIEWED BY: JAL
DRAWN BY: EC	DATE: 10/03	

FIGURE 1

SITE LOCATION MAP

FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA



LEGEND

- GROUNDWATER MONITORING WELL
- SOIL VAPOR PROBE LOCATION

N

SCALE IN FEET

80 0 80

BASE:
ATC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT, FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
8801 KOLL CENTER PKWY, SUITE 140
PLEASANTON, CALIFORNIA 94566
PH. (925) 426-0080 FAX. (925) 426-0707

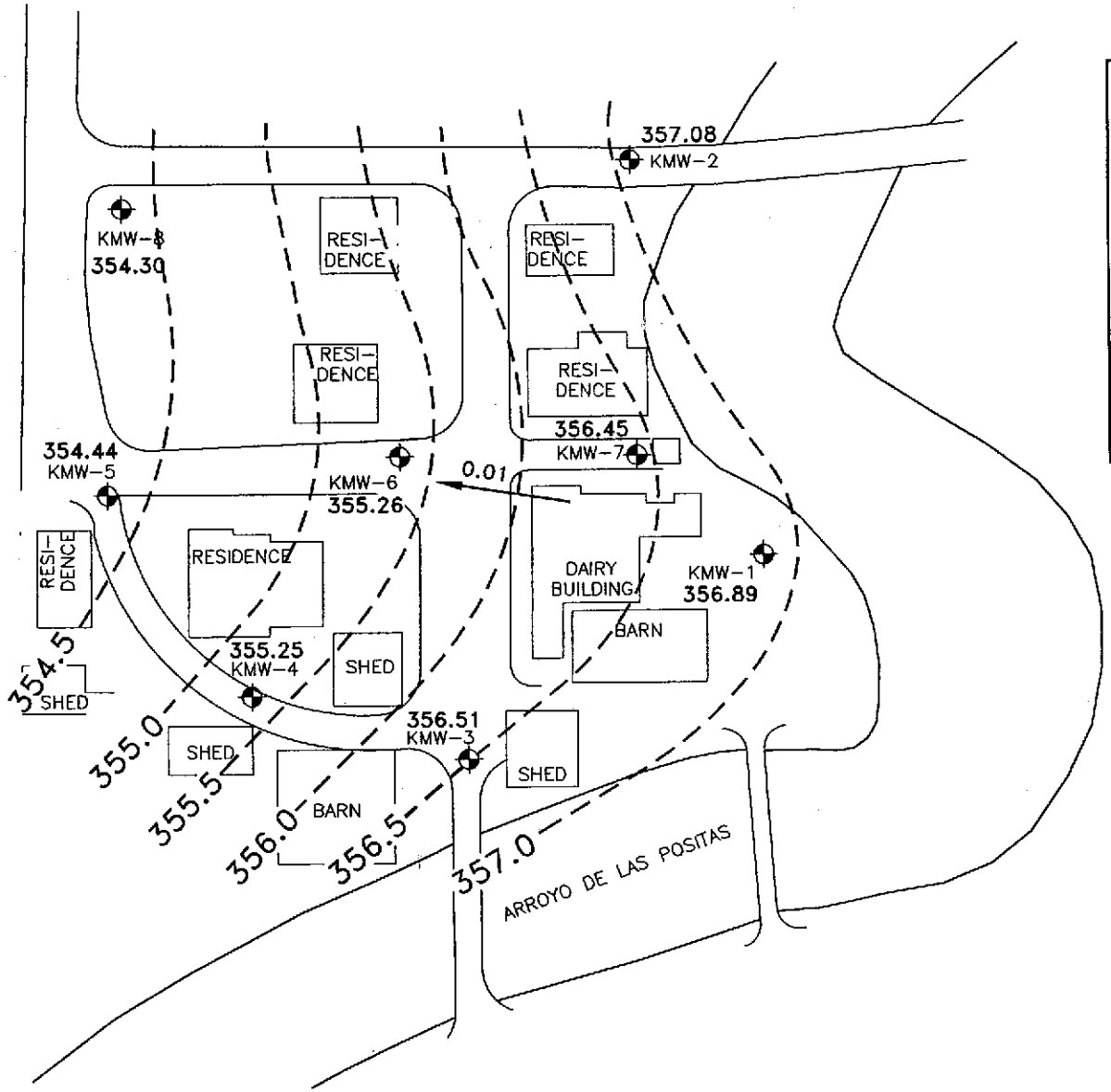
PROJ. NO.	DWN. BY:	ACAD FILE:
01203087.00	CRD	Fig-02 Site Plan.dwg
DATE	CHK. BY:	APP. BY:
9/22/03	EH	JAL

SHEET TITLE: SITE PLAN

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 80'

FIGURE: 2



LEGEND

- GROUNDWATER MONITORING WELL
- 358.45 — GROUNDWATER ELEVATION (FT MSL)
- 358.5 — GROUNDWATER ELEVATION CONTOUR LINE (FT MSL)
- 0.01 — GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

NOTES:
GROUNDWATER MONITORING WELLS WERE MEASURED ON 07/21/03.

N

APPROXIMATE SCALE

0 80 160

BASE:
ATC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT, FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
6850 REGIONAL STREET, SUITE 240
DUBLIN, CALIFORNIA 94568-2611
PH. (925) 829-0661 FAX. (925) 829-5493

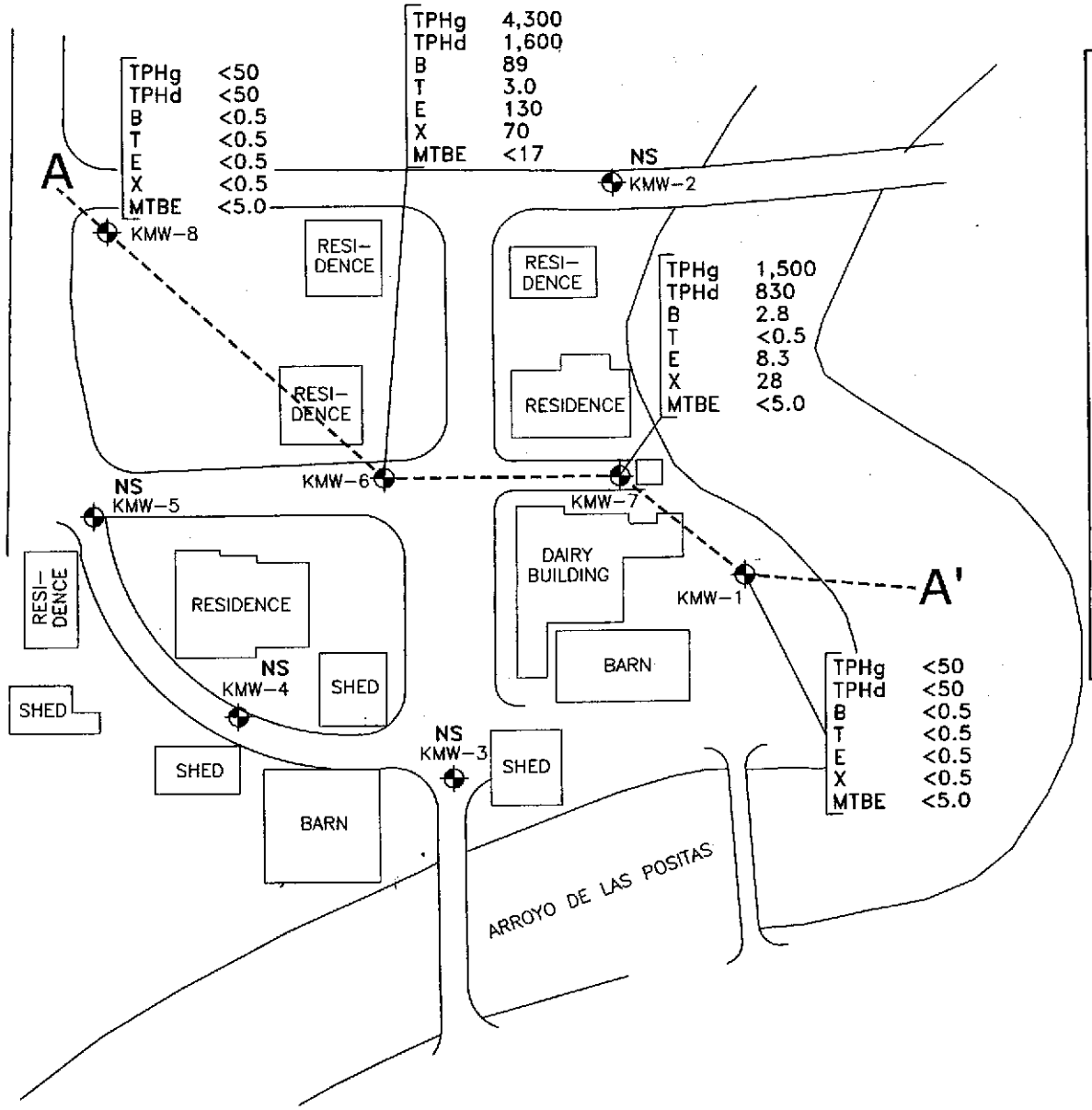
PROJ. NO.	DWN. BY:	ACAD FILE:
01203087.00	CRD	Fig-03 GW Cont.dwg
DATE	CHK. BY:	APP. BY:
09/22/03	EH	JAL

SHEET TITLE: GROUNDWATER ELEVATION CONTOURS (07/03)

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 80'

FIGURE: 3



LEGEND

⊕	GROUNDWATER MONITORING WELL
TPHg	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPHd	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERTIARY BUTYL ETHER
NS	NOT SAMPLED

NOTES:
BTEX & MTBE WERE ANALYZED BY EPA METHOD 8021B.

ALL CHEMICAL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L).

GROUNDWATER SAMPLES WERE COLLECTED ON 07/21/03

A-----A' LINE OF CROSS SECTION

N

SCALE IN FEET
80 0 80

BASE:
ATC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT, FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
6850 REGIONAL STREET, SUITE 240
DUBLIN, CALIFORNIA 94568-2611
PH. (925) 829-0661 FAX. (925) 829-5493

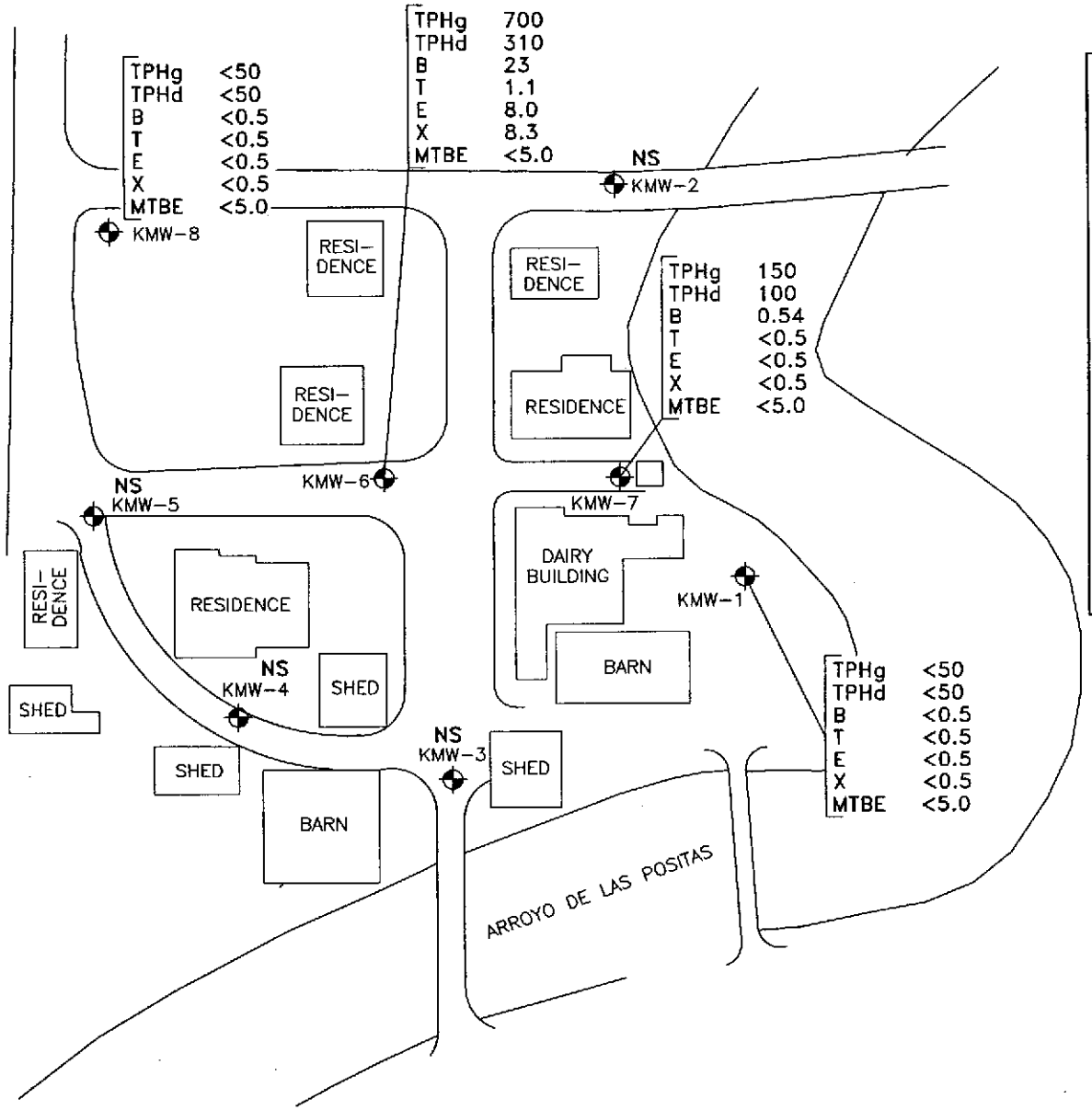
PROJ. NO.	DWN. BY:	ACAD FILE:
01203087.00	CRD	Fig-04 AL Data.dwg
DATE	CHK. BY:	APP. BY:
09/22/03	EH	JAL

SHEET TITLE:
GROUNDWATER ANALYTICAL RESULTS (07/03)

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 80'

FIGURE: 4



LEGEND

⊕	GROUNDWATER MONITORING WELL
TPHg	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPHd	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERTIARY BUTYL ETHER
NS	NOT SAMPLED

NOTES:
BTEX & MTBE WERE ANALYZED BY EPA METHOD 8021B.

ALL CHEMICAL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L).

GROUNDWATER SAMPLES WERE COLLECTED ON 10/30/03

N

SCALE IN FEET

80 0 80

BASE:
ATC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT. FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
6850 REGIONAL STREET, SUITE 240
DUBLIN, CALIFORNIA 94568-2611
PH. (925) 829-0661 FAX. (925) 829-5493

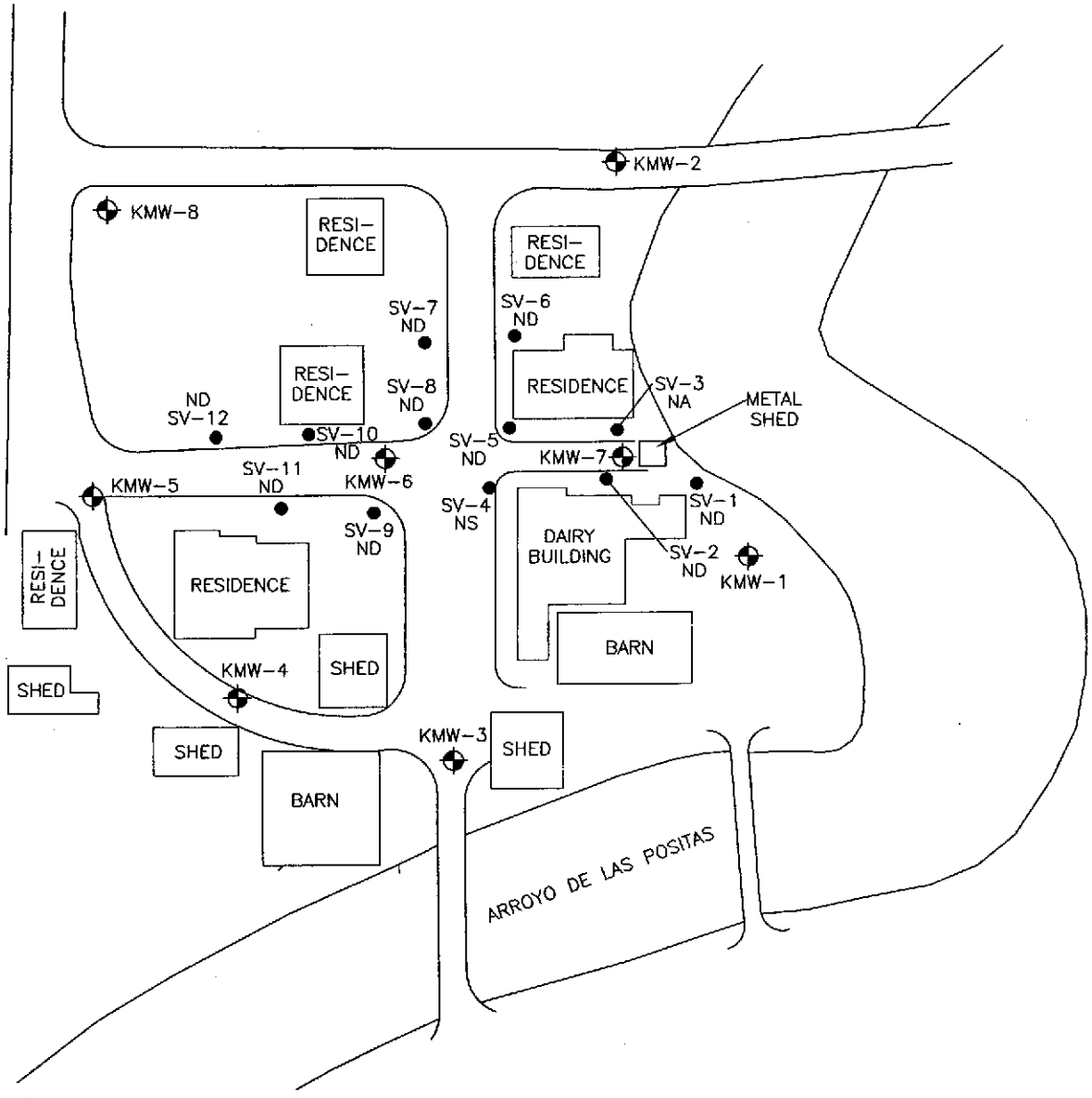
PROJ. NO.	DWN. BY:	ACAD FILE:
01203087.00	CRD	Fig-04 AL Data.dwg
DATE	CHK. BY:	APP. BY:
11/21/03	EH	JAL

SHEET TITLE:
GROUNDWATER ANALYTICAL RESULTS (10/03)

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1800 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 80'

FIGURE: 4



LEGEND

⊕	GROUNDWATER MONITORING WELL
●	SOIL VAPOR PROBE LOCATION
ND	TPH-g, MTBE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES WERE NOT DETECTED. CONSTITUENTS ANALYZED BY EPA METHOD 8021B.
NS	NOT SAMPLED DUE TO DENSE SOIL CONDITIONS
NA	NOT ANALYZED DUE TO INSUFFICIENT SAMPLE VOLUME

N

SCALE IN FEET

80 0 80

BASE:
AIC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT, FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
6850 REGIONAL STREET, SUITE 240
DUBLIN, CALIFORNIA 94568-2611
PH. (925) 829-0661 FAX. (925) 829-5493

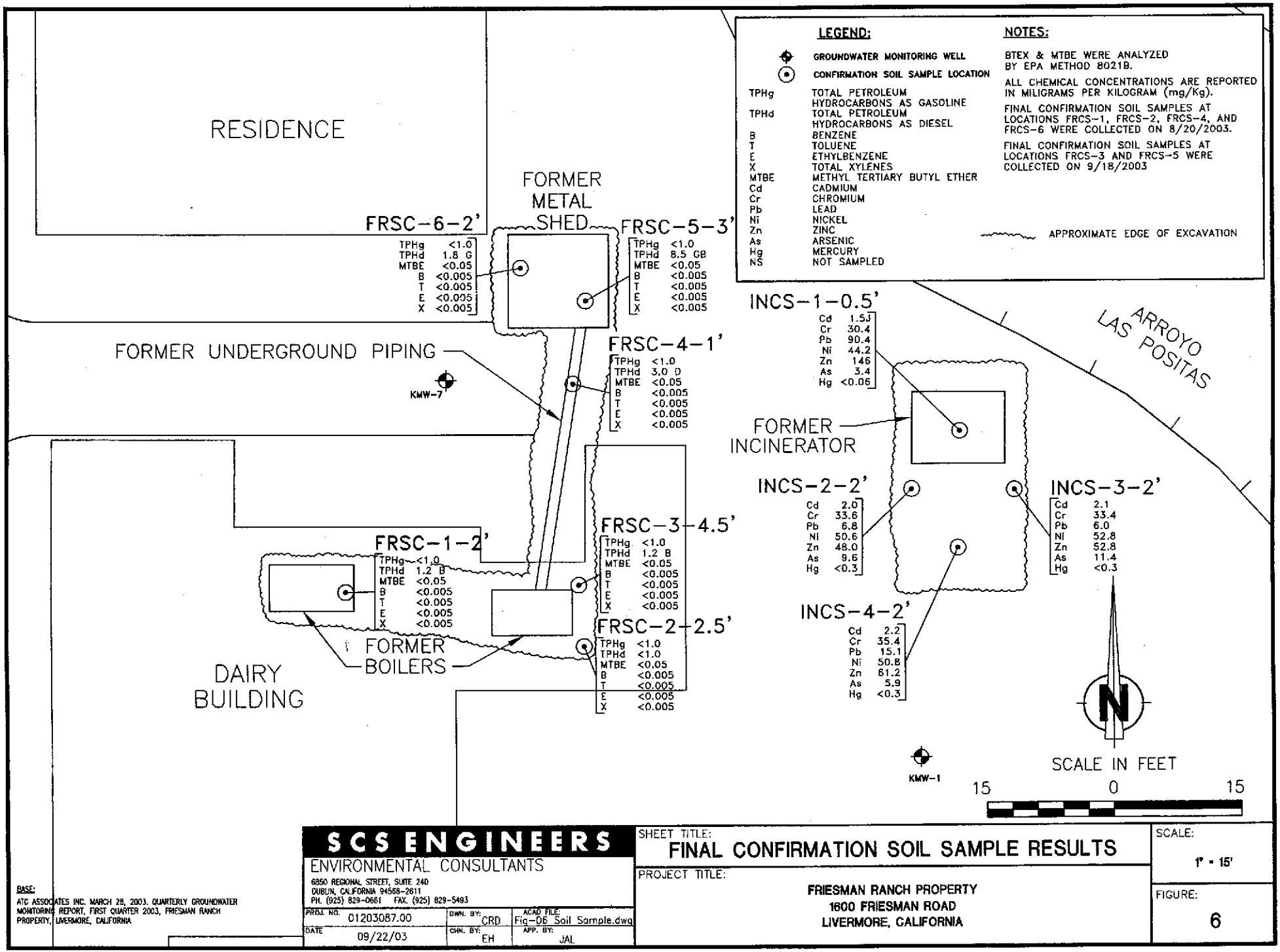
PROJ. NO. 01203087.00	DWN. BY: CRD	ACAD FILE: Fig-05 Soil Vapor.dwg	
DATE 9/22/03	CHK. BY: EH	APP. BY: JAL	

SHEET TITLE: **SOIL VAPOR SURVEY RESULTS**

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 80'

FIGURE: 5



BASE:
ATC ASSOCIATES INC. MARCH 28, 2003. QUARTERLY GROUNDWATER MONITORING REPORT, FIRST QUARTER 2003, FRIESMAN RANCH PROPERTY, LIVERMORE, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
6850 REGIONAL STREET, SUITE 240
DUBLIN, CALIFORNIA 94568-2611
PH. (925) 829-0661 FAX. (925) 829-5483

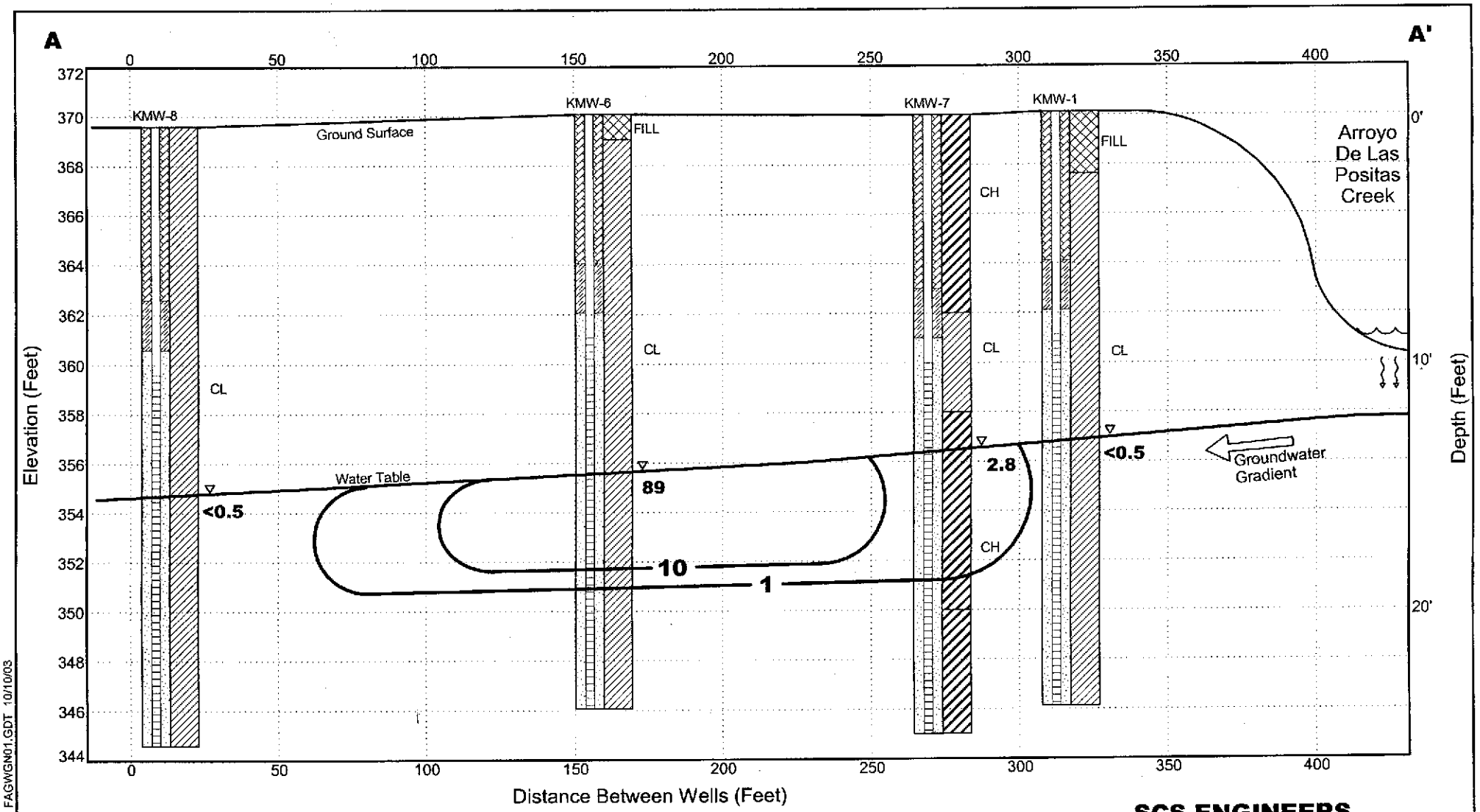
PROJ. NO.	DWN. BY:	ACAD FILE:
01203087.00	CRD	Fig-06 Soil Sample.dwg
DATE	CHK. BY:	APP. BY:
09/22/03	EH	JAL

SHEET TITLE:
FINAL CONFIRMATION SOIL SAMPLE RESULTS

PROJECT TITLE:
FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, CALIFORNIA

SCALE: 1" = 15'

FIGURE: 6



LEGEND:

▽ Groundwater Elevation

89 Benzene Concentration in Groundwater Concentrations in ug/L

Benzene Concentration Contour for Groundwater

Groundwater Elevations were measured on 7/21/03
Groundwater Samples were collected on 7/21/03

Vertical Exageration = 8.33x

NOTE:

Contacts and contours are interpretative, and are based on interpolation between limited data points.

SCS ENGINEERS

Stratigraphic Cross Section A-A'

Friesman Ranch Property
1600 Frisman Road
Livermore, California

PROJECT #	DATE:	FIGURE:
01203087.00	Oct 03	7

FAGWGN01 FRIESMAN RANCH PROPERTY.GPJ FAGWGN01.GDT 10/10/03

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA

FRIESMAN RANCH PROPERTY

LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

WELL NUMBER	SAMPLING DATE	WATER LEVEL FROM T.O.C. (feet)	FREE-PRODUCT THICKNESS (feet)	T.O.C ELEVATION USGS Datum (Ft. above MSL)	GROUNDWATER ELEVATIONS USGS Datum (Ft. above MSL)
KMW-1	9/8/1997	12.82	0.00	370.12	357.30
	12/28/1998	12.72	0.00		357.40
	1/12/1999	12.97	0.00		357.15
	3/25/1999	11.99	0.00		358.13
	6/21/1999	NM	NM		NC
	9/16/1999	NM	NM		NC
	10/16/2002	14.27	0.00		355.85
	1/17/2003	11.67	0.00		358.45
	4/15/2003	11.08	0.00		359.04
	7/21/2003	13.23	NM		356.89
KMW-2	9/8/1997	14.28	0.00	370.72	356.44
	12/28/1998	14.08	0.00		356.64
	1/12/1999	14.32	0.00		356.40
	3/25/1999	13.19	0.00		357.53
	6/21/1999	NM	NM		NC
	9/16/1999	NM	NM		NC
	10/16/2002	*	*		*
	1/17/2003	12.77	0.00		357.95
	4/15/2003	12.73	0.00		357.99
	7/21/2003	13.64	NM		357.08
KMW-3	9/8/1997	12.34	0.00	369.10	356.76
	12/28/1998	12.39	0.00		356.71
	1/12/1999	15.13	0.00		353.97
	3/25/1999	11.59	0.00		357.51
	6/21/1999	NM	NM		NC
	9/16/1999	NM	NM		NC
	10/16/2002	13.69	0.00		355.41
	1/17/2003	10.85	0.00		345.20
	4/15/2003	10.16	0.00		358.94
	7/21/2003	12.59	NM		356.51

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA

FRIESMAN RANCH PROPERTY

LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

WELL NUMBER	SAMPLING DATE	WATER LEVEL FROM T.O.C. (feet)	FREE-PRODUCT THICKNESS (feet)	T.O.C ELEVATION USGS Datum (Ft. above MSL)	GROUNDWATER ELEVATIONS USGS Datum (Ft. above MSL)
KMW-4	9/8/1997	13.76	0.00	369.80	356.04
	12/28/1998	13.76	0.00		356.04
	1/12/1999	14.40	0.00		355.40
	3/25/1999	12.89	0.00		356.91
	6/21/1999	NM	NM		NC
	9/16/1999	NM	NM		NC
	10/16/2002	15.92	0.00		353.88
	1/17/2003	12.17	0.00		357.63
	4/15/2003	11.90	0.00		357.90
	7/21/2003	14.55	NM		355.25
KMW-5	9/8/1997	14.24	0.00	369.52	355.28
	12/28/1998	14.17	0.00		355.35
	1/12/1999	15.32	0.00		354.20
	3/25/1999	13.27	0.00		356.25
	6/21/1999	NM	NM		NC
	9/16/1999	NM	NM		NC
	10/16/2002	16.45	0.00		353.07
	1/17/2003	12.60	0.00		356.92
	4/15/2003	12.76	0.00		356.76
	7/21/2003	15.08	NM		354.44
KMW-6	9/8/1997	14.28	0.00	370.08	355.80
	12/28/1998	14.16	0.00		355.92
	1/12/1999	14.47	0.00		355.61
	3/25/1999	13.22	0.00		356.86
	6/21/1999	14.56	0.00		355.52
	9/16/1999	14.29	0.00		355.79
	10/16/2002	16.27	0.00		353.81
	1/17/2003	12.54	0.00		357.54
	4/15/2003	12.56	0.00		357.52
	7/21/2003	14.82	NM		355.26

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION DATA

FRIESMAN RANCH PROPERTY

LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

WELL NUMBER	SAMPLING DATE	WATER LEVEL FROM T.O.C. (feet)	FREE-PRODUCT THICKNESS (feet)	T.O.C ELEVATION USGS Datum (Ft. above MSL)	GROUNDWATER ELEVATIONS USGS Datum (Ft. above MSL)
KMW-7	12/28/1998	12.91	0.00	370.04	357.13
	1/12/1999	13.15	0.00		356.89
	3/25/1999	12.12	0.00		357.92
	6/21/1999	12.86	0.00		357.18
	9/16/1999	13.00	0.00		357.04
	10/16/2002	14.63	0.00		355.41
	1/17/2003	11.77	0.00		358.27
	4/15/2003	11.31	0.00		358.73
	7/21/2003	13.59	NM		356.45
KMW-8	12/28/1998	13.37	0.00	368.61	355.24
	1/12/1999	13.70	0.00		354.91
	3/25/1999	12.48	0.00		356.13
	6/21/1999	13.30	0.00		355.31
	9/16/1999	13.57	0.00		355.04
	10/16/2002	15.85	0.00		352.76
	1/17/2003	11.87	0.00		356.74
	4/15/2003	12.25	0.00		356.36
	7/21/2003	14.31	NM		354.30

NOTES:
MSL = Mean Sea Level
NC = Not Calculable
NM - Not Measured
T.O.C. = Top of casing. All measurements in feet relative to top of casing.
USGS = United States Geological Survey
All wells have 4" ID casing = 0.65 gallons per casing length (foot).
Wells KMW-7 and KMW-8 installed on December 23, 1998
* Well obstructed, no water level measurement taken

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

FRIESMAN RANCH PROPERTY

LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

WELL NUMBER	SAMPLE COLLECTION DATE	TPH-D (µg/L)	TPH-G (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	PAHs (µg/L)	LEAD (µg/L)
KMW-1	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	7.8
dup.	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	5.9
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/16/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	1/17/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	4/15/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	7/21/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
KMW-2	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	<5.0
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/16/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/17/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/15/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/21/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
KMW-3	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	<5.0
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/16/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	1/17/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/15/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/21/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
KMW-4	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	7.5
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/16/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	1/17/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/15/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/21/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
KMW-5	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
dup.	9/8/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	-
	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	8.5
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/16/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	1/17/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/15/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/21/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS
KMW-6	9/8/1997	3,200, d	13,000, a	250	14	560	490	<150**	140*	-
	12/28/1998	1,800, d	3,200, a	86	3.6	140	90	<50**	130*	15
	3/26/1999	1,700, d,b	7,000, a	160	5.1	270	200	<100**	100*	<5.0
dup.	3/26/1999	1,700, d,b	6,700, a	170	6.5	270	200	<100**	100*	-
	6/21/1999	1,500, d,b	3,800, a	170	<0.5	260	160	<10	200*	<5.0
	9/16/1999	1,900, d	7,100, a	230	9.8	300	210	<120	<10	<5.0
	10/16/2002	1,600, d	4,600, a	100	8.4	190	110	<50	-	-
dup.	10/16/2002	1,900, d	5,100, a	110	10	210	110	<50	-	-
	1/17/2003	2,100, d	5,700, a	87	4.3	170	100	<25	-	-
dup.	1/17/2003	1,900, d	5,800, a	89	6.4	180	100	<25	-	-
	4/15/2003	110, d	390, a	7.4	0.58	8.5	6.1	<5.0	-	-
dup.	4/15/2003	100, d	270, a	4.2	0.51	5.6	3.0	<5.0	-	-
	7/21/2003	1,600, d	4,300, a	89	3.0	130	70	<17	-	-
dup.	7/21/2003	1,500, d	4,600, a	83	5.2	130	72	<25	-	-

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
FRIESMAN RANCH PROPERTY
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

WELL NUMBER	SAMPLE COLLECTION DATE	TPH-D (µg/L)	TPH-G (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	PAHs (µg/L)	LEAD (µg/L)
KMW-7	12/28/1998	1,000, d,h	9,100, a,h	23	17	190	700	<70**	110*	38
	3/25/1999	1,200 d,b	4,300, a,h	19	16	56	270	<70**	23 *	22
	6/21/1999	1,300, d,b	1,300, a	6.5	<0.5	21	62	<5.0	27 *	<5.0
dup.	6/21/1999	1,200, d	2,000, a	6.4	6.7	24	76	<5.0	17 *	-
	9/16/1999	1,100, d	950, a	3.3	2	19	33	<10	<10	<10
	10/16/2002	480, d	270, a	1.3	<0.5	4	15	<5.0	-	-
	1/17/2003	610, d	1,100, a	7.8	1.3	24	84	<10	-	-
	4/15/2003	350, d	880, a	7.1	0.69	4.4	52	<5.0	-	-
	7/21/2003	830, n	1,500, e/g, a	2.8	<0.5	8.3	28	<5.0	-	-
KMW-8	12/28/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	12
	3/25/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	6/21/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
	9/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
	10/16/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	1/17/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	4/15/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
	7/21/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
TAP Sample	4/15/2003	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-

Notes:

TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
MTBE	Methyl Tertiary-Butyl Ether
PAHs	Polyaromatic Hydrocarbons
MCL	Cal/EPA Maximum Contaminant Level
µg/L	Micrograms per Liter (approx. equal to parts per billion)
<0.5	Not detected at or above the laboratory method reporting limit
a	Unmodified or weakly modified gasoline is significant
b	Diesel range compounds are significant; no recognizable pattern
d	Gasoline range compounds are significant
e	TPH pattern that does not appear to be derived from gasoline (possibly stoddard solvent/mineral spirit)
g	strongly aged gasoline or diesel range compounds are significant
h	Lighter than water immiscible sheen is present
n	stoddard solvent/mineral spirit
**	Reporting limit raised due to high presence of TPH-g
-	Not analyzed
NS	Not Sampled
*	Napthalene only, all other chemicals were <10 micrograms per liter

TAP Sample was collected from the water supply well on-site.

TABLE 3
QUALITY ASSURANCE/QUALITY CONTROL SAMPLE RESULTS
FRIESMAN RANCH PROPERTY
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA
July 2003

QA/QC SAMPLE TYPE	SAMPLE ID	SAMPLE COLLECTION DATE	TPH-D (µg/L)	TPH-G (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	PAHs (µg/L)	LEAD (µg/L)
Primary Sample	KMW-6	7/21/2003	1,600	4,300	89	3.0	130	70	<17	-	-
Duplicate Sample	KMW-16	7/21/2003	1,500	4,600	83	5.2	130	72	<25	-	-
	RPD		6.5%	6.7%	7.0%	53.7%	0.0%	2.8%	NC	NC	NC

Notes:

TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
MTBE	Methyl Tertiary-Butyl Ether
RPD	Relative Percent Difference
µg/L	Micrograms per Liter (approx. equal to parts per billion)
<0.5	Not detected at or above the laboratory method reporting limit
NC	Not calculable
-	Not Analyzed

TABLE 4
BIO-ATTENUATION PARAMETER ANALYTICAL RESULTS
SAMPLES COLLECTED JULY 21, 2003

Analyte	KMW-1	KMW-2	KMW-3	KMW-4	KMW-5	KMW-6	KMW-7	KMW-8
Field Measurements								
DO (mg/L)	24	Dry	3.5	4.5	3.4	4.4	4.7	3.9
ORP (mV)	4.7	Dry	245	204	146	-61	-64	165
Temperature (°C)	16.3	NM	NM	NM	NM	20.5	19.0	18.7
pH	6.85	NM	NM	NM	NM	6.66	6.98	7.06
Turbidity (NTU)	119.0	NM	NM	NM	NM	174.0	151.0	200.0
Laboratory Measurement								
Alkalinity (mg/L)	377	NM	NM	NM	NM	517	440	450
BOD (mg/L)	<2.0	NM	NM	NM	NM	3.2	NM	NM
COD (mg/L)	<20	NM	NM	NM	NM	<20	NM	NM
Ferrous Iron, FE (II) (mg/L)	0.16	NM	NM	NM	NM	0.17	0.16	0.21
Nitrate (mg/L)	<1.0	NM	NM	NM	NM	<1.0	<1.0	<1.0
Sulfate (mg/L)	79	NM	NM	NM	NM	3.3	99	110

Notes:
DO = Dissolved Oxygen (measured before purging well).
ORP = Oxidation-Reduction Potential (measured in millivolts [mV]) (measured before purging well).
BOD = Biological Oxygen Demand.
COD = Chemical Oxygen Demand.
NA = Not Analysed.
<5.0 = Analyte not present at or above indicated reporting limit.
FE(II) = Percent Ferrous Iron represents percentage of Fe(II) of Total Fe in system.
NTU = Nephelometric Turbidity Units
NM = Not Measured
mg/L = milligrams per liter
pH = Hydrogen-ion index

TABLE 5
SUMMARY OF SOIL VAPOR SAMPLE ANALYTICAL RESULTS
FRIESMAN RANCH PROPERTY
SAMPLES COLLECTED JULY 22, 2003

SAMPLE ID	ANALYTE					
	TPH-g	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
	ug/m^3					
SCS SV-1	<25,000	<2,500	<125	<250	<250	<250
DUP*	<25,000	<2,500	<125	<250	<250	<250
SCS SV-2	<25,000	<2,500	<125	<250	<250	<250
SCS SV-3	NA	NA	NA	NA	NA	NA
SCS SV-4	NS	NS	NS	NS	NS	NS
SCS SV-5	<25,000	<2,500	<125	<250	<250	<250
SCS SV-6	<25,000	<2,500	<125	<250	<250	<250
SCS SV-7	<25,000	<2,500	<125	<250	<250	<250
SCS SV-8	<25,000	<2,500	<125	<250	<250	<250
SCS SV-9	<25,000	<2,500	<125	<250	<250	<250
SCS SV-10	<25,000	<2,500	<125	<250	<250	<250
SCS SV-11	<25,000	<2,500	<125	<250	<250	<250
SCS SV-12	<25,000	<2,500	<125	<250	<250	<250

Notes: TPH-g = Total Petroleum Hydrocarbons as gasoline

MTBE = Methyl tert-Butyl Ether

E-benzene = Ethylbenzene

ug/m3 = micrograms per cubic meter

DUP* = Duplicate sample. Two vapor samples were obtained from location SV-1.
One of the samples was submitted as a blind duplicate as labled Sample SV-13.

NS = Not Sampled

NA = Not Analyzed

Sample SV-3 was not analyzed due to insufficient sample volume upon arrival at the laboratory. Leakage occured during transport.

Sample SV-4 was not collected because soil conditions at the proposed sample location were too dense to yield a vapor sample.

TABLE 6.
SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS - FUEL SYSTEM
FRIESMAN RANCH PROPERTY
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (FEET BGS)	TPH(g)	TPH(d)	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
			mg/kg						
ESLs			100	100	0.023	0.044	2.9	3.3	1.5
FRCS-1	8/20/2003	2	<1.0	1.2 B	<0.05	<0.005	<0.005	<0.005	<0.005
FRCS-2	8/20/2003	2.5	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005
FRCS-3	8/20/2003	2	<1.0	**280 GB**	<0.05	<0.005	<0.005	<0.005	<0.005
	9/18/2003	4.5	<1.0	1.2 B	<0.05	<0.005	<0.005	<0.005	<0.005
FRCS-4	8/20/2003	1	<1.0	3.0 D	<0.05	<0.005	<0.005	<0.005	<0.005
FRCS-5	8/20/2003	2	3.4 G	**110 GB**	<0.05	<0.005	0.015	<0.005	0.049
	9/18/2003	3	<1.0	8.5 GB	<0.05	<0.005	<0.005	<0.005	<0.005
FRCS-6	8/20/2003	2	<1.0	1.8 G	<0.05	<0.005	<0.005	<0.005	<0.005
FRSP (Composite)	8/20/2003	NA	<1.0	88 G	<0.05	<0.005	<0.005	<0.005	<0.005

Notes: ESLs = Environmental Screening Levels for shallow soil, where groundwater is a current or potential drinking water resource

B flag denotes diesel range compounds are significant with no recognizable pattern.

D flag denotes gasoline range compounds are significant.

G flag denotes strongly aged gasoline or diesel range compounds are significant.

NA = Not Applicable

Bold values are concentrations greater than ESLs.

TABLE 7.
SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS - INCINERATOR AREA
FRIESMAN RANCH PROPERTY
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

SAMPLE LOCATION	SAMPLE DATE	SAMPLE DEPTH (FEET BGS)	CADMIUM	CHROMIUM	LEAD	NICKEL	ZINC	ARSENIC	MERCURY
			mg/kg						
ESLs			1.7	58	200	150	600	5.5	2.5
Background Ranges*			<0.25 - 3.3	24.8 - 142.2	3.3 - 148	2.93 - 144.3	9.3 - 474	1.8 - 31.0	<0.10 - 0.6
INCS-1	8/20/2003	0.5	1.5 J	30.4	90.4	44.2	146	3.4	<0.06
INCS-2	8/20/2003	0.5	**3.2**	45.6	**342**	51.4	**1,250**	**21**	0.080
	9/18/2003	2	**2.0**	33.6	6.8	50.6	48.0	**9.6**	<0.3
INCS-3	8/20/2003	0.5	**2.2**	41.2	107	51.4	474	**10**	<0.06
	9/18/2003	2	**2.1**	33.4	6.0	52.8	52.8	**11.4**	<0.3
INCS-4	8/20/2003	0.5	**3.3**	50.2	193	40.4	356	**31**	0.12
	9/18/2003	2	**2.2**	35.4	15.1	50.8	61.2	**5.9**	<0.3
INSP (Composite)	8/20/2003	NA	**10.8**	**88.8**	**620**	53.0	**1860**	**13**	0.076
	9/18/2003	NA	**2.8**	33.8	48.4	53.6	120	**10.2**	<0.3

Notes: ESLs = Environmental Screening Levels for shallow soil, where groundwater is a current or potential drinking water resource

Background ranges are from Oakland Public Works Agency, January 1, 2000.

J flag denotes concentration is estimated because it is below the reporting limit.

NA = Not Applicable

Values shown in bold type are detected concentrations which are greater than ESLs.

Bold values are concentrations greater than ESLs.

* From Oakland Public Works Agency, January 1, 2000. Oakland Urban Land Redevelopment Program: Guidnace Document

APPENDIX A
FIELD NOTES/LOGS

WELL SAMPLING RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional St., Suite 240
Dublin, CA 94568-2920

Ph: (925) 829-0661
Fax: (925) 829-5493
www.scsengineers.com

WELL No. KMW-1

PROJECT INFORMATION

PROJECT NAME
JOB NUMBER
PERSONNEL: Leah
WEATHER/TEMP
SITE CONDITIONS

MONITORING WELL DATA

DATE/TIME	7-21-03	GALLONS/FOOT	0.65
WELL DIAMETER	4"	ONE WELL VOLUME	6.6
DEPTH TO WATER	13.23	THREE WELL VOLUMES	19.8
DEPTH OF WELL	23.40	REFERENCE POINT	
WATER HEIGHT	10.17	80% RECHARGE LEVEL	
SHEEN	YES NO	FREE PRODUCT	YES NO

PURGING DATA

DATE	7-21-03		
PURGE START	1017	PURGE END	1030
PURGING RATE	3 gpm	PURGED VOL (GAL)	20 gal
TUBING (TYPE)		PURGING DEPTH	

EQUIPMENT/METHOD

TIME	VOL (gal)	pH	EC (mS/cm)	TEMP (C)	TURB (NTUs)	DO	ORP	COMMENT
1019	6.0	6.90	1.58	17.5	106.0	5.8	85	clear no odor
1026	12.0	6.89	1.55	16.6	117.0	5.5	79	brown, cloudy, little pump of of grav
1030	19.8	6.85	1.54	16.3	119.0	5.2	83	clear no odor

OTHER COMMENTS:

SAMPLING INFORMATION

PUMP (TYPE)
BAILER (TYPE)

SAMPLE ID	CONTAINER	TIME	ANALYSIS/COMMENTS
KMW-1	1 x 500ml no pres	1037	Alkalinity
	3 x VOA HCl		VOCs
	1 x 500 ml no pres		BOD
	1 x 500 no pres		300.1 nitrate, Fe, Sulfate
	1 500 ml H_2SO_4		COD 3 vials
	1 Liter glass		TPHd

WELL SAMPLING RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional St., Suite 240
Dublin, CA 94568-2920

Ph: (925) 829-0661
Fax: (925) 829-5493
www.scsengineers.com

WELL No. KMW-6

PROJECT INFORMATION

PROJECT NAME
JOB NUMBER
PERSONNEL
WEATHER/TEMP
SITE CONDITIONS

MONITORING WELL DATA

DATE/TIME	7-21-03	GALLONS/FOOT	0.65
WELL DIAMETER	4"	ONE WELL VOLUME	5.6
DEPTH TO WATER	14.82	THREE WELL VOLUMES	16.7
DEPTH OF WELL	23.40	REFERENCE POINT	
WATER HEIGHT	8.58	80% RECHARGE LEVEL	
SHEEN	YES NO	FREE PRODUCT	YES NO

PURGING DATA

DATE	7-21-03		
PURGE START	1313	PURGE END	1328
PURGING RATE	2 gpm	PURGED VOL (GAL)	17
TUBING (TYPE)		PURGING DEPTH	
EQUIPMENT/METHOD			

TIME	VOL (gal)	pH	EC (mS/cm)	TEMP (C)	TURB (NTUs)	DO	ORP	COMMENT
1316	5	6.73	1.78	22.3	382.0	5.6	-78	brown, odor
1325	10	6.68	1.77	20.8	238.0	4.2	-72	" "
1328	17	6.66	1.75	20.5	174.0	4.6	-66	" "

OTHER COMMENTS:

SAMPLING INFORMATION

PUMP (TYPE)
BAILER (TYPE)

SAMPLE ID	CONTAINER	TIME	ANALYSIS/COMMENTS
KMW-6	500ml no pres	1340	
~~DUP~~	500 ml no pres		
KMW-16	500 ml no pres		
	500 ml H_2SO_4		
	3 VOA HCl		
	1 L glass no pr		

COD
BOD
DUP NO TB

WELL SAMPLING RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional St., Suite 240
Dublin, CA 94568-2920

Ph: (925) 829-0661
Fax: (925) 829-5493
www.scsengineers.com

WELL No. KMW-7

PROJECT INFORMATION

PROJECT NAME	Friesman / childrens Hospital		
JOB NUMBER	01203087.00	WEATHER/TEMP	(hot)
PERSONNEL	ecdh	SITE CONDITIONS	

MONITORING WELL DATA

DATE/TIME	7-21-03	GALLONS/FOOT	0.65
WELL DIAMETER	~~6~~ 4"	ONE WELL VOLUME	16.4
DEPTH TO WATER	13.59	THREE WELL VOLUMES	19.3
DEPTH OF WELL	23.50	REFERENCE POINT	
WATER HEIGHT	9.91	80% RECHARGE LEVEL	
SHEEN	YES NO	FREE PRODUCT	YES NO

PURGING DATA

DATE	7-21-03		
PURGE START	1222	PURGE END	
PURGING RATE		PURGED VOL (GAL)	
TUBING (TYPE)		PURGING DEPTH	
EQUIPMENT/METHOD			

TIME	VOL (gal)	pH	EC (mS/cm)	TEMP (C)	TURB (NTUs)	DO	ORP	COMMENT
1225	6.5	6.92	1.59	20.5	158.0	4.2	-61	dark gray, odor
1229	13.0	6.86	1.60	21.1	145.0	4.2	-66	clear, gray tint odor
1232	19	7.05	1.48	19.7	166.0	4.3	-68	" " "
1235	21	6.98	1.51	19.0	151.0	4.5	-65	" " "

OTHER COMMENTS:

SAMPLING INFORMATION

PUMP (TYPE) BAILER (TYPE)

SAMPLE ID	CONTAINER	TIME	ANALYSIS/COMMENTS
KMW-7	500ml no pres	1245	T.Alk
	500ml no pres		300.1 nit, Fe, Sulf
	3 VOA HCl		8015/8021
	1 Liter glass no pres		TPH-d

WELL SAMPLING RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional St., Suite 240
Dublin, CA 94568-2920

Ph: (925) 829-0661
Fax: (925) 829-5493
www.scsengineers.com

WELL No. KMW-8

PROJECT INFORMATION

PROJECT NAME			
JOB NUMBER		WEATHER/TEMP	
PERSONNEL		SITE CONDITIONS	

MONITORING WELL DATA

DATE/TIME	7-21-03	GALLONS/FOOT	0.65
WELL DIAMETER	4"	ONE WELL VOLUME	6.1
DEPTH TO WATER	14.31	THREE WELL VOLUMES	18.2
DEPTH OF WELL	23.65	REFERENCE POINT	
WATER HEIGHT	9.34	80% RECHARGE LEVEL	
SHEEN	YES NO	FREE PRODUCT	YES NO

PURGING DATA

DATE	7-21-03		
PURGE START	1130	PURGE END	1139
PURGING RATE		PURGED VOL (GAL)	
TUBING (TYPE)		PURGING DEPTH	
EQUIPMENT/METHOD			

TIME	VOL (gal)	pH	EC (mS/cm)	TEMP (C)	TURB (NTUs)	DO	ORP	COMMENT
1133	6	7.03	1.8	20.1	264.0	3.5	123	clear no odor
1135	12	7.04	1.76	19.4	201.0	4.1	118	clear no odor
1139	18	7.06	1.76	18.7	200.0	3.7	117	clear no odor

OTHER COMMENTS:

SAMPLING INFORMATION

PUMP (TYPE) BAILER (TYPE)

SAMPLE ID	CONTAINER		TIME	ANALYSIS/COMMENTS
KMW-8	500 ml	no pres	1155	TAIK.
	500 ml	no pres		300.1 nit., Fe, Sulf
	~~500 ml~~	~~no pres~~		
	~~500 ml~~	~~H2SO4~~		
	3 VOA	HCl		8015/8021
	1 Liter glass			TPH-d

Daily Field Report

Northern California
2110 Adams Avenue
San Leandro, CA 94577
(510) 568-7676 / (510) 568-7679 fax
1-800-VIRONEX
WWW.VIRONEX.COM

C57 - 705927

Client: SSENG.
Project:
Location: 1600 FRISMAN LIVERMORE
Date: 7/22/03
Crew: Jeff
Equipment: 5410

Mob/Demob: 7:30
On Site Time: 7:30
Start Time: 8:00
Lunch / Breaks: —
Standby - client:
Standby - Vironex:
Off Site Time: 12:15

Note standby time in "Variance in Scope of Work."

A work-day is 8 hours on-site, which includes tailgate, setup, breakdown, and waste handling, an overtime rate is applicable thereafter.

Vironex assumes that other parties will provide site access, drilling and well permits, utility location and clearance for drilling and sampling activities. VIRONEX ASSUMES NO RESPONSIBILITY FOR DAMAGE OF UNDERGROUND UTILITIES.

SAFETY IS PARAMOUNT

Scope of Work Completed

Sample ID	Time	Depth	Sampling Interval and Notes	Sample Type	Well Log
	7:00		H2S meeting		
			Site walk		ft
	8:15	3'	Vapor Sample	VS	
	8:55	3'	Vapor Sample	VS	ft
	9:10	3'	no vapor sample		
		3.5'	re drive collect vapor	VS	ft
	9:38	3'	no recovery	NR	
		5'	no recovery	NR	ft
	10:02	7'	Vapor Sample	VS	
	10:21	5'	Vapor Sample	VS	ft
	10:35	3'	Vapor Sample	VS	
	10:48	3'	Vapor Sample	VS	ft
	11:15	3'	Vapor Sample	VS	
	11:25	3'	Vapor sample	VS	ft
	11:35	3'	Vapor Sample	VS	
	11:45	3'	Vapor Sample	VS	ft
	11:57		Start grouting		ft
			final clean up		
					ft
					ft
					ft
					ft

Consumable Materials

Support Equipment & Applicable Charges	Quantity	Soil, Soil Vapor & Water	Quantity	Well and Piezometer	Quantity	General	Quantity
Steam Cleaner	Day(s)	MC Liner 2 / 3 ft		PVC Screen - Sch 40		Daily (glvs, liq, Btr)	1
PID	Day(s)	MC Liner 4 / 5 ft		3/4 -inch		Teflon Tape (each)	
Rope Pump	Day(s)	MC Caps (pair)		1-inch		Portland Cement 47lb	7
GS 1000	Day(s)	MC Spacer/Catcher		2-inch		Concrete (all types)	
Trash Pump	Day(s)	MC Other		4-inch		Asphalt Patch	
Bobcat	Day(s)	DW Liner 4 / 5 ft		PVC Riser - Sch 40		Bentonite Chips	
Support Truck	Day(s)	DW Caps (pair)		3/4 -inch		Bentonite Pellets	
Support Trailer	Day(s)	DW Spacer		1-inch		Bucket 5 Gallon w/lid	
Remediation Rig	Day(s)	DW Exp Point 3.25"		2-inch		Tyvek	
Meters		DW Exp Cutting Shoe		4-inch		Visqueen (feet)	
		LB liner		PVC Cap - Slip / Threaded		OTHER	
Temp/Cond/ PH/Turbidity	Day(s)	LB Caps (pair)		3/4 -inch			
Water Level	Day(s)	Water Point 1.25"		1-inch			
		Vapor Point	13	2-inch			
Per Diem	Day(s)	Tubing 3/8" (feet)	120	4-inch			
Weekend	Day(s)	Tubing 1/4" (feet)		PVC Locking Cap			
		Tubing Silicon (feet)		3/4 -inch		Quick Seal & Foam	
Additional Technician	Day(s)	Tedlar Bag 1 ltr	13	1-inch		3/4-inch	
OTHER		Bottom Check Valve		2-inch		1-inch	
	Day(s)	Disposable Bailer		4-inch		1.5-inch	
	Day(s)	Shelby Tube 3"x30"		Wood Plug 3", 4", 5"		2-inch	
	Day(s)	Cutting Tool		Centralizer 2", 4"		PrePack Economy	
	Day(s)	OTHER		Well Box-flush 7", 8", 12"		3/4-inch	
	Day(s)			Well Box-Stand Pipe 4", 6"		1-inch	
	Day(s)			Drum 55 Gallon		1.5-inch	
	Day(s)			Sand (all sizes)		2-inch	
	Day(s)			Mesh Sock (feet)		PrePack Stainless Steel	
				OTHER		3/4-inch	
						1-inch	
						1.5-inch	
						2-inch	

Variance in Scope of Work and Site Notes

The undersigned accepts these terms for services rendered:

Client Representative Signature: Alex Naughton — Date: 7/22/03

Printed Name: Alex Naughton

Purchase Order Number:

Vironex Proposal Number:

APPENDIX B
LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6850 Regional St Suite 240 Dublin, CA 94568-2611	Client Project ID: #01203087.00; Friesman Ranch Property	Date Sampled: 07/21/03
		Date Received: 07/22/03
	Client Contact: J. Lehrman	Date Reported: 07/28/03
	Client P.O.:	Date Completed: 07/28/03

WorkOrder: 0307365

July 28, 2003

Dear J.:

Enclosed are:

1). the results of **5** analyzed samples from your **#01203087.00; Friesman Ranch Property project,**

2). a QC report for the above samples

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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers	Client Project ID: #01203087.00; Friesman Ranch Property	Date Sampled: 07/21/03-11/21/03
6850 Regional St Suite 240		Date Received: 07/22/03
Dublin, CA 94568-2611	Client Contact: J. Lehrman	Date Extracted: 07/23/03-07/25/03
	Client P.O.:	Date Analyzed: 07/23/03-07/25/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0307365

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	KMW-1	W	ND	ND	ND	ND	ND	ND	1	101
002A	KMW-6	W	4300,a	ND<17	89	3.0	130	70	3.3	108
003A	KMW-7	W	1500,e/g,a	ND	2.8	ND	8.3	28	1	102
004A	KMW-8	W	ND	ND	ND	ND	ND	ND	1	102
005A	KMW-16	W	4600,a	ND<25	83	5.2	130	72	5	113
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6850 Regional St Suite 240 Dublin, CA 94568-2611	Client Project ID: #01203087.00; Friesman Ranch Property	Date Sampled: 07/21/03-11/21/03
		Date Received: 07/22/03
	Client Contact: J. Lehrman	Date Extracted: 07/22/03
	Client P.O.:	Date Analyzed: 07/23/03

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0307365

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0307365-001C	KMW-1	W	ND	1	97.2
0307365-002C	KMW-6	W	1600,d	1	103
0307365-003C	KMW-7	W	830,n	1	105
0307365-004C	KMW-8	W	ND	1	98.1
0307365-005C	KMW-16	W	1500,d	1	103

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6850 Regional St Suite 240 Dublin, CA 94568-2611	Client Project ID: #01203087.00; Friesman Ranch Property	Date Sampled: 07/21/03-11/21/03
		Date Received: 07/22/03
	Client Contact: J. Lehrman	Date Extracted: 07/22/03
	Client P.O.:	Date Analyzed: 07/22/03-07/23/03

Inorganic Anions by IC*

Extraction method: E300.1 Analytical methods: E300.1 Work Order: 0307365

Lab ID	Client ID	Matrix	Nitrate as N	Sulfate	DF	% SS
0307365-001D	KMW-1	W	ND	79	1	90.9
0307365-002D	KMW-6	W	ND	3.3	1	91.0
0307365-003D	KMW-7	W	ND	99	1	90.0
0307365-004D	KMW-8	W	ND	110	1	90.0
0307365-005D	KMW-16	W	ND	3.8	1	92.0

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	1.0	1.0	mg/L
	S	NA	NA	mg/Kg

* water are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high inorganic content; k) sample arrived with head space.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0307365

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 7919 Spiked Sample ID: 0307373-004A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	ND	60	101	99.7	1.25	112	113	1.02	70	130
MTBE	ND	10	98.9	99.4	0.462	96.4	102	5.64	70	130
Benzene	ND	10	99.5	99.3	0.183	98.7	104	5.32	70	130
Toluene	ND	10	99.4	99.6	0.174	94.5	98.7	4.33	70	130
Ethylbenzene	ND	10	103	103	0	105	110	4.63	70	130
Xylenes	ND	30	107	103	3.17	100	100	0	70	130
%SS:	102	100	101	101	0	97	100	3.12	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

Matrix: W WorkOrder: 0307365

EPA Method: SW8015C Extraction: SW3510C BatchID: 7908 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	7500	N/A	N/A	N/A	104	108	4.14	70	130
%SS:	N/A	100	N/A	N/A	N/A	105	109	3.72	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E300.1

Matrix: W WorkOrder: 0307365

EPA Method: E300.1	Extraction: E300.1	BatchID: 7920	Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Nitrate as N	N/A	1000	N/A	N/A	N/A	100	100	0	85	115
Sulfate	N/A	1000	N/A	N/A	N/A	105	105	0	85	115
%SS:	N/A	100	N/A	N/A	N/A	90.2	91	0.938	90	115

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not applicable to this method.
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.

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # P204-02 **Date:** 7/31/03

McCampbell Analytical
110 2nd Ave. South #D7
Pacheco CA 94553

Project: #01203087.00; Friesman Ranch Property

PO#

Date Rec'd: 7/23/03
Date Started: 7/23/03
Date Completed: 7/31/03

Date Sampled: 7/21/03
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
0307365 - 001B	P306810	20	SM2320B	Total Alkalinity as $CaCO_3$	377	mg/L
		0.10	200.7	Dissolved Iron	0.16	mg/L
		20	410.4	Chemical Oxygen Demand	ND	mg/L
0307365 - 002B	P306811	20	SM2320B	Total Alkalinity as $CaCO_3$	517	mg/L
		0.10	200.7	Dissolved Iron	0.17	mg/L
		20	410.4	Chemical Oxygen Demand	ND	mg/L
0307365 - 003B	P306812	20	SM2320B	Total Alkalinity as $CaCO_3$	440	mg/L
		0.10	200.7	Dissolved Iron	0.16	mg/L
0307365 - 004B	P306813	20	SM2320B	Total Alkalinity as $CaCO_3$	450	mg/L
		0.10	200.7	Dissolved Iron	0.18	mg/L
0307365 - 005B	P306814	20	SM2320B	Total Alkalinity as $CaCO_3$	499	mg/L
		0.10	200.7	Dissolved Iron	0.21	mg/L

Rohit Bombaywala
Inorganic Supervisor

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # P204-02

Date: 7/28/03

McCampbell Analytical
110 2nd Ave. South #D7
Pacheco CA 94553

Project: #01203087.00; Friesman Ranch Property

PO#

Date Rec'd: 7/23/03
Date Started: 7/23/03
Date Completed: 7/28/03

Date Sampled: 7/21/03
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
0307365 - 001B	P306810	2.0	SM5210B	B.O.D	ND	mg/L
0307365 - 002B	P306811	2.0	SM5210B	B.O.D	3.2	mg/L

Kanti Gandhi
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# P204-02

QC REPORT

McCampbell Analytical
110 2nd Ave. South #D7
Pacheco CA 94553

Analyte	Method	Batch #	Dates Analyzed	Orig.	Dupl.	MS %Rec	MSD %Rec		RPD	LCS %Rec	Blank	Comments
Total Alkalinity as $CaCO_3$	SM2320B	I04970	7/23/03			102.0	102.0		0.0	107.1	ND	
Dissolved Iron	200.7	I05232	7/30/03			102.0	102.3	*	0.3		ND	Sample analyte concentration too high to spike.
Chemical Oxygen Demand	410.4	I04966	7/23/03			98.0	98.0	*	0.0		ND	Matrix interference

*** LCS/LCSD** (see comments)

Rohit Bombaywala
Inorganic Supervisor

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# P204-02

QC REPORT

McCampbell Analytical
110 2nd Ave. South #D7
Pacheco CA 94553

Analyte	Method	Batch #	Dates Analyzed	Orig.	Dupl.	MS %Rec	MSD %Rec	RPD	LCS %Rec	Blank	Comments
B.O.D	SM5210B	B00411	7/23/03-7/28/03	906	880			2.9		ND	

*** LCS/LCSD** (see comments)

Kanti Gandhi
Chemist

Certification # 1157

Donna Keller
Laboratory Director

P204-02

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0307365

Subcontractor:
GEO ANALYTICAL LABORATORIES
1405 Kansas Avenue
Modesto, CA 95351

TEL: (209) 572-0900
FAX: (209) 572-0916
ProjectNo: #01203087.00; Friesman Ranch Property
Acct #: N/A

Date Received: **7/22/03**
Date Printed: **7/22/03**

Sample ID	ClientSampID	Matrix	Collection Date	TAT	Requested Tests					
					Alkalinity	BOD	COD	Fe E200.7 ICS		
0307365-001B	KMW-1	Water	11/21/03 10:37:00 AM	Standard	1	1	1	1	P306810	
0307365-002B	KMW-6	Water	7/21/03 1:40:00 PM	Standard	1	1	1	1	P306811	
0307365-003B	KMW-7	Water	7/21/03 12:45:00 PM	Standard	1			1	P306812	
0307365-004B	KMW-8	Water	7/21/03 11:55:00 AM	Standard	1			1	P306813	
0307365-005B	KMW-16	Water	7/21/03	Standard	1			1	P306814	

Comments: Metals=Fe, please filter and preserve Fe samples upon arrival; 5 day tat; please fax results as soon as available; thank you

Please send results to: Melissa Valles

		Date/Time			Date/Time
Relinquished by:	Melissa Valles	7/22 5pm	**Received by:**	Courier	7/22/03 5pm
Relinquished by:	Courier	7/23/03 8am	**Received by:**	Lidia Padilla	7/23/03 8am

SC59

0307865

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional Street, Suite 240 *
Dublin, California 94568
Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 5
PAGE 1 OF 2
TURNAROUND TIME REQUIRED: Standard
___5-Day ___3-Day ___Immediate ✓Other
PROJECT NUMBER: 01203087.00
PROJECT MANAGER: J. Lehrman
PROJECT NAME: Friesman Ranch property
W.O. / S.O. #:
PROJECT LOCATION: Livermore, CA
SAMPLER NAME AND SIGNATURE: Emily Harris Emily Harris

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	ANALYSES REQUESTED: TPH-g/BTEX/MTBE (8015M/8021); TPH-d (8015M); 300.1 nitrate, F, sulfate; Alkalinity; BOD; COD	LAB USE ONLY
†	KMW-1	H2O	11-21-03 1037	3 VOA	HCl	please filter and	X	
				1 500ml	none	preserve Fe	X	
				1 500ml	none	samples upon	X	
				1 500ml	none	arrival	X	
				1500ml.	H_2SO_4		X	
				1 L amber	none		X	
†	KMW-6		11-21-03 1340	3 VOA	HCl		X	
				1 500ml	none		X	
				500ml	none		X	
				500ml	none		X	
				500ml	H_2SO_4		X	
				1 Lamber	none		X	
†	KMW-7		11-21-03 1245	3 VOA	HCl		X	
				500ml	no pres		X	
				500ml	none		X	

VOAs | O&G | METALS | OTHER

NOTES: * Invoice Children's Hospital Directly

ICE/N ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ___
DECHLORINATED IN LAB ___
PRESERVATION ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ___

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Emily Harris	7/22/03		7-22-03		7/22/03	Nikki Voth	7/22
COMPANY: SCS	TIME: 955	COMPANY:	TIME: 9:55	COMPANY:	TIME: 12:35	COMPANY: MAI	TIME: 11:30pm

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants
6850 Regional Street, Suite 240 *
Dublin, California 94568
Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 5
PAGE 2 OF 2
TURNAROUND TIME REQUIRED: Standard
___5-Day ___3-Day ___Immediate ✓ Other
PROJECT NUMBER: ~~Friesman~~ 0120308 7.02
PROJECT MANAGER: J. Lehrman
PROJECT NAME: Friesman Ranch Property
W.O. / S.O. #:
PROJECT LOCATION: Livermore, CA
SAMPLER NAME AND SIGNATURE: Emily Harris

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	ANALYSES REQUESTED: TPH-g/BTEX/MTBE (8015M/8021)	TPH-d (8015M)	300.1 nitrate, FE, sulf.	Alkalinity	BOD	COD	LAB USE ONLY
	K-MW-7	H_2O	11-21-03 1245	1 L glass	none	Please filter and		X					
*	KMW-8		11-21-03 1155	3 VOA	HCl	preserve Fe	X						
				500 ml	none	samples upon				X			
				500 ml	none	arrival			X				
				1 L amber glass	none			X					
*	KMW-16		11-21-03	3 VOA	HCl		X						
				500 ml	none					X			
				500 ml	none						SM		
				500 ml	none				X				
				500 ml	H_2SO_4							SM	
				1 L amber	none			X					

NOTES: * Invoice Children's Hospital Directly

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Emily Harris	12/03		12-22-03				
COMPANY: SCS	TIME: 955	COMPANY:	TIME: 955	COMPANY:	TIME:	COMPANY:	TIME:

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0307365

Client:
SCS Engineers
6850 Regional St Suite 240
Dublin, CA 94568-2611

TEL: (925) 829-0661
FAX: (925) 829-5493
ProjectNo: #01203087.00; Friesman Ranch Property
PO:

Date Received: 7/22/03
Date Printed: 7/22/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					Alkalinity	BOD	COD	E200_7	E300_1	SW8015C	V8021B/8015C
0307365-001	KMW-1	Water	11/21/03 10:37:00 AM	☐	B	B	B	B	D	C	A
0307365-002	KMW-6	Water	7/21/03 1:40:00 PM	☐	B	B	B	B	D	C	A
0307365-003	KMW-7	Water	7/21/03 12:45:00 PM	☐	B			B	D	C	A
0307365-004	KMW-8	Water	7/21/03 11:55:00 AM	☐	B			B	D	C	A
0307365-005	KMW-16	Water	7/21/03	☐	B			B	D	C	A

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

INVOICE for ANALYTICAL SERVICES

COPY

Project Name: #01203087.00; Friesman Ranch Property
PO Number: N/A
Date Sampled: 7/21/03
Date Received: 07/22/2003

Invoice N°: 0307365

INV DATE: *July 28, 2003*
Print DATE: *August 04, 2003*

Report To: J. Lehrman
SCS Engineers
6850 Regional St Suite 240
Dublin, CA 94568-2611

Invoice To: Lorraine Del Prado
Children's Hospital Foundation
5225 Dover Street
Oakland, CA 94609-1809

Description	TAT	Matrix	Qty	Mult	Unit Price	Test Total
Tests:						
EPA 300.1 (Inorganic Anions)	5 days	Water	5	1	$40.00	$200.00
TPH(d)	5 days	Water	5	1	$50.00	$250.00
TPH(g) + MBTEX	5 days	Water	5	1	$50.00	$250.00
Subbed Tests:						
Alkalinity		Water	5	1	$25.00	$125.00
BOD, 5 Day, 20°C		Water	2	1	$45.00	$90.00
COD		Water	2	1	$45.00	$90.00
Metals (Dissolved)		Water	5	1	$17.00	$85.00
					SubTotal:	$1,090.00

Invoice Total: $1,090.00

If paid by **08/28/03** Prompt Pay Invoice Total = $1,020.00

RECEIVED
AUG 13 2003
SCS ENGINEERS

Please include the invoice number with your check and remit to Accounts Receivable at the letter head address. MAI also accepts credit card (Visa/Master Card/Discover/American Express) payment. Please call Account Receivable for details on this service.

MAI's EDF charge does not include the EDF charge for subcontracted analyses. The minimum EDF charge per workorder is $25.00. For invoice total greater than $5000.00, EDF will be 2% of the total invoice. The EDF charge for subcontracted analyses will be identical to Subcontractor's fee.

Terms are net 30 days from the invoice date. After this period 1.5% interest per month will be charged. Overdue accounts are responsible for all legal and collection fees. If you have any questions about billing, please contact Accounts Receivable at McCampbell Analytical.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6850 Regional St Suite 240 Dublin, CA 94568-2611	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 07/22/03
		Date Received: 07/23/03
	Client Contact: Jim Lehrman	Date Reported: 07/28/03
	Client P.O.:	Date Completed: 07/29/03

WorkOrder: 0307396

July 29, 2003

Dear Jim:

Enclosed are:

1). the results of **12** analyzed samples from your **#01203087.00; Friesman Ranch project,**

2). a QC report for the above samples

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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 07/22/03
		Date Received: 07/23/03
	Client Contact: Jim Lehrman	Date Extracted: 07/23/03-07/24/03
	Client P.O.:	Date Analyzed: 07/23/03-07/24/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0307396

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SCS SV-1	A	ND	ND	ND	ND	ND	ND	1	95.3
002A	SCS SV-2	A	ND	ND	ND	ND	ND	ND	1	100
004A	SCS SV-5	A	ND	ND	ND	ND	ND	ND	1	103
005A	SCS SV-6	A	ND	ND	ND	ND	ND	ND	1	101
006A	SCS SV-7	A	ND	ND	ND	ND	ND	ND	1	99.8
007A	SCS SV-8	A	ND	ND	ND	ND	ND	ND	1	104
008A	SCS SV-9	A	ND	ND	ND	ND	ND	ND	1	94.6
009A	SCS SV-10	A	ND	ND	ND	ND	ND	ND	1	107
010A	SCS SV-11	A	ND	ND	ND	ND	ND	ND	1	101
011A	SCS SV-12	A	ND	ND	ND	ND	ND	ND	1	99.6
012A	SCS SV-13	A	ND	ND	ND	ND	ND	ND	1	96.6

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25000	2500	125	250	250	250	1	µg/m³
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present: g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0307396

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 7933 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	N/A	60	N/A	N/A	N/A	106	109	3.09	70	130
MTBE	N/A	10	N/A	N/A	N/A	110	97.4	12.5	70	130
Benzene	N/A	10	N/A	N/A	N/A	97.9	93	5.16	70	130
Toluene	N/A	10	N/A	N/A	N/A	93.2	89.3	4.21	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	103	98.4	4.30	70	130
Xylenes	N/A	30	N/A	N/A	N/A	96	91	5.35	70	130
%SS:	N/A	100	N/A	N/A	N/A	101	98.6	2.83	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A WorkOrder: 0307396

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 7936 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	N/A	60	N/A	N/A	N/A	108	107	1.14	70	130
MTBE	N/A	10	N/A	N/A	N/A	99.3	97.7	1.67	70	130
Benzene	N/A	10	N/A	N/A	N/A	95.6	96.9	1.35	70	130
Toluene	N/A	10	N/A	N/A	N/A	91.3	92.6	1.39	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	101	102	0.668	70	130
Xylenes	N/A	30	N/A	N/A	N/A	95.3	95.3	0	70	130
%SS:	N/A	100	N/A	N/A	N/A	98.5	102	3.74	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

CCSD 0B073916

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional Street, Suite 240
Dublin, California 94568
Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 12
PAGE 1 OF 1
TURNAROUND TIME REQUIRED: 3 day
___5-Day ___3-Day ___Immediate ___Other
PROJECT NUMBER: 01203087.00
PROJECT MANAGER: J Lehrman
PROJECT NAME: Friesman Ranch
W.O. / S.O. #: Children's Hosp.
PROJECT LOCATION: 1600 Friesman Rd., Livermore
SAMPLER NAME AND SIGNATURE: Alex Naughton Alex Naughton

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	ANALYSES REQUESTED: TPH's Soil SM	BTEX + MTBE 8021B	LAB USE ONLY: Confirm MTBE 8260
	SCS SV-1	air	7/22/03	1L tedlar	NA	[illegible]	X	X	X
	SCS SV-2						X	X	X
	~~SCS SV-3~~			[cancelled] *		No air in bag *	~~X~~	~~X~~	~~X~~
	SCS SV-5						X	X	X
	SCS SV-6						X	X	X
	SCS SV-7						X	X	X
	SCS SV-8						X	X	X
	SCS SV-9						X	X	X
	SCS SV-10						X	X	X
	SCS SV-11						X	X	X
	SCS SV-12						X	X	X
	SCS SV-13						X	X	X

NOTES:
Must be analyzed within 3 days of collection
Please confirm MTBE hits with 8260
* Please bill Children's Hospital directly

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Alex Naughton	7/22/03	[illegible]	7/22/03	[illegible]	7/23/03	[illegible]	7-23-03
COMPANY: SCS	TIME: 5:30 p	COMPANY: SCS	TIME: 5:30 p	COMPANY: SCS	TIME: 9:40a	COMPANY: [illegible]	TIME: 9:40

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0307396

Client:
SCS Engineers
6850 Regional St Suite 240
Dublin, CA 94568-2611

TEL: (925) 829-0661
FAX: (925) 829-5493
ProjectNo: #01203087.00; Friesman Ranch
PO:

Date Received: 7/23/03
Date Printed: 7/23/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					V8021B/8015C						
0307396-001	SCS SV-1	Air	7/22/03	☐	A						
0307396-002	SCS SV-2	Air	7/22/03	☐	A						
0307396-003	SCS SV-3	Air	7/22/03	☐	A						
0307396-004	SCS SV-5	Air	7/22/03	☐	A						
0307396-005	SCS SV-6	Air	7/22/03	☐	A						
0307396-006	SCS SV-7	Air	7/22/03	☐	A						
0307396-007	SCS SV-8	Air	7/22/03	☐	A						
0307396-008	SCS SV-9	Air	7/22/03	☐	A						
0307396-009	SCS SV-10	Air	7/22/03	☐	A						
0307396-010	SCS SV-11	Air	7/22/03	☐	A						
0307396-011	SCS SV-12	Air	7/22/03	☐	A						
0307396-012	SCS SV-13	Air	7/22/03	☐	A						

Prepared by: Elisa Venegas

Comments: ON 72HR TAT CONFIRM ALL MTBE HITS BY 8260

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.

McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 08/20/03
		Date Received: 08/20/03
	Client Contact: Jim Lehrman	Date Reported: 08/26/03
	Client P.O.:	Date Completed: 08/26/03

WorkOrder: 0308317

August 26, 2003

Dear Jim:

Enclosed are:

1). the results of **12** analyzed samples from your **#01203087.00; Friesman Ranch project,**

2). a QC report for the above samples

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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 08/20/03
		Date Received: 08/20/03
	Client Contact: Jim Lehrman	Date Extracted: 08/20/03
	Client P.O.:	Date Analyzed: 08/21/03-08/22/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0308317

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
005A	FRSP Comp	S	ND	ND	ND	ND	ND	ND	1	102
013A	FRCS-1	S	ND	ND	ND	ND	ND	ND	1	85.3
014A	FRCS-2	S	ND	ND	ND	ND	ND	ND	1	92.2
015A	FRCS-3	S	ND	ND	ND	ND	ND	ND	1	91.0
016A	FRCS-4	S	ND	ND	ND	ND	ND	ND	1	94.7
017A	FRCS-5	S	3.4,g	ND	ND	0.015	ND	0.049	1	87.7
018A	FRCS-6	S	ND	ND	ND	ND	ND	ND	1	89.4
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	NA	NA	NA	NA	NA	NA	1	ug/L
		S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 08/20/03
		Date Received: 08/20/03
	Client Contact: Jim Lehrman	Date Extracted: 08/20/03
	Client P.O.:	Date Analyzed: 08/21/03-08/23/03

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0308317

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0308317-005A	FRSP Comp	S	88,g	20	92.2
0308317-013A	FRCS-1	S	1.2,b	1	101
0308317-014A	FRCS-2	S	ND	1	101
0308317-015A	FRCS-3	S	280,g,b	2	97.0
0308317-016A	FRCS-4	S	3.0,d	1	111
0308317-017A	FRCS-5	S	110,g,b	1	115
0308317-018A	FRCS-6	S	1.8,g	1	113
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	NA	NA	
		S	1.0	mg/Kg	

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 08/20/03
		Date Received: 08/20/03
	Client Contact: Jim Lehrman	Date Extracted: 08/20/03
	Client P.O.:	Date Analyzed: 08/21/03

Arsenic by Graphite Furnace Atomic Absorption*

Extraction method: SW3050B Analytical methods: SW7010 Work Order: 0308317

Lab ID	Client ID	Matrix	Extraction	Arsenic	DF	% SS
0308317-001A	INSP Comp	S	TTLC	13	1.3	N/A
0308317-009A	INCS-1	S	TTLC	3.4	1	N/A
0308317-010A	INCS-2	S	TTLC	21	2	N/A
0308317-011A	INCS-3	S	TTLC	10	1	N/A
0308317-012A	INCS-4	S	TTLC	31	4	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	mg/L
	S	TTLC	2.5	mg/Kg

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

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

Analytical Methods: EPA 6010C/200.7 for all elements except: 200.9 (water/liquid- Sb, As, Pb, Se, Tl); 245.1 (Hg); 7010 (sludge/soil/solid/oil/product/wipe/filter - As, Se, Tl); 7471B (Hg).

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations; j) reporting limit raised due to insufficient sample amount; k) results are reported by dry weight; y) estimated values due to low surrogate recovery; z) reporting limit raised due to matrix interference.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 08/20/03
		Date Received: 08/20/03
	Client Contact: Jim Lehrman	Date Extracted: 08/20/03
	Client P.O.:	Date Analyzed: 08/21/03

Cold Vapor Metals*

Extraction method: SW7471B Analytical methods: SW7471B Work Order: 0308317

Lab ID	Client ID	Matrix	Extraction	Mercury	DF	% SS
0308317-001A	INSP Comp	S	TTLC	0.076	1	N/A
0308317-009A	INCS-1	S	TTLC	ND	1	N/A
0308317-010A	INCS-2	S	TTLC	0.080	1	N/A
0308317-011A	INCS-3	S	TTLC	ND	1	N/A
0308317-012A	INCS-4	S	TTLC	0.12	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	NA	mg/L
	S	TTLC	0.06	mg/Kg

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

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

Analytical Methods: EPA 6010C/200.7 for all elements except: 200.9 (water/liquid- Sb, As, Pb, Se, Tl); 245.1 (Hg); 7010 (sludge/soil/solid/oil/product/wipe/filter - As, Se, Tl); 7471B (Hg).

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations; j) reporting limit raised due to insufficient sample amount; k) results are reported by dry weight; y) estimated values due to low surrogate recovery; z) reporting limit raised due to matrix interference.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S WorkOrder: 0308317

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 8237 Spiked Sample ID: 0308307-002A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	0.60	102	105	2.72	108	108	0	70	130
MTBE	ND	0.10	83.6	86.6	3.53	91.9	92.7	0.805	70	130
Benzene	ND	0.10	100	102	1.78	110	108	1.90	70	130
Toluene	ND	0.10	99.3	101	1.83	110	109	1.36	70	130
Ethylbenzene	ND	0.10	99.9	101	0.913	107	107	0	70	130
Xylenes	ND	0.30	103	103	0	110	110	0	70	130
%SS:	89.6	100	96	99.3	3.38	99.7	99.2	0.503	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

Matrix: S WorkOrder: 0308317

EPA Method: SW8015C	Extraction: SW3550C	BatchID: 8236	Spiked Sample ID: 0308305-001A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	3.02	150	101	98.8	1.70	99.2	100	0.850	70	130
%SS:	91.5	100	95.3	93.7	1.76	95.8	97.3	1.57	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW7010

Matrix: S WorkOrder: 0308317

EPA Method: SW7010 Extraction: SW3050B BatchID: 8194 Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Arsenic	N/A	0.50	N/A	N/A	N/A	102	112	9.16	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not applicable to this method.
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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW7471B

Matrix: S WorkOrder: 0308317

EPA Method: SW7471B	Extraction: SW7471B	BatchID: 8244	Spiked Sample ID: 0308317-001A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Mercury	N/A	0.25	N/A	N/A	N/A	82.1	97	16.6	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not applicable to this method.
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.

basic laboratory

www.basiclab.com

voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

August 28, 2003

Lab ID: 3080787

Maria Venegas
MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
RE: Metals Testing #01203087.00; FRIESMAN RANCH

Dear Maria Venegas,

Enclosed are the analysis results for Work Order number 3080787. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

Ricky Jensen
For
James E. Hawley
Laboratory Director
California ELAP Certification Number 1677

basic laboratory
www.basiclab.com
voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
Attention: Maria Venegas
Project: Metals Testing 0308317 / #01203087.00; FRIESMAN RANCH

Lab No: 3080787
Reported: 08/28/03
Phone: (925) 798-1620
P.O. #

Metals - Solid

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
0308317-001A INSP COMP Soil (3080787-01) Sampled:08/20/03 00:00 Received:08/21/03 11:48									
Cadmium	mg/kg	10.8		0.4	2.0	EPA 6010A	08/25/03	08/22/03	B3H0317
Chromium	"	88.8		0.2	2.0	"	"	"	"
Lead	"	620		0.5	2.5	"	"	"	"
Nickel	"	53.0		0.5	2.0	"	"	"	"
Zinc	"	1860		2.0	10.0	"	"	"	"
0308317-009A INCS-1 Soil (3080787-02) Sampled:08/20/03 00:00 Received:08/21/03 11:48									
Cadmium	mg/kg	1.5	J	0.4	2.0	EPA 6010A	08/25/03	08/22/03	B3H0317
Chromium	"	30.4		0.2	2.0	"	"	"	"
Lead	"	90.4		0.5	2.5	"	"	"	"
Nickel	"	44.2		0.5	2.0	"	"	"	"
Zinc	"	146		2.0	10.0	"	"	"	"
0308317-010A INCS-2 Soil (3080787-03) Sampled:08/20/03 00:00 Received:08/21/03 11:48									
Cadmium	mg/kg	3.2		0.4	2.0	EPA 6010A	08/25/03	08/22/03	B3H0317
Chromium	"	45.6		0.2	2.0	"	"	"	"
Lead	"	342		0.5	2.5	"	"	"	"
Nickel	"	51.4		0.5	2.0	"	"	"	"
Zinc	"	1250		2.0	10.0	"	"	"	"
0308317-011A INCS-3 Soil (3080787-04) Sampled:08/20/03 00:00 Received:08/21/03 11:48									
Cadmium	mg/kg	2.2		0.4	2.0	EPA 6010A	08/25/03	08/22/03	B3H0317
Chromium	"	41.2		0.2	2.0	"	"	"	"
Lead	"	107		0.5	2.5	"	"	"	"
Nickel	"	51.4		0.5	2.0	"	"	"	"
Zinc	"	474		2.0	10.0	"	"	"	"
0308317-012A INCS-4 Soil (3080787-05) Sampled:08/20/03 00:00 Received:08/21/03 11:48									
Cadmium	mg/kg	3.3		0.4	2.0	EPA 6010A	08/25/03	08/22/03	B3H0317
Chromium	"	50.2		0.2	2.0	"	"	"	"
Lead	"	193		0.5	2.5	"	"	"	"
Nickel	"	40.4		0.5	2.0	"	"	"	"
Zinc	"	356		2.0	10.0	"	"	"	"

Approved By
Basic Laboratory, Inc.
California D.O.H.S. Cert #1677

basic laboratory

www.basiclab.com

voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
Attention: Maria Venegas
Project: Metals Testing #01203087.00; FRIESMAN RANCH

Lab No: 3080787
Reported: 08/28/03
Phone: (925) 798-1620
P.O. #

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By
Basic Laboratory, Inc.
California D.O.H.S. Cert #1677

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
Phone: (925) 798-1620
Fax: (925) 798-1622

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0308317

#3080787

Due 8.28.03

Subcontractor:

Basic Laboratory, Inc.
2218 Railroad Avenue
Redding, CA 96001

TEL: (530) 243-7234
FAX: (530) 243-7494
ProjectNo: #01203087.00; Friesman Ranch
Acct #:

Date Received: **8/20/03**
Date Printed: **8/20/03**

Sample ID	ClientSampID	Matrix	Collection Date	TAT	Luft Metals Requested Tests						
					6010C						
0308317-001A	INSP Comp	Soil	8/20/03	5 Day	1						#1
0308317-009A	INCS-1	Soil	8/20/03	5 Day	1						2
0308317-010A	INCS-2	Soil	8/20/03	5 Day	1						3
0308317-011A	INCS-3	Soil	8/20/03	5 Day	1						4
0308317-012A	INCS-4	Soil	8/20/03	5 Day	1						5

Comments: Please use client ID's

Please fax results to Maria Venegas at 925-798-1622 upon completion.

	Date/Time		Date/Time
Relinquished by: Maria Venegas	8/20	**Received by:**	
Relinquished by:		**Received by:** Rochelle M Knowlton	8-21-03 11:48

0308317

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants
6850 Regional Street, Suite 240
Dublin, California 94568
Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 18
PAGE 1 OF 2
TURNAROUND TIME REQUIRED: Standard
___5-Day ___3-Day ___Immediate ____Other
PROJECT NUMBER: 01203827.02
PROJECT MANAGER: J. Lehrman
PROJECT NAME: Empsman Ranch
W.O. / S.O. #:
PROJECT LOCATION: Livermore CA
SAMPLER NAME AND SIGNATURE: Emily Harris Emily Harris

ANALYSES REQUESTED

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	TPH-d (8015)	BTEX, MTBE (8021)	TPH-g	Pb	Cr	Cd	As	Zn	Hg	Ni	LAB USE ONLY
COMP	INSP-1	soil	8-20-03	brass tube	none					X	X	X	X	X	X	X	
COMP	INSP-2									X	X	X	X	X	X	X	
COMP	INSP-3									X	X	X	X	X	X	X	
COMP	INSP-4									X	X	X	X	X	X	X	
COMP	FRSP-1						X	X									
COMP	FRSP-2						X	X									
COMP	FRSP-3						X	X									
COMP	FRSP-4						X	X									
	INCS-1									X	X	X	X	X	X	X	
	INCS-2									X	X	X	X	X	X	X	
	INCS-3									X	X	X	X	X	X	X	
	INCS-4									X	X	X	X	X	X	X	
	FRCS-1						X	X									
	FRCS-2						X	X									
	FRCS-3						X	X									

NOTES: Please composite INSP(1-4) and FRSP (1-4)
Send results to Jim Lehrman (SCS) and bill Childrens Hospital directly - Lorraine del Prado

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Emily Harris	8-20-03		ICE/T° NO		VOAS O&G METALS OTHER		
COMPANY: SCS	TIME: 235	COMPANY:	TIME: GOOD CONDITION	COMPANY:	PRESERVATION APPROPRIATE	COMPANY:	
			HEAD SPACE ABSENT		CONTAINERS		
			CHLORINATED IN LAB		PRESERVED IN LAB		

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants

6850 Regional Street, Suite 240

Dublin, California 94568

Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 18

PAGE 2 OF 2

TURNAROUND TIME REQUIRED: Standard

___5-Day ___3-Day ___Immediate _____Other

PROJECT NUMBER: 01203087.00

PROJECT MANAGER: J. Lehrman

PROJECT NAME: Fresman Ranch

W.O. / S.O. #:

PROJECT LOCATION: Livermore CA

SAMPLER NAME AND SIGNATURE: Emily Harris Emilyblin

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	ANALYSES REQUESTED: TPH-d (8015)	BTEX MTBE TPH-g (8021)	LAB USE ONLY
	FRCS-4	soil	8-20-03	brass tube	none		X	X	
	FRCS-5	"	"	"	"		X	X	
	FRCS-6	"	"	"	"		X	X	

NOTES:

Send results to Jim Lehrman (SCS) and invoice to Lorraine del Prado (Childrens Hospital)

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Emilyblin	8-20-03						
COMPANY: SCS	TIME: 235	COMPANY: MFL	TIME:	COMPANY:	TIME:	COMPANY:	TIME:

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0308317

Client:

SCS Engineers
6601 Koll Center Park Way, Suite 140
Pleasanton, CA 94566

TEL: (925) 829-0661
FAX: (925) 829-5493
ProjectNo: #01203087.00; Friesman Ranch
PO:

Date Received: **8/20/03**
Date Printed: **8/20/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (Mercury)						
					6010C	SW7010	SW7471B	SW8015C	M8021B/8015C		
0308317-001	INSP Comp	Soil	8/20/03	☐	A	A	A				
0308317-005	FRSP Comp	Soil	8/20/03	☐				A	A		
0308317-009	INCS-1	Soil	8/20/03	☐	A	A	A				
0308317-010	INCS-2	Soil	8/20/03	☐	A	A	A				
0308317-011	INCS-3	Soil	8/20/03	☐	A	A	A				
0308317-012	INCS-4	Soil	8/20/03	☐	A	A	A				
0308317-013	FRCS-1	Soil	8/20/03	☐				A	A		
0308317-014	FRCS-2	Soil	8/20/03	☐				A	A		
0308317-015	FRCS-3	Soil	8/20/03	☐				A	A		
0308317-016	FRCS-4	Soil	8/20/03	☐				A	A		
0308317-017	FRCS-5	Soil	8/20/03	☐				A	A		
0308317-018	FRCS-6	Soil	8/20/03	☐				A	A		

Prepared by: Maria Venegas

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 09/18/03
		Date Received: 09/19/03
	Client Contact: Jim Lehrman	Date Reported: 09/25/03
	Client P.O.:	Date Completed: 09/25/03

WorkOrder: 0309384

September 25, 2003

Dear Jim:

Enclosed are:

1). the results of 9 analyzed samples from your **#01203087.00; Friesman Ranch project,**

2). a QC report for the above samples

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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 09/18/03
		Date Received: 09/19/03
	Client Contact: Jim Lehrman	Date Extracted: 09/19/03
	Client P.O.:	Date Analyzed: 09/20/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0309384

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	FRCS-3-4.5	S	ND	ND	ND	ND	ND	ND	1	114
002A	FRCS-5-3	S	ND	ND	ND	ND	ND	ND	1	106
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	NA	NA	NA	NA	NA	NA	1	ug/L
		S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

SCS Engineers 6601 Koll Center Park Way, Suite 140 Pleasanton, CA 94566	Client Project ID: #01203087.00; Friesman Ranch	Date Sampled: 09/18/03
		Date Received: 09/19/03
	Client Contact: Jim Lehrman	Date Extracted: 09/19/03
	Client P.O.:	Date Analyzed: 09/23/03

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0309384

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0309384-001A	FRCS-3-4.5	S	1.2,b	1	115
0309384-002A	FRCS-5-3	S	8.5,g,b	1	118
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W		NA	NA	
	S		1.0	mg/Kg	

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S WorkOrder: 0309384

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 8612 Spiked Sample ID: 0309353-012A

	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	0.60	91.9	92.4	0.587	99.7	99	0.751	70	130
MTBE	ND	0.10	103	93.6	9.54	104	103	0.964	70	130
Benzene	ND	0.10	104	95.8	8.67	98.8	97.7	1.03	70	130
Toluene	ND	0.10	102	94.6	7.72	83.3	83	0.399	70	130
Ethylbenzene	ND	0.10	104	98.8	4.76	98.3	98.4	0.0710	70	130
Xylenes	ND	0.30	103	99.7	3.61	90.7	90.7	0	70	130
%SS:	106	100	124	119	3.95	97	94.8	2.29	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

Matrix: S WorkOrder: 0309384

EPA Method: SW8015C	Extraction: SW3550C			BatchID: 8613			Spiked Sample ID: 0309353-012A		
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	ND	150	113	114	0.692	89.3	89.9	0.692	70	130
%SS:	113	100	106	107	0.920	102	102	0	70	130

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

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

basic laboratory

www.basiclab.com

voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

September 30, 2003

Lab ID: 3090864

Melissa Valles
MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
RE: Metals Testing 0309384 #01203087.00; FRIESMAN RANCH (COMP)

Dear Melissa Valles,

Enclosed are the analysis results for Work Order number 3090864. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

For

James E. Hawley
Laboratory Director
California ELAP Certification Number 1677

basic laboratory
www.basiclab.com
voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
Attention: Melissa Valles
Project: Metals Testing 0309384 #01203087.00; FRIESMAN RANCH

Lab No: 3090726
Reported: 10/06/03
Phone: 925-798-1620
P.O. #

Metals - Solid

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
INCS-2-2 Soil (3090726-01) Sampled:09/18/03 00:00 Received:09/22/03 11:34									
Arsenic	mg/kg	**9.6**		0.8	4.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Cadmium	"	**2.0**		0.4	2.0	"	"	"	"
Chromium	"	**33.6**		0.4	2.0	"	"	"	"
Lead	"	**6.8**		0.5	2.5	"	"	"	"
Mercury	"	ND	QR-04	0.03	0.3	EPA 7471	09/24/03	09/24/03	B3I0422
Nickel	"	**50.6**		0.5	2.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Zinc	"	**48.0**		2.0	10.0	"	"	"	"
INCS-3-2 Soil (3090726-02) Sampled:09/18/03 00:00 Received:09/22/03 11:34									
Arsenic	mg/kg	**11.4**		0.8	4.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Cadmium	"	**2.1**		0.4	2.0	"	"	"	"
Chromium	"	**33.4**		0.4	2.0	"	"	"	"
Lead	"	**6.0**		0.5	2.5	"	"	"	"
Mercury	"	ND	QR-04	0.03	0.3	EPA 7471	09/24/03	09/24/03	B3I0422
Nickel	"	**52.8**		0.5	2.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Zinc	"	**52.8**		2.0	10.0	"	"	"	"
INCS-4-2 Soil (3090726-03) Sampled:09/18/03 00:00 Received:09/22/03 11:34									
Arsenic	mg/kg	**5.9**		0.8	4.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Cadmium	"	**2.2**		0.4	2.0	"	"	"	"
Chromium	"	**35.4**		0.4	2.0	"	"	"	"
Lead	"	**15.1**		0.5	2.5	"	"	"	"
Mercury	"	ND	QR-04	0.03	0.3	EPA 7471	09/24/03	09/24/03	B3I0422
Nickel	"	**50.8**		0.5	2.0	EPA 6010A	09/24/03	09/23/03	B3I0371
Zinc	"	**61.2**		2.0	10.0	"	"	"	"

Approved By
Basic Laboratory, Inc.
California D.O.H.S. Cert #1677

basic laboratory
www.basiclab.com
voice 530.243.7234 2218 Railroad Avenue
fax 530.243.7494 Redding, California 96001

Report To: MC CAMPBELL ANALYTICAL INC.
110 SECOND AVE SOUTH, #D7
PACHECO, CA 94553
Attention: Melissa Valles
Project: Metals Testing 0309384 #01203087.00; FRIESMAN RANCH (COMP)
Description: INSP-5,INSP-6,INSP-7,INSP-8 **Lab ID:** 3090864-01
Matrix: Soil

Lab No: 3090864
Reported: 09/30/03
Phone: 925-798-1620
P.O. #

Sampled: 09/18/03 00:00
Received: 09/25/03 12:00

Metals - Solid

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
Arsenic	mg/kg	**10.2**		0.8	4.0	EPA 6010A	09/29/03	09/25/03	B3I0426
Cadmium	"	**2.8**		0.4	2.0	"	"	"	"
Chromium	"	**33.8**		0.4	2.0	"	"	"	"
Lead	"	**48.4**		0.5	2.5	"	"	"	"
Mercury	"	ND		0.03	0.3	EPA 7471	09/26/03	09/26/03	B3I0463
Nickel	"	**53.6**		0.5	2.0	EPA 6010A	09/29/03	09/25/03	B3I0426
Zinc	"	**120**		2.0	10.0	"	"	"	"

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By
Basic Laboratory, Inc.
California D.O.H.S. Cert #1677

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
Phone: (925) 798-1620
Fax: (925) 798-1622

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0309384

Subcontractor:

Basic Laboratory, Inc.
2218 Railroad Avenue
Redding, CA 96001

TEL: (530) 243-7234
FAX: (530) 243-7494
ProjectNo: #01203087.00; Friesman Ranch
Acct #:

Date Received: **9/19/03**
Date Printed: **9/19/03**

48hr
9/25/03
Composite

Sample ID	ClientSampID	Matrix	Collection Date	TAT	Requested Tests					
					6010C	SW7010	SW7471B			
0309384-003A	INCS-2-2	Soil	9/18/03	5DAY	1	1	1			
0309384-004A	INCS-3-2	Soil	9/18/03	5DAY	1	1	1			
0309384-005A	INCS-4-2	Soil	9/18/03	5DAY	1	1	1			
0309384-010A	INSP-5	Soil	9/18/03	5DAY	1	1	1			
0309384-011A	INSP-6	Soil	9/18/03	5DAY	1	1	1			
0309384-012A	INSP-7	Soil	9/18/03	5DAY	1	1	1			
0309384-013A	INSP-8	Soil	9/18/03	5DAY	1	1	1			

Comments: PLEASE ANALYZE EACH SAMPLE FOR PB, CR, CD, AS, ZN, HG, AND NI

email Melissa Valles

Please ~~fax~~ results to at 925-798-1622 upon completion.

	Date/Time		Date/Time
Relinquished by:	Melissa Valles	**Received by:**	
Relinquished by:		**Received by:**	

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
Phone: (925) 798-1620
Fax: (925) 798-1622

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0309384

#3090726
Due 9-29-03

Subcontractor:

Basic Laboratory, Inc.
2218 Railroad Avenue
Redding, CA 96001

TEL: (530) 243-7234
FAX: (530) 243-7494
ProjectNo: #01203087.00; Friesman Ranch
Acct #:

Date Received: **9/19/03**
Date Printed: **9/19/03**

Sample ID	ClientSampID	Matrix	Collection Date	TAT	Requested Tests						
					6010C	SW7010	SW7471B				
0309384-003A	INCS-2-2	Soil	9/18/03	5DAY	1	1	1				~~1~~
0309384-004A	INCS-3-2	Soil	9/18/03	5DAY	1	1	1				2
0309384-005A	INCS-4-2	Soil	9/18/03	5DAY	1	1	1				3
0309384-010A	INSP-5	Soil	9/18/03	5DAY	1	1	1				4
0309384-011A	INSP-6	Soil	9/18/03	5DAY	1	1	1				5
0309384-012A	INSP-7	Soil	9/18/03	5DAY	1	1	1				6
0309384-013A	INSP-8	Soil	9/18/03	5DAY	1	1	1				7

Comments: PLEASE ANALYZE EACH SAMPLE FOR PB, CR, CD, AS, ZN, HG, AND NI

email Melissa Valles

Please ~~fax~~ results to! at 925-798-1622 upon completion.

	Date/Time		Date/Time
Relinquished by: Melissa Valles		**Received by:**	
Relinquished by:		**Received by:** Rochelle McKnowlton	9-22-03 11:34

S22

0304387

CHAIN OF CUSTODY RECORD

SCS ENGINEERS Environmental Consultants
6850 Regional Street, Suite 240
Dublin, California 94568
Phone: (925) 829-0661 Fax: (925) 829-5493

TOTAL NUMBER OF SAMPLES: 13
PAGE 1 OF 1
TURNAROUND TIME REQUIRED: normal
✓ 5-Day ___ 3-Day ___ Immediate ___ Other
PROJECT NUMBER: 01203087.00
PROJECT MANAGER: J. Lehrman
PROJECT NAME: Friesman Ranch
W.O. / S.O. #:
PROJECT LOCATION: Livermore CA
SAMPLER NAME AND SIGNATURE: Emily Harris Emharris

I.D. NUMBER	SAMPLE DESIGNATION	SAMPLE MATRIX	DATE/TIME COLLECTED	CONTAINER SIZE/TYPE	SAMPLE PRESERVATIVE	SPECIAL INSTRUCTIONS/COMMENTS	ANALYSES REQUESTED: TPH-d (8015)	BTEX, MTBE TPH-g (8021)	Pb	Cr	Cd	As	Zn	Hg	Ni	LAB USE ONLY
	FRCS-3-4.5	Soil	9-18-03	brass tube	none		X	X								
	FRCS-5-3						X	X								
	INCS-2-2								X	X	X	X	X	X	X	
	INCS-3-2								X	X	X	X	X	X	X	
	INCS-4-2								X	X	X	X	X	X	X	
	FRSP-5					HOLD	X	X								
	FRSP-6					HOLD	X	X								
	FRSP-7					HOLD	X	X								
	FRSP-8					HOLD	X	X								
	INSP-5								X	X	X	X	X	X	X	
	INSP-6								X	X	X	X	X	X	X	
	INSP-7								X	X	X	X	X	X	X	
	INSP-8								X	X	X	X	X	X	X	

ICB/I°
GOOD CONDITION ✓ APPROPRIATE CONTAINERS ✓
HEAD SPACE ABSENT ___ PRESERVED IN LAB ___
~~DECHLORINATED IN LAB~~ ___
PRESERVATION VOAS | O&G | METALS | OTHER

NOTES: composite INSP(5-8) and FRSP (5-8)
Send results to Jim Lehrman (SCS) and bill Children's Hospital directly Lorraine del prado

SAMPLE CONDITION UPON RECEIPT:

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:	RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Emharris	9-18-03	Melissa Graham	9-18-03	Melissa Graham	9/19/03	Gmas	9/19
COMPANY: SCS	TIME: 400	COMPANY: SCS	TIME: 4:01	COMPANY: SCS	TIME: 9:09	COMPANY: [illegible]	TIME: 9-10

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0309384

Client:
SCS Engineers
6601 Koll Center Park Way, Suite 140
Pleasanton, CA 94566

TEL: (925) 829-0661
FAX: (925) 829-5493
ProjectNo: #01203087.00; Friesman Ranch
PO:

Date Received: **9/19/03**
Date Printed: **9/25/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					6010C	SW7010	SW7471B	SW8015C	M8021B/8015C		
0309384-001	FRCS-3-4.5	Soil	9/18/03	☐				A	A		
0309384-002	FRCS-5-3	Soil	9/18/03	☐				A	A		
0309384-003	INCS-2-2	Soil	9/18/03	☐	A	A	A				
0309384-004	INCS-3-2	Soil	9/18/03	☐	A	A	A				
0309384-005	INCS-4-2	Soil	9/18/03	☐	A	A	A				
0309384-006	FRSP-6-8	Soil	9/18/03	☑	A						
0309384-007	INSP-5-8	Soil	9/18/03	☐	A	A	A				

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.

APPENDIX C
SOIL VAPOR PROBE PERMIT DOCUMENTATION

Zone 7
Alameda County Flood Control
&
Water Conservation District

5997 Parkside Drive ▫ Pleasanton, California 94588-5127 ▫ Phone (925) 484-2600 ▫ Fax (925) 462-3914

Telefax Transmittal

Date:	7/18/03
Deliver To:	James Lehrman
Name of Firm:	SCS Engineers
Fax Number:	(925) 829-5493
From:	Wyman Hong
Number of Pages:	2

(Including Cover Page)

For Voice Contact Call: (925) 484-2600, Extension: 235

For Return Fax: (925) 462-3914

Remarks:

Drilling permit 23089 for soil vapor project at 1600 Friesman Road in Livermore for Children's Hospital Foundation.

P:\WRE\Wyman\Fax Transmittal Form.wpd

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235 FAX (925) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1600 Friesman Rd. Livermore, CA

California Coordinates Source _____ Accuracy± _____ ft.
CCN _____ ft. COE _____ ft.
APN 904 - 0001 - 001 - 10

CLIENT
Name Children's Hospital Foundation
Address 747 52nd St. Phone (510) 428-3361
City Oakland CA Zip 94609

APPLICANT
Name SCS Engineers Jim Lehrman
Address 500 Regional St. Fax 829-5493
Suite 240 Phone 829-0661
City Dublin CA Zip 94568

TYPE OF PROJECT:
Well Construction ** Geotechnical Investigation **
Well Destruction ** Contamination Investigation **
Cathodic Protection ** Other Borings **

PROPOSED WELL USE:
Domestic ** Irrigation **
Municipal ** Remediation **
Industrial ** Groundwater Monitoring **
Dewatering ** Other Soil Vapor Survey **

DRILLING METHOD:
Mud Rotary ** Air Rotary ** Hollow Stem Auger **
Cable Tool ** Direct Push ** Other: _____ **

DRILLING COMPANY Vironex
DRILLER'S LICENSE NO. C57 - 505929

WELL SPECIFICATIONS:
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

SOIL BORINGS:
Number of Borings 12 Maximum
Hole Diameter ~3/4 in. Depth 4 ft.

ESTIMATED STARTING DATE 7/22/03
ESTIMATED COMPLETION DATE 7/22/03

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE _____ Date 7/18/03
ATTACH SITE PLAN OR SKETCH James A. Lehrman

FOR OFFICE USE

PERMIT NUMBER 23089
WELL NUMBER _____
APN 904 0001 001 10

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

(D.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS: Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 7/18/03
Wyman Hong

APPENDIX D
DOCUMENTATION OF ASBESTOS REMOVAL

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by federal law.
CAL000256131			PARC

3. Generator's Name and Mailing Address
Freisman, Pleasanton Property, LLC
5225 Dover St., Oakland, CA ~~94609~~ 94609

4. Generator's Phone ( ) (510) 428-3360

A. State Manifest Document Number 2720622

B. State Generator's ID

C. State Transporter's ID [Reserved]

D. Transporter's Phone

5. Transporter 1 Company Name | 6. US EPA ID Number

E. State Transporter's ID [Reserved]

7. Transporter 2 Company Name | 8. US EPA ID Number

F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number
NWS Hayroad Landfill

G. State Facility's ID

H. Facility's Phone (707) 451-2276

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a.	01	2A	00992	Y	State 151 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
FRIABLE ASBESTOS CONTAINING WASTE

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

15. Special Handling Instructions and Additional Information
423-5232
Parc Lvrm

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

TK#58568 Green. TRANSPORTER RETAINS

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

2720622

World Environmental
P.O. Box 192
West Sacramento, CA 95691

Tel: (916) 371-3617
Fax: (916) 371-3684

№ 3872

DAILY FIELD TICKET

Date	Transporters Name	Drivers Name	Truck #
8/7/13	WE&E	Rick Simpson	W-2

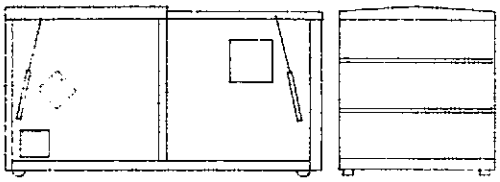
WE&E Job #	Start Time	Start Driving	Finish Driving	Finish Time	Deduction	Total Hours
03744	8:00	8:00	11:00	11:00		3

Customer Name	Job Location, Address	Landfill Name
PARC (LIVI)	9600 Freeman Ranch RD Lincoln	NWS Hwy RD

At Job Site Arrive	At Job Site Depart	Bin #'s	At Landfill Arrive	At Landfill Depart	Bin #'s	Manifest #'s	Weight Tag #'s
10:00	10:30	CU PLL. 17 BA				22720622	

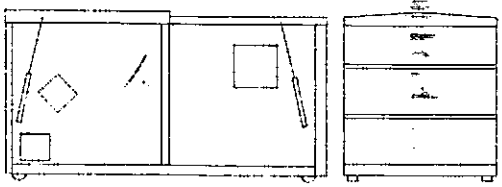
Remarks _____

Condition of Bins Dropped



Note damage and circle location on drawing above
Bin# _____
Bin# _____
Signature _____

Condition of Bins Picked Up



Note damage and circle location on drawing above
Bin# _____
Bin# _____
Signature _____

Damage Wavier

The Transport driver or represenative of World Environmental has determined that the location you specified for placement of the waste bin will likely cause property damage for the following reason: _____

Your signature is required to release WE&E and the Transporter from responsibility for damage to property.

X _____

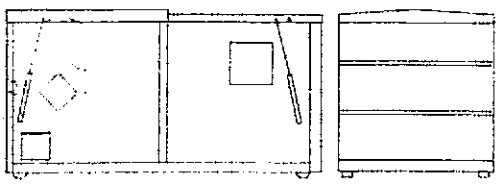
WE&E Job #	Start Time	Start Driving	Finish Driving	Finish Time	Deduction	Total Hours

Customer Name	Job Location, Address	Landfill Name

At Job Site Arrive	At Job Site Depart	Bin #'s	At Landfill Arrive	At Landfill Depart	Bin #'s	Manifest #'s	Weight Tag #'s

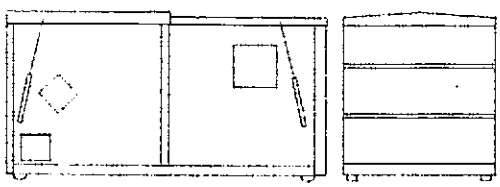
Remarks _____

Condition of Bins Dropped



Note damage and circle location on drawing above
Bin# _____
Bin# _____
Signature _____

Condition of Bins Picked Up



Note damage and circle location on drawing above
Bin# _____
Bin# _____
Signature _____

Damage Wavier

The Transport driver or represenative of World Environmental has determined that the location you specified for placement of the waste bin will likely cause property damage for the following reason: _____

Your signature is required to release WE&E and the Transporter from responsibility for damage to property.

X _____

WHITE COPY - WE&E YELLOW COPY – TRANSPORTER

MECA
CONSULTING, INC.

"Providing Superior Environmental & Industrial Hygiene Services Since 1986"

620 Contra Costa Boulevard, Suite 102
Pleasant Hill, CA 94523
925/808-6700
fax: 925/808-6708

www.mecaenviro.com

Mr. Jim Lehrman
SCS Engineers
6601 Koll Center Parkway, Suite 140
Pleasanton, CA 94566

Re: Freezman Ranch, Livermore, CA

Dear Mr. Lehrman:

At the request of SCS Engineers (SCS), MECA Consulting Inc. (MECA) visited the referenced location on July 31, 2003 to visually evaluate post-abatement conditions associated with asbestos-containing thermal system insulation materials (TSI). Specifically, PARC Environmental Services abated TSI from an abandoned boiler system at the former dairy.

During the site visit, MECA observed all appropriate engineering controls and decontamination chambers to be in-place. MECA visually examined the regulated area, including inner facing of the polyethylene sheeting, floor surface, and the exposed boiler surface. MECA did not detect the visual presence of regulated asbestos materials.

Based on the visual inspection, the mechanical area may be reoccupied.

If you have any comments or questions, please feel free to contact our office.

Sincerely,

MECA Consulting Inc.

Jack A. McCubbin, MS
Certified Asbestos Consultant
93-08393

APPENDIX E
WASTE MANIFESTS

3650 E. 26TH STREET
LOS ANGELES CA 90023
TE. 323-268-5056
FAX 323-268-1852

D/K Environmental

Fax

To: Jim From: Yolanda Ramirez

Fax: Pages:

Phone: Date:

Re: CC:

Urgent For Review Please Reply

Comments:

If you did not receive all pages to this fax, please call 323-268-5056.

State of California Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

22543851

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC002568131438 51 — Manifest Document No.
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
FREISMAN, PLEASANTON PROPERTY, LLC
5225 DOVER ST.
OAKLAND, CA 94609-1809
4. Generator's Phone (510) 428-3360

A. State Manifest Document Number 22543851
B. State Generator's ID
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (510)749-1390
E. State Transporter's ID [Reserved.]
F. Transporter's Phone
G. State Facility's ID CATO80033681
H. Facility's Phone (323)268-5056

5. Transporter 1 Company Name: FOSS ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAR000003011 4
7. Transporter 2 Company Name
8. US EPA ID Number
9. Designated Facility Name and Site Address
D/K ENVIRONMENTAL
3650 E. 26TH ST.
VERNON, CA 90023
10. US EPA ID Number: CAT080033681

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA HAZARDOUS WASTE, LIQUID (SODIUM SILICATE SOLUTION)	006	DM	00330	G	State 141 / EPA/Other N/A
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
J1A) 330807-58 (6x56)
Site:
1600 Freisman Road
Livermore, CA 94550

K. Handling Codes for Wastes Listed Above
a. 06
b.
c.
d.

15. Special Handling Instructions and Additional Information
USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT
24-HR. EMERGENCY CONTACT:
FOSS ENVIRONMENTAL (510)749-1390 JOB#: A30692 PO#: A30692-01

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
X LORRAINE F. DEL PRADO	Lorraine F. del Prado	07	30	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
DANIEL FETROW	Daniel Fetrow	08	06	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
MIKE FOX		08	15	03

DO NOT WRITE BELOW THIS LINE

DTSC 8022A (1/99)
EPA 8700-22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

CERTIFICATE OF TREATMENT/RECYCLING

PRESENTED TO

Fresiman Pleasanaton Property

Manifest No: 22543851 **Date: 8/15/03**

The waste stream(s) received on the above manifest has been treated/handled to standards mandated by the applicable federal and/or state regulations. Waste treatment is performed under permits granted to D/K ENVIRONMENTAL, a California corporation, by the California EPA in coordination with the U.S. Environmental Protection Agency, in the accordance with the provisions of the Resource Conservation and Recovery Act (RCRA) of 1976, together with applicable federal and state regulations.

When the above described material is accepted by D/K ENVIRONMENTAL, the responsibility for the material becomes that of D/K ENVIRONMENTAL for the treatment/recycling.

Issued By

D/K ENVIRONMENTAL

Signed: J Balfour **Date: 10/08/2003**

Republic Services
Vasco Road Landfill

WASTE APPROVAL FORM/NON-HAZARDOUS WASTE MANIFEST

WASTE STREAM INFORMATION

SWIC Number	1002264	Expiration Date	10/5/2004	
Generator	Freisman Pleasanton Property, LLC			
Generator Location	1660 Freisman Road	Livermore		CA
Bill To	SCS Engineers			
Waste Description	Soil / ADC			
Management	ADC Area 3			
Disposal Instructions	Use as ADC in Area 3 ONLY. No Free Liquids or debris. Moisture Content MUST be < 50%.			

The above is a recommendation of the Vasco Road Landfill. It must be understood that management of the waste for disposal must be in accordance with the facility's permit and applicable federal, state, and local regulations. The approval is based upon a review of the information provided by the generator and is contingent upon the receipt of the disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that defined above.

A MINIMUM OF ONE SIGNED AND COMPLETED COPY OF THIS FORM MUST ACCOMPANY EACH LOAD. ONE COPY WILL BE RETAINED BY THE VASCO ROAD LANDFILL.

X Donavin J. del Prado 10/3/03
Generator Signature Date

TRANSPORTER INFORMATION

Transporter to complete this section.

Transporter Name	
Transporter Address	
Transporter City, State, Zip	
Transporter Phone Number	
Driver Name	
Truck Number	
Vehicle License Number/State	

Driver Signature Date

DESTINATION INFORMATION

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Signature of Vasco Road Landfill employee Date

Republic Services - Vasco Road Landfill
4001 North Vasco Road - Livermore, CA 94550
Tel: (925) 447-0491 - Fax: (925) 447-0499

REPUBLIC SERVICES, INC.

Vasco Road Landfill

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: Freisman Pleasnaton Property, LLC
Address: 1660 Freisman Road
City: Livermore County: Alameda
State: CA Zip:
Site Location:

CUSTOMER/BILLING INFORMATION

Billing Name: SCS Engineers
Address: 6601 Koll Center Parkway
City: Pleasanton County: Alameda
State: CA Zip: 94566

Republic Services Approval Number	Description of Waste	Volume or Weight	Expiration Date	Container Type
1002266	Soil / ADC	100 Ton(s)	10/5/2004	
Disposal Instructions				
Use as ADC in Area 3 ONLY. No Free Liquids or debris. Moisture Content MUST be < 50%.				

The above Disposal Instructions are a requirement of Republic Services, Inc., for management of the profiled material. The approval is based upon a review of information provided by the generator and is contingent upon the receipt at the disposal facility of a waste material essentially equivalent in chemical and physical characteristics and properties to that profiled.

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

James A. Lehrman — Authorized Agent for Freisman Pleasanton Property, LLC

Generator/Authorized Agent Name **Signature** **Date Shipped**

TRANSPORTER INFORMATION

Transporter Name: DOT Number:
Address: Truck Number:
Phone Number:

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transpoted in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent **Signature** **Date Delivered**

DISPOSAL SITE INFORMATION

Site Name: Vasco Road
Address: 4001 North Vasco Road
Livermore, CA 94550
Phone Number: (925) 447-0491
Fax Number: (925) 447-0499

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) **Signature** **Date Received**

MID COAST TRANSPORTATION INC.

FREIGHT BILL — CA 541 CALT 125842

P.O.BOX 74
ALAMO, CA 94507
PHONE: (925) 449-8211

53193

DATE 10 - 29 - 03

STARTING POINT - FROM - SHIPPER	DESTINATION - TO - RECEIVER
R M C ELIOT	S. C. S. ENG
EXACT STREET NO.	EXACT STREET NO.
1544 STANLEY BLVD	16001 FRIESMAN ROAD
CITY	CITY
PLEASANTON. CA	LIVERMORE. CA

JOB NO

NO AXLES 3 — DISTANCE BETWEEN AXLES — CUBIC YARD CAPACITY

TYPE EQUIP. ☒ #10 WHEELER ☐ DBL. BOTTOM ☐ TRANSFER ☐ SEMI BOTTOM ☐ SEMI ☐ END

BILL TO — FOR OFFICE USE ONLY

CUSTOMER # 1355

COMMODITY FINE FILL

TAG NO.	WEIGHT	ORIGIN 1 IN	ORIGIN 2 OUT	DESTINATION 3 IN	DESTINATION 4 OUT
1. 7365738	12.88	7:45	8:05	8:25	8:35
		8:55	9:20	9:45	9:50
2. 7365842	12.86				
3. 7365900	12.91	10:10	10:25	10:50	10:55
4. 7365972	1323	11:15	11:25	11:50	12:00
5.					
6.					
7.					
8.					
9.					
10.					

4. FINISH DUMPING LAST TRIP 12:00
3. DUMPSITE ARRIVAL TIME 11:50
1. STARTING TIME FIRST TRIP 7:45
2. LAST TRIP DEPART TIME FROM LOAD SITE 11:25
5. OVER-ALL TIME (4-1) 4:15
6. BACK TIME (3-2) 25

7. TOTAL TIME (6+8) 4:40
8. LESS: MEAL & DOWNTIME
9. NET HRS CHARGEABLE (7-8) 4:40

TOTAL LBS — TONS — TOTAL HRS 4.00 — RATE 64.00 — $

STD. BY — MIN @

▲ FOR OFFICE USE ONLY 300.80

SUB # 20880

KAHLON TRUCKING
UNDERLYING CARRIER

BY HARJINDER — EMP # —
DRIVER

TRUCK NO 77 — TRUCK NO

BY — CONSIGNEE

RECEIVED IN GOOD CONDITION EXCEPT AS NOTED.

ON ALL PAST DUE ACCOUNTS THERE WILL BE A FINANCE CHARGE OF 1.5% PER MONTH WHICH IS 18% ANNUALLY. DEBTOR AGREES TO PAY LEGAL FEES AND COURT COSTS INCURRED IN THE COLLECTION OF DELINQUENT ACCOUNTS

FUEL

LANCE PIEROVICH EQUIPMENT
PO BOX 74
ALAMO, CA 94507
925-449-8211

DELIVERY # 6020

DATE 10.29.03

SOLD TO SCS

STREET #

CITY — STATE — ZIP

SHIPPED TO

STREET # 16001 Friesman Rd

CITY Livermore. — STATE — ZIP

QTY	PROD #	DESCRIPTION	PRICE	AMOUNT
12.88	1606	Gravel Fine Fill	11.70	150.70
12.86				150.47
12.91				151.05
13.23				154.80

MTL TAG # 7365738, 7365842, 7365900, 7365972 — SUBTOTAL 607.02

FREIGHT BILL # 59193 — TAX 50.08

NAILER Kahlon Trucking — TOTAL 657.10

01207337.00

MID COAST TRANSPORTATION INC.

P.O.BOX 74
ALAMO, CA 94507
PHONE: (925) 449-8211

FREIGHT BILL — CA 541 CALT 125842

50869

DATE 10-29-07

STARTING POINT - FROM - SHIPPER	DESTINATION - TO - RECEIVER
SCS ENG.	REPUBLIC
EXACT STREET NO. FREISMAN ORIVE	EXACT STREET NO.
16001 FREISMAN	4001 VASCO RD
CITY	CITY
LIVERMORE CA	LIVERMORE CA

JOB NO

BILL TO — FOR OFFICE USE ONLY

SS 12554

CUSTOMER #

NO AXLES 3 — DISTANCE BETWEEN AXLES — CUBIC YARD CAPACITY

TYPE EQUIP. ☒ #10 WHEELER ☐ DBL BOTTOM ☐ TRANSFER ☐ SEMI BOTTOM ☐ SEMI ☐ END

COMMODITY: CAT HAUL

	TAG NO.	WEIGHT	ORIGIN 1 IN	ORIGIN 2 OUT	DESTINATION 3 IN	DESTINATION 4 OUT
1.	108490		0915	930	945	1005
2.	108540		1025	1040	1055	1115
3.	108599		1130	1155	1210	1225
4.	108659		1245	105	125	145
5.						
6.						
7.						
8.						
9.						
10.						

4. FINISH DUMPING LAST TRIP 145
3. DUMPSITE ARRIVAL TIME 125
1. STARTING TIME FIRST TRIP 0915
2. LAST TRIP DEPART TIME FROM LOAD SITE 105
5. OVER-ALL TIME (4-1) 4.5
6. BACK TIME (3-2) 4.20
7. TOTAL TIME (5+6) 4.0
8. LESS: MEAL & DOWNTIME 0
9. NET HRS CHARGEABLE (7-8) 4.0

TOTAL LBS ____ TONS ____ TOTAL HRS 4.0 RATE 64.00

$ ____ STD. BY ____ MIN @ ____ = ____

▲ FOR OFFICE USE ONLY $ 256.00

SUB # 20565

EKLER & SONS TRANSPORT
UNDERLYING CARRIER

BY Jose Gil DRIVER EMP # ____

TRUCK NO 49 TRUCK NO N/A

BY Emily Ellis CONSIGNEE

RECEIVED IN GOOD CONDITION EXCEPT AS NOTED

ON ALL PAST DUE ACCOUNTS THERE WILL BE A FINANCE CHARGE OF 1.5% PER MONTH WHICH IS 18% ANNUALLY. DEBTOR AGREES TO PAY LEGAL FEES AND COURT COSTS INCURRED IN THE COLLECTION OF DELINQUENT ACCOUNTS

01202387.0 FUEL

108659

All children must remain in Vehicles.
Absolutely no salvaging allowed.

WARNING: Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution.

REPUBLIC SERVICES VASCO ROAD, LLC
4001 N. Vasco Road, Livermore, California 94551 • (925) 447-0491

DATE: 10/29/2007
TIME: 13:24 - 13:25

TICKET: 464525
CUSTOMER: SCS / BCS ENGINEERS
TRUCK: 49
ACCT#: 50000012
PROFILE #: 1002256

GENERATOR: 1002256 / FREISMAN PLEASANTON PROPE
ORIGIN: 6 / LIVERMORE
LICENSE:
COMMENT:

GROSS: 36320 LBS
TARE: 19520 LBSManual
NET: 17000 LBS

WASTE:

	QUANTITY	UNIT	RATE	AMOUNT
SOIL / SOIL - ABC	8.50	T	15.00	$ 127.50
	0.00	T	$ 0.00	0.00
Tax				
			Total:	$ 127.50

Weighmaster: RAYMOND Y.

I certify that I have not disposed of any liquid or hazardous waste.

REPUBLIC SERVICES VASCO ROAD, LLC
4001 N. Vasco Road, Livermore, California 94551 • (925) 447-0491

108490

TICKET: 464355
CUSTOMER: SCS / SCS ENGINEERS
TRUCK: 2
ACCT#: 5000012
PROFILE #: 1002266

DATE: 10/29/2003
TIME: 09:46 - 10:00

GENERATOR: 1002266 / FREISMAN PLEASANTON PROPE
ORIGIN: 6 / LIVERMORE
LICENSE:
COMMENT:

GROSS: 32680 LBS
TARE: 19520 LBS
NET: 13160 LBS

WASTE:	QUANTITY	UNIT	RATE		AMOUNT
SOIL / SOIL - ADC	6.58	T	15.00	$	98.70
Tax	0.00	T	$ 0.00	$	0.00

Total: $ 98.70

I certify that I have not disposed of any liquid or hazardous waste.

Weighmaster: RAYMOND Y.

DRIVER

CUSTOMER

All children must remain in vehicles. Absolutely no salvaging allowed.

WARNING: Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution.

REPUBLIC SERVICES VASCO ROAD, LLC
4001 N. Vasco Road, Livermore, California 94551 • (925) 447-0491

108540

TICKET: 464405
CUSTOMER: SCS / SCS ENGINEERS
TRUCK: 49
ACCT#: 5000012
PROFILE #: 1002266

DATE: 10/29/2003
TIME: 10:58 - 10:58

GENERATOR: 1002266 / FREISMAN PLEASANTON PROPE
ORIGIN: 6 / LIVERMORE
LICENSE:
COMMENT:

GROSS: 39680 LBS
TARE: 19520 LBSManual
NET: 20160 LBS

WASTE:	QUANTITY	UNIT	RATE		AMOUNT
SOIL / SOIL - ADC	10.08	T	15.00	$	151.20
Tax	0.00	T	$ 0.00	$	0.00

Total: $ 151.20

I certify that I have not disposed of any liquid or hazardous waste.

Weighmaster: RAYMOND Y.

DRIVER

CUSTOMER

All children must remain in vehicles. Absolutely no salvaging allowed.

WARNING: Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution.

REPUBLIC SERVICES VASCO ROAD, LLC

4001 N. Vasco Road, Livermore, California 94551 • (925) 447-0491

108599

TICKET: 464464
CUSTOMER: SCS / SCS ENGINEERS
TRUCK: 49
ACCT#: 5000012
PROFILE #: 1002266

DATE: 10/29/2003
TIME: 12:09 - 12:09

GENERATOR: 1002266 / FREISMAN PLEASANTON PROPE
ORIGIN: 6 / LIVERMORE
LICENSE:
COMMENT:

GROSS: 37140 LBS
TARE: 19520 LBSManual
NET: 17620 LBS

WASTE:	QUANTITY	UNIT	RATE	AMOUNT
SOIL / SOIL - ADC	8.81	T	15.00	$ 132.15
Tax	0.00	T	$ 0.00	$ 0.00

Total: $ 132.15

I certify that I have not disposed of any liquid or hazardous waste.

Weighmaster: MARK P

DRIVER

CUSTOMER

All children must remain in vehicles. Absolutely no salvaging allowed.

WARNING: Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution.

REPUBLIC SERVICES VASCO ROAD, LLC

4001 N. Vasco Road, Livermore, California 94551 • (925) 447-0491

108659

TICKET: 464525
CUSTOMER: SCS / SCS ENGINEERS
TRUCK: 49
ACCT#: 5000012
PROFILE #: 1002266

DATE: 10/29/2003
TIME: 13:24 - 13:25

GENERATOR: 1002266 / FREISMAN PLEASANTON PROPE
ORIGIN: 6 / LIVERMORE
LICENSE:
COMMENT:

GROSS: 36520 LBS
TARE: 19520 LBSManual
NET: 17000 LBS

WASTE:	QUANTITY	UNIT	RATE	AMOUNT
SOIL / SOIL - ADC	8.50	T	15.00	$ 127.50
Tax	0.00	T	$ 0.00	$ 0.00

Total: $ 127.50

I certify that I have not disposed of any liquid or hazardous waste.

Weighmaster: RAYMOND Y.

DRIVER

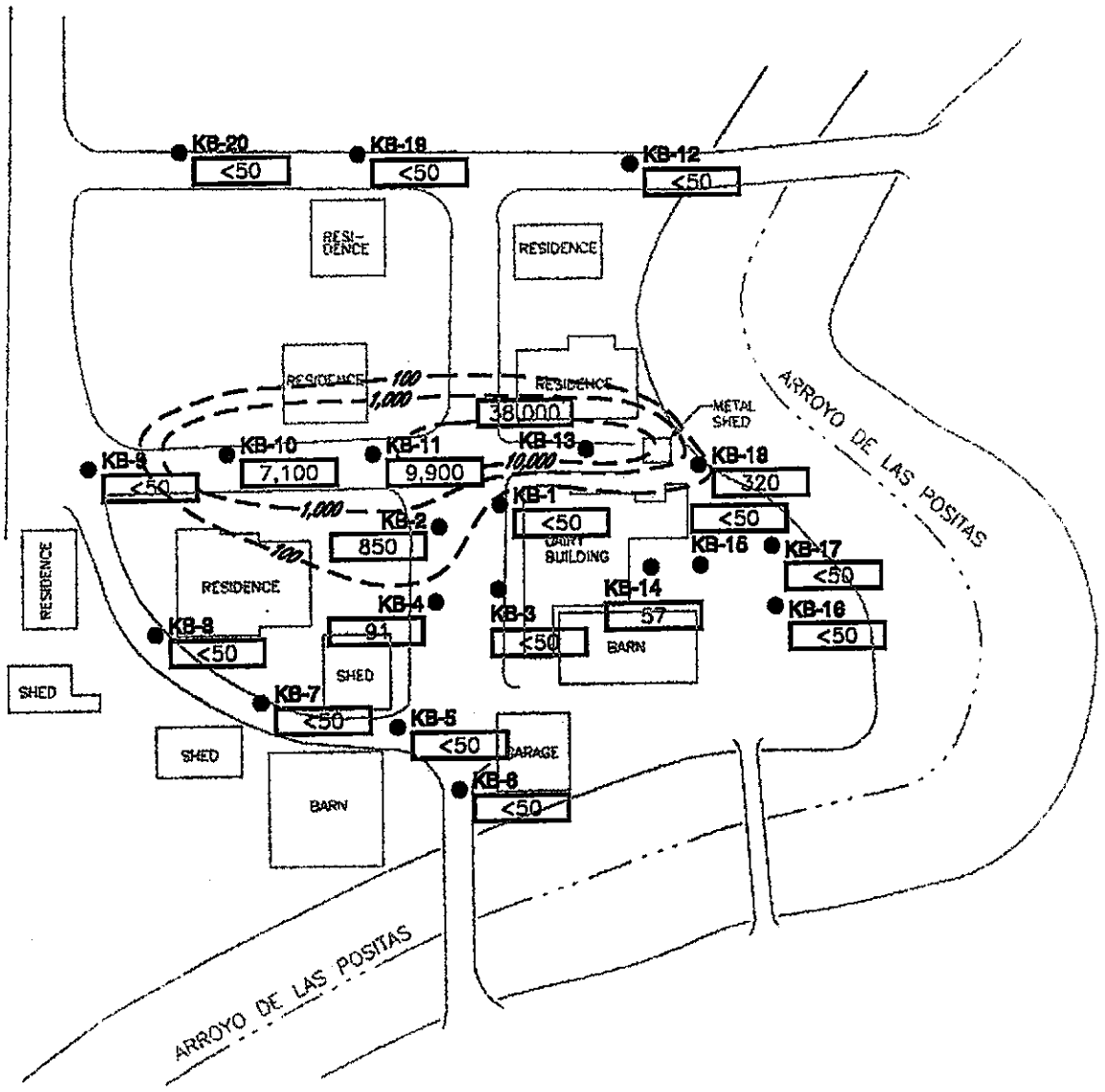
CUSTOMER

All children must remain in vehicles. Absolutely no salvaging allowed.

WARNING: Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution.

LEGEND

- ● SOILBORING/SAMPLING AND RECONNAISSANCE GROUNDWATER SAMPLE
- 91 TPH–g DETECTED Concentration in µg/L.
- <50 TPH–g NOT DETECTED above laboratory reporting limit
- NA TPH–g NOT ANALYZED
- 100 ISOCONCENTRATION CONTOUR (µg/L) Queried where approximate.



NOTES:

1. Locations are approximate.
2. All concentrations are reported in micrograms per liter (µg/L), approximately equivalent to parts per billion (ppb).

N

80 0 80

APPROXIMATE SCALE (feet)

KLEINFELDER

DRAFTED BY: L. Sue DATE: 9–16–97

CHECKED BY: N. Siler DATE: 9–17–97

RECONNAISSANCE GROUNDWATER SAMPLE ANALYTICAL RESULTS: TPH-g, AUGUST 1997

FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

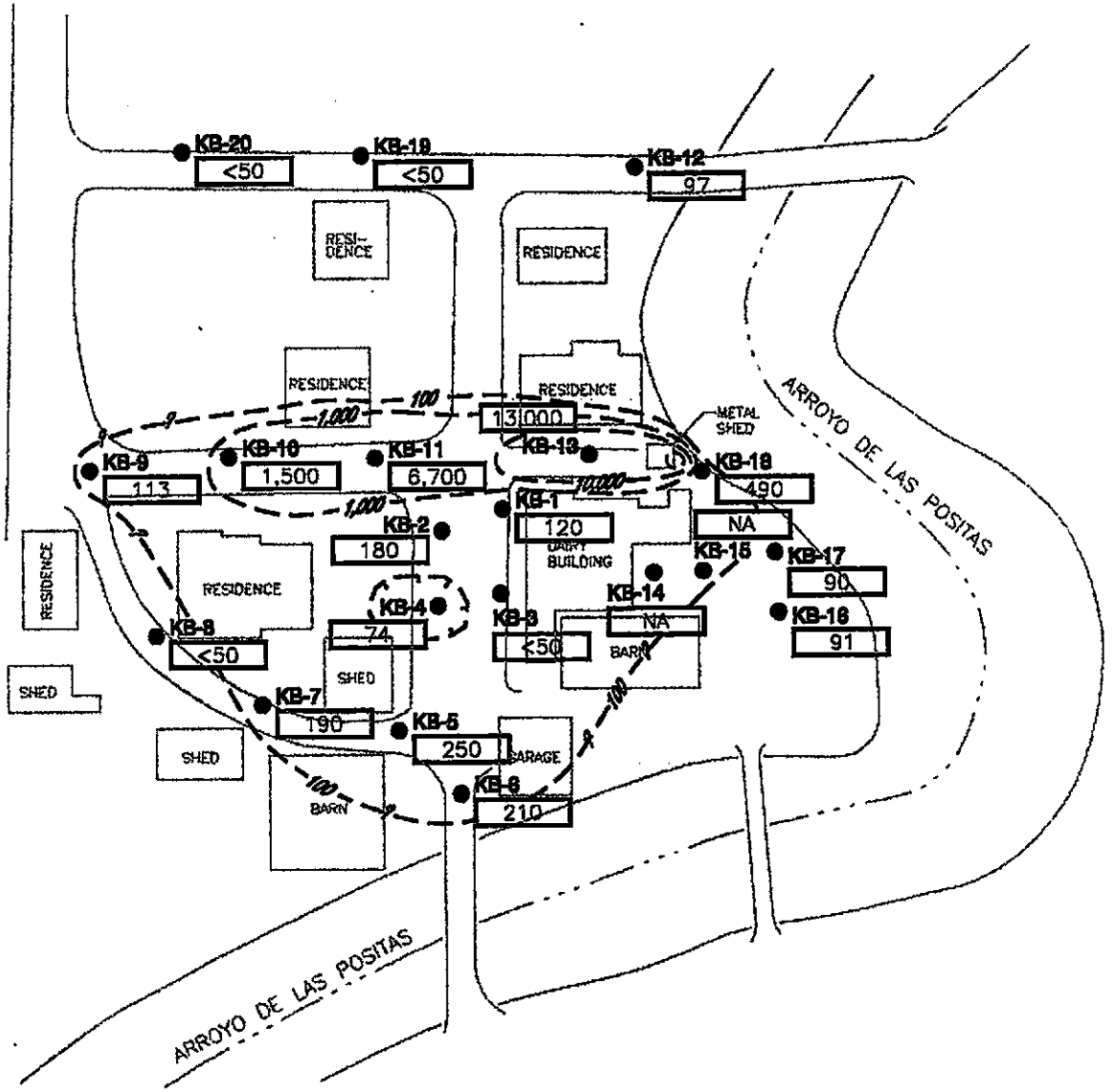
PROJECT NO. 10–300613–006

PLATE 7

CAD FILE: C:_KA-PROJ\PLEAS\10300613\006\P3-10.dwg

LEGEND

- SOIL BORING/SAMPLING AND RECONNAISSANCE GROUNDWATER SAMPLE
- 90 — TPH–d DETECTED Concentration in µg/L.
- <50 — TPH–d NOT DETECTED above laboratory reporting limit
- NA — TPH–d NOT ANALYZED
- 100 — ISOCONCENTRATION CONTOUR (µg/L) Queried where approximate.



NOTES:

1. Locations are approximate.
2. All concentrations are reported in micrograms per liter (µg/L), approximately equivalent to parts per billion (ppb).

N

80 0 80

APPROXIMATE SCALE (feet)

KLEINFELDER

DRAFTED BY: L. Sue DATE: 9–16–97

CHECKED BY: N. Siler DATE: 9–23–97

RECONNAISSANCE GROUNDWATER SAMPLE ANALYTICAL RESULTS: TPH-d, AUGUST 1997

FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

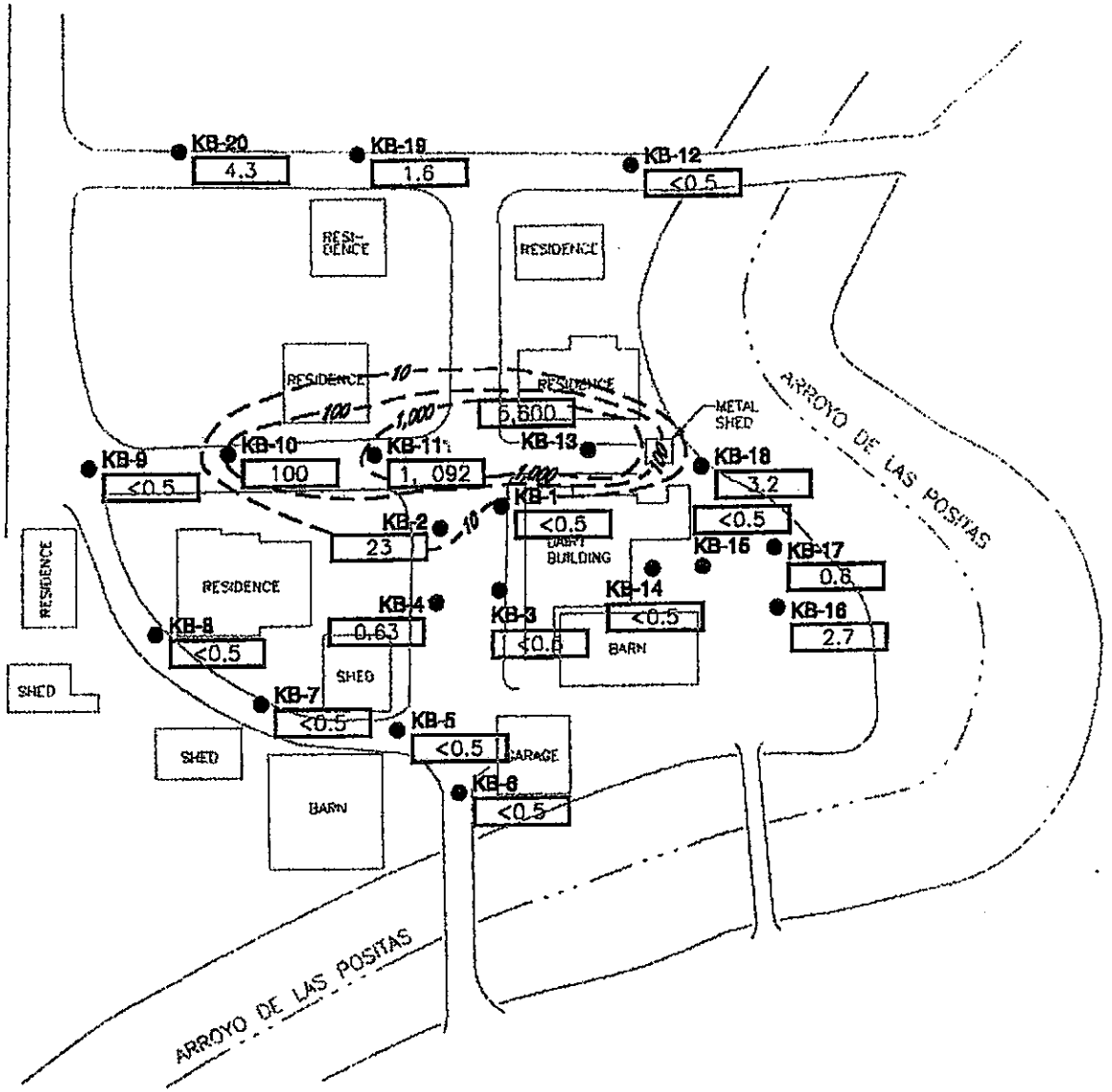
PROJECT NO. 10–300613–006

PLATE 8

CAD FILE: C:_KA–PROJ\PLEAS\10300613\006\P3–10.dwg

LEGEND

- ● SOILBORING/SAMPLING AND RECONNAISSANCE GROUNDWATER SAMPLE
- 1.5 BTEX DETECTED Concentration in µg/L.
- <0.5 BTEX NOT DETECTED above laboratory reporting limit
- NA BTEX NOT ANALYZED
- 100 ISOCONCENTRATION CONTOUR (µg/L) Queried where approximate.



NOTES:

1. Locations are approximate.
2. All concentrations are reported in micrograms per liter (µg/L), approximately equivalent to parts per billion (ppb).

N

80 0 80

APPROXIMATE SCALE (feet)

KLEINFELDER

DRAFTED BY: L. Sue	DATE: 9-16-97
CHECKED BY: N. Siler	DATE: 9-17-97

RECONNAISSANCE GROUNDWATER SAMPLE ANALYTICAL RESULTS: BTEX, AUGUST 1997

FRIESMAN RANCH PROPERTY
1600 FRIESMAN ROAD
LIVERMORE, ALAMEDA COUNTY, CALIFORNIA

PROJECT NO. 10-300613-006

PLATE 9

CAD FILE: C:_KA-PROJ\PLEAS\10300613\006\P3-10.dwg