Alameda-Contra Costa Transit District

January 8, 2007

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

Dear Mr. Plunkett:

Subject: Groundwater Monitoring Report – August 2006
AC Transit, 1177 47th Street, Emeryville

AC Transit hereby submits the enclosed groundwater monitoring report for the AC Transit facility located at 1177 47th Street in Emeryville. The report was prepared by our consultant, Esseltech, and contains the results of groundwater monitoring performed on August 27, 2006, of two on-site monitoring wells.

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

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

Sincerely,

Suzanne Chaewsky

Suzanne Chaewsky, P.E.
Environmental Engineer
enclosure

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

GROUND-WATER MONITORING
IN
AUGUST 2006
ALAMEDA CONTRA COSTA
TRANSIT DISTRICT FACILITY
1177 47TH Street
EMERYVILLE, CALIFORNIA

Prepared for

Alameda-Contra Costa Transit District
10626 International Boulevard
Oakland, California 94603

Prepared by

Essel Technology Services, Inc.
9778 Broadmoor Drive
San Ramon, California 94583
(925) 833-7977

Project No. 0569/4

December 2006

GROUND-WATER MONITORING IN AUGUST 2006 ALAMEDA CONTRA COSTA TRANSIT DISTRICT FACILITY 1177 47TH STREET EMERYVILLE, CALIFORNIA

1.0 INTRODUCTION

The Alameda Contra Costa Transit District (AC Transit) has contracted with Essel Technology Services, Inc. (Essel Tech) to perform ground-water monitoring and sampling at the AC Transit Division 2 facility in Emeryville, California. This report presents the results of monitoring and sampling performed in August 2006.

1.1 Site Location and Description

The Division 2 facility is located at 1177 47th Street in Emeryville, California and occupies nearly the entire city block that is bounded by 47th Street on the north, 45th Street on the south, San Pablo Avenue on the east, and Doyle Street on the west, as shown on Plate 1. The facility is used for storage and maintenance of AC Transit buses. The primary site feature is a maintenance building that is located in the southwestern portion of the site. Other facilities include a parking garage, a transportation building, and a bus washing structure that are located along the northern property line adjacent to 47th Street; and a tire building, an emergency generator building, a pump station, and storm water treatment facilities that are located at the western edge of the site next to Doyle Street. The site also contains underground storage tanks (USTs). One group of USTs, referred to as Tank Farm No. 1, is located near the northeastern corner of the property and just south of fuel dispenser islands. A second group of USTs, referred to as Tank Farm No. 2, was located near the center of the property and a short distance east of the present maintenance building. These tanks were removed in 1999. A 550-gallon UST also is located next to the southern side of the emergency generator building.

Sixteen wells used for ground-water monitoring are presently installed at the site. Thirteen of the wells (MW-1 through MW-10, MW-12, MW-13, and W-4) are spaced across the northern half of the site and monitor the ground water near and to the west (approximately downgradient) of Tank Farm No 1 and the fuel dispenser islands. Well MW-12 also serves to monitor the ground water at a location northwest of the 550-gallon UST that provides fuel for the emergency generator. Three of the 16 wells are located in the southeastern quadrant of the property. Well M-3 is at the eastern edge of the property at a location that is upgradient of Tank Farm No. 1, well W-1 is located approximately 220 feet south of Tank Farm No. 1, and MW-11 is near the southwestern corner of Tank Farm No. 2. Three additional wells, that are not part of the ground-water-monitoring program, are located adjacent to Tank Farm No. 1. These wells are referred to as E-1, E-2, and E-5. Plate 2 is a Site Plan that shows the relative locations of the AC Transit facilities, the 16 ground-water-monitoring wells, and the three additional wells.

2.0 FIELD AND LABORATORY WORK

2.1 Field Procedures

Essel Tech personnel visited the site on August 27, 2006 to measure the water level in wells MW-11 and MW-12 and to purge the wells for ground-water sampling. The depth to the static ground-water surface in each well was measured to the nearest 0.01-foot using an electronic water-level indicator. Following water-level measurements, the two wells were purged of water using a submersible pump and discharge hose. Approximately three casing volumes of water were pumped from each well. Field measurements of temperature, pH, electrical conductivity, dissolved oxygen, oxygen reduction potential, and ferrous iron were monitored during pumping. Measurements were recorded on field well-development and sampling forms, which are included in Appendix A.

To minimize the potential for inadvertently introducing contaminants, wells were purged in order from least contaminated to most contaminated using the analytical results from the previous monitoring event. In addition, the purge pump and attached discharge hose were cleaned before use in each well by washing the equipment in a soap solution followed by rinsing twice with clean tap water. Discharge water from well purging was directed into 55-gallon drums, which were then emptied into the maintenance building steam bay.

Essel Tech personnel collected water samples from the two wells on August 27, 2006. A clean, disposable polyethylene bailer was lowered through the air-water interface in each well and retrieved to collect the samples. The retrieved water samples were then slowly transferred from the bailer to clean, 40-milliliter volatile organic analysis (VOA) glass vials containing hydrochloric acid as a preservative and to clean, 1-liter brown glass liter bottles containing sulfuric acid as a preservative. The various containers were filled completely to eliminate air bubbles, sealed with caps, labeled, and placed in ice storage for transport to an analytical laboratory.

2.2 Laboratory Analyses

Essel Tech personnel prepared a Chain-of-Custody form for the ground-water samples collected and this form accompanied the samples to the laboratory. A copy of the Chain-of-Custody form is included in Appendix B. The water samples were delivered to McCampbell Analytical, Inc. (McCampbell) in Pacheco, California for analysis. McCampbell analyzed the samples for total petroleum hydrocarbons as gasoline (TPHg) and as diesel (TPHd) using Environmental Protection Agency (EPA) modified Method 8015C, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) using EPA Method 8021B.

3.0 RESULTS OF MONITORING AND SAMPLING

3.1 Ground-Water Monitoring

The measured depths to the static ground-water surface in wells MW-11 and MW-12 were 3.00 and 10.50 feet below the tops of the respective well casings on August 27, 2006. Essel Tech used wellhead elevation data and depth-to-water measurements made on August 27, 2006 to calculate the elevation of the ground-water surface, which was 26.93 and 18.18 feet above mean sea level at the locations of wells MW-11 and MW-12, respectively. Table 1 presents the August 27, 2006 water-level data for the two wells and also presents cumulative data on product thickness, depth to ground water, and ground-water elevation for the 16 wells at the site.

3.2 Laboratory Analyses

Results of laboratory analyses show gasoline-range hydrocarbons (i.e., TPHg) were not detected in well MW-11 and were detected at 530 parts per billion [ppb] in the water sample from well MW-12. Diesel-range hydrocarbons (i.e., TPHd) were detected in well MW-11 at a concentration of 57 ppb and in well MW-12 at a concentration of 120 ppb.

No BTEX was detected in the water samples from either well MW-11 or MW-12. The fuel oxygenate MTBE also was not detected in well MW-11; however, was found at a concentration of 6.6 ppb in the water sample from well MW-12. Table 2 presents the results of analyses of water samples collected from the two wells on August 27, 2006 and the cumulative laboratory analytical results since November 2005 for site wells. Appendix B contains copies of the laboratory report of analyses for the August 27, 2006 monitoring event.

4.0 RECOMMENDATIONS

Essel Tech recommends that ground-water monitoring and sampling continue on a quarterly basis. The next sampling event should be scheduled for November 2006 and would include measuring depth to water and product thickness in the 16 ground-water-monitoring wells and purging and sampling the 16 wells for laboratory analysis.

Please call if you have any questions.

Sincerely;
Essel Technology Services, Inc.

Samhita Lahiri
Project Manager

Rodger C. Witham, P.G., C.E.G
Senior Hydrogeologist

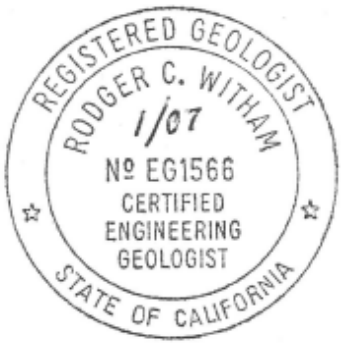


Table 1: Well Monitoring Data
Table 2: Results of Laboratory Analyses of Ground-Water Samples

Plate 1: Site Vicinity Map
Plate 2: Site Plan

Appendix A: Well Development and Sampling Forms
Appendix B: Chain-of-Custody Form and Laboratory Report

TABLE 1
WELL MONITORING DATA
Alameda Contra Costa Transit District Facility
1177 47th Street, Emeryville, California

Well Number	Date	Top of Casing	Product Thickness	Depth to Ground Water	Ground-Water-Surface Elevation	Ground-Water-Surface Elevation Corrected for Product Thickness#
MW-1	11/02/05	32.56	0.00	5.14	27.42	27.42
	05/28/06	32.56	0.00	4.05	28.51	28.51
MW-2	11/02/05	32.12	0.00	4.65	27.47	27.47
	05/28/06	32.12	0.00	3.55	28.57	28.57
MW-3	11/02/05	34.06	0.00	6.21	27.85	27.85
	05/28/06	34.06	0.00	4.95	29.11	29.11
MW-4	11/02/05	34.11	0.00	6.30	27.81	27.81
	05/28/06	34.11	0.00	5.15	28.96	28.96
MW-5	11/02/05	31.70	0.00	4.55	27.15	27.15
	05/28/06	31.70	0.00	3.62	28.08	28.08
MW-6	11/02/05	31.02	0.00	4.21	26.81	26.81
	05/28/06	31.02	0.00	3.00	28.02	28.02
MW-7	11/02/05	29.62	0.00	5.50	24.12	24.12
	05/28/06	29.62	0.00	4.25	25.37	25.37
MW-8	11/02/05	29.43	0.00	5.05	24.38	24.38
	05/28/06	29.43	0.00	4.95	24.48	24.48
MW-9	11/02/05	29.18	0.00	4.26	24.92	24.92
	05/28/06	29.18	0.00	3.70	25.48	25.48
MW-10	11/02/05	29.13	0.00	9.81	19.32	19.32
	05/28/06	29.13	0.00	9.55	19.58	19.58
MW-11	11/02/05	29.93	0.00	4.30	25.63	25.63
	02/22/06	29.93	0.00	2.50	27.43	27.43
	05/28/06	29.93	0.00	2.85	27.08	27.08
	08/27/06	29.93	0.00	3.00	26.93	26.93
MW-12	11/02/05	28.68	0.00	10.76	17.92	17.92
	02/22/06	28.68	0.00	10.50	18.18	18.18
	05/28/06	28.68	0.00	10.82	17.86	17.86
	08/27/06	28.68	0.00	10.50	18.18	18.18
MW-13	11/02/05	22.72	0.063	9.10	13.62	13.67
	02/22/06	22.72	0.167	NM	NM	NM
	05/28/06	22.72	NM	NM	NM	NM
W-1	11/02/05	33.43	0.00	6.59	26.84	26.84
	05/28/06	33.43	0.00	5.15	28.28	28.28
W-3	11/02/05	37.46	0.00	8.24	29.22	29.22
	05/28/06	37.46	0.00	6.32	31.14	31.14
W-4	11/02/05	31.72	0.00	4.70	27.02	27.02
	05/28/06	31.72	0.00	4.50	27.22	27.22

Top of casing in feet above mean sea level.
Product thickness in feet.
Depth to ground water in feet below the top of the well casing.
Ground-water surface elevation in feet above mean sea level.
NM = not measured
#Multiply product thickness by specific gravity of 0.8 and add to ground-water surface elevation.

TABLE 2
RESULTS OF LABORATORY ANALYSES OF GROUND-WATER SAMPLES
Alameda Contra Costa Transit District Facility
1177 47th Street, Emeryville, California

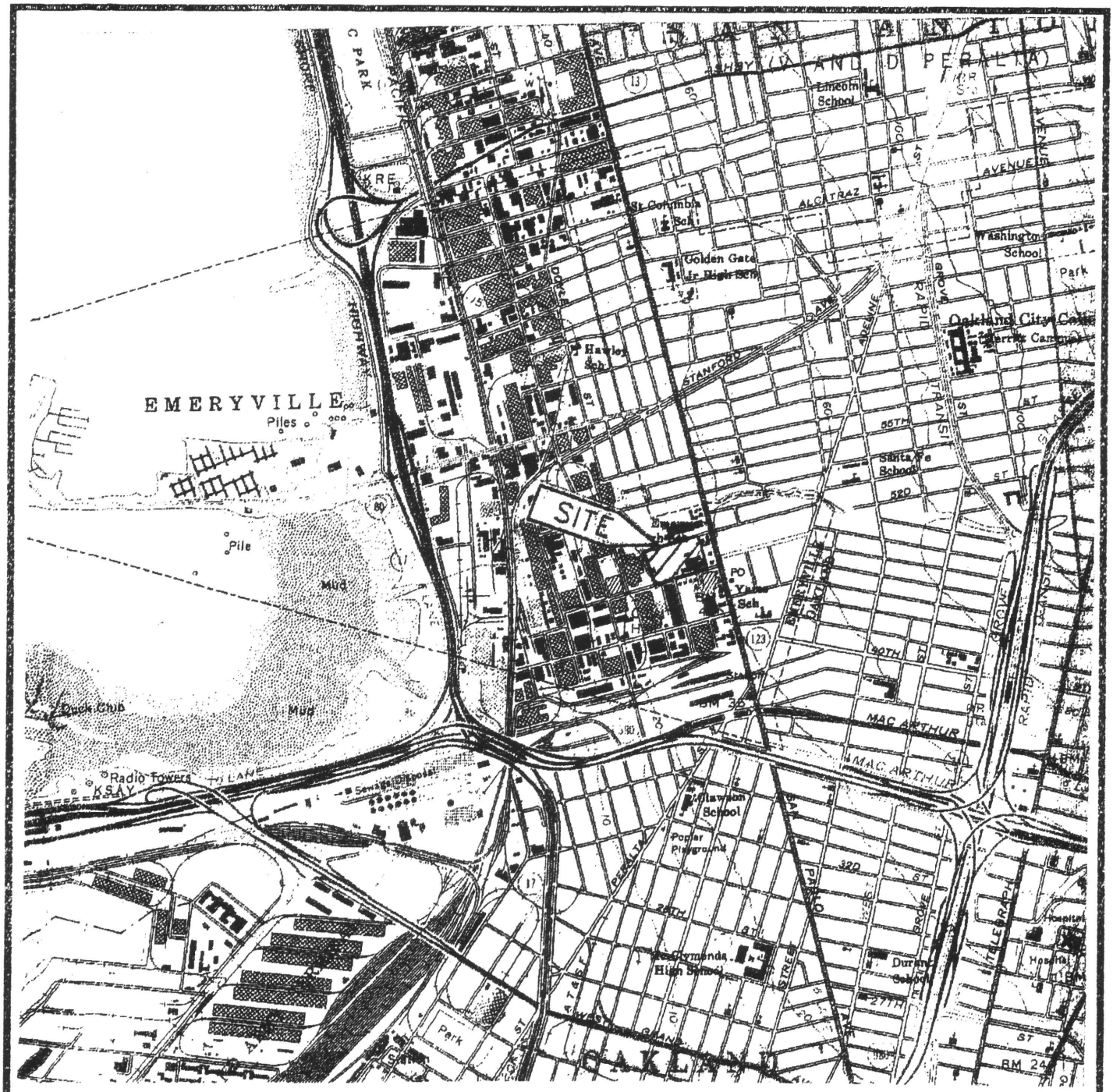
Well No.	Date Sampled	TPHg	TPHd	TPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Nitrate	Sulfate	Dissolved Oxygen	Ferrous Iron
MW-1	11/03/05	<50	70	NA	<0.5	<0.5	<0.5	<0.5	4.5	<100	56,000	2,330	0
	5/29/06	<50	89	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	5,400	0
MW-2	11/03/05	<50	110	NA	<0.5	<0.5	<0.5	<0.5	4.9	430	53,000	2,090	130
	5/29/06	<50	70	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	6,800	60
MW-3	11/03/05	<50	180	NA	<0.5	<0.5	<0.5	<0.5	3.2	3,500	67,000	1,850	0
	5/29/06	<50	180	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	4,600	0
MW-4	11/03/05	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	4.1	3,500	67,000	1,860	60
	5/29/06	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	4,900	0
MW-5	11/03/05	<50	1,500	NA	<0.5	<0.5	<0.5	<0.5	5.7	<100	62,000	1,930	150
	5/29/06	<50	200	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	4,900	40
MW-6	11/03/05	750	2,000	NA	13	1.9	2.9	4.6	1.4	<100	16,000	1,570	3,300
	5/29/06	2,700	12,000	NA	55	5.7	16	26	<15	NA	NA	4,900	20
MW-7	11/03/05	310	140	NA	<0.5	<0.5	<0.5	<0.5	2.3	<100	3,100	3,190	30
	5/29/06	260	120	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	Anomalous	60
MW-8	11/03/05	150	280	NA	<0.5	<0.5	<0.5	<0.5	0.69	<100	24,000	1,630	860
	5/29/06	<50	150	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	8,300	40
MW-9	11/03/05	<50	470	NA	<0.5	<0.5	<0.5	<0.5	4.8	110	28,000	1,720	450
	5/29/06	<50	190	NA	<0.5	<0.5	<0.5	<0.5	5.2	NA	NA	8,600	0

See notes on page 2 of 2.

TABLE 2
RESULTS OF LABORATORY ANALYSES OF GROUND-WATER SAMPLES
Alameda Contra Costa Transit District Facility
1177 47th Street, Emeryville, California

Well No.	Date Sampled	TPHg	TPHd	TPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Nitrate	Sulfate	Dissolved Oxygen	Ferrous Iron
MW-10	11/03/05	300	600	NA	<0.5	<0.5	<0.5	<0.5	4.1	<100	780	2,350	2,670
	5/29/06	140	540	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	5,600	10
MW-11	11/03/05	<50	290	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	21,000	1,360	0
	02/22/06	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	27,000	100	0
	5/29/06	<50	250	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	6,000	100
	8/27/06	<50	57	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	100	0
MW-12	11/03/05	440	120	NA	<0.5	<0.5	<0.5	<0.5	6.6	<100	3,700	1,700	740
	02/22/06	400	140	NA	<0.5	<0.5	<0.5	<0.5	7.8	<100	7,600	90	NM
	5/29/06	310	140	NA	<0.5	<0.5	<0.5	<0.5	5.7	NA	NA	7,200	10
	8/27/06	530	120	NA	<0.5	<0.5	<0.5	<0.5	6.6	NA	NA	90	720
MW-13	11/03/05	Not sampled - free-phase product in well											
	02/22/06	Not sampled - free-phase product in well											
	5/29/06	Not sampled - free-phase product in well											
W-1	11/03/05	6,200	2,400	NA	7.2	3.6	5.7	20	0.73	140	1,300	1,230	3,300
	5/29/06	4,600	1,700	NA	18	4.4	17	32	<17	NM	NM	4,500	60
W-3	11/03/05	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	1.2	3,700	51,000	2,170	0
	5/29/06	<50	240	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NM	NM	Anomalous	50
W-4	11/03/05	<50	66	NA	<0.5	<0.5	<0.5	<0.5	2.0	<100	32,000	1,620	970
	5/29/06	<50	110	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NM	NM	NM	NM

Results are in micrograms per liter = parts per billion; detectable results are shaded.
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
TPH = total petroleum hydrocarbons as motor oil or unknown hydrocarbon
MTBE = methyl tertiary butyl ether
NA = not analyzed
NM = not measured
< = less than the laboratory method detection limit



Scale: 0 2000 feet 4000 feet

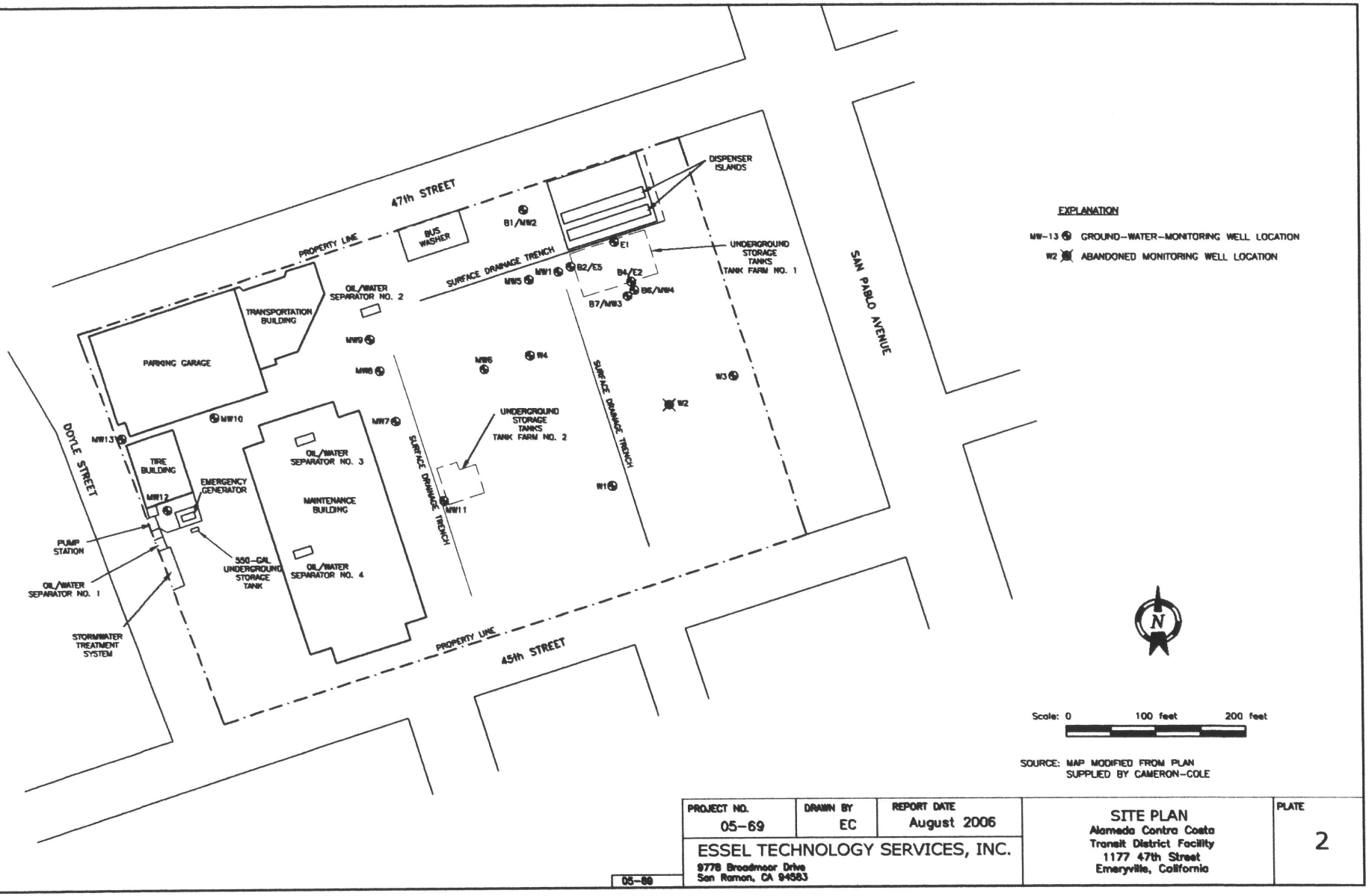
Source: USGS 7 1/2–Minute Quadrangle, Oakland West, California, Photorevised 1980.

PROJECT NO.	DRAWN BY	REPORT DATE
05–69	EC	August 2006

ESSEL TECHNOLOGY SERVICES, INC.
9778 Broadmoor Drive
San Ramon, CA 94583

SITE VICINITY MAP
Alameda Contra Costa
Transit District Facility
1177 47th Street
Emeryville, California

PLATE 1



PROJECT NO.	DRAWN BY	REPORT DATE
05-69	EC	August 2006

ESSEL TECHNOLOGY SERVICES, INC.
9778 Broadmoor Drive
San Ramon, CA 94583

05-69

SITE PLAN
Alameda Contra Costa
Transit District Facility
1177 47th Street
Emeryville, California

PLATE 2

APPENDIX A

WELL DEVELOPMENT AND SAMPLING FORMS

Well Development and Sampling Form

Job Name AC TRANSIT DIV. 2 / EMERYVILLE. **Well Number** MW-11

Job Number 0569/14 **Date** AUGUST 27, 06

Sample By SHER GUPTA

Purge Volume	Development/Purge Method(s)
Casing Diameter: 2-inch [X] 4-inch [ ] Other _____	[ ] Swab [ ] Surge Other _____
Total depth (TD) of casing in feet 17.50 +	[X] Bail Bailer Type: DISPOSABLE
Depth to water (DTW) in feet 3.00	[ ] Pump Pump Type: [ ] Submersible [ ] Centrifuge
Purge Volume Calculation (17.5 - 3) x 3 x 0.17 = 7.4 gallons	[ ] Bladder [ ] Other
TD - DTW x V x F = purge volume	

Explanation

For 2" diameter well: V = ~~5~~ 3, F = 0.17 gallon/foot

For 4" diameter well: V = 3, F+ 0.66 gallon/foot

V= well volume

F= gallon of water per foot of casing

Field Parameters

Time a.m. [X] p.m. [ ]	pH	Conductivity Microhos/centimeter	Temperature [X] °C [X] °F	Turbidity DO	ORP	Fe	Gallons pumped
Start							
9.00	7.35	440	70.2	0.12	198	0	2
9.15	6.95	440	70.2	0.08	200		4
9.30	6.96	443	70.2	0.06	200.2		6
10.00	6.98	441	70.2	0.10	199		8

Total Gallons Pumped 8

Observations during purging (well condition, turbidity, color, odor): TURBID

Discharge water disposal: [ ] **Sanitary Sewer** [ ] **Storm Drain** [ ] **Drum** [ ] **Other** STEAM BAY @ SITE

Well Sampling Date: 8/27/06 **Time:** _____

Well Development and Sampling Form

Job Name AC TRANSIT DIV 2 EMERYVILLE **Well Number** MW-12

Job Number 05691/4 **Date** Aug. 27, 06

Sample By SHER GUHA

Purge Volume	Development/Purge Method(s)
Casing Diameter: 2-inch [ ] 4-inch [ ] Other _____	[ ] Swab [ ] Surge Other _____
Total depth (TD) of casing in feet 29.50 +	[X] Bail Bailer Type: DISPOSABLE
Depth to water (DTW) in feet 10.50	[ ] Pump
Purge Volume Calculation	Pump Type: [X] Submersible [X] Centrifuge
(29.5 - 10.5) x 3 x .17 = 9.65 gallons	[ ] Bladder [ ] Other
TD - DTW x V x F = purge volume	

Explanation

For 2" diameter well: V = 5, F = 0.17 gallon/foot

For 4" diameter well: V = 3, F+ 0.66 gallon/foot

V= well volume

F= gallon of water per foot of casing

Field Parameters

Time a.m. [X] p.m. [ ]	pH	Conductivity Microhos/centimeter	Temperature [ ]°C [X] °F	Turbidity DO	Turbidity ORP	Gallons pumped FE	Gallons pumped
Start							
10.30	7.2	710	71°	0.20	120	0.72	2
10.45	7.2	710	71	0.19	130		4
11.00	7.6	710	71	0.17	121		8
11.30	6.9	710	71	0.09	122		10

Total Gallons Pumped 10

Observations during purging (well condition, turbidity, color, odor): Dark

Discharge water disposal: [ ] **Sanitary Sewer** [ ] **Storm Drain** [ ] **Drum** [ ] **Other** ST Emeryville

Well Sampling Date: 8/27/06 **Time:** _____

APPENDIX B

CHAIN-OF-CUSTODY FORM

AND

LABORATORY REPORT

060465 + 1

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

Report To: SHEK GUHA Bill To: ESSEL TECHNOLOGY

Company: ESSEL TECHNOLOGY SERVICES INC.

9778 Broadmoor Drive, San Ramon, CA 94583

E-Mail: ESSELTEK SERVICES

Tele: (415) 794-1960 Fax: (925) 833-7977 @AOL.COM

Project #: Project Name: AC TRANSIT DIV

Project Location: 1771 47th Street, Emeryville, CA

Sampler Signature:

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
MW-11-01	EMERY	2/27	8:30	1	VOA	X								
MW11-02				1										
MW11-03				1										
MW11-04					AMB									
MW11-05					Pint									
MW12-01				1										
MW12-02				1										
MW12-03				1										
MW12-04				1	AMB									
MW12-05				1	Plug									
Blank 01														

Analysis Request	Other	Comments
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE		Filter Samples for Metals analysis: Yes / No
TPH as Diesel (8015)		
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)		
Total Petroleum Hydrocarbons (418.1)		
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)		
MTBE / BTEX ONLY (EPA 602 / 8021)		
EPA 505/ 608 / 8081 (Cl Pesticides)		
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners		
EPA 507 / 8141 (NP Pesticides)		
EPA 515 / 8151 (Acidic Cl Herbicides)		
EPA 524.2 / 624 / 8260 (VOCs)		
EPA 525.2 / 625 / 8270 (SVOCs)		
EPA 8270 SIM / 8310 (PAHs / PNAs)		
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)		
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)		
Lead (200.7 / 200.8 / 6010 / 6020)		

Relinquished By:	Date:	Time:	Received By:
SHEK GUHA	2/28	850	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCampbell Analytical, Inc.
"When Quality Counts"

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

Essel Technology Service	Client Project ID: AC Transit Div.	Date Sampled: 08/27/06
9778 Broadmoore Drive		Date Received: 08/28/06
San Ramon, CA 94523	Client Contact: Shek Guha	Date Extracted: 08/29/06
	Client P.O.:	Date Analyzed 08/29/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0608574

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-11	W	ND	ND	ND	ND	ND	ND	1	96
002A	MW-12	W	530,m	6.6	ND	ND	ND	ND	1	97
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Essel Technology Service	Client Project ID: AC Transit Div.	Date Sampled: 08/27/06
9778 Broadmoore Drive		Date Received: 08/28/06
San Ramon, CA 94523	Client Contact: Shek Guha	Date Extracted: 08/28/06
	Client P.O.:	Date Analyzed 08/31/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method SW3510C Analytical methods SW8015C Work Order: 0608574

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0608574-001B	MW-11	W	57,b	1	91
0608574-002B	MW-12	W	120,d	1	91

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS ELAP Certification N° 1644

AR Angela Rydelius, Lab Manager