consulting engineering construction operations One Walnut Creek Center 100 Pringle Avenue, Suite 300 Walnut Creek, California 94596 Tel: 925 933-2900 Fax: 925 933-4174

August 9, 2000

Mr. Barney Chan Hazardous Material Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94602-6577

Subject: Letter Addendum to Workplan for Screening Level Soil and Groundwater

Sampling (Dated July 17, 2000) Former Union Pacific Railroad Site CDM Project No.: 8245-28614-WD21

Dear Mr. Chan:

Camp Dresser & McKee Inc. (CDM) is pleased to present this letter addendum to address changes to the Workplan for Screening Level Soil and Groundwater Sampling, dated July 17, 2000. This document was submitted to the Alameda County Health Care Services Agency (County) on July 17, 2000. The Workplan detailed the scope to perform additional soil and groundwater sampling within the former railroad right-of-way adjacent to the existing Fruitvale Station Intermodal Project in Oakland, California (refer to Figure 1, Site Location Map).

Changes in the scope to the Workplan are based on comments from County during a meeting with CDM, the San Francisco Bay Area Rapid Transit District (BART), and the Regional Water Quality Control on August 2, 2000. The new soil and groundwater sampling locations will be based on "hot spot" locations identified by Applied Remedial Services, Inc. (ARS) as presented in their *Limited Phase II Environmental Site Assessment Report*, dated July 8, 1999 (refer to Figure 2, ARS's Test Pit Locations). Specifically, the change in scope from Workplan's original 15 soil and four groundwater sample locations is presented below:

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Total of six soil sample locations, S1, S2, and S6 will be located at adjacent to the former ARS Pit 4A, 16, and 19 locations, respectively. The remaining three soil locations S4, S5, and S6 will be randomly distributed across the site (refer to Figures 3a and 3b, Sample Location Map). Soil samples will be collected at depths of 1 and 3 feet below ground surface (bgs).

■ Total of four groundwater sample locations GW1, GW2, GW3, and GW4 will be located adjacent to former ARS Pit (4A), 7, 12, and 17 locations, respectively. The drill rig will be advanced to a maximum depth of 30 feet bgs to collect to groundwater samples. If groundwater is not encountered with the 30 feet bgs, no groundwater samples will be collected.

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ig will be advanced to a maximum depth of 30 feet bgs to collect to ster samples. If groundwater is not encountered with the 30 feet bgs, twater samples will be collected.

Mr. Barney Chan August 9, 2000 Page 2

> All soil and groundwater samples will be analyzed for the proposed analytes presented in Section 3 of the Workplan, as summarized in Table 1, Sample Collection Schedule and Laboratory Analyses.

Following your approval of the Workplan and the changes, CDM is prepared to commence field sampling within two weeks of authorization.

Please contact Michael Gray at (925) 933-2900 if you have any questions regarding this Workplan or the project.

Very truly yours,

CAMP DRESSER & McKEE INC.

Michael G. Gray, R.G., C.E.G.

Work Directive Manager

cc: Gary Jensen, BART

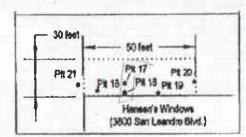
Janie Layton, BART Jeff Ordway, BART

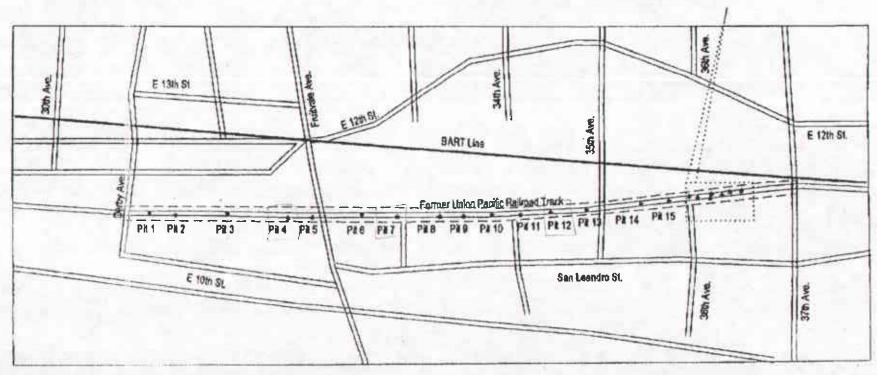
Bob Engle, BART

Ravi Arulanantham, RWQCB

Attachment







- Approximate area surrounding Union Facilic Ratiroad Track
- Approximate Total Pt Location

ARS, INC

Applied Remedial Servious, Inc. 101 Suchampion Rd., Suite 105 Tendos, CA 94510 Figure 2

Date: July 8, 1999

Project #: ARS-99-269

Test Pits Locations

Union Pacific Railroad - Fruitvale BART Transit Village Oakland, California

## Table 1 Sample Collection Schedule and Laboratory Analyses Letter Addendum to Workplan BART Fruitvale Station Oakland, CA

Matrix	Exploration	Sample	Sample	VOCs	SVOCs	TPH mo, d	TPH gas	ВТЕХ/МТВЕ	CAM 17	Title 22 Metals
	Point	Depth (ft bgs)	ID	8260	8270	8015M	8015	8015	6010B / 7471	6010B/7471
Soil	S1	1.0	S1 - 1.0	Х	х	х	Х	х	х	
	S1	3.0	S1 - 3.0	X	х	х	Х	Х	х	
	S2	1.0	S2 - 1.0	Х	х	Х	Х	X	х	
	S2	3.0	S2 - 3.0	Х	х	Х	Х	X	Х	
	S3	1.0	S3 - 1.0	Х	х	Х	Х	Х	х	
	S3	3.0	S3 - 3.0	Х	х	х	X	х	х	
	S4	1.0	S4 - 140	Х	х	Х	Х	X	Х	
	S4	3.0	S4 - 30	Х	×	X	Х	X	Х	
	<b>S</b> 5	1.0	S5 - 1.0	Х	Х	Х	Х	Х	х	
	<b>S</b> 5	3.0	S5 - 3.0	Х	X	Х	Х	Х	Х	
	S6	1.0	S6 - 1.0	X	×	Х	Х	Х	х	
	S6	3.0	S6 - 30	Х	Х	X	X	X	Х	
Groundwater	GW1	down to 30	GW1	Х	×	Х	Х	Х	Х	Х
	GW2	down to 30	GW2	Х	×	х	X	Х	Х	Х
	GW3	down to 30	GW3	Х	×	Х	×	х	х	Х
	GW4	down to 30	GW4	Х	Х	Х	Х	х	X	Х

Notes:

ft bgs = feet below ground surface

ID = identification

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

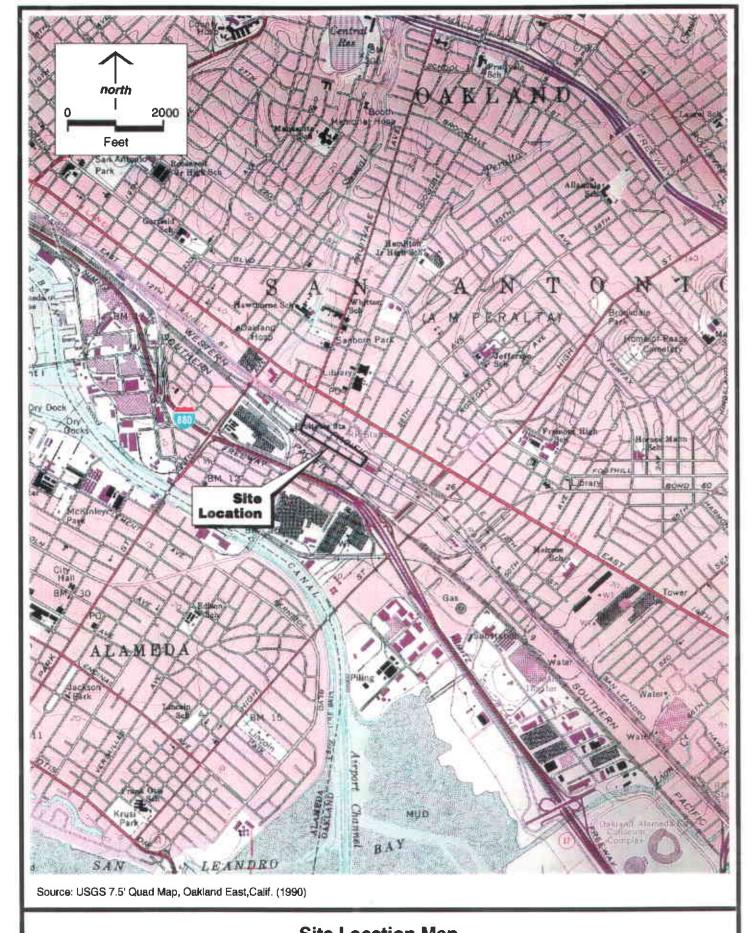
TPH mo = total petroleum hydrocarbons as motor oil

TPH d = total petroleum hydrocarbons as diesel

BTEX = benzene, toluene, ethylbenzene, and total xylenes

MTBE = methyl tertiary-butyl ether

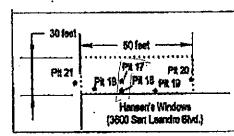
CAM 17 = California Assessment Manual for 17 metals

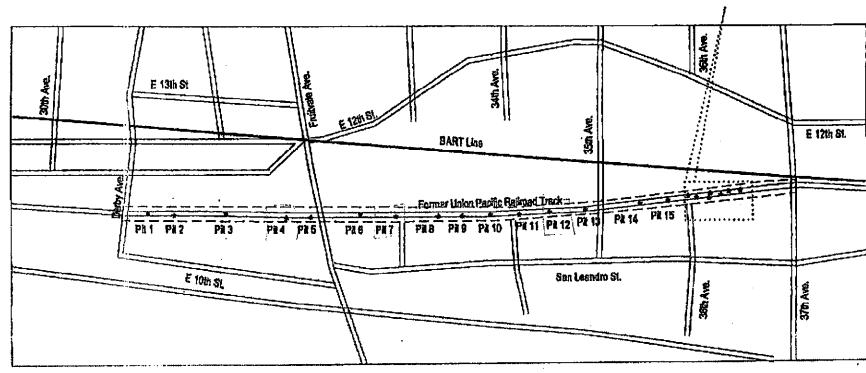


CDM
environmental engineers, scientists, planners, & management consultants

Site Location Map
Screening Level Soil and Groundwater Sampling Workplan
BART Fruitvale Station
Oakland, CA







Approximate area surrounding Union Fredic Railroad Track

Approximate Total Pil Location

ARS, INC

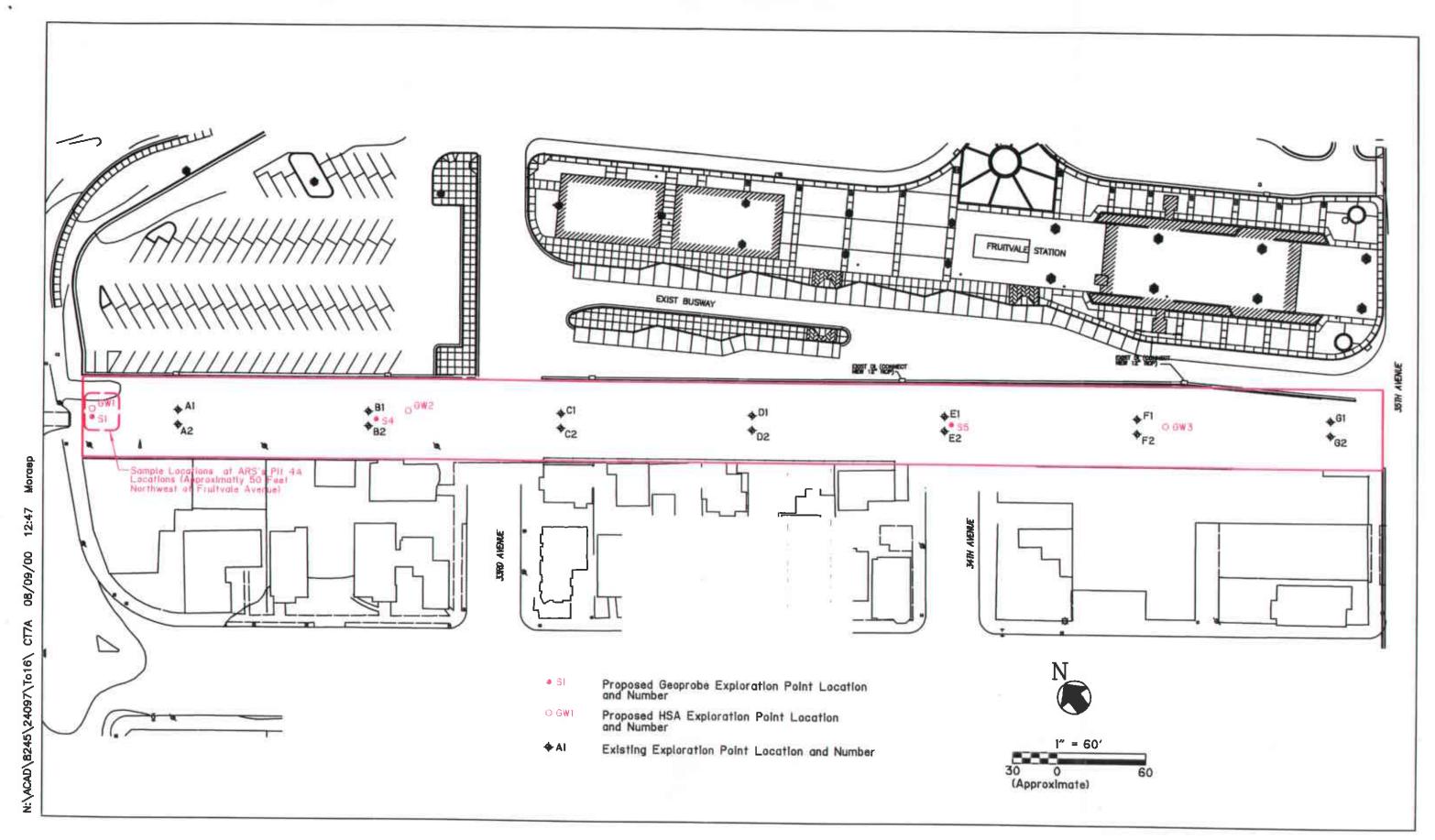
Appled Remedial Services, Inc. 701 Sudvampton Rd., Sette 105 Beelcla, CA 94510 Figure 2

Date: July 8, 1999

Project #: ARS-99-269

**Test Pits Locations** 

Union Pacific Railroad - Fruitvale BART Transit Village Oakland, California



## Sample Location Map

Fruitvale Avenue to 35th Avenue BART Fruitvale Station Oakland, CA

## Sample Location Map

35th Avenue to 37th Avenue BART Fruitvale Station Oakland, CA

## Table 1 Sample Collection Schedule and Laboratory Analyses Letter Addendum to Workplan BART Fruitvale Station Oakland, CA

¥	Exploration	Sample	Sample	VOCs	SVOCs	TPH mo, d	TPH gas	BTEX/MTBE	CAM 17	Title 22 Metals
Matrix	Point	Depth (ft bgs)	ID	8260	8270	8015M	8015	8015	6010B / 7471	6010B/7471
	S1	1.0	S1 - 1.0	х	x	x	X	X	Х	
	S1	3.0	S1 - 3.0	х	×	x	x	X	X	
	S2	1.0	S2 - 1.0	Х	х	x	X	X	X	
	S2	3.0	S2 - 3.0	Х	×	X	x	X	X	
	S3	1.0	S3 - 1.0	х	×	×	X	Х	X	
15	S3	3.0	S3 - 3.0	X	×	X	x	X	X	
Soil	S4	1.0	S4 - 1.0	х	×	×	X	Х	Х	
	S4	3.0	S4 - 3.0	Х	×	x	x	X	X	
	S5	1.0	S5 - 1.0	Х	Х	×	x	X	х	
	S5	3.0	S5 - 3.0	×	X	х	X	X	Х	
	S6	1.0	S6 - 1.0	×	X ·	х	X	X	Х	
	\$6	3.0	S6 - 3.0	×	X	X	Х	x	X	
	GW1	down to 30	GW1	х	х	х	х	Х	×	×
iwate	GW2	down to 30	GW2	×	×	x	х	X	х	×
Groundwater	GW3	down to 30	GW3	Х	х	х	х	Х	×	×
Ē	GW4	down to 30	GW4	х	х	х	х	Х	х	х

Notes:

ft bgs = feet below ground surface

ID = identification

VOCs = volatile organic compounds SVOCs = semivolatile organic compounds

TPH mo = total petroleum hydrocarbons as motor oil

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