



September 9, 2004

Mr. Terry Davis
TD Rowe
3 Riverway, Suite 1140
Houston, Texas 77056

Alameda County
DEC 00 2004

RE: Additional Subsurface Soil Boring Investigation
8134 Capwell Drive, Oakland, California
ACC Project Number 6520-001.01

Dear Mr. Davis:

Enclosed please find two copies of the Additional Subsurface Investigation Report conducted at 8134 Capwell Drive, Oakland, California (Site). The work described here is designed to further characterize suspect petroleum hydrocarbon impacts in soil and groundwater in the vicinity of the two former underground storage tanks (USTs) removed from the Site in April 1999. A copy of this report will be forwarded to the Oakland Fire Service Agency (OFSA) for review.

Additional subsurface investigation indicates that gasoline impacts are primarily confined to groundwater immediately downgradient of the two former underground storage tanks. The plume of impacted groundwater is relatively small, defined, and appears to be degrading naturally. ACC is recommending full regulatory closure with no further action.

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109.

Sincerely,

David R. DeMent, RG, REA II
Environmental Division Manager

/ejg:drd

Enclosures

cc: Mr. Leroy Griffin, OFSA

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ENVIRONMENTAL DIVISION

ADDITIONAL SUBSURFACE INVESTIGATION REPORT

**8134 Capwell Drive
Oakland, California**

ACC Project Number: 6520-001.01

Prepared for:

Mr. Terry Davis
TD Rowe
3 Riverway, Suite 1140
Houston, Texas 77056

September 9, 2004

Prepared By: Edward Giacometti
Edward Giacometti
Staff Geologist

Reviewed By: David DeMent
David DeMent, RG, REA II
Environmental Division Manager

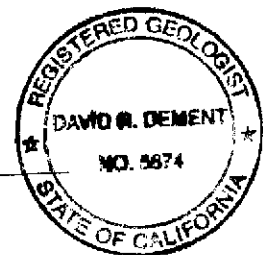


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ADDITIONAL SUBSURFACE INVESTIGATION REPORT
8134 Capwell Drive
Oakland, California

1.0 INTRODUCTION

This Additional Subsurface Investigation Report has been prepared by ACC Environmental Consultants Inc., (ACC) at the request of Mr. Terry Davis of TD Rowe, Inc. (Client). This report describes additional subsurface investigation work performed at the subject property located at 8134 Capwell Drive, Oakland, California (Site). The purpose of additional subsurface investigation was to: 1) further determine the degree and extent of suspect soil and groundwater impact; 2) further characterize the first-encountered water-bearing zone and estimate the potential for horizontal migration; and 3) obtain the data necessary to warrant regulatory case closure.

2.0 BACKGROUND

The subject property is located along Capwell Drive (Figure 1). In 1999, the facility was operated by TD Rowe which utilized two fiberglass 3,000-gallon gasoline USTs. In April 1999, the two USTs were removed from the Site under the direction of ACC. Under permit from the OFSA, the two USTs were removed by DCM Construction and Services (DCM) along with approximately 150 tons of gasoline-impacted soil and 800 gallons of pit water. Following initial removal of the two USTs, ACC collected one confirmation sidewall soil sample from each side of the UST excavation. Minor gasoline concentrations were reported along the south, east, and west sidewalls but elevated gasoline concentrations were reported along the north side. Sidewall soil samples are illustrated on Figure 2. ACC then directed DCM to overexcavate the north sidewall approximately 4 feet and collected two additional confirmation sidewall soil samples. Both sidewall soil samples collected after overexcavation did not contain any reportable gasoline concentrations indicating that overexcavation had successfully removed residual gasoline concentrations in soil.

At the direction of the OFSA, water initially found in the pit displaying characteristic gasoline odor was sampled for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE). Elevated concentrations of TPHg and BTEX were reported in the pit water sample. Following UST removal and prior to backfilling the excavation, the pit water was pumped out to remove traces of gasoline floating product observed on the water. Following some recharge of groundwater, a second pit water sample was collected and analyzed for TPHg, BTEX, and MTBE. Gasoline constituent concentrations decreased significantly and the excavation was backfilled. During UST removal activities, groundwater was generally encountered at approximately 5 feet below ground surface (bgs) but displayed significant fluctuations in elevation due to apparent tidal influences. Following receipt of all analytical results and documentation of proper disposal of soil and pit water, ACC submitted a report of findings dated August 6, 1999 to the OFSA.

In August 2004, ACC submitted a work plan to the OFSA to advance exploratory soil borings to delineate the extent of contamination at the Site.

3.0 FIELD PROCEDURES

On August 24, 2004, ACC advanced four exploratory soil borings designated TDR-B1 through TDR-B4 at select locations adjacent to and in the estimated downgradient direction of the two former USTs (Figure 2). Soil boring locations were marked with white paint and Underground Service Alert was notified at least 48 hours prior to commencing work. Prior to field activities, a soil borings permit was obtained from Alameda County Public Works Agency (ACPWA), which is included in Appendix 2.

Soil borings TDR-B1 through TDR-B4 were continuously cored and advanced using a four-foot long, hydraulically driven, truck-mounted Geoprobe® sampling tool equipped with 2-inch inside-diameter clear acetate liners. The sampling probe and rods were pre-cleaned prior to use and between sample drives by washing them with a trisodium phosphate and potable water solution, a potable water rinse, and distilled water rinse. Upon removal from the sampler, each recovered soil core was visually inspected and logged. The sample intervals were primarily logged to determine relative permeability and evaluate mitigation potential at that soil boring location.

Selected soil and grab groundwater samples were collected and analyzed from soil borings TDR-B1 through TDR-B4. The soil samples were collected with clear-acetate liners, capped with Teflon® tape and tight-fitting plastic end caps. Grab groundwater samples were collected in 40-milliliter VOA vials without headspace. Following collection, the samples were labeled, transferred to a pre-chilled insulated container, and then transported to STL San Francisco, (STL-SF), a state-certified laboratory for analysis.

Drilling was performed under the direction of ACC's Staff Geologist, and the subsurface materials in the borings were identified using visual and manual methods. Soils in boring TDR-B1 through TDR-B4 were logged and classified during drilling operations according to the Unified Soil Classification System (USCS). The lithologic logs are included as Appendix 2.

Following drilling and sample collection, each boring location was abandoned with neat cement to just below the surface (2 to 3 inches). The surface of each boring location was completed with concrete to grade and colored to match the surrounding material if needed.

4.0 FINDINGS

4.1 Subsurface Conditions

The area of investigation was generally covered with asphalt pavement with varying amounts of base fill material. Below the pavement and base material, subsurface soils across the entire area of investigation consisted of a dark brown silt and silty clay to approximately 6 feet bgs. Silts and silty clays were generally medium stiff, slightly to moderately plastic, uniform, and exhibited low to medium estimated permeability. From approximately 6 to 8 feet bgs, soils consisted of silty sand (SM) with gravels increasing with depth. Silty sands were brown, moderately sorted, fine to medium grained, and contained up to 10 to 20 percent disseminated

finer. An olive green discoloration and slight gasoline odor was observed in soil borings TDR-B1 through TDR-B3 from approximately 5.5 to 8.0 feet bgs.

ACC logged soils from the four soil borings and additional information regarding subsurface conditions as summarized in the soil boring logs in Appendix 2. Groundwater was encountered at approximately 7.0 feet bgs in soil borings TDR-B1 through TDR-B4. Groundwater was turbid and appeared to be of generally poor quality.

4.2 Analytical Results

Initial soil boring locations were chosen based on their location relative to the former UST excavation. Additional soil boring locations were chosen based on previous soil investigation findings and an estimated westerly groundwater flow direction. Soil in the four soil borings were screened for field indications of petroleum hydrocarbon impact and representative soil samples collected in soil borings TDR-B1 and TDR-B2 were prepared for analysis. All soil and grab groundwater samples were analyzed for constituents of concern as TPHg, BTEX, and MTBE by EPA Method 8260B.

Soil and grab groundwater sample analytical results are summarized in Tables 3 and 4 located in Appendix 3, along with copies of laboratory reports and chain of custody records.

5.0 DISCUSSION

The purpose of additional subsurface investigation was to: 1) further determine the degree and extent of suspect soil and groundwater impact; 2) further characterize the first-encountered water-bearing zone and estimate the potential for horizontal migration; and 3) obtain the data necessary to warrant regulatory case closure. ACC believes these goals were achieved with a high degree of confidence.

5.1 Soil

Soil impacts outside the immediate vicinity of the former USTs appear to be primarily localized to the capillary fringe above first-encountered groundwater. Fine-grained soils existing at the Site minimize potential horizontal and vertical migration of residual TPHg in the subsurface and any significant migration generally occurs by dissolved-phase petroleum hydrocarbons in groundwater.

Evidence of historic TPHg impacts to soil as soil discoloration and slight odor was noted in soil borings TDR-B1 through TDR-B3 from 6.5 to 7.5 feet bgs in the capillary fringe. This impact is likely due to historic releases from the former USTs. Direct observation, soil screening results, and analytical results of the representative soil sample collected from downgradient boring TDR-B4 in the capillary fringe zone indicate that a significant source of impact to groundwater is no longer present and minor residual petroleum hydrocarbons in soil are naturally degrading due to natural attenuation processes active in shallow soil at the Site.

5.2 Groundwater

Field indications of TPHg were noted in soil borings TDR-B1 and TDR-B3. Soil boring TDR-B4 was subsequently advanced in a select or revised location based on the indications of impact noted in soil boring TDR-B3. Grab groundwater sample analyses indicate that the extent of petroleum hydrocarbon-impacted groundwater corresponded with field indications of impact and that the impact in groundwater is defined to a large degree. BTEX levels were low in water samples collected in soil boring TDR-B3 and nondetect in grab groundwater samples TDR-B1 and TDR-B4. As is typically noted in this type of geologic scenario, residual BTEX is being preferentially degraded by natural attenuation processes. MTBE levels also exhibit significant attenuation with distance from the former and existing USTs.

Based on surface topography and the recorded observations of this investigation, ACC concludes that: 1) migration potential is estimated to be low; 2) groundwater flow direction is primarily to the west towards San Leandro Creek; and 3) TPHg and BTEX impacts in groundwater appear to attenuate rapidly with distance from the former UST excavation.

6.0 CONCLUSIONS

Based on previously obtained onsite groundwater investigation results, and the findings and observations made during this additional site characterization, ACC concludes the following:

- Reported petroleum hydrocarbon constituents in the grab groundwater samples indicate that significant natural attenuation is occurring as evidenced by the significant decreases in TPHg and BTEX reported between ACC soil borings TDR-B1 and TDR-B4, the relatively low BTEX concentrations reported in soil boring TDR-B3, and the attenuation of MTBE with distance from the suspect source area;
- Low to nondetectable petroleum hydrocarbons in grab water samples collected from each soil boring, indicate that offsite migration of dissolved-phase petroleum hydrocarbons is limited in the horizontal extent and is relatively well defined;
- No significant source of impact to soil or groundwater is present;
- Reported BTEX concentrations indicate that BTEX is being preferentially degraded and residual concentrations are decreasing through naturally occurring processes; and
- Impacted groundwater appears to be confined to the Site and offsite migration and potential human exposure is minimal to nonexistent.

7.0 RECOMMENDATIONS

Based on the conclusions of this additional investigation, ACC recommends that the Site be evaluated for full regulatory closure according to criteria summarized in the January 5, 1996 Memorandum from the Regional Water Quality Control Board to Bay Area Agencies overseeing UST cleanups and below in Section 8.0.

8.0 REQUEST FOR REGULATORY CLOSURE

On behalf of the property owner, ACC requests that the Site be evaluated for regulatory site closure as a low-risk groundwater case based on the following:

- 1) No significant residual source exists in soil and groundwater and the plume of impacted groundwater is relatively small and defined with a large degree of confidence;
- 2) Reported concentrations of TPHg and BTEX in groundwater appear to decreasing as evidenced by attenuation of constituents and low ratios of reported BTEX to TPHg in groundwater;
- 3) Natural attenuation processes have decreased residual TPHg and BTEX concentrations to generally undetectable levels in downgradient soil boring TDR-B4 and indicate that the plume is stable or decreasing in size with time;
- 4) Significantly lower concentrations of MTBE were reported in downgradient soil boring TDR-B4 indicating attenuation occurs before any significant migration can occur and groundwater impacts are localized immediately downgradient of the former and existing USTs;
- 5) The first encountered water bearing zone is not a current, or likely future source of potable water;
- 6) No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are reported to be impacted by this release, nor likely to be impacted in the future;
- 7) The Site presents no significant risk to human health or the environment due to the low to nondetectable concentrations of constituents of concern; and
- 8) The Site is a commercial/industrial operation and will likely remain so in the foreseeable future.

Subsurface investigation data strongly supports full regulatory closure. If regulatory closure cannot be approved at this time, ACC respectfully requests the technical rationale for denying regulatory closure so that appeal processes can be initiated with the State Water Resources Control Board.

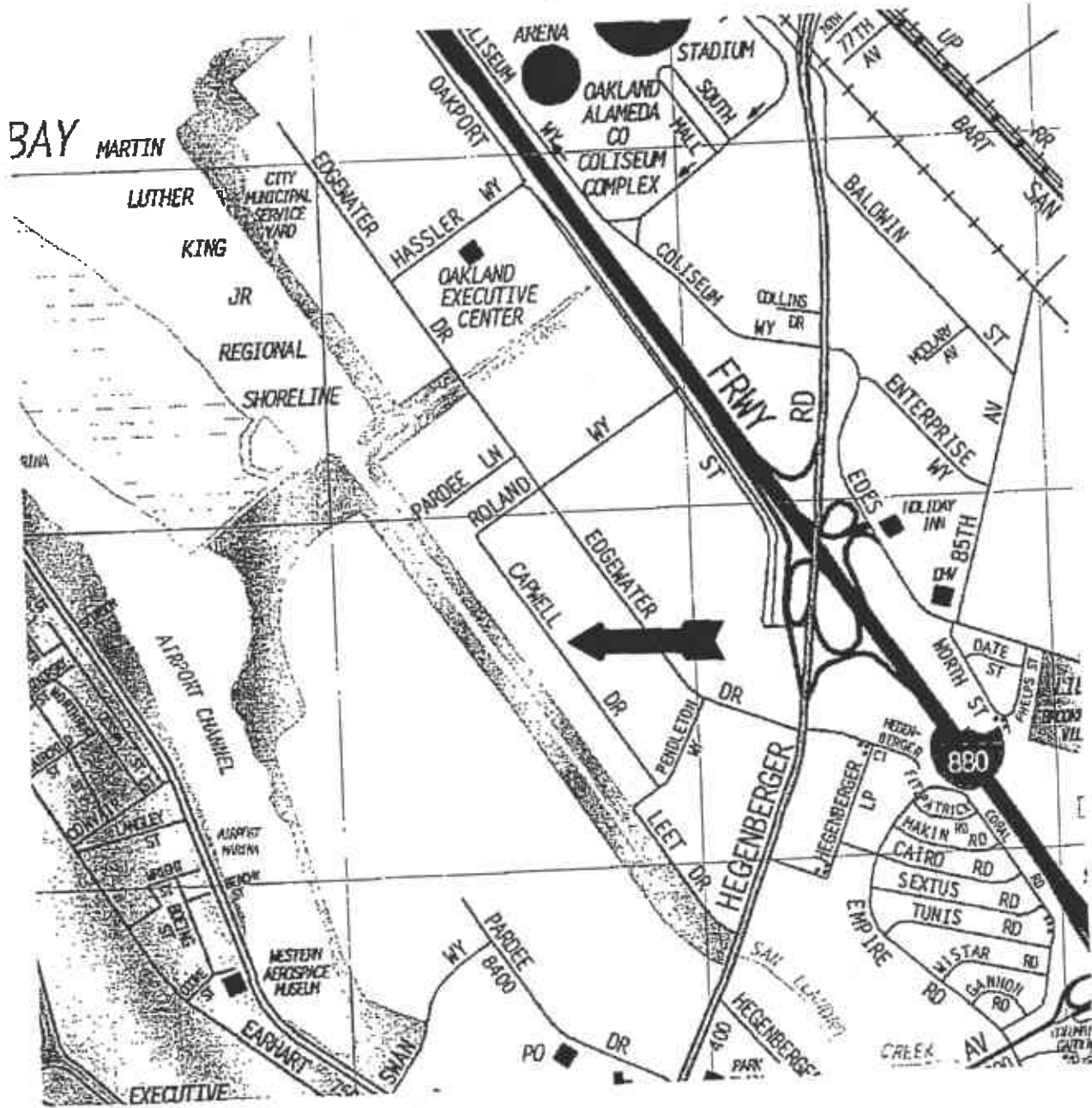
9.0 LIMITATIONS

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.

FIGURES



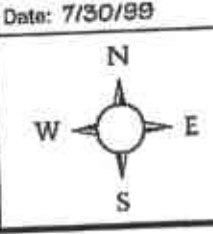
SOURCE: Thomas Guide CD ROM, 1997

Title: Location Map
8134 Capwell Drive
Oakland, California

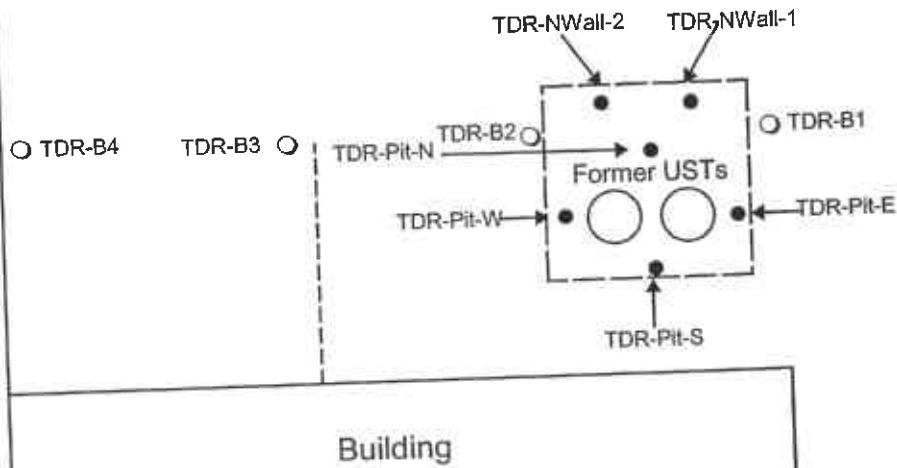
Figure Number: 1 Scale: 1" = 1/4 Mile
Project Number: 6546-002.0 Drawn By: GPS

A·C·C
ENVIRONMENTAL
CONSULTANTS

7977 Capwell Drive, Suite 100
Oakland, California 94621
(510) 638-8400 Fax (510) 638-8404



Capwell Drive



LEGEND

TDR-B3 - Additional Soil Boring Locations



TDR-Pit-N - Initial Soil Sampling Locations



-Chainlink Fence

-Area of Former Excavation

Title: **Site Plan**
8134 Capwell Drive
Oakland, California

Figure Number: 2

Scale: 1"= 20'

Project No:6520-001.01

Drawn By: E.J.G

Date: 9/9/04



APPENDICES



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST. HAYWARD CA. 94544-1395
 PHONE (510) 670-6633 James Yoo
 FAX (510) 782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
 DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT
8134 CARWELL DRIVE
OAKLAND, CA 94621

CLIENT
 Name TD ACWE
 Address 3 RIVERWAY Phone 785-963-3912
 City HOUSTON, TX Zip 77056

APPLICANT
 Name HCC ENVIRONMENTAL CONSULTANTS
 Address 7007 CATWELL WADSWORTH Phone 510-638-2404
 City OAKLAND CA Zip 94671

TYPE OF PROJECT
 Well Construction Geotechnical Investigation 3
 Cathodic Protection General
 Water Supply Contamination to
 Monitoring Well Destruction 10 ft
3 SHEL BAYS
10 ft bays.

PROPOSED WATER SUPPLY WELL USE
 New Domestic Replacement Domestic
 Municipal Irrigation
 Industrial Other

DRILLING METHOD:
 Mud Rotary Air Rotary Auger
 Cable Other

DRILLER'S NAME ENVIRONMENTAL CONTROL ASSOCIATES

DRILLER'S LICENSE NO. C57 A 695970

WELL PROJECTS
 Drill Hole Diameter 4 in. Maximum Depth 10 ft.
 Casing Diameter 4 in. Owner's Well Number _____
 Surface Seal Depth _____ ft.

GEOTECHNICAL PROJECTS
 Number of Borings 2 Maximum Depth 10 ft.
 Hole Diameter 4 in.

ESTIMATED STARTING DATE 8/24/04
 ESTIMATED COMPLETION DATE 9/24/04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE James Yoo DATE 8/19/04

PLEASE PRINT NAME JAMES YOO Key 3-04-02

FOR OFFICE USE
W04-0847

PERMIT NUMBER _____
 WELL NUMBER _____
 APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL
 1. A permit application should be submitted so as it arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 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.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
- D. PROTECTIVE/CATHODIC PROTECTION
 Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind, (owner completed casing)
- E. CATHODIC
 Fill hole anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION
 Send a map of work site. A separate permit is required for well deeper than 45 feet.

EXCEPT CONDITIONS BA-1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [Signature] DATE 8-23-04



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST. HAYWARD, CA. 94544-1395
 PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

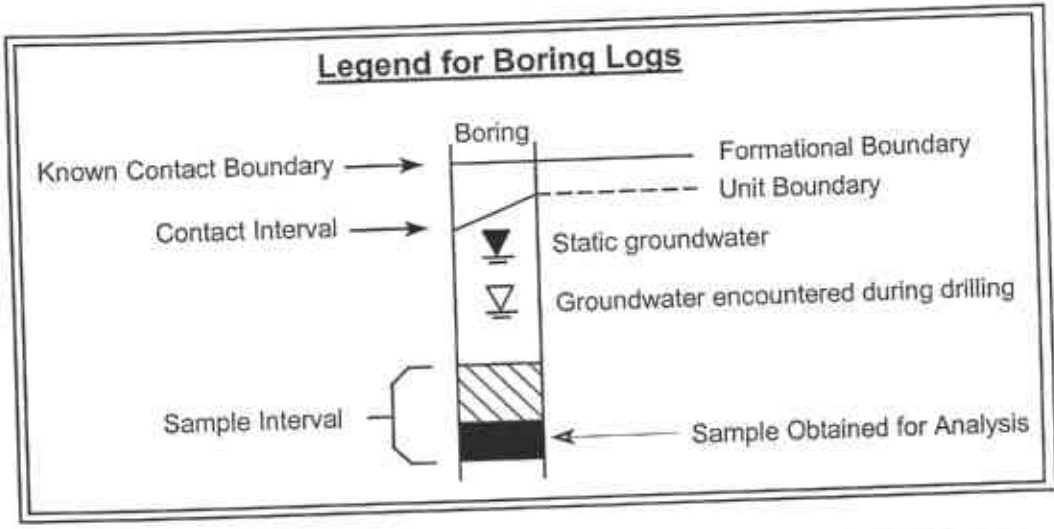
PERMIT NO. W04-0847

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

1. Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
4. Permit is valid only for the purpose specified herein August 24 to August 24, 2004. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		TYPICAL NAMES			
COARSE GRAINED SOILS	GRAVELS more than half coarse fraction is larger than Number 4 sieve	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	well graded gravels, gravel-sand mixtures	
		CLEAN GRAVELS WITH LITTLE OR NO FINES	GP	poorly graded gravels, gravel-sand mixtures	
		GRAVELS WITH OVER 12% FINES	GM	silty gravels, poorly graded gravel-sand silt mixtures	
		GRAVELS WITH OVER 12% FINES	GC	clayey gravels, poorly graded gravel-sand clay mixtures	
	SANDS more than half coarse fraction is smaller than Number 4 sieve	CLEAN SANDS WITH LITTLE OR NO FINES	SW	well graded sands, gravelly sands	
		CLEAN SANDS WITH LITTLE OR NO FINES	SP	poorly graded sands, gravelly sands	
		SANDS WITH OVER 12% FINES	SM	silty sands, poorly graded sand-silt mixtures	
		SANDS WITH OVER 12% FINES	SC	clayey sands, poorly graded sand-clay mixtures	
		SILTS AND CLAYS liquid limit less than 50	SILTS AND CLAYS liquid limit less than 50	ML	inorg. silts and very fine sands, rock flour silty or clayey sands, or clayey silts w/ sl. plasticity
			SILTS AND CLAYS liquid limit less than 50	CL	inorg. clays of low-med plasticity, gravelly clays, sandy clays, silty clays, lean clays
SILTS AND CLAYS liquid limit less than 50	OL		organic clays and organic silty clays of low plasticity		
SILTS AND CLAYS liquid limit greater than 50	SILTS AND CLAYS liquid limit greater than 50		MH	inorganic silty, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
	SILTS AND CLAYS liquid limit greater than 50		CH	inorganic clays of high plasticity, fat clays	
	SILTS AND CLAYS liquid limit greater than 50	OH	organic clays of medium to high plasticity organic silts		
HIGHLY ORGANIC SOILS		PT	peat and other highly organic soils		



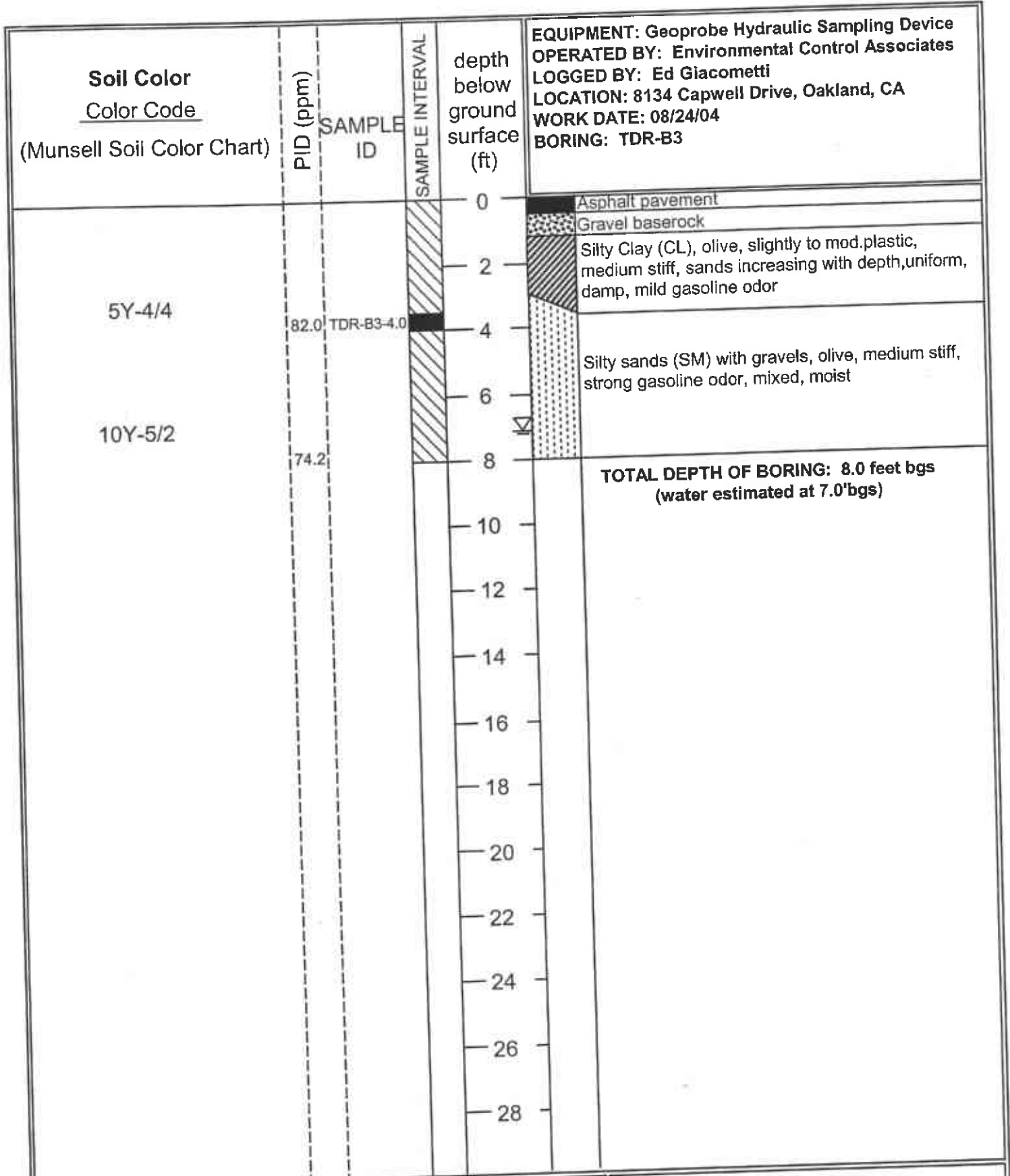
ACC Environmental Consultants, Inc.
 7977 Capwell Drive, Suite 100
 Oakland, California 94621
 (510) 638-8400 Fax: (510) 638-8404

SUBJECT SITE
8134 Capwell Drive
Oakland, California

 Project Number: **6520-001.01**

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: Ed Giacometti LOCATION: 8134 Capwell Drive, Oakland, CA WORK DATE: 08/24/04 BORING: TDR-B1
				0	Asphalt pavement
					Gravel baserock
5Y-4/4	1.4	TDR-B1-4.0		2	Silty Clay (CL), brown-olive brown, slightly to mod.plastic, medium stiff, sands increasing with depth, uniform, damp, gasoline odor
				4	
				6	Silty sands (SM) with gravels, gray, medium stiff, no odor, mixed, moist
10Y-5/2	21.1			8	
				10	
				12	
				14	
				16	
				18	
				20	
				22	
				24	
				26	
				28	
					TOTAL DEPTH OF BORING: 8.0 feet bgs (water estimated at 7.0'bgs)
ACC Environmental Consultants, Inc. 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404			Project Number 6520-001.01		Title: LOG OF BORING TDR-B1 8134 Capwell Drive Oakland, California
			Date: 09/01/04		

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: Ed Giacometti LOCATION: 8134 Capwell Drive, Oakland, CA WORK DATE: 08/24/04 BORING: TDR-B2
				0	Asphalt pavement
					Gravel baserock
5Y-4/4	1.4	TDR-B2-4.0		2	Silty Clay (CL), olive, slightly to mod.plastic, medium stiff, sands increasing with depth, uniform, damp, mild gasoline odor
				4	
				6	Silty sands (SM) with gravels, olive, medium stiff, strong gasoline odor, mixed, moist
10Y-5/2	21.1			8	
				10	
				12	
				14	
				16	
				18	
				20	
				22	
				24	
				26	
				28	
					TOTAL DEPTH OF BORING: 8.0 feet bgs (water estimated at 7.0' bgs)
ACC Environmental Consultants, Inc. 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404			Project Number 6520-001.01		Title: LOG OF BORING TDR-B2 8134 Capwell Drive Oakland, California
			Date: 09/01/04		



ACC Environmental Consultants, Inc. 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404	Project Number 6520-001.01	Title: LOG OF BORING TDR-B3 8134 Capwell Drive Oakland, California
Date: 09/01/04		

Soil Color Color Code (Munsell Soil Color Chart)	PID (ppm)	SAMPLE ID	SAMPLE INTERVAL	depth below ground surface (ft)	EQUIPMENT: Geoprobe Hydraulic Sampling Device OPERATED BY: Environmental Control Associates LOGGED BY: Ed Giacometti LOCATION: 8134 Capwell Drive, Oakland, CA WORK DATE: 08/24/04 BORING: TDR-B4
				0	Asphalt pavement
					Gravel baserock
5Y-4/4				2	Silty Clay (CL), olive, slightly to mod.plastic, medium stiff, sands increasing with depth, uniform, damp, mild gasoline odor
	1.8	TDR-B4-4.0		4	
				6	Silty sands (SM) with gravels, olive, medium stiff, strong gasoline odor, mixed, moist
10Y-5/2				8	
	22.0				TOTAL DEPTH OF BORING: 8.0 feet bgs (water estimated at 7.0'bgs)
				10	
				12	
				14	
				16	
				18	
				20	
				22	
				24	
				26	
				28	
ACC Environmental Consultants, Inc. 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510)638-8400 FAX: (510)638-8404				Project Number 6520-001.01	Title: LOG OF BORING TDR-B4 8134 Capwell Drive Oakland, California
				Date: 09/01/04	

Site Address: 8134 Capwell Drive, Oakland, CA
Sampling Date: 08/24/04

Project Number: 6520-001.01
Subsurface Soil Boring Report

TABLE 1 - SOIL SAMPLE ANALYTICAL RESULTS

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylene	MTBE
TDR-B1-4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
TDR-B2-4.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.0098

Notes:

Soil sample results are in milligrams per kilogram (mg/kg), approximately equal to parts per million (ppm)

< = analytical results under laboratory reporting limit

TABLE 2 - GRAB GROUNDWATER ANALYTICAL RESULTS

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylene	MTBE
TDR-B1-W	<50	<0.50	<0.50	<0.50	<1.0	1.5
TDR-B3-W	4,900	3.0	<2.5	9.8	<5.0	72
TDR-B4-W	<50	<0.50	<0.50	<0.50	<1.0	<0.50

Notes:

Water sample results are in micrograms per Liter (ug/L), approximately equal to parts per billion (ppb)

< = analytical results under laboratory reporting limit

ACC Environmental Consultants

August 31, 2004

7977 Capwell Drive, Suite 100
Oakland, CA 94621

Attn.: Ed Giacometti

Project#: 6520-001.01

Project: 8134 Capwell Drive

Dear Mr. Giacometti,

Attached is our report for your samples received on 08/24/2004 17:15

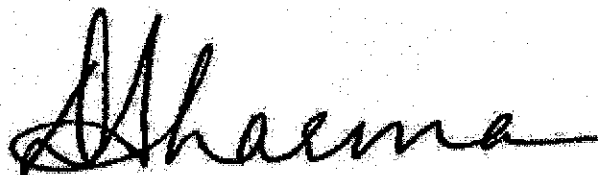
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/08/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566
Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

Fuel Oxygenates by 8260B

ACC Environmental Consultants
Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100
Oakland, CA 94621
Phone: (510) 638-8400 Fax: (510) 638-8404
Project: 6520-001.01
8134 Capwell Drive

Received: 08/24/2004 17:15

Prep(s):	5030E	Test(s):	8260B
Sample ID:	TDR-B1-4-0	Lab ID:	2004-08-0625
Sampled:	08/24/2004 08:55	Extracted:	8/26/2004 23:30
Matrix:	Soil	QC Batch#:	2004/08/26/08/50

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	1.00	08/26/2004 23:30	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	08/26/2004 23:30	
Benzene	ND	5.0	ug/Kg	1.00	08/26/2004 23:30	
Toluene	ND	5.0	ug/Kg	1.00	08/26/2004 23:30	
Ethyl benzene	ND	5.0	ug/Kg	1.00	08/26/2004 23:30	
Total xylenes	ND	5.0	ug/Kg	1.00	08/26/2004 23:30	
Surrogate(s)						
1,2-Dichloroethane-d4	105.3	72-124	%	1.00	08/26/2004 23:30	
Toluene-d8	99.3	75-116	%	1.00	08/26/2004 23:30	

Fuel Oxygenates by 8260B

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Project: 6520-001.01
8134 Capwell Drive

Received: 08/24/2004 17:15

Batch QC Report					
Prep(s): 5000B				Test(s): 8260B	
Method: Blank		Soil		QC Batch #: 2004/08/26-03/66	
MB: 2004/08/26-03/66-015				Date Extracted: 08/26/2004 19:15	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1000	ug/Kg	08/26/2004 19:15	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	08/26/2004 19:15	
Benzene	ND	5.0	ug/Kg	08/26/2004 19:15	
Toluene	ND	5.0	ug/Kg	08/26/2004 19:15	
Ethyl benzene	ND	5.0	ug/Kg	08/26/2004 19:15	
Total xylenes	ND	5.0	ug/Kg	08/26/2004 19:15	
Surrogates(s)					
1,2-Dichloroethane-d4	99.8	72-124	%	08/26/2004 19:15	
Toluene-d8	106.2	75-116	%	08/26/2004 19:15	

Fuel Oxygenates by 8260B

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8134 Capwell Drive

Received: 08/24/2004 17:15

Batch QC Report			
Prep(s): 8030B	Soil	GC Batch #: 2004/08/26-03.66	Prep(s): 8260B
Laboratory Control Spike	Soil	GC Batch #: 2004/08/26-03.66	
LCS: 2004/08/26-03.66-030	Extracted: 08/26/2004	Analyzed: 08/26/2004 18:30	
LCSD: 2004/08/26-03.66-052	Extracted: 08/26/2004	Analyzed: 08/26/2004 18:52	

Compound	Conc. ug/Kg		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	46.3	55.0	50.0	92.6	110.0	17.2	65-165	20		
Benzene	55.3	54.9	50.0	110.6	109.8	0.7	69-129	20		
Toluene	51.4	50.4	50.0	102.8	100.8	2.0	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	470	478	500	94.0	95.6		72-124			
Toluene-d8	501	502	500	100.2	100.4		75-116			

Fuel Oxygenates by 8260B

ACC Environmental Consultants

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Phone: (510) 638-8400 Fax: (510) 638-8404Project: 6520-001.01
8134 Capwell Drive

Received: 08/24/2004 17:15

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
TDR-B1-W	08/24/2004 09:10	Water	1
TDR-B3-W	08/24/2004 09:10	Water	3
TDR-B4-W	08/24/2004 09:10	Water	4

Severn Trent Laboratories, Inc.

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08/31/2004 16:29

Fuel Oxygenates by 8260B

ACC Environmental Consultants

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Project: 6520-001.01
8134 Capwell Drive

Received: 08/24/2004 17:15

Prep(s):	5030B	Test(s):	8260B
Sample ID:	TDR-B3-W	Lab ID:	2004-08-0625-3
Sampled:	08/24/2004 09:10	Extracted:	8/31/2004 11:22
Matrix:	Water	IOC Batch#:	2004/08/31-01-68
Analysis Flag: 0 (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	4900	250	ug/L	5.00	08/31/2004 11:22	
Methyl tert-butyl ether (MTBE)	72	2.5	ug/L	5.00	08/31/2004 11:22	
Benzene	3.0	2.5	ug/L	5.00	08/31/2004 11:22	
Toluene	ND	2.5	ug/L	5.00	08/31/2004 11:22	
Ethylbenzene	9.8	2.5	ug/L	5.00	08/31/2004 11:22	
Total xylenes	ND	5.0	ug/L	5.00	08/31/2004 11:22	
Surrogate(s)						
1,2-Dichloroethane-d4	104.8	72-128	%	5.00	08/31/2004 11:22	
Toluene-d8	95.2	80-113	%	5.00	08/31/2004 11:22	

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Fuel Oxygenates by 8260B

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Project: 6520-001.01
8134 Capwell Drive

Received: 08/24/2004 17:15

Batch QC Report			
Prep(s): 5030B			Test(s): 8260B
Method: Blank	Water		QC Batch #: 2004/08/31-01-68
MB: 2004/08/31/01-68-048			Date Extracted: 08/31/2004 09:48

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/31/2004 09:48	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	08/31/2004 09:48	
Benzene	ND	0.5	ug/L	08/31/2004 09:48	
Toluene	ND	0.5	ug/L	08/31/2004 09:48	
Ethylbenzene	ND	0.5	ug/L	08/31/2004 09:48	
Total xylenes	ND	1.0	ug/L	08/31/2004 09:48	
Surrogates(s)					
1,2-Dichloroethane-d4	106.2	72-128	%	08/31/2004 09:48	
Toluene-d8	101.0	80-113	%	08/31/2004 09:48	

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Fuel Oxygenates by 8260B

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Project: 6520-001.01

8134 Capwell Drive

Received: 08/24/2004 17:15

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

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08/31/2004 16:29

Page 7 of 7

STL San Francisco

Sample Receipt Checklist

Submission #: 2004-08-0625

Checklist completed by: (Initials) JM Date: 08/25/04

Courier name: STL San Francisco Client

Custody seals intact on shipping container/samples

Chain of custody present?

Chain of custody signed when relinquished and received?

Chain of custody agrees with sample labels?

Samples in proper container/bottle?

Sample containers intact?

Sufficient sample volume for indicated test?

All samples received within holding time?

Container Temp Blank temperature in compliance (10°C ± 2°C)?

Potential reason for >16°C: Ice melted Ice in bags No re-anchoring Not enough blue ice Samples in box

Sampled < 4hr ago? Ice not required (e.g. all of bulk samples) Ice present: Yes No

Water - VOA vials have zero headspace?

No VOA vials submitted Yes No

(If bubble is present, refer to approximate bubble size and itemize in comments as S (small - O), M (medium - O) or L (large - O).

Water - pH acceptable upon receipt? Yes No

pH adjusted - Preservative used: HNO₃ HCl H₂SO₄ NaOH ZnOAc - Lot #(s)

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: TDR-B1-W all vials have sm. bubbles

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (Initials) _____ Date: _____ / _____ /04

Client contacted: Yes No

Summary of discussion:

Corrective Action (per PM/Client):