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August 14, 2009

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

Subject: Second Quarter 2009 Groundwater Monitoring Report, Former Ambassador Laundry, City of Emeryville, California, Fuel Leak Case No. RO0002973

Dear Ms. Jakub,

Enclosed is the Groundwater Monitoring Report for the second quarter 2009 for the property located at 1160-1168 36th Street and 3601 and 3623 Adeline Street, in Emeryville, Alameda County, California (the Site). The quarterly groundwater monitoring report was prepared by Kleinfelder Inc. on behalf of the City of Emeryville. This report was prepared and is being submitted to Alameda County Environmental Health pursuant to your letter, dated July 7, 2007, to the City of Emeryville requesting the monitoring of groundwater quality at the Site.

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

Sincerely,
City of Emeryville

Helen Bean
Economic Development Director

Enclosure: Former Ambassador Laundry Second Quarter 2009 Groundwater Monitoring Report City of Emeryville, Alameda County, California

FORMER AMBASSADOR LAUNDRY
SECOND QUARTER 2009
GROUNDWATER MONITORING REPORT
CITY OF EMERYVILLE,
ALAMEDA COUNTY, CALIFORNIA

August 14, 2009

A Report Prepared for:

Ms. Helen Bean
Economic Development and Housing Director
City of Emeryville
1333 Park Avenue
Emeryville, California, 94608-3517

FORMER AMBASSADOR LAUNDRY
SECOND QUARTER 2009
GROUNDWATER MONITORING REPORT
CITY OF EMERYVILLE,
ALAMEDA COUNTY, CALIFORNIA

Kleinfelder Job No. 73943/PWGWM
Fuel Leak Case No. RO0002973

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August 14, 2009

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1.0 INTRODUCTION

This report summarizes the second quarter 2009 groundwater monitoring event at the Former Ambassador Laundry site, located at 1160-1168 36th Street and 3601 and 3623 Adeline Street, in Emeryville, Alameda County, California (the Site). Plate 1 shows a Site Vicinity Map. The work was performed by Kleinfelder for the City of Emeryville (the City) in response to a request by the Alameda County Environmental Health (ACEH) in a letter dated July 7, 2007.

Kleinfelder performed the following field tasks:

- Measuring depth to groundwater and groundwater field parameters, including temperature, pH, conductivity, dissolved oxygen (DO), and oxidation/reduction potential (ORP), from the six existing monitoring wells;
- Collecting groundwater samples for chemical analysis from the six existing monitoring wells at the Site;
- Having a State certified laboratory analyze the groundwater samples for Total Petroleum Hydrocarbons (TPH) as diesel (-d), gasoline (-g), motor oil (-mo); benzene, toluene, ethylbenzene, xylenes (BTEX); fuel oxygenates, including ethylene dibromide (EDB), ethylene dichloride (EDC), and methyl tert butyl ether (MTBE); and for biodegradation indicators, including, sulfate, nitrate, orthophosphate, ammonia, methane, and ferrous iron concentrations;
- Containing the purge water generated during groundwater sampling for appropriate disposal.

2.0 BACKGROUND INFORMATION

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

2.1 SITE DESCRIPTION

The U-shaped site occupies approximately 34,136 square feet (0.78-acres) in a mixed, residential/light industrial land-use area of the City of Emeryville. On the north, the site is bordered by residences, on the west by Peralta Street, on the south by 36th Street, and on the east by Adeline Street and two residences. Currently, the site is a vacant lot with a two-sided billboard facing the west- and east-bound traffic of Interstate 580.

Field observations of the site's subsurface soil indicate its stratigraphy is composed mostly of clay and silt mixture layers, with occasional, relatively thin, layers of sands and or gravel containing materials. Groundwater is first encountered at depths of approximately 18 to 24 feet bgs.

2.2 GENERAL GEOLOGIC AND HYDROGEOLOGIC INFORMATION

The site is located within the East Bay Plain Physiographic Region (EBPPR) of the San Francisco Bay Area. The East Bay Plain Physiographic Region is characterized by depositional fans of sediments originating from the Diablo Range that slope towards the southwest. The Hayward Fault is located approximately 2.6 miles northeast of the site. Shallow sediments in the vicinity of the site have been mapped as older and younger alluvium; typically consisting of unconsolidated to poorly consolidated clay, silt, sand and gravel, with generally low groundwater yield rates. Groundwater generally occurs at depths ranging from about six to ten feet below ground surface (bgs) and the general groundwater flow in the region is towards the west / southwest.

2.3 OPERATIONAL HISTORY

In 1910, an industrial laundry facility, the New Method Laundry, was established at the Site. According to the file review summarized in the Phase I Environmental Site Assessment (ESA) by Clayton (Clayton, 2003a), some type of industrial laundry facility operated at the Site between 1910 and the 1980s. In the mid 1980s the land use at the

site changed and became a multi-tenant, mixed residential/commercial land-use area. Businesses operating at the site included a spa assembly company, a commercial sign company, art studios, a bronze art foundry, a metal contractor, a vehicle maintenance company, and other commercial uses. Available records indicate that two USTs, an 8,000-gallon tank for gasoline (UST-G) and a 2,500-gallon tank for heating oil (UST-HO), were removed from the Site in 1994 and 1995, respectively (Plate 2). Both UST removal cases were closed by the ACEH.

2.4 PREVIOUS INVESTIGATIONS

Pre-2003 environmental investigations are summarized in Clayton's Phase 1 ESA (Clayton, 2003a); including reports documenting the removal of the two USTs, soil and groundwater investigations associated with the removal of the USTs, a Phase I ESA, and the cleaning of a sump (Sump-1). Other environmental investigations at the site include a soil and groundwater sampling investigation (Clayton, 2003b), a sump (Sump-2) closure report (Clayton, 2005), and a subsurface investigation and UST removal report (Kleinfelder, March 11, 2008).

On July 7, 2008, after reviewing Kleinfelder's 2008 Report, the ACEH requested a work plan to delineate the horizontal and vertical extent of contaminated soil in the former UST area, the installation of six groundwater monitoring wells, and to monitor groundwater conditions at the site. On September 12, 2008, Kleinfelder submitted the Post Remediation Evaluation Work Plan (Work Plan), which was approved by the ACEH on January 9, 2009.

On February 16 and 17, and on March 30 and 31, 2009 Kleinfelder implemented the investigation activities described in the Work Plan. Field investigation activities included conducting cone penetration tests (CPT), collecting subsurface soil samples using direct push technology (DPT), and installing six groundwater monitoring-wells within the first encountered groundwater bearing zone (GWBZ). In addition, the investigation included a preferential pathway survey within a 2,000-foot radius of the site. The survey consisted of obtaining and reviewing well records to identify potential groundwater plume receptors (monitoring, municipal and private water supply wells) and assessing the location of sewer and storm-drain lines that could serve as potential preferential pathways for contaminants in the subsurface. The results of the investigation were

summarized in the Post Remediation Subsurface Investigation and First Groundwater Monitoring Event Report, dated June 17, 2009.

2.5 GROUNDWATER BENEFICIAL USE DESIGNATION

According to the San Francisco Regional Water Quality Control Board's (SFRWQCB) 1999 East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (RWQCB, 1999), the site is located in area classified as Zone B, Emeryville Brownfields Groundwater Management Zone. While the groundwater in Zone B may meet the broad "sources of drinking water" criteria, groundwater in Zone B is unlikely to be used as a drinking water resource because limiting factors related to yield and water quality restrict practical uses of the groundwater. Groundwater in the Emeryville Brownfields Groundwater Management Zone is not currently used for any municipal, domestic, industrial, or agricultural use, and no extractive beneficial uses are planned in the future (RWQCB, 1999). The East Bay Plain Groundwater Basin Beneficial Use Evaluation Report further suggests that the remedial strategies implemented in this area should reflect the low probability that groundwater in this zone will be used as a source of drinking water in the foreseeable future. Achievement of drinking water objectives within a reasonable time period is an appropriate long term goal and passive remediation to restore MUN beneficial uses as a long-term goal is recommended.

2.6 ENVIRONMENTAL SCREENING LEVELS

The SFRWQCB developed Environmental Screening Levels (ESLs) for use as initial indicators of potential impacts to human health or the environment. To assess the potential impacts of the chemicals of concern reported in groundwater, Kleinfelder compared the reported concentrations of each compound to its respective ESL, as available and presented in the SFRWQCB's guidance document *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (Interim Final – November 2007, revised May 2008). Kleinfelder referenced the ESLs for groundwater where groundwater is not a current or potential source of drinking water based on the finding that the shallow groundwater at the site is not suitable as a source of drinking water per SFRWQCB (see Section 2.5).

2.7 PREVIOUS QUARTERLY GROUNDWATER MONITORING

Samples for the first groundwater monitoring event were collected on April 17, 2009. Groundwater field parameters, including depth to groundwater, pH, conductivity, dissolved oxygen (DO), and oxidation/reduction potential (ORP) were measured and groundwater samples for chemical analysis were collected from each of the six monitoring wells. The groundwater samples were delivered to a State certified laboratory where they were analyzed for TPH-d, TPH-g, TPH-mo, BTEX, fuel oxygenates, specific conductivity, total dissolved solids, sulfate, nitrate, orthophosphate, ammonia, methane and ferrous iron.

BTEX and Fuel Oxygenates

The analytical results indicated the presence of BTEX at concentrations above the laboratory's reporting limit in one groundwater sample, collected from MW-2, where BTEX was reported at 4.9 micrograms per Liter (µg/L), 1.4-µg/L, 2.5-µg/L, and 2.5-µg/L, respectively. These reported BTEX concentrations are below their respective ESL.

Except for diisopropyl ether (DIPE), reported at concentrations ranging from 7.0 µg/L to 28 µg/L in the samples from the six monitoring wells, and ethylene dibromide (EDB) reported at 0.64 µg/L in the groundwater sample from MW-6, fuel oxygenate concentrations were not reported above the laboratory's reporting limits.

Total Petroleum Hydrocarbons

In the first quarter 2009 groundwater monitoring event, TPH-g concentrations above the laboratory's reporting limits were reported in the samples collected from MW-2, MW-4 and MW-6, at concentrations ranging from 170-µg/L to 310-µg/L. TPH as Stoddard Solvent (TPH-SS) was reported in only one groundwater sample, collected from MW-4, at 58-µg/L. TPH-d was reported in samples collected from MW-2, MW-4, and MW-6 at concentrations ranging from 79-µg/L to 120-µg/L. Except for the TPH-g concentration in MW-2, reported at 310-µg/L, TPH-g, TPH-SS and TPH-d concentrations were below their respective ESLs of 210-µg/L.

Biodegradation Indicators

Field measurements of DO and ORP indicated DO concentrations ranging from 0.09 milligrams per Liter (mg/L) in MW-3 to 2.13 mg/L in MW-6; and ORP ranging from 70.7 mEV in groundwater from MW-2 to 209 mEV in groundwater from MW-1.

Nitrogen and phosphate are essential nutrients for living organisms, and their concentrations can be used to assess microbial activity. To microorganisms, nitrogen is commonly available in the form of nitrate or ammonia, and phosphate in the form of orthophosphate. In the first quarter 2009 groundwater monitoring event, nitrate was reported at concentrations ranging from 18 mg/L in MW-5 to 68 mg/L in MW-1, and phosphate concentrations ranging from 0.06 mg/L in MW-2 to 0.65 mg/L in MW-1. Sulfate, another nutrient, was reported at concentrations ranging from 76 mg/L in MW-2 to 110 mg/L in MW-6.

Methane, a byproduct of anaerobic microbial activity, was reported at concentrations ranging from less than 0.1 mg/L in the sample from MW-1 to 3.2 mg/L in the sample from MW-4.

3.0 FIELD ACTIVITIES

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

3.1 GROUNDWATER MONITORING ACTIVITIES

The second quarter 2009 groundwater-monitoring event took place on July 15 and 17, 2009. Prior to monitoring activities, field instrumentation was checked and calibrated.

3.1.1 Water Level Measurements

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

3.1.2 Groundwater Sample Collection

Upon completing water-level measurements, and prior to collecting groundwater samples, Kleinfelder purged approximately three casing volumes of groundwater from each monitoring well using a peristaltic pump. During purging, changes in DO concentration, conductivity, pH, temperature, and ORP, were measured. Groundwater samples for chemical analyses were collected after groundwater field parameters became stable (three measurements within about 10% of each other), or after three well casing volumes had been removed.

After purging, groundwater samples from each monitoring well were collected and contained in laboratory-supplied containers. The containers were labeled and subsequently placed into a pre-chilled cooler with ice, pending delivery a State-certified laboratory for chemical analysis. Samples were delivered to the laboratory following chain of custody protocols.

3.1.3 Analytical Laboratory Parameters

McCampbell Analytical, a State-certified analytical laboratory, performed the chemical analysis for the second quarter 2009 groundwater monitoring event. Samples were analyzed for the following parameters:

- TPH-g, BTEX and fuel oxygenates, including EDB and EDC, using EPA Method 8260B;
- TPH-d and TPH-mo using EPA Method 8015, with silica gel clean-up using EPA 3510/3630;
- Nitrate, phosphate and sulfate using EPA Method 300.1
- Ammonia using EPA Method 350.1
- Total dissolved solids using EPA Method 2540C
- Specific conductivity using Standard Method 2510B
- Ferrous iron using Standard Method 3500, and
- Methane using RFK 174.

3.2 DECONTAMINATION PROCEDURES

Prior to performing groundwater level measurements, and between measurements at each well location, the electronic water level indicator probe and cable was cleaned with an Alconox™ water solution and subsequently rinsed with tap water, followed by distilled water.

3.3 INVESTIGATION-DERIVED WASTE HANDLING PROCEDURES

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

4.0 MONITORING RESULTS

The second quarter 2009 groundwater monitoring event took place on July 15 and 17, 2009, as described in Section 3 of this report. Depth to groundwater was measured and groundwater samples for chemical analysis collected from each of the six monitoring wells at the site. This section summarizes the water-level measurements and groundwater chemical analysis results. Table 1 provides monitoring well construction details. Plate 2 shows the location of the monitoring wells and the groundwater elevation measured on July 15 and 17, 2009.

4.1 GROUNDWATER LEVELS

The depth to groundwater on each well was measured from the top of casings. On July 15 and 17, 2009, depth to groundwater in the six wells ranged from 10.26 to 11.40 feet. Groundwater surface elevations ranged from 20.05 (MW-5) feet to 21.04 (MW-1) feet (NAVD, 1988). Relative to the groundwater surface elevations measured on March 30, 2009, water levels decreased between 0.62 feet (MW-4) and 1.44 feet (MW-5). Table 1 presents a summary of groundwater level data.

Based on the July 15 and 17, 2009 groundwater surface elevations, groundwater was estimated to flow to the southwest. The flow direction was similar to that inferred in the first quarter groundwater monitoring event. Groundwater flow patterns are shown on Plate 2.

4.2 GROUNDWATER SAMPLE RESULTS

Groundwater field parameters were measured and samples for chemical analyses from the six monitoring wells, MW-1 to MW-6, were collected on July 15 and 17, 2009. Groundwater purge measurements, groundwater analytical results, and quality assurance / quality control data are discussed in the following subsections.

4.2.1 Purge Characteristic Data

Prior to groundwater sample collection, the wells were purged to allow the inflow of water from the water bearing zones. DO, ORP, temperature, pH and conductivity were

measured during purging. Table 1 summarizes groundwater elevation and final purge characteristic data for each well.

4.2.2 BTEX and Fuel Oxygenates

The analytical results of the groundwater samples collected during the second quarter 2009 groundwater monitoring event indicate that BTEX was not detected in any of the six wells at concentrations above the laboratory's reporting limit of 0.5-µg/L (Table 2).

Concentrations of MTBE above the laboratory's reporting limit was reported at concentrations ranging from 2.1-µg/L to 3.6-µg/L in the groundwater samples from MW-2, MW-3, MW-4, MW-5 and MW-6 (Table 2). MTBE was not reported in the sample from MW-1.

DIPE was reported at concentrations ranging from 4.2-µg/L to 27-µg/L in the samples from the six monitoring wells. These concentrations are about the same concentrations as those reported in the first quarter 2009 groundwater monitoring event. EDB concentrations above the laboratory's reporting limit of 0.5-µg/L was reported in the sample collected from MW-2, at 0.64-µg/L. ESLs have not yet been established for either DIPE or EDB.

4.2.3 Total Petroleum Hydrocarbon

TPH-g concentrations above the laboratory's reporting limit of 50-µg/L were reported at 69-µg/L and at 94-µg/L in the samples collected from MW-4 and MW-6, respectively (Table 2). TPH-d concentrations above the laboratory's reporting limit of 50-µg/L was reported in the sample collected from MW-6, at 58-µg/L (Table 2).

The TPH-g and TPH-d concentrations reported in the samples collected for the second quarter 2009 groundwater monitoring event are below the ESL of 210-µg/L for TPH-g and TPH-d, and lower than those reported in the first quarter 2009 groundwater monitoring event.

4.2.4 Biodegradation Parameters

Biodegradation parameters recorded during the second quarter 2009 groundwater monitoring event are summarized in Table 3. During purging, final DO concentrations ranged from 0.09 mg/L (MW-3) to 0.48 mg/L (MW-1). ORP ranged from 87.2 mEV (MW-5) to 159.2 mEV (MW-6). The analytical results indicated that ammonia was not detected at concentrations equal or greater than 0.2 mg/L and nitrate concentrations ranged from 9.4 mg/L (MW-6) to 59 mg/L (MW-1). Phosphate concentrations above the 0.1 mg/L reporting limit was reported at 0.41 mg/L in MW-1. Concentrations of ferrous iron above the 0.05 mg/L reporting limit was reported at 0.087 mg/L in MW-2.

Methane concentrations above the laboratory reporting limit of 0.4 mg/L were reported at concentrations ranging from 3.2 mg/L to 55 mg/L, except in the sample from MW-1.

4.2.5 Quality Assurance / Quality Control

For the current set of samples the laboratory quality assurance / quality control parameters did not deviate from accepted norms. Samples were preserved and transported to the laboratory under chain-of-custody control protocols. All samples were analyzed within holding times, method blanks were not found to contain chemicals of concern, and surrogate recoveries were within accepted ranges.

5.0 SUMMARY OF RESULTS

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

5.1 HYDRAULIC CONDITIONS

Between March and July 2009, the groundwater surface elevation declined by about two thirds and one and a half foot, a decline that is likely the result of the lack of rainfall in the region. Groundwater was inferred to flow towards the south – southwest, in the general direction estimated in March 2009 (Plate 3).

5.2 WATER QUALITY

In general, the chemicals of concern detected in the second quarter 2009 groundwater monitoring event were reported at lower concentrations than during the first quarter 2009 groundwater monitoring event in April 2009, and at concentrations below their respective ESLs. None of the groundwater samples indicated the presence of BTEX at or above the laboratory's reporting limit of 0.5-µg/L. The presence of MTBE was reported in five of the six groundwater samples, at concentrations ranging from 2.1-µg/L to 3.6-µg/L; TPH-g and TPH-d were reported in fewer samples and at lower concentrations than in the first quarter 2009 groundwater monitoring event (Table 2).

In addition, the analysis for biodegradation indicators in groundwater suggest that natural attenuation is ongoing, as indicated by the low concentrations of DO and the higher concentrations of methane, relative to the first 2009 quarter groundwater monitoring event.

Based on the decline of groundwater samples where chemicals of concern were reported above the laboratory's reporting limit, the fewer number of detected chemicals of concern, and that the concentrations these compounds were reported at are below their respective ESLs, suggest that the presence of chemicals of concern present in groundwater at the site does not appear to pose a human health or environmental concern because a) the contamination source has been removed, c) the chemicals of

concern are naturally attenuating, and d) the concentration of the chemicals of concern reported above the laboratory's reporting limits are below their respective ESLs.

6.0 LIMITATIONS

Kleinfelder prepared this report in accordance with generally accepted standards of care that exist in Alameda County at the time this investigation was performed. All information gathered by Kleinfelder is considered confidential and will be released only upon written authorization by the City of Emeryville or as required by law.

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

During the course of the performance of Kleinfelder's services, hazardous materials may be discovered. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this reports should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. The City of Emeryville will be solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. The City of Emeryville will be responsible for all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

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

7.0 REFERENCES

Clayton, 2003a. Phase I Environmental Site Assessment 1160-1168 36th Street and 3623 Adeline Street, Emeryville, California. May 28, 2003.

Clayton, 2003b. Soil and Groundwater Sampling Investigation at 160-1168 36th Street and 3623 Adeline Street, Emeryville, California. May 28, 2003.

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SFWQCB, 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA. Groundwater Committee. June.

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TABLES

Table 1

Groundwater Elevation and Final Purge Characteristics in Groundwater
Former Ambassador Laundry
Emeryville, California

Well ID	Top of Casing Elevation (NAD 83)	Date Sampled	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Gallons Purged	Final pH	Final Specific Conductivity (µmhos/cm)	Final Temperature (degrees C)
MW-1	31.3	3/30/2009	9.45	21.85	15.0	6.78	525	18.03
		7/17/2009	10.26	21.04	5.0	7.96	465	18.68
MW-2	31.13	3/30/2009	9.41	21.72	15.0	6.65	686	18.43
		7/17/2009	10.26	20.87	5.0	7.76	910	18.31
MW-3	31.26	3/30/2009	10.25	21.01	15.0	6.66	712	18.40
		7/15/2009	10.95	20.31	6.0	7.74	946	17.90
MW-4	31.15	3/30/2009	9.98	21.17	15.0	6.83	720	18.33
		7/15/2009	10.60	20.55	4.0	7.74	881	18.03
MW-5	31.45	3/30/2009	9.96	21.49	13.0	6.69	724	18.53
		7/15/2009	11.40	20.05	5.5	7.78	971	18.13
MW-6	30.91	3/30/2009	9.60	21.31	15.0	6.89	809	18.77
		7/15/2009	10.30	20.61	5.5	8.07	1111	18.62

Acronyms:

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

Table 2

Total Petroleum Hydrocarbons BTEX and Fuel Oxygenates oncentrations in Groundwater

Former Ambassador Laundry,
City of Emeryville, California

	Date Sampled	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	ESL DWR	ESL Non DWR
Benzene (µg/L)	4/17/2009	< 0.5	4.9	< 0.5	< 0.5	< 0.5	< 0.5	1	46
	7/15-17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Toluene (µg/L)	4/17/2009	< 0.5	1.4	< 0.5	< 0.5	< 0.5	< 0.5	40	130
	7/15-17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Ethylbenzene (µg/L)	4/17/2009	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 0.5	30	43
	7/15-17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylenes (µg/L)	4/17/2009	< 1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0	20	100
	7/15-17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
EDB (µg/L)	4/17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NE	NE
	7/15-17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.64		
MTBE (µg/L)	4/17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	5.0	1,800
	7/15-17/2009	< 0.5	2.6	3.3	2.6	3.6	2.1		
DIPE (µg/L)	4/17/2009	8.9	26	28	14	9.2	7	NE	NE
	7/15-17/2009	4.2	24	27	12	18	5.2		
TPH-g (µg/L)	4/17/2009	< 50	**310**	< 50	200	< 50	170	100	210
	7/15-17/2009	< 50	< 50	< 50	69	< 50	94		
TPH-SS (µg/L)	4/17/2009	< 50	< 50	< 50	58	< 50	< 50	100	210
	7/15-17/2009	NA	NA	NA	NA	NA	NA		
TPH-d (µg/L)	4/17/2009	< 50	95	< 50	120	< 50	79	100	210
	7/15-17/2009	< 50	< 50	< 50	< 50	< 50	58 *		

Acronyme and Notes

ESL	Environmental Screening Levels- SFRWQCB- May 2008
SFRWQCB	San Francisco Regional Water Quality Control Board
µg/L	micrograms per Liter
DWR	Drinking Water Resource
EDB	ethylene dibromide
DIPE	Diisopropyl ether
MTBE	Methyl tert Butyl Ether
TPH-d	Total Petroleum Hydrocarbons as diesel
TPH-g	Total Petroleum Hydrocarbons as gasoline
TPH-SS	Total Petroleum Hydrocarbons as Stoddard Solvent
NA	Not Analyzed
310	Exceeds ESL
58 *	gasoline range compounds are significant
NE	not established

Table 3

Field and Biodegradation Parameters in Groundwater

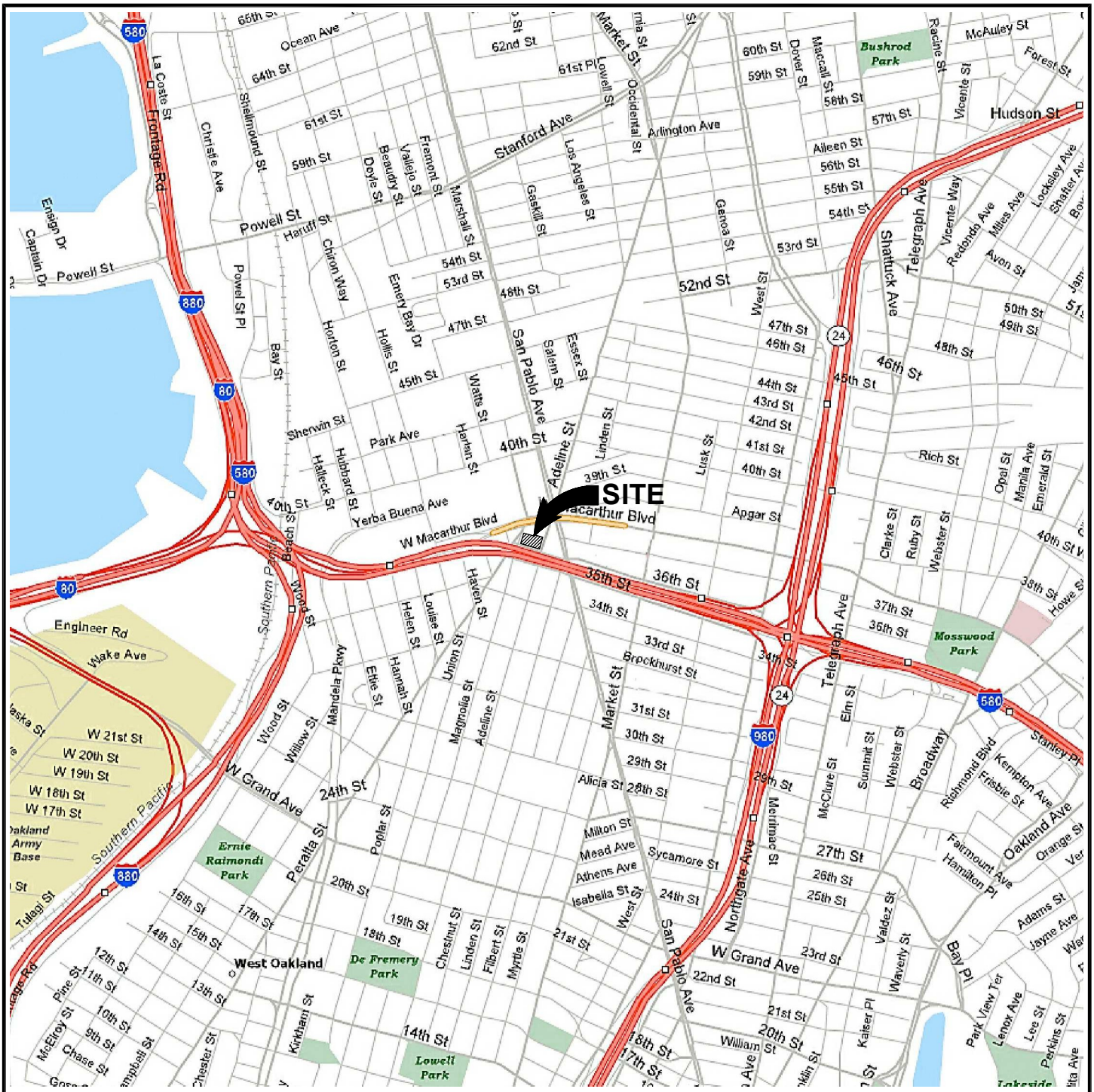
Former Ambassador Laundry,
City of Emeryville, California

Parameter	Date Sampled	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Final DO (mg/L)	4/17/2009	0.94	0.47	0.09	0.15	0.3	2.13
	7/15-17/2009	0.48	0.12	0.09	0.19	0.34	0.40
ORP (mEV)	4/17/2009	209.8	70.7	105.2	117.9	129.5	115.6
	7/15-17/2009	106	109.3	100.8	98.3	87.2	159.2
Conductivity (µmhos/cm)	4/17/2009	710	1,000	1,100	1,000	1,100	1,200
	7/15-17/2009	597	955	1,020	947	1,030	1,180
TDS (mg/L)	4/17/2009	490	600	630	600	650	700
	7/15-17/2009	346	544	650	571	631	717
Sulfate (mg/L)	4/17/2009	78	76	79	81	91	110
	7/15-17/2009	69	76	85	85	82	100
Ammonia (mg/L)	4/17/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	7/15-17/2009	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nitrate (mg/L)	4/17/2009	68 J	20 J	24 J	22 J	18 J	10 J
	7/15-17/2009	59	26	28	28	23	9.4
Ferrous (µg/L)	4/17/2009	< 0.05	0.1	< 0.05	< 0.05	< 0.05	0.096
	7/15-17/2009	< 0.05	0.087	< 0.05	< 0.05	< 0.05	< 0.05
Phosphate (mg/L)	4/17/2009	0.65	0.06	0.063	0.07	0.054	0.16
	7/15-17/2009	0.41	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methane (µg/L)	4/17/2009	< 0.1	2.4	0.59	3.2	< 0.1	2.4
	7/15-17/2009	< 0.4	3.5	3.2	31	3.5	55

Acronyme and Notes

DO	Dissolved Oxygen
µg/L	micrograms per Liter
mg/L	milligrams per Liter
µmhos/cm	micromhos per centimeter
TDS	Total Dissolved Solids
ORP	Oxydation Reduction Potential

PLATES



N

2000 1000 0 2000

APPROXIMATE SCALE (feet)

REFERENCE:
www.mapquest.com, 2006

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www.kleinfelder.com

PROJECT NO.	73943
DRAWN:	AUG 2009
DRAWN BY:	JDS
CHECKED BY:	AD
FILE NAME: SITE VIC.dwg	

SITE VICINITY MAP

FORMER AMBASSADOR LAUNDRY
3601-3623 ADELINE STREET
EMERYVILLE, CALIFORNIA

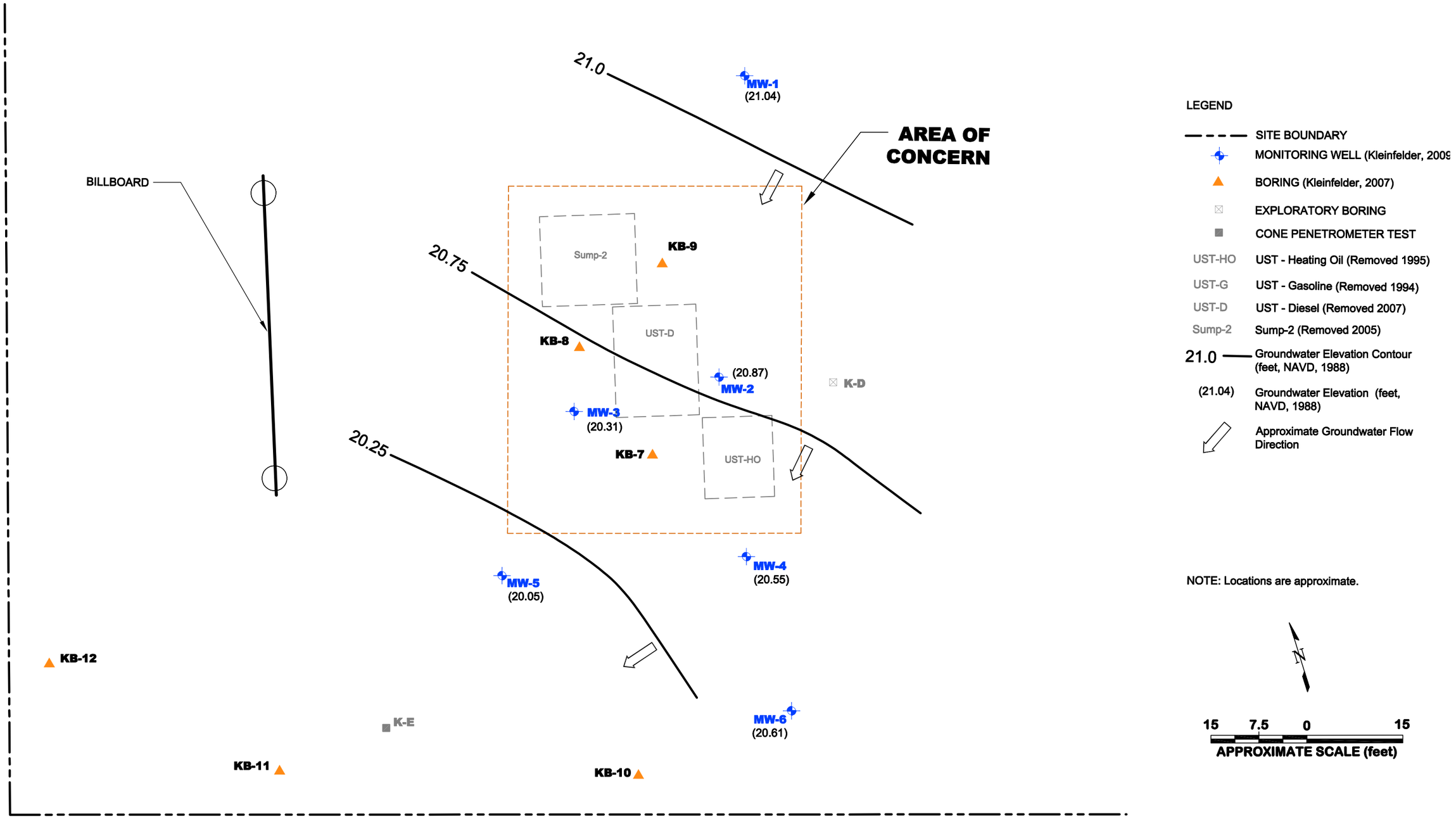
PLATE **1**

PLOTTED: 10 Aug 2009, 1:22pm, jsala

ATTACHED IMAGES: Images: SITE-VIC.jpg Images: siteplan.jpg
ATTACHED XREFS: XRef: TB_A-port
PLEASANTON, CA CAD FILE: D:_PROJECTS\73943\PWGWM\ LAYOUT: SITE-VIC

PLOTTED: 12 Aug 2009, 9:10am, jsala

PLEASANTON, CA CAD FILE: D:_PROJECTS\73943\PWGWM\ LAYOUT: GW_CON



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PROJECT NO.	73943
DRAWN:	AUG 2009
DRAWN BY:	JDS
CHECKED BY:	AD
FILE NAME:	GW-CONT_7-2009.dwg

GROUNWATER CONTOUR MAP JULY 2009

FORMER AMBASSADOR LAUNDRY
3601-3623 ADELINE STREET
EMERYVILLE, CALIFORNIA

PLATE
2

APPENDIX A

CERTIFIED ANALTYCIAL LABORATORY REPORTS

AND CHAINS-OF-CUSTODY RECORDS

McCampbell Analytical, Inc.
"When Quality Counts"

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

Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Reported: 07/23/09
	Client P.O.:	Date Completed: 07/23/09

WorkOrder: 0907418

July 23, 2009

Dear Alvaro:

Enclosed within are:

1) The results of the **5** analyzed samples from your project: **#73943/PWGWM; Former Ambassa**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

KLEINFELDER
Bright People. Right Solutions.

(FAL)

0907418

PROJECT NO.	PROJECT NAME	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	ANALYSIS: TPH 1-mo 8015	TPH 3 BTEX 8260B	EDB EDC Oxys 8260B	SO_4 NO_3 PO4 300.1	NH_3 350.1	Conductivity SM 2510B	TDS SM 2540C	Methane RSK 174	Ferrous Iron SM 3500	RECEIVING LAB: McCampbell
73943/PW6Wm	Former Ambassador Laundry												INSTRUCTIONS/REMARKS: Oxys = Fuel Oxygenates

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	TPH 1-mo 8015	TPH 3 BTEX 8260B	EDB EDC Oxys 8260B	SO_4 NO_3 PO4 300.1	NH_3 350.1	Conductivity SM 2510B	TDS SM 2540C	Methane RSK 174	Ferrous Iron SM 3500	
1	7-15	13:10	MW-3	W	3	1L	X			X	X	X	X			PI
2		11	MW-3		8	VOA		X	X					X	X	
3		1225	MW-4		3	1L	X			X	X	X	X			
4		11	MW4		8	VOA		X	X					X	X	
5		1110	MW-5		3	1L	X			X	X	X	X			
6		11	MW-5		8	VOA		X	X					X	X	
7		1010	MW-6		3	1L	X			X	X	X	X			
8		11	MW-6		8	VOA		X	X					X	X	
9			Trip Blank		1	VOA		X	X							
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

7/15

ICE/t° 6.4°C
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ✓ CONTAINERS ___
DECHLORINATED IN LAB ___ PRESERVED IN LAB ✓ (Ammonia)

PRESERVATION	VOAS	O & G	METALS	OTHER
	✓			

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Alyssa Domingez	7-16 12:55 pm	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	7/16/09 1415	Mel Vell
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks:
Please perform 5 ml vial for TPH 1-mo Analysis. thanks.

Send Results To:
adominguez@Kleinfelder.com
pwalters@Kleinfelder.com
510-628-9000 x 202
Attn:

ENV-02 REV 05/08)

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

COC NO. 10937

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0907418 **ClientCode: KFO**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Alvaro Dominguez
Kleinfelder, Inc.
1970 Broadway Ste. 710
Oakland, CA 94612
(510) 628-9000 FAX (510) 628-9009

Email: adominguez@kleinfelder.com
cc: pwalters@kleinfelder.com
PO:
ProjectNo: #73943/PWGWM; Former Ambassador Laundry

Bill to:
Emily Steinkamp
Kleinfelder Inc.
1970 Broadway #710
Oakland, CA 94612
SEND HARDCOPY

Requested TAT: 5 days

Date Received: **07/16/2009**
Date Printed: **07/17/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0907418-001	MW-3	Water	7/15/2009 13:10	☐	C	D	F	A	E	C	C	B				
0907418-002	MW-4	Water	7/15/2009 12:25	☐	C	D	F	A	E	C	C	B				
0907418-003	MW-5	Water	7/15/2009 11:10	☐	C	D	F	A	E	C	C	B				
0907418-004	MW-6	Water	7/15/2009 10:10	☐	C	D	F	A	E	C	C	B				
0907418-005	Trip Blank	Water	7/15/2009	☐				A								

Test Legend:

1	300_1_W	2	AMMONIA_W	3	FE2_W	4	GMBTEXOXYPB_W	5	RSK174_W
6	SC_W	7	TDS_W	8	TPH(DMO)WSG_W	9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Kleinfelder, Inc.** Date and Time Received: **7/16/09 6:47:33 PM**

Project Name: **#73943/PWGWM; Former Ambassador Laundry** Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0907418** Matrix Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 6.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☐	No ☑	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments: Ammonia preserved in lab

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/16/09-07/18/09
	Client P.O.:	Date Analyzed 07/16/09-07/18/09

Inorganic Anions by IC*

Extraction Method: E300.1 Analytical Method: E300.1 Work Order: 0907418

Lab ID	0907418-001C	0907418-002C	0907418-003C	0907418-004C	Reporting Limit for DF =1	
Client ID	MW-3	MW-4	MW-5	MW-6		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	mg/L
Nitrate as N	6.3	6.3	5.2	2.1	NA	0.1
Nitrate as $NO3^{-}$	28	28	23	9.4	NA	0.45
Phosphate as P	ND	ND	ND	ND	NA	0.1
Sulfate	85	85	82	100	NA	0.1
Surrogate Recoveries (%)						
%SS:	94	94	94	95		
Comments						

* water samples 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.

* [Nitrate as $NO3^{-}$] = 4.4286 x [Nitrate as N]

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09
	Client P.O.:	Date Analyzed 07/17/09

Ammonia as N*

Analytical Method: E350.1 Work Order: 0907418

Lab ID	Client ID	Matrix	Total Ammonia as N	DF	Comments
0907418-001D	MW-3	W	ND	1	
0907418-002D	MW-4	W	ND	1	
0907418-003D	MW-5	W	ND	1	
0907418-004D	MW-6	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 mg/L	
	S	NA	

*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.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09
	Client P.O.:	Date Analyzed 07/17/09

Ferrous Iron*

Analytical Method: SM3500-Fe B4c Work Order: 0907418

Lab ID	Client ID	Matrix	Ferrous Iron	DF	Comments
0907418-001F	MW-3	W	ND	1	
0907418-002F	MW-4	W	ND	1	
0907418-003F	MW-5	W	ND	1	
0907418-004F	MW-6	W	ND	1	

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

*water samples are reported in ug/L; soil samples are reported in mg/kg.

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Angela Rydelius, Lab Manager

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

Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/18/09
	Client P.O.:	Date Analyzed: 07/18/09

TPH(g)MBTEX + Oxygenates + EDB and 1,2-DCA*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0907418

Lab ID	0907418-001A	0907418-002A	0907418-003A	0907418-004A	Reporting Limit for DF =1	
Client ID	MW-3	MW-4	MW-5	MW-6		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
TPH(g)	ND	69	ND	94	NA	50
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
Benzene	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND	0.64	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	27	12	18	5.2	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	3.3	2.6	3.6	2.1	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes	ND	ND	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	85	86	86	86		
%SS2:	104	104	105	103		
%SS3:	117	119	118	125		
Comments						

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

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

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

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Angela Rydelius, Lab Manager

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/18/09
	Client P.O.:	Date Analyzed: 07/18/09

TPH(g)MBTEX + Oxygenates + EDB and 1,2-DCA*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0907418

					Reporting Limit for DF =1	
Lab ID	0907418-005A					
Client ID	Trip Blank					
Matrix	W					
DF	1				S	W
Compound	**Concentration**				ug/kg	µg/L
TPH(g)	ND				NA	50
tert-Amyl methyl ether (TAME)	ND				NA	0.5
Benzene	ND				NA	0.5
t-Butyl alcohol (TBA)	ND				NA	2.0
1,2-Dibromoethane (EDB)	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND				NA	0.5
Diisopropyl ether (DIPE)	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Ethyl tert-butyl ether (ETBE)	ND				NA	0.5
Methyl-t-butyl ether (MTBE)	ND				NA	0.5
Toluene	ND				NA	0.5
Xylenes	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	87					
%SS2:	106					
%SS3:	119					
Comments						

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

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

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

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Kleinfelder, Inc.	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
1970 Broadway Ste. 710	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09
Oakland, CA 94612	Client P.O.:	Date Analyzed 07/17/09

Light Gas Hydrocarbons*

Extraction method RSK 174/175 Analytical methods RSK174/175 Work Order: 0907418

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001E	MW-3	W	3.2	1	N/A	
002E	MW-4	W	31	1	N/A	
003E	MW-5	W	3.5	1	N/A	
004E	MW-6	W	55	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/21/09
	Client P.O.:	Date Analyzed 07/21/09

Specific Conductivity*

Analytical Method: SM2510B Work Order: 0907418

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
0907418-001C	MW-3	W	1020 @ 25.0°C	1	
0907418-002C	MW-4	W	947 @ 25.0°C	1	
0907418-003C	MW-5	W	1030 @ 25.0°C	1	
0907418-004C	MW-6	W	1180 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/21/09
	Client P.O.:	Date Analyzed 07/22/09

Total Dissolved Solids*

Analytical Method: SM2540C Work Order: 0907418

Lab ID	Client ID	Matrix	Total Dissolved Solids	DF	Comments
0907418-001C	MW-3	W	650	1	
0907418-002C	MW-4	W	571	1	
0907418-003C	MW-5	W	631	1	
0907418-004C	MW-6	W	717	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

* water samples reported in mg/L.

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Angela Rydelius, Lab Manager

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

Kleinfelder, Inc.	Client Project ID: #73943/PWGWM; Former Ambassador Laundry	Date Sampled: 07/15/09
		Date Received: 07/16/09
1970 Broadway Ste. 710	Client Contact: Alvaro Dominguez	Date Extracted: 07/16/09
Oakland, CA 94612	Client P.O.:	Date Analyzed: 07/21/09-07/23/09

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 0907418

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0907418-001B	MW-3	W	ND	ND	1	109	
0907418-002B	MW-4	W	ND	ND	1	106	
0907418-003B	MW-5	W	ND	ND	1	109	
0907418-004B	MW-6	W	58	ND	1	111	e4

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	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; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

e4) gasoline range compounds are significant.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44564 WorkOrder 0907418

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0907401-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	89.1	91.2	2.40	89.7	93.2	3.86	70 - 130	30	70 - 130	30
Benzene	ND	10	99	107	7.59	102	110	7.28	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	90.2	89.8	0.482	87.5	87.9	0.384	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	102	106	3.63	99.6	104	4.35	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	114	115	0.745	113	112	0.627	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	98.9	101	2.33	100	106	5.96	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	86	90.4	4.71	87.7	93.4	6.31	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	89.9	94.1	4.64	92.1	99.1	7.28	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	102	106	2.93	103	108	4.75	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	89.7	94.1	4.73	90.1	94.8	5.09	70 - 130	30	70 - 130	30
Toluene	ND	10	118	125	5.39	118	126	6.43	70 - 130	30	70 - 130	30
Trichloroethene	70	10	NR	NR	NR	108	111	2.70	70 - 130	30	70 - 130	30
%SS1:	---#	25	87	87	0	89	90	0.512	70 - 130	30	70 - 130	30
%SS2:	109	25	109	111	1.51	111	112	0.667	70 - 130	30	70 - 130	30
%SS3:	77	2.5	121	119	1.36	122	119	2.26	70 - 130	30	70 - 130	30

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

BATCH 44564 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001A	07/15/09 1:10 PM	07/18/09	07/18/09 4:56 PM	0907418-002A	07/15/09 12:25 PM	07/18/09	07/18/09 5:40 PM
0907418-003A	07/15/09 11:10 AM	07/18/09	07/18/09 6:24 PM	0907418-004A	07/15/09 10:10 AM	07/18/09	07/18/09 7:07 PM
0907418-005A	07/15/09	07/18/09	07/18/09 7:51 PM				

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

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

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

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

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

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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QA/QC Officer

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QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44576 WorkOrder 0907418

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

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Nitrate as N	N/A	1	N/A	N/A	N/A	99.7	100	0.313	N/A	N/A	85 - 115	15
Nitrate as $NO3^{-}$	N/A	4.4	N/A	N/A	N/A	99.7	100	0.313	N/A	N/A	85 - 115	15
ortho-Phosphate as P	N/A	1	N/A	N/A	N/A	90.1	98.1	8.55	N/A	N/A	85 - 115	15
Sulfate	N/A	1	N/A	N/A	N/A	110	109	0.960	N/A	N/A	85 - 115	15
%SS:	N/A	0.10	N/A	N/A	N/A	97	97	0	N/A	N/A	90 - 115	10

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

BATCH 44576 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001C	07/15/09 1:10 PM	07/16/09	07/16/09 11:06 PM	0907418-001C	07/15/09 1:10 PM	07/17/09	07/17/09 8:58 PM
0907418-001C	07/15/09 1:10 PM	07/17/09	07/17/09 9:39 PM	0907418-002C	07/15/09 12:25 PM	07/16/09	07/16/09 11:47 PM
0907418-002C	07/15/09 12:25 PM	07/17/09	07/17/09 10:19 PM	0907418-002C	07/15/09 12:25 PM	07/17/09	07/17/09 11:00 PM
0907418-003C	07/15/09 11:10 AM	07/17/09	07/17/09 12:28 AM	0907418-003C	07/15/09 11:10 AM	07/17/09	07/17/09 11:40 PM
0907418-003C	07/15/09 11:10 AM	07/18/09	07/18/09 12:21 AM	0907418-004C	07/15/09 10:10 AM	07/17/09	07/17/09 1:08 AM
0907418-004C	07/15/09 10:10 AM	07/18/09	07/18/09 1:02 AM				

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

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

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

N/A = not applicable to this method.

surrogate diluted out of range or surrogate coelutes with another peak.

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.

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QC SUMMARY REPORT FOR E350.1

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44607 WorkOrder 0907418

EPA Method E350.1 **Extraction E350.1** **Spiked Sample ID: 0907418-001D**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Total Ammonia as N	ND	4	95.8	94.7	1.24	98.1	92.7	5.70	80 - 120	20	90 - 110	20

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

BATCH 44607 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001D	07/15/09 1:10 PM	07/17/09	07/17/09 1:24 PM	0907418-002D	07/15/09 12:25 PM	07/17/09	07/17/09 1:28 PM
0907418-003D	07/15/09 11:10 AM	07/17/09	07/17/09 1:31 PM	0907418-004D	07/15/09 10:10 AM	07/17/09	07/17/09 1:57 PM

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

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

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

N/A = not 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44606 WorkOrder 0907418

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	101	101	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	109	109	0	N/A	N/A	70 - 130	30

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

BATCH 44606 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001B	07/15/09 1:10 PM	07/16/09	07/21/09 9:11 PM	0907418-002B	07/15/09 12:25 PM	07/16/09	07/23/09 11:14 AM
0907418-003B	07/15/09 11:10 AM	07/16/09	07/21/09 11:33 PM	0907418-004B	07/15/09 10:10 AM	07/16/09	07/22/09 12:43 AM

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

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

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

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR SM3500 Fe B4c

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44609 WorkOrder 0907418

EPA Method SM3500-Fe B4c **Extraction SM3500-Fe B4c** **Spiked Sample ID: 0907418-001F**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Ferrous Iron	ND	200	106	111	4.65	101	96	5.13	70 - 130	20	80 - 120	20

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

BATCH 44609 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001F	07/15/09 1:10 PM	07/17/09	07/17/09 9:46 AM	0907418-002F	07/15/09 12:25 PM	07/17/09	07/17/09 9:52 AM
0907418-003F	07/15/09 11:10 AM	07/17/09	07/17/09 9:58 AM	0907418-004F	07/15/09 10:10 AM	07/17/09	07/17/09 10:04 AM

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

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

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

N/A = not 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44608 WorkOrder: 0907418

EPA Method RSK174/175 **Extraction RSK 174/175** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	101	104	2.53	N/A	N/A	80 - 120	20

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

BATCH 44608 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001E	07/15/09 1:10 PM	07/17/09	07/17/09 1:51 PM	0907418-002E	07/15/09 12:25 PM	07/17/09	07/17/09 2:03 PM
0907418-003E	07/15/09 11:10 AM	07/17/09	07/17/09 2:27 PM	0907418-004E	07/15/09 10:10 AM	07/17/09	07/17/09 2:42 PM

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

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

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

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: Specific Conductivity **Matrix: W** **WorkOrder: 0907418**

Method Name: SM2510B Units µmhos/cm @ 25°C BatchID: 44506

Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
0907418-001C	1020 @ 25.0°C	1	1020 @ 25.0°C	1	0.295	<2
0907418-002C	947 @ 25.0°C	1	946 @ 25.0°C	1	0.0845	<2
0907418-003C	1030 @ 25.0°C	1	1030 @ 25.0°C	1	0.194	<2
0907418-004C	1180 @ 25.0°C	1	1190 @ 25.0°C	1	0.422	<2

BATCH 44506 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001C	07/15/09 1:10 PM	07/21/09	07/21/09 2:40 PM	0907418-002C	07/15/09 12:25 PM	07/21/09	07/21/09 2:50 PM
0907418-003C	07/15/09 11:10 AM	07/21/09	07/21/09 3:00 PM	0907418-004C	07/15/09 10:10 AM	07/21/09	07/21/09 3:10 PM

Test Method: Total Dissolved Solids **Matrix: W** **WorkOrder: 0907418**

Method Name: SM2540C Units mg/L BatchID: 44479

Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
0907418-001C	650	1	608	2	6.68	<20
0907418-002C	571	1	576	2	0.872	<20
0907418-003C	631	1	660	2	4.49	<20
0907418-004C	717	1	726	2	1.25	<20

BATCH 44479 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907418-001C	07/15/09 1:10 PM	07/21/09	07/22/09 1:15 PM	0907418-002C	07/15/09 12:25 PM	07/21/09	07/22/09 1:25 PM
0907418-003C	07/15/09 11:10 AM	07/21/09	07/22/09 1:35 PM	0907418-004C	07/15/09 10:10 AM	07/21/09	07/22/09 1:45 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Reported: 07/23/09
	Client P.O.:	Date Completed: 07/23/09

WorkOrder: 0907472

July 23, 2009

Dear Alvaro:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#73943/PWGWM; FAL,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

KLEINFELDER
Bright People. Right Solutions.

0907472

PROJECT NO.	PROJECT NAME
73943/PW6WM	FAL

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

SAMPLERS: (Signature/Number)

RECEIVING LAB: McCampbell

INSTRUCTIONS/REMARKS: Silica Gel for TPHd-mo Analysis

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: TPHd-mo 8015	TPHg-BTEX 8260	Oxy + EDB + EDC 8260	SO_4, NO_3 300.1	NH_3 350.1	Conductivity SM 2510B	TDS 2540C	Methane RFK/174	Ferrous Iron SM3500	
1	7/17/09		MW1	~~SW~~ W	3	1L	X			X	X	X	X			
2				~~SW~~ W	8	VOA		X	X					X	X	
3			MW2	~~SW~~ W	3	1L	X			X	X	X	X			
4				~~SW~~ W	8	VOA		X	X					X	X	
5																
6			Trip Blank		1			X	X							
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

ICE / t° 5.6C
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ____ CONTAINERS ✓
DECHLORINATED IN LAB ____ PRESERVED IN LAB ✓ (Ammonia)
PRESERVATION: VOAS ✓ | O & G | METALS | OTHER ✓

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	7/17 1300	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	7/17/09 3:25	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks:

Send Results To:
adominguez@kleinfelder.com
pwaltes@kleinfelder.com
Attn:

ENV-02 REV 05/08)

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

CHAIN OF CUSTODY

COC № 10943

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0907472 **ClientCode: KFO**

☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Alvaro Dominguez
Kleinfelder, Inc.
1970 Broadway Ste. 710
Oakland, CA 94612
(510) 628-9000 FAX (510) 628-9009

Email: adominguez@kleinfelder.com
cc:
PO:
ProjectNo: #73943/PWGWM; FAL

Bill to:
Emily Steinkamp
Kleinfelder Inc.
1970 Broadway #710
Oakland, CA 94612
SEND HARDCOPY

Requested TAT: 5 days

Date Received: **07/17/2009**
Date Printed: **07/17/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0907472-001	MW1	Water	7/17/2009	☐	C	D	F	A	E	C	C	B				
0907472-002	MW2	Water	7/17/2009	☐	C	D	F	A	E	C	C	B				
0907472-003	Trip Blank	Water	7/17/2009	☐				A								

Test Legend:

1	300_1_W	2	AMMONIA_W	3	FE2_W	4	GMBTEXOXYPB_W	5	RSK174_W
6	SC_W	7	TDS_W	8	TPH(DMO)WSG_W	9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **Kleinfelder, Inc.**

Date and Time Received: **7/17/09 5:47:07 PM**

Project Name: **#73943/PWGWM; FAL**

Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0907472** Matrix Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09-07/18/09
	Client P.O.:	Date Analyzed: 07/17/09-07/18/09

Inorganic Anions by IC*

Extraction Method: E300.1 Analytical Method: E300.1 Work Order: 0907472

Lab ID	0907472-001C	0907472-002C			Reporting Limit for DF =1	
Client ID	MW1	MW2				
Matrix	W	W				
DF	1	1			S	W
Compound	**Concentration**				ug/kg	mg/L
Nitrate as N	13	6.0			NA	0.1
Nitrate as $NO3^{-}$	59	26			NA	0.45
ortho-Phosphate as P	0.41	ND			NA	0.1
Sulfate	69	76			NA	0.1
Surrogate Recoveries (%)						
%SS:	93	92				
Comments						

* water samples 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.

* [Nitrate as $NO3^{-}$] = 4.4286 x [Nitrate as N]

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

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/20/09
	Client P.O.:	Date Analyzed 07/20/09

Ammonia as N*

Analytical Method: E350.1 Work Order: 0907472

Lab ID	Client ID	Matrix	Total Ammonia as N	DF	Comments
0907472-001D	MW1	W	ND	1	
0907472-002D	MW2	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 mg/L	
	S	NA	

*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.

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09
	Client P.O.:	Date Analyzed 07/17/09

Ferrous Iron*

Analytical Method: SM3500-Fe B4c Work Order: 0907472

Lab ID	Client ID	Matrix	Ferrous Iron	DF	Comments
0907472-001F	MW1	W	ND	1	
0907472-002F	MW2	W	87	1	

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

*water samples are reported in ug/L; soil samples are reported in mg/kg.

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/18/09
	Client P.O.:	Date Analyzed: 07/18/09

TPH(g)MBTEX + Oxygenates + EDB and 1,2-DCA*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0907472

Lab ID	0907472-001A	0907472-002A	0907472-003A		Reporting Limit for DF =1	
Client ID	MW1	MW2	Trip Blank			
Matrix	W	W	W			
DF	1	1	1		S	W
Compound	**Concentration**				ug/kg	µg/L
TPH(g)	ND	ND	ND		NA	50
tert-Amyl methyl ether (TAME)	ND	ND	ND		NA	0.5
Benzene	ND	ND	ND		NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND		NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND		NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND		NA	0.5
Diisopropyl ether (DIPE)	4.2	24	ND		NA	0.5
Ethylbenzene	ND	ND	ND		NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND		NA	0.5
Methyl-t-butyl ether (MTBE)	ND	2.6	ND		NA	0.5
Toluene	ND	ND	ND		NA	0.5
Xylenes	ND	ND	ND		NA	0.5
Surrogate Recoveries (%)						
%SS1:	86	87	87			
%SS2:	105	105	106			
%SS3:	121	122	123			
Comments						

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

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

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

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Kleinfelder, Inc.	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
1970 Broadway Ste. 710	Client Contact: Alvaro Dominguez	Date Extracted: 07/20/09
Oakland, CA 94612	Client P.O.:	Date Analyzed 07/20/09

Light Gas Hydrocarbons*

Extraction method RSK 174/175 Analytical methods RSK174/175 Work Order: 0907472

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001E	MW1	W	ND	1	N/A	
002E	MW2	W	3.5	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/21/09
	Client P.O.:	Date Analyzed 07/21/09

Specific Conductivity*

Analytical Method: SM2510B Work Order: 0907472

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
0907472-001C	MW1	W	597 @ 25.0°C	1	
0907472-002C	MW2	W	955 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

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Kleinfelder, Inc. 1970 Broadway Ste. 710 Oakland, CA 94612	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
	Client Contact: Alvaro Dominguez	Date Extracted: 07/21/09
	Client P.O.:	Date Analyzed 07/22/09

Total Dissolved Solids*

Analytical Method: SM2540C Work Order: 0907472

Lab ID	Client ID	Matrix	Total Dissolved Solids	DF	Comments
0907472-001C	MW1	W	346	1	
0907472-002C	MW2	W	544	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

* water samples reported in mg/L.

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Kleinfelder, Inc.	Client Project ID: #73943/PWGWM; FAL	Date Sampled: 07/17/09
		Date Received: 07/17/09
1970 Broadway Ste. 710	Client Contact: Alvaro Dominguez	Date Extracted: 07/17/09
Oakland, CA 94612	Client P.O.:	Date Analyzed: 07/18/09

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 0907472

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0907472-001B	MW1	W	ND	ND	1	108	
0907472-002B	MW2	W	ND	ND	1	106	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	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; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

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QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44576 WorkOrder 0907472

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

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Nitrate as N	N/A	1	N/A	N/A	N/A	99.7	100	0.313	N/A	N/A	85 - 115	15
Nitrate as $NO3^{-}$	N/A	4.4	N/A	N/A	N/A	99.7	100	0.313	N/A	N/A	85 - 115	15
ortho-Phosphate as P	N/A	1	N/A	N/A	N/A	90.1	98.1	8.55	N/A	N/A	85 - 115	15
Sulfate	N/A	1	N/A	N/A	N/A	110	109	0.960	N/A	N/A	85 - 115	15
%SS:	N/A	0.10	N/A	N/A	N/A	97	97	0	N/A	N/A	90 - 115	10

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

BATCH 44576 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001C	07/17/09	07/17/09	07/17/09 8:17 PM	0907472-001C	07/17/09	07/18/09	07/18/09 8:29 AM
0907472-002C	07/17/09	07/17/09	07/17/09 7:37 PM	0907472-002C	07/17/09	07/18/09	07/18/09 9:51 AM
0907472-002C	07/17/09	07/18/09	07/18/09 10:32 AM				

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

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

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

N/A = not applicable to this method.

surrogate diluted out of range or surrogate coelutes with another peak.

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.

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QA/QC Officer

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QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44608 WorkOrder 0907472

EPA Method RSK174/175 **Extraction RSK 174/175** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	101	104	2.53	N/A	N/A	80 - 120	20

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

BATCH 44608 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001E	07/17/09	07/20/09	07/20/09 2:42 PM	0907472-002E	07/17/09	07/20/09	07/20/09 2:56 PM

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

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

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

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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44606 WorkOrder 0907472

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	101	101	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	109	109	0	N/A	N/A	70 - 130	30

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

BATCH 44606 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001B	07/17/09	07/17/09	07/18/09 5:47 AM	0907472-002B	07/17/09	07/17/09	07/18/09 6:57 AM

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

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

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

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR E350.1

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44607 WorkOrder 0907472

EPA Method E350.1 **Extraction E350.1** **Spiked Sample ID: 0907418-001D**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Total Ammonia as N	ND	4	95.8	94.7	1.24	98.1	92.7	5.70	80 - 120	20	90 - 110	20

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

BATCH 44607 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001D	07/17/09	07/20/09	07/20/09 11:55 AM	0907472-002D	07/17/09	07/20/09	07/20/09 11:59 AM

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

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

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

N/A = not 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.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44624 WorkOrder 0907472

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0907472-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	94.2	90.3	4.24	94	96.9	2.94	70 - 130	30	70 - 130	30
Benzene	ND	10	105	102	3.01	115	117	1.63	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	102	93.9	8.07	88.5	93.3	5.26	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	96.1	92.1	4.26	102	101	0.983	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	99.5	97.3	2.26	113	115	1.92	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	104	99.6	4.29	105	106	1.33	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	108	106	2.65	96.1	97.4	1.34	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	4.2	10	109	103	3.48	105	108	3.11	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	105	100	4.23	111	115	4.26	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	109	106	3.56	92.7	95.8	3.27	70 - 130	30	70 - 130	30
Toluene	ND	10	98.7	96.2	2.55	125	126	1.33	70 - 130	30	70 - 130	30
Trichloroethene	0.72	10	110	106	3.67	109	110	1.72	70 - 130	30	70 - 130	30
%SS1:	86	25	73	72	1.97	88	88	0	70 - 130	30	70 - 130	30
%SS2:	105	25	93	93	0	109	109	0	70 - 130	30	70 - 130	30
%SS3:	121	2.5	109	107	2.38	116	114	1.44	70 - 130	30	70 - 130	30

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

BATCH 44624 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001A	07/17/09	07/18/09	07/18/09 8:34 PM	0907472-002A	07/17/09	07/18/09	07/18/09 9:17 PM
0907472-003A	07/17/09	07/18/09	07/18/09 10:01 PM				

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

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

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

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

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

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

McCampbell Analytical, Inc.
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QC SUMMARY REPORT FOR SM3500 Fe B4c

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 44609 WorkOrder: 0907472

EPA Method SM3500-Fe B4c **Extraction SM3500-Fe B4c** **Spiked Sample ID: 0907418-001F**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Ferrous Iron	ND	200	106	111	4.65	101	96	5.13	70 - 130	20	80 - 120	20

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

BATCH 44609 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001F	07/17/09	07/17/09	07/17/09 6:55 PM	0907472-002F	07/17/09	07/17/09	07/17/09 7:01 PM

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

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

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

N/A = not 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.

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QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: Specific Conductivity **Matrix: W** **WorkOrder: 0907472**

Method Name: SM2510B Units µmhos/cm @ 25°C BatchID: 44506

Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
0907472-001C	597 @ 25.0°C	1	600 @ 25.0°C	1	0.535	<2
0907472-002C	955 @ 25.0°C	1	958 @ 25.0°C	1	0.355	<2

BATCH 44506 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001C	07/17/09	07/21/09	07/21/09 3:20 PM	0907472-002C	07/17/09	07/21/09	07/21/09 3:30 PM

Test Method: Total Dissolved Solids **Matrix: W** **WorkOrder: 0907472**

Method Name: SM2540C Units mg/L BatchID: 44479

Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
0907472-001C	346	1	370	2	6.7	<20
0907472-002C	544	1	598	2	9.46	<20

BATCH 44479 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907472-001C	07/17/09	07/21/09	07/22/09 2:15 PM	0907472-002C	07/17/09	07/21/09	07/22/09 2:25 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.