

OCT 19 1995

ENVIRONMENTAL
PROTECTION

QUALITY CONTROL BOARD

95 NOV 13 AM 8:12 **CASE CLOSURE SUMMARY**
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 8/24/95

Agency name: **Alameda County-HazMat**
 City/State/Zip: **Alameda CA 94502**
 Responsible staff person: **Jennifer Eberle**

Address: **1131 Harbor Bay Pky**
 Phone: **(510) 567-6700**
 Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Pacific Renaissance Plaza**
 Site facility address: **1000 Franklin St., Oakland CA 94607**
 RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4036**
 URF filing date: **12/24/91** SWEEPS No: **N/A**

Responsible Parties: Addresses: Phone Numbers:

Attn: **Donnell Choy, City Attorney, Oakland Redevelopment Agency, 505-14th St., 12th Floor, Oakland CA 94612 (510-238-3493)**

Attn: **Andrew Clark-Clough, City of Oakland, Office of Public Works, Environmental Division, 1333 Broadway, Suite 330, Oakland CA 94612 (510-238-6361)**

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	1,000	unknown	removed	12/16/91
2	1,000	unknown	removed	12/16/91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown
 Site characterization complete? YES
 Date approved by oversight agency: na
 Monitoring Wells installed? YES Number: 9
 Proper screened interval? YES
 Highest GW depth below ground surface: 23.62 Lowest depth: 32.35 (MW-7)
 Flow direction: generally west to south (construction activities have influenced gw flow direction)
 Most sensitive current use: Pacific Renaissance Plaza
 Are drinking water wells affected? NO Aquifer name:N/A
 Is surface water affected? NO Nearest affected SW name:N/A
 Off-site beneficial use impacts (addresses/locations):N/A

Leaking Underground Fuel Storage Tank Program

Report(s) on file? **YES** Where is report(s) filed?
Alameda County, 1131 Harbor Bay Pky, Alameda Ca 94502

Treatment and Disposal of Affected Material:

<u>Material</u> (include units)	<u>Amount</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tank	two 1,000 gal	disposed to H&H (manifest #91511243)	12/16/91
Soil	320 yd3	Disposed to McKittrick site, McKittrick CA (non-haz manifests)	12/23/91

purge water

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)****	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
TPH (Gas)	19,000	420	320	ND
TPH (Diesel)	4,100	52	NA	
Benzene	53	0.330	0.20	ND
Toluene	340	7.100	ND	ND
Xylene	580	19.000	7.8	ND
Ethylbenzene	150	3.700	2.9	ND
Oil & Grease (nonpolar)	310	NA	NA	
semi-VOCs	*	**	NA	
Heavy metals	***	NA	NA	

Comments (Depth of Remediation, etc.):

- * 2.1 ppm 2-methylnaphthalene, 2.3 ppm naphthalene
- ** 0.900 ppm naphthalene, 0.910 ppm 2-nitroaniline
- *** all <10X the STLCs
- **** MW7 only, from 12/20/91 to 6/24/93 sampling events

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned:

Monitoring wells were installed to evaluate gw quality in the Chinatown Redevelopment Project Area.

Decommissioning is not solely dependent on this case closure.

Number Decommissioned: Number Retained:

List enforcement actions taken: none

List enforcement actions rescinded: none

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Jennifer Eberle Title: Hazardous Materials Specialist

Signature: *Jennifer Eberle* Date: *Jan 8-24-95*

Reviewed by

Name: Dale Klettke Title: Hazardous Materials Specialist

Signature: *Dale Klettke* Date: *09/26/95*

Name: Amy Leech Title: Hazardous Materials Specialist

Signature: *Amy Leech* Date: *09/25/95*

VI. RWQCB NOTIFICATION

Date Submitted to RB: *11/6/95* RB Response: *Approved*

RWQCB Staff Name: Kevin Graves Title: AWRCE Date: *11/6/95*

VII. ADDITIONAL COMMENTS, DATA, ETC.

Two 1,000-gal USTs were removed in 12/91 from below the sidewalk at Franklin Street at the former location of 10th Street. See Plate 1 They were discovered during construction of a ventilator duct for the Pacific Renaissance Plaza (PRP) bldg. The contents were unknown but thought to be fuel oil. The northern UST was filled w/grout. Approximately 50 yd³ of green-stained soil surrounding the USTs was excavated and stockpiled; the soil had a strong petroleum odor.

Leaking Underground Fuel Storage Tank Program

Two soil samples were collected from below the USTs at 7'bgs. See **Plate 2** Results indicated up to 19,000 ppm TPHg, 4,100 ppm TPH-d, 53 ppm benzene, elevated TEX, <1ppm naphthaline and 2-nitroaniline, 400 ppm TOG, and 310 ppm nonpolar O&G. See **Tables 1 and 2**

Approximately 700 yd³ of soil was excavated between 12/16/91 and 12/27/91. Of this amount, approximately 320 yd³ were disposed at McKittrick Waste Disposal Site. The remaining 380 yd³ did not appear contaminated, and was "handled by the general contractor in accordance w/standard construction practice." See pg 3, 11/16/92 "Tank Closure Report" by HLA. Soil was apparently removed to 20'bgs.

On 12/30/91, 16 confirmatory soil samples collected at 20'bgs in the ventilator duct excavation. See **Plate 2** The sixteen soil samples were made into four 4-point composite samples by the lab: composite A, B, C, and D. Composite samples A and B were taken closest to the former USTs. The maximum concentrations detected from these samples were (from Composite sample A): 420 ppm TPH-g, 52 ppm TPH-d, 0.330 ppm benzene, some TEX, and semi-VOCs. See **Table 1** These can be considered the contaminant concentrations left in place.

Nine groundwater monitoring wells were installed prior to the removal of the subject USTs between 1988-1990 in the vicinity of this site to evaluate groundwater quality in the Chinatown Redevelopment Project Area. However, the only well of concern is MW7, which is situated approximately 70' W-NW from the former USTs. The other wells span a very large area more than 2 square blocks. The initial groundwater flow direction was Westerly, prior to the construction of the EBMUD admin bldg or the PRP bldg. These buildings have three levels of underground parking. These structures apparently force groundwater coming in from the North and Northeast to either move West along 11th Street or go around the EBMUD bldg and down Franklin Street. Groundwater has been sampled quarterly from MW7 from 4/4/89 until 6/24/93. Concentrations of BTEX and TPH-g were very low to ND. Benzene was ND for the last 3 quarters, while TPH-g was ND for the last quarter sampled. See **Table 3**

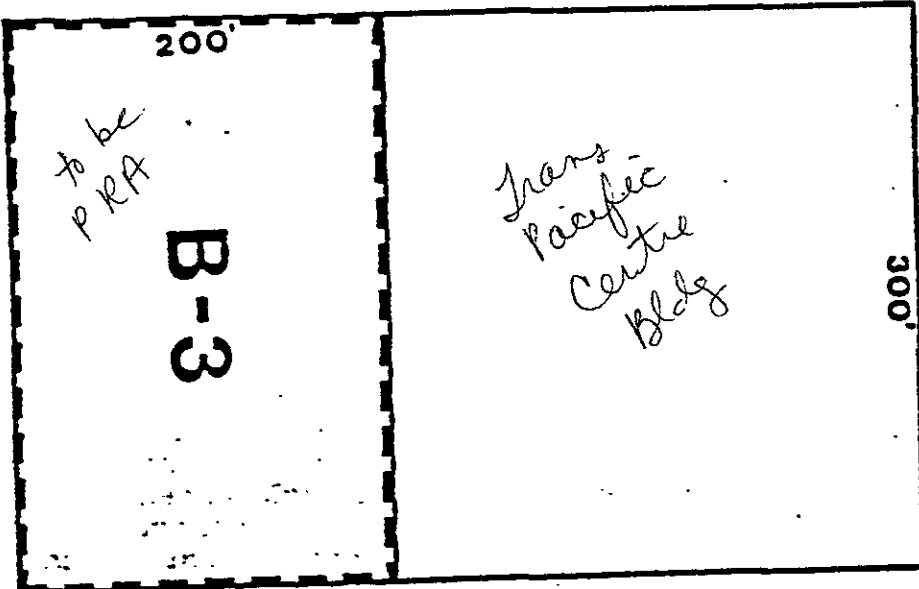
Although the County requested another well, located closer to and downgradient of the former USTs, the installation of such a well would have interfered w/PRP construction activities, disrupted traffic along busy Franklin St., and create risks of damaging major underground utilities in the area, such as an international telephone line and the BART tube. Analytical results of monitoring wells MW-12 and MW-20 located ~150 feet south and southwest, respectively, of the former UST pit have exhibited ND to low levels of TPHg and BTEX during periodic sampling in 1990 for MW-12 and 1990-1993 for MW-20.

It was agreed that further characterization and remediation of soil in this area would not be necessary, pursuant to discussions between the County, RWQCB (Rich Hiatt), the Oakland Redevelopment Agency, and Harding Lawson Assoc. This is documented in the City's letter to Jennifer Eberle, dated 1/19/93. There was concern that workers digging in this area may come into contact with contaminated soil. The City proposed to implement a warning system within their permit tracking system, which would allow a database search for "flagged" conditions. This "database flag" will allow City staff to notify an individual, applying for a City permit to excavate, of the types of materials suspected to be present in the subsurface below Franklin Street between 9th and 11th Streets. This approach was accepted in a letter from the County to the City, dated 2/9/93. It is the City's responsibility to implement this system.

PERIMETER PLOT PLAN

Broadway

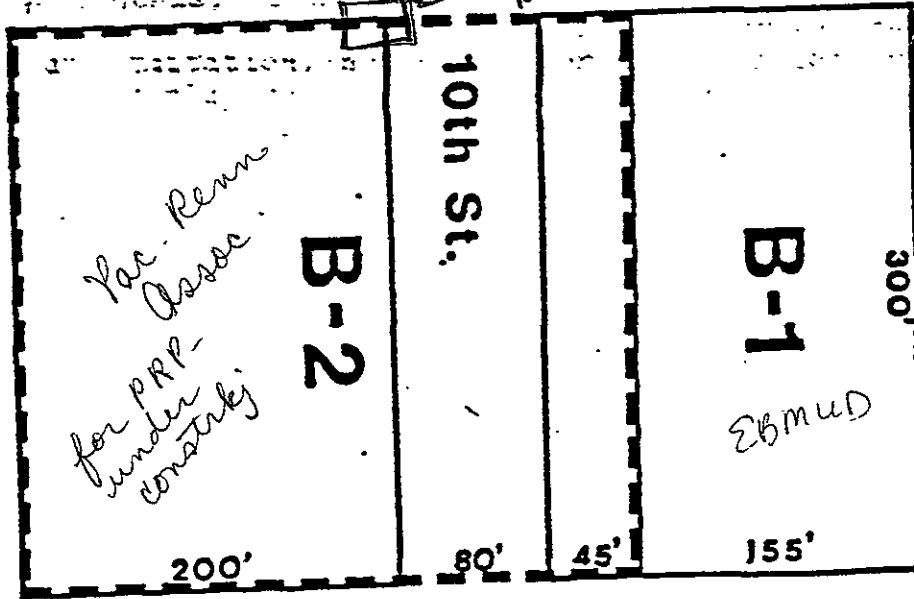
EXHIBIT B



Franklin

former tanks

9th St.



10th St.

11th St.

Webster

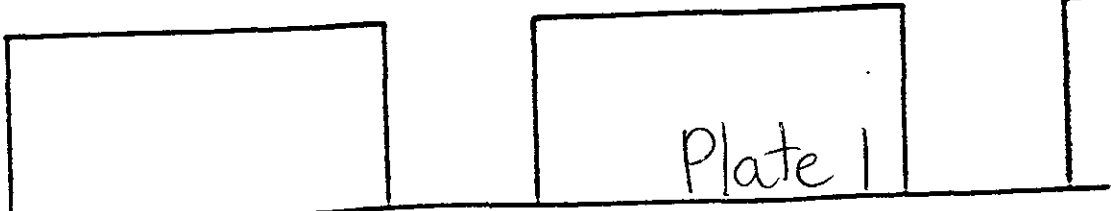
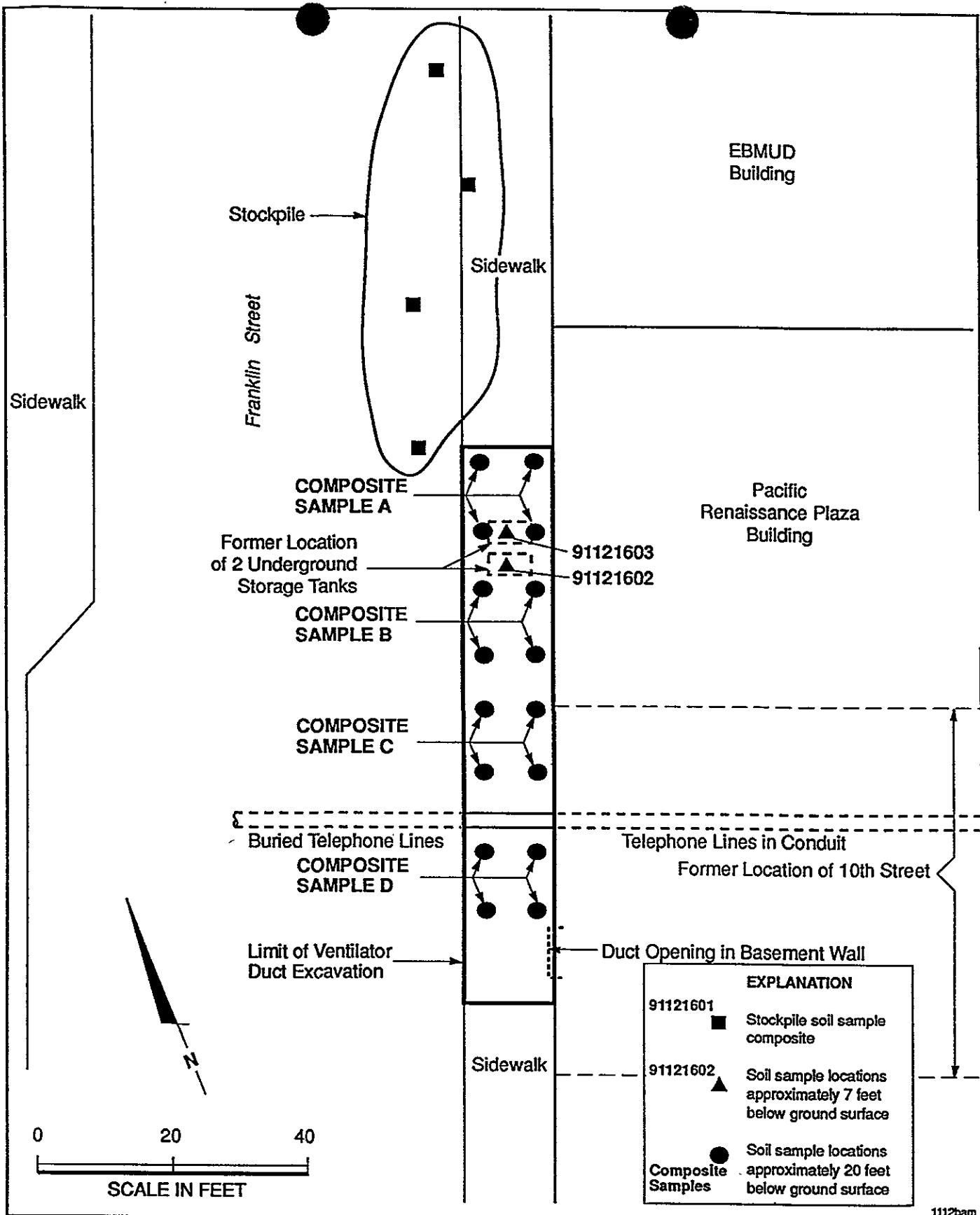


EXHIBIT D



EXPLANATION	
91121601	Stockpile soil sample composite
91121602	Soil sample locations approximately 7 feet below ground surface
Composite Samples	Soil sample locations approximately 20 feet below ground surface

1112bam

PLATE

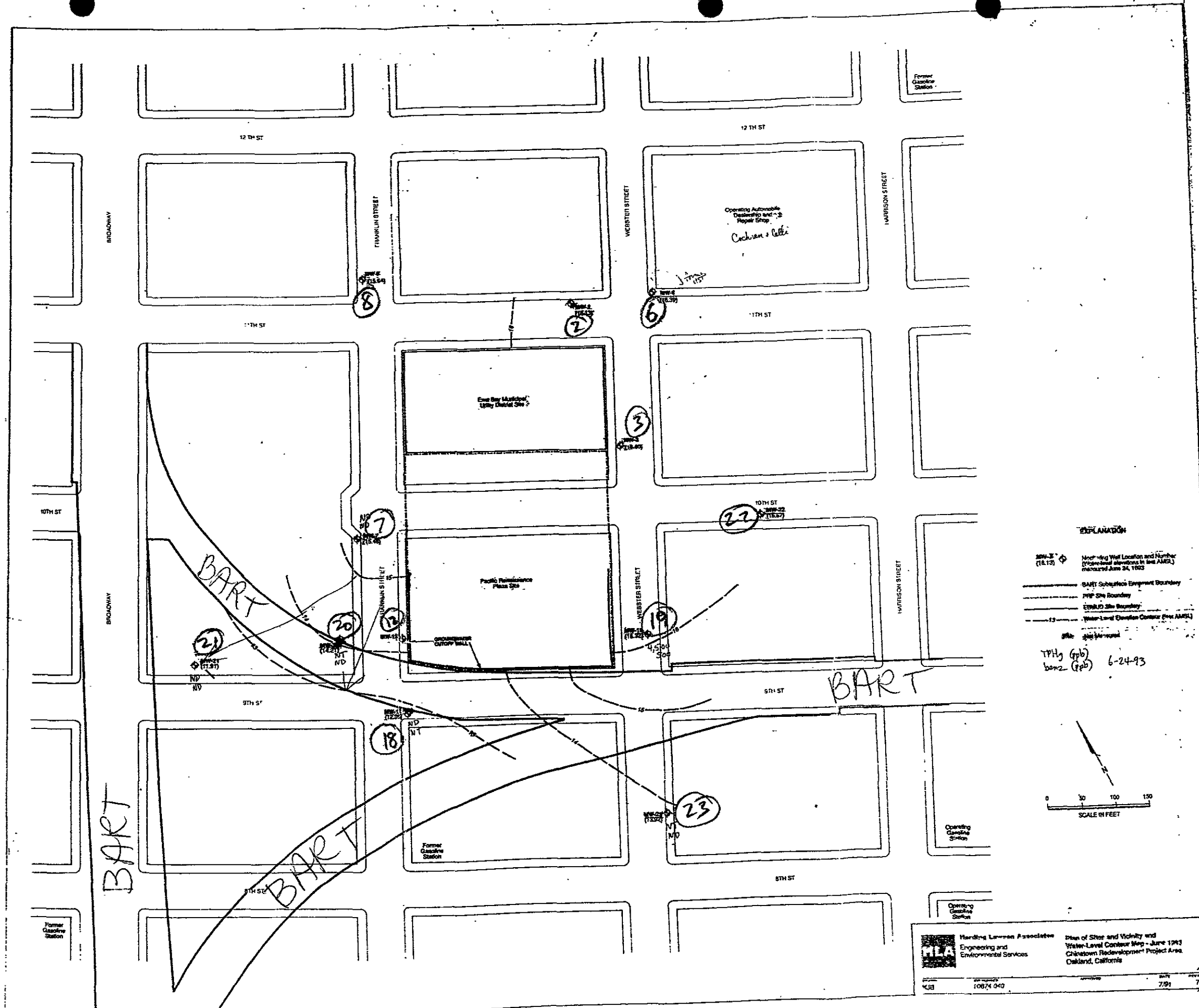


Harding Lawson Associates
Engineering and Environmental Services

Site Map
Tank Closure Report
Chinatown Redevelopment Project Area
Oakland, California

21

DRAWN pgc	JOB NUMBER 21078 03	APPROVED <i>RLN</i>	DATE 10/92	REVISED DATE
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EXPLANATION

Monitoring Well Location and Number
 (18, 19) (18, 19)

BART Substation Equipment Boundary

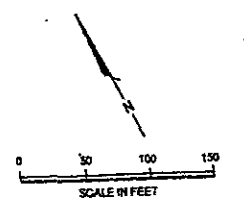
PHF Site Boundary

ETRMUD Site Boundary

Mean-Land Elevation Contour (from AMSL)

Site

TPH₃ (ppb)
 benz. (ppb) 6-24-93



3

Table 1. Soil Sample Analytical Results for Petroleum Hydrocarbon Characterization¹ Harding Lawson Associates
Tank Closure Report
Underground Storage Tanks
Chinatown Redevelopment Project Area
Oakland, California

	Composite Sample A	Composite Sample B	Composite Sample C	Composite Sample D
Sample Number	91121601	91121602	91121603	(91123001 to 91123004)
Sample Date	12/16/91	12/16/91	12/16/91	12/30/91
Sample Location	Stockpile	UST Excavation	UST Excavation	Ventilator Duct Excavation
Sample Depth (ft. bgs) ²	NA	7	7	20
Composite Sample	Yes	No	No	Yes
TPH as Gasoline ³	1.5	19,000	3.1	420
TPH as Diesel ⁴	16	4,100	5.9	52*
TPH as Motor Oil ⁴	83	ND<10	ND<10	NT
TPH as Creosote	ND<10	ND<10	ND<10	NT
Benzene ⁵	ND<0.0025	53	0.046	0.330
Toluene ⁵	0.0032	340	0.130	7.100
Ethyl Benzene ⁵	ND<0.0025	150	0.077	3.700
Total Xylenes ⁵	0.0025	580	0.370	19,000
Purgeable Halocarbons ⁶	NT	NT	NT	ND**
Semivolatiles ⁷	NT	2-Methylnaphthalene 2.1 Naphthalene 2.3	2-Methylnaphthalene 64.00 Naphthalene 6.300	Naphthalene 0.900 2-Nitroaniline 0.910

ND<1 - Not detected at indicated detection limit.
 NA - Not applicable.
 NT - Not tested.
 1 Results are presented in milligrams per kilogram (mg/kg).
 2 ft bgs - feet below ground surface.
 3 EPA Test Method 5030 GC/FID.
 4 EPA Test Method 3550 GC/FID.
 5 EPA Test Method 8020 GC.
 6 EPA Test Method 8010 GC.
 7 EPA Test Method 8270 GCMS.
 Laboratory reports petroleum hydrocarbons quantified as diesel appear to be a lighter hydrocarbon than diesel.
 ** See laboratory analytical results for detection limits of individual analytes.

Table 2. Soil Sample Analytical Results for Disposal Characterization¹
Tank Closure Report
Underground Storage Tanks
Chinatown Redevelopment Project Area
Oakland, California

Sample number	91121601	91121602	91121603
Sample date	12/16/91	12/16/91	12/16/91
Sample location	Stockpile	UST Excavation	UST Excavation
Sample depth (ft bgs) ²	NA	7	7
Oil and Grease (total) ³	6,300	400	ND<50
Oil and Grease (nonpolar) ⁴	6,300	310	ND<50
Polychlorinated Biphenyls ⁵	NT	ND<0.66	ND<0.66
Volatile Organics ⁶	NT	Ethyl benzene 33 Toluene 96 Total Xylenes 460	Benzene 0.005 Ethylbenzene 0.070 Toluene 0.340 1,1,1-Trichloroethane 0.028 Trichloroethene 0.050 Total Xylenes 0.800
Cadmium ⁷	ND<2.0	2.8	2.6
Chromium ⁷	40	45	46
Lead ⁸	7.8	4.2	4.7
Nickel ⁷	29	36	36
Zinc ⁷	29	23	60
pH - Corrosivity ⁹	7.5	8.0	NT
Flashpoint/Ignitability ¹⁰	>140	88	NT
Cyanide ¹¹	ND<0.2	ND<0.2	NT

- 1 All results are presented in milligrams per kilogram (mg/kg).
- 2 ft bgs - feet below ground surface.
- 3 EPA Method 5520C.
- 4 EPA Method 5520C/E/F.
- 5 EPA Method 8270 GCMS.
- 6 EPA Method 8240.
- 7 EPA Method 6010.
- 8 EPA Method 7421.
- 9 EPA Method 150.1, results in pH units.
- 10 EPA Method 1010, results in degrees F.
- 11 EPA Method 9010

3
 Table 1 RESULTS OF ORGANIC CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FROM MONITORING WELLS
 CHINATOWN REDEVELOPMENT PROJECT AREA

Purgeable Aromatics (EPA Method 8020)
 Petroleum Hydrocarbons (EPA Method 8015)

WELL	DATE	BENZENE LOD (mg/l) 0.0005/0.0002 *	TOLUENE LOD (mg/l) 0.0005/0.0002 *	ETHYL BENZENE LOD (mg/l) 0.0005/0.0002 *	XYLENES, TOTAL LOD (mg/l) 0.0005/0.0002 *	TPH AS GASOLINE LOD (mg/l) 0.25/0.05 **
MW-3	10-Mar-88	ND	ND	ND	ND	ND
	18-Mar-88	ND	ND	ND	ND	ND
	25-Mar-88	ND	ND	ND	1.2	ND
	1-Apr-88	0.7	0.4	ND	ND	ND
	15-Apr-88	ND	ND	ND	ND/ND (0.4)	ND/ND
	28-Apr-88 @	ND/ND (0.4)	ND/ND (0.4)	ND/ND (0.4)	ND	ND
	11-May-88	ND	ND	ND	ND	ND
	27-May-88	ND	ND	ND	ND	ND
	16-Jun-88	ND	ND	ND	ND	ND
	27-Jul-88	ND	ND	ND	ND	ND
	26-Aug-88	ND	ND	ND	ND	ND
	30-Sep-88	ND	ND (1.0)	ND (1.0)	ND (1.0)	ND
	2-Nov-88	ND (1.0)	ND	ND	ND	ND
	2-Dec-88	ND	ND	ND	ND	ND
	4-Jan-89	ND	0.0009	ND	ND	ND
	3-Feb-89	ND	0.0002 †	ND	ND	ND
3-Dec-90	ND	ND	ND	ND	ND	
8-Mar-91	ND	ND	ND	ND a	NT	
6-Jun-91	ND	ND	ND	ND	ND	
MW-7	4-Apr-89	ND	0.0007	0.0010	0.0012	ND
	3-May-89	ND	0.0012	0.0018	0.0048	0.27
	6-Jun-89	0.0010	0.001	0.0022	0.0011	0.40
	7-Jul-89	0.0002	0.001	0.00034	0.0059	0.56
	2-Aug-89	ND	0.0015	0.0054	0.0059	0.70
	7-Sep-89	ND	ND	ND	0.0015	0.59
	5-Oct-89	ND	0.0011	0.0006	0.0013	0.73
	2-Nov-89	0.0002	0.0010	0.0055	0.0036	0.63
	6-Dec-89	0.0006	0.0087	0.0059	0.0036	0.32
	3-Jan-90	0.0007	0.0007	0.0006	0.0013	0.16
	1-Feb-90	ND	0.0009	ND	0.0003	ND
	28-Feb-90	ND	0.0006	0.0004	0.0052	0.09
	11-Apr-90	ND	0.0007	0.0033	0.0029	0.13
	18-May-90	ND	0.0008	0.0014	0.0008	0.43
	13-Sep-90	ND	0.0019	ND	ND	NT
	3-Dec-90	0.0002	0.0024	0.0019	0.0012	0.32
	11-Feb-91	ND	ND	ND	ND	ND
	8-Mar-91	ND	ND	ND	ND a	ND
	6-Jun-91	ND	ND	0.0029	0.0078	0.32
	20-Dec-91	0.0002	ND b	0.0010	0.0020	0.11
27-Mar-92	0.0006 = 6 ppb	0.0009	0.0017	0.0035	0.14	
25-Jun-92	ND	0.0010	0.0017	0.0021	0.15	
21-Jan-93	ND	ND	ND	ND	ND	
MW-12	15-Feb-89	ND	ND	ND	ND	ND
	3-Mar-89	NT	NT	NT	0.0054	ND
	5-Apr-89	0.0014	0.0023	ND	0.0063	0.10
	2-May-89	0.026	0.0033	ND	0.012	0.18
	7-Jun-89	0.034	0.0037	ND	0.0059	0.12
	6-Jul-89	0.029	0.0025	ND	0.005	ND
	2-Aug-89	0.023	0.002	ND	0.0049/0.0058	ND/ND
	7-Sep-89 @	0.051/0.059	0.0016/0.0022	ND/ND	0.0086/0.0094	ND/ND
	5-Oct-89 @	0.037/0.040	0.0032/0.0031	ND/ND	0.0019	0.071
	2-Nov-89	0.0056	0.0011	ND	0.0017	0.06
	6-Dec-89	0.0082	0.0012	ND	0.0012	0.09
	3-Jan-90	0.0088	0.0010	ND	0.0005/0.0004	ND/ND
	1-Feb-90 @	0.0018/0.0024	0.0010/0.0004	ND/ND	0.0003	ND
	1-Mar-90	0.0016	0.0014	ND	0.0116	0.147
	11-Apr-90	0.0066	0.0174	0.0015	ND	ND
	18-May-90	ND	0.0009	ND	0.0002	NT
12-Sep-90	ND	ND	ND	0.0002 †	ND	
3-Dec-90	0.0006	0.0002 †	ND	ND	ND	

tank removal →

→ 110 ppb
 → 140 ppb
 = 150 ppb