AC Transit
Alameda-Contra Costa Transit District

10626 East 14th Street, Oakland, California 94603☐ (510) 577-8804
FAX☐ (510) 577-8859

November 5, 2001

NOV 0 8 2001

Mr. Barney Chan
Alameda County Health Division
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Mr. Chan:

Subject: Quarterly Groundwater Monitoring Report
AC Transit. 1100 Seminary Avenue, Oakland, CA

AC Transit hereby submits the enclosed quarterly groundwater monitoring report for the third quarter of 2001 for the AC Transit facility located at 1100 Seminary Avenue in Oakland. Groundwater sampling of monitoring wells MW-1 through MW-3 and MW-9 through MW-11 was performed by Cameron-Cole in accordance with directives from your office.

Groundwater samples were collected from the six on-site monitoring wells on July 26, 2001. Samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel using EPA Method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl-tert butyl ether (MTBE) using EPA Method 8260B and nitrate and sulfate using Standard Methods 300.0A. Field parameters collected during sampling included pH, temperature, electrical conductivity, dissolved oxygen, ferrous iron and oxidation reduction potential.

Analytical results of grab water samples showed benzene concentrations above the California maximum contaminant level of 1 ppb in wells MW-2, MW-3 and MW-11 and nondetectable concentrations in wells MW-1, MW-9, and MW-10. Ethylbenzene was detected above the MCL of 700 ppb in well MW-2 at a concentration of 1,300 ppb. Methyl-tert butyl ether (MTBE) was detected above the MCL of 13 ppb in well MW-11 at a concentration of 20 ppb.

These results continue to be consistent with past sampling results. Monthly purging of well MW-2 began in July 2001. This work will be conducted by Cameron-Cole. Prior to purging (using a centrifugal pump), the product and water level in the well would be measured and recorded. Product and water level measurements and volume of water purged would be reported in quarterly monitoring reports. The next quarterly sampling event is scheduled to occur in November 2001.

If you have any questions regarding this report or other matters pertaining to this site, please call me at (510) 577-8869.

Sincerely,

Suzanne Patton

Suzanne Patton, P.E.
Environmental Engineer

enclosure

MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1100 SEMINARY AVENUE, OAKLAND, CALIFORNIA

August 21, 2001

Ms. Suzanne Patton
AC Transit
10626 E. 14th Street
Oakland, California 94603

Prepared By:
Cameron-Cole
101 W. Atlantic
Building 90
Alameda, California 94501

Project No: 2014

CAMERON-COLE, LLC

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1100 SEMINARY AVENUE, OAKLAND, CALIFORNIA

August 21, 2001

Prepared For:
Ms. Suzanne Patton
AC Transit
10626 E. 14th Street
Oakland, California 94603

Prepared By:
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Senior Geologist

STATE OF CALIFORNIA
REGISTERED GEOLOGIST
No. 6776
Exp. 9/02
BRADLEY D. WRIGHT
REGISTERED GEOLOGIST

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INTRODUCTION

This report presents the results from the July 2001 sampling event for the AC Transit Facility located at 1100 Seminary Avenue, Oakland, California (Site) (Figure 1). Groundwater sampling of monitor wells MW-1 through MW-3 and MW-9 through MW-11 was performed by Cameron-Cole, in accordance with directives from the Alameda County Health Care Services Agency (ACHCS).

OBJECTIVES AND SCOPE OF WORK

Work performed during quarterly sampling included measuring depth to water and presence of free phase hydrocarbons in the monitor wells and sample collection. Field parameters collected during sampling included pH, temperature, electric conductivity, dissolved oxygen (DO), ferrous iron (Fe^{2+}) and oxygen reduction potential (ORP). Groundwater samples were collected for laboratory analysis using United States Environmental Protection Agency (USEPA) Method 8015 for total petroleum hydrocarbons (TPH) gasoline/diesel, USEPA Method 8260B for benzene, toluene, ethylbenzene, and xylene (BTEX) and methyl-tert butyl ether (MTBE) and methods of chemical analysis for water and waste (MCAWW) 300.0A for nitrate and sulfate.

Chain-of-custody documents and certified analytical reports are presented in Appendix A. Field data sheets are included in Appendix B.

Groundwater Elevations and Flow Direction

Prior to purging and sample collection, all six Site monitor wells were inspected and measured for presence of free phase hydrocarbons and depth to groundwater. Measurements of depths to groundwater are presented on Table 1 and were used to construct the groundwater elevation contours shown in Figure 2. As shown on Figure 2, groundwater flow is to the west at a

gradient of 0.012 feet/foot.

Groundwater Sampling Activities

The monitor wells were purged a minimum of three casing volumes, using a centrifugal pump and samples were collected using disposable polyethylene bailers. During well purging, field parameters for pH, electrical conductivity, DO, ORP and temperature were monitored using calibrated field meters. Due to the very low yield encountered while purging monitoring well MW-11, only two casing volumes were evacuated before it became dry.

Groundwater samples were transferred to appropriate laboratory supplied and preserved containers and placed in an ice-filled cooler for shipment under chain-of-custody to a State of California certified laboratory. A trip blank was submitted for analysis by USEPA Method 8260B.

Groundwater Analytical Results

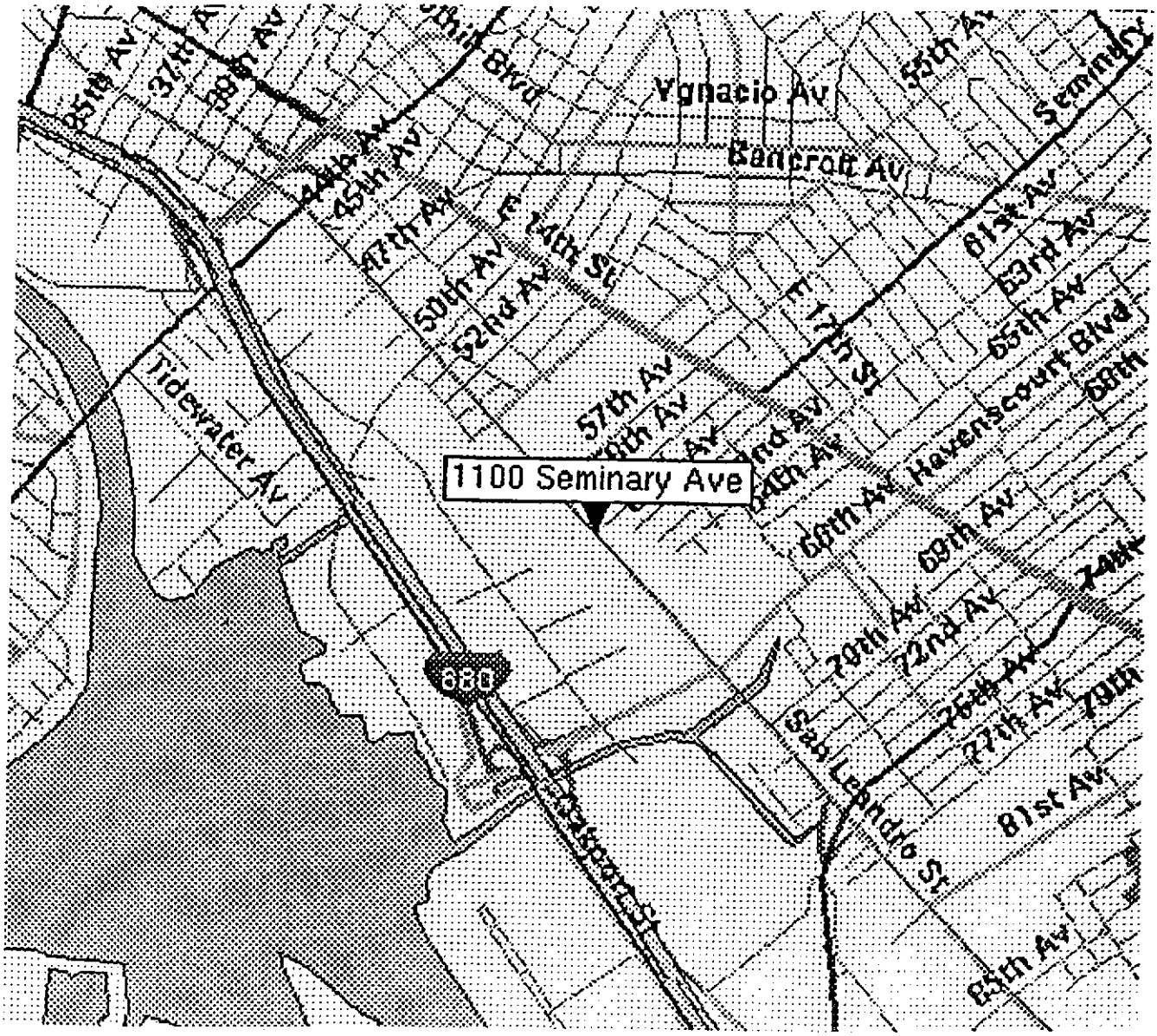
Table 2 presents groundwater historic and third quarter 2001 analytical results. Concentrations of benzene above the State of California maximum contaminant level (MCL) of 1.0 part per billion (ppb) were detected in monitor wells MW-2, MW-3 and MW-11. MTBE was detected above the MCL of 13 in monitor well MW-11. Ethylbenzene was detected above the MCL of 700 in monitor well MW-2. TPH-Diesel, qualified as "degraded" by the laboratory, was detected above the reporting limit in monitor well MW-2. TPH-Gas was detected above the reporting limit in monitor wells MW-1, MW-2 and MW-3. Additionally, chemical concentrations above laboratory reporting limits detected in all monitoring wells included unspecified hydrocarbons. The unspecified hydrocarbons detected in MW-2 and other Site monitor wells is thought to be degraded diesel. No analytes were detected in the trip blanks or method blanks. A lab control spike and lab control spike duplicate passed the USEPA's criteria for acceptance.

SUMMARY OF RESULTS

- Groundwater flow direction is towards the west at a gradient of 0.012 feet/foot.
- Chemical concentrations in excess of MCLs were limited to benzene in wells MW-2, MW-3 and MW-11, MTBE in MW-11, and ethylbenzene in MW-2.

PROJECTED WORK AND RECOMMENDATIONS

- Quarterly groundwater monitoring is scheduled for November 2001.



CAMERON-COLE

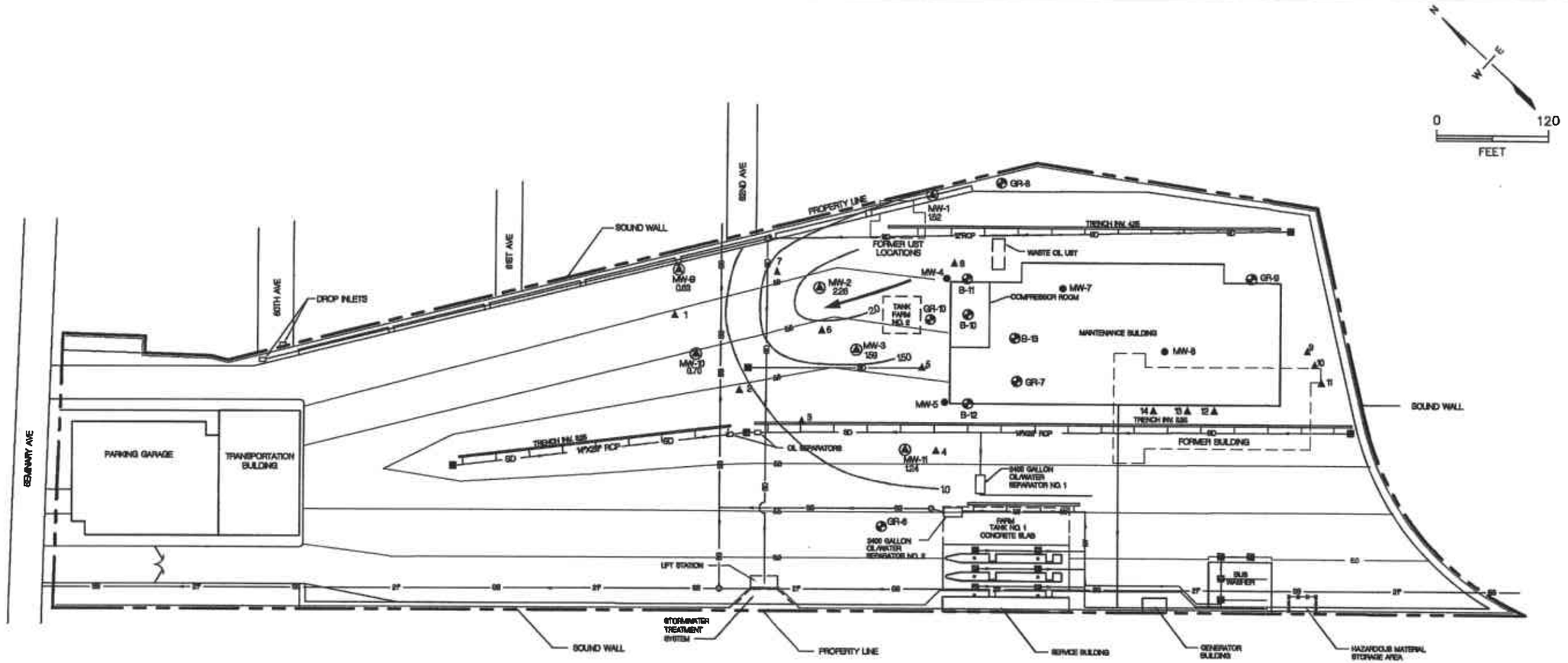
AC TRANSIT - OAKLAND, CALIFORNIA

FIGURE 1
SITE LOCATION MAP
1100 SEMINARY ROAD

SCALE:	DATE:
NO SCALE	3/22/00

North

LOCMAP



LEGEND:

150	GROUNDWATER ELEVATION CONTOUR	1.59	GROUNDWATER ELEVATION (FT. MSL)
	REPORTED GROUNDWATER FLOW		EXISTING MONITORING WELL
6.0	CONTOUR		ABANDONED MONITORING WELL
SD	STORM DRAIN PIPELINE		PREVIOUSLY INSTALLED SOIL BORING
SS	SANITARY SEWER PIPELINE		NEWLY INSTALLED SOIL BORING
IW	INDUSTRIAL WASTE PIPELINE		MANHOLE
	SURFACE DRAINAGE TRENCH		CATCH BASIN

BY	DATE
DRAWN C.U.	8-29-01
CHECKED	
APPROVED	
APPROVED	
APPROVED	

CAMERON-COLE

FIGURE 2

AC TRANSIT - OAKLAND, CALIFORNIA

1100 SEMINARY ROAD-POTENTIOMETRIC SURFACE MAP JULY 26, 2001

SCALE: 1" = 120'

DWG. NO: 2011-01

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	Top of Casing Elevation (ft-msl)*	Product Thickness (feet)	DTW (feet)	Measured Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected for Product Thickness**
MW-1	7-Jan-99	6.25	None	5.13	1.12	
	7-Feb-00		None	3.75	2.5	
	25-May-00		None	3.69	2.56	
	22-Aug-00		None	4.79	1.46	
	20-Nov-00		None	4.92	1.33	
	1-Mar-01		None	2.75	3.50	
	14-May-01		None	3.67	2.58	
	26-Jul-01		**None**	**4.73**	**1.52**	
MW-2	7-Jan-99	5.53	2.27	6.91	-1.38	0.44
	8-Jun-99		2.23	5.83	-0.3	1.48
	9-Jun-99		0	3.9	1.63	1.63
	10-Jun-99		0	3.9	1.63	1.63
	15-Jun-99		0.42	3.92	1.61	1.95
	8-Jul-99		0.2	4.3	1.23	1.39
	7-Feb-00		Sheen	3.8	1.73	
	25-May-00		0.12	3.23	2.3	2.40
	22-Aug-00		0.23	4.45	1.08	1.10
	20-Nov-00		0.23	4.70	0.83	0.85
	1-Mar-01		0.13	2.75	2.78	2.79
	14-May-01		Sheen	3.30	2.23	
	26-Jul-01		**None**	**3.27**	**2.26**	
MW-3	7-Jan-99	4.76	None	4.11	0.65	
	7-Feb-00		None	3.1	1.66	
	25-May-00		None	2.41	2.35	
	22-Aug-00		None	3.45	1.31	
	20-Nov-00		None	3.42	1.34	
	1-Mar-01		None	2.00	2.76	
	14-May-01		None	2.64	2.12	
	26-Jul-01		**None**	**3.17**	**1.59**	

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	Top of Casing Elevation (ft-msl)*	Product Thickness (feet)	DTW (feet)	Measured Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected for Product Thickness**
MW-9	7-Feb-00	5.8	None	4.37	1.43	
	25-May-00		None	4.95	0.85	
	22-Aug-00		None	5.18	0.62	
	20-Nov-00		None	4.70	1.10	
	1-Mar-01		None	3.03	2.77	
	14-May-01		None	4.56	1.24	
	26-Jul-01		**None**	**5.17**	**0.63**	
MW-10	7-Feb-00	4.65	None	3.19	1.46	
	25-May-00		None	3.11	1.54	
	22-Aug-00		None	4.35	0.30	
	20-Nov-00		None	4.18	0.47	
	1-Mar-01		None	3.14	1.51	
	14-May-01		None	3.27	1.38	
	26-Jul-01		**None**	**3.95**	**0.70**	
MW-11	7-Feb-00	4.19	None	4.97	-0.78	
	25-May-00		None	7.58	-3.39	
	22-Aug-00		None	3.01	1.18	
	20-Nov-00		None	2.88	1.31	
	1-Mar-01		None	1.91	2.28	
	14-May-01		None	4.49	-0.3	
	26-Jul-01		**None**	**2.95**	**1.24**	

Notes:

* ft-msl: feet-mean sea level
** used 0.8 specific gravity of product
DTW: Depth to Water

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Nitrate	Sulfate	DO	Fe
	MCL (ppb)				1.0	150	700	1,750	13				
MW-1	7-Jan-99	<100	470	NA	17.0	2	31.0	18	<50	150	3,400	360	53
	7-Feb-00	390	<60	1,300	13.0	<10	<10	<10	<20	<50	1,200	1,220	11,800
	25-May-00	<50	<50	1,000	12.0	<1.0	<1.0	<1.0	<2.0	140	1,500	1,950	1,380
	22-Aug-00	<50	<50	600	6.3	<1.0	2.3	<1.0	<2.0	75	2,100	6,850	2,350
	20-Nov-00	<50	<50	630	2.8	<1.0	1.1	<1.0	<2.0	<50	4,500	11,210	1,170
	1-Mar-01	<50	<50	900	29.0	1.2	16.0	6	<2.0	<50	2,800	6,020	2,920
	14-May-01	<50	<50	540	4.1	<1.0	3.1	<1.0	<2.0	<50	2,500	13,970	1,870
	26-Jul-01	**190**	**<50**	**500**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**75**	**3,700**	**8,480**	**1,950**
MW-2 (Product)	8-Jun-99	11,000	434,000	117,000	1,000,000	<100,000	260,000	<300,000	<5,000,000	NA	NA	NA	NA
	7-Feb-00	51,000	160,000	<5000	19,000	<500	920	<500	<1000	51	<1000	6,660	7,300
	25-May-00	<1200	<50000	65,000	11,000	<500	670	530	<1000	330	<1000	5,670	0
	22-Aug-00	<2500	<2500	150,000	23,000	<500	1,100	1,100	<1000	370	<1000	4,530	3,680
	20-Nov-00	<1200	<25000	430,000	18,000	<500	840	610	<1000	<250	<500	1,700	3,300
	3-Mar-01	<500	<25000	610,000	14,000	<830	<830	<830	<1700	<250	<5000	7,880	3,300
	14-May-01	<1000	280,000	51,000	19,000	240	1,100	1,200	<330	<50	<1000	3,330	>3300
	26-Jul-01	**54,000**	**590,000**	**<25000**	**19,000**	**<500**	**1,300**	**1,500**	**<1000**	**<50**	**<1000**	**9,960**	**>3300**
MW-3	7-Jan-99	199	2,680	NA	450	<10	250	190	<500	170	3,300	880	0
	7-Feb-00	2,000	<150	3,100	26	<2	5	2	<4	<50	47,300	6,480	17,800
	25-May-00	<50	<50	1,000	35	<1.0	6	4	<2.0	<50	21,700	4,640	600
	22-Aug-00	<50	<50	2,400	240	<10	<10	<10	<20	<50	19,300	3,970	20
	20-Nov-00	<50	<50	2,400	<25	<25	<25	<25	<50	<50	26,500	4,120	20
	1-Mar-01	<50	<50	1,200	100	<5.0	8.3	<5.0	<10	<50	27,000	1,510	50
	14-May-01	<50	<50	860	8.4	<1.0	1.2	<1.0	<2.0	<50	21,100	9,800	0
	26-Jul-01	**1,200**	**<50**	**790**	**140**	**<5.0**	**12**	**<5.0**	**<10**	**<50**	**18,700**	**8,650**	**80**
MW-9	7-Feb-00	<50	<50	240	<1	<1	<1	<1	<2	230	183,000	6,940	9,000
	25-May-00	<50	<50	130	<1.0	<1.0	<1.0	<1.0	<2.0	250	172,000	6,020	1,200
	22-Aug-00	<50	<50	120	<1.0	<1.0	<1.0	<1.0	<2.0	280	157,000	7,250	0
	20-Nov-00	<50	<50	130	<1.0	<1.0	<1.0	<1.0	<2.0	340	147,000	9,690	0
	1-Mar-01	<50	<50	150	<1.0	<1.0	<1.0	<1.0	<2.0	230	116,000	4,210	0
	14-May-01	<50	<50	110	<1.0	<1.0	<1.0	<1.0	<2.0	100	140,000	8,290	0
	26-Jul-01	**<50**	**<50**	**71**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**130**	**143,000**	**7,560**	**0**

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Nitrate	Sulfate	DO	Fe
	MCL (ppb)				1.0	150	700	1,750	13				
MW-10	7-Feb-00	<50	<50	470	<1	<1	<1	<1	<2	53	114,000	1,200	55,000
	25-May-00	<50	<50	220	<1.0	<1.0	<1.0	<1.0	<2.0	480	136,000	1,940	0
	22-Aug-00	<50	<50	140	<1.0	<1.0	<1.0	<1.0	<2.0	69	126,000	4,350	0
	20-Nov-00	<50	<50	300	<1.0	<1.0	<1.0	<1.0	<2.0	<50	76,200	3,790	0
	1-Mar-01	<50	<50	250	<1.0	<1.0	<1.0	<1.0	<2.0	<250	106,000	7,440	0
	14-May-01	<50	<50	74	<1.0	<1.0	<1.0	<1.0	<2.0	<50	135,000	6,790	0
	26-Jul-01	**<50**	**<50**	**120**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<50**	**125,000**	**9,680**	**1,970**
MW-11	7-Feb-00	<50	<50	400	<1	<1	<1	<1	25	800	167,000	7,300	16,200
	25-May-00	<50	<50	200	<1.0	<1.0	<1.0	<1.0	16	480	207,000	6,540	0
	22-Aug-00	<50	<50	170	<1.0	<1.0	<1.0	<1.0	9.3	610	168,000	4,640	20
	20-Nov-00	<50	<50	190	<1.0	<1.0	<1.0	<1.0	7.5	550	143,000	2,380	0
	1-Mar-01	<50	<50	250	<1.0	<1.0	<1.0	<1.0	15.0	170	80,300	5,860	0
	14-May-01	<50	<50	160	<1.0	<1.0	<1.0	<1.0	14.0	230	103,000	6,060	2,910
	26-Jul-01	**<50**	**<50**	**220**	**5.9**	**<1.0**	**<1.0**	**2.7**	**20.0**	**180**	**71,300**	**7,360**	**>3300**

Notes:
ppb: parts per billion
TPH-G: total petroleum hydrocarbons as gasoline
TPH-D: total petroleum hydrocarbons as diesel
TPH: total petroleum hydrocarbons as motor oil or unknown hydrocarbon
MCL: Maximum Contaminant Level
MTBE: Methyl-tert,butylether
DO: Dissolved Oxygen
Fe: Ferrous Iron

APPENDIX A

CERTIFIED ANALYTICAL REPORTS

CHAIN-OF-CUSTODY DOCUMENTS

SEVERN TRENT SERVICES

STL Sacramento
880 Riverside Parkway
West Sacramento, CA 95605-1500

Tel: 916 373 5600
Fax: 916 371 8420
www.stl-inc.com

August 27, 2001

STL SACRAMENTO PROJECT NUMBER: G1G260356

Brad Wright
Safety Kleen Consulting
2233 Santa Clara Ave
Suite 7
Alameda, CA 94501

Dear Mr. Wright,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on July 26, 2001. These samples are associated with your AC Transit Seminary project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4414.

Sincerely,

Bonnie McNeill

Bonnie J. McNeill
Project Manager

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STL SACRAMENTO PROJECT NUMBER G1G260356

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER G1G260356

General Comments

Samples were received at 3 degrees Centigrade. The time for sample MW-1 was listed on the chain of custody as 10:45, while on the bottle listed as 11:00.

WATER, 8015M, TPH Gas
Sample(s): 1, 2, 3, 4, 5, 6

There was insufficient sample volume to prepare an MS/SD pair with this batch. A second LCS was prepared instead.

WATER, 8260B, BTEX + MTBE
Sample(s): 1, 2, 3, 4, 5, 6, 7

The LCS for this batch demonstrated a slightly high recovery for benzene (1%). The data is not significantly impacted by this slightly high bias.

The method blank for this batch demonstrated a high surrogate recovery. The blank is not detected and thus there is no affect on reported data.

WATER, 8015 MOD, Diesel
Sample(s): 5

The sample G1G260356-05 required a 500X dilution to bring the analyte response within the calibration range. Subsequently, the surrogate spikes were diluted out and recoveries could not be evaluated.

There were no other anomalies associated with this project.

STL Sacramento

Quality Control Definitions

QC Parameter	Definition
QC Batch	A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.
Duplicate Control Sample (DCS)	Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD.
Duplicate Sample (DU)	A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.
Laboratory Control Sample (LCS)	A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked.
Method Blank (MB)	A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.
Surrogate Spike	Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.

Source: STL Sacramento Laboratory Quality Manual

STL Sacramento Certifications:
Alaska (UST-055), Arizona (#AZ00616), Arkansas, California (NELAP # 01119CA) (ELAP #I-2439), Connecticut (#PH-0691), Florida (E87570), Hawaii, Louisiana (AI # 30612), New Jersey (Lab ID 44005), Nevada (#CA 044), New York (LAB ID 11666 serial # 107407), Oregon (LAB ID CA 044), South Carolina (LAB ID 87014, Cert. # 870140), Utah (E-168), Virginia (#00178), Washington (# C087), West Virginia (# 9930C), Wisconsin (Lab 998204680), USNAVY, USACE, USDA Foreign Plant (Permit # 37-82605), USDA Foreign Soil (Permit # S-46613)..

Sample Summary
G1G260356

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
EG143	1	MW-1	7/26/01 10:45 AM	7/26/01 06:45 PM
EG144	2	MW-9	7/26/01 11:45 AM	7/26/01 06:45 PM
EG145	3	MW-10	7/26/01 12:30 PM	7/26/01 06:45 PM
EG146	4	MW-3	7/26/01 01:20 PM	7/26/01 06:45 PM
EG147	5	MW-2	7/26/01 02:15 PM	7/26/01 06:45 PM
EG148	6	MW-11	7/26/01 02:45 PM	7/26/01 06:45 PM
EG149	7	TRIP BLANK-01	7/26/01 08:00 AM	7/26/01 06:45 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must no be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weigh

[redacted]

Chain of Custody Record

STL Quanterra

STL-Sacramento

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
Cameron-Cole, LLC	Brad Wright	7-26-01	
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
101 W. Atlantic Blg 90	(510) 337-8660		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Alameda / CA / 94501		Bonnie Meltiel	
Project Name	**Carrier/Waybill Number**		
AC Transit Seminary			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Nitrate/Sulfate	8260/BTEX-MTBE	GRO 8015	DRO 8015
MW-1	7-26-01	1045	X												
MW-9		1145													
MW-10		1230													
MW-3		1320													
MW-2		1415													
MW-11		1495													
Trip Blank-01		0800													
labeled as 1100 07-26-01															

Special Instructions/ Conditions of Receipt

good

07-26-01

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify) Standard

	Date	Time		Date	Time
1. Relinquished By: Erik B. Gerby	7-26-01	1630	1. Received By: Bret Brockett	7-26-01	1630
2. Relinquished By: Bret Brockett	7-26-01	1845	2. Received By: [signature]	7-26-01	1845
3. Relinquished By			3. Received By		

Comments

4 days

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

(916) 373-5600

WATER, 8015M, TPH Gas

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...: G1G260356-001	Work Order #...: EG1431AE	Matrix.....: WATER	
Date Sampled...: 07/26/01	Date Received..: 07/26/01		
Prep Date.....: 08/02/01	Analysis Date..: 08/02/01		
Prep Batch #...: 1218442			
Dilution Factor: 1	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**190**	**50**	**ug/L**
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(70 - 130)

NOTE(S):

The gasoline pattern appears degraded.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Volatiles

Lot-Sample #...: G1G260356-002 Work Order #...: EG1441AE Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/02/01 Analysis Date..: 08/02/01
Prep Batch #...: 1218442
Dilution Factor: 1 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	94	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Volatiles

Lot-Sample #...: G1G260356-003 Work Order #...: EG1451AE Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/02/01 Analysis Date..: 08/03/01
Prep Batch #...: 1218442
Dilution Factor: 1 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	92	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...: G1G260356-004
Date Sampled...: 07/26/01
Prep Date.....: 08/02/01
Prep Batch #...: 1218442
Dilution Factor: 1

Work Order #...: EG1461AE
Date Received..: 07/26/01
Analysis Date..: 08/03/01

Method.....: DHS CA LUFT

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	1200	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)

NOTE(S):

The gasoline pattern appears degraded.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...: G1G260356-005	Work Order #...: EG1471AE	Matrix.....: WATER	
Date Sampled...: 07/26/01	Date Received..: 07/26/01		
Prep Date.....: 08/02/01	Analysis Date..: 08/03/01		
Prep Batch #...: 1218442			
Dilution Factor: 50	Method.....: DHS CA LUPT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**54000**	**2500**	**ug/L**
Unknown Hydrocarbon	ND	2500	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	0.0 SRD	(70 - 130)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-11

GC Volatiles

Lot-Sample #...: G1G260356-006	Work Order #...: EG1481AE	Matrix.....: WATER	
Date Sampled...: 07/26/01	Date Received..: 07/26/01		
Prep Date.....: 08/02/01	Analysis Date..: 08/03/01		
Prep Batch #...: 1218442			
Dilution Factor: 1	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	87	(70 - 130)

QC DATA ASSOCIATION SUMMARY

G1G260356

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	DHS CA LUFT		1218442	
002	WATER	DHS CA LUFT		1218442	
003	WATER	DHS CA LUFT		1218442	
004	WATER	DHS CA LUFT		1218442	
005	WATER	DHS CA LUFT		1218442	
006	WATER	DHS CA LUFT		1218442	

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G1G260356 Work Order #...: EHJLP1AA Matrix.....: WATER
MB Lot-Sample #: G1H060000-442

Prep Date.....: 08/02/01
Analysis Date..: 08/02/01 Prep Batch #...: 1218442
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Gasoline)	ND	50	ug/L	DHS CA LUFT
Unknown Hydrocarbon	ND	50	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	96	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G1G260356
LCS Lot-Sample#: G1H060000-442
Prep Date.....: 08/02/01
Prep Batch #...: I218442
Dilution Factor: 1

Work Order #...: EHJLP1AC-LCS
EHJLP1AD-LCSD
Analysis Date..: 08/02/01

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Gasoline)	**1000**	**958**	**ug/L**	**96**		**DHS CA LUFT**
	1000	**966**	**ug/L**	**97**	**0.85**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)
	105	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G1G260356
LCS Lot-Sample#: G1H060000-442
Prep Date.....: 08/02/01
Prep Batch #...: 1218442
Dilution Factor: 1

Work Order #...: EHJLP1AC-LCS
EHJLP1AD-LCSD
Analysis Date..: 08/02/01

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	**96**	**(70 - 130)**			**DHS CA LUFT**
	97	**(70 - 130)**	**0.85**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)
	105	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

WATER, 8260B, BTEX + MTBE

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: G1G260356-001
Date Sampled...: 07/26/01
Prep Date.....: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1

Work Order #...: EG1431AF
Date Received..: 07/26/01
Analysis Date..: 07/31/01

Method.....: SW846 8260B

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(76 - 112)
1,2-Dichloroethane-d4	103	(76 - 118)
Toluene-d8	106	(79 - 115)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC/MS Volatiles

Lot-Sample #...: G1G260356-002 Work Order #...: EG1441AF Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 07/31/01 Analysis Date..: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	88	(76 - 112)
1,2-Dichloroethane-d4	93	(76 - 118)
Toluene-d8	101	(79 - 115)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: G1G260356-003
Date Sampled...: 07/26/01
Prep Date.....: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1

Work Order #...: EG1451AF
Date Received..: 07/26/01
Analysis Date..: 07/31/01

Matrix.....: WATER

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	86	(76 - 112)
1,2-Dichloroethane-d4	100	(76 - 118)
Toluene-d8	102	(79 - 115)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: G1G260356-004
Date Sampled...: 07/26/01
Prep Date.....: 08/07/01
Prep Batch #...: 1226291
Dilution Factor: 5

Work Order #...: EG1462AF
Date Received..: 07/26/01
Analysis Date..: 08/07/01

Method.....: SW846 8260B

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**140 Q**	**5.0**	**ug/L**
Toluene	ND	5.0	ug/L
Ethylbenzene	**12**	**5.0**	**ug/L**
Methyl tert-butyl ether (MTBE)	ND	10	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(76 - 112)
1,2-Dichloroethane-d4	93	(76 - 118)
Toluene-d8	100	(79 - 115)

NOTE(S):

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: G1G260356-005 Work Order #...: EG1473AF Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/08/01 Analysis Date..: 08/08/01
Prep Batch #...: 1221311
Dilution Factor: 500 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**19000 Q**	**500**	**ug/L**
Toluene	ND	500	ug/L
Ethylbenzene	**1300**	**500**	**ug/L**
Methyl tert-butyl ether (MTBE)	ND	1000	ug/L
Xylenes (total)	**1500**	**500**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	94	(76 - 112)
1,2-Dichloroethane-d4	99	(76 - 118)
Toluene-d8	99	(79 - 115)

NOTE(S):

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-11

GC/MS Volatiles

Lot-Sample #...: G1G260356-006 Work Order #...: EG1481AF Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 07/31/01 Analysis Date..: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**5.9**	**1.0**	**ug/L**
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methyl tert-butyl ether (MTBE)	**20**	**2.0**	**ug/L**
Xylenes (total)	**2.7**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(76 - 112)
1,2-Dichloroethane-d4	95	(76 - 118)
Toluene-d8	105	(79 - 115)

SAFETY KLEEN CONSULTING

Client Sample ID: TRIP BLANK-01

GC/MS Volatiles

Lot-Sample #...: G1G260356-007 Work Order #...: EG1492AA Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/07/01 Analysis Date..: 08/07/01
Prep Batch #...: 1226291
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	96	(76 - 112)
1,2-Dichloroethane-d4	99	(76 - 118)
Toluene-d8	97	(79 - 115)

QC DATA ASSOCIATION SUMMARY

G1G260356

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8260B		1219294	
002	WATER	SW846 8260B		1219294	
003	WATER	SW846 8260B		1219294	
004	WATER	SW846 8260B		1226291	
005	WATER	SW846 8260B		1221311	
006	WATER	SW846 8260B		1219294	
007	WATER	SW846 8260B		1226291	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 **Work Order #...:** EHKJH1AC **Matrix.....:** WATER
MB Lot-Sample #: G1H070000-294

Prep Date.....: 07/31/01
Analysis Date..: 07/31/01 **Prep Batch #...:** 1219294
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	89	(76 - 112)
1,2-Dichloroethane-d4	135 *	(76 - 118)
Toluene-d8	102	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G1G260356
MB Lot-Sample #: G1H140000-291

Work Order #...: EHX851AA

Matrix.....: WATER

Prep Date.....: 08/07/01
Prep Batch #...: 1226291

Analysis Date..: 08/07/01
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(76 - 112)
1,2-Dichloroethane-d4	103	(76 - 118)
Toluene-d8	108	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 **Work Order #...:** EHPQK1AA **Matrix.....:** WATER
MB Lot-Sample #: G1H090000-311

Prep Date.....: 08/08/01
Analysis Date..: 08/08/01 **Prep Batch #...:** 1221311
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	86	(76 - 112)
1,2-Dichloroethane-d4	87	(76 - 118)
Toluene-d8	94	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 Work Order #...: EHKJH1AD-LCS Matrix.....: WATER
LCS Lot-Sample#: G1H070000-294 EHKJH1AE-LCSD
Prep Date.....: 07/31/01 Analysis Date..: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**12.1 a**	**ug/L**	**121**		**SW846 8260B**
	10.0	**9.54 p**	**ug/L**	**95**	**24**	**SW846 8260B**
Toluene	**10.0**	**10.7**	**ug/L**	**107**		**SW846 8260B**
	10.0	**11.0**	**ug/L**	**110**	**2.5**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.9**	**ug/L**	**109**		**SW846 8260B**
	10.0	**11.1**	**ug/L**	**111**	**2.3**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.90**	**ug/L**	**99**		**SW846 8260B**
	10.0	**10.5**	**ug/L**	**105**	**5.7**	**SW846 8260B**
Trichloroethene	**10.0**	**10.2**	**ug/L**	**102**		**SW846 8260B**
	10.0	**10.2**	**ug/L**	**102**	**0.83**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(76 - 112)
	92	(76 - 112)
1,2-Dichloroethane-d4	110	(76 - 118)
	84	(76 - 118)
Toluene-d8	105	(79 - 115)
	100	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 **Work Order #...:** EHX851AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G1H140000-291 EHX851AD-LCSD
Prep Date.....: 08/07/01 **Analysis Date..:** 08/07/01
Prep Batch #...: 1226291
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**10.4**	**ug/L**	**104**		**SW846 8260B**
	10.0	**9.99**	**ug/L**	**100**	**3.6**	**SW846 8260B**
Toluene	**10.0**	**10.2**	**ug/L**	**102**		**SW846 8260B**
	10.0	**9.70**	**ug/L**	**97**	**4.9**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.73**	**ug/L**	**97**		**SW846 8260B**
	10.0	**9.42**	**ug/L**	**94**	**3.2**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.95**	**ug/L**	**100**		**SW846 8260B**
	10.0	**9.81**	**ug/L**	**98**	**1.4**	**SW846 8260B**
Trichloroethene	**10.0**	**10.2**	**ug/L**	**102**		**SW846 8260B**
	10.0	**9.57**	**ug/L**	**96**	**6.5**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(76 - 112)
	86	(76 - 112)
1,2-Dichloroethane-d4	93	(76 - 118)
	83	(76 - 118)
Toluene-d8	96	(79 - 115)
	91	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 **Work Order #...:** EHPQK1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G1H090000-311 EHPQK1AD-LCSD
Prep Date.....: 08/08/01 **Analysis Date..:** 08/08/01
Prep Batch #...: 1221311
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.66**	**ug/L**	**97**		**SW846 8260B**
	10.0	**10.1**	**ug/L**	**101**	**4.4**	**SW846 8260B**
Toluene	**10.0**	**9.62**	**ug/L**	**96**		**SW846 8260B**
	10.0	**10.1**	**ug/L**	**101**	**4.5**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.46**	**ug/L**	**95**		**SW846 8260B**
	10.0	**9.61**	**ug/L**	**96**	**1.6**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.64**	**ug/L**	**96**		**SW846 8260B**
	10.0	**9.94**	**ug/L**	**99**	**3.1**	**SW846 8260B**
Trichloroethene	**10.0**	**9.24**	**ug/L**	**92**		**SW846 8260B**
	10.0	**9.93**	**ug/L**	**99**	**7.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	87	(76 - 112)
	89	(76 - 112)
1,2-Dichloroethane-d4	83	(76 - 118)
	87	(76 - 118)
Toluene-d8	91	(79 - 115)
	94	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G1G260356
LCS Lot-Sample#: G1H070000-294
Prep Date.....: 07/31/01
Prep Batch #...: 1219294
Dilution Factor: 1

Work Order #...: EHKJH1AD-LCS
EHKJH1AE-LCSD
Analysis Date..: 07/31/01

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	121 a	(85 - 120)			SW846 8260B
Toluene	95 p	(85 - 120)	24	(0-14)	SW846 8260B
Chlorobenzene	107	(82 - 121)			SW846 8260B
1,1-Dichloroethene	110	(82 - 121)	2.5	(0-30)	SW846 8260B
Trichloroethene	109	(86 - 117)			SW846 8260B
	111	(86 - 117)	2.3	(0-15)	SW846 8260B
	99	(79 - 115)			SW846 8260B
	105	(79 - 115)	5.7	(0-26)	SW846 8260B
	102	(78 - 118)			SW846 8260B
	102	(78 - 118)	0.83	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(76 - 112)
1,2-Dichloroethane-d4	92	(76 - 112)
	110	(76 - 118)
Toluene-d8	84	(76 - 118)
	105	(79 - 115)
	100	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 **Work Order #...:** EHX851AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G1H140000-291 EHX851AD-LCSD
Prep Date.....: 08/07/01 **Analysis Date..:** 08/07/01
Prep Batch #...: 1226291
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**104**	**(85 - 120)**			**SW846 8260B**
	100	**(85 - 120)**	**3.6**	**(0-14)**	**SW846 8260B**
Toluene	**102**	**(82 - 121)**			**SW846 8260B**
	97	**(82 - 121)**	**4.9**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**97**	**(86 - 117)**			**SW846 8260B**
	94	**(86 - 117)**	**3.2**	**(0-15)**	**SW846 8260B**
1,1-Dichloroethene	**100**	**(79 - 115)**			**SW846 8260B**
	98	**(79 - 115)**	**1.4**	**(0-26)**	**SW846 8260B**
Trichloroethene	**102**	**(78 - 118)**			**SW846 8260B**
	96	**(78 - 118)**	**6.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(76 - 112)
	86	(76 - 112)
1,2-Dichloroethane-d4	93	(76 - 118)
	83	(76 - 118)
Toluene-d8	96	(79 - 115)
	91	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G1G260356 Work Order #...: EHPQK1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: G1H090000-311 EHPQK1AD-LCSD
Prep Date.....: 08/08/01 Analysis Date..: 08/08/01
Prep Batch #...: 1221311
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(85 - 120)**			**SW846 8260B**
	101	**(85 - 120)**	**4.4**	**(0-14)**	**SW846 8260B**
Toluene	**96**	**(82 - 121)**			**SW846 8260B**
	101	**(82 - 121)**	**4.5**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**95**	**(86 - 117)**			**SW846 8260B**
	96	**(86 - 117)**	**1.6**	**(0-15)**	**SW846 8260B**
1,1-Dichloroethene	**96**	**(79 - 115)**			**SW846 8260B**
	99	**(79 - 115)**	**3.1**	**(0-26)**	**SW846 8260B**
Trichloroethene	**92**	**(78 - 118)**			**SW846 8260B**
	99	**(78 - 118)**	**7.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	87	(76 - 112)
	89	(76 - 112)
1,2-Dichloroethane-d4	83	(76 - 118)
	87	(76 - 118)
Toluene-d8	91	(79 - 115)
	94	(79 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

WATER, 8015 MOD, Diesel

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #...: G1G260356-001 Work Order #...: EG1431AD Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/01/01 Analysis Date..: 08/06/01
Prep Batch #...: 1213353
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	500	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	114	(57 - 147)

NOTE(S):

The unknown from n-C8 to n-C40 is quantitated based on a diesel reference from n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Semivolatiles

Lot-Sample #...: G1G260356-002 Work Order #...: EG1441AD Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/01/01 Analysis Date..: 08/06/01
Prep Batch #...: 1213353
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	71	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	94	(57 - 147)

NOTE(S):

The unknown from n-C14 to n-C38 is quantitated based on a diesel reference from n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Semivolatiles

Lot-Sample #...: G1G260356-003
Date Sampled...: 07/26/01
Prep Date.....: 08/01/01
Prep Batch #...: 1213353
Dilution Factor: 1

Work Order #...: EG1451AD
Date Received..: 07/26/01
Analysis Date..: 08/06/01

Matrix.....: WATER

Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	120	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	98	(57 - 147)

NOTE(S):

The unknown from n-C12 to n-C40 is quantitated based on a diesel reference from n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #...: G1G260356-004
Date Sampled...: 07/26/01
Prep Date.....: 08/01/01
Prep Batch #...: 1213353
Dilution Factor: 1

Work Order #...: EG1461AD
Date Received..: 07/26/01
Analysis Date..: 08/06/01

Matrix.....: WATER

Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	790	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	96	(57 - 147)

NOTE(S):

The unknown from n-C8 to n-C40 is quantitated based on a diesel reference from n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Semivolatiles

Lot-Sample #...: G1G260356-005 Work Order #...: EG1471AD Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/01/01 Analysis Date..: 08/12/01
Prep Batch #...: 1213353
Dilution Factor: 500 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	590000 Q	25000	ug/L
Unknown Hydrocarbon	ND	25000	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	0.0 SRD	(57 - 147)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

The diesel pattern appears degraded.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-11

GC Semivolatiles

Lot-Sample #...: G1G260356-006 Work Order #...: EG1481AD Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01
Prep Date.....: 08/01/01 Analysis Date..: 08/12/01
Prep Batch #...: 1213353
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	220	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	107	(57 - 147)

NOTE(S):

The unknown from n-C12 to n-C40 is quantitated based on a diesel reference from n-C10 to n-C24.

QC DATA ASSOCIATION SUMMARY

G1G260356

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8015 MOD		1213353	1213197
002	WATER	SW846 8015 MOD		1213353	1213197
003	WATER	SW846 8015 MOD		1213353	1213197
004	WATER	SW846 8015 MOD		1213353	1213197
005	WATER	SW846 8015 MOD		1213353	1213197
006	WATER	SW846 8015 MOD		1213353	1213197

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: G1G260356
MB Lot-Sample #: G1H010000-353

Work Order #...: EHAC31AA

Matrix.....: WATER

Prep Date.....: 08/01/01
Prep Batch #...: 1213353

Analysis Date..: 08/06/01
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Diesel)	ND	50	ug/L	SW846 8015 MOD
Unknown Hydrocarbon	ND	50	ug/L	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	88	(57 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G1G260356
LCS Lot-Sample#: G1H010000-353
Prep Date.....: 08/01/01
Prep Batch #...: 1213353
Dilution Factor: 1

Work Order #...: EHAC31AC
Analysis Date..: 08/06/01

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH (as Diesel)	**450**	**383**	**ug/L**	**85**	**SW846 8015 MO**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	99	(57 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G1G260356 Work Order #...: EHAC31AC Matrix.....: WATER
LCS Lot-Sample#: G1H010000-353
Prep Date.....: 08/01/01 Analysis Date..: 08/06/01
Prep Batch #...: 1213353
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Diesel)	**85**	**(39 - 125)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	99	(57 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G1G260356
MS Lot-Sample #: G1G260335-001
Date Sampled...: 07/25/01
Prep Date.....: 08/01/01
Prep Batch #...: 1213353
Dilution Factor: 1

Work Order #...: EG1221AG-MS
EG1221AH-MSD
Date Received..: 07/25/01
Analysis Date..: 08/06/01

Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Diesel)	**ND**	**285**	**244**	**ug/L**	**86**		**SW846 8015 MOD**
	ND	**285**	**224**	**ug/L**	**79**	**8.6**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	97	(57 - 147)
	90	(57 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	G1G260356	**Work Order #...:**	EG1221AG-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	G1G260335-001		EG1221AH-MSD		
Date Sampled...:	07/25/01	**Date Received..:**	07/25/01		
Prep Date.....:	08/01/01	**Analysis Date..:**	08/06/01		
Prep Batch #...:	1213353				
Dilution Factor:	1				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Diesel)	**86**	**(39 - 125)**			**SW846 8015 MOD**
	79	**(39 - 125)**	**8.6**	**(0-44)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	97	(57 - 147)
	90	(57 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

General Chemistry - Various Methods

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

General Chemistry

Lot-Sample #...: G1G260356-001 Work Order #...: EG143 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	0.075	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
	Dilution Factor: 1					
Sulfate	3.7	1.0	mg/L	MCAWW 300.0A	07/27/01	1211556
	Dilution Factor: 1					

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

General Chemistry

Lot-Sample #...: G1G260356-002 Work Order #...: EG144 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	0.13	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1				
Sulfate	143 Q	5.0	mg/L	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 5				

NOTE(S):

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

General Chemistry

Lot-Sample #...: G[illegible]G260356-003 Work Order #...: EG145 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	ND	0.050 Dilution Factor: 1	mg/L	MCAWW 300.0A	07/27/01	1211551
Sulfate	125 Q	5.0 Dilution Factor: 5	mg/L	MCAWW 300.0A	07/27/01	1211556

NOTE(S):

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

General Chemistry

Lot-Sample #...: G1G260356-004 Work Order #...: EG146 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	ND	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1				
Sulfate	18.7	1.0	mg/L	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 1				

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

General Chemistry

Lot-Sample #...: G1G260356-005 Work Order #...: EG147 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	ND	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1				
Sulfate	ND	1.0	mg/L	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 1				

SAFETY KLEEN CONSULTING

Client Sample ID: MW-11

General Chemistry

Lot-Sample #...: G1G260356-006 Work Order #...: EG148 Matrix.....: WATER
Date Sampled...: 07/26/01 Date Received..: 07/26/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N	0.18	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
	Dilution Factor: 1					
Sulfate	71.3 Q	5.0	mg/L	MCAWW 300.0A	07/27/01	1211556
	Dilution Factor: 5					

NOTE(S):

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

QC DATA ASSOCIATION SUMMARY

G1G260356

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309
002	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309
003	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309
004	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309
005	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309
006	WATER	MCAWW 300.0A		1211556	1212310
	WATER	MCAWW 300.0A		1211551	1212309

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1G260356

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N		Work Order #: EG6X61AA		MB Lot-Sample #:	G1G300000-551	
	ND	0.050	mg/L	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1				
Sulfate		Work Order #: EG60C1AA		MB Lot-Sample #:	G1G300000-556	
	ND	1.0	mg/L	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1G260356

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N			Work Order #: EG6X61AC LCS Lot-Sample#: G1G300000-551				
	1.00	0.930	mg/L	93	MCAWW 300.0A	07/27/01	1211551
			Dilution Factor: 1				
Sulfate			Work Order #: EG60C1AC LCS Lot-Sample#: G1G300000-556				
	10.0	9.35	mg/L	93	MCAWW 300.0A	07/27/01	1211556
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1G260356

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N		Work Order #: EG6X61AC LCS Lot-Sample#: G1G300000-551			
	93	(90 - 110)	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1			
Sulfate		Work Order #: EG60C1AC LCS Lot-Sample#: G1G300000-556			
	93	(90 - 110)	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1G260356
Date Sampled...: 07/26/01 Date Received..: 07/26/01 Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N			WO#: EG1461AG-MS/EG1461AH-MSD				MS Lot-Sample #: G1G260356-004		
	ND	2.00	2.04	mg/L	102		MCAWW 300.0A	07/27/01	1211551
	ND	2.00	2.02	mg/L	101	0.98	MCAWW 300.0A	07/27/01	1211551
			Dilution Factor: 1						
Sulfate			WO#: EG1461AJ-MS/EG1461AK-MSD				MS Lot-Sample #: G1G260356-004		
	18.7	20.0	39.2	mg/L	102		MCAWW 300.0A	07/27/01	1211556
	18.7	20.0	39.0	mg/L	102	0.48	MCAWW 300.0A	07/27/01	1211556
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1G260356
Date Sampled...: 07/26/01 Date Received..: 07/26/01 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate as N		WO#: EG1461AG-MS/EG1461AH-MSD				MS Lot-Sample #: G1G260356-004	
	102	(90 - 110)			MCAWW 300.0A	07/27/01	1211551
	101	(90 - 110)	0.98	(0-10)	MCAWW 300.0A	07/27/01	1211551
		Dilution Factor: 1					
Sulfate		WO#: EG1461AJ-MS/EG1461AK-MSD				MS Lot-Sample #: G1G260356-004	
	102	(90 - 110)			MCAWW 300.0A	07/27/01	1211556
	102	(90 - 110)	0.48	(0-10)	MCAWW 300.0A	07/27/01	1211556
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

APPENDIX B

SAMPLING EVENT DATA

DEPTH TO WATER

DATE: 7-26-01

PROJECT AC Transit Seminary EVENT Quarterly TECHNICIAN EG

NO.	WELL OR LOCATION	DATE	TIME	MEASUREMENT	CODE	COMMENTS
1	MW-1	7-26-01	0930	4.73		
2	MW-2	↓	0934	3.27		
3	MW-3		0938	3.17		
4	MW-9		0945	5.17		
5	MW-10		0951	3.95		
6	MW-11	↓	1000	2.95		
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

CODES: SWL - Static Water Level
OIL - Oil Level
OWI - Oil/Water Interface
MTD - Measured Total Depth

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-1

Project Name: AC Transit SS ~~LES-SSI~~
Casing Diameter (in): 2"
Total Well Depth (ft): 15.5'
Depth to Water (ft), before purging: 4.73

Project Number: 792588
Sample Date: 7-26-01
Sample ID: MW-1

Development Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump ____ Bladder Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1031	6.88	1029	29.7	5.01	2	0.70
1036	6.92	716	29.5	5.25	4	"
1040	6.91	695	29.2	5.35	6	"
				Total =	6	

Water Volume to be Purged (gal) = 10.77 x 0.163 x 1.75 x 3 = 5.27
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump ____ Bladder Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Nitrate / Sulfate
8260
8015

Parameter Collected:

Fe = 1.95

Sample Appearance

DO = 8.48 mg/L

____ OVA Reading (ppm)

____ Suspended Solids (describe):

ORP = 2-50

Decontamination Performed:

R/W S/M

Comments / Calculations:

Start 1030
Stop 1045
Sample 1100

Signature: Erik R. Cerly

Date: 7-26-01

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-3

Project Name: AC transit Seminary ~~LES-SSI~~
Project Number: 792588
Casing Diameter (in): 2"
Sample Date: 7-26-01
Total Well Depth (ft): 16.80'
Sample ID: MW-3
Depth to Water (ft), before purging: 3.17

Development Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
X Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1258	7.83	1134	27.9	7.28	2.5	1.75
1300	7.57	679	26.7	6.51	5.0	↓
1302	7.52	785	26.3	7.15	7.0	↓
				Total	7.0	

Water Volume to be Purged (gal) = 13.63 x 0.163 = 2.22 x 3 = 6.66
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
X Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Nitrate / Sulfate
8260
8015 GRO/DRO

Parameter Collected:
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Centrifugal Pump to Purge

ORP = -30 mV
Fe = 0.08 mg/L
DO = 8.65 mg/L

Decontamination Performed:

R/w/R S/M

Comments / Calculations:

Start : 1255
Stop : 1302
Sample : 1320

Signature: Erik R. Gerke

Date: 7-26-01

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-2

Project Name: AC-Transit Seminary LES-SSI
Project Number: 792588
Casing Diameter (in): 2"
Sample Date: 7-26-01
Total Well Depth (ft): 23.50
Sample ID: MW-2
Depth to Water (ft), before purging: 3.27

Development Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
X Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1342	7.61	1884	34.1	5.15	3.5	0.45
1348	7.14	1905	32.5	7.05	7.0	↓
1405	7.15	1875	32.3	10.15	10.0	↓
				Total	10.0	

Water Volume to be Purged (gal) = 20.23 x 0.163 = 3.29 x 3 = 9.9
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
X Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

8015 GRO/DRO
Nitrate / Sulfate
8260

Parameter Collected:
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe): Centrifugal pump to purge

Fe = >3.30 mg/L
ORP = 42.51 mV
DO = 9.96 mg/L

Decontamination Performed:

R/W S/M

Comments / Calculations:

Start: 1340
Stop: 1405
Sample: 1415

Signature: Erik R. Geyk

Date: 7-26-01

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-9

Project Name: AC Transit Seminary LES-SSI
Project Number: 792588
Casing Diameter (in): 2"
Sample Date: 7.26.01
Total Well Depth (ft): 19.50
Sample ID: MW-9
Depth to Water (ft), before purging: 5.17

Development Method:

X Bailer: ___ Teflon ___ Stainless Steel ___ PVC ___ ABS Plastic

X Pump: ___ Dedicated Submersible Pump ___ Bladder Pump
X Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1127	7.21	1195	27.0	6.21	2.5	0.9
1129	7.34	1234	26.2	6.86	5.0	1
1135	7.36	1245	26.6	7.26	7.0	1
				Total	7.0	

Water Volume to be Purged (gal) = 14.33 x 0.163 = 2.33 x 3 = 7.0
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ___ Teflon ___ Stainless Steel ___ PVC ___ ABS Plastic

X Pump: ___ Dedicated Submersible Pump ___ Bladder Pump
X Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Nitrate / Sulfate
8260
8015 GRO/DRO

Parameter Collected:
Sample Appearance

___ OVA Reading (ppm)
___ Suspended Solids (describe):

Centrifugal Pump to Purge

Fe = 0.0 mg/L
DO = 7.56 mg/L
ORP = 35 mV

Decontamination Performed:

R/W S/M

Comments / Calculations:

Start: 1125
Stop: 1135
Sample: 1145

Signature: Edith R. Gegley

Date: 7.26.01

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-10

Project Name: AC Transit Seminary LES-SSI
Casing Diameter (in): 2"
Total Well Depth (ft): 11.40
Depth to Water (ft), before purging: 3.95
Project Number: 792588
Sample Date: 726-01
Sample ID: MW-10

Development Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump ____ Bladder Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1216	7.21	1988	31.8	3.98	1.2	1.0
1218	7.15	2.64×10^3	30.6	7.01	2	↓
1220	7.09	2.63×10^3	29.7	6.75	4	↓
				Total	4.0	

Water Volume to be Purged (gal) = 7.45 x 0.163 = 1.21 x 3 = 3.64
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump ____ Bladder Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):
Nitrate / Sulfate
8260
8015 GRO/DRO

Parameter Collected:
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Centrifugal Pump to Purge

Fe = 1.97
DO = 9.68
ORP = 27.5

Decontamination Performed:
R/W S/M

Comments / Calculations:

Start: 1215
Stop: 1220
Sample: 1230

Signature: Erik R. Leeky Date: 7-26-01

LES-SSI MONITOR WELL SAMPLING FORM

Well ID: MW-11

Project Name: AC Transit Seminary LES-SSI
Project Number: 792588
Casing Diameter (in): 2"
Sample Date: 7-26-01
Total Well Depth (ft): 13.5'
Sample ID: MW-11
Depth to Water (ft), before purging: 2.95'

Development Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump
____ Bladder Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
0958	7.08	1719	20.4	8.5	1.7	0.28
1001	7.14	1695	20.4	13.19	2.5	+
						DRY
				Total Purged = 2.5		

Water Volume to be Purged (gal) = 10.55 x 0.163 x 3 = 1.72 x 3 = 5.15
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 2 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

X Pump: ____ Dedicated Submersible Pump
X Non-Dedicated Submersible Pump
____ Bladder Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):
Nitrate / Sulfate
8260
8015 GRO/DRO

Parameter Collected:
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Centrifugal Pump to Purge

Fe = > 3.30 mg/L
ORP = 25 mV
DO = 7.36 mg/L

Decontamination Performed:

R/W S/M

Comments / Calculations:

Start = 0956
Stop = 1005
Sample = 1445

Signature: Erik R. Bogky
Date: 7-26-01

Custody Record

QUA-4124 0797

Quanterra

Client: Conco-Cole LLC	Project Manager: Brad Wright	Date: 7-26-01	Chain of Custody Number: 41477
Address: 101 W. Atlantic Blg 90	Telephone Number (Area Code)/Fax Number: (510) 337-8660	Lab Number:	Page 1 of 1
City: Alameda; State: CA; Zip Code: 94501	Site Contact:	Lab Contact: Bonnie McNiel	
Project Name: AC Transit Seminary	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Nitrate/Sulfate	8260 BTEX-MTBE	GRO 8015	DRO 8015
MW-1	7-26-01	1045	X									↓	↓	↓	↓
MW-9		1145													
MW-10		1230													
MW-3		1220													
MW-2		1415													
MW-11		1415													
Trip Blank-01	↓	0800	↓												

Special Instructions/ Conditions of Receipt

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify): Standard

	Date	Time
Relinquished By: Brad Gosling	7-26-01	1630
Relinquished By:		
Relinquished By:		

1. Received By: Brad Bradley — Date: 7-26-01 Time: 1630

2. Received By: — Date: Time:

3. Received By: — Date: Time:

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy