√ RO 402

Alameda-Contra Costa Transit District

November 2, 2004

Ms. eva chu
Alameda County Health Division
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Ms. chu:

Subject: Quarterly Groundwater Monitoring Report – August 2004 Sampling
AC Transit, 1177 47th Street, Emeryville

AC Transit hereby submits the enclosed Quarterly Groundwater Monitoring and Technology Screening Reports for the AC Transit facility located at 1177 47th Street in Emeryville. These reports were prepared by our consultant, Cameron-Cole, LLC, and contain the results of the August 2004 sampling event.

The quarterly groundwater monitoring included collecting groundwater samples from eight on-site monitoring wells (MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12 and MW-13). A groundwater sample was not collected from MW-13 due to the presence of a 12.72-inch free phase hydrocarbon layer. These samples were analyzed for total petroleum hydrocarbons (TPH) using modified EPA Method 8015 and benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) using EPA Method 8021B. No analytes were detected in samples collected from MW-11. TPH as degraded diesel was detected in MW-1 at a concentration of 310 ppb. TPH as degraded gasoline was detected in MW-7, MW-10, MW-12 and W-1 at 200, 240, 430 and 2500 ppb, respectively.

If you have any questions or comments regarding the enclosed report, please call me at (510) 577-8869.

Sincerely,

Suzanne Patton

Suzanne Patton, P.E.
Environmental Engineer
enclosures

10626 International Boulevard • Oakland, CA 94603 • TEL (510) 891-4777 • www.actransit.org

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47th STREET, EMERYVILLE, CALIFORNIA

October 2004

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

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

Project No: 2016

CAMERON-COLE

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47th STREET, EMERYVILLE, CALIFORNIA

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Reviewed By
Brad Wright, RG, CHG
Principle Hydrogeologist

STATE OF CALIFORNIA REGISTERED GEOLOGIST #6276 Exp. 9/04 REGISTERED GEOLOGIST

Written By
Emily Waters
Environmental Scientist

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INTRODUCTION

This report presents the results from the August 2004 sampling event for the AC Transit Facility located at 1177 47th Street, Emeryville, California (Site). Groundwater sampling of monitor wells MW-1, MW-2, MW-3, MW-6, MW-7 MW-9, MW-10, MW-11, MW-12, MW-13 and W-1 was conducted in accordance with directives from Alameda County Health Care Services (ACHCS). In a letter dated August 7, 2001, ACHCS requested quarterly groundwater sampling for monitor wells MW-11, MW-12 and MW-13 and semi-annual groundwater sampling of other Site monitor wells. AC Transit retained Cameron-Cole to perform this work.

GROUNDWATER MONITORING

Work performed during this sampling event included measuring depth to water in all monitor wells and collecting groundwater samples from monitor wells MW-1 thru MW-3, MW-6, MW-7, MW-9 thru MW-12 and W-1. Groundwater samples were analyzed for total extractable petroleum hydrocarbons (TEPH) using Environmental Protection Agency (EPA) Method 8015 Modified and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B. A groundwater sample was not collected from MW-13 due to the presence of a free phase hydrocarbon layer.

A site map displaying the monitor well locations is presented as Figure 1. Chain-of-custody documents, field data sheets and certified analytical reports are included in Appendix A.

Groundwater Elevations and Flow Direction

On August 30, 2004, all 16 Site monitor wells were inspected and measured for the 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, groundwater flow is to the west at a gradient of 0.022 feet/foot. A free phase hydrocarbon layer measuring 1.06 feet was detected in MW-13.

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, dissolved oxygen, oxidation-reduction potential, ferrous iron and temperature were monitored using calibrated field meters.

Groundwater samples were collected in 40-milliliter glass vials preserved with hydrochloric acid and one-liter non-preserved amber glass 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 EPA Method 8021B.

Groundwater Analytical Results

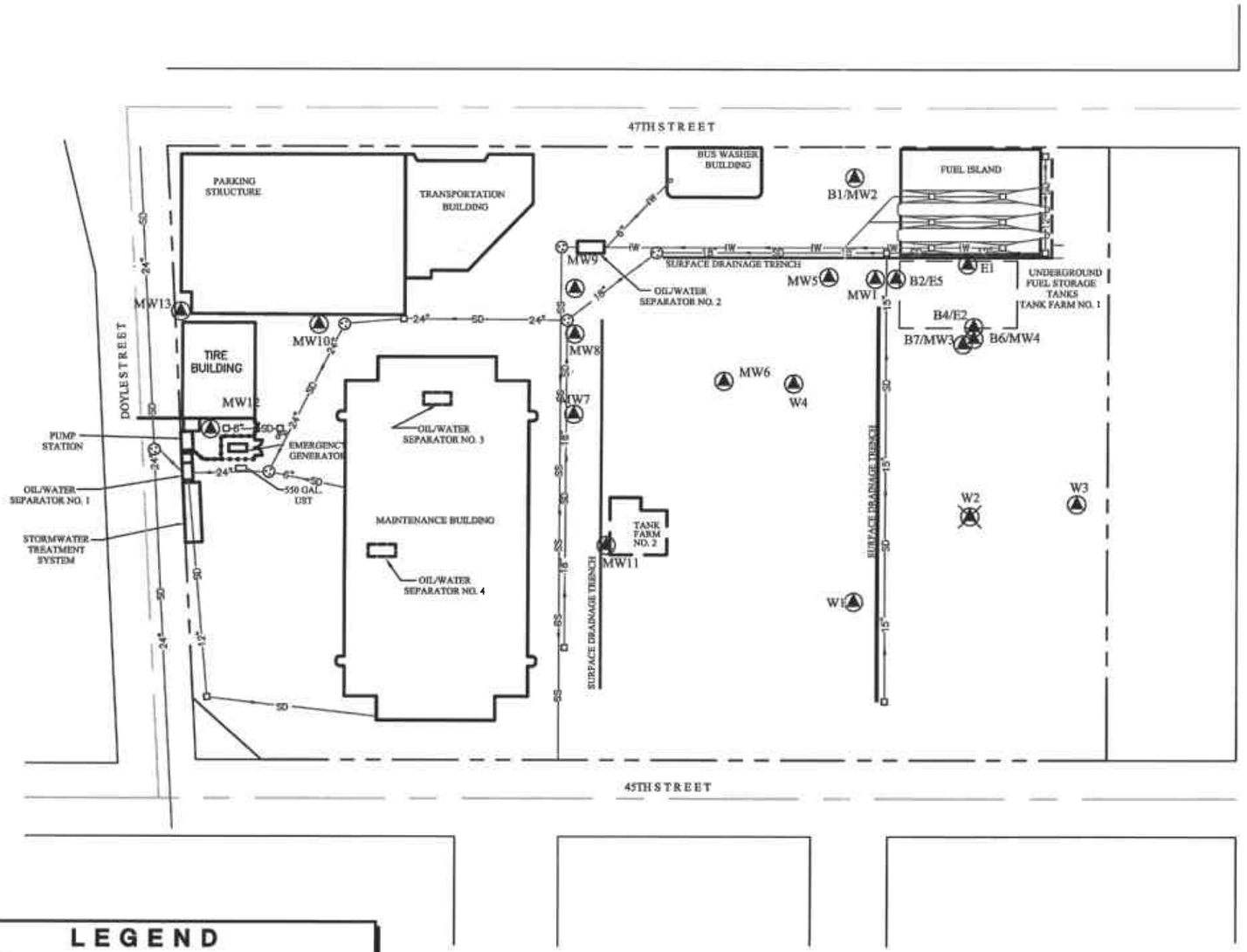
Table 2 presents groundwater analytical results for the August 2004 sampling event. TPH as degraded diesel was detected in monitor well MW-10 at concentrations of 310 parts per billion (ppb). TPH as degraded gasoline was detected in monitor wells MW-10, MW-12 and W-1 at concentrations of 240, 430 and 2500 pbb, respectively. The 8015 TPH gas and diesel data for MW-6 is an anomaly and will be evaluated in subsequent events. Benzene was detected above the Sate of California maximum contaminant level of 1.0 ppb in MW-6 at a concentration of 86 ppb. No analytes were detected in the trip blank or method blank. A lab control spike and lab control spike duplicate passed the EPA's criteria for acceptance.

SUMMARY OF RESULTS

- Groundwater flow is to the west at a gradient of 0.022 feet/foot.
- TPH as degraded diesel was detected in MW-10 at 310 ppb.
- TPH as degraded gasoline was detected in MW-7, MW-10, MW-12 and W-1 at 200, 240, 430 and 2500 ppb, respectively.
- Benzene above the MCL of 1.0 ppb was detected in monitoring well MW-6 at 86 ppb.

PROJECTED WORK AND RECOMMENDATIONS

- Quarterly groundwater monitoring of monitoring wells MW-11, MW-12 and MW-13 including removal of the free product layer in MW-13 is scheduled for November 2004. This event will include site-wide depth to groundwater level measurements, including inspection of each monitor well for free-phase hydrocarbon.



LEGEND

- MANHOLE
- CATCH BASIN
- MONITORING WELL
- ABANDONED MONITORING WELL
- SD — STORM DRAIN PIPELINE
- SS — SANITARY SEWER PIPELINE
- IW — INDUSTRIAL WASTE PIPELINE
- CHAIN LINK FENCE

	BY	DATE
DRAWN	WRB	10/25/02
CHECKED		
APPROVED		
APPROVED		
APPROVED		

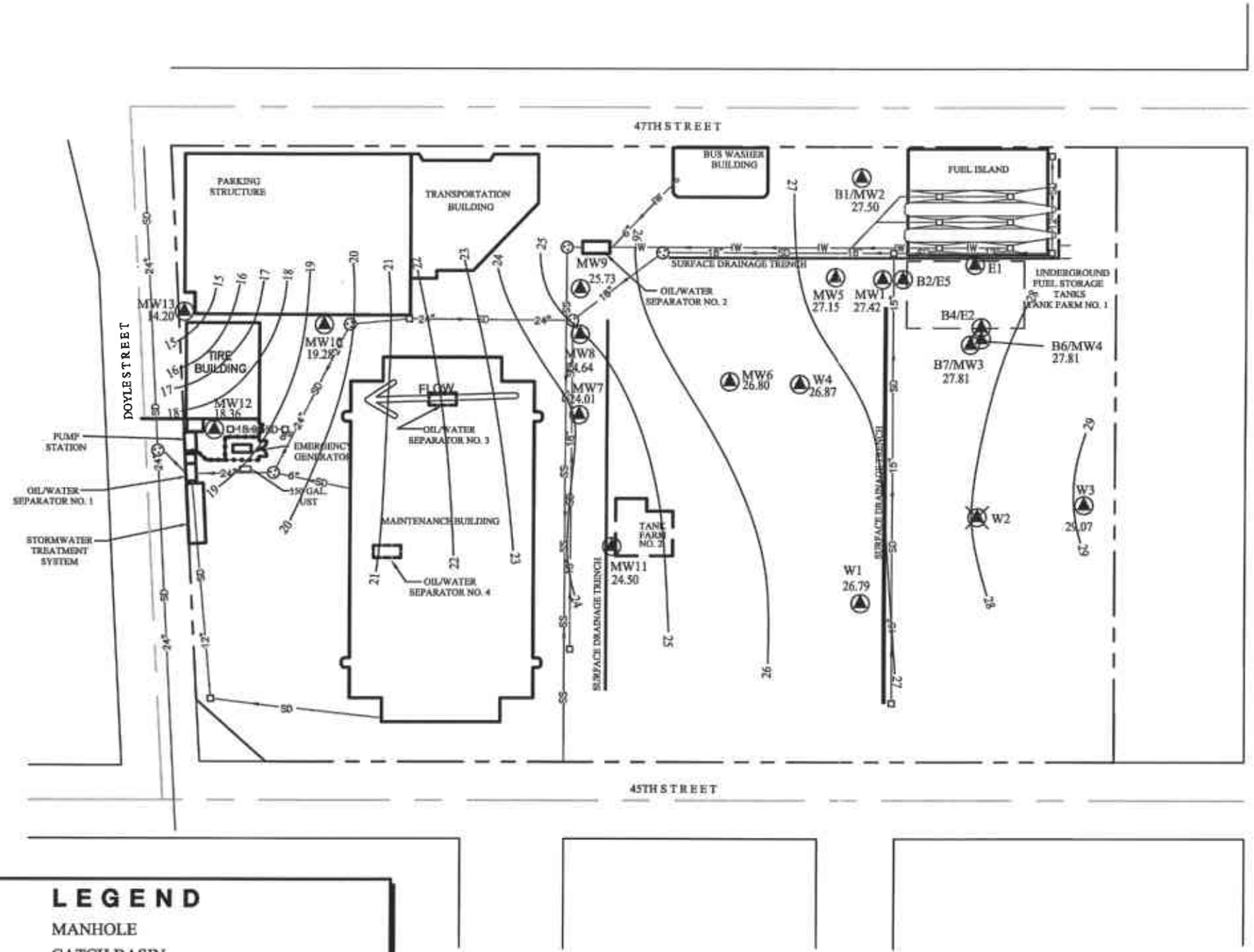
CAMERON-COLE

EMERYVILLE FACILITY - OAKLAND, CALIFORNIA

FIGURE 1
AC TRANSIT - MONITORING WELL LOCATION MAP

SCALE: 1" = 100'

DWG. NO.: 2015-01



LEGEND

- MANHOLE
- CATCH BASIN
- MONITORING WELL
- ABANDONED MONITORING WELL
- 26.53 — POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR
- SD — STORM DRAIN PIPELINE
- SS — SANITARY SEWER PIPELINE
- IW — INDUSTRIAL WASTE PIPELINE
- CHAIN LINK FENCE

0 100 FEET

FIGURE 2

	BY	DATE
DRAWN	WRB	10/5/04
CHECKED		
APPROVED		
APPROVED		
APPROVED		

CAMERON-COLE

EMERYVILLE FACILITY - OAKLAND, CALIFORNIA

AC TRANSIT - POTENTIOMETRIC SURFACE MAP
AUGUST 2004

SCALE: 1" = 100'

DWG. NO.: 2015-19

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-1	8/31/1999	32.56	None	3.24	29.32	NA
	11/23/1999		None	4.55	28.01	NA
	3/1/2000		None	3.65	28.91	NA
	5/17/2000		None	4.08	28.48	NA
	8/30/2000		None	5.18	27.38	NA
	12/18/2000		None	4.86	27.7	NA
	3/20/2001		None	4.22	28.34	NA
	6/7/2001		None	4.88	27.68	NA
	9/20/2001		None	4.97	27.59	NA
	12/14/2001		None	3.59	28.97	NA
	2/27/2002		None	4.03	28.53	NA
	5/16/2002		None	4.32	28.24	NA
	9/18/2002		None	4.61	27.95	NA
	10/30/2002		None	4.74	27.82	NA
	2/6/2003		None	4.08	28.48	NA
	5/1/2003		None	3.68	28.88	NA
	8/26/2003		None	4.64	27.92	NA
	11/20/2003		None	4.57	27.99	NA
	2/10/2004		None	3.95	28.61	NA
	5/18/2004		None	4.45	28.11	NA
	8/30/2004		**None**	**5.14**	**27.42**	**NA**
MW-2	8/31/1999	32.12	None	5.24	26.88	NA
	11/23/1999		None	4.03	28.09	NA
	3/1/2000		None	3.11	29.01	NA
	5/17/2000		None	3.66	28.46	NA
	8/30/2000		None	4.65	27.47	NA
	12/18/2000		None	4.06	28.06	NA
	3/20/2001		None	3.91	28.21	NA
	6/7/2001		None	4.40	27.72	NA
	9/20/2001		None	4.45	27.67	NA
	12/14/2001		None	3.19	28.93	NA
	2/27/2002		None	3.45	28.67	NA
	5/16/2002		None	3.74	28.38	NA
	9/18/2002		None	4.20	27.92	NA
	10/30/2002		None	4.23	27.89	NA
	2/6/2003		None	3.70	28.42	NA
	5/1/2003		None	3.59	28.53	NA
	8/26/2003		None	4.24	27.88	NA
	11/20/2003		None	4.35	27.77	NA
	2/10/2004		None	3.61	28.51	NA
	5/18/2004		None	3.91	28.21	NA
	8/30/2004		**None**	**4.62**	**27.50**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-3	8/31/1999	34.06	None	6.15	27.91	NA
	11/23/1999		None	5.78	28.28	NA
	3/1/2000		None	4.82	29.24	NA
	5/17/2000		None	5.29	28.77	NA
	8/30/2000		None	6.20	27.86	NA
	12/18/2000		None	5.65	28.41	NA
	3/20/2001		None	5.18	28.88	NA
	6/7/2001		None	6.01	28.05	NA
	9/20/2001		None	5.9	28.16	NA
	12/14/2001		None	4.66	29.40	NA
	2/27/2002		None	5.00	29.06	NA
	5/16/2002		None	5.21	28.85	NA
	9/18/2002		None	5.61	28.45	NA
	10/30/2002		None	5.72	28.34	NA
	2/6/2003		None	4.97	29.09	NA
	5/1/2003		None	4.89	29.17	NA
	8/26/2003		None	5.82	28.24	NA
	11/20/2003		None	5.92	28.14	NA
	2/10/2004		None	4.99	29.07	NA
	5/18/2004		None	5.52	28.54	NA
	8/30/2004		**None**	**6.25**	**27.81**	**NA**
MW-4	8/31/1999	34.11	None	6.22	27.89	NA
	11/23/1999		None	6.01	28.10	NA
	3/1/2000		None	4.74	29.37	NA
	5/17/2000		None	5.33	28.78	NA
	8/30/2000		None	6.26	27.85	NA
	12/18/2000		None	5.66	28.45	NA
	3/20/2001		None	5.46	28.65	NA
	6/7/2001		None	6.02	28.09	NA
	9/20/2001		None	6.06	28.05	NA
	12/14/2001		None	5.39	28.72	NA
	2/27/2002		None	5.28	28.83	NA
	5/16/2002		None	5.39	28.72	NA
	9/18/2002		None	5.61	28.50	NA
	10/30/2002		None	5.70	28.41	NA
	2/6/2003		None	5.39	28.72	NA
	5/1/2003		None	5.25	28.86	NA
	8/26/2003		None	5.88	28.23	NA
	11/20/2003		None	5.84	28.27	NA
	2/10/2004		None	5.10	29.01	NA
	5/18/2004		None	5.58	28.53	NA
	8/30/2004		**None**	**6.30**	**27.81**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-5	8/31/1999	31.70	None	4.51	27.19	NA
	11/23/1999		None	4.00	27.70	NA
	3/1/2000		None	3.31	28.39	NA
	5/17/2000		None	3.59	28.11	NA
	8/30/2000		None	4.53	27.17	NA
	12/18/2000		None	3.97	27.73	NA
	3/20/2001		None	3.68	28.02	NA
	6/7/2001		None	4.37	27.33	NA
	9/20/2001		None	4.46	27.24	NA
	12/14/2001		None	3.23	28.47	NA
	2/27/2002		None	3.44	28.26	NA
	5/16/2002		None	3.68	28.02	NA
	9/18/2002		None	4.04	27.66	NA
	10/30/2002		None	4.21	27.49	NA
	2/6/2003		None	3.61	28.09	NA
	5/1/2003		None	3.15	28.55	NA
	8/26/2003		None	4.00	27.70	NA
	11/20/2003		None	4.20	27.50	NA
	2/10/2004		None	3.38	28.32	NA
	5/18/2004		None	3.75	27.95	NA
	8/30/2004		**None**	**4.55**	**27.15**	**NA**
MW-6	8/31/1999	31.02	None	4.40	26.62	NA
	11/23/1999		None	3.81	27.21	NA
	3/1/2000		None	2.88	28.14	NA
	5/17/2000		None	3.44	27.58	NA
	8/30/2000		None	4.40	26.62	NA
	12/18/2000		None	3.61	27.41	NA
	3/20/2001		None	3.16	27.86	NA
	6/7/2001		None	4.18	26.84	NA
	9/20/2001		Sheen	4.22	26.80	NA
	12/14/2001		None	3.62	27.40	NA
	2/27/2002		None	2.94	28.08	NA
	5/16/2002		None	3.53	27.49	NA
	9/18/2002		None	3.97	27.05	NA
	10/30/2002		None	3.96	27.06	NA
	2/6/2003		None	2.97	28.05	NA
	5/1/2003		None	3.98	27.04	NA
	8/26/2003		None	3.82	27.20	NA
	11/20/2003		None	3.78	27.24	NA
	2/10/2004		None	2.94	28.08	NA
	5/18/2004		None	3.47	27.55	NA
	8/30/2004		**None**	**4.22**	**26.80**	**NA**
MW-7	8/31/1999	29.62	None	5.47	24.15	NA
	11/23/1999		None	4.93	24.69	NA
	3/1/2000		None	4.06	25.56	NA
	5/17/2000		None	4.69	24.93	NA
	8/30/2000		None	5.50	24.12	NA
	12/18/2000		None	5.78	23.84	NA
	3/20/2001		None	4.83	24.79	NA
	6/7/2001		None	4.80	24.82	NA
	9/20/2001		None	5.19	24.43	NA
	12/14/2001		None	4.68	24.94	NA
	2/27/2002		None	4.53	25.09	NA
	5/16/2002		None	4.34	25.28	NA
	9/18/2002		None	5.28	24.34	NA
	10/30/2002		None	5.51	24.11	NA
	2/6/2003		None	4.36	25.26	NA
	5/1/2003		None	4.76	24.86	NA
	8/26/2003		None	5.25	24.37	NA
	11/20/2003		None	5.26	24.36	NA
	2/10/2004		None	4.31	25.31	NA
	5/18/2004		None	4.46	25.16	NA
	8/30/2004		**None**	**5.61**	**24.01**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-8	8/31/1999	29.43	None	5.35	24.08	NA
	11/23/1999		None	4.75	24.68	NA
	3/1/2000		None	4.48	24.95	NA
	5/17/2000		None	4.78	24.65	NA
	8/30/2000		None	5.02	24.41	NA
	12/18/2000		None	5.23	24.20	NA
	3/20/2001		None	4.70	24.73	NA
	6/7/2001		None	5.13	24.30	NA
	9/20/2001		None	5.68	23.75	NA
	12/14/2001		None	4.26	25.17	NA
	2/27/2002		None	4.18	25.25	NA
	5/16/2002		None	4.58	24.85	NA
	9/18/2002		None	4.96	24.47	NA
	10/30/2002		None	4.99	24.44	NA
	2/6/2003		None	4.41	25.02	NA
	5/1/2003		None	4.29	25.14	NA
	8/26/2003		None	4.58	24.85	NA
	11/20/2003		None	4.69	24.74	NA
	2/10/2004		None	4.22	25.21	NA
	5/18/2004		None	4.52	24.91	NA
	8/30/2004		**None**	**4.79**	**24.64**	**NA**
MW-9	8/31/1999	29.18	None	4.15	25.03	NA
	11/23/1999		None	3.93	25.25	NA
	3/1/2000		None	3.69	25.49	NA
	5/17/2000		None	3.56	25.62	NA
	8/30/2000		None	4.64	24.54	NA
	12/18/2000		None	4.02	25.16	NA
	3/20/2001		None	3.92	25.26	NA
	6/7/2001		None	4.28	24.90	NA
	9/20/2001		None	5.12	24.06	NA
	12/14/2001		None	3.87	25.31	NA
	2/27/2002		None	4.48	24.70	NA
	5/16/2002		None	5.13	24.05	NA
	9/18/2002		None	4.48	24.70	NA
	10/30/2002		None	3.90	25.28	NA
	2/6/2003		None	3.65	25.53	NA
	5/1/2003		None	4.50	24.68	NA
	8/26/2003		None	4.33	24.85	NA
	11/20/2003		None	3.83	25.35	NA
	2/10/2004		None	3.17	26.01	NA
	5/18/2004		None	3.42	25.76	NA
	8/30/2004		**None**	**3.45**	**25.73**	**NA**
MW-10	8/31/1999	29.13	None	9.59	19.54	NA
	11/23/1999		None	9.44	19.69	NA
	3/1/2000		None	9.06	20.07	NA
	5/17/2000		None	9.31	19.82	NA
	8/30/2000		None	9.68	19.45	NA
	12/18/2000		None	9.41	19.72	NA
	3/20/2001		None	9.23	19.90	NA
	6/7/2001		None	9.60	19.53	NA
	9/20/2001		None	9.70	19.43	NA
	12/14/2001		None	8.83	20.30	NA
	2/27/2002		None	9.15	19.98	NA
	5/16/2002		None	9.45	19.68	NA
	9/18/2002		None	9.65	19.48	NA
	10/30/2002		None	9.73	19.40	NA
	2/6/2003		None	9.34	19.79	NA
	5/1/2003		None	9.14	19.99	NA
	8/26/2003		None	9.69	19.44	NA
	11/20/2003		None	9.62	19.51	NA
	2/10/2004		None	9.20	19.93	NA
	5/18/2004		None	9.58	19.55	NA
	8/30/2004		**None**	**9.85**	**19.28**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-11	9/20/2001	28.93	None	4.41	24.52	NA
	12/14/2001		None	1.82	27.11	NA
	2/27/2002		None	2.39	26.54	NA
	5/16/2002		None	2.98	25.95	NA
	9/18/2002		None	4.00	24.93	NA
	10/30/2002		None	4.14	24.79	NA
	2/6/2003		None	2.59	26.34	NA
	5/1/2003		None	2.26	26.67	NA
	8/26/2003		None	3.79	25.14	NA
	11/20/2003		None	3.66	25.27	NA
	2/10/2004		None	2.40	26.53	NA
	5/18/2004		None	3.20	25.73	NA
	8/30/2004		**None**	**4.43**	**24.50**	**NA**
MW-12	9/20/2001	28.68	None	10.41	18.27	NA
	12/14/2001		None	9.62	19.06	NA
	2/27/2002		None	10.09	18.59	NA
	5/16/2002		None	10.04	18.64	NA
	9/18/2002		None	10.66	18.02	NA
	10/30/2002		None	10.62	18.06	NA
	2/6/2003		None	9.97	18.71	NA
	5/1/2003		None	9.78	18.90	NA
	8/26/2003		None	10.70	17.98	NA
	11/20/2003		None	10.53	18.15	NA
	2/10/2004		None	9.80	18.88	NA
	5/18/2004		None	10.13	18.55	NA
	8/30/2004		**None**	**10.32**	**18.36**	**NA**
MW-13	9/20/2001	22.715	None	8.83	13.89	NA
	12/14/2001		None	7.95	14.77	NA
	2/27/2002		None	7.64	15.08	NA
	5/16/2002		None	8.43	14.29	NA
	9/18/2002		6.86	15.09	7.63	13.11
	10/30/2002		6.04	14.29	8.43	13.26
	2/6/2003		0.09	8.25	14.47	14.54
	5/1/2003		0.24	7.29	15.43	15.62
	8/26/2003		0.39	9.70	13.02	13.33
	11/20/2003		0.85	9.85	12.87	13.55
	2/10/2004		0.88	10.59	12.13	12.83
	5/18/2004		0.92	10.70	12.02	12.75
	8/30/2004		**1.06**	**9.36**	**13.36**	**14.20**
W-1	3/2/2000	33.43	None	4.08	29.35	NA
	5/17/2000		None	5.41	28.02	NA
	8/30/2000		None	6.71	26.72	NA
	12/18/2000		None	5.73	27.70	NA
	3/20/2001		None	5.16	28.27	NA
	6/7/2001		None	6.10	27.33	NA
	9/20/2001		None	6.58	26.85	NA
	12/14/2001		None	4.69	28.74	NA
	2/27/2002		None	4.94	28.49	NA
	5/16/2002		None	5.54	27.89	NA
	9/18/2002		None	6.08	27.35	NA
	10/30/2002		None	6.24	27.19	NA
	2/6/2003		None	5.17	28.26	NA
	5/1/2003		None	4.71	28.72	NA
	8/26/2003		None	6.14	27.29	NA
	11/20/2003		None	6.19	27.24	NA
	2/10/2004		None	4.95	28.48	NA
	5/18/2004		None	5.70	27.73	NA
	8/30/2004		**None**	**6.64**	**26.79**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
W-2	5/17/2000	34.21	None	5.60	28.61	NA
	8/30/2000		None	7.37	26.84	NA
	12/18/2000		None	6.44	27.77	NA
	1/23/2001					abandoned
W-3	5/17/2000	37.46	None	6.38	31.08	NA
	8/30/2000		None	8.16	29.30	NA
	12/18/2000		None	7.19	30.27	NA
	3/20/2001		None	5.70	31.76	NA
	6/7/2001		None	7.51	29.95	NA
	9/20/2001		None	7.83	29.63	NA
	12/14/2001		None	4.76	32.70	NA
	2/27/2002		None	5.32	32.14	NA
	5/16/2002		None	6.45	31.01	NA
	9/18/2002		None	7.10	30.36	NA
	10/30/2002		None	7.30	30.16	NA
	2/6/2003		None	5.69	31.77	NA
	5/1/2003		None	4.97	32.49	NA
	8/26/2003		None	7.52	29.94	NA
	11/20/2003		None	7.58	29.88	NA
	2/10/2004		None	5.63	31.83	NA
	5/18/2004		None	6.20	31.26	NA
	8/30/2004		**None**	**8.39**	**29.07**	**NA**
W-4	3/2/2000	31.72	None	3.34	28.38	NA
	5/17/2000		None	3.86	27.86	NA
	8/30/2000		None	4.99	26.73	NA
	12/18/2000		None	4.20	27.52	NA
	3/20/2001		None	3.75	27.97	NA
	6/7/2001		None	4.67	27.05	NA
	9/20/2001		None	4.80	26.92	NA
	12/14/2001		None	3.22	28.50	NA
	2/27/2002		None	3.58	28.14	NA
	5/16/2002		None	3.89	27.83	NA
	9/18/2002		None	4.24	27.48	NA
	10/30/2002		None	4.56	27.16	NA
	2/6/2003		None	3.67	28.05	NA
	5/1/2003		None	2.61	29.11	NA
	8/26/2003		None	4.47	27.25	NA
	11/20/2003		None	4.42	27.30	NA
	2/10/2004		None	3.54	28.18	NA
	5/18/2004		None	4.11	27.61	NA
	8/30/2004		**None**	**4.85**	**26.87**	**NA**

Notes:
* used 0.8 specific gravity of product
ft-msl: feet mean sea level
DTW: Depth to water
NA: not applicable

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		**None**	**None**	**1.0**	**150**	**700**	**1750**	**13**
MW-1	8/31/1999	310	NA	<1.0	2.4	1	1.6	NA
	11/23/1999	250	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	310	62	<1.0	<1.0	<1.0	<2.0	687
	5/17/2000	390	63	<1.0	<1.0	<1.0	<2.0	74
	8/31/2000	180	<50	<1.0	<1.0	<1.0	<2.0	49
	12/18/2000	310	<50	<1.0	<1.0	<1.0	<2.0	44
	3/21/2001	240	<50	<1.0	<1.0	<1.0	<2.0	17
	6/7/2001	540	<50	<1.0	<1.0	<1.0	<2.0	32
	9/20/2001	290	<50	<1.0	<1.0	<1.0	<2.0	29
	2/27/2002	<250	<50	<1.0	<1.0	<1.0	<2.0	14
	9/18/2002	230	<50	<1.0	<1.0	<1.0	<2.0	30
	2/6/2003	82	<50	<0.5	<0.5	<0.5	<1.0	17
	8/26/2003	200	<50	<0.5	<0.5	<0.5	<1.0	9.8
	2/10/2004	4,800	<50	<0.5	<0.5	<0.5	<1.0	6.6
	8/30/2004	**<56**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**4.2**
MW-2	8/31/1999	180	NA	<1.0	<1.0	<1.0	1.2	NA
	11/23/1999	120	NA	<1.0	<1.0	<1.0	<5.0	NA
	3/1/2000	510	<50	<1.0	<1.0	<1.0	<2.0	81
	5/17/2000	1,100	<50	<1.0	<1.0	<1.0	<2.0	87
	8/31/2000	620	<50	<1.0	<1.0	<1.0	<2.0	65
	12/19/2000	830	<50	<1.0	<1.0	<1.0	<2.0	70
	3/21/2001	900	<50	<2.0	<2.0	<2.0	<4.0	33
	6/7/2001	810	<50	<1.0	<1.0	<1.0	<2.0	43
	9/20/2001	1,200	<50	<1.0	<1.0	<1.0	<2.0	35
	2/27/2002	<250	<50	<1.0	<1.0	<1.0	<2.0	19
	9/18/2002	180	<50	<1.0	<1.0	<1.0	<2.0	17
	2/6/2003	58	<50	<0.5	<0.5	<0.5	<1.0	18
	8/26/2003	150	<50	<0.5	<0.5	<0.5	<1.0	15
	2/11/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	5.2
	8/30/2004	**<56**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**6.3**
MW-3	8/31/1999	2,700	NA	<1.0	<1.0	<1.0	<1.0	NA
	11/23/1999	640	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	620	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	1,800	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	NA	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/21/2001	1,700	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	770	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/21/2001	260	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/27/2002	560	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	340	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/6/2003	<50	<50	<0.5	<0.5	<0.5	<1.0	3.9
	8/26/2003	5,800	<50	<0.5	<0.5	<0.5	<1.0	4.9
	2/11/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	3.4
	8/30/2004	**<56**	**<50**	**<0.5**	**<0.5**	**<0.5**	**1.5**	**4**

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		**None**	**None**	**1.0**	**150**	**700**	**1750**	**13**
MW-4	8/31/1999	<50	NA	<1.0	<1.0	<1.0	1.6	NA
	11/23/1999	<50	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	80	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
MW-5	8/31/1999	250	NA	<1.0	<1.0	<1.0	1	NA
	11/23/1999	300	NA	<1.0	<1.0	<1.0	<5.0	NA
	3/1/2000	340	<50	<1.0	<1.0	<1.0	<2.0	100
	5/17/2000	230	<50	<1.0	<1.0	<1.0	<2.0	86
	8/31/2000	220	<50	<1.0	<1.0	<1.0	<2.0	59
	12/18/2000	360	<50	<1.0	<1.0	<1.0	<2.0	57
	3/20/2001	250	<50	<5.0	<5.0	<5.0	<10	87
	6/7/2001	600	<50	<1.0	<1.0	<1.0	<2.0	74
MW-6	8/31/1999	140,000	NA	77	18	31	49	NA
	11/23/1999	6,100	NA	45	14	6.9	48	NA
	3/1/2000	22,000	2800	6.8	<2.0	<2.0	<10	<5.0
	5/17/2000	1,800	6200	77	16	39	37	<5.0
	8/31/2000	76,000	5300	60	13	43	45.7	<5.0
	12/19/2000	6,300	1300	26.0	4.9	8.4	11.5	<5.0
	3/21/2001	5,100	1900	49.0	9.5	13	12	<10
	6/7/2001	14,000	2600	47.0	10	13	19	<10
	9/21/2001	15,000	4000	180	14	24	40	<50
	2/27/2002	43,000	5000	68	16	52	41.8	<25
	9/18/2002	320,000	2000	74	7.3	22	25	<5.0
	2/6/2003	4,300	2600	63	8.2	18	15	<1.0
	8/26/2003	68,000	6500	110	16	44	42	<10
	2/10/2004	19,000	3500	37	4.9	24	15	<5
	8/30/2004	**<56**	**<50**	**86**	**7.8**	**15**	**27**	**<5**
MW-7	8/31/1999	1,400	NA	<1.0	2.9	2.3	2.7	NA
	11/23/1999	530	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	640	860	<1.0	<1.0	<1.0	<2.0	<20
	5/17/2000	430	410	<1.0	<1.0	<1.0	<2.0	9.5
	8/31/2000	950	1100	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	1,100	820	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	770	1000	<1.0	1.4	<1.0	<2.0	<5.0
	6/7/2001	1,400	870	<1.0	<1.0	<1.0	<2.0	<5.0
	9/21/2001	940	1000	<1.0	<1.0	<2.0	<5.0	<5.0
	2/27/2002	430	930	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	440	870	<1.0	<1.0	<1.0	<2.0	<5.0
	2/6/2003	230	890	<0.5	<0.5	<0.5	<1.0	1.6
	8/26/2003	470	590	<0.5	<0.5	<0.5	<1.0	1.5
	2/11/2004	140	690	<0.5	1.9	0.57	1.0	1.1
	8/30/2004	**<56**	**200**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**1.5**

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		**None**	**None**	**1.0**	**150**	**700**	**1750**	**13**
MW-8	8/31/1999	230	NA	<1.0	<1.0	1.2	<1.0	NA
	11/23/1999	220	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	260	150	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	660	310	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	460	300	<1.0	<1.0	<1.0	1.4	<5.0
	12/18/2000	370	230	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	1,700	64	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	1,300	180	<1.0	<1.0	<1.0	<2.0	<5.0
MW-9	8/31/1999	2,800	NA	<1.0	<1.0	<1.0	1.1	NA
	11/23/1999	1,300	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	510	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	990	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	1,100	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	1,900	<50	<1.0	<1.0	<1.0	<2.0	5.9
	3/20/2001	1,500	<50	<1.0	<1.0	<1.0	<2.0	5.5
	6/7/2001	590	<50	<1.0	<1.0	<1.0	<2.0	8.1
	9/20/2001	790	<50	<1.0	<1.0	<1.0	<2.0	8.5
	2/27/2002	650	<50	<1.0	<1.0	<1.0	<2.0	9.5
	9/18/2002	480	<50	<1.0	<1.0	<1.0	<2.0	6.2
	2/6/2003	54	<50	<0.5	<0.5	<0.5	<1.0	5.5
	8/26/2003	1,300	<50	<0.5	<0.5	<0.5	<1.0	6.6
	2/10/2004	6,200	250	<0.5	<0.5	<0.5	<1.0	4.4
	8/30/2004	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**3.6**
MW-10	8/31/1999	1,100	NA	<1.0	1.2	2.0	<1.0	NA
	11/23/1999	1,200	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	1,300	540	<1.0	<1.0	<1.0	<2.0	NA
	5/17/2000	990	460	<1.0	<1.0	<1.0	<2.0	6.9
	8/31/2000	840	320	<1.0	<1.0	<1.0	<2.0	25
	12/18/2000	900	290	<1.0	<1.0	<1.0	<2.0	<9.0
	3/21/2001	620	220	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	1,300	360	<1.0	<1.0	<1.0	<2.0	15
	9/20/2001	1,000	350	<1.0	<1.0	<1.0	<2.0	44
	2/27/2002	610	150	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	850	240	<1.0	1.2	<1.0	<2.0	20
	2/6/2003	510	200	<0.5	<0.5	<0.5	<1.0	2.8
	8/26/2003	1,100	250	<0.5	<0.5	<0.5	<1.0	14
	2/10/2004	260	190	<0.5	<0.5	<0.5	<1.0	1.6
	8/30/2004	**310**	**240**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**6.7**
MW-11	9/20/2001	460	88	<1.0	<1.0	<1.0	<2.0	<5.0
	12/14/2002	320	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/27/2002	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/16/2002	380	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	10/30/2002	260	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	2/6/2003	250	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	5/1/2003	220	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	8/26/2003	300	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	11/20/2003	77	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	5/18/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	8/30/2004	**<56**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**<1.0**

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	700	1750	13
MW-12	9/20/2001	540	960	<1.0	<1.0	<2.0	<5.0	11
	12/14/2002	170	670	<1.0	<1.0	<1.0	<2.0	9.4
	2/27/2002	350	950	<1.0	<1.0	<1.0	<2.0	11
	5/16/2002	500	1100	<1.0	<1.0	<1.0	<2.0	6.7
	9/18/2002	1,600	570	<1.0	<1.0	<1.0	<3.0	7.1
	10/30/2002	440	420	<0.5	<0.5	<0.5	<1.5	<2.5
	2/6/2003	190	340	<0.5	<0.5	<0.5	<1.0	6.8
	5/1/2003	580	950	<2.5	<2.5	3.7	9.0	8.8
	8/26/2003	110	260	<0.5	<0.5	<0.5	<1.0	11
	11/20/2003	100	160	<0.5	<0.5	<0.5	<1.0	8.9
	2/10/2004	210	490	<0.5	0.6	<0.5	<1.0	6.7
	5/18/2004	190	620	<0.5	<0.5	0.8	<1.0	5.6
	8/30/2004	**<56**	**430**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**5.6**
MW-13	9/21/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	7.4
	12/14/2002	160	<50	<1.0	<1.0	<1.0	<2.0	11
	2/27/2002	1,100	450	<1.0	<5.0	<1.0	<2.0	9.9
W-1	5/16/2002	520	150	<1.0	<1.0	<1.0	<2.0	8.7
	3/2/2000	1,800	3400	20.0	5.3	30	23.8	<5.0
	5/17/2000	1,100	7300	35.0	11	59	45	<1.0
	8/31/2000	2,200	6200	20.0	7.9	36	38.2	<10
	12/19/2000	1,700	5600	20.0	8.4	30	35.6	<5.0
	3/20/2001	2,100	7200	32.0	13	56	40	<10
	6/7/2001	2,100	7300	26.0	18	42	38.3	<10
	9/21/2001	1,800	7100	27	<10	48	40	<10
	2/27/2002	1,800	7100	24	9	52	34	<25
	2/6/2003	990	5300	11	4.7	27	24	<1.0
	8/26/2003	1,700	5800	7.5	5.4	24	25	<10
	2/10/2004	940	6000	16.0	4.9	20	21	<1.0
	8/30/2004	**<56**	**2500**	**8.6**	**3.6**	**11**	**18**	**<1.30**
W-2	9/18/2002	1,000	5900	11	<22	23	22	<5.0
	5/17/2000	19,000	870	<2.0	<1.0	<2.0	<4.0	<5.0
	8/31/2000	7,400	2200	4.6	2.5	3.8	11	<5.0
W-3	12/19/2000	10,000	290	8.8	3.4	8.6	17.4	<5.0
	5/17/2000	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	630	<50	<1.0	<1.0	<1.0	<2.0	<5.0
W-4	6/7/2001	1,200	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/2/2000	190	<50	1.1	<1.0	<1.0	<2.0	<5.0
	5/17/2000	230	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	240	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/19/2000	320	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/21/2001	220	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	430	<50	<1.0	<1.0	<1.0	<2.0	<5.0

Notes:
ppb: parts per billion
TPH: Total Petroleum Hydrocarbons
MTBE: methyl tert butylether
MCL: Maximum Contaminant Level
NA: not analyzed

APPENDIX A

CHAIN-OF-CUSTODY DOCUMENTATION
FIELD DATA SHEETS
CERTIFIED ANALYTICAL REPORTS

Entech Analytical Labs, Inc.

RECEIVED OCT 15 2004

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Emily Waters
Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501

Certificate ID: 40222 - 10/8/2004 1:20:03 PM

Order:	40222	**Date Collected:**	8/30/2004
Project Name:	ACTransit Emeryville	**Date Received:**	8/30/2004
Project Number:	2016	**P.O. Number:**	2016

Certificate of Analysis - Revision

Note: This is a revision of the original 9/8/2004 issue to remove EPA 8260B and Nitrate analyses per client request.

On August 30, 2004, samples were received under chain of custody for analysis. Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Method	Comments
Liquid	Sulfate by IC	EPA 300.0	
	TPH as Gasoline	EPA 8015 MOD. (Purgeable)	
	TPH-Extractable	EPA 8015 MOD. (Extractable)	Report Diesel ONLY

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-002 **Sample ID: MW-6** **Matrix:** Liquid **Sample Date:** 8/30/2004 10:15 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	35		5	2.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	70.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	108	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-003 **Sample ID: W-1** **Matrix:** Liquid **Sample Date:** 8/30/2004 10:45 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	3.0		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: EQueja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Note: 1200ppb of lower boiling compounds(C8-C14). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	85.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	2500		20	1000	µg/L	N/A	N/A	08/31/2004	WGC4040831

Note: Atypical pattern

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	120	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-004 **Sample ID: MW-11** **Matrix:** Liquid **Sample Date:** 8/30/2004 11:15 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	30		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	71.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-005 **Sample ID: MW-3** **Matrix:** Liquid **Sample Date:** 8/30/2004 10:15 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	60		2	1	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Liq-Liq, Sep Funnel, MeCl

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	84.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.3	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-006 **Sample ID: MW-2** **Matrix:** Liquid **Sample Date:** 8/30/2004 10:50 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	50		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	71.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.1	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-007 **Sample ID: MW-1** **Matrix:** Liquid **Sample Date:** 8/30/2004 11:15 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	50		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Liq-Liq, Sep Funnel, MeCL

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	78.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-008 **Sample ID: MW-10** **Matrix:** Liquid **Sample Date:** 8/30/2004 11:55 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	ND		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	310		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Note: Final result elevated due to the presence of possible gasoline compounds.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	77.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	240		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Note: Atypical pattern

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	171***	65 - 135

Analyzed by: mruan
Reviewed by: MTU

*** High surrogate recovery for BFB due to matrix interference.

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-009 **Sample ID: MW-12** **Matrix:** Liquid **Sample Date:** 8/30/2004 12:30 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	4.1		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Sep. funnel liquid/liquid extraction

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	08/31/2004	DW4799A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	70.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	430		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831
Note: Atypical pattern									

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	297***	65 - 135

Analyzed by: mruan
Reviewed by: MTU

*** High surrogate recovery for BFB due to matrix interference.

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-010 **Sample ID:** MW-7 **Matrix:** Liquid **Sample Date:** 8/30/2004 11:55 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	2.0		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Liq-Liq, Sep Funnel, MeCL

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	56	µg/L	08/30/2004	DW4799A	09/01/2004	DW4799A

Note: 120ppb of lower boiling compounds (C14-C26). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	58.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	200		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Note: Atypical pattern

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	163***	65 - 135

Analyzed by: mruan
Reviewed by: MTU

*** High surrogate recovery for BFB due to matrix interference.

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 8/30/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40222-011 **Sample ID:** MW-9 **Matrix:** Liquid **Sample Date:** 8/30/2004 12:30 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Sulfate	12		1	0.5	mg/L	N/A	N/A	09/07/2004	WIC040830B

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8015 MOD. (Extractable) / EPA 3510C / Liq-Liq, Sep Funnel, MeCl

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1	50	µg/L	08/30/2004	DW4799A	09/02/2004	DW4799A

Note: 460 ppb unidentified Hydrocarbons(C13-C4). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	60.0	22 - 133

Analyzed by: JZaininger
Reviewed by: MTU

Method: EPA 8015 MOD. (Purgeable) / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/L	N/A	N/A	08/31/2004	WGC4040831

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	65 - 135

Analyzed by: mruan
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Quality Control - Method Blank

Liquid

Validated by: MTU - 09/07/04

QC Batch ID: WGC4040831

Analysis Date: 8/31/2004

Method Blank **Method: EPA 8015 MOD. (Purgeable)**

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	96.8	65 - 135

Quality Control - Laboratory Control Spike / Duplicate Results

Liquid

Reviewed by: MTU - 09/07/04

QC Batch ID: WGC4040831

Analysis Date: 8/31/2004

LCS **Method: EPA 8015 MOD. (Purgeable)** **Conc. Units: µg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	250	241	LCS	8/31/2004	96.4			65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	89.2	65 - 135

LCSD **Method: EPA 8015 MOD. (Purgeable)** **Conc. Units: µg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	250	229	LCSD	8/31/2004	91.6	5.1	25	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	91.3	65 - 135

Quality Control - Matrix Spike / Duplicate Results

Liquid

Reviewed by: MTU - 09/07/04

QC Batch ID: WGC4040831

Analysis Date: 8/31/2004

Method EPA 8015 MOD. (Purgeable) **Conc. Units: µg/L**

Parameter	Sample Result	Spike Amount	Spike Result	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
MS SampleNumber: 40222-011									
TPH as Gasoline	ND	250	250	MS	8/31/2004	100			65 - 135
Surrogate	**% Recovery**	**Control Limits**							
4-Bromofluorobenzene	104	65 - 135							
MSD SampleNumber: 40222-011									
TPH as Gasoline	ND	250	276	MSD	8/31/2004	110	9.7	25	65 - 135
Surrogate	**% Recovery**	**Control Limits**							
4-Bromofluorobenzene	98.2	65 - 135							

Entech Analytical Labs, Inc.

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Quality Control - Method Blank

Liquid

Prep Batch ID: DW4799A **QC Batch ID: DW4799A**

Prep Date: 8/30/2004 **Analysis Date: 8/31/2004**

Method Blank **Method: EPA 8015 MOD. (Extractable)**

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	56	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	63.0	22 - 133

Quality Control - Laboratory Control Spike / Duplicate Results

Liquid

Prep Batch ID: DW4799A **QC Batch ID: DW4799A**

Prep Date: 8/30/2004 **Analysis Date: 8/31/2004**

LCS **Method: EPA 8015 MOD. (Extractable)** **Conc. Units: µg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	650	LCS	8/31/2004	65.0			35 - 109

Surrogate	% Recovery	Control Limits
o-Terphenyl	60	22 - 133

LCSD **Method: EPA 8015 MOD. (Extractable)** **Conc. Units: µg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	720	LCSD	8/31/2004	72.0	10.2	25	35 - 109

Surrogate	% Recovery	Control Limits
o-Terphenyl	67	22 - 133

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Quality Control - Method Blank

Liquid

Validated by: DQUEJA - 09/08/04

QC Batch ID: WIC040830B

Analysis Date: 9/7/2004

Method Blank **Method: EPA 300.0**

Parameter	Result	DF	PQLR	Units
Sulfate	ND	1	0.5	mg/L

Quality Control - Laboratory Control Spike / Duplicate Results

Liquid

Reviewed by: DQUEJA - 09/08/04

QC Batch ID: WIC040830B

Analysis Date: 9/7/2004

LCS **Method: EPA 300.0** **Conc. Units: mg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Sulfate	<0.5	15.0	15.0	LCS	9/7/2004	100			80 - 120

LCSD **Method: EPA 300.0** **Conc. Units: mg/L**

Parameter	Blank	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Sulfate	<0.5	15.0	15.0	LCSD	9/7/2004	100	0.0	25	80 - 120

Quality Control - Matrix Spike / Duplicate Results

Liquid

Reviewed by: DQUEJA - 09/08/04

QC Batch ID: WIC040830B

Analysis Date: 9/7/2004

Method EPA 300.0 **Conc. Units: mg/L**

Parameter			Sample Result	Spike Amount	Spike Result	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
MS	SampleNumber:	40222-003									
Sulfate			3.00	20	22.0	MS	9/7/2004	95.0			80 - 120
MSD	SampleNumber:	40222-003									
Sulfate			3.00	20	22.0	MSD	9/7/2004	95.0	0.0	25	80 - 120

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: EMILY WALTERS	Phone No.: 510-769-3570	Purchase Order No.:	Invoice to: (If Different)	Phone:
Company Name: CAMERON-COLE	Fax No.: 510-337-3194	Project No.: 9016	Company:	Quote No.:
Mailing Address: 101 W. ATLANTIC AVE BLDG 90	Email Address:	Project Name: ROT AC TRANSIT [illegible]	Billing Address: (If Different)	
City: ALAMEDA	State: CA Zip Code: 94501	Project Location: EMERYVILLE	City:	State: Zip:

Sampler: [illegible]
Field Org. Code:
Global ID:

Turn Around Time: ❏ Same Day ❏ 1 Day ❏ 2 Day ❏ 3 Day ❏ 4 Day ❏ 5 Day ❏ 10 Day

Order ID:

Client ID / Field Point	Lab. No.	Sample Date	Sample Time	Matrix	No. of Containers	EPA 8260B (MTBE)	BTEX ❏, MTBE ❏ TPH Gas ❏ by 8260B	5 Oxygenates (MTBE, TBA, ETBA, DIPE, TAME) ❏ Ethanol ❏	Lead Scavengers (1,2-DCA & EDB) ❏	Base/Neutral/Acid Organics 8270C ❏, PAH - 8270C ❏, PAH - 8270C SIM ❏	TPH Extractable: Diesel X Motor Oil ❏, Other ❏ w/ Si-Gel Cleanup ❏	Pesticides-8081 ❏ PCBs - 8082 ❏	TPH as Gas/ MTBE ❏, by 8015M/8020	Methanol by 8015M	NITRATE/SULFATE	Anions: F ❏ Cl ❏ Br ❏ SO4 ❏ NO3 ❏ NO2 ❏ PO4 ❏	pH ❏ TSS ❏ SC ❏ TOC ❏ TRPH ❏ O & G ❏	Metals - Circle Below Total ❏ Dissolved ❏ STLC ❏ TCLP ❏	Remarks
TD-01	40222-001	8/30/04	1010	W	3	X													
MW-6	002		1015		3	X													-012 RR of -002 (MW-6)
↓			↓		3								X						
↓			↓		2						X								
↓			↓		1										X				
W-1	003		1045		3	X													
↓			↓		3								X						
↓			↓		2						X								
↓			↓		1										X				
MW-11	004		1115		3	X													
↓			↓		3								X						
↓			↓		2						X								
↓			↓		1										X				

Relinquished by:	Received by:	Date:	Time:
[illegible]	[illegible]	8/30/04	1447
[illegible]	Imadhalo	8/30/04	1550

Special Instructions or Comments

❏ EDD Report
❏ EDF Report
❏ Plating
❏ LUFT-5
❏ RCRA-8
❏ PPM-13
❏ CAM-17

Metals:
Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Tl, Sn, Ti, Zn, V, W, Zr

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Emily Walters	Phone No.: 510 769-3570	Purchase Order No.:	Invoice to: (If Different)	Phone:
Company Name: Cameron-Cole	Fax No.: 510 337-3994	Project No.: 2016	Company:	Quote No.:
Mailing Address: 1011 W. Atlantic Ave Bldg 90	Email Address:	Project Name: AC Trans - Emeryville	Billing Address: (If Different)	
City: Alameda	State: CA Zip Code: 94501	Project Location: Emeryville, CA	City:	State: Zip:

Sampler: E. Walters
Field Org. Code:
Global ID:

Turn Around Time
- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☐ 4 Day ☒ 5 Day
- ☐ 10 Day

Order ID:

Client ID / Field Point	Lab. No.	Sample Date	Sample Time	Matrix	No. of Containers	GC/MS: EPA 8260B (BTEX/MTBE)	GC/MS: BTEX ☐, MTBE ☐, TPH Gas ☐, by 8260B	GC/MS: 5 Oxygenates (MTBE, TBA, ETBA, DIPE, TAME) ☐, Ethanol ☐	GC/MS: Lead Scavengers (1,2-DCA & EDB) ☐, PAH - 8270C SIM ☐	GC/MS: Base/Neutral/Acid Organics 8270C ☐, PAH - 8270C ☐	GC: TPH Extractable: Diesel ☒, Motor Oil ☐, Other ☐, w/ Si-Gel Cleanup ☐	GC: Pesticides-8081 ☐ PCBs - 8082 ☐	GC: TPH as Gas ☒, MTBE ☐, by 8015M/8020	GC: Methanol by 8015M	Nitrate/Sulfate					Anions: F ☐ Cl ☐ Br ☐ SO4 ☐ NO3 ☐ NO2 ☐ PO4 ☐	pH ☐ TSS ☐ SC ☐ TOC ☐ TRPH ☐ O & G ☐	Metals - Circle Below Total ☐ Dissolved ☐ STLC ☐ TCLP ☐	Remarks
MW-3	40822-005	8/30/04	1015	W	3	X																	
↓		↓	↓	↓	2						X												-013 (R1005) MW-3
↓		↓	↓	↓	3								X										
↓		↓	↓	↓	1										X								
MW-2	006	↓	1050	W	3	X																	[illegible]
↓		↓	↓	↓	2						X												
↓		↓	↓	↓	3								X										
↓		↓	↓	↓	1										X								
MW-1	007	↓	1115	W	3	X																	
↓		↓	↓	↓	2						X												
↓		↓	↓	↓	3								X										
↓		↓	↓	↓	1										X								

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	8/30/04	1447
[signature]	[signature]	8/30/04	1550

Special Instructions or Comments

- ☐ EDD Report
- ☐ EDF Report
- ☐ Plating
- ☐ LUFT-5
- ☐ RCRA-8
- ☐ PPM-13
- ☐ CAM-17

Metals:
Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn,
Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Tl, Sn, Ti, Zn, V, W, Zr

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Emily Walters	Phone No.: 510 769-3570	Purchase Order No.:	Invoice to: (If Different)	Phone:	
Company Name: Cambron-Colt	Fax No.: 510 337-3990	Project No.: 2016	Company:		
Mailing Address: 101 W. Atlantic Ave Bldg 910	Email Address:	Project Name: ACTIONS Emeryville	Billing Address: (If Different)		
City: Alameda	State: CA Zip Code: 94501	Project Location: Emeryville, CA	City:	State:	Zip:

Sampler: E. Walters | Field Org. Code:

Global ID:

Turn Around Time
- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☐ 4 Day ☒ 5 Day
- ☐ 6-10 Day (std)

Order ID:

Client ID / Field Point	Lab. No.	Sample Date	Sample Time	Matrix	Composite	Grab	Containers	Preservative	Volatile Organics by GCMS: 624 ☐ 601/602 ☐	Oxygenates by GCMS: 8010 by 8260 ☐ 8260B ☐	MTBE by 8260B ☐ Eth/Meth ☐	TPH as Gas/BTEX/MTBE ☐ Gas by GCMS ☐	TPH as Gas/BTEX/MTBE ☐	Diesel ☐ w/ Si-gel Standard Cleanup ☐	Motor Oil ☐ w/ Si-gel Column Cleanup ☐	Fuel Scan Extractable ☐ Purgeable ☐	Base/Neutral/Acid Organics 8270 ☐ PAH ☐	Pesticides-8081 ☐ PCBs - 8082 ☐	8260 BTEX/MTBE	pH ☐ TSS ☐ SC ☐ TOC ☐	TRPH ☐ Oil & Grease ☐	CN ☐ Phenols ☐	Anions: F ☐ Cl ☐ Br ☐ SO4 ☐ NO3 ☐	Perchlorate ☐ NO2 ☐ PO4 ☐	TPH-Diesel w/ Silica Gel	Metals - Circle Below Total ☐ Dissolved ☐	STLC ☐ TCLP ☐	TO-14 ☐ TO-15 ☐ (Tedlar Bag Only)	Remarks
MW-10	40222-008	8/30/09	1155	W			3	HCl			X																			
↓		↓	↓	↓			↓	↓										X												
							2	NA														X								
							1	↓															X							
MW-12	-009		1230	W			3	HCl			X																			
↓			↓	↓			↓	NA										X												
							2															X								
		↓	↓	↓			1	↓															X							

Relinquished by:	Received by:	Date:	Time:
		8/31/09	1447
		8/31/09	1550

Special Instructions or Comments

- ☐ EDD Report ☐ PDF Report
- ☐ EDF Report
- ☐ NPDES Detection Limits

Semi-Conductor Metals: Bi, Ce, Cs, Ga, Ge, In, Li, P, S, Ta, Te, Zr

Metals:
Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Tl, Sn, Ti, Zn, V, W

- ☐ LUFT-5 ☐ RCRA-8
- ☐ PPM-13 ☐ CAM-17

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Emily WATERS	Phone No.: 510-769-3570	Purchase Order No.:	Invoice to: (If Different)	Phone:	
Company Name: CAMERON-COLE	Fax No.: 510-337-3994	Project No.: 2016	Company:	Quote No.:	
Mailing Address: 101 W. ATLANTIC AVE BLD 1490	Email Address:	Project Name: AC TRANS. EMERYVILLE	Billing Address: (If Different)		
City: ALAMEDA	State: CA	Zip Code: 94501	Project Location: EMERYVILLE, CA	City:	State:	Zip:

Sampler: ME
Field Org. Code:
Global ID:

Turn Around Time
- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ 4 Day
- ☐ 5 Day
- ☒ 10 Day

Order ID:

Sample

Client ID / Field Point	Lab. No.	Date	Time	Matrix	No. of Containers	GC/MS Methods: EPA 8260B BTEX/MTBE	BTEX ☐ MTBE ☐ TPH Gas ☐ by 8260B	5 Oxygenates (MTBE, TBA, ETBA, DIPE, TAME) ☐ Lead Scavengers (1,2-DCA & EDB) ☐ Ethanol ☐	Base/Neutral/Acid Organics 8270C ☐ PAH - 8270C SIM ☐	TPH Extractable: Diesel ☒ Motor Oil ☐ Other ☐ w/ Si-Gel Cleanup ☐	Pesticides-8081 ☐ PCBs - 8082 ☐	TPH as Gas/ ☒ MTBE ☐ by 8015M/8020	Methanol by 8015M	GC Methods: Title 22 Metals	General Chemistry: Anions: F ☐ Cl ☐ Br ☐ SO4 ☐ NO3 ☐ NO2 ☐ PO4 ☐	pH ☐ TSS ☐ SC ☐ TOC ☐ TRPH ☐ O & G ☐	Metals - Circle Below Total ☐ Dissolved ☐ STLC ☐ TCLP ☐	Remarks
MW-7	40222-010	8/30/04	1155	W	3	X											
					3						X						
					2					X							
					1								X				
MW-9	-011		1230		3	X											
					3						X						
					2					X							
					1								X				

Relinquished by:	Received by:	Date:	Time:
		8/30/04	1447
Relinquished by:	Received by:	Date:	Time:
		8/30/04	1550
Relinquished by:	Received by:	Date:	Time:

Special Instructions or Comments

- ☐ EDD Report
- ☐ EDF Report
- ☐ Plating
- ☐ LUFT-5
- ☐ RCRA-8
- ☐ PPM-13
- ☐ CAM-17

Metals:
Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn,
Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Tl, Sn, Ti, Zn, V, W, Zr

Entech Analytical Labs, Inc.

RECEIVED OCT 0 6 2004

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Emily Waters
Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501

Certificate ID: 40510 - 9/28/2004 4:51:26 PM

Order:	40510	**Date Collected:**	9/21/2004
Project Name:	ACTransit Emeryville	**Date Received:**	9/21/2004
Project Number:	2016	**P.O. Number:**	2016

Certificate of Analysis - Final Report

On September 21, 2004, samples were received under chain of custody for analysis. Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Method	Comments
Liquid	EPA 8260B	EPA 8260B	
	Nitrate as N	EPA 300.0	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-001 **Sample ID: Trip Blank** **Matrix:** Liquid **Sample Date:** 9/21/2004 9:20 AM

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922
Toluene	0.61		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.9	64 - 125
Dibromofluoromethane	94.4	23 - 172
Toluene-d8	99.4	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-002 **Sample ID: MW-2** **Matrix:** Liquid **Sample Date:** 9/21/2004 9:50 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	0.24		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Methyl-t-butyl Ether	6.3		1	1	µg/L	N/A	N/A	09/23/2004	WMS1040923
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/23/2004	WMS1040923

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.8	64 - 125
Dibromofluoromethane	99.6	23 - 172
Toluene-d8	97.9	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-003 **Sample ID: MW-1** **Matrix:** Liquid **Sample Date:** 9/21/2004 10:10 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: EQueja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Methyl-t-butyl Ether	4.2		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.1	64 - 125
Dibromofluoromethane	98.3	23 - 172
Toluene-d8	97.0	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-004 **Sample ID:** MW-3 **Matrix:** Liquid **Sample Date:** 9/21/2004 10:25 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	3.5		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Methyl-t-butyl Ether	4.0		1	1	µg/L	N/A	N/A	09/23/2004	WMS1040923
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/23/2004	WMS1040923

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.3	64 - 125
Dibromofluoromethane	98.5	23 - 172
Toluene-d8	100	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-005 **Sample ID: W-1** **Matrix:** Liquid **Sample Date:** 9/21/2004 10:40 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	8.6		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Ethyl Benzene	11		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	09/23/2004	WMS1040923
Toluene	3.6		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Xylenes, Total	18		1	1.5	µg/L	N/A	N/A	09/23/2004	WMS1040923

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.7	64 - 125
Dibromofluoromethane	98.1	23 - 172
Toluene-d8	102	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-006 **Sample ID: MW-6** **Matrix:** Liquid **Sample Date:** 9/21/2004 10:55 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	86		5	2.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Ethyl Benzene	15		5	2.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Methyl-t-butyl Ether	ND		5	5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Toluene	7.8		5	2.5	µg/L	N/A	N/A	09/23/2004	WMS1040923
Xylenes, Total	27		5	7.5	µg/L	N/A	N/A	09/23/2004	WMS1040923

Note: Sample diluted due to high concentration of non-target compounds (heavy hydrocarbons).

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.2	64 - 125
Dibromofluoromethane	97.1	23 - 172
Toluene-d8	102	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-007 **Sample ID: MW-11** **Matrix:** Liquid **Sample Date:** 9/21/2004 11:30 AM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.1	64 - 125
Dibromofluoromethane	99.5	23 - 172
Toluene-d8	97.2	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-008 **Sample ID: MW-7** **Matrix:** Liquid **Sample Date:** 9/21/2004 12:15 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040922B
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040922B
Methyl-t-butyl Ether	1.5		1	1	µg/L	N/A	N/A	09/23/2004	WMS1040922B
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/23/2004	WMS1040922B
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/23/2004	WMS1040922B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	90.8	64 - 125
Dibromofluoromethane	93.0	23 - 172
Toluene-d8	99.4	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-009 **Sample ID: MW-9** **Matrix:** Liquid **Sample Date:** 9/21/2004 12:45 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Methyl-t-butyl Ether	3.6		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.9	64 - 125
Dibromofluoromethane	102	23 - 172
Toluene-d8	98.3	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Cameron-Cole
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Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-010 **Sample ID: MW-10** **Matrix:** Liquid **Sample Date:** 9/21/2004 1:10 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Methyl-t-butyl Ether	6.7		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.7	64 - 125
Dibromofluoromethane	99.9	23 - 172
Toluene-d8	99.7	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Cameron-Cole
101 W. Atlantic Ave.,Bldg#90
Alameda, CA 94501
Attn: Emily Waters

Project Number: 2016
Project Name: ACTransit Emeryville
Date Received: 9/21/2004
P.O. Number: 2016
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 40510-011 **Sample ID: MW-12** **Matrix:** Liquid **Sample Date:** 9/21/2004 1:35 PM

Method: EPA 300.0

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	09/23/2004	WIC040923

Analyzed by: Equeja
Reviewed by: DQUEJA

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Methyl-t-butyl Ether	5.6		1	1	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Toluene	ND		1	0.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B
Xylenes, Total	ND		1	1.5	µg/L	N/A	N/A	09/22/2004	WMS1040922B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	104	64 - 125
Dibromofluoromethane	96.0	23 - 172
Toluene-d8	96.4	70 - 134

Analyzed by: Xbian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Emily Waters	Phone No.: (510) 769-3570	Purchase Order No.: 90	Invoice to: (If Different) / Phone:
Company Name: Cameron-Cole	Fax No.: (510) 337-3994	Project No.: 2016	Company:
Mailing Address: 101 W. Atlantic Ave Bldg 90	Email Address:	Project Name:	Billing Address: (If Different)
City: Alameda	State: CA / Zip Code: 94501	Project Location: AC Transit - Emery	City: / State: / Zip:

Sampler: EW/ME Field Org. Code:

Global ID:

Turn Around Time
- ❑ Same Day
- ❑ 1 Day
- ❑ 2 Day
- ❑ 3 Day
- ❑ 4 Day
- ☒ 5 Day
- ❑ 6-10 Day (std)

Order ID:

Analysis columns:
1. Volatile Organics by GCMS: 601/602 ❑ 624 ❑ 8010 by 8260 ❑ 8260B ❑
2. Oxygenates by 8260B ❑ Eth/Meth ❑ MTBE by 8260B ❑ Gas by GCMS ❑
3. TPH as Gas/BTEX ❑ TPH as Gas/BTEX/MTBE ❑
4. Diesel ❑ w/ Si-gel Standard Cleanup ❑ Motor Oil ❑ w/ Si-gel Column Cleanup ❑
5. Fuel Scan Extractable ❑ Purgeable ❑
6. Base/Neutral/Acid Organics 8270 ❑ 8270-SIM ❑ PAH ❑
7. Pesticides-8081 ❑ PCBs - 8082 ❑
8. 8260 BTEX/MTBE
9. pH ❑ TSS ❑ SC ❑ TOC ❑
10. TRPH ❑ Oil & Grease ❑
11. CN ❑ Phenols ❑
12. Anions: F ❑ Cl ❑ Br ❑ SO4 ❑ NO3 ❑ NO2 ❑ PO4 ❑
13. Perchlorate
14. Nitrate
15. Metals - Circle Below Total ❑ Dissolved ❑
16. STLC ❑ TCLP ❑
17. TO-14 ❑ TO-15 ❑ (Tedlar Bag Only)

Client ID / Field Point	Lab. No.	Date	Time	Matrix	Composite	Grab	Containers	Preservative	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
Trip Blank		9/21/04	0920	W			3	HCl								X										40510-001
MW-2		↓	0950	↓			3	↓								X										002
↓			↓				1	NA														X				
MW-1			1010				3	HCl								X										003
↓			↓				1	NA														X				
MW-3			1025				3	HCl								X										004
↓			↓				1	NA														X				
W-1			1040				3	HCl								X										005
↓			↓				1	NA														X				
MW-6			1055				3	HCl								X										006
↓			↓				1	NA														X				
MW-11			1130				3	HCl								X										007
↓		↓	↓	↓			1	NA														X				

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	9/21/04	527
[signature]	[signature]	9/21/04	1640

Special Instructions or Comments

Resample - AC Transit Emeryville

- ❑ EDD Report
- ❑ PDF Report
- ❑ EDF Report
- ❑ NPDES Detection Limits

Semi-Conductor Metals: Bi, Ce, Cs, Ga, Ge, In, Li, P, S, Ta, Te, Zr

Metals:

Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Tl, Sn, Ti, Zn, V, W

- ❑ LUFT-5
- ❑ RCRA-8
- ❑ PPM-13
- ❑ CAM-17

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: Emily Waters	Phone No.: (510) 769-3570	Purchase Order No.:	Invoice to: (If Different)	Phone:	
Company Name: Fehr Graham - Oak	Fax No.: (510) 337-3794	Project No.: 2016	Company:		
Mailing Address: 101 W. Atlantic Ave Bldg 90	Email Address:	Project Name: AC Transit - Emeryville	Billing Address: (If Different)		
City: Alameda	State: CA Zip Code: 94501	Project Location: Emeryville, CA	City:	State:	Zip:

Sampler: EW/ME | Field Org. Code:

Global ID:

Turn Around Time
- ❑ Same Day
- ❑ 1 Day
- ❑ 2 Day
- ❑ 3 Day
- ❑ 4 Day
- ☒ 5 Day (std)
- ❑ 6-10 Day

Order ID:

Client ID / Field Point	Lab. No.	Sample Date	Sample Time	Matrix	Composite	Grab	Containers	Preservative	Volatile Organics by GCMS: 601/602 ❑ 624 ❑ 8260 ❑	Oxygenates by 8260 ❑ Eth/Meth ❑ MTBE by 8260B ❑	TPH as Gas/BTEX ❑ Gas by GCMS ❑	TPH as Gas/BTEX/MTBE ❑	Diesel ❑ w/ Si-gel Standard Cleanup ❑	Motor Oil ❑ w/ Si-gel Column Cleanup ❑	Fuel Scan Extractable ❑ Purgeable ❑	Base/Neutral/Acid Organics 8270 ❑ PAH ❑	Pesticides-8081 ❑ PCBs - 8082 ❑	8270-SIM ❑	pH ❑ TSS ❑ SC ❑ TOC ❑	TRPH ❑ Oil & Grease ❑	CN ❑ Phenols ❑	Anions: F ❑ Cl ❑ Br ❑ SO4 ❑ NO3 ❑ NO2 ❑ PO4 ❑	Perchlorate	Metals - Circle Below Total ❑ Dissolved ❑	STLC ❑ TCLP ❑	TO-14 ❑ TO-15 ❑ (Tedlar Bag Only)	Remarks
MW-11		9/2/04	1130	W			3	HCl										X	8260 BTEX MTBE							Not received any sample 9/2/04
↓			↓				1	NA															X			
MW-7			1215				3	HCl										X								40510-003
↓			↓				1	NA															X			
MW-9			1245				3	HCl										X								009
↓			↓				1	NA															X			
MW-10			1310				3	HCl										X								010
↓			↓				1	NA															X			
MW-12			1335				3	HCl										X								011
↓			↓				1	NA															X			

Relinquished by:	Received by:	Date: 9/2/04	Time: 1526
Relinquished by:	Received by:	Date: 9/2/04	Time: 1640
Relinquished by:	Received by:	Date:	Time:

Special Instructions or Comments
Emeryville resample.

❑ EDD Report ❑ PDF Report
❑ EDF Report
❑ NPDES Detection Limits

Semi-Conductor Metals: Bi, Ce, Cs, Ga, Ge, In, Li, P, S, Ta, Te, Zr

Metals:
Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Tl, Sn, Ti, Zn, V, W

❑ LUFT-5 ❑ RCRA-8
❑ PPM-13 ❑ CAM-17

DATE: 8/30/04

AC Transit Emeryville | EVENT Quarterly | TECHNICIAN EN/ME

WELL OR LOCATION	DATE	TIME	MEASUREMENT	CODE	COMMENTS
MW-1	8/30/04	0925	5.14	SWL	
MW-2		0927	4.62		
MW-3		0931	6.25		
MW-4		0929	6.30		
MW-5		0922	4.55		
MW-6		0911	4.22		oil sheen
MW-7		0915	5.61		
MW-8		0917	4.79		
MW-9		0920	3.45		
MW-10		0940	9.85		
MW-11		4:13	0938		switching/DTW
MW-12		0942	10.32	↓	
MW-13		0858	9.30	oil	off by 1 foot
MW-13		↓	10.36	SWL	↓
W-1		0934	6.65		
W-3		0932	8.39		
W-4	↓	0908	4.85	↓	

SWL - Static Water Level

OIL - Oil Level

OWI - Oil/Water Interface

MTD - Measured Total Depth

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION W-1

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type ______ (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

Intake depth 12'

SWL 6.65 (if above screen) =TOP

SWL ______ (if in screen) =BOP

Measured TD 14.76

16.43 =TD (as built)

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1030	0.4	
	1033	↓	7.72
	1036		7.76
Stop	1043		7.89
Sampled	1045		
Final IWL	1046		7.75

PURGE CALCULATION

0.165 gal/ft. * 9.78 ft. (SWL to TD) = 1.61 gals. (one volume) X 3 4.8 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 5

Actual volumes purged 3+

Well Yield ⊕ HY

COC # NA

Additional Comments:

Sample I.D.	Analysis	Lab
W-1	8260B MTBE/MTBE	[illegible]
↓	TPH-D	↓
	TPH-G	
	Nitrate / Sulfate	

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
1.	22.2	1067	7.70	—	Fe 7.3.30
2.	22.3	1066	7.71	—	DO 4.45
3.	22.1	1069	7.72	—	OR -60
4.					
5.					

*Take measurement at approximately each casing volume purged. ⊕ HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

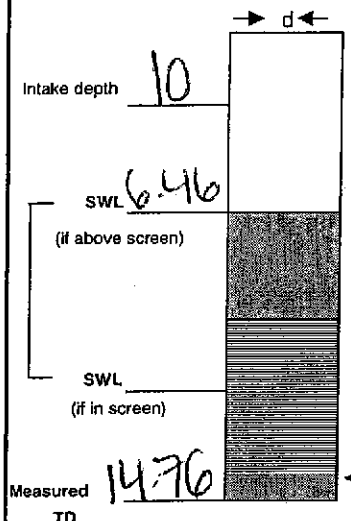
WELL OR LOCATION MW-1

PROJECT AC Emeryville EVENT Quarterly SAMPLER EW/ME DATE 9/21/04

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1028	0.5	
Stop	1038		
Sampled	1040		
Final fWL			

PURGE CALCULATION

0.165 gal/ft. * 8.3 ft. (SWL to TD) = 1.37 gals. (one volume) X 3 = 4.11 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:
Cent pump used to purge
disposable bailer used to sample

Actual gallons purged 5

Actual volumes purged 3.65

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	Lab
MW-1	8260 ~~Freon~~	Entech
MW-1	Nitrate	Entech

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1	23.5	650	7.30			
2. 2	23.7	649	~~6.72~~ 7.25			
3. 3	23.6	658	7.26			
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-1

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

Intake depth 10

SWL 5.19 (if above screen)

SWL ____ (if in screen)

Measured TD 14.50

=TOP =BOP =TD (as built)

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1101	0.5	
	1107		6.77
	1110		6.88
Stop	1111		
Sampled	1115		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 9.31 ft. (SWL to TD) = 1.54 gals. (one volume) X 3 = 4.62 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 5.0

Actual volumes purged 3.25

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-1	8260	
	nitrate/sulfate	
	TPH-gas	
	TPH-diesel	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
1. 1.5	26.6	485	7.22	—	DO-0.00 mg/L
2. 3.0	24.2	469	6.93	—	DO-4.62 mg/L
3. 4.5	24.1	479	6.92	—	ORP-75 mV
4.					
5.					

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

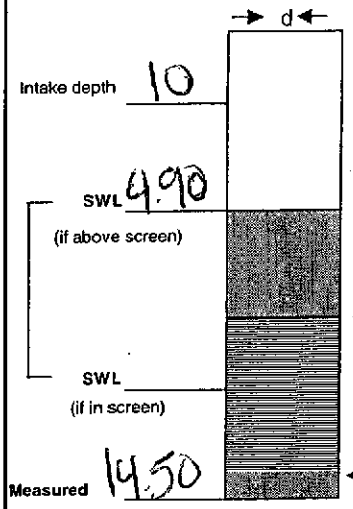
WELL OR LOCATION MW-1

PROJECT Chemrite - Resample EVENT quarterly SAMPLER ME/EW DATE 9/2/04

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	0955	0.5	
Stop	1005		
Sampled	1010		
Final IWL			

PURGE CALCULATION

9.60 gal/ft. * 0.165 ft. (SWL to TD) = 1.58 gals. (one volume) X 3 = 4.75 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:
cent pump used to purge
disposable bailer used to sample

Actual gallons purged 5.0

Actual volumes purged 3.2

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	Lab
MW-1	8260	then
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1.5	26.4	474	7.50	-		Fe 0.00 mg/L
2. 3.0	27.0	474	7.45	-		DO 5.00 mg/L
3. 4.5	27.0	476	7.49	-		ORP - 65 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-2

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER (EW) ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

Intake depth 10

SWL 4.60 (if above screen)

SWL _____ (if in screen)

Measured TD 11.53

d

=TOP

=BOP

=TD (as built)

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1031	0.3	
	1038		5.30
	1043		5.31
Stop	1045		
Sampled	1050		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 6.85 ft. (SWL to TD) = 1.13 gals. (one volume) X 3 = 3.39 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 4.0

Actual volumes purged 3.5

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-2	8260	Entech
	DIPE/ETBE/TAME	
	TPH-gas	
	TPH-diesel	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1	25.8	432	6.94	—		Fe 0.00 mg/l
2. 2	26.0	459	6.89	—		DO 3.24 mg/l
3. 3	25.3	441	6.90	—		ORP 75 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

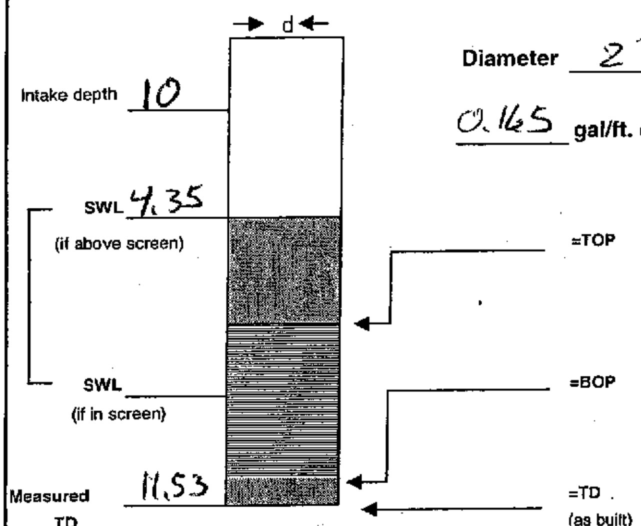
WELL OR LOCATION MW-2

PROJECT AL [illegible] EVENT RESAMPLE SAMPLER ME/PW DATE 7/21/04

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	0937	0.4	
		↓	
Stop	0947		
Sampled	0950		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 7.18 ft. (SWL to TD) = 1.18 gals. (one volume) X 3 3.55 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

cent pump used to purge
disposable bailer used to sample

Actual gallons purged	4
Actual volumes purged	3+
Well Yield ⊕	

COC # N/A

Sample I.D.	Analysis	Lab
MW-2	8260BTEX/MTBE	ENTECH
↓	NITRATE	↓
TripBlank	8260	↓

Additional Comments:

trip blank collected @ 0920

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1	23.7	907	7.04	-		Fe -0.0 mg/L
2. 2	23.8	847	7.08	-		DO -2.20 mg/L
3. 3	23.4	822	7.09	-		ORP -30 mV
4.		8				
5.						

*Take measurement at approximately each casing volume purged. ⊕ HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

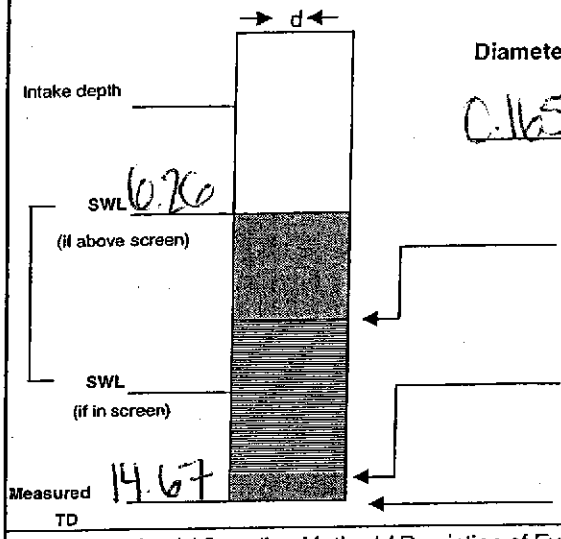
WELL OR LOCATION MW-3

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	0959	0.5	
	1001		8.65
	1007		9.20
Stop	1009		9.25
Sampled	1015		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 8.41 ft. (SWL to TD) = 1.39 gals. (one volume) X 3 = 4.16 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 5.0

Actual volumes purged 3.6

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-3	nitrate/sulfate	Entech
↓	8260	
	TPH-gas	
	TPH-d	↓

Additional Comments:

	Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
1.	1.25	23.6	1855	7.19	—	Fe: 0.00 mg/L
2.	2.50	23.5	609	6.82	—	DO: 2.12 mg/L
3.	3.75	23.5	551	6.75	—	ORP: 106 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

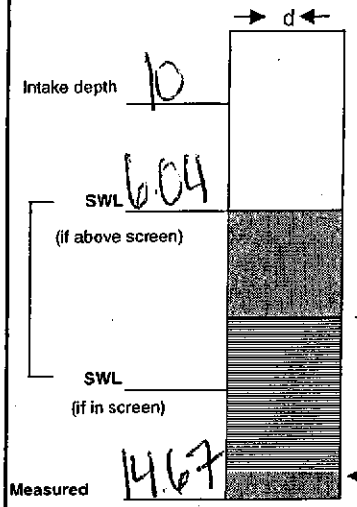
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-3

PROJECT AC Emeryville EVENT Quarterly SAMPLER DW/MB DATE 9/2/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2" 0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1014	0.5	
		↓	
Stop	1023		
Sampled	1025		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 8.63 ft. (SWL to TD) = 1.42 gals. (one volume) X 3 = 4.27 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

Cent pump used to purge disposable bailer used to sample

Actual gallons purged 4.5

Actual volumes purged 3.17

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	Lab
MW-3	8260	Entech
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1	24.4	534	7.10	-		
2. 2	24.5	515	7.12	-		
3. 3	24.3	525	7.10	-		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

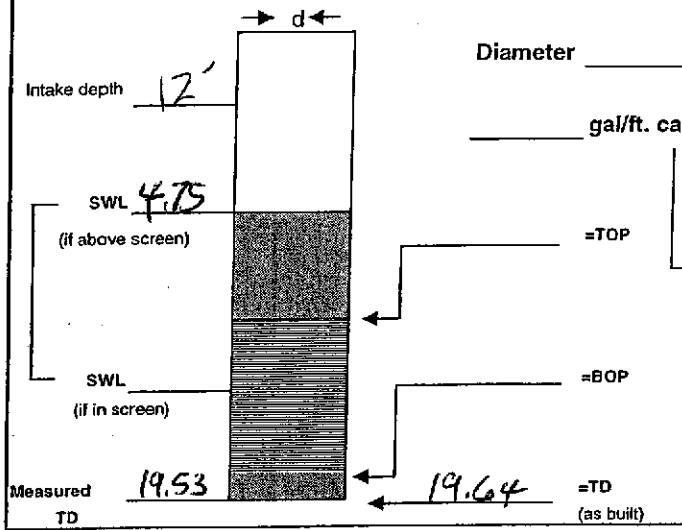
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-6

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04



Well type (MW, EW, PZ, etc.)

Diameter

gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1005	1.0	
	1008		4.89
	1010		4.95
Stop	1012	↓	
Sampled	1015		
Final IWL	1016		4.82

PURGE CALCULATION

0.165 gal/ft. * 14.89 ft. (SWL to TD) = 2.45 gals. (one volume) X 3 = 7.37 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 8

Actual volumes purged 3+

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW 6	8260B BTEX/MTBE	ENTECH
↓	TPH-D	↓
	TPH-G	
↓	NITRATE/SULFATE	

Additional Comments: TRIP BLANK COLLECTED @ 1010
TB-01
FIELD (ME)

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1.	22.2	760	7.01	—	Fe 3.40	mg/L
2.	22.1	780	7.00	—	DO 1.85	mg/L
3.	22.2	766	7.02	—	ORP -100	mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

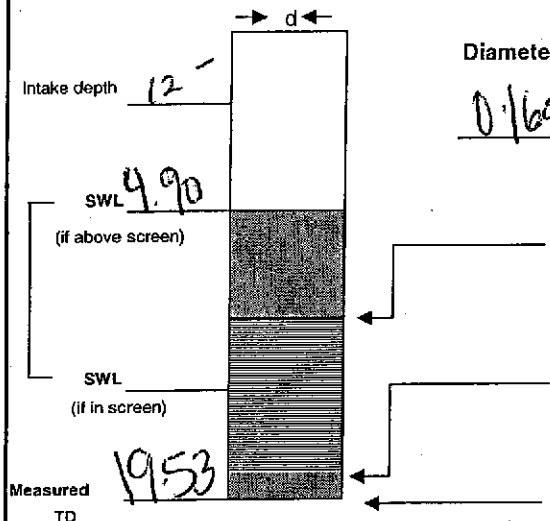
WELL OR LOCATION MW-6

PROJECT Alameyville EVENT Quarterly SAMPLER EW/ME DATE 9/21/04

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1045	1.0	
			4.99
			5.12
			5.15
Stop	1053		
Sampled	1055		
Final IWL	1059		4.98

PURGE CALCULATION

0.165 gal/ft. * 14.63 ft. = 2.41 gals. X 3 = 7.24 gals.
(SWL to TD) (one volume) (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:
Cent pump used to purge disposable bailer used to sample

Actual gallons purged 8

Actual volumes purged 3+

Well Yield ⊕ MY

COC # NA

Sample I.D.	Analysis	Lab
MW-6	8260 BTEX / MTBE	EPOCH
↓	NITRATE	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	22.3	770	7.10	-		
2. 4	22.2	766	7.12	-		
3. 6	22.1	767	7.15	-		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

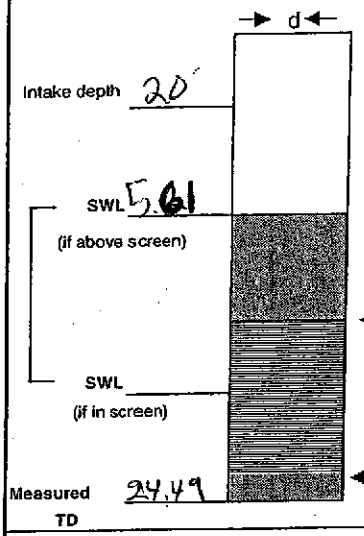
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-7

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04



Well type MW
(MW, EW, PZ, etc.)

Diameter 2

0.165 gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1120	0.3	
	1125		7.16
	1129		7.35
	1135		8.12
	1145		8.37
Stop	1154		
Sampled	1155		9.00
Final IWL	1156		8.01

PURGE CALCULATION

0.165 gal/ft. * 18.92 ft. = 3.12 gals. X 3 = 9.35 gals

SWL to TD | one volume | purge volume - 3 casings

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 10

Actual volumes purged 3+

Well Yield ⊕ MY

COC # NA

Sample I.D.	Analysis	Lab
MW-7	8260B MTBE MOBE	BNTECH
	TPH-G	
	TPH-D	
	NITRATE / SULFATE	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1.	22.2	760	7.21	—	Fe —	1.20 mg/L
2.	22.1	770	7.22	—	DO —	1.63 mg/L
3.	22.1	766	7.25	—	ORP	23 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop | MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump | LY - Able to purge 3 volumes by returing later or next day. | VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-7

PROJECT ACT Enerynite EVENT Quarterly SAMPLER EW / ME DATE 9/21/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2 "

0.165 gal/ft. casing

Intake depth 15'

SWL 5.25 (if above screen)

SWL ____ (if in screen)

Measured TD 24.49

d

=TOP

=BOP

=TD (as built)

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1139	0.3	
		↓	
Stop	1212		
Sampled	1215		
Final lWL			

PURGE CALCULATION

9.24 gal/ft. * 0.165 ft. (SWL to TD) = 3.17 gals. (one volume) X 3 = 9.52 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

Cent pump used TO purge disposable bailer used TO sample

Actual gallons purged 10

Actual volumes purged 3.15

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-7	8260	Entech
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 3	26.1	729	6.86	-		
2. 6	26.2	731	6.89	-		
3. 9	26.3	730	6.90	-		
4.						
5.						

*Take measurement at approximately each casing volume purged. ⊕

HY-Minimal W.L. drop

MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump

LY - Able to purge 3 volumes by returing later or next day.

VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

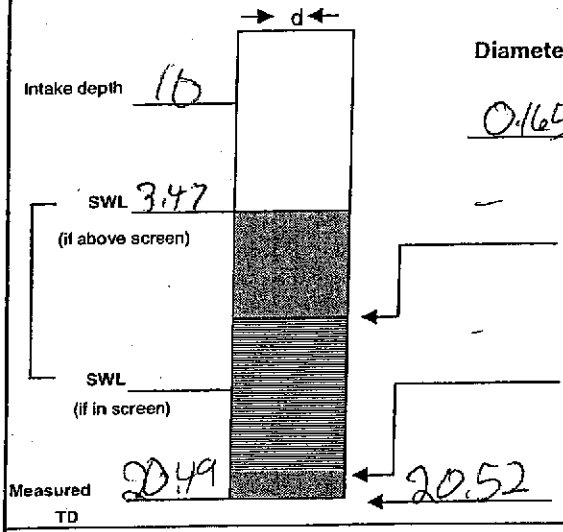
WELL OR LOCATION MW-9

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1205	0.4	
	1210		4.12
	1213		4.35
	1217		4.56
Stop	1226		4.77
Sampled	1230		
Final IWL	1231		4.86

PURGE CALCULATION

0.165 gal/ft. * 17.02 ft. (SWL to TD) = 2.8 gals. (one volume) X 3 = 8.42 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 9

Actual volumes purged 3+

Well Yield ⊕ MY

COC # NA

Sample I.D.	Analysis	Lab
MW-9	8260B ARX/MTBE	ELTECH
	TPH-G	
	TPH-D	
	NITRATE/SULFATE	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1.	21.1	760	6.95	—	FE -	0.03 mg/L
2.	21.2	765	6.96	—	DO -	5.12 mg/L
3.	21.2	770	6.95	—	ORP -	1 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop

MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump

LY - Able to purge 3 volumes by returing later or next day.

VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

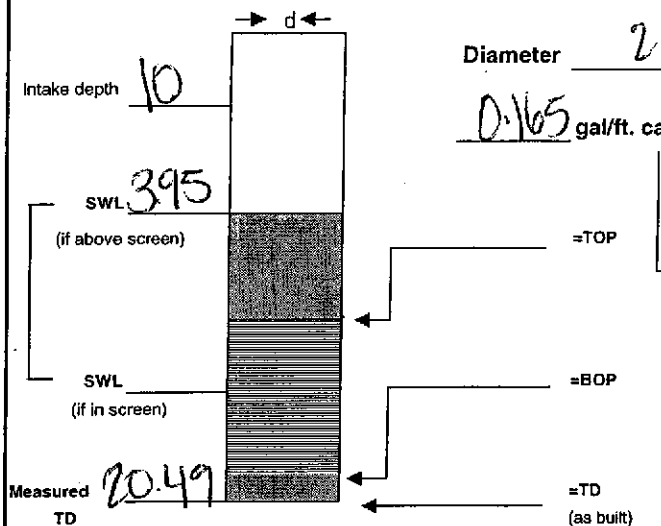
WELL OR LOCATION MW-9

PROJECT Amenyville EVENT Quarterly SAMPLER EW/NE DATE 9/21/04

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1220		
Stop	1243		
Sampled	1245		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 16.51 ft. (SWL to TD) = 2.72 gals. (one volume) X 3 = 8.17 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

Cent pump used to purge
disposable bailer used to sample

Actual gallons purged 9

Actual volumes purged 3.30

Well Yield ⊕

COC #

Sample I.D.	Analysis	Lab
MW-9	8260	Entech
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 3.5	25.7	649	7.06	-		
2. 5	25.4	652	7.10	-		
3. 8	25.6	653	7.11	-		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

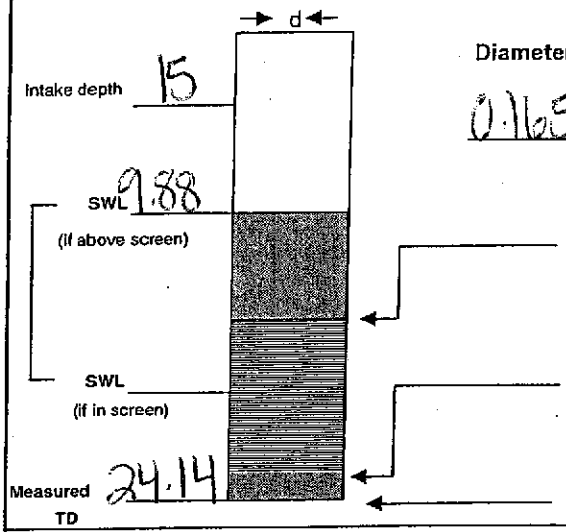
WELL OR LOCATION MW-10

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1136	0.5	
	1141		11.54
	1146		11.5
Stop	1152		
Sampled	1155		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 14.26 ft. (SWL to TD) = 2.35 gals. (one volume) X 3 = 7.05 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 8.0

Actual volumes purged 3.40

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-10	8260	EMEC
↓	nitrate/sulfate	↓
	TPH-diesel	
	TPH-gas	

Additional Comments: -

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	21.0	588	7.00	—	Fe - 3.01	mg/L
2. 4	20.8	571	7.03	—	DO - 4.68	mg/L
3. 6	21.1	564	7.03	—	ORP - 85	mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

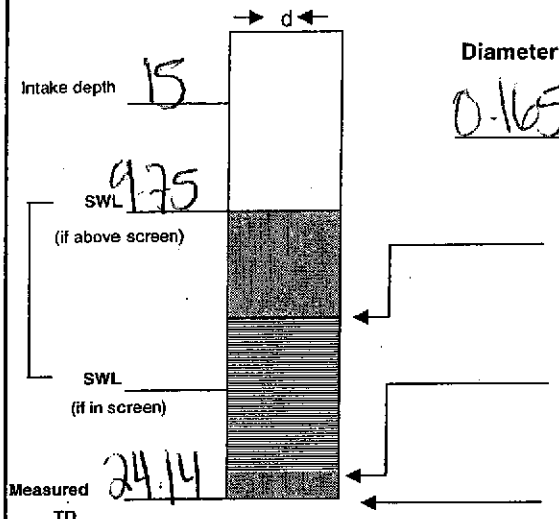
WELL OR LOCATION MW-10

PROJECT Emeryville EVENT Quarterly SAMPLER BW/ME DATE 9/21/04

Well type MW
(MW, EW, PZ, etc)

Diameter 0.9 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1251	0.5	
Stop	1307		
Sampled	1310		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 14.39 ft. = 2.37 gals. X 3 = 7.12 gals.
(SWL to TD) (one volume) (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

Cent pump used TO purge
disposable bailer used TO sample

Additional Comments:

Actual gallons purged 8

Actual volumes purged 3.4

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-10	8260	Entech
↓	Nitrate	↓

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	23.1	751	7.66	—		
2. 4.5	23.2	806	7.65	—		
3. 7	23.1	768	7.62	—		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

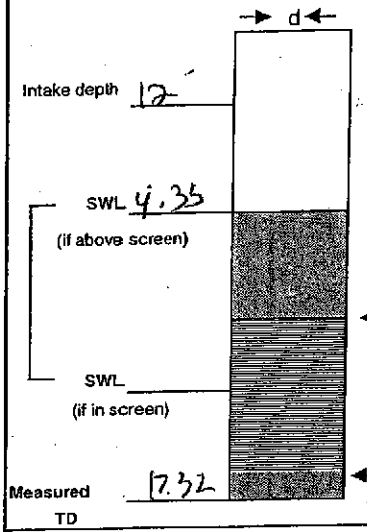
WELL OR LOCATION MW-11

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER EW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1059	0.45	
	1102		4.76
	1109		4.77
Stop	1114		4.82
Sampled	1115		
Final IWL	1117		4.73

PURGE CALCULATION

0.165 gal/ft. * 13.05 ft. (SWL to TD) = 2.15 gals. (one volume) X 3 = 6.5 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 7

Actual volumes purged 3+

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-11	8260B MTBE/MTBE	ENTECH
	TPH-G	
	TPH-D	
	NITRATE/SULFATE	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
1.	22.2	767	7.67	—	Fe - 0 mg/L
2.	22.1	776	7.62	—	DO - 3.89 mg/L
3.	22.2	782	7.65	—	ORP - 82 mV
4.	~~22.2~~	~~764~~			
5.					

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

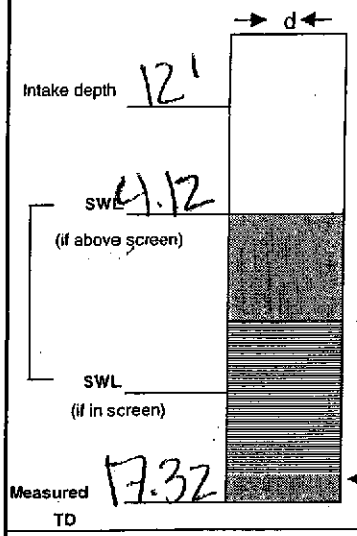
WELL OR LOCATION MW-11

PROJECT ACHanville EVENT Quarterly SAMPLER BW/ME DATE 9/21/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1112	1112 @ 0.5	
Stop	1126		
Sampled	1130		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 13.20 ft. (SWL to TD) = 2.18 gals. (one volume) X 3 = 6.54 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

cent pump used to purge. disposable bailer used to sample

Actual gallons purged: 7

Actual volumes purged: 3.21

Well Yield ⊕: HY

COC #

Sample I.D.	Analysis	Lab
MW-11	8260 Nitrate	Eptech

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	25.4	570	7.99	-		
2. 4	25.3	560	7.95	-		
3. 6	25.4	565	7.98	-		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop

MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump

LY - Able to purge 3 volumes by returing later or next day.

VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

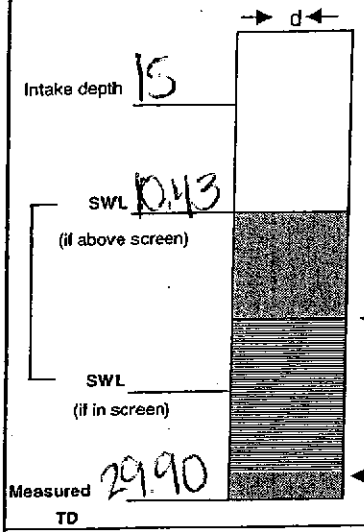
WELL OR LOCATION MW-12

PROJECT EMERYVILLE EVENT QUARTERLY SAMPLER FW, ME DATE 8/30/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1216	0.5	
	1223		B.C
Stop	1226		12.67
Sampled	1230		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 19.47 ft. (SWL to TD) = 3.21 gals. (one volume) X 3 = 9.63 gals (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

CENT PUMP USED TO PURGE
DISPOSABLE BAILER USED TO SAMPLE
WASHED / RINSED
SOUNDER / METERS

Actual gallons purged 10

Actual volumes purged 3.12

Well Yield ⊕ HY

COC # MA

Sample I.D.	Analysis	Lab
MW-12	8260	Entech
	Nitrate/Sulfate	
	TPH-Gas	
	TPH-Diesel	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 3	21.9	601	6.98	—	Fe: 0.00	mg/L
2. 6	22.2	601	6.77	—	DO: 6.08	mg/L
3. 9	22.0	595	6.80	—	ORP: 12	mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

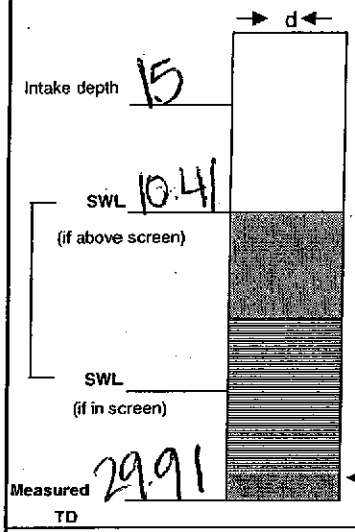
WELL OR LOCATION MW-12

PROJECT Emeryville. EVENT Quarterly SAMPLER EW + ME DATE 9/21/04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1316	0.75	
		↓	
Stop	1329		
Sampled	1335		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 19.50 ft. (SWL to TD) = 3.22 gals. (one volume) X 3 = 9.66 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

cent pump used to purge
disposable bailer used to sample.

Actual gallons purged 10

Actual volumes purged 3.10

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-12	8260	Pitech
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 3	23.1	552	7.05	—		
2. 6	23.2	542	7.66	—		
3. 9	23.1	545	5.62	—		
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.