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Alameda County Environmental Health

October 22, 2008

Mr. Paresh Khatri Hazardous Materials Specialist Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

RE: Summary of Subsurface Investigation Activities 1685 24th Street, Oakland, CA
ACEH Fuel Leak Case Number RO0002568
ACC Project Numbers 6871-001.00 & .01

Dear Mr. Khatri,

On behalf of Mr. Jabari Herbert of the Capital Stone Group, LLC, owner of the referenced site, ACC Environmental Consultants, Inc. (ACC) has prepared the following summary of subsurface investigations at the referenced site. The purpose of the summary is to clarify the chronology for the various investigations and present key information, as well as analytical data collected between June 2004 and July 2008 in one reference document so that continued discussion of subsequent activities related to the soil and groundwater impacts present at the property may occur with all parties "on the same page." This document will also address some recent comment letters from ACEH related to site activities.

This document relies on several reports and other communications and are referenced by name of the electronic record and available through the Alameda County Environmental Health Services (ACEH) or attached as an appendix where noted. These attachments should be referenced if users of this summary need additional information. This document is not intended to provide technical and/or geologic evaluations or interpretations beyond what is included in the attached supporting reports and work plans.

The summary includes information pertaining to investigations ACC conducted at the property between August 2002 and July 2008. Additional subsurface investigations were conducted at the property as early as 1987, with those records available for review at various regulatory agencies (Oakland Fire Services and ACEH).

1.0 Pertinent Chronology

1966 to 1990 Property used as taxi maintenance facility.

April 1987 Seven USTs removed from the site, including 3-1,000 gallon gasoline USTs, 2-

8,000 gallon USTs, and 2-7,500 gallon USTs (unknown contents) were permitted for the site, but removal records indicate 2-7,500 gallon gasoline USTs, 2-10,000

Northern California: 7977 Capwell Drive, Suite 100 • Oakland, CA 94621 • (510) 638-8400 • Fax (510) 638-8404 Southern California: 1545 Wilshire Blvd., Suite 510 • Los Angeles, CA 90016 • (213) 353-1240 • Fax (213) 353-1244

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	gallon gasoline USTs, and one 550-gallon waste oil UST were removed from the site. Only approximate UST locations were indicated in the removal records.
1990 to Present	Property used by Lee's Auto Shop, an automobile repair facility.
August 2002	ACC conducted a Phase I ESA and limited soil boring investigation for a potential buyer of the property (not Capital Stone) in conjunction with proposed development of the subject property and neighboring properties. Field indications and sample analytical results indicated that gasoline and diesel fuel impact was evident in several soil and groundwater samples collected in these soil borings. The limited boring investigation report is available on the ACEH LOP online records system under file name "SWI R 2002-08-21."
April 8, 2003	ACC prepares and submits to ACEH/OFS a Work Plan for an additional soil boring investigation for Pipeco Holding (Mr. Victor Ivry), understood by ACC to be the property owner during the August 2002 and April 2003 activities, to continue characterization of the site. The work plan is available on the ACEH LOP online records system under file name "WP R 2003-04-08."
June 18, 2004	ACC conducted a second subsurface investigation to further characterize site conditions generally following the April 8, 2003 Work Plan. Work was requested by Skepner Development. Nine soil borings were advanced (TB-3 through TB-10 and SS-1), with soil and limited groundwater sampling conducted. According to project notes, proposed field boring locations were adjusted in location and number (9 vs. 12) due to site access/obstruction conditions.
August 27, 2004	ACC issues the Additional Subsurface Investigation Report for the sampling conducted in June 2004. Results are summarized in the attached table with the report available on the ACEH LOP online records system under file name "SWI R 2004-08-27."
May 2006	Capital Stone purchases property from Pacific Pipe/ Pipeco Holding
June 20, 2006	ACC prepares Final (revised) Work Plan for Additional Subsurface Investigation for Capital Stone. The work plan proposes to advance an additional 10 soil borings with representative soil and groundwater sampling.
September 1, 2006	Capital Stone/ACC submits the June 2006 Work Plan to ACEH for review and approval. The work plan is available on the ACEH LOP online records system under file name "SWI R 2006-06-20."
December 2006	Capital Stone/ACC contact ACEH for status on the review and approval of the June 20, 2006 Work Plan. No response was received from ACEH. ACC proceeds with the Soil Boring investigation. Six of the proposed 10 borings were advanced due to site access/utility conditions.
April 27, 2007	ACC issues the Additional Subsurface Investigation Report for the sampling conducted in December 2006 (attached as Appendix A).

ACEH issues review and technical comments for the June 20, 2006 Work Plan, including comments on the August 27, 2004 Report, requesting completion of the

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	remaining borings not completed in the June 20, 2006 Work Plan/December 2006 investigation, additional analysis, and information.
July 15, 2008	ACC conducts a third subsurface investigation to address comments from the April 23, 2008 ACEH review and advances the remaining four borings not installed from the December 2006 investigation.
July 28, 2008	ACC issues the Results of Additional Subsurface Investigation Report for the sampling conducted on July 15, 2008. The limited boring investigation report is available on the ACEH LOP online records system under file name "SWI R 2008-07-28."
August 21, 2008	ACEH issues review comments related to the July 28, 2008 Report requesting additional information, clarification to the 2004 site investigation.

2.0 Summary of Soil Boring Investigation Results

The attached table and corresponding Soil Boring Location Figure summarize analytical results from site investigations conducted between August 2002 and July 2008. Furthermore, Figure 3 from the July 28, 2008.

3.0 Response to ACEH Comments

Investigations at the property have been influenced by a variety of factors, including changes in property owner representatives, property ownership, site access issues, changes in regulatory lead agencies/case workers, etc. The ACEH issued two recent comment letters by your office, dated April 23, 2008 and August 21, 2008 respectively. ACC will attempt to address comments from each letter below.

3.1 ACEH April 23, 2008 Comments

Technical Comment 1: "...Please provide rationale for why the proposed [April 8, 2008] scope of work was not completed and provide a detailed discussion in the subsurface investigation report due by the date requested below [July 15, 2008]." The comment also refers to the August 27, 2004 report issued as a result of the April 8, 2003 Work Plan.

Response Comment 1: We believe the ACEH is referring to the April 8, 2003 (not 2008) Work Plan and will address comments as such.

ACHCSA reference to the incomplete work include advancing only nine of the 12 proposed soil borings in the work plan during the June 2004 investigation as well as omitting the human health risk assessment portion of the report.

Field notes indicate that only nine of the 12 borings were advanced due to obstructions at the site, including utility clearance issues and much of the property was covered with car parts, debris, and non-working automobiles. For a number of reasons, additional work was not authorized by the client (not Capital Stone) at the time, including completion of the human health risk assessment portion of the report.

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Given that there have been additional investigations (2006 & 2008) at the property, completion of the borings proposed in the April 8, 2003 Work Plan would be redundant.

Technical Comment 2: Analyses of all groundwater samples should include lead scavengers ethylene dibromide and 1,2-dichloroethane.

Response Comment 2: All future groundwater samples will be analyzed for ethylene dibromide and 1,2-dichloroethane. There was a misunderstanding between ACC and ACEH given the complex history of the project related to the July 2008 investigation which resulted in the groundwater samples not being analyzed for ethylene dibromide and 1,2-dichloroethane. The samples were later reanalyzed (although slightly past the 2-week acceptable hold time) once this oversight was identified by ACEH and included in the attached Summary Table. Even though the samples were reanalyzed past the hold time, no change in analytical results for the samples were present. A copy of the Laboratory Reanalysis Report is included in Appendix B.

Technical Comment 3: Develop a Conceptual Site Model (CSM) and address any data gaps or deficiencies.

Response Comment 3: According to a summary narrative prepared by Mr. Dave Dement, P.G., ACC's Principal Geologist assigned to the site through June 2008, an updated CSM was included in the April 27, 2007 *Additional Subsurface Investigation Report*. Mr. Dement stated "Based on the findings of completed soil and groundwater investigations, available groundwater monitoring results, acceptable informal risk assessment evaluations, the minimal possibility of downgradient wells, and relatively simple hydrogeological conditions at the Site, the conceptual site model is known with a high degree of confidence. The Site is located in a commercial district in West Oakland is surrounded by commercial/industrial properties on all sides a minimum of 0.4 miles. The Site was formerly a taxicab maintenance operation from approximately 1966 to 1990 and has been an automotive repair facility since 1990. In April 1987, seven USTs were reportedly removed from the Site but site plans were unscaled so the former UST locations are estimated. The release scenario is unknown but soil sample analytical results suggest the release occurred from the USTs, product piping, or product dispensers located on the pump island inside the facility, or a combination of these.

There is one reasonable complete onsite exposure scenario and no known sensitive receptors in the downgradient direction. Concentrations of residual petroleum hydrocarbons have been identified in subsurface soil and groundwater and remedial soil excavation may be required to develop the property for residential use. The primary environmental concern is residual petroleum hydrocarbon impacts in subsurface soil and groundwater from the former USTs and/or product deliver equipment. Sample analytical results indicate that gasoline, diesel fuel, and motor oil were released from the former USTs and residual TPH is degrading and naturally attenuating."

3.1 ACEH August 21, 2008 Comments

Comment 1: "...TB-11 through TB-16 appear to have been installed on December 15, 2006, based on a review of Figure 3, prior to regulatory approval. Additionally, laboratory analytical data sheets and boring logs were not included."

Response Comment 1: The installation of borings TB-11 through TB-16 were in accordance with guidelines for agency review and comment periods. The June 30, 2006 Work Plan was issued to ACEH for review on September 1, 2006 and with appropriate notification to ACEH, work proceeded after the required 90-day comment period allowed for review by a lead agency.

Comment 2: "ACEH's approval of the scope of work stipulated that ACC discuss or provide rationale for the incomplete scope of work conducted in the 2004 subsurface investigation, analyze groundwater samples for lead scavengers..., submit a site conceptual model, and comply with the Landowner Notification Requirements."

Response Comment 2: As stated in the discussion of the April 23, 2008 ACEH comment letter, there was a misunderstanding between ACC and ACEH after the transition in project teams and the information is discussed as requested above. Capital Stone representatives are preparing the required Landowner Notification documents. Furthermore, an update to the CSM information contained within the April 27, 2007 Report will be prepared upon authorization from Capital Stone.

ACC will also incorporate technical comments 1 and 2 related to proposed clean-up goals and groundwater plume stability/migration in subsequent documentation as appropriate and where authorized by Capital Stone.

In summary, it is our hope that this document will bring all parties onto the same page regarding the complex history of the investigations conducted at 1685 24th Street. We have also included the April 27, 2007 Subsurface Investigation Report for ACEH's review as it does not appear to be available in the online LOP records.

We look forward to moving forward towards achieving closure at the property. Capital Stone and/or ACC will be in contact with you to address outstanding items and develop a plan for subsequent activities at the property.

Sincerely,

Tim Fallin Vice President

Attachments

October 2008 ACC Project Number: 6871-001.02

								stituents &						
Boring ID & Depth (feet bgs)	Sampling Date	Matrix	тРНд	РН	ТЕРН-А	ТЕРН-то	Soil concent	rations in mg/kg Beuzeue Beuzeue	Jolnene e noncentri	Ethylbenzene	Xylene	Total Lead	1,2 Dibromoethane (EDB)	1,2 Dichloroethane
TB-1-7.5	August, 2002	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.005			
TB-1-W	August, 2002	Water	5000		2000	<560	72	150	6.7	10	13			<0.50
TB-2-8.0	August, 2002	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.005			
TB-2-W	August, 2002	Water	<50				<5.0	<0.5	<0.5	<0.5	<0.5			
B25-4.0	August, 2002	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.005	3.2		
B25-8.0	August, 2002	Soil	170				0.62	4.6	17	3.8	16			
B25-W	August, 2002	Water	2100000				<25000	51000	160000	31000	130000			
B26-W	August, 2002	Water	970				<5.0	3.7	32	18	100			
B27-7.5	August, 2002	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.005			
B27-W	August, 2002	Water	870				<5.0	4.8	2.8	1.8	7.2			
B28-4.0	August, 2002	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.005	39		
B28-7.5	August, 2002	Soil	36				<0.62	0.87	<0.62	<0.62	<0.62			
B28-W	August, 2002	Water	4600		760	<570	<50	180	<5.0	14	91			
B29-8.0	August, 2002	Soil	190				<0.62	<0.62	1.6	0.79	3.11			
SS-1-2.0'	June, 2004	Soil	4.3				<0.005	0.01	<0.005	0.017	0.013	44		
SS-1-7.5'	June, 2004	Soil	120		68	62	<0.50	<0.50	<0.50	0.99	<0.50			
SS-1-W	June, 2004	Water	7700		2700	4600	33	1100	12	170	29			
TB3-7.5'	June, 2004	Soil	<1.0		5.8	<50	<0.005	<0.005	<0.005	<0.005	<0.005	4.2		
TB3-W	June, 2004	Water	69				4.2	8.4	<0.50	1.3	<1.0			
TB4-7.5'	June, 2004	Soil	2.5				0.0072	0.11	<0.005	0.24	0.29			
TB-4-9.0'	June, 2004	Soil	3.5		140	600	<0.005	0.09	0.011	0.0074	0.037			
TB5-9.0'	June, 2004	Soil	1700		140	82	<0.50	<0.50	<0.50	<0.50	<0.50	8.2		
TB5	June, 2004	Water	3600				20	1.4	1.5	1.7	4.2			
TB6-11.0'	June, 2004	Soil	<1.0				<0.005	<0.005	<0.005	<0.005	<0.0084			

October 2008 ACC Project Number: 6871-001.02

								stituents &						
Boring ID & Depth (feet bgs)	Sampling Date	Matrix	ТРНд	TPHd	TEPH-d	TEPH-mo	BE THE STATE OF TH	Benzene Benzene	e uen lo l'en l'en l'en l'en l'en l'en l'en l'en	Ethylbenzene	Xylene	Total Lead	1,2 Dibromoethane (EDB)	1,2 Dichloroethane
TB6W	June, 2004	Water	1300		680	<500	0.57	19	2.4	13	8.9			
TB7W	June, 2004	Water	13000				<2.5	31	3.8	8.7	13			
TB8-8.0'	June, 2004	Soil	14		15	<50	<0.022	<0.022	<0.022	<0.022	<0.022			
TB8-W	June, 2004	Water	1400				<0.50	16	0.91	0.57	2.8			
TB9-8.0'	June, 2004	Soil	470		60	420	0.54	<0.50	<0.50	<0.50	<0.50			
TB9-W	June, 2004	Water	3200				<0.50	<0.50	6.2	8.8	<10			
TB10-8.0'	June, 2004	Soil	220				<0.50	0.88	2.6	4.2	11			
TB10-12.0'	June, 2004	Soil	<1.0			1	<0.005	<0.005	<0.005	<0.005	<0.005			
TB10-W	June, 2004	Water	20000		770	7600	<100	8800	310	760	530			
TB11-4.0'	December, 2006	Soil	16		28	22	<0.0048	0.0085	<0.0048	0.027	0.0044			
TB-11	December, 2006	Water	9400		8100	13000	29	84	15	27	37.5			
TB12-4.0'	December, 2006	Soil	<1.0		9.5	79	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047			
TB12-8.5'	December, 2006	Soil	<1.0		7.9	29	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049			
TB-12	December, 2006	Water	0.55		540	410	<0.50	0.55	<0.50	<0.50	1.2			
TB13-2.0'	December, 2006	Soil			2.5	<5.0								
TB13-8.5'	December, 2006	Soil	<1.0				<0.0048	<0.0048	<0.0048	<0.0048	<0.0048			<u> </u>
TB13	December, 2006	Water	640		720	370	<0.50	0.85	<0.50	<0.50	0.55			
TB14-4.0'	December, 2006	Soil	<0.97		40	160	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046			
TB14	December, 2006	Water	9400		4100	2900	35	170	4.4	11	9.4			
TB15-8.5'	December, 2006	Soil	<0.95		25	170	<0.005	<0.005	<0.005	0.46	0.03			
TB-15	December, 2006	Water	10000		9500	11000	<2.0	22	3.9	310	18.3			
TB16	December, 2006	Water	1500		1600	300	<0.50	1.8	<0.50	<0.50	<0.50			
TB17-7.5'	July, 2008	Soil	<0.50	<0.50			<0.020	<0.005	<0.005	<0.005	<0.010			
TB17-7.5'-R	July, 2008	Soil	<0.50	<0.50		 	<0.020	<0.005	<0.005	<0.005	<0.010			<u> </u>

October 2008 ACC Project Number: 6871-001.02

								stituents & trations in mg/kg						
Boring ID & Depth (feet bgs)	Sampling Date	Matrix	ТРНд	ТРН	ТЕРН-4	ТЕРН-то	WIBE	Benzene	Tolluene	Ethylbenzene	Xylene	Total Lead	1,2 Dibromoethane (EDB)	1,2 Dichloroethane
TB-17-11.5'	July, 2008	Soil	1.2	10			<0.020	0.47	0.007	0.0093	0.02			
TB-17-11.5'-R	July, 2008	Soil	1.2	10			<0.020	0.47	0.007	0.0093	0.02			
TB17-S (9' bgs)	July, 2008	Water	3100	800			<4.0	0.028	<1.0	<1.0	<2.0			
TB17-S-R (9' bgs)	July, 2008	Water	3100	800			<4.0	0.028	<1.0	<1.0	<2.0		<1.0	<0.50
TB17-D (25' bgs)	July, 2008	Water	<50	<500			<4.0	<1.0	<1.0	<1.0	<2.0			
TB17-D-R (25' bgs)	July, 2008	Water	<50	<500			<4.0	<1.0	<1.0	<1.0	<2.0		<1.0	<0.50
TB18-7.5'	July, 2008	Soil	4.6	<5.0			<0.020	0.022	0.014	0.022	0.054			
TB18-7.5'-R	July, 2008	Soil	4.6	<5.0			<0.020	0.022	0.014	0.022	0.054			
TB18-11.5'	July, 2008	Soil	8	15			<0.020	<0.005	0.018	<0.005	<0.010			
TB18-11.5'-R	July, 2008	Soil	8	15			<0.020	<0.005	0.018	<0.005	<0.010			
TB18-GW (9' bgs)	July, 2008	Water	2900	1000			0.012	4.5	<1.0	<1.0	5.8			
TB18-GW-R (9' bgs)	July, 2008	Water	2900	1000			0.012	4.5	<1.0	<1.0	5.8		<1.0	<0.50
TB19-4.5'	July, 2008	Soil	2000	870			<0.020	<0.005	1.1	34	0.038			
TB19-4.5'-R	July, 2008	Soil	2000	870			<0.020	<0.005	1.1	34	0.038			
TB19-7.5	July, 2008	Soil	2.1	<0.50			0.24	0.05	0.0071	0.19	0.56			*
TB19-7.5-R	July, 2008	Soil	2.1	<0.50			0.24	0.05	0.0071	0.19	0.56			
TB19-S (9' bgs)	July, 2008	Water	38000	24000			250	78	<1.0	3800	43			
TB19-S-R (9' bgs)	July, 2008	Water	38000	24000			250	78	<1.0	3800	43		<1.0	<0.50
TB19-D (25' bgs)	July, 2008	Water	<50	<500			<4.0	<1.0	<1.0	<1.0	<2.0			
TB19-D-R (25' bgs)	July, 2008	Water	<50	<500			<4.0	<1.0	<1.0	<1.0	<2.0		<1.0	<0.50
TB20-3.5'	July, 2008	Soil	17	5.6			<0.020	0.042	0.029	0.24	0.022			
TB20-3.5'-R	July, 2008	Soil	17	5.6			<0.020	0.042	0.029	0.24	0.022			
TB20-7.5'	July, 2008	Soil	<0.50	11			<0.020	<0.005	<0.005	<0.005	<0.010		 	<u> </u>
TB20-7.5'-R*	July, 2008	Soil	<0.50	11		<u> </u>	<0.020	<0.005	<0.005	<0.005	<0.010			

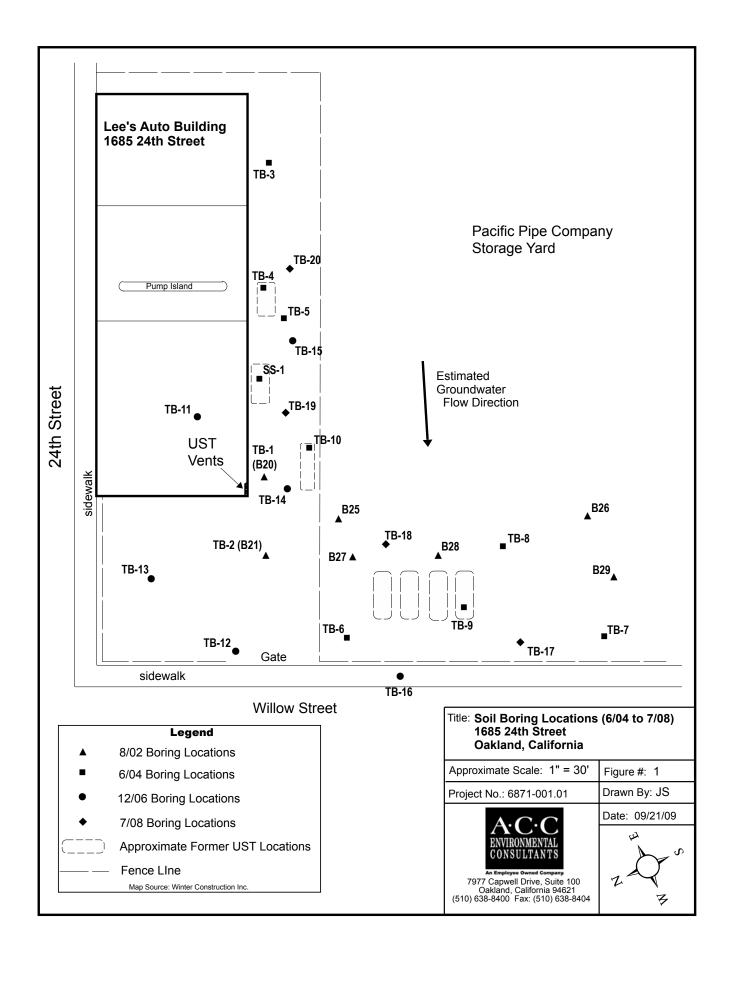
October 2008 ACC Project Number: 6871-001.02

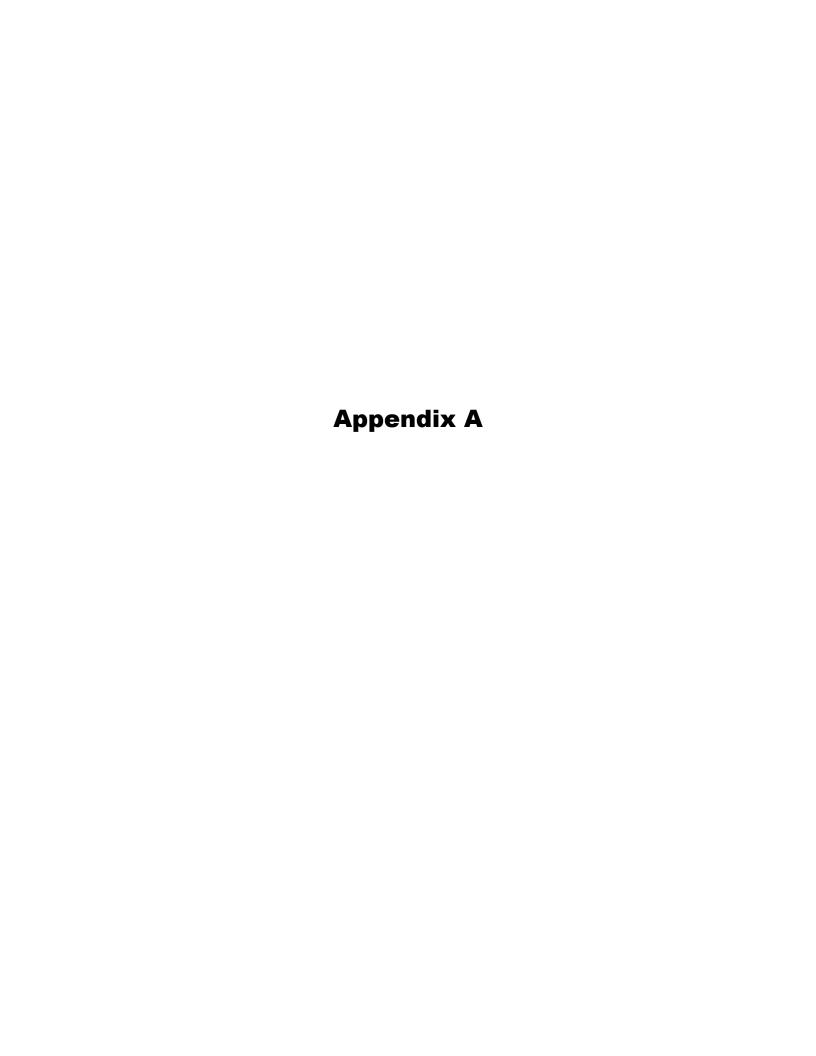
		Constituents & Concentrations Soil concentrations in mg/kg; Water concentrations in µg/l												
Boring ID & Depth (feet bgs)	Sampling Date	Matrix	ТРНд	трна	TEPH-d	ТЕРН-то	MTBE	Benzene	Toluene	Ethylbenzene	Xylene	Total Lead	1,2 Dibromoethane (EDB)	1,2 Dichloroethane
TB20-GW (9' bgs)	July, 2008	Water	3300	1800			4.8	<1.0	4	51	<2.0			
TB20-GW (9' bgs)-R*	July, 2008	Water	3300	1800			4.8	<1.0	4	51	<2.0		<1.0	<0.50
	Shallow Soil (<u><</u> 3 m)	Soil (mg/kg)	100	100	100	370	8.4	0.12	9.3	2.3	11	200	0.019	0.22
**ESLs - Residential (unrestricted site usage)	Deep Soil (>3 m)	Soil (mg/kg)	180	180	180	5000	8.4	2	9.3	43	11	750	1	1.8
usage)	Non Drinking Water Source	Water (µg/l)	210	210	210	210	1800	46	130	43	100	2.5	150	200
	Shallow Soil (<u><</u> 3 m)	Soil (mg/kg)	180	180	180	2500	8.4	0.270	9.3	4.7	11	750	0.044	0.480
**ESLs - Commercial site usage	Deep Soil (>3 m)	Soil (mg/kg)	180	180	180	5000	8.4	2.0	9.3	4.7	11	750	1.0	1.8
	Non Drinking Water Source	Water (µg/l)	210	210	210	210	1800	46	130	43	100	2.5	510	690
ESLs - Drinking V	Vater Source	Water (µg/l)	100	100	100	100	5	1	40	30	20	2.5	0.05	0.5

Notes

^{*}July 2008 laboratory analysis was reanalyzed to quantify lead scavengers (1,2 Dibromoethane & 1,2 Dichloroethane). Reanalysis was conducted after the 14-day hold time; Comparison of pre- & post-hold time analyses indicate no change in detectable concentrations. Reanalysis results italicized and indicated by "R*" after Boring ID.

^{**}ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008), where groundwater is NOT a source of Drinking Water







April 27, 2007

Mr. Jabari Herbert Capital Stone Group LLC 1485 8th Street Oakland, CA 94607

RE: Additional Subsurface Investigation Report 1685 24th Street, Oakland, California *ACC Project Number: 6871-001.00*

Dear Mr. Herbert:

Please find the enclosed two copies of the Subsurface Investigation Report for 1685 24th Street, Oakland, California (Site). This additional subsurface characterization work was conducted to: 1) further characterize suspect petroleum hydrocarbon impacts in soil and groundwater in the vicinity of seven former underground storage tanks (USTs) identified at the Site; and 2) obtain additional data to confirm the preliminary Conceptual Site Model (CSM). Groundwater was encountered at 10 feet below ground surface (bgs) during this investigation.

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109 or email me at ddement@accenv.com.

Sincerely,

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

Environmental Bivision

/krb:drd

Enclosures



SUBSURFACE INVESTIGATION REPORT

1685 24th Street Oakland, California

ACC Project Number: 6892-001-01

Prepared for:

Mr. Jabari Herbert Capital Stone Group LLC 1485 8th Street Oakland, CA 94607

April 27, 2007

Prepared By:

Kenneth Blume Staff Geologist

Reviewed By:

David DeMent, PG, REA II Division Manager / Senior Geologist

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APPENDICES

- 1 Alameda County Public Works Soil Boring Permit
- 2 Lithologic Logs
- 3 Analytical Results and Chain of Custody Record 4 Brunsing Associates Well Monitoring Data, 1734 24th Street

ADDITIONAL SUBSURFACE INVESTIGATION REPORT 1685 24th Street Oakland, California

1.0 INTRODUCTION

At the request of the Capital Stone Group LLC (Client), ACC Environmental Consultants Inc., (ACC), has prepared this Additional Subsurface Investigation Report summarizing additional subsurface investigation and soil characterization work performed at 1685 24th Street (Site) located in Oakland, California (Site). The primary goal of this investigation was to further characterize suspect petroleum hydrocarbon impacts in soil and groundwater in the vicinity of seven former underground storage tanks (USTs) identified at the Site and to obtain additional data to confirm the preliminary Site Conceptual Model (SCM).

2.0 BACKGROUND

The subject property is bound by 24th Street to the north, Willow Street to the west, and the Pacific Pipe Company (PPC) pipe storage yards to the east and south (Figure 1). Circa 1966 to 1990, the subject property was utilized as a taxicab maintenance facility. From 1990 to the present, automotive repair operations have been conducted at the site by Lee's Auto Shop. In April 1987, seven underground storage tanks (USTs) were reportedly removed from the Site. According to records obtained at the OFD Office of Emergency Services, three 1,000 gallon gasoline USTs, two 8,000-gallon USTs, and two 7,500-gallon USTs were permitted for the Site. UST removal records obtained during the Phase I Environmental Site Assessment indicate that two 7,500-gallon gasoline USTs, two 10,000-gallon gasoline USTs, and one 550-gallon waste oil tank were removed.

The site plan generated during UST removal was not scaled so exact former UST locations are unknown. Estimated former UST locations are illustrated on Figure 2. Specifically, the USTs illustrated at soil boring locations TB-4, SS-1, and TB-10 are known due to the observation of gasoline-discolored soil and obvious backfill materials as sand and pea gravel at these three locations. The four suspect USTs depicted in the vicinity of soil borings TB-6 through TB-9 are known with less confidence but are estimated based on the depicted locations on the unscaled site plan. Product dispenser locations are unknown but seven holes for seven vent lines are located in the southwest corner of the building.

ACC conducted an initial subsurface investigation at the Site in August 2002 for a prospective buyer. Subsurface soil and groundwater characterization was requested by the prospective buyer for due diligence purposes due to historical site use and documented USTs at the Site. In order to confirm suspect soil and groundwater impacts from the former USTs, ACC located and advanced seven exploratory soil borings to collect representative soil and grab groundwater samples. Soil boring TB-1 and TB-2 were advanced on August 2, 2002 and "step-out" soil borings B25 through B29 were advanced on August 12, 2002. The soil boring designations used reflect the fact that the soil borings advanced at the Site were part of a much larger comprehensive subsurface investigation at a number of properties. Field indications and sample analytical results indicated that gasoline and diesel fuel impact was evident in several soil and groundwater samples collected in these soil borings.

TPHg was reported in the grab groundwater sample from soil boring TB-1 at 5,000 micrograms per Liter (μg/L) with relatively minor associated BTEX. TEPH was reported in sample TB-1-W at a concentration of 2,000 μg/L. TPHg was reported in soil in soil borings B25, B28, and B29 at concentrations ranging from 36 to 190 milligrams per kilogram (mg/kg). Traces of emulsified free-phase floating product (free product) were observed on groundwater in soil boring B25, as evidenced by grab groundwater sample analytical results reported in grab groundwater sample B25-W. Some reported concentrations of TPHg and BTEX were significant but appeared localized. Groundwater was generally encountered at approximately 9 feet below ground surface (bgs) perched above a silty clay aquitard approximately 10 feet thick. Analytical results from the 2004 subsurface investigation are summarized in Table 1 and Table 2.

TABLE 1 – 2004 TPHg/BTEX/MTBE ANALYTICAL RESULTS

CI- ID	TDII.	n	T-1	T:411	T-4-1	MEDE
Sample ID	ТРНд	Benzene	Toluene	Ethyl-	Total	MTBE
				benzene	Xylene	
			SOIL			
TB3-7.5	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
TB4-7.5	2.5	0.11	< 0.005	0.24	0.29	0.0072
TB4-9.0	3.5	0.09	0.011	0.0074	0.037	< 0.005
TB5-9.0	1,700	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
TB6-11.0	<1.0	< 0.005	< 0.005	< 0.005	0.0084	< 0.005
TB8-8.0	14	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
TB9-8.0	470	< 0.50	< 0.50	< 0.50	< 0.50	0.54
TB10-8.0	220	0.88	2.6	4.2	11	< 0.50
TB10-12.0	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
SS-1-2.0	4.3	0.01	< 0.005	0.017	0.013	< 0.005
SS-1-7.5	120	< 0.50	< 0.50	0.99	< 0.50	< 0.50
			WATER			
TB3-W	69	8.4	< 0.50	1.3	<1.0	4.2
TB5-W	3,600	20	1.4	1.5	1.7	4.2
TB6-W	1,300	19	2.4	13	8.9	0.57
TB7-W	13,000	31	3.8	8.7	13	<2.5
TB8-W	1,400	16	0.91	0.57	2.8	< 0.50
TB9-W	3,200	< 5.0	6.2	8.8	<10	< 5.0
TB10-W	20,000	8,800	310	760	530	<100
SS-1-W	7,700	1,100	12	170	29	33

< = analytical results under laboratory reporting limit

N/A = samples were not analyzed for this constituent

TABLE 2 – 2004 TEPH ANALYTICAL RESULTS

Sample ID	TEPH as Diesel	TEPH as Motor Oil	Lab Notes
	SOIL	1120002 012	11,000
TB3-7.5	5.8	<50	ndp
TB4-9.0	140	600	ldr
TB5-9.0	140	82	edr
TB8-8.0	15	<50	edr
TB9-8.0	60	420	edr
SS-1-7.5	68	62	edr
	WATER		
TB6-W	680	< 500	edr
TB7-W	1,900	< 500	edr
TB10-W	7,700	7,600	edr
SS-1-W	2,700	4,600	edr

Notes:

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

to parts per million (ppm). Water sample results are in micrograms per Litter (µg/L), approximately equal to parts per billion (ppb).

< = analytical results under laboratory reporting limit

N/A = samples were not analyzed for this constituent

n/a = not applicable

ldr= Hydrocarbon reported is in the late Diesel range, and does not match our Diesel standard

edr= Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

ndp= Hydrocarbon reported does not match the pattern of the laboratory Diesel standard

TPHg, BTEX, and TEPH as diesel were the primary constituents of concern identified in soil and groundwater. These constituents are likely the result of unauthorized releases from the former gasoline and diesel fuel USTs. Subsurface impacts were not entirely characterized but appear to be largely localized to the general vicinity of the former USTs and horizontal and vertical migration potential is estimated to be minimal due to the low permeability aquitard observed from approximately 9.5 to 20 feet bgs. TPHg and BTEX concentrations in select locations are above regulatory action levels and may represent an unacceptable human health risk and/or the necessity for land use restrictions and groundwater monitoring. In addition, halogenated volatile organic compounds (HVOCs) were reported in one groundwater sample.

3.0 FIELD PROCEDURES

In December 2006, ACC obtained a soil boring permit from the Alameda County Public Works Agency (ACPWA). A copy of the permit is included in Appendix 1. The location of the subsurface investigation was marked with white paint, and Underground Service Alert was notified 48 hours prior to commencing work.

ACC's Professional Geologist performed the soil borings and sampling, and the subsurface materials in the soil borings were identified, classified and logged. Soil borings were continuously cored using a combination truck-mounted hydraulic and pneumatic Geoprobe® sampling tool. ACC utilized a four-foot long, stainless steel Geoprobe® macro-core 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 and two potable water rinses. Upon removal from the sampler, each recovered soil core was visually inspected and screened with a ppbRAE® photo-ionization detector (PID). Subsurface materials in the soil borings were identified, classified and logged during drilling operations according to the Unified Soil Classification System (USCS). The sample intervals were primarily logged to determine relative permeability and evaluate mitigation potential at that soil boring location. The lithologic logs are included as Appendix 2.

Six exploratory soil borings were advanced on December 15, 2006 at select, representative locations at the Site. Approximate soil boring locations are illustrated on Figure 2. Each soil boring was continuously cored to facilitate logging and screening encountered soils and obtain soil sample intervals for potential laboratory analysis. Select soil sample intervals were cut from the acetate liners, capped, labeled, and stored in a pre-chilled, insulated container to be transported following chain of custody protocol to Curtis & Tompkins, Inc., a state-certified analytical laboratory. Discrete soil samples were analyzed for total extractable petroleum hydrocarbons (TEPH) by EPA Method 8015B, total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8260B, and total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015B.

Six grab groundwater samples were collected with the use of disposable poly-ethylene bailers and temporary 1-inch-diameter PVC casing installed into each respective open soil boring annulus. Upon collection, the groundwater was immediately transferred to laboratory-supplied 40 milliliter glass VOA vials without headspace and 1-liter amber bottles, and labeled. The grab groundwater samples were immediately placed in a pre-chilled, insulated container pending transport to the analytical laboratory. Samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8260B, total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015B, and halogenated volatile organic compounds (HVOCs) by EPA Method 8260B. Analytical results and chain of custody are included in Appendix 3.

Following drilling and sample collection, each soil boring location was abandoned with neat cement with the use of a tremie pipe to the surface and the site was later inspected by a representative of the Alameda County Public Works Agency.

4.0 FINDINGS

4.1 Subsurface Conditions

The surface of the Site in the area of the investigation is covered with three to four inches of concrete or asphalt pavement underlain by approximately three to six inches of baserock. Subsurface soil conditions vary somewhat across the Site. Soils consist of silty sand (SM) from the surface to approximately 6 to 10 feet bgs sand underlain by clay soils to a minimum of 20 feet bgs. The silty sands were medium to fine grained, moderately sorted, brown and olive brown, loose to medium dense, damp, and exhibited moderate estimated permeability. The deeper clays were dark olive gray, medium stiff, uniform, moderately to highly plastic and exhibited low estimated permeability. The first encountered saturated zone was generally observed at approximately eight to nine feet bgs and appeared to be water perched on the underlying clays. The clays were interpreted as "Bay Mud" and are shown on the geologic cross section, Figure 3.

ACC generally observed evidence of fill materials above the clays consisting of debris, ceramic fragments, slag, and decaying organic matter indicating the Site may have been a former "dump", or poor quality fill may have been placed below the sand materials during reclamation of the area.

All soil borings were continuously cored to better characterize soils present at the site. Some elevated PID readings, characteristic odors, or soil discoloration were noted during sampling activities. Additional details are included in the soil boring lithologic logs (Appendix 1).

4.2 Analytical Results

No detectable concentrations of TPHg, BTEX, or MTBE were reported in four of the six samples analyzed. Reported concentrations of TPHg, BTEX, or MTBE were above the laboratory detectable limit, but below the residential Environmental Screening Levels (ESLs) for these constituents. Analytical results for soil samples analyzed for TPHg, BTEX and MTBE are summarized in Table 3.

TEPH-diesel range petroleum hydrocarbons were reported at concentrations ranging from the laboratory non-detectable limit of 1.0 milligrams per kilogram (mg/kg) to 40 mg/kg in soil boring TB14-4.0. TEPH-motor oil range petroleum hydrocarbons were reported at concentrations ranging from the laboratory non-detectable limit of 5.0 mg/kg to 170 mg/kg in soil boring TB15-8.5. Reported concentrations of TEPH-ranged petroleum hydrocarbons were below the Residential ESLs. TEPH analytical results for soil samples are summarized in Table 4.

All six grab groundwater samples analyzed reported TPHg concentrations above acceptable groundwater ESLs, ranging from 640 micrograms per Liter (μ g/L) to 10,000 μ g/L. Benzene concentrations range from 0.55 μ g/L to 84 μ g/L. Concentrations of MTBE range from the laboratory non-detectable limit of 0.50 μ g/L to 35 μ g/L. Reported MTBE concentrations were below the Groundwater ESL of 1,800 μ g/L. TEPH-diesel range petroleum hydrocarbons reported concentrations ranging from 540 μ g/L to 9,500 μ g/L, and TEPH-motor oil petroleum hydrocarbons range from 300 μ g/L to 13,000 μ g/L. Analytical results for grab groundwater samples are summarized in Table 5 and Table 6.

No detectable HVOCs were reported in the three analyzed grab groundwater samples collected from soil borings TB-12, TB-13, and TB-16. A copy of the analytical results and chain of custody record is included as Appendix 1.

TABLE 3 – SOIL SAMPLE TPHg/BTEX/MTBE ANALYTICAL RESULTS

Sample ID	Sample Depth (ft) bgs	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
TB11-4.0	4.0	16 ¹	0.0085	< 0.0048	0.027	0.0044	< 0.0048
TB12-4.0	4.0	<1.0	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047
TB12-8.5	8.5	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049
TB13-8.5	8.5	<1.0	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048
TB14-4.0	4.0	< 0.97	< 0.0046	< 0.0046	< 0.0046	< 0.0046	< 0.0046
TB15-8.5	8.5	< 0.95	< 0.0050	< 0.0050	0.46	0.030	< 0.0500
Residential ESL*		100	0.18	9.3	32.0	11.0	2.0
Commercial ESL*		400	0.38	9.3	32.0	11.0	5.6

Notes:

All soil results reported in micrograms per kilogram (mg/kg), bolded values exceed ESL

Sample result less than the laboratory minimum detection limit indicated
 Analytical result flagged by laboratory that heavier hydrocarbons contributed to the quantitation
 Analytical result flagged by laboratory that lighter hydrocarbons contributed to the quantitation

^{*} SF Bay RWQCB, February 2005 ESLs are for Shallow Soils (Table B)

TABLE 4 -SOIL SAMPLE TEPH ANALYTICAL RESULTS

Sample ID	Sample Depth (ft) bgs	TEPH-diesel (mg/kg)	TEPH-Motor Oil (mg/kg)
TB11-4.0	4.0	28 ^{1,2,3}	221,2
TB12-4.0	4.0	9.5 ^{1,3}	79 ¹
TB12-8.5	8.5	7.9 ^{1,2,3}	29 ^{1,2}
TB13-2.0	2.0	2.5^{3}	<5.0
TB13-8.5	8.5	<1.0	<5.0
TB14-4.0	4.0	40 ^{1,3}	160 ¹
TB15-8.5	8.5	25 ^{1,2}	170 ^{1,2}
Resi	dential ESL*	100	500
Com	mercial ESL*	500	1000

Notes: milligrams per kilogram (mg/kg) approximately equal to parts per million (ppm)

TABLE 5 – GROUNDWATER TPHg/BTEX/MTBE SAMPLE ANALYTICAL RESULTS

Sample ID	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
TB11-W	9,400	84	15	27	37.5	29
TB12-W	1,600 ^Z	0.55	< 0.50	< 0.50	1.2	< 0.50
TB13-W	640 ^Z	0.85	< 0.50	< 0.50	0.55	< 0.50
TB14-W	9,400 ^Z	170	4.4	11	9.4	35
TB15-W	$10,000^{Z}$	22	3.9	310	18.3	<2.0
TB16-W	1,500 ^Y	1.8	< 0.50	< 0.50	< 0.50	< 0.50
Groundwater ESL*	500	46	130	290	100	1,800

Notes:

All water results reported in micrograms per Liter (µg/L)

¹ Analytical result flagged by laboratory that heavier hydrocarbons contributed to the quantitation, and sample chromatographic pattern did not resemble the laboratory standard

Analytical result flagged by laboratory that heavier hydrocarbons contributed to the quantitation, and sample chromatographic pattern did not resemble the laboratory standard

³ Sample chromatographic pattern did not resemble the laboratory standard

^{*} SF Bay RWCOB, February 2005 ESLs for groundwater (Table B), not to be used to assess health risk

< Sample result less than the laboratory minimum detection limit indicated

Y Sample exhibits chromatographic pattern which does not resemble standard

^Z Sample exhibits unknown single peak or peaks

^{*} SF Bay RWCQB, February 2005 ESLs for groundwater (Table B), not to be used to assess health risk

TABLE 6 – GROUNDWATER SAMPLE TEPH ANALYTICAL RESULTS

Sample ID	TEPH-diesel (µg/L)	TEPH-Motor Oil (μg/L)	
TB11-W	$8,100^{1,2,3}$	$13,000^2$	
TB12-W	540 ^{1,2,3}	410^{2}	
TB13-W	720 ^{1,2,3}	370^{2}	
TB14-W	$4,100^{1,2,3}$	$2,900^{1,2}$	
TB15-W	9,500 ^{1,2,3}	$11,000^2$	
TB16-W	1,600 ^{1,2,3}	300^{2}	
Groundwater ESL*	640	640	

Notes:

milligrams per kilogram (mg/kg) approximately equal to parts per million (ppm)

¹ Analytical result flagged by laboratory that heavier hydrocarbons contributed to the quantitation, and sample chromatographic pattern did not resemble the laboratory standard

² Analytical result flagged by laboratory that lighter hydrocarbons contributed to the

5.0 DISCUSSION

For purposes of due diligence for a previous prospective buyer, ACC prepared a Phase I Environmental Site Assessment (ESA) for this property and identified the former USTs as the primary environmental concern. In order to confirm suspect soil and groundwater impacts from the former USTs, ACC located and advanced seven exploratory soil borings in August 2002 to collect representative soil and grab groundwater samples in proximity to the estimated location of the former USTs (Figure 2). Field indications of gasoline impact and elevated PID readings were evident in soil in soil borings TB-1 (B20) but were not noted in soil boring TB-2 (B21). TPHg was reported in the grab groundwater sample from soil boring TB-1 at $5,000~\mu g/L$ with relatively minor associated BTEX. TEPH was reported in sample TB-1-W at $2,000~\mu g/L$. Groundwater was generally encountered at approximately 7.5 feet bgs. Soil and grab groundwater samples collected in the other soil borings were relatively minor and indicative of degraded residual petroleum hydrocarbons from releases from the former USTs. Traces of free product were identified in groundwater at soil boring location B25.

Due to the initial subsurface findings, ACC conducted additional subsurface investigation in June 2004. Unlike during the August 2002 investigation, much of the area of investigation was accessible at this time, primarily inside the Lee's Auto Yard extending from soil boring TB-3 to TB-10. Characteristic asphalt repairs indicative of a UST removal were observed at soil boring locations TB-4, SS-1, and TB-10. Originally, a former UST was suspected at soil boring TB-3 but direct observation and sample analytical results do not support this.

TPHg, BTEX, and TEPH as diesel were the primary constituents of concern identified in soil and groundwater. Subsurface impacts were not entirely characterized but appear to be localized to the general vicinity of each of the former USTs and horizontal and vertical migration potential is estimated

quantitation, and sample chromatographic pattern did not resemble the laboratory standard ³ Sample chromatographic pattern did not resemble the laboratory standard

^{*} SF Bay RWCQB, February 2005 ESLs for groundwater (Table B), not to be used to assess health risk

to be minimal. Field indications of impact and sample analytical results indicated that a release from the former USTs occurred. With the possible exception of grab groundwater sample TB10-W, sample analytical results and laboratory notes generally indicate the reported petroleum hydrocarbons were degraded and that significant natural attenuation likely occurred since April 1987.

In December 2006, ACC conducted additional subsurface characterization at the Site to further characterize suspect TPH impacts in soil and groundwater. Perched groundwater was encountered approximately 8.5 to 9 feet bgs in soil borings TB11 through TB15 and at approximately 5 feet bgs in soil boring TB16. Analytical results continue to indicate that TPH impacts appear to be primarily in groundwater. Petroleum hydrocarbons were reported in all six of the grab groundwater samples; however, BTEX concentrations are relatively low and reported TEPH concentrations are flagged as not resembling the laboratory standard. This type of laboratory flag typically indicates the hydrocarbons are weathered and being degraded by natural attenuation processes.

5.1 Informal Risk Evaluation

ACC compared the reported concentrations of TPHg, BTEX, and TEPH to their applicable ESLs as summarized in Table B, California Regional Water Quality Control Board, San Francisco Bay Region, *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, Volume 1: Summary Tier 1 Lookup Tables, Interim Final – February 2005. This comparison constitutes a preliminary risk evaluation only.

None of the reported TPHg, BTEX, MTBE, or TEPH concentrations in soil exceeded their applicable residential ESL. Benzene exceeded its ESL of 46 μ g/L in grab groundwater samples collected in soil boring TB11 and TB14 and ethylbenzene exceeded its ESL of 290 μ g/L in the grab groundwater sample collected in soil boring TB15. Since most grab groundwater sample BTEX analytical results were significantly below their applicable ESLs, ACC evaluated benzene and ethylbenzene according to Table E-1a, Groundwater Screening Levels For Evaluation of Vapor Intrusion Concerns, California Regional Water Quality Control Board, San Francisco Bay Region, *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, Volume 1: Summary Tier 1 Lookup Tables, Interim Final – February 2005. For a residential scenario with high permeability soil, the benzene concentration in groundwater that might represent an indoor inhalation hazard is 540 μ g/L, and similarly, 170,000 μ g/L for ethylbenzene. Diesel and motor oil concentrations in grab groundwater samples exceed their ESL but do not pose a significant risk in the CSM.

In summary, the informal risk evaluation using a simple comparison of applicable ESLs to reported TPH concentrations indicates no soil sample analytical results exceeded their ESLs and very few grab groundwater sample analytical results exceeded their ESLs. A formal risk assessment would most likely come to the conclusion that residual petroleum hydrocarbon concentrations in soil and groundwater do not represent an unacceptable human health risk for future residential site use.

6.0 CONCEPTUAL SITE MODEL

Based on the findings of completed soil and groundwater investigations, available groundwater monitoring results, acceptable informal risk assessment evaluations, the minimal possibility of downgradient wells, and relatively simple hydrogeological conditions at the Site, the conceptual site model is known with a high degree of confidence. There is one reasonable complete onsite exposure scenario and no known sensitive receptors in the downgradient direction. Concentrations of residual petroleum hydrocarbons have been identified in subsurface soil and groundwater and remedial soil excavation may be required to develop the property for residential use.

6.1 Potential Concerns

The primary environmental concern is residual petroleum hydrocarbon impacts in subsurface soil and groundwater from the former underground storage tanks. Sample analytical results indicate gasoline and diesel fuel was released from the former USTs and residual TPH is naturally attenuating.

6.2 Site Conditions

The subject property is approximately 42 feet above sea level and the surrounding area is relatively flat with a gentle slope towards the west. San Francisco Bay is approximately one mile northwest of the Site. The estimated groundwater gradient of 0.003 approximates the observed topographic gradient. Hills and areas of groundwater recharge exist to the east and southeast and regional groundwater movement and surface drainage trends to the west and northwest. Subsurface soil conditions vary somewhat across the Site. The area is reclaimed bay margin land with varying thicknesses of silty sand (SM) ranging from 5 to 10 feet overlying native Bay Mud clays to a minimum depth of 20 feet bgs. Just above the clays, ACC observed one to two feet of perched water in soils that exhibited evidence of fill, debris, and dumped waste materials. The depth to regional groundwater is unknown but greater than 20 feet bgs. Groundwater monitoring wells MW-4 and MW-6, installed in or adjacent to Willow Street as part of the UST investigation at Pacific Building Supply at 1735 24th Street, reported depths to groundwater ranging from 3.37 to 8.37 feet.

Generally, hydrogeological conditions are relatively simple: 1) moderately permeable silty sands are generally present to a depth of 10 feet and are then underlain by a minimum of 10 feet of highly plastic stiff "Bay Mud" clays; 2) varying amounts of perched water rest on the clay layer and the horizon represents a barrier to any additional vertical petroleum hydrocarbon migration; and 3) horizontal migration is primarily limited to this thin perched water zone at 10 feet bgs.

6.3 Exposure Assumptions

Exposure to or contact with residual petroleum hydrocarbon concentrations in soil is not considered a potential exposure pathway. Exposure to or ingestion of groundwater containing residual petroleum hydrocarbon concentrations is not considered a potential exposure pathway. Reported concentrations of petroleum hydrocarbons in soil and groundwater suggest that indoor inhalation of petroleum hydrocarbons is a potentially complete exposure pathway.

Worker exposure to petroleum hydrocarbon-impacted soil at the Site during construction is unlikely, and based on the relatively low concentrations of benzene and BTEX in soil; this temporary exposure would likely not represent an unacceptable human health risk. If remedial soil excavation is performed prior to Site development, potential exposures would be even less.

6.4 TPH Impacts in Soil

Petroleum hydrocarbon impacts in soil primarily exist at 8 to 10 feet bgs, below tank bottom and above perched water observed at 9.5 feet bgs. Soil samples collected adjacent to the former USTs indicate the residual petroleum hydrocarbons are degraded and contain relatively low concentrations of BTEX and numerous soil samples did not report any detectable TPHg or BTEX. TPHg and benzene are not present at any significant concentrations in soil above approximately 8 feet bgs.

Soils at the Site to a depth of approximately 9 feet bgs appear to be primarily silty sands with low to moderate permeability. Based on estimated tank bottom depths of 6 to 8 feet bgs, any releases from the tanks would have likely impacted soil immediately beneath the tanks until water was encountered at 9.5 to 10 feet bgs. Currently, the degree and extent of petroleum hydrocarbon impact in soil is estimated to be minimal and confined between 6 to 9.5 feet bgs at each former UST location.

6.5 TPH Impacts in Groundwater

Petroleum hydrocarbon impacts in groundwater primarily exist at 9 to 10 feet bgs in plumes that surround the former USTs. A relatively thin perched water zone was observed on the Bay Mud clays at approximately 10 feet bgs and the thickness of this zone likely fluctuates during the calendar year due to precipitation rates. Grab groundwater samples collected adjacent to the former USTs generally indicate the residual dissolved petroleum hydrocarbons are degraded and contain relatively low concentrations of BTEX. Sample TB14-W, collected to further evaluate the elevated benzene reported in sample TB10-W in 2004, reported only 170 μ g/L. Generally, reported BTEX in grab groundwater samples were relatively low and indicate that preferential attenuation has occurred.

Groundwater monitoring well MW-6, installed in Willow Street as part of the UST investigation at Pacific Building Supply at 1735 24^{th} Street, reported TPHg concentrations ranging from 1.0 to 2.3 μ g/L during periodic groundwater monitoring conducted between December 1989 and December 1995. This monitoring well was located approximately 15 feet from the gate leading into the Site and directly downgradient of the majority of the USTs formerly located at the Site. A copy of Brunsing Associates Site Map, Figure 2, and groundwater monitoring results from monitoring wells MW-4 and MW-6 is included in Appendix 4.

6.6 TPH Impact in Soil Gas

Potential TPH impacts in soil gas are unknown. Due to relatively low BTEX concentrations reported in soil and groundwater, and relatively small volumes of TPH-impacted soil at each UST location, the cumulative TPH impacts in soil gas should be minimal and readily disseminated in surface soils.

7.0 CONCLUSIONS

Based on previous investigation findings, additional sample analytical results, PID readings, and field observations, ACC concludes:

- □ Groundwater in the vicinity of the former USTs has been impacted by petroleum hydrocarbons related to a suspect release(s) from the former USTs prior to their removal in 1987;
- □ Grab groundwater analytical results reported elevated concentrations of gasoline and diesel fuel constituents and relatively low concentrations of BTEX constituents;
- □ Soil sample analytical results reported relatively minor concentrations of TPHg, BTEX, MTBE, and TEPH and further demonstrate TPH impacts in soil are relatively small;
- □ Soils at the Site are primarily fine-grained silts and clays with low to moderate estimated permeability which limit or prevent the vertical migration of dissolved-phase petroleum hydrocarbons;
- □ Encountered groundwater consisted of approximately 1 foot of perched water at the silty sand/clay interface and was observed in soils containing fill materials, decaying organic matter, and debris;
- □ HVOCs were not reported in groundwater in the three grab groundwater samples analyzed and further demonstrate that HVOCs are not constituents of concern at the Site;
- □ With minor exceptions, apparent human health risk from residual TPH in the subsurface is acceptable in a residential scenario.

8.0 RECOMMENDATIONS

Based on conclusions of this investigation and our understanding of enforced UST regulations in the City of Oakland and Alameda County, ACC recommends:

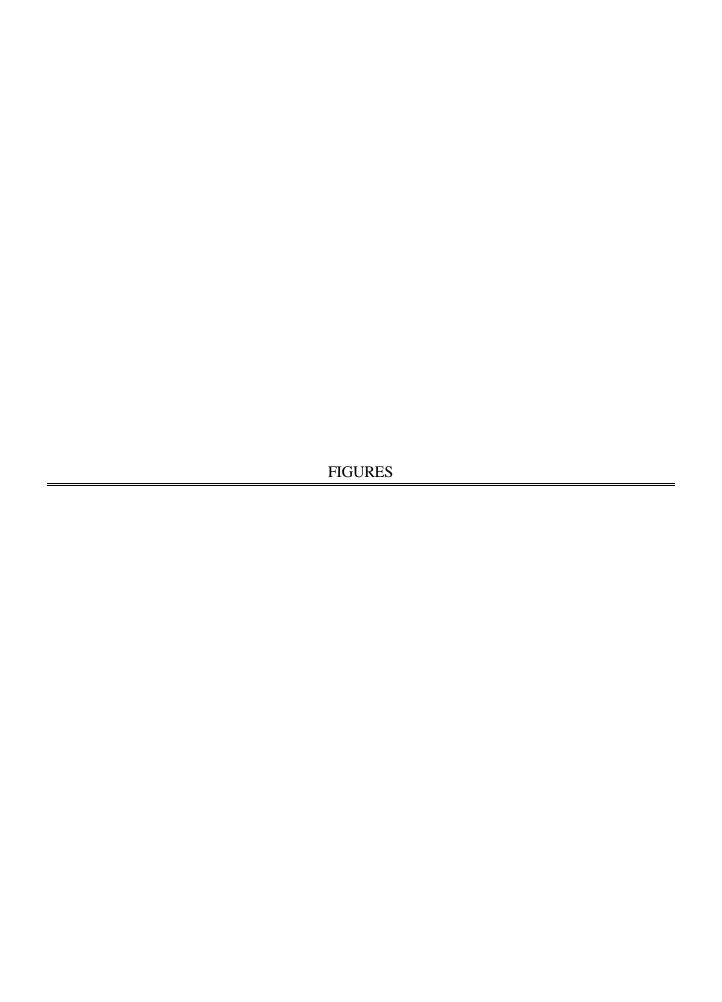
- Immediately pursuing regulatory review by the San Francisco Bay Regional Water Quality Control Board as the lead regulatory agency and determine the potential need to remediate petroleum hydrocarbon-impacted soil and groundwater during future Site development;
- □ Evaluate the need to perform remedial soil excavation in the vicinity of soil borings TB-5, SS-1, and TB-10 and pit dewatering for purposes of source removal to further decrease potential human health risk associated with residual petroleum hydrocarbons in subsurface soil and groundwater;
- □ Having a Contingency Plan in place during Site development to properly remove and handle petroleum hydrocarbon-impacted soil in a timely and cost effective manner; and
- ☐ Installing a vapor barrier under the building foundations during construction.

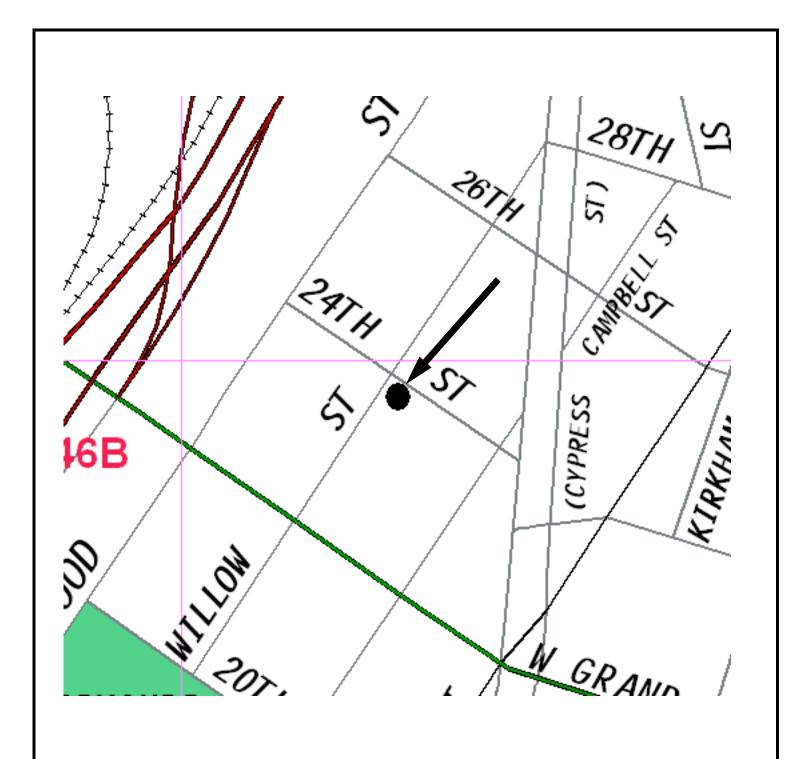
9.0 LIMITATIONS

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.





Source: The Thomas Guide, Bay Area Metro 2004

Title: Location Map 1685 24th Street Oakland, California

Figure Number: 1 Scale: None

Project Number: 6871-001 Drawn By: TRB

A: C: C

ENVIRONMENTAL
CONSULTANTS

Northern California
7977 Capwell Drive, Suite 100
Oakland, CA 94621 (510) 638-8400

Scale: None

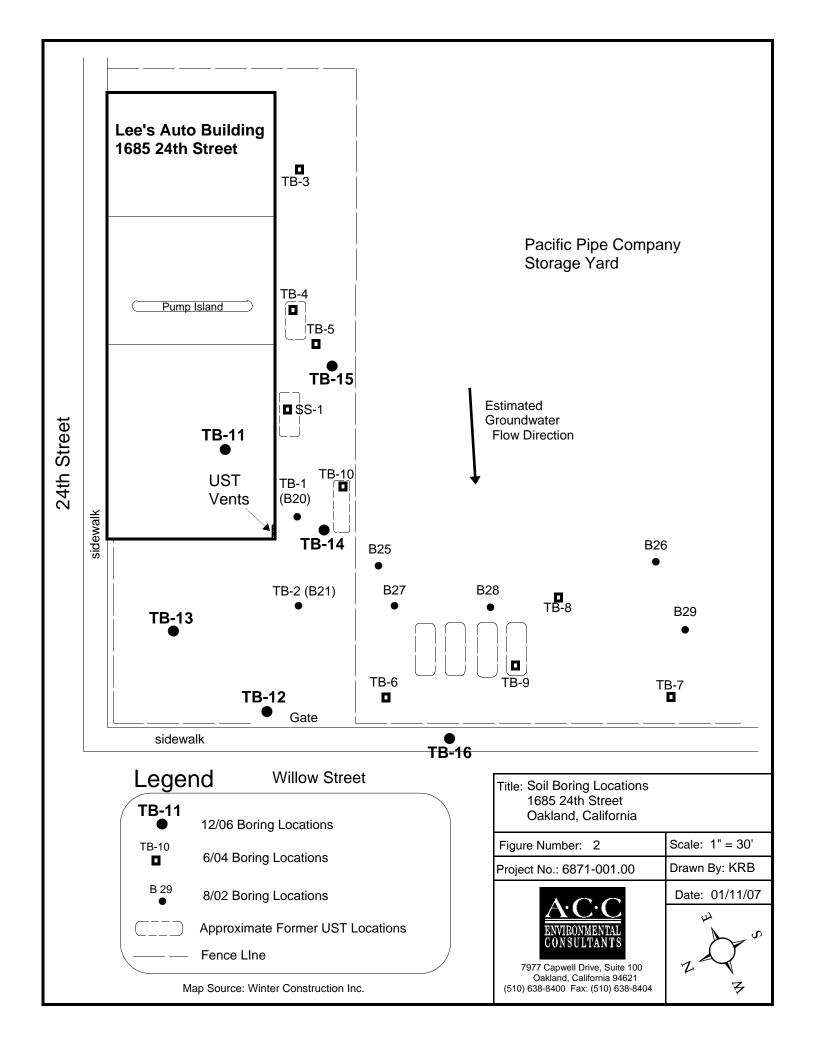
Drawn By: TRB

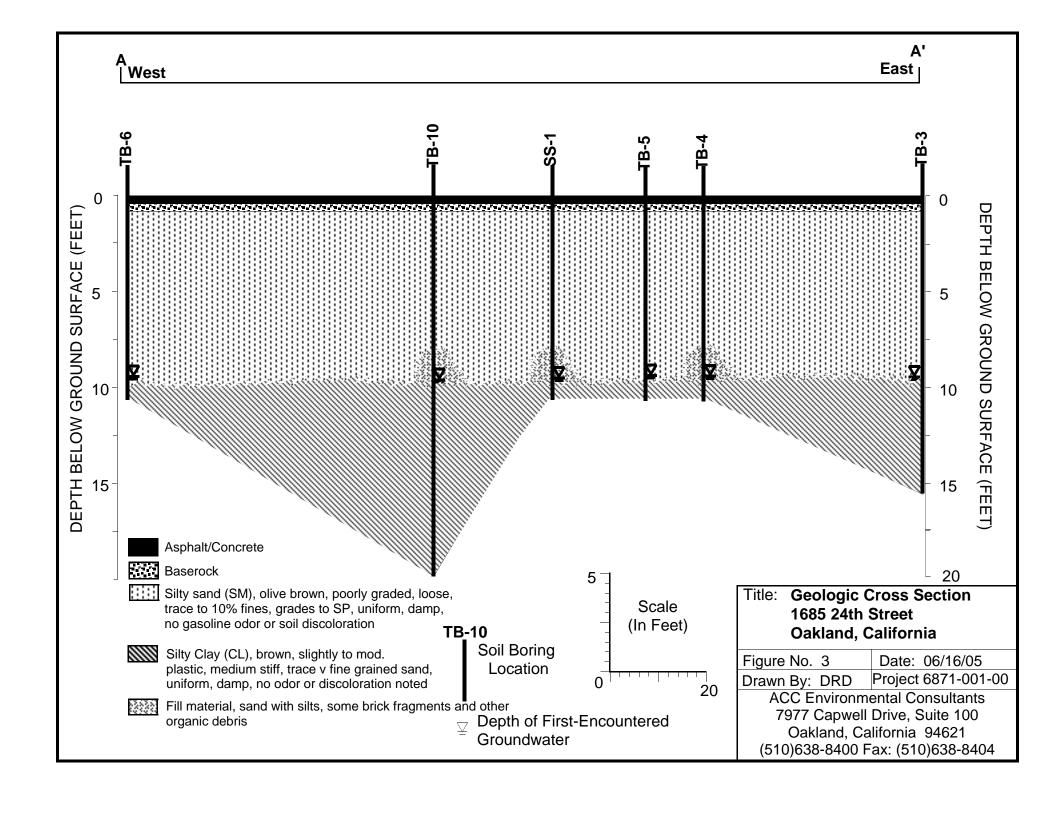
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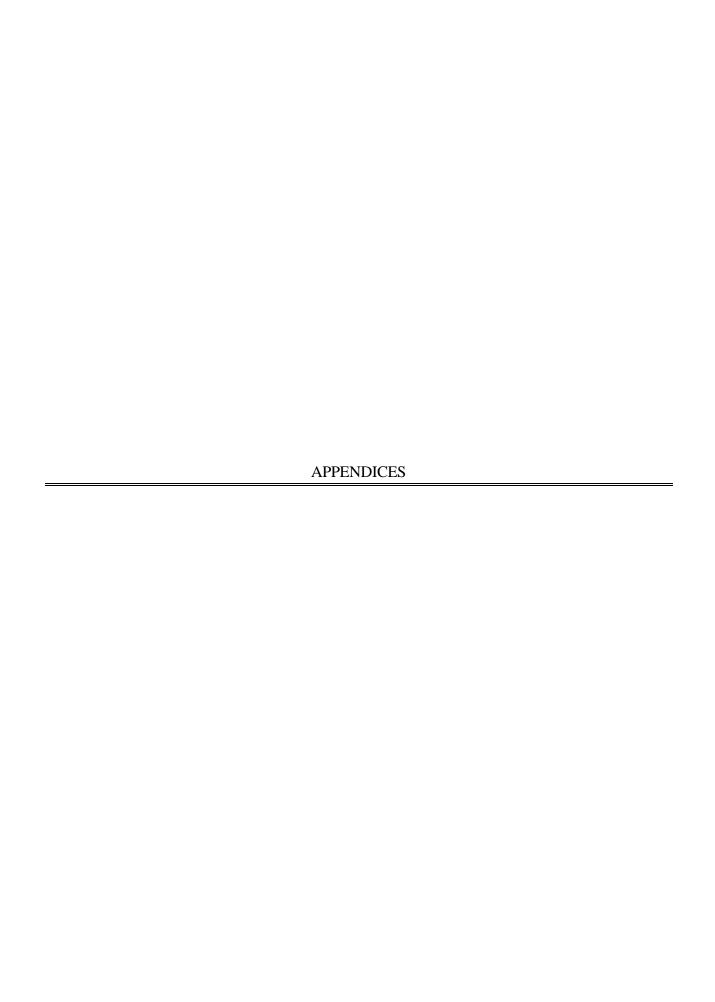
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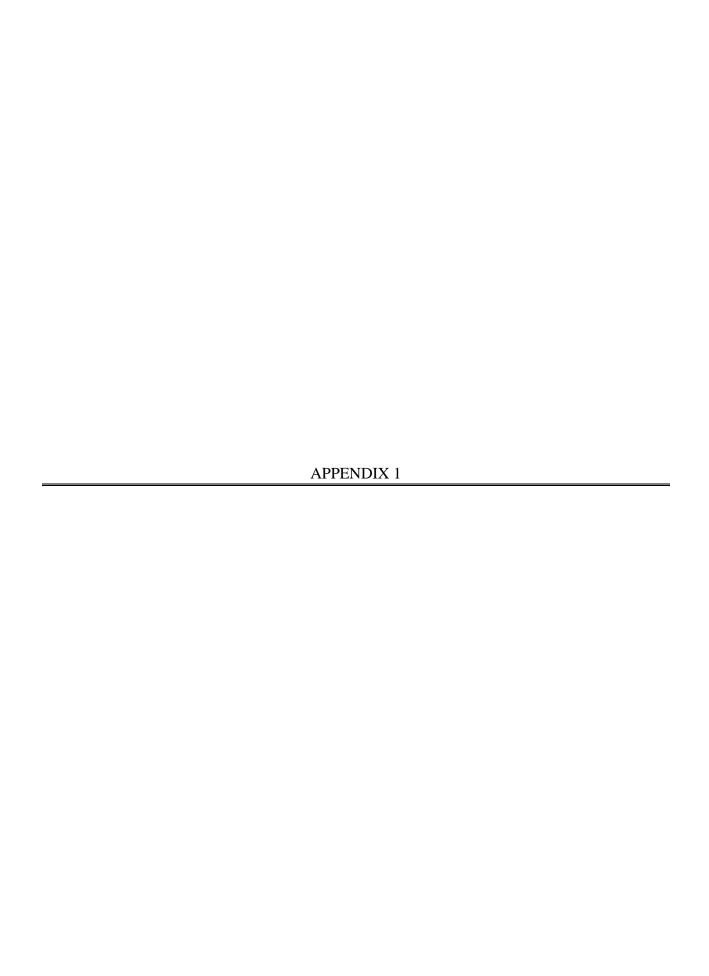
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S









Alameda County Public Works Agency - Water Resources Well Permit



Application Id:

Site Location: Project Start Date:

Applicant:

399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 12/01/2006 By jamesy

Permit Numbers: W2006-1011 Permits Valid from 12/07/2006 to 12/15/2006

Phone: 510-663-0363

City of Project Site: Oakland

City of Project Site. Oakland

Completion Date:12/15/2006

ACC Environmental Consultants - Kenneth Phone: 510-638-8400

Blume

12/07/2006

1164928142690

7977 Capwell Dr #100, Oakland, CA 94621

Property Owner: Capital Stone Group LLC

1685 24th St. Oakland, CA 94607

1485 8th St., Oakland, CA 94607

Client: ** same as Property Owner **

Total Due: \$200.00

Total Amount Paid: \$200.00

Receipt Number: WR2006-0532 Total Amount Paid: \$200.00
Payer Name: AA Environmental Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 10 Boreholes

Driller: Environmental Control Associates - Lic #: 695970 - Method: other Work Total: \$200.00

Specifications

 Permit
 Issued Dt
 Expire Dt
 #
 Hole Diam
 Max Depth

 Number
 Boreholes

 W2006 12/01/2006
 03/07/2007
 10
 2.00 in.
 35.00 ft

1011

Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
- 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 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, properly damage, personal injury and wrongful death.
- 4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 5. Permitte, 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.

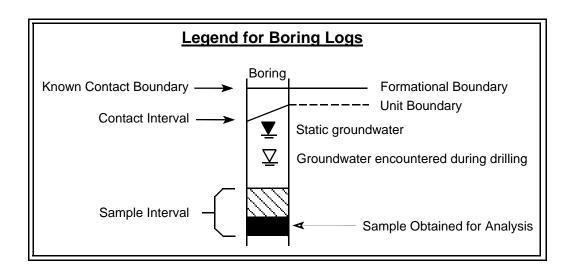
Alameda County Public Works Agency - Water Resources Well Permit

- 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.



UNIFIED SOIL CLASSIFICATION SYSTEM

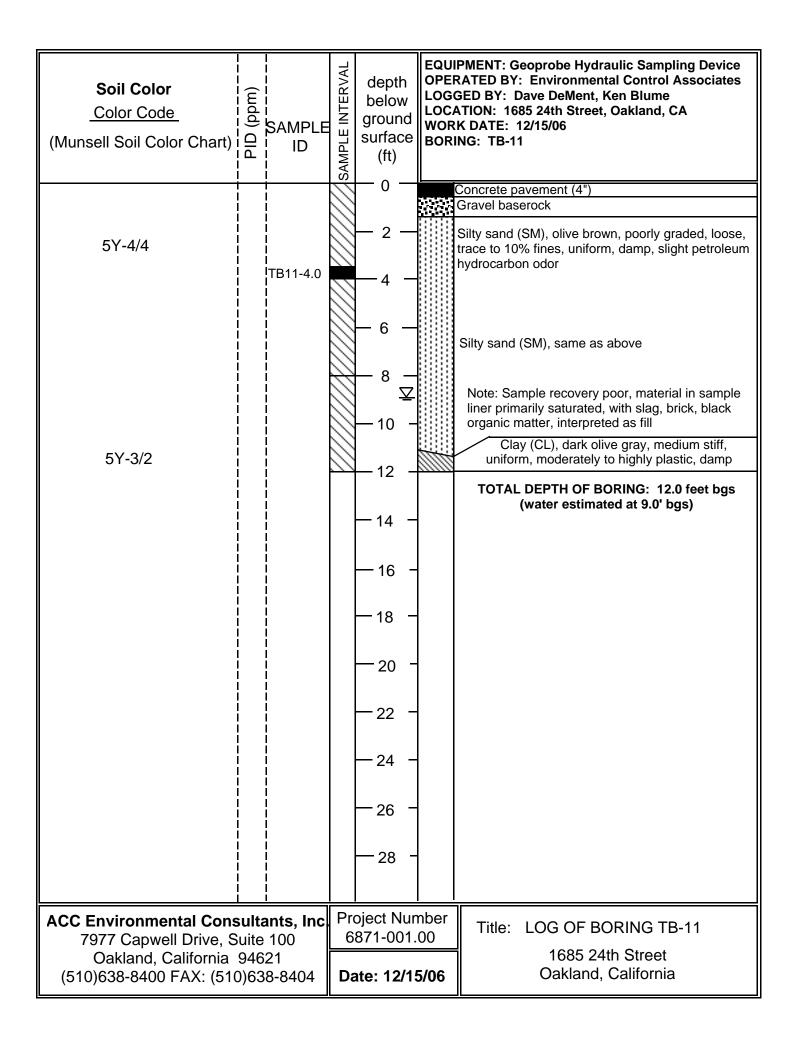
	MAJOR DIV	ISIONS			TYPICAL NAMES
	GRAVELS	CLEAN GRAVELS	GW		well graded gravels, gravel-sand mixtures
လူ	more than half	WITH LITTLE OR NO FINES	GP		poorly graded gravels, gravel-sand mixtures
SOIL	coarse fraction is larger than	GRAVELS WITH	GM		silty gravels, poorly graded gravel-sand silt mixtures
INED	Number 4 sieve	OVER 12% FINES	GC		clayey gravels, poorly graded gravel-sand clay mixtures
GRAINE	SANDS	CLEAN SANDS WITH	sw		well graded sands, gravelly sands
SE	more than half coarse	LITTLE OR NO FINES	SP		poorly graded sands, gravelly sands
COARSE	fraction is smaller than Number 4 sieve	SANDS WITH OVER	SM		silty sands, poorly graded sand-silt mixtures
0		12% FINES	sc		clayey sands, poorly graded sand-clay mixtures
LS	SILTS AND CL	AVQ	ML		inorg. silts and very fine sands, rock flour silty or clayey sands, or clayey silts w/ sl. plasticity
SOIL	liquid limit less that		CL		inorg. clays of low-med plasticity, gravelly clays, sandy clays, silty clays, lean clays
GRAINED			OL		organic clays and organic silty clays of low plasticity
RAII	SILTS AND CL	ΔVS	мн		inorganic silty, micaceous or diatomacious fine sandy or silty soils, elastic silts
	liquid limit greater than 50				inorganic clays of high plasticity, fat clays
FIF					organic clays of medium to high plasticity organic silts
	HIGHLY ORGAN	NIC SOILS	РТ		peat and other highly organic soils

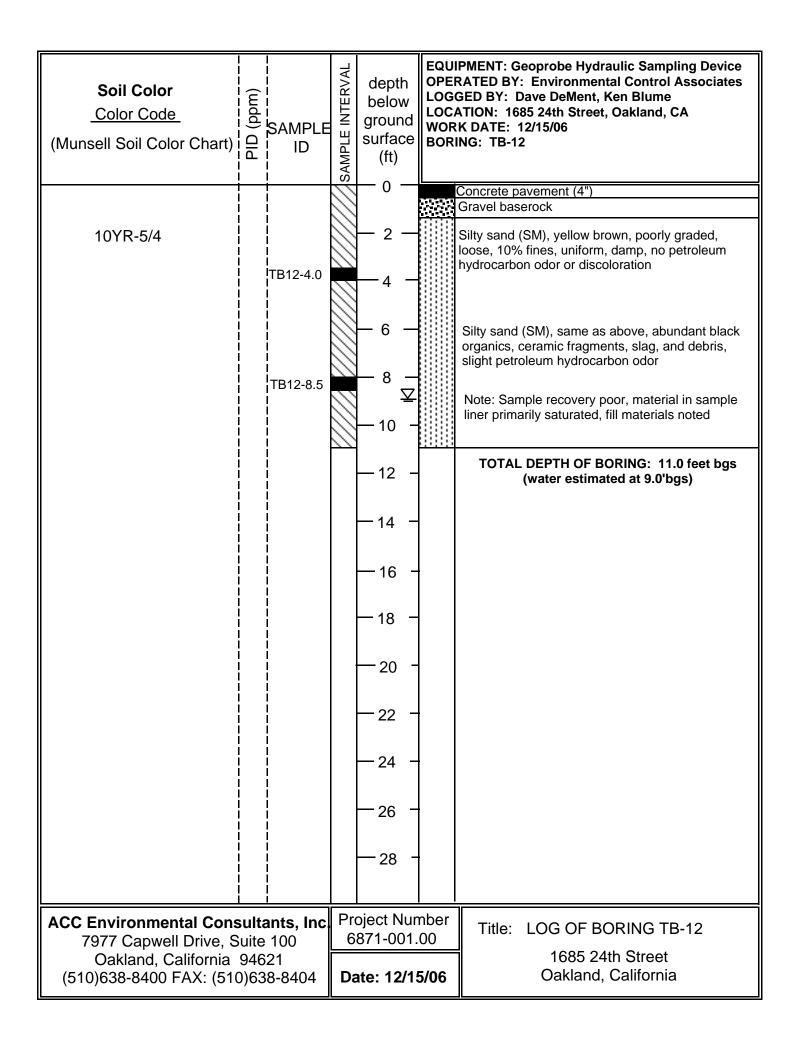


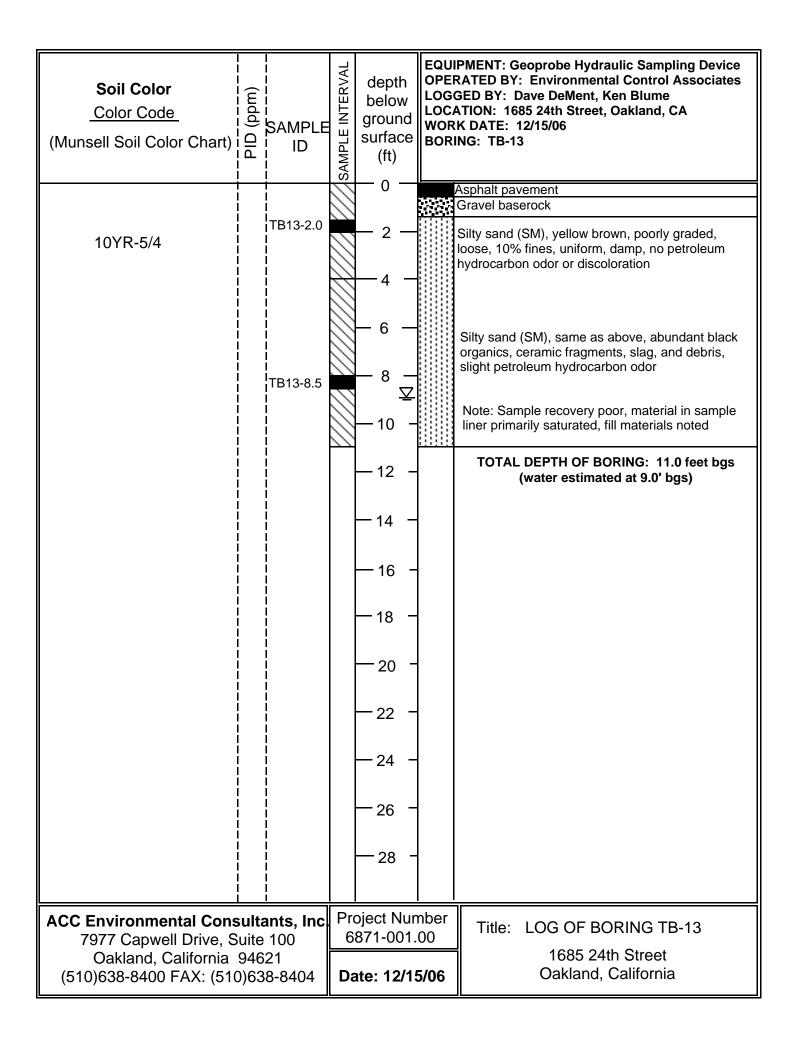
ACC Environmental Consultants, Inc.

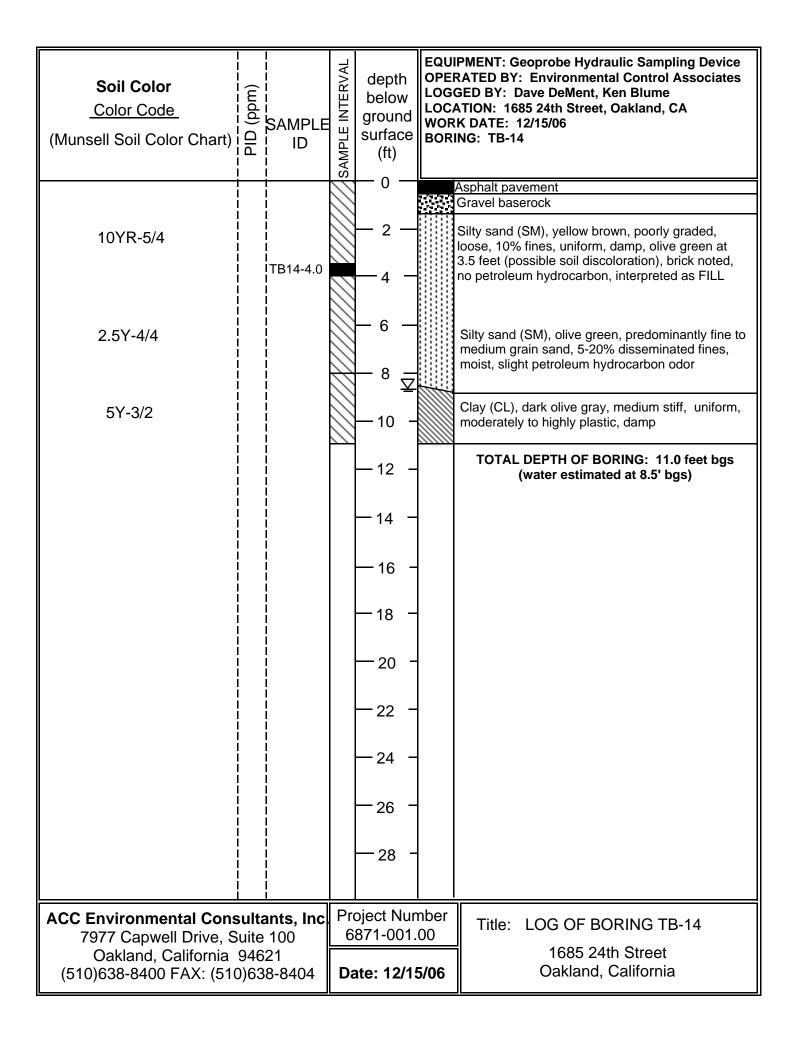
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404 Site: SUBJECT SITE
1685 24th Street
Oakland, California

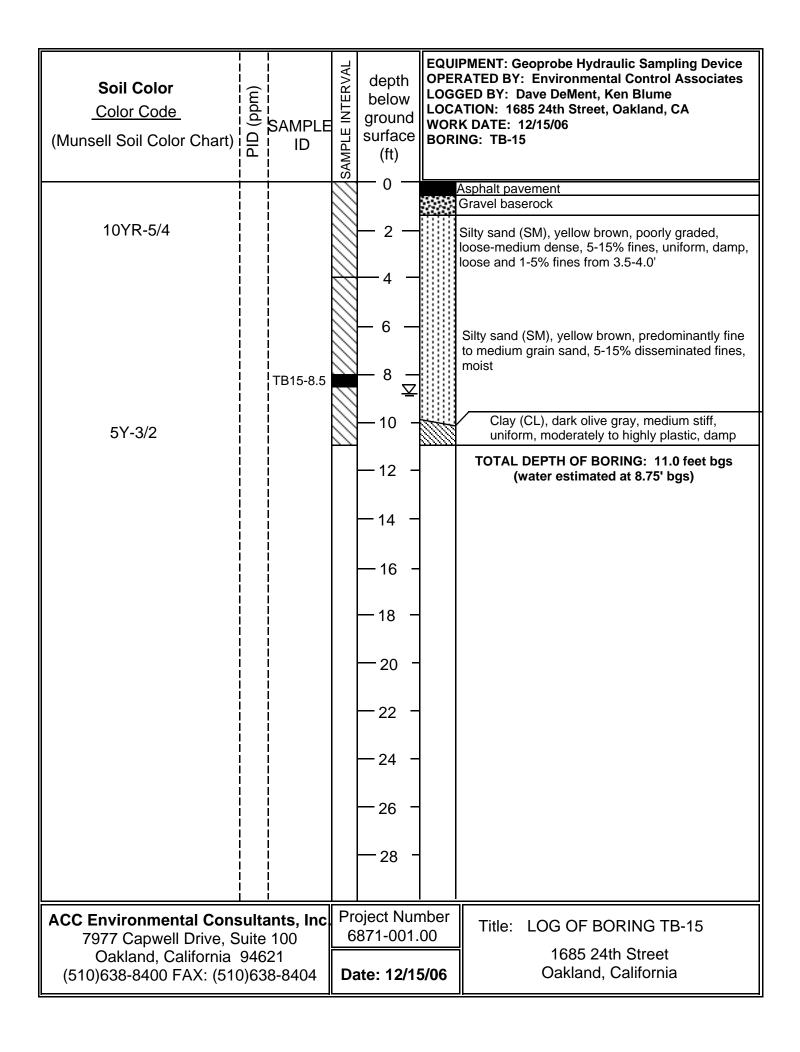
Project Number: **6871-001.00**

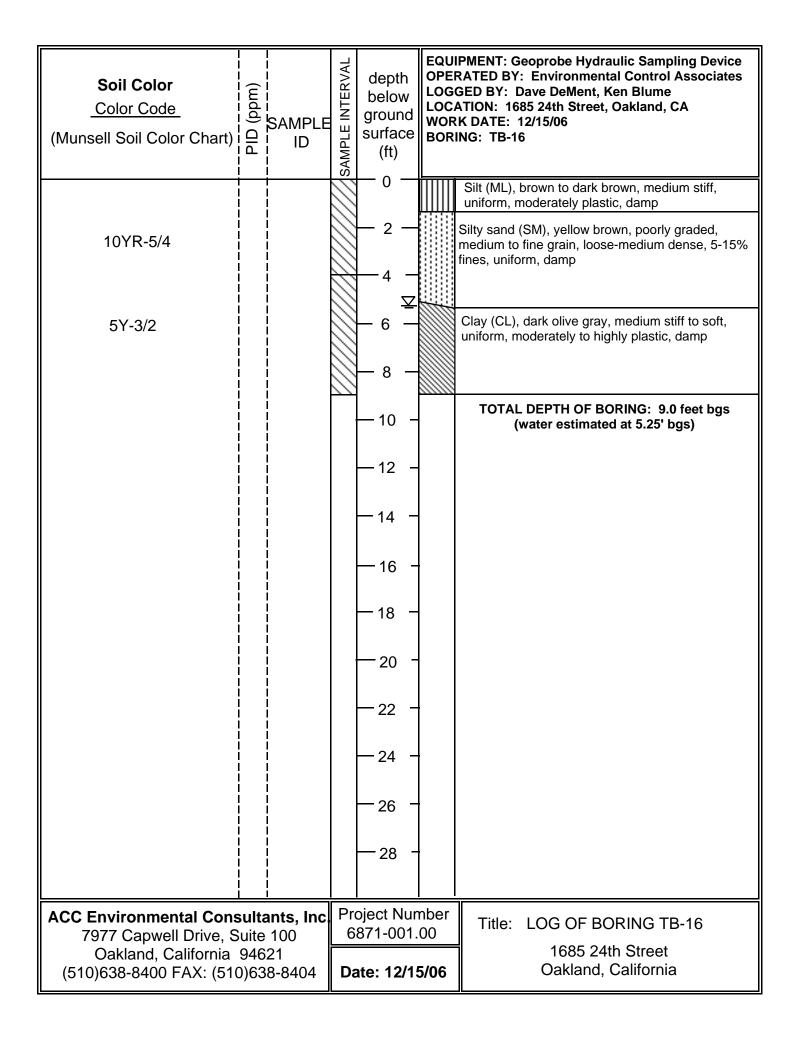


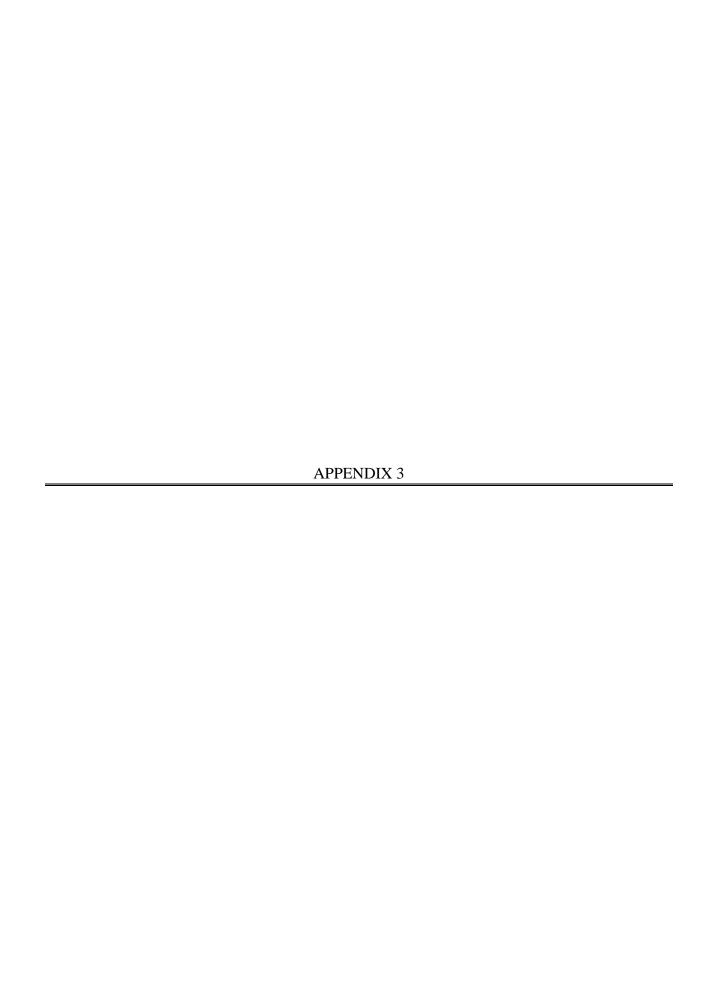














Total Volatile Hydrocarbons Lab #: 191564 1685 24th Street Location: EPA 5030B ACC Environmental Consultants Client: Prep: Project#: STANDARD Analysis: EPA 8015B Batch#: 120492 Matrix: Soil 12/15/06 Sampled: Units: mq/Kq Basis: as received Received: 12/18/06 Diln Fac: 1.000

Field ID: TB11-4.0 Lab ID: 191564-001 Type: SAMPLE Analyzed: 12/19/06

Analyte Result RL
Gasoline C7-C12 16 H 1.0

Surrogate%RECLimitsTrifluorotoluene (FID)11462-137Bromofluorobenzene (FID)10560-148

Field ID: TB12-4.0 Lab ID: 191564-002 Type: SAMPLE Analyzed: 12/19/06

 Analyte
 Result
 RL

 Gasoline C7-C12
 ND
 1.0

Surrogate%RECLimitsTrifluorotoluene (FID)10162-137Bromofluorobenzene (FID)9960-148

Field ID: TB12-8.5 Lab ID: 191564-003 Type: SAMPLE Analyzed: 12/20/06

Analyte Result RL
Gasoline C7-C12 ND 1.0

Surrogate %REC Limits
Trifluorotoluene (FID) 100 62-137
Bromofluorobenzene (FID) 97 60-148

Field ID: TB13-8.5 Lab ID: 191564-005 Type: SAMPLE Analyzed: 12/20/06

Analyte Result RL
Gasoline C7-C12 ND 0.97

Surrogate%RECLimitsTrifluorotoluene (FID)10362-137Bromofluorobenzene (FID)10360-148

H= Heavier hydrocarbons contributed to the quantitation

ND= Not Detected

RL= Reporting Limit



Total Volatile Hydrocarbons 1685 24th Street EPA 5030B Lab #: 191564 Location: ACC Environmental Consultants Client: Prep: Analysis: Batch#: Project#: STANDARD EPA 8015B Matrix: 120492 Soil 12/15/06 Units: mg/Kg Sampled: as received 1.000 Basis: Received: 12/18/06 Diln Fac:

Field ID: TB14-4.0 Lab ID: 191564-006 Type: SAMPLE Analyzed: 12/20/06

Analyte	Result	RL	
Gasoline C7-C12	ND	0.97	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	62-137
Bromofluorobenzene (FID)	98	60-148

Field ID: TB15-8.5 Lab ID: 191564-007 Type: SAMPLE Analyzed: 12/20/06

Analyte	Result	RL	
Gasoline C7-C12	ND	0.95	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	62-137
Bromofluorobenzene (FID)	99	60-148

Type: BLANK Analyzed: 12/19/06 Lab ID: QC368815

Analyte Result RL
Gasoline C7-C12 ND 0.20

	Surrogate	%REC	Limits
Т	rifluorotoluene (FID)	97	62-137
В	romofluorobenzene (FID)	99	60-148



	Total Volatile Hydrocarbons						
Lab #:	191564	Location:	1685 24th Street				
Client:	ACC Environmental Consultants	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8015B				
Type:	LCS	Basis:	as received				
Lab ID:	QC368816	Diln Fac:	1.000				
Matrix:	Soil	Batch#:	120492				
Units:	mg/Kg	Analyzed:	12/19/06				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.864	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	62-137
Bromofluorobenzene (FID)	103	60-148

Page 1 of 1 3.0



	Total Volatile Hydrocarbons							
Lab #: 191564	1	Location:	1685 24th Street					
Client: ACC Er	nvironmental Consultants	Prep:	EPA 5030B					
Project#: STANDA	ARD	Analysis:	EPA 8015B					
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000					
MSS Lab ID:	191578-001	Batch#:	120492					
Matrix:	Miscell.	Sampled:	12/18/06					
Units:	mg/Kg	Received:	12/18/06					
Basis:	as received	Analyzed:	12/19/06					

Type: MS Lab ID: QC368817

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1061	9.901	9.281	93	38-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	110	62-137	
Bromofluorobenzene (FID)	106	60-148	

Type: MSD Lab ID: QC368818

Analyte	Spiked	Result	%REC	Limits	RPD L
Gasoline C7-C12	9.709	8.452	86	38-120	7 2

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	62-137
Bromofluorobenzene (FID)	99	60-148



Total Extractable Hydrocarbons 1685 24th Street EPA 3520C Lab #: 191564 Location: ACC Environmental Consultants Client: Prep: Project#: STANDARD Analysis: EPA 8015B 12/15/06 Matrix: Water Sampled: 12/18/06 Units: ug/L Received: Diln Fac: 1.000

Field ID: TB11-W Prepared: 12/19/06 Type: SAMPLE Analyzed: 12/21/06 Lab ID: 191564-008 Cleanup Method: EPA 3630C Batch#: 120518

 Analyte
 Result
 RL

 Diesel C10-C24
 8,100 H L Y
 50

 Motor Oil C24-C36
 13,000 L
 300

Surrogate	%REC	Limits
24223455	<u> </u>	
Hexacosane	92	65-130
iichacobaiic	7 🗠	00 100

Field ID: TB12-W Prepared: 12/19/06 Type: SAMPLE Analyzed: 12/21/06 Lab ID: 191564-009 Cleanup Method: EPA 3630C Batch#: 120518

 Analyte
 Result
 RL

 Diesel C10-C24
 540 H L Y
 50

 Motor Oil C24-C36
 410 L
 300

Surrogate	%REC	Limits
Hexacosane	110	65-130

Field ID: TB13-W Prepared: 12/19/06 Type: SAMPLE Analyzed: 12/21/06 Lab ID: 191564-010 Cleanup Method: EPA 3630C Batch#: 120518

 Analyte
 Result
 RL

 Diesel C10-C24
 720 H L Y
 50

 Motor Oil C24-C36
 370 L
 300

Surrogate	%REC	Limits
Hexacosane	90	65-130

ND= Not Detected

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

RL= Reporting Limit



Total Extractable Hydrocarbons Lab #: 191564 Location: 1685 24th Street Client: ACC Environmental Consultants EPA 3520C Prep: Analysis: Sampled: EPA 8015B 12/15/06 Project#: STANDARD Matrix: Water Units: ug/L Received: 12/18/06 Diln Fac: 1.000

Field ID: TB14-W Prepared: 12/22/06 12/27/06 Type: SAMPLE Analyzed: Lab ID: 191564-011 Cleanup Method: EPA 3630C

Batch#: 120670

Analyte	Result	RL	
Diesel C10-C24	4,100 H L Y	50	
Motor Oil C24-C36	2,900 H L	300	

Surrogate	%REC	Limits
Hexacosane	69	65-130

Field ID: TB15-W 12/19/06 Prepared: Type: SAMPLE Analyzed: 12/21/06 Lab ID: 191564-012 Cleanup Method: EPA 3630C

Batch#: 120518

Analyte	Result	RL	
Diesel C10-C24	9,500 н L Y	50	
Motor Oil C24-C36	11,000 L	300	

Surrogate %REC Limits
acosane 90 65-

Field ID: TB16-W 12/19/06 Prepared: Type: SAMPLE Analyzed: 12/21/06 Lab ID: 191564-013 Cleanup Method: EPA 3630C Batch#: 120518

Result Analyte RL Diesel C10-C24 1,600 H L Y Motor Oil C24-C36 300 L 300

Surrogate	%REC	Limits
Hexacosane	97	65-130

BLANK 12/19/06 Type: Prepared: Lab ID: QC368938 12/21/06 Analyzed: Batch#: 120518 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	108	65-130

 $\mbox{\sc H=}$ Heavier hydrocarbons contributed to the quantitation $\mbox{\sc L=}$ Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 3



	Total Extractable Hydrocarbons						
Lab #:	191564		Location:	1685 24th Street			
Client:	ACC Environmental Con	sultants	Prep:	EPA 3520C			
Project#:	STANDARD		Analysis:	EPA 8015B			
Matrix:	Water		Sampled:	12/15/06			
Units:	ug/L		Received:	12/18/06			
Diln Fac:	1.000						

Type: Lab ID: 12/22/06 BLANK Prepared: Analyzed: QC369528 120670 12/27/06 Batch#: Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	98	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



Total Extractable Hydrocarbons						
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 3520C			
Project#:	STANDARD	Analysis:	EPA 8015B			
Matrix:	Water	Batch#:	120518			
Units:	ug/L	Prepared:	12/19/06			
Diln Fac:	1.000	Analyzed:	12/22/06			

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC368939

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,657	106	61-133

Surrogate	%REC	Limits
Hexacosane	93	65-130

Type: BSD Cleanup Method: EPA 3630C

Lab ID: QC368940

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,716	109	61-133	2	31

Surrogate	%REC	Limits	
Hexacosane	105	65-130	



Total Extractable Hydrocarbons						
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 3520C			
Project#:	STANDARD	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC369529	Batch#:	120670			
Matrix:	Water	Prepared:	12/22/06			
Units:	ug/L	Analyzed:	12/27/06			

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,303	92	61-133

Surrogate	%REC	Limits
Hexacosane	83	65-130



Total Extractable Hydrocarbons						
Lab #:	191564	Location:	1685 24th Street			
	ACC Environmental Consultants	Prep:	SHAKER TABLE			
Project#:	STANDARD	Analysis:	EPA 8015B			
Matrix:	Soil	Sampled:	12/15/06			
Units:	mg/Kg	Received:	12/18/06			
Basis:	as received	Prepared:	12/19/06			
Batch#:	120496	Analyzed:	12/20/06			

Field ID: TB12-8.5 Diln Fac: 1.000
Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 191564-003

 Analyte
 Result
 RL

 Diesel C10-C24
 7.9 H L Y
 1.0

 Motor Oil C24-C36
 29 H L
 5.0

Surrogate %REC Limits
acosane 87 48-1

Field ID: TB13-8.5 Diln Fac: 1.000
Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 191564-005

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

	Surrogate	%REC	Limits
Нез	kacosane	81	48-130

Field ID: TB15-8.5 Diln Fac: 5.000 Type: SAMPLE Cleanup Method: EPA 3630C Lab ID: 191564-007

Analyte Result RL

111141700	ROBULO		
Diesel C10-C24	25 Н Ү	5.0	
Motor Oil C24-C36	170 н L	25	

Surrogate	%REC	Limits	
Hexacosane	69	48-130	

Type: BLANK Diln Fac: 1.000 Lab ID: QC368841 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
Hexacosane	89	48-130

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



Total Extractable Hydrocarbons						
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	SHAKER TABLE			
Project#:	STANDARD	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC368842	Batch#:	120496			
Matrix:	Soil	Prepared:	12/19/06			
Units:	mg/Kg	Analyzed:	12/20/06			
Basis:	as received					

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.92	44.91	90	59-133

Surrogate	%REC	Limits
Hexacosane	94	48-130

Page 1 of 1 7.0



Total Extractable Hydrocarbons					
Lab #: 191564		Location:	1685 24th Street		
Client: ACC En	vironmental Consultants	Prep:	SHAKER TABLE		
Project#: STANDA	RD	Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ	Batch#:	120496		
MSS Lab ID:	191543-001	Sampled:	12/15/06		
Matrix:	Soil	Received:	12/15/06		
Units:	mg/Kg	Prepared:	12/19/06		
Basis:	as received	Analyzed:	12/22/06		
Diln Fac:	5.000				

Type: MS Lab ID:

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	49.89	49.90	105.4	111	37-153

QC368843

Surrogate	%REC	Limits
Hexacosane	94	48-130

Type: MSD Lab ID: QC368844

Analyte	Spiked	Result	%REC	Limits	RPD I	im
Diesel C10-C24	49.86	97.15	95	37-153	8 4	43

Surrogate	%REC	Limits
Hexacosane	89	48-130



Total Extractable Hydrocarbons Lab #: 191564 1685 24th Street Location: ACC Environmental Consultants SHAKER TABLE Client: Prep: Project#: STANDARD Analysis: EPA 8015B 12/15/06 Matrix: Sampled: Soil 12/18/06 Units: mq/Kq Received: Basis: as received 12/19/06 Prepared: Batch#: 120496

Field ID: TB11-4.0 Diln Fac: 1.000 SAMPLE 12/21/06 Type: Analyzed: Lab ID: 191564-001

Analyte Result Diesel C10-C24 28 H L Y 1.0 Motor Oil C24-C36 22 H L 5.0

Surrogate %REC Limits Hexacosane 101 48-130

Field ID: TB12-4.0 Diln Fac: 5.000 Type: SAMPLE Analyzed: 12/20/06

Lab ID: 191564-002

Analyte Result RLDiesel C10-C24 9.5 H Y 5.0 25 Motor Oil C24-C36 79 H

Surrogate %REC Limits Hexacosane 48-130

Field ID: TB13-2.0 Diln Fac: 1.000 SAMPLE 12/21/06 Type: Analyzed:

Lab ID: 191564-004

Result Analyte RLDiesel C10-C24 1.0 Motor Oil C24-C36 ND 5.0

Surrogate %REC Limits Hexacosane 85 48-130

Field ID: TB14-4.0 Diln Fac: 5.000 SAMPLE 12/20/06 Type: Analyzed:

Lab ID: 191564-006

Result Analyte Diesel C10-C24 40 H Y 5.0 160 H Motor Oil C24-C36 25

Surrogate Limits %REC Hexacosane 48-130

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



	Total Extra	actable Hydrocar	bons	
	191564	Location:	1685 24th Street	
	ACC Environmental Consultants	Prep:	SHAKER TABLE	
Project#:	STANDARD	Analysis:	EPA 8015B	
Matrix:	Soil	Sampled:	12/15/06	
Units:	mg/Kg	Received:	12/18/06	
Basis:	as received	Prepared:	12/19/06	
Batch#:	120496	-		

BLANK QC368841 Type: Lab ID: 1.000 12/20/06 Diln Fac: Analyzed:

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
Hexacosane	104	48-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



	Total Extrac	ctable Hydrocar	rbons
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC368842	Batch#:	120496
Matrix:	Soil	Prepared:	12/19/06
Units:	mg/Kg	Analyzed:	12/20/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.92	44.91	90	59-133

Surrogate	%REC	Limits
Hexacosane	94	48-130



Total Ext	cractable Hydrocar	bons
Lab #: 191564	Location:	1685 24th Street
Client: ACC Environmental Consultants	Prep:	SHAKER TABLE
Project#: STANDARD	Analysis:	EPA 8015B
Field ID: ZZZZZZZZZZ	Batch#:	120496
MSS Lab ID: 191543-001	Sampled:	12/15/06
Matrix: Soil	Received:	12/15/06
Units: mg/Kg	Prepared:	12/19/06
Basis: as received	Analyzed:	12/22/06
Diln Fac: 5.000		

Type: MS Lab ID: QC368843

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	49.89	49.90	105.4	111	37-153

Surrogate	%REC	Limits
Hexacosane	94	48-130

Type: MSD Lab ID: QC368844

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.86	97.15	95	37-153	8	43

	Surrogate	%REC	Limits
Нехасо	osane	89	48-130



	Purgeable H	alocarbons by G	GC/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB12-W	Batch#:	120691
Lab ID:	191564-009	Sampled:	12/15/06
Matrix:	Water	Received:	12/18/06
Units:	ug/L	Analyzed:	12/27/06
Diln Fac:	1.000		

Analyte	Result	RL	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	20	
trans-1,2-Dichloroethene	ND	0.5	
1,1-Dichloroethane	ND	0.5	
cis-1,2-Dichloroethene	ND	0.5	
Chloroform	ND	1.0	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
cis-1,3-Dichloropropene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Bromoform	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	80-130
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-122



	Purgeable H	alocarbons by G	GC/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB13-W	Batch#:	120691
Lab ID:	191564-010	Sampled:	12/15/06
Matrix:	Water	Received:	12/18/06
Units:	ug/L	Analyzed:	12/27/06
Diln Fac:	1.000		

Analyte	Result	RL	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	20	
trans-1,2-Dichloroethene	ND	0.5	
1,1-Dichloroethane	ND	0.5	
cis-1,2-Dichloroethene	ND	0.5	
Chloroform	ND	1.0	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
cis-1,3-Dichloropropene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Bromoform	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	106	80-122

RL= Reporting Limit



	Purgeable H	alocarbons by G	GC/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB16-W	Batch#:	120691
Lab ID:	191564-013	Sampled:	12/15/06
Matrix:	Water	Received:	12/18/06
Units:	ug/L	Analyzed:	12/27/06
Diln Fac:	1.000		

Analyte	Result	RL	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	20	
trans-1,2-Dichloroethene	ND	0.5	
1,1-Dichloroethane	ND	0.5	
cis-1,2-Dichloroethene	ND	0.5	
Chloroform	ND	1.0	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
cis-1,3-Dichloropropene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Bromoform	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-122



	Purgeable	Halocarbons by G	C/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	120691
Units:	ug/L	Analyzed:	12/27/06
Diln Fac:	1.000		

Type: BS Lab ID: QC369604

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	22.40	90	77-128
Trichloroethene	25.00	22.52	90	80-120
Chlorobenzene	25.00	24.80	99	80-120

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	98	80-130	
Toluene-d8	97	80-120	
Bromofluorobenzene	101	80-122	

Type: BSD Lab ID: QC369605

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	25.63	103	77-128	13	20
Trichloroethene	25.00	24.20	97	80-120	7	20
Chlorobenzene	25.00	25.61	102	80-120	3	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-122



	Purgeable	Halocarbons by G	C/MS	
Lab #:	191564	Location:	1685 24th Street	
Client:	ACC Environmental Consultants	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC369606	Batch#:	120691	
Matrix:	Water	Analyzed:	12/27/06	
Units:	ug/L			

Analyte	Result	RL	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	20	
trans-1,2-Dichloroethene	ND	0.5	
1,1-Dichloroethane	ND	0.5	
cis-1,2-Dichloroethene	ND	0.5	
Chloroform	ND	1.0	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
cis-1,3-Dichloropropene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Bromoform	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	106	80-122

RL= Reporting Limit



	Gasoline by GC/MS						
Lab #:	191564		Location:	1685 24th Street			
Client:	ACC Environmental	Consultants	Prep:	EPA 5030B			
Project#:	STANDARD		Analysis:	EPA 8260B			
Matrix:	Water		Sampled:	12/15/06			
Units:	ug/L		Received:	12/18/06			

4.000 12/23/06 Field ID: TB11-W Diln Fac: Type: SAMPLE Analyzed:

Lab ID: 191564-008

Analyte	Result	RL	Batch#	
Gasoline C7-C12	9,400	200	120679	
MTBE	29	2.0	120680	
Benzene	84	2.0	120680	
Toluene	15	2.0	120680	
Ethylbenzene	27	2.0	120680	
m,p-Xylenes	31	2.0	120680	
o-Xylene	6.5	2.0	120680	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	103	80-120	120680
1,2-Dichloroethane-d4	103	80-130	120680
Toluene-d8	102	80-120	120680
Bromofluorobenzene	99	80-122	120680

Lab ID: 191564-009 Diln Fac: 1.000 Field ID: TB12-W SAMPLE Type:

Analyte	Result	RL	Batch# Analyzed	
Gasoline C7-C12	1,600 Z	50	120679 12/23/06	
MTBE	ND	0.50	120691 12/27/06	
Benzene	0.55	0.50	120691 12/27/06	
Toluene	ND	0.50	120691 12/27/06	
Ethylbenzene	ND	0.50	120691 12/27/06	
m,p-Xylenes	1.2	0.50	120691 12/27/06	
o-Xylene	ND	0.50	120691 12/27/06	

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	108	80-120	120691	12/27/06
1,2-Dichloroethane-d4	108	80-130	120691	12/27/06
Toluene-d8	102	80-120	120691	12/27/06
Bromofluorobenzene	105	80-122	120691	12/27/06

Y= Sample exhibits chromatographic pattern which does not resemble standard Z= Sample exhibits unknown single peak or peaks NA= Not Analyzed ND= Not Detected



	Gasoline by GC/MS							
Lab #: Client: Project#:	191564 ACC Environmental STANDARD	Consultants	Location: Prep: Analysis:	1685 24th Street EPA 5030B EPA 8260B				
Matrix: Units:	Matrix: Water Sampled: 12/15/06							

Field ID: TB13-W Lab ID: 191564-010 SAMPLE Diln Fac: Type: 1.000

Analyte	Result	RL	Batch# Analyzed
Gasoline C7-C12	640 Z	50	120679 12/23/06
MTBE	ND	0.50	120691 12/27/06
Benzene	0.85	0.50	120691 12/27/06
Toluene	ND	0.50	120691 12/27/06
Ethylbenzene	ND	0.50	120691 12/27/06
m,p-Xylenes	0.55	0.50	120691 12/27/06
o-Xylene	ND	0.50	120691 12/27/06

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	100	80-120	120691	12/27/06
1,2-Dichloroethane-d4	99	80-130	120691	12/27/06
Toluene-d8	98	80-120	120691	12/27/06
Bromofluorobenzene	106	80-122	120691	12/27/06

Field ID: TB14-W Diln Fac: 3.333 Type: SAMPLE Analyzed: 12/23/06 Lab ID: 191564-011

Batch# 120679 Result Analyte RL Gasoline C7-C12 170 9,400 Z 1.7 MTBE 35 120680 170 1.7 120680 Benzene Toluene 4.4 120680 1.7 120680 Ethylbenzene 11 m,p-Xylenes 5.1 1.7 120680 o-Xylene 4.3 120680

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	102	80-120	120680
1,2-Dichloroethane-d4	100	80-130	120680
Toluene-d8	100	80-120	120680
Bromofluorobenzene	98	80-122	120680

NA= Not Analyzed ND= Not Detected

RL= Reporting Limit

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Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks



	Gasoline by GC/MS							
Lab #: Client: Project#:	191564 ACC Environmental STANDARD	Consultants	Location: Prep: Analysis:	1685 24th Street EPA 5030B EPA 8260B				
Matrix: Units:	Matrix: Water Sampled: 12/15/06							

TB15-W Lab ID: 191564-012 Field ID:

SAMPLE Type:

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	10,000 Z	130	2.500	120679 12/23/06
MTBE	ND	2.0	4.000	120691 12/27/06
Benzene	22	2.0	4.000	120691 12/27/06
Toluene	3.9	2.0	4.000	120691 12/27/06
Ethylbenzene	310	2.0	4.000	120691 12/27/06
m,p-Xylenes	14	2.0	4.000	120691 12/27/06
o-Xylene	4.3	2.0	4.000	120691 12/27/06

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	105	80-120	4.000	120691 12/27/06
1,2-Dichloroethane-d4	109	80-130	4.000	120691 12/27/06
Toluene-d8	100	80-120	4.000	120691 12/27/06
Bromofluorobenzene	106	80-122	4.000	120691 12/27/06

Field ID: 191564-013 TB16-W Lab ID: Diln Fac: Type: SAMPLE 1.000

Analyte	Result	RL	Batch# Analyzed
Gasoline C7-C12	1,500 Y	50	120679 12/23/06
MTBE	ND	0.50	120691 12/27/06
Benzene	1.8	0.50	120691 12/27/06
Toluene	ND	0.50	120691 12/27/06
Ethylbenzene	ND	0.50	120691 12/27/06
m,p-Xylenes	ND	0.50	120691 12/27/06
o-Xylene	ND	0.50	120691 12/27/06

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	95	80-120	120691	12/27/06
1,2-Dichloroethane-d4	96	80-130	120691	12/27/06
Toluene-d8	98	80-120	120691	12/27/06
Bromofluorobenzene	101	80-122	120691	12/27/06

RL= Reporting Limit

Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks NA= Not Analyzed

ND= Not Detected



	Gasoline by GC/MS							
Lab #:	191564		Location:	1685 24th Street				
	ACC Environmental	Consultants	Prep:	EPA 5030B				
Project#:	Project#: STANDARD Analysis: EPA 8260B							
Matrix:	Water	_	Sampled:	12/15/06				
Units:	ug/L		Received:	12/18/06				

Type: BLANK Batch#: 120679
Lab ID: QC369562 Analyzed: 12/23/06
Diln Fac: 1.000

Analyte Result RL Gasoline C7-C12 ND 50 NA MTBE NA Benzene Toluene NA Ethylbenzene NA m,p-Xylenes NA o-Xylene NA

Surrogate	%REC	Limits
Dibromofluoromethane	116	80-120
1,2-Dichloroethane-d4	94	80-130
Toluene-d8	112	80-120
Bromofluorobenzene	96	80-122

Type: BLANK Batch#: 120680 Lab ID: QC369565 Analyzed: 12/23/06 Diln Fac: 1.000

Analyte	Result	RL	
Gasoline C7-C12	NA		
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	103	80-120	
1,2-Dichloroethane-d4	102	80-130	
Toluene-d8	100	80-120	
Bromofluorobenzene	107	80-122	

Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks

NA= Not Analyzed ND= Not Detected

RL= Reporting Limit



	Gasoline by GC/MS						
Lab #:	191564		Location:	1685 24th Street			
	ACC Environmental	Consultants	Prep:	EPA 5030B			
Project#:	STANDARD		Analysis:	EPA 8260B			
Matrix:	Water	_	Sampled:	12/15/06			
Units:	ug/L		Received:	12/18/06			

Type: Lab ID: Diln Fac: 120691 12/27/06 BLANK Batch#: QC369606 1.000 Analyzed:

Analyte	Result	RL	
Gasoline C7-C12	NA		
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
	ND	0.50	
m,p-Xylenes o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	104	80-120	
1,2-Dichloroethane-d4	104	80-130	
Toluene-d8	100	80-120	
Bromofluorobenzene	106	80-122	

Y= Sample exhibits chromatographic pattern which does not resemble standard Z= Sample exhibits unknown single peak or peaks NA= Not Analyzed

ND= Not Detected

RL= Reporting Limit



	Gasoline by GC/MS					
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	120679			
Units:	ug/L	Analyzed:	12/23/06			
Diln Fac:	1.000					

Type: BS Lab ID: QC369563

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,174	109	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-120
1,2-Dichloroethane-d4	97	80-130
Toluene-d8	113	80-120
Bromofluorobenzene	94	80-122

Type: BSD Lab ID: QC369564

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,121	106	70-130	2	20

Surrogate	%REC	Limits	
Dibromofluoromethane	113	80-120	
1,2-Dichloroethane-d4	92	80-130	
Toluene-d8	111	80-120	
Bromofluorobenzene	95	80-122	



	Gasoline by GC/MS					
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	120680			
Units:	ug/L	Analyzed:	12/23/06			
Diln Fac:	1.000					

Type: BS Lab ID: QC369566

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.42	94	72-120
Benzene	25.00	25.52	102	80-120
Toluene	25.00	25.89	104	80-120
Ethylbenzene	25.00	27.36	109	80-120
m,p-Xylenes	50.00	55.47	111	80-121
o-Xylene	25.00	26.37	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-122

Type: BSD Lab ID: QC369567

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	24.47	98	72-120	4	20
Benzene	25.00	26.16	105	80-120	2	20
Toluene	25.00	26.64	107	80-120	3	20
Ethylbenzene	25.00	27.66	111	80-120	1	20
m,p-Xylenes	50.00	56.36	113	80-121	2	20
o-Xylene	25.00	26.60	106	80-120	1	20

Surrogate	%REC	Limits	
Dibromofluoromethane	100	80-120	
1,2-Dichloroethane-d4	101	80-130	
Toluene-d8	101	80-120	
Bromofluorobenzene	101	80-122	



Gasoline by GC/MS						
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	120691			
Units:	ug/L	Analyzed:	12/27/06			
Diln Fac:	1.000					

Type: BS Lab ID: QC369604

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	22.05	88	72-120
Benzene	25.00	22.78	91	80-120
Toluene	25.00	24.67	99	80-120
Ethylbenzene	25.00	26.90	108	80-120
m,p-Xylenes	50.00	55.93	112	80-121
o-Xylene	25.00	29.10	116	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	98	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC369605

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.07	92	72-120	4	20
Benzene	25.00	23.51	94	80-120	3	20
Toluene	25.00	26.00	104	80-120	5	20
Ethylbenzene	25.00	28.10	112	80-120	4	20
m,p-Xylenes	50.00	60.24	120	80-121	7	20
o-Xylene	25.00	28.88	116	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	95	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-122



	Purgeable Aromatics by GC/MS					
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	TB11-4.0	Diln Fac:	0.9615			
Lab ID:	191564-001	Batch#:	120738			
Matrix:	Soil	Sampled:	12/15/06			
Units:	ug/Kg	Received:	12/18/06			
Basis:	as received	Analyzed:	12/27/06			

Analyte	Result	RL	
MTBE	ND	4.8	
Benzene	8.5	4.8	
Toluene	ND	4.8	
Chlorobenzene	ND	4.8	
Ethylbenzene	27	4.8	
m,p-Xylenes	44	4.8	
o-Xylene	ND	4.8	
1,3-Dichlorobenzene	ND	4.8	
1,4-Dichlorobenzene	ND	4.8	
1,2-Dichlorobenzene	ND	4.8	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	99	76-130	
Toluene-d8	102	80-120	
Bromofluorobenzene	99	80-126	

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	Purgeable	Aromatics by GC	/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB12-4.0	Diln Fac:	0.9434
Lab ID:	191564-002	Batch#:	120483
Matrix:	Soil	Sampled:	12/15/06
Units:	ug/Kg	Received:	12/18/06
Basis:	as received	Analyzed:	12/19/06

Analyte	Result	RL	
MTBE	ND	4.7	
Benzene	ND	4.7	
Toluene	ND	4.7	
Chlorobenzene	ND	4.7	
Ethylbenzene	ND	4.7	
m,p-Xylenes	ND	4.7	
o-Xylene	ND	4.7	
1,3-Dichlorobenzene	ND	4.7	
1,4-Dichlorobenzene	ND	4.7	
1,2-Dichlorobenzene	ND	4.7	

Surrogate	%REC	imits	
1,2-Dichloroethane-d4	104	6-130	
Toluene-d8	96	0-120	
Bromofluorobenzene	110	0-126	

Page 1 of 1 26.0



	Purgeable	Aromatics by GC	/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB12-8.5	Diln Fac:	0.9804
Lab ID:	191564-003	Batch#:	120530
Matrix:	Soil	Sampled:	12/15/06
Units:	ug/Kg	Received:	12/18/06
Basis:	as received	Analyzed:	12/20/06

Analyte	Result	RL	
MTBE	ND	4.9	
Benzene	ND	4.9	
Toluene	ND	4.9	
Chlorobenzene	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes	ND	4.9	
o-Xylene	ND	4.9	
1,3-Dichlorobenzene	ND	4.9	
1,4-Dichlorobenzene	ND	4.9	
1,2-Dichlorobenzene	ND	4.9	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-130
Toluene-d8	94	80-120
Bromofluorobenzene	122	80-126

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Purgeable Aromatics by GC/MS						
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	TB13-8.5	Diln Fac:	0.9615			
Lab ID:	191564-005	Batch#:	120483			
Matrix:	Soil	Sampled:	12/15/06			
Units:	ug/Kg	Received:	12/18/06			
Basis:	as received	Analyzed:	12/19/06			

Analyte	Result	RL	
MTBE	ND	4.8	
Benzene	ND	4.8	
Toluene	ND	4.8	
Chlorobenzene	ND	4.8	
Ethylbenzene	ND	4.8	
m,p-Xylenes	ND	4.8	
o-Xylene	ND	4.8	
1,3-Dichlorobenzene	ND	4.8	
1,4-Dichlorobenzene	ND	4.8	
1,2-Dichlorobenzene	ND	4.8	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-126

Page 1 of 1 28.0



	Purgeable Aromatics by GC/MS					
Lab #:	191564	Location:	1685 24th Street			
Client:	ACC Environmental Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	TB14-4.0	Diln Fac:	0.9259			
Lab ID:	191564-006	Batch#:	120483			
Matrix:	Soil	Sampled:	12/15/06			
Units:	ug/Kg	Received:	12/18/06			
Basis:	as received	Analyzed:	12/19/06			

Analyte	Result	RL	
MTBE	ND	4.6	
Benzene	ND	4.6	
Toluene	ND	4.6	
Chlorobenzene	ND	4.6	
Ethylbenzene	ND	4.6	
m,p-Xylenes	ND	4.6	
o-Xylene	ND	4.6	
1,3-Dichlorobenzene	ND	4.6	
1,4-Dichlorobenzene	ND	4.6	
1,2-Dichlorobenzene	ND	4.6	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-126

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Purgeable Aromatics by GC/MS					
Lab #:	191564	Location:	1685 24th Street		
Client:	ACC Environmental Consultar	nts Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	TB15-8.5	Basis:	as received		
Lab ID:	191564-007	Sampled:	12/15/06		
Matrix:	Soil	Received:	12/18/06		
Units:	ug/Kg				

Analyte	Result	RL	Diln Fac	Batch# Analyzed
MTBE	ND	25	5.000	120483 12/19/06
Benzene	ND	25	5.000	120483 12/19/06
Toluene	ND	25	5.000	120483 12/19/06
Chlorobenzene	ND	25	5.000	120483 12/19/06
Ethylbenzene	460	250	50.00	120530 12/20/06
m,p-Xylenes	30	25	5.000	120483 12/19/06
o-Xylene	ND	25	5.000	120483 12/19/06
1,3-Dichlorobenzene	ND	25	5.000	120483 12/19/06
1,4-Dichlorobenzene	ND	25	5.000	120483 12/19/06
1,2-Dichlorobenzene	ND	25	5.000	120483 12/19/06

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
1,2-Dichloroethane-d4	124	76-130	5.000	120483 12/19/06
Toluene-d8	95	80-120	5.000	120483 12/19/06
Bromofluorobenzene	118	80-126	5.000	120483 12/19/06
Trifluorotoluene (MeOH)	90	53-133	50.00	120530 12/20/06

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Purgeable Aromatics by GC/MS					
Lab #:	191564	Location:	1685 24th Street		
Client:	ACC Environmental Consultants	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Type:	LCS	Basis:	as received		
Lab ID:	QC368786	Diln Fac:	1.000		
Matrix:	Soil	Batch#:	120483		
Units:	ug/Kg	Analyzed:	12/19/06		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.70	87	69-120
Benzene	25.00	25.08	100	80-120
Toluene	25.00	25.68	103	80-120
Chlorobenzene	25.00	26.97	108	80-120
Ethylbenzene	25.00	27.24	109	80-120
m,p-Xylenes	50.00	53.22	106	80-120
o-Xylene	25.00	25.85	103	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	119	76-130
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-126

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Batch QC Report

Purgeable Aromatics by GC/MS							
Lab #:	191564	Location:	1685 24th Street				
Client:	ACC Environmental Consultants	Prep:	EPA 5030B				
Project#:	ect#: STANDARD Analysis: EPA 8260B						
Type:	BLANK	Basis:	as received				
Lab ID:	QC368787	Diln Fac:	1.000				
Matrix:	Soil	Batch#:	120483				
Units:	ug/Kg	Analyzed:	12/19/06				

Analyte	Result	RL	
MTBE	ND	5.0	
Benzene	ND	5.0	
Toluene	ND	5.0	
Chlorobenzene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	120	76-130	
Toluene-d8	98	80-120	
Bromofluorobenzene	103	80-126	

Page 1 of 1



Purgeable Aromatics by GC/MS							
Lab #: 19156	4	Location:	1685 24th Street				
Client: ACC E	nvironmental Consultants	Prep:	EPA 5030B				
Project#: STAND	ARD	Analysis:	EPA 8260B				
Field ID:	TB13-8.5	Diln Fac:	0.9615				
MSS Lab ID:	191564-005	Batch#:	120483				
Matrix:	Soil	Sampled:	12/15/06				
Units:	ug/Kg	Received:	12/18/06				
Basis:	as received	Analyzed:	12/19/06				

Type: MS Lab ID: QC368890

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1843	48.08	42.30	88	56-120
Benzene	<0.1325	48.08	42.08	88	67-120
Toluene	<0.5313	48.08	43.02	89	62-120
Chlorobenzene	<0.4972	48.08	41.49	86	59-120
Ethylbenzene	<0.5605	48.08	44.50	93	60-120
m,p-Xylenes	<1.257	96.15	85.28	89	58-120
o-Xylene	<0.4957	48.08	43.56	91	58-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-126

Type: MSD Lab ID: QC368891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	48.08	38.97	81	56-120	8	23
Benzene	48.08	37.91	79	67-120	10	20
Toluene	48.08	38.82	81	62-120	10	20
Chlorobenzene	48.08	36.37	76	59-120	13	21
Ethylbenzene	48.08	39.06	81	60-120	13	21
m,p-Xylenes	96.15	74.98	78	58-120	13	22
o-Xylene	48.08	38.34	80	58-120	13	22

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	93	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-126

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Purgeable Aromatics by GC/MS							
Lab #:	191564	Location:	1685 24th Street				
Client:	ACC Environmental Consultants	Prep:	EPA 5030B				
Project#:	ct#: STANDARD Analysis: EPA 8260B						
Type:	LCS	Basis:	as received				
Lab ID:	QC368985	Diln Fac:	1.000				
Matrix:	Soil	Batch#:	120530				
Units:	ug/Kg	Analyzed:	12/20/06				

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	22.34	89	69-120
Benzene	25.00	23.98	96	80-120
Toluene	25.00	23.92	96	80-120
Chlorobenzene	25.00	24.78	99	80-120
Ethylbenzene	25.00	25.77	103	80-120
m,p-Xylenes	50.00	50.04	100	80-120
o-Xylene	25.00	25.39	102	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	76-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-126

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	Pı	urgeable Aromatics by	GC/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Cons	ultants Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC368986	Diln Fac:	1.000
Matrix:	Soil	Batch#:	120530
Units:	ug/Kg	Analyzed:	12/20/06

Analyte	Result	RL	
MTBE	ND	5.0	
Benzene	ND	5.0	
Toluene	ND	5.0	
Chlorobenzene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	99	76-130	
Toluene-d8	96	80-120	
Bromofluorobenzene	99	80-126	



	Purgeable A	aromatics by GC	/MS
Lab #: 19156	4	Location:	1685 24th Street
Client: ACC E	nvironmental Consultants	Prep:	EPA 5030B
Project#: STAND	ARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9434
MSS Lab ID:	191549-004	Batch#:	120530
Matrix:	Miscell.	Sampled:	12/15/06
Units:	ug/Kg	Received:	12/15/06
Basis:	as received	Analyzed:	12/20/06

Type: MS Lab ID: QC369101

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1808	47.17	36.83	78	56-120
Benzene	0.5121	47.17	34.79	73	67-120
Toluene	2.372	47.17	34.61	68	62-120
Chlorobenzene	<0.4878	47.17	30.57	65	59-120
Ethylbenzene	6.211	47.17	37.72	67	60-120
m,p-Xylenes	19.79	94.34	81.03	65	58-120
o-Xylene	13.55	47.17	45.11	67	58-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	107	80-126

Type: MSD Lab ID: QC369102

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	47.17	35.67	76	56-120	3	23
Benzene	47.17	34.92	73	67-120	0	20
Toluene	47.17	34.85	69	62-120	1	20
Chlorobenzene	47.17	30.36	64	59-120	1	21
Ethylbenzene	47.17	37.07	65	60-120	2	21
m,p-Xylenes	94.34	78.59	62	58-120	3	22
o-Xylene	47.17	43.99	65	58-120	2	22

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	76-130
Toluene-d8	98	80-120
Bromofluorobenzene	106	80-126



	Purgeable	Aromatics by GC	C/MS
Lab #:	191564	Location:	1685 24th Street
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC369788	Diln Fac:	1.000
Matrix:	Soil	Batch#:	120738
Units:	ug/Kg	Analyzed:	12/27/06

Analyte	Result	RL	
MTBE	ND	5.0	
Benzene	ND	5.0	
Toluene	ND	5.0	
Chlorobenzene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-126

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Purgeable Aromatics by GC/MS									
Lab #:	191564	Location:	1685 24th Street						
Client:	ACC Environmental Consultants	Prep:	EPA 5030B						
Project#:	STANDARD	Analysis:	EPA 8260B						
Type:	LCS	Basis:	as received						
Lab ID:	QC369789	Diln Fac:	1.000						
Matrix:	Soil	Batch#:	120738						
Units:	ug/Kg	Analyzed:	12/27/06						

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	54.18	108	69-120
Benzene	50.00	47.09	94	80-120
Toluene	50.00	49.13	98	80-120
Chlorobenzene	50.00	47.02	94	80-120
Ethylbenzene	50.00	49.76	100	80-120
m,p-Xylenes	100.0	99.83	100	80-120
o-Xylene	50.00	48.60	97	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-126

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Purgeable Aromatics by GC/MS									
Lab #: 19156	4	Location:	1685 24th Street						
Client: ACC E	nvironmental Consultants	Prep:	EPA 5030B						
Project#: STAND	ARD	Analysis:	EPA 8260B						
Field ID:	ZZZZZZZZZ	Diln Fac:	0.8772						
MSS Lab ID:	191645-001	Batch#:	120738						
Matrix:	Soil	Sampled:	12/20/06						
Units:	ug/Kg	Received:	12/20/06						
Basis:	as received	Analyzed:	12/28/06						

Type: MS Lab ID: QC369790

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1039	43.86	40.20	92	56-120
Benzene	<0.1723	43.86	34.96	80	67-120
Toluene	<0.2258	43.86	35.42	81	62-120
Chlorobenzene	<0.3205	43.86	32.02	73	59-120
Ethylbenzene	<0.3186	43.86	33.72	77	60-120
m,p-Xylenes	<0.5238	87.72	66.05	75	58-120
o-Xylene	<0.1561	43.86	32.86	75	58-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	76-130
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-126

Type: MSD Lab ID: QC369791

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	43.86	39.53	90	56-120	2	23
Benzene	43.86	36.45	83	67-120	4	20
Toluene	43.86	37.38	85	62-120	5	20
Chlorobenzene	43.86	33.88	77	59-120	6	21
Ethylbenzene	43.86	35.70	81	60-120	6	21
m,p-Xylenes	87.72	70.50	80	58-120	7	22
o-Xylene	43.86	34.98	80	58-120	6	22

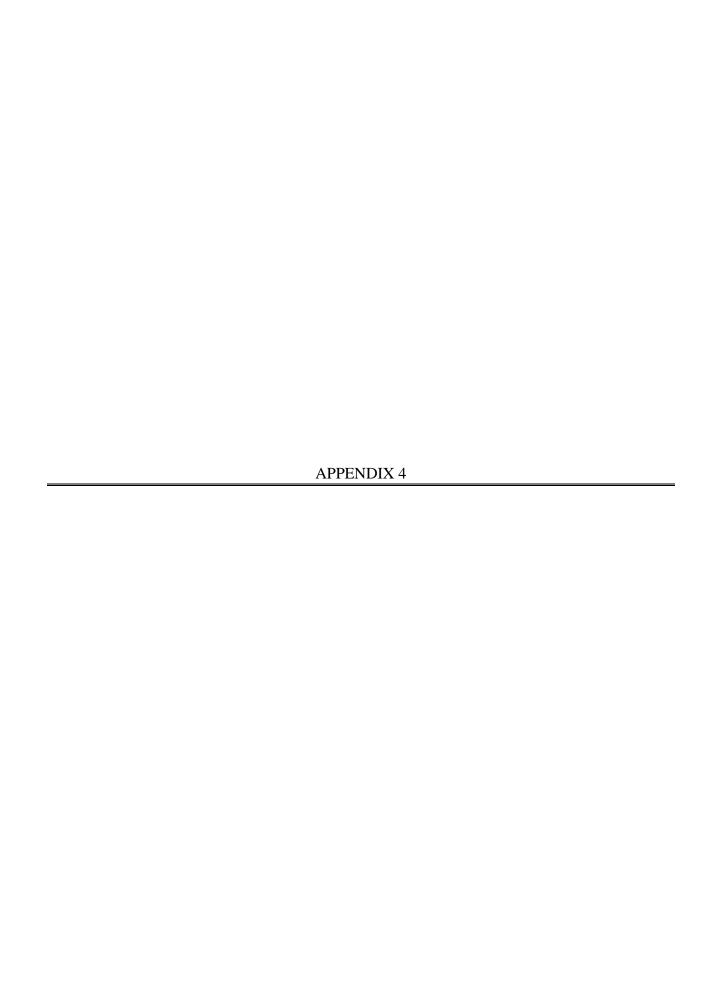
Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	76-130
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-126

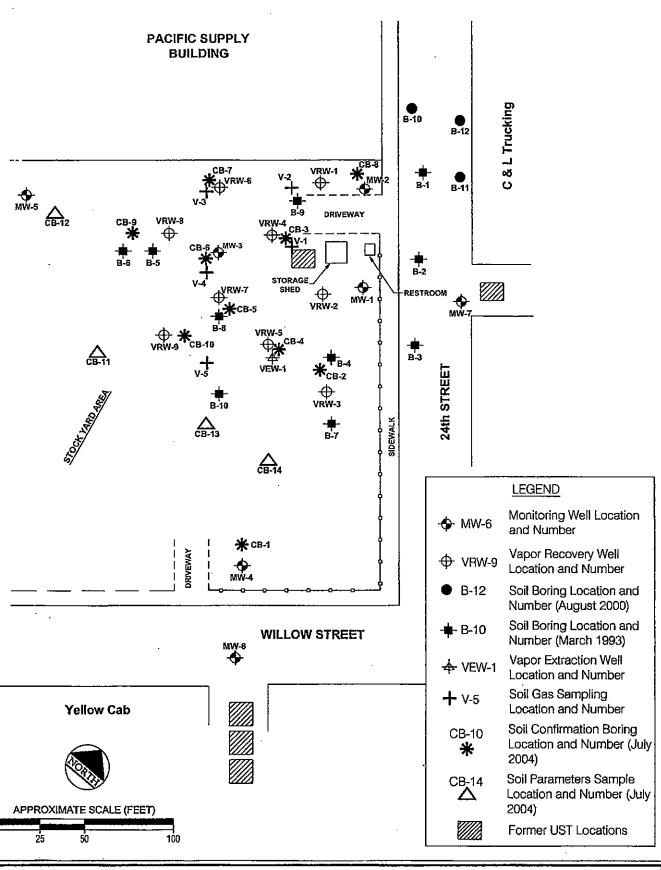
CHAIN OF CUSTODY

(510)486-0900 Phone							19156							dn		2							-
(510)48	36-0532 Fax		Samp	ler	: [Davi	d DeMent (DI	RD))					ear		801	ı	İ					
Projec	Number: 6871-001.00	Report To: ddement@accenv.com								8260B	Silica Gel Cleanup		l≅										
Project	Name: 1685 24th Street		Company : ACC Environmental Consultants, Inc							w/ 82	S G		and motor		List)								
Project	P.O.:		Telep	hoı	ne:	(51	0) 638-8400 e	xt.	109				BE			밀		(8010 List)					
Turnar	ound Time: Standard 5 Wor	king Davs	Fax: (510)) (338-	8404						MTBE	5M +		e a	-	(8) B					
•			•	Matrix Preservative						ВТЕХ	301		diesel		8260B								
Lab No.	Sample Identity	Sampling Time	j Date	Soil	Water	Waste	# of Containers	占	4				TPHg, BT	TPHd by 8015M +		TEPH as		HVOCs 8;					
-	TB11-4.0	12/15/06	9:10	х			1			х		ı	x	† -	 	x	\dashv	=	\neg	\dashv	十	\top	-
3	TB12-4.0	. !!	9:40	х	\exists		1			х		ı	x	1	-	х	十	\dashv	\neg	_	\dashv	\top	\top
-3	TB12-8.5	"	9:40	x		\top	1			х		Ī	x	×			寸	\neg		\neg	\dashv		
14	TB13-2.0	11	10:10	x			1			х						х		\exists		\Box			
15	TB13-8.5	11	10:15	x			1			х		Ī	х	X				\neg		\Box			
-4	TB14-4.0	11	11:10	x			1			х		Ī	х			х		\exists			\neg	十	
	TB15-8.5	11	11:40	x			1			Х			x	X				\neg					
-4	TB11-W	11	9:25		x		4	х		х			х	x			\neg	\neg	П	\neg			
-9	TB12-W	17	10:30		x		6	х		х			х	х				x		П	\neg		
10	TB13-W	10:5	0		x		4	х		х			x	X				x		\exists			
- 11	TB14-W	11:4	0		X		4	х		х			х	х									
1/2	TB15-W	12:0	0		X		4	х		X			х	х									
-15	TB16-W	12:0			x		4	х	<u> </u>	X			X	X				X					
Notes:		Global ID		RE	ELI	NQI	JISHED BY:						REC	EIVE	DΒ	Y:							
Most samples have gasoline or petroleum odor!			12/18/06 DATE/TIME						ΛE	E ful 2 12/18/06 138 DATE/TIME													
				-						 DA	E/TIN	ΛE									[DATE	/TIME
										DA	re/TIN	ΛE									ı	DATE	E/TIME

intact cold RG

DATE/TIME







Brunsing Associates, Inc. 5803 Skylane Blvd., Suite A Windsor, Celifornia 95492 Tel: (707) 838-3027 Job No.: 29 Appr.: OM

12/7/04

Date:

SITE MAP
PACIFIC SUPPLY COMPANY
1734 24th Street
Oakland, California

PLATE

2

TABLE 1. SUMMARY OF GROUNDWATER ANALYTICAL DATA FOR MONITORING WELLS

Pacific Supply Company, 1735 24th Street, Oakland, California

Well	Depth to Groundwater	Depth to Groundwater	Groundwater Elevation	TPH as	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	MTBE
Name	Date	(feet)	(feet, MSL)	(mg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)	(mg/L)	(μg/L)
MW-6	12/29/1989	5.02	1.11	1.1	5.4	4.5	ND	ND	ND (1)	-
MW-6	3/9/1993	5.10	1.03	2.3	2.3	2.8	ND	3.1	ND (1)	_
MW-6	7/21/1993	5.23	0.90	0.59	ND	7.6	ND	ND	ND(1)	_
MW-6	11/4/1993	5.25	0.88	1.5	ND	1.2	ND	0.7	ND(1)	
MW-6	2/1/1994	5.05	1.08	1,9	2.5	3.9	1.6	1.1	ND(1)	
MW-6	6/2/1994	4.49	1.64	1.3	ND	1	ND	ND	ND(1)	_
MW-6	9/1/1994	4.53	1.60	2.2	ND	1.7	ND	ND	ND(1)	
MW-6	12/13/1994	4.27	1.86	0.66 (3)	ND	ND	ND	ND		-
MW-6	3/8/1995	3.37	2.76	1.0 (3)	ND	ND	ND	ND	_	
MW-6	6/9/1995	4.40	1.73	1.5	ND	3.3	ND	ND		
MW-6	9/21/1995	4.69	1.44	0.28	ND	ND	ND	ND	_	
MW-6	12/18/1995	4.42	1.71	_	-	_		_	_	-

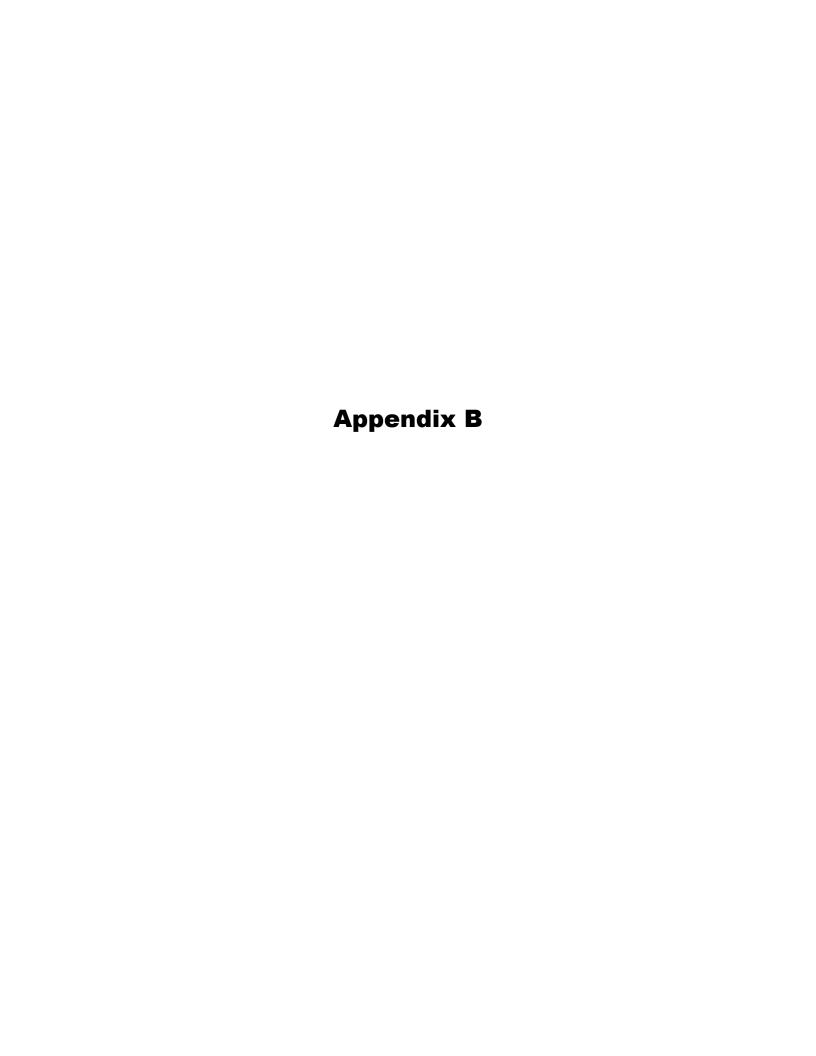


TABLE 1. SUMMARY OF GROUNDWATER ANALYTICAL DATA FOR MONITORING WELLS

Pacific Supply Company, 1735 24th Street, Oakland, California

54/ 35	Depth to	Depth to Groundwater	Groundwater Elevation	TPH as	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	мтве
Well	Groundwater						,	(µg/L)	(mg/L)	(µg/L)
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(µg/L) ND	(μg/L)	2.2	(mg/L)	(# <i>6</i> /#/
MW-4	10/14/1988	8.33	0.74	4.6	1.2		\	ND	ND (1)	
MW-4	12/29/1989	8.08	0.99	0.5	0.7	ND	ND			
MW-4	5/28/1992	8.19	0.88	0.27	8.8	1	ND	3.2	0.030 (2)	
MW-4	9/3/1992	8.37	0.70	0.20	4.5	4.4	ND	1.9	0.022 (2)	
MW-4	11/24/1992	8.28	0.79	0.14	3.2	3.2	ND	1.0	0.005 (2)	
MW-4	3/9/1993	7.98	1.09	0.47	10	ND	ND	2.5	ND (1)	
MW-4	7/21/1993	8.17	0.90	0.28	4.4	5.9	ND	ND	ND(1)	
MW-4	11/4/1993	8.14	0.93	0.08	1.3	1.6	ND	ND	_ ND(1)	<u> </u>
MW-4	2/1/1994	7.79	1.28	0.08	ND	ND	ND	ND	ND(1)	
MW-4	6/2/1994	7.53	1.54	0.30	3.1	2.9	ND	0.8	ND(1)	
MW-4	9/1/1994	7.69	1.38	0.12	1.6	ND	· ND	ND	ND(1)	
MW-4	12/13/1994	6.70	2.37	ND	ND	ND	ND	ND		<u> </u>
MW-4	3/8/1995	6.83	2.24	0.09	ND	ND	ND	ND		
MW-4	6/9/1995	7.66	1.41	0.19	ND	ND	ND	ND	-	
MW-4	9/21/1995	7.93	1.14	0.09	ND	ND	ND	ND		
MW-4	12/18/1995	6.98	2.09		-				-	-
MW-4	2/29/1996	6.54	2.53	0.14	1.6	1.0	ND	0.6		
MW-4	7/15/1996	7.74	1.33		_	_	_		_	
MW-4	1/7/1997	6.46	2.61	0.09	1.0	0.5	<0.5	<0.5	-	
MW-4	7/12/1997	7.82	1.25	-	-	:	-		_	
MW-4	1/26/1998	6.67	2.40	0.09	1.1	0.8	<0.5	<0.5		
MW-4	7/3/1998	7.45	1.62	-	_	_	_		_	-
MW-4	1/13/1999	7.51	1.56	0.12	1.1	0.62	<0.5	0.57		-
MW-4	9/27/1999	7.88	1.19	_		-	_			
MW-4	1/28/2000	6.73	2.34	0.072	<0.5	<0.5	<0.5	<0.5		<5.0





Gribi Associates 1090 Adam Street, Suite K Benicia CA, 94510 Project: ACC-24th Street

Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-18-7.5'	T800924-02	Soil	07/15/08 08:55	07/16/08 10:00
TB-18-11.5'	T800924-03	Soil	07/15/08 09:00	07/16/08 10:00
TB-17-7.5'	T800924-05	Soil	07/15/08 09:25	07/16/08 10:00
TB-17-11.5'	T800924-06	Soil	07/15/08 09:30	07/16/08 10:00
TB-20-3.5'	T800924-08	Soil	07/15/08 10:55	07/16/08 10:00
TB-20-7.5'	T800924-09	Soil	07/15/08 11:00	07/16/08 10:00
TB-19-4.5'	T800924-12	Soil	07/15/08 11:30	07/16/08 10:00
TB-19-7.5'	T800924-13	Soil	07/15/08 11:20	07/16/08 10:00
TB-18-GW	T800924-15	Water	07/15/08 09:10	07/16/08 10:00
TB-17-S	T800924-16	Water	07/15/08 09:40	07/16/08 10:00
TB-17-D	T800924-17	Water	07/15/08 10:20	07/16/08 10:00
TB-19-D	T800924-18	Water	07/15/08 11:50	07/16/08 10:00
TB-19-S	T800924-19	Water	07/15/08 12:30	07/16/08 10:00
TB-20-GW	T800924-20	Water	07/15/08 12:40	07/16/08 10:00

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Albert Vargas, Senior Project Coordinator

Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-18-7.5' T800924-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ries, Inc.					
Purgeable Petroleum Hydrocarbon	ns by EPA 8015C	•							
C6-C12 (GRO)	4600	500	ug/kg	1	8071609	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		142 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbo	ons by 8015C								
Diesel Range Hydrocarbons	ND	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		110 %	65-	135	"	"	"	"	·
Volatile Organic Compounds by E	PA Method 8021	В							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/16/08	EPA 8021B	
Benzene	22	5.0	"	"	"	"	"	"	
Toluene	14	5.0	"	"	"	"	"	"	
Ethylbenzene	22	5.0	"	"	"	"	"	"	
m,p-Xylene	54	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	73.5	-148	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-18-11.5' T800924-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	;	SunStar L	aboratoi	ries, Inc.					
Purgeable Petroleum Hydrocarbons	by EPA 8015C								
C6-C12 (GRO)	8000	500	ug/kg	1	8071609	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		146 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbon	s by 8015C								
Diesel Range Hydrocarbons	15	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	D-02
Surrogate: p-Terphenyl		109 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EP	A Method 8021I	3							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/16/08	EPA 8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	18	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	73.5	-148	"	"	"	"	

SunStar Laboratories, Inc.

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-17-7.5' T800924-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons	by EPA 8015C								
C6-C12 (GRO)	ND	500	ug/kg	1	8071609	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		146 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbon	s by 8015C								
Diesel Range Hydrocarbons	ND	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		108 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EPA	Method 80211	В							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/16/08	EPA 8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	**	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		146 %	73.5	-148	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-17-11.5' T800924-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	;	SunStar L	aborator	ries, Inc.					
Purgeable Petroleum Hydrocarbon	s by EPA 8015C								
C6-C12 (GRO)	1200	500	ug/kg	1	8071609	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		139 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbo	ons by 8015C								
Diesel Range Hydrocarbons	10	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	D-02
Surrogate: p-Terphenyl		110 %	65-	135	"	"	"	"	
Volatile Organic Compounds by El	PA Method 8021I	3							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/17/08	EPA 8021B	
Benzene	470	5.0	"	"	"	"	"	"	
Toluene	7.0	5.0	"	"	"	"	"	"	
Ethylbenzene	9.3	5.0	"	"	"	"	"	"	
m,p-Xylene	20	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		134 %	73.5	-148	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-20-3.5' T800924-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ries, Inc.					
Purgeable Petroleum Hydrocarbon	s by EPA 8015C								
C6-C12 (GRO)	17000	500	ug/kg	1	8071609	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		133 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbo	ons by 8015C								
Diesel Range Hydrocarbons	5.6	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	D-02
Surrogate: p-Terphenyl		110 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EF	PA Method 8021	В							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/17/08	EPA 8021B	
Benzene	42	5.0	"	"	"	"	"	"	
Toluene	29	5.0	"	"	"	"	"	"	
Ethylbenzene	240	5.0	"	"	"	"	"	"	
m,p-Xylene	22	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		129 %	73.5	-148	"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-20-7.5' T800924-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratoi	ries, Inc.					
Purgeable Petroleum Hydrocarbo	ns by EPA 8015C								
C6-C12 (GRO)	ND	500	ug/kg	1	8071609	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		135 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	11	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	D-02
Surrogate: p-Terphenyl		110 %	65-	135	"	"	"	"	
Volatile Organic Compounds by E	CPA Method 80211	3							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/17/08	EPA 8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		130 %	73.5	-148	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-19-4.5' T800924-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbo	ons by EPA 8015C								
C6-C12 (GRO)	2000000	120000	ug/kg	250	8071609	07/16/08	07/18/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		102 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocar	bons by 8015C								
Diesel Range Hydrocarbons	870	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		109 %	65-	135	"	"	"	"	
Volatile Organic Compounds by 	EPA Method 8021	В							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/17/08	EPA 8021B	
Benzene	ND	5.0	"	"	"	"	"	"	
Toluene	1100	5.0	"	"	"	"	"	"	
Ethylbenzene	34000	1200	"	250	"	"	07/18/08	"	
m,p-Xylene	ND	10	"	1	"	"	07/17/08	"	
o-Xylene	380	5.0	"	"	"	"	07/17/08	**	
Surrogate: 4-Bromofluorobenzene		81.2 %	73.5	-148	"	"	"	"	

SunStar Laboratories, Inc.

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-19-7.5' T800924-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
•	·	SunStar La	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons by	EPA 8015	C							
C6-C12 (GRO)	2100	500	ug/kg	1	8071609	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		128 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarbons b	y 8015C								
Diesel Range Hydrocarbons	ND	5.0	mg/kg	1	8071606	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		112 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EPA M	1ethod 802	1B							
Methyl tert-butyl ether	ND	20	ug/kg	1	8071608	07/16/08	07/17/08	EPA 8021B	
Benzene	50	5.0	"	"	"	"	"	"	
Toluene	7.1	5.0	"	"	"	"	"	"	
Ethylbenzene	190	5.0	"	"	"	"	"	"	
m,p-Xylene	310	10	"	"	"	"	"	"	
o-Xylene	240	5.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		122 %	73.5	-148	"	"	"	"	

SunStar Laboratories, Inc.

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-18-GW T800924-15 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Purgeable Petroleum Hydrocarbon	ns by EPA 8015C								
C6-C12 (GRO)	2900	50	ug/l	1	8071610	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		142 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	1.0	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	D-08
Surrogate: p-Terphenyl		77.3 %	65-	135	"	"	"	"	
Volatile Organic Compounds by E	PA Method 80211	В							
Methyl tert-butyl ether	12	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	4.5	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	5.8	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	II .	
Surrogate: 4-Bromofluorobenzene		139 %	73.5	-148	"	"	"	"	
Volatile Organic Compounds by E	PA Method 82601	В							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/27/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	**	"	"	"	"	"	
Ethylbenzene	ND	0.50	**	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	**	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	**	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	**	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	1300	50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.1 %	77.1	-110	"	"	"	"	
Surrogate: Dibromofluoromethane		84.8 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		101 %	84.7	-109	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-17-S T800924-16 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aborato	ries, Inc.					
Purgeable Petroleum Hydrocarbo	ns by EPA 80150	C							
C6-C12 (GRO)	3100	50	ug/l	1	8071610	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		143 %	72.6	5-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	0.80	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	D-08
Surrogate: p-Terphenyl		94.6 %	65.	-135	"	"	"	"	
Volatile Organic Compounds by E	PA Method 802	1B							
Methyl tert-butyl ether	ND	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	28	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		142 %	73.5	5-148	"	"	"	"	
Volatile Organic Compounds by E	PA Method 826	0B							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/27/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	21	0.50	"	"	"	"	"	"	
Toluene	0.63	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	2.6	1.0	"	"	"	"	"	"	
o-Xylene	1.2	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	1200	50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	77.1	!-110	"	"	"	"	
Surrogate: Dibromofluoromethane		80.1 %	66.3	B-111	"	"	"	"	
Surrogate: Toluene-d8		98.0 %	84.7	7-109	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-17-D T800924-17 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratoi	ries, Inc.					
Purgeable Petroleum Hydrocarboi	ns by EPA 80150	C							
C6-C12 (GRO)	ND	50	ug/l	1	8071610	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		131 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	ND	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		80.0 %	65-	135	"	"	"	"	
Volatile Organic Compounds by E	PA Method 802	1B							
Methyl tert-butyl ether	ND	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		145 %	73.5	-148	"	"	"	"	
Volatile Organic Compounds by E	PA Method 826	0B							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/28/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	ND	50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	77.1	-110	"	"	"	"	
Surrogate: Dibromofluoromethane		93.5 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		101 %	84.7	-109	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-19-D T800924-18 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratoi	ies, Inc.		-			
Purgeable Petroleum Hydrocarbo	ns by EPA 8015C								
C6-C12 (GRO)	ND	50	ug/l	1	8071610	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		137 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	ND	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	
Surrogate: p-Terphenyl		85.5 %	65-	135	"	"	"	"	
Volatile Organic Compounds by E	PA Method 8021	В							
Methyl tert-butyl ether	ND	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	73.5	-148	"	"	"	"	
Volatile Organic Compounds by E	PA Method 8260	В							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/28/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	ND	50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.8 %	77.1	-110	"	"	"	"	
Surrogate: Dibromofluoromethane		78.6 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		98.5 %	84.7	-109	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-19-S T800924-19 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
•		SunStar La	aborato	ries, Inc.		•			
Purgeable Petroleum Hydrocarbon	s by EPA 8015C								
C6-C12 (GRO)	38000	1200	ug/l	25	8071610	07/16/08	07/17/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		106 %	72.6	5-146	"	"	"	"	
Extractable Petroleum Hydrocarbo	ns by 8015C								
Diesel Range Hydrocarbons	24	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	D-08
Surrogate: p-Terphenyl		78.5 %	65-	135	"	"	"	"	
Volatile Organic Compounds by EF	A Method 80211	3							
Methyl tert-butyl ether	250	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	78	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	3800	25	"	25	"	"	07/17/08	"	
m,p-Xylene	43	2.0	"	1	"	"	07/16/08	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	73.5	-148	"	"	"	"	
Volatile Organic Compounds by EF	PA Method 8260I	3							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/27/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	70	0.50	"	"	"	"	"	"	
Toluene	5.1	0.50	"	"	"	"	"	"	
Ethylbenzene	970	25	"	50	"	"	08/28/08	"	
m,p-Xylene	2.9	1.0	"	1	"	"	"	"	
o-Xylene	4.0	0.50	"	"	"	"	08/27/08	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	29000	50	"	"	"	"	08/28/08	"	
Surrogate: 4-Bromofluorobenzene		39.1 %	77.1	-110	"	"	08/27/08	"	
Surrogate: Dibromofluoromethane		78.8 %	66.3	2-111	"	"	"	"	
Surrogate: Toluene-d8		99.2 %	84.7	7-109	"	"	"	"	

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

TB-20-GW T800924-20 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborato	ries, Inc.					
Purgeable Petroleum Hydrocarbon	ns by EPA 8015C								
C6-C12 (GRO)	3300	50	ug/l	1	8071610	07/16/08	07/16/08	EPA 8015C	
Surrogate: 4-Bromofluorobenzene		146 %	72.6	-146	"	"	"	"	
Extractable Petroleum Hydrocarb	ons by 8015C								
Diesel Range Hydrocarbons	1.8	0.50	mg/l	1	8071612	07/16/08	07/17/08	EPA 8015C	D-08
Surrogate: p-Terphenyl		90.1 %	65-	135	"	"	"	"	
Volatile Organic Compounds by E	PA Method 8021	В							
Methyl tert-butyl ether	4.8	4.0	ug/l	1	8071611	07/16/08	07/16/08	EPA 8021B	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	4.0	1.0	"	"	"	"	"	"	
Ethylbenzene	51	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		147 %	73.5	-148	"	"	"	"	
Volatile Organic Compounds by E	PA Method 8260	В							I-02
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	8082502	08/25/08	08/27/08	EPA 8260B	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	**	"	"	"	"	"	
Ethylbenzene	ND	0.50	**	"	"	"	"	"	
m,p-Xylene	1.4	1.0	"	"	"	"	"	"	
o-Xylene	1.0	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
C6-C12 (GRO)	1900	50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.8 %	77.1	-110	"	"	"	"	
Surrogate: Dibromofluoromethane		82.0 %	66.3	-111	"	"	"	"	
Surrogate: Toluene-d8		101 %	84.7	-109	"	"	"	"	

SunStar Laboratories, Inc.

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

Purgeable Petroleum Hydrocarbons by EPA 8015C - Quality Control SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8071609 - EPA 5030 GC										
Blank (8071609-BLK1)				Prepared	& Analyze	ed: 07/16/	08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	706 ND	500	ug/kg "	500		141	72.6-146			
LCS (8071609-BS1)				Prepared:	07/16/08	Analyzed	1: 07/17/08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	725 16300	500	ug/kg "	500 13800		145 118	72.6-146 75-125			
Matrix Spike (8071609-MS1)	So	urce: T80092	4-03	Prepared:	07/16/08	Analyzed	1: 07/17/08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	719 22400	500	ug/kg "	<i>500</i> 13800	8040	<i>144</i> 104	72.6-146 65-135			
Matrix Spike Dup (8071609-MSD1)	So	urce: T80092	4-03	Prepared:	07/16/08	Analyzed	d: 07/17/08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	729 21600	500	ug/kg "	<i>500</i> 13800	8040	146 98.5	72.6-146 65-135	3.63	20	
Batch 8071610 - EPA 5030 GC										
Blank (8071610-BLK1)				Prepared of	& Analyze	ed: 07/16/	08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	231 ND	50	ug/l "	200		116	72.6-146			
LCS (8071610-BS1)				Prepared	& Analyze	ed: 07/16/	08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	264 6710	50	ug/l "	200 5500		132 122	72.6-146 75-125			
LCS Dup (8071610-BSD1)				Prepared	& Analyze	ed: 07/16/	08			
Surrogate: 4-Bromofluorobenzene C6-C12 (GRO)	272 6550	50	ug/l "	200 5500		136 119	72.6-146 75-125	2.37	20	

SunStar Laboratories, Inc.

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Gribi Associates Project: ACC-24th Street

1090 Adam Street, Suite KProject Number: [none]Reported:Benicia CA, 94510Project Manager: Jim Gribi08/29/08 16:25

Extractable Petroleum Hydrocarbons by 8015C - Quality Control SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8071606 - EPA 3550B GC										
Blank (8071606-BLK1)				Prepared	& Analyz	ed: 07/16/0	08			
Surrogate: p-Terphenyl	94.3		mg/kg	100		94.3	65-135			
Diesel Range Hydrocarbons	ND	5.0	"							
LCS (8071606-BS1)				Prepared:	07/16/08	Analyzed	1: 07/17/08			
Surrogate: p-Terphenyl	110		mg/kg	100		110	65-135			<u> </u>
Diesel Range Hydrocarbons	510	5.0	"	500		101	75-125			
Matrix Spike (8071606-MS1)	Sou	rce: T80092	4-02	Prepared:	07/16/08	Analyzed	: 07/17/08			
Surrogate: p-Terphenyl	115		mg/kg	100		115	65-135			
Diesel Range Hydrocarbons	510	5.0	"	500	ND	102	75-125			
Matrix Spike Dup (8071606-MSD1)	Sou	rce: T80092	4-02	Prepared:	07/16/08	Analyzed	: 07/17/08			
Surrogate: p-Terphenyl	111		mg/kg	100		111	65-135			
Diesel Range Hydrocarbons	520	5.0	"	500	ND	103	75-125	1.12	20	
Batch 8071612 - EPA 3510C GC										
Blank (8071612-BLK1)				Prepared:	07/16/08	Analyzed	: 07/17/08			
Surrogate: p-Terphenyl	3.50		mg/l	4.00		87.6	65-135			
Diesel Range Hydrocarbons	ND	0.50	"							
LCS (8071612-BS1)				Prepared:	07/16/08	Analyzed	: 07/17/08			
Surrogate: p-Terphenyl	3.38		mg/l	4.00		84.4	65-135			
Diesel Range Hydrocarbons	15.6	0.50	"	20.0		78.0	75-125			
LCS Dup (8071612-BSD1)				Prepared:	07/16/08	Analyzed	: 07/17/08			
Surrogate: p-Terphenyl	3.56		mg/l	4.00		89.1	65-135			
Diesel Range Hydrocarbons	16.4	0.50	"	20.0		82.1	75-125	5.11	20	

SunStar Laboratories, Inc.

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Project: ACC-24th Street

Spike

Source

%REC

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi

Reporting

Reported: 08/29/08 16:25

RPD

Volatile Organic Compounds by EPA Method 8021B - Quality Control SunStar Laboratories, Inc.

		Reporting		Spike	Source		/orch		KI D	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8071608 - EPA 5030 GC										
Blank (8071608-BLK1)				Prepared	& Analyze	ed: 07/16/	08			
Surrogate: 4-Bromofluorobenzene	687		ug/kg	500		137	73.5-148			
Methyl tert-butyl ether	ND	20	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
LCS (8071608-BS1)				Prepared:	07/16/08	Analyzed	d: 07/17/08			
Surrogate: 4-Bromofluorobenzene	539		ug/kg	500		108	73.5-148			
Benzene	286	5.0	"	250		114	70-130			
Toluene	281	5.0	"	250		112	70-130			
Ethylbenzene	286	5.0	"	250		114	70-130			
m,p-Xylene	578	10	"	500		116	70-130			
o-Xylene	286	5.0	"	250		114	70-130			
Matrix Spike (8071608-MS1)	So	urce: T80092	4-03	Prepared:	07/16/08	Analyzed	d: 07/17/08			
Surrogate: 4-Bromofluorobenzene	634		ug/kg	500		127	73.5-148			
Benzene	320	5.0	"	250	ND	128	70-130			
Toluene	312	5.0	"	250	17.7	118	70-130			
Ethylbenzene	297	5.0	"	250	ND	119	70-130			
m,p-Xylene	582	10	"	500	ND	116	70-130			
o-Xylene	303	5.0	"	250	ND	121	70-130			
Matrix Spike Dup (8071608-MSD1)	So	urce: T80092	4-03	Prepared:	07/16/08	Analyzed	1: 07/17/08			
Surrogate: 4-Bromofluorobenzene	627		ug/kg	500		125	73.5-148			
Benzene	308	5.0	"	250	ND	123	70-130	3.76	20	
Toluene	306	5.0	"	250	17.7	115	70-130	1.97	20	
w. t. u.							70.120	2 0 4	20	
Ethylbenzene	291	5.0	"	250	ND	117	70-130	2.01	20	
Ethylbenzene m,p-Xylene	291 579	5.0 10	"	250 500	ND ND	117 116	70-130 70-130	0.509	20 20	

SunStar Laboratories, Inc.

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Analyte

m,p-Xylene

Project: ACC-24th Street

Spike

Level

200

Source

Result

%REC

127

70-130

%REC

Limits

RPD

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi

Reporting

Limit

Result

253

Reported: 08/29/08 16:25

RPD

Limit

Notes

Volatile Organic Compounds by EPA Method 8021B - Quality Control SunStar Laboratories, Inc.

Units

Blank (8071611-BLK1)				Prepared & A	nalyzed: 07/16	/08
Surrogate: 4-Bromofluorobenzene	257		ug/l	200	129	73.5-148
Methyl tert-butyl ether	ND	4.0	"			
Benzene	ND	1.0	"			
Toluene	ND	1.0	"			
Ethylbenzene	ND	1.0	"			
m,p-Xylene	ND	2.0	"			
o-Xylene	ND	1.0	**			
LCS (8071611-BS1)				Prepared & Ai	nalyzed: 07/16	/08
Surrogate: 4-Bromofluorobenzene	292		ug/l	200	146	73.5-148
Benzene	126	1.0	"	100	126	70-130
Toluene	123	1.0	"	100	123	70-130
Ethylbenzene	125	1.0	**	100	125	70-130

o-Xylene	129	1.0	"	100	129	70-130			
LCS Dup (8071611-BSD1)				Prepared & Ar	nalyzed: 07/16	/08			
Surrogate: 4-Bromofluorobenzene	278		ug/l	200	139	73.5-148			
Benzene	126	1.0	"	100	126	70-130	0.239	20	
Toluene	125	1.0	"	100	125	70-130	1.71	20	
Ethylbenzene	125	1.0	"	100	125	70-130	0.0987	20	
m,p-Xylene	252	2.0	"	200	126	70-130	0.346	20	
o-Xylene	129	1.0	"	100	129	70-130	0.237	20	

2.0

SunStar Laboratories, Inc.

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Project: ACC-24th Street

1090 Adam Street, Suite K Benicia CA, 94510 Project Number: [none] Project Manager: Jim Gribi **Reported:** 08/29/08 16:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (8082502-BLK1)				Prepared: 08/2	25/08 Analyze	d: 08/27/08	
Surrogate: 4-Bromofluorobenzene	7.24		ug/l	8.00	90.5	77.1-110	
Surrogate: Dibromofluoromethane	6.42		"	8.00	80.2	66.3-111	
Surrogate: Toluene-d8	7.86		"	8.00	98.2	84.7-109	
Chlorobenzene	ND	1.0	"				
1,2-Dibromoethane (EDB)	ND	1.0	"				
1,2-Dichloroethane	ND	0.50	"				
Trichloroethene	ND	1.0	"				
Benzene	ND	0.50	"				
Toluene	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
m,p-Xylene	ND	1.0	"				
o-Xylene	ND	0.50	"				
Tert-amyl methyl ether	ND	2.0	"				
Tert-butyl alcohol	ND	10	"				
Di-isopropyl ether	ND	2.0	"				
Ethyl tert-butyl ether	ND	2.0	"				
Methyl tert-butyl ether	ND	1.0	"				
C6-C12 (GRO)	ND	50	"				
LCS (8082502-BS1)				Prepared: 08/2	25/08 Analyze	1: 08/28/08	
Surrogate: 4-Bromofluorobenzene	7.49		ug/l	8.00	93.6	77.1-110	
Surrogate: Dibromofluoromethane	6.05		"	8.00	75.6	66.3-111	
Surrogate: Toluene-d8	7.79		"	8.00	97.4	84.7-109	
Chlorobenzene	21.5	1.0	"	20.0	108	75-125	
Trichloroethene	20.9	1.0	"	20.0	105	75-125	
Benzene	19.6	0.50	"	20.0	98.2	75-125	
Toluene	19.9	0.50	"	20.0	99.6	75-125	

SunStar Laboratories, Inc.

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1090 Adam Street, Suite K Project Number: [none]
Benicia CA, 94510 Project Manager: Jim Gribi

Reported: 08/29/08 16:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control SunStar Laboratories, Inc.

Project: ACC-24th Street

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 8082502 - EPA 5030 GCMS

LCS Dup (8082502-BSD1)				Prepared: 08/2	25/08 Analyze	d: 08/28/08		
Surrogate: 4-Bromofluorobenzene	7.22		ug/l	8.00	90.2	77.1-110		
Surrogate: Dibromofluoromethane	8.51		"	8.00	106	66.3-111		
Surrogate: Toluene-d8	7.99		"	8.00	99.9	84.7-109		
Chlorobenzene	17.9	1.0	"	20.0	89.4	75-125	18.5	20
Trichloroethene	18.6	1.0	"	20.0	93.0	75-125	11.7	20
Benzene	16.9	0.50	"	20.0	84.7	75-125	14.8	20
Toluene	17.3	0.50	"	20.0	86.6	75-125	14.0	20

SunStar Laboratories, Inc.

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Gribi Associates	Project: ACC-24th Street	
1090 Adam Street, Suite K	Project Number: [none]	Reported:
Benicia CA, 94510	Project Manager: Jim Gribi	08/29/08 16:25

Notes and Definitions

I-02	This result was analyzed outside of the EPA recommended holding time.
D-08	Results in the diesel organics range are primarily due to overlap from a gasoline range product.
D-02	Hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.

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