

**Workplan to Define Extent of Groundwater
Contamination**

**Pacific Coast Building Products
1735 24th Street, Oakland, California**

March 6, 2000

Brunsing Associates, Inc.



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Extent of Groundwater
Contamination**

**Pacific Coast Building Products
1735 24th Street
Oakland, California**

STID 3826

March 6, 2000

prepared for:

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1.0 INTRODUCTION

This workplan was prepared by Brunsing Associates, Inc (BAI) for the Alameda County Environmental Health Services (ACEHS) on behalf of Pacific Coast Building Products to address contamination resulting from a former gasoline underground storage tank (UST) at 1735 24th Street, Oakland, California (Plate 1). BAI's July 1998 semi-annual groundwater monitoring report included a request for the ACEHS to review this site for closure. The ACEHS response dated August 13, 1998, stated that if immediate site closure is requested, grab groundwater samples must be collected in the verified downgradient direction of well MW-2. The field investigation proposed in this workplan consists of advancing three borings downgradient from well MW-2 and collecting a grab groundwater sample from each boring. A vicinity map is shown on Plate 1.

2.0 SITE DESCRIPTION

Prominent site structures, the former UST, and existing well locations are shown on the site plan (Plate 2). The site is at an approximate elevation of 9 feet above mean sea level (MSL). Depths to groundwater measured in onsite wells range seasonally from approximately 6 to 8 feet below ground surface (bgs). Based on BAI's groundwater monitoring reports, the groundwater flow direction has predominately been north, occasionally ranging slightly northeast or northwest. Groundwater elevations and the groundwater flow direction for January 28, 2000, is shown on Plate 3. Total petroleum hydrocarbon as gasoline concentrations in the groundwater samples collected on January 28, 2000, are shown on Plate 4. Based on BAI's previous investigations, shallow soils consist primarily of fine-grained soils. Post-remediation soil analytical results and contour maps are included in Appendix A. A brief description of the environmental work completed to date is included in Appendix B.

3.0 SCOPE OF INVESTIGATION

The purpose of this investigation is to evaluate the concentrations of petroleum hydrocarbons in groundwater downgradient from the former UST and well MW-2. The following tasks will be performed as part of this investigation:

- Notify Alameda County 72 hours prior to beginning drilling;
- Advance three soil borings downgradient from the former UST location and well MW-2;
- Collect one groundwater sample from each boring;
- Submit the groundwater samples to a California-certified laboratory for chemical analyses;
- Prepare a report of findings for the ACEHS documenting the results of the investigation.



4.0 SOIL BORING ADVANCEMENT AND SOIL SAMPLING

Three borings (B-10, B-11, and B-12) will be advanced to a depth not to exceed 15 feet bgs, using a C-57 licensed driller using a direct-push technology hydraulic drill rig. The borings will be advanced at the approximate locations shown on Plate 5. After sampling activities are complete, the soil borings will be backfilled to near grade with a cement/bentonite grout using a retraction grouting method. Asphalt patch will be placed at the surface to match the existing surface conditions. BAI will notify Larry Seto of the ACEHS 72 hours prior to commencing drilling. Prior to initiating drilling activities, a subsurface drilling permit and appropriate approvals for advancement of the borings will be obtained from the ACEHS and the City of Oakland. The Underground Service Alert (USA) will also be contacted.

The borings will be logged using the Unified Soil Classification System (USCS) by a qualified geologist or engineer to adequately describe the subsurface soils. Boring logs will be completed that document the soil type, sample depths, the depth of the vadose zone/groundwater interface and the presence of any soil odor. Each soil boring will be sampled for logging purposes only at least every five feet, at any change in lithology, at any sign of obvious contamination or when groundwater is encountered. Sampling will be conducted using a modified California split-spoon sampler lined with decontaminated brass or stainless steel tubes.

5.0 GROUNDWATER SAMPLING AND SAMPLE HANDLING

5.1 Groundwater Sample Collection

Each boring will be advanced to a depth below the water table and the groundwater within the annular space of the boring will be allowed to infiltrate sufficiently enough to facilitate the collection of a groundwater sample. A screen-point sampler and a single use polyethylene disposable bailer will be used to acquire the groundwater sample. Samples will be placed in laboratory-supplied sample vials. For volatile organic analyses, 40-milliliter vials with a teflon backed silicone septa in an open top lid will be used. The sample vials will be filled completely avoiding air bubbles and transported at approximately 4°C under chain-of-custody procedures to a California-certified laboratory for analysis.

5.2 Groundwater Chemical Analyses

The groundwater sample collected from each boring will be analyzed for the following:

- Total petroleum hydrocarbons (TPH) as gasoline by EPA Test Method 8015;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Test Method 8020;



- Methyl tertiary butyl ether (MTBE) by EPA Test Method 8020.

6.0 EQUIPMENT DECONTAMINATION AND WASTE DISPOSAL

All down-hole sampling equipment including the split-spoon sampler will be cleaned prior to and between uses to avoid potential cross contamination. The sampling equipment will be steam cleaned or decontaminated as follows:

- Non-phosphate detergent wash;
- Tap water rinse;
- Deionized water final rinse.

The rinseate water and drill cuttings will be collected and temporarily stored onsite in appropriately labeled 55-gallon drums until soil and groundwater analytical results are known and disposal can be initiated.

7.0 SITE HEALTH AND SAFETY PLAN

BAI's site health and safety plan previously submitted to the ACEHS will be followed for this investigation. The health and safety plan will be explained to all field personnel at an onsite safety meeting prior to initiating field activities.

8.0 REPORT OF FINDINGS

A report of findings that documents the results of this investigation will be submitted to Mr. Larry Seto of the ACEHS, the lead enforcement agency. The report will include a description of the investigative methods, analytical results, estimation of the limit of contamination, a description of the hydrogeology, and conclusions.

9.0 SCHEDULE

BAI is prepared to initiate this work within four weeks of approval of this workplan and after pre-approval is obtained from the California UST Cleanup Fund. The report of findings will be submitted within four weeks after the analytical results are received from the laboratory.

10.0 STATEMENT OF QUALIFICATION

This project will be completed under the direct supervision of a registered geologist or professional engineer in the state of California. Any correspondence containing interpretations, conclusions or recommendations will be signed and stamped by an appropriately registered professional.



11.0 DISTRIBUTION

Copies of this document have been distributed to the following individuals and agencies:

Mr. Larry Seto Original
Alameda County
Health Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Ms. Normita Callison 1 copy
Pacific Coast Building Products
5550 Roseville Road
North Highlands, California 95660



TABLE 1. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-1	10/14/88	7.99	0.88	1.1	1.1	ND	-	ND	-	-
MW-1	12/29/89	7.74	1.13	ND	ND	ND	ND	ND	ND (1)	-
MW-1	5/28/92	7.81	1.06	ND	ND	ND	ND	ND	0.003(2)	-
MW-1	9/3/92	7.90	0.97	ND	ND	ND	ND	ND	0.12 (2)	-
MW-1	11/24/92	7.90	0.97	ND	ND	ND	ND	ND	0.017 (2)	-
MW-1	3/9/93	7.38	1.49	ND	ND	ND	ND	ND	ND (1)	-
MW-1	7/21/93	7.68	1.19	ND	ND	ND	ND	ND	ND (1)	-
MW-1	11/3/93	7.83	1.04	ND	ND	ND	ND	ND	ND (1)	-
MW-1	2/1/94	7.30	1.57	ND	ND	ND	ND	ND	ND (1)	-
MW-1	6/2/94	7.43	1.44	ND	ND	ND	ND	ND	ND (1)	-
MW-1	9/1/94	7.70	1.17	ND	ND	ND	ND	ND	ND (1)	-
MW-1	12/13/94	6.90	1.97	ND	ND	ND	ND	ND	-	-
MW-1	3/7/95	7.30	1.57	0.06	3.8	ND	ND	ND	-	-
MW-1	6/9/95	7.87	1.00	0.09	12	0.8	0.5	1.3	-	-
MW-1	9/21/95	7.67	1.20	ND	4.1	ND	ND	ND	-	-
MW-1	12/18/95	7.15	1.72	ND	ND	ND	ND	ND	-	-
MW-1	2/29/96	6.74	2.13	0.09	1.4	0.5	ND	0.8	-	-
MW-1	7/15/96	7.76	1.11	-	-	-	-	-	-	-
MW-1	1/7/97	6.80	2.07	0.06	0.6	<0.5	<0.5	<0.5	-	-
MW-1	7/12/97	7.67	1.20	-	-	-	-	-	-	-
MW-1	1/26/98	6.93	1.94	<0.05	<0.5	<0.5	<0.5	1.1	-	-
MW-1	7/3/98	7.51	1.36	-	-	-	-	-	-	-
MW-1	1/13/99	7.63	1.24	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-1	9/27/99	7.77	1.10	-	-	-	-	-	-	-
MW-1	1/28/00	6.85	2.02	<0.05	<0.5	<0.5	<0.5	<0.5	-	<5.0



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MW-2	10/14/88	7.29	0.85	11	23	20	-	16	-	-
MW-2	12/29/89	6.87	1.27	4	200	6.7	ND	ND	0.22 (1)	-
MW-2	5/28/92	6.92	1.22	8.9	550	48	ND	13	ND (2)	-
MW-2	9/3/92	7.26	0.88	2.1	760	6.2	1.8	5.1	0.006 (2)	-
MW-2	11/24/92	7.28	0.86	4.2	370	15	3.4	9.5	ND (2)	-
MW-2	3/9/93	6.73	1.41	4.3	280	14	3.7	7.1	ND (1)	-
MW-2	7/21/93	7.02	1.12	3.4	250	9.6	2.5	11	ND(1)	-
MW-2	11/4/93	7.22	0.92	2.5	230	7.8	2.1	9.9	ND(1)	-
MW-2	2/1/94	6.93	1.21	3.4	240	17	ND	15	ND(1)	-
MW-2	6/2/94	6.86	1.28	3.0	150	9.8	3.0	10	ND(1)	-
MW-2	9/1/94	7.10	1.04	2.1	120	9.8	2.0	9.6	ND(1)	-
MW-2	12/13/94	6.58	1.56	2.0	200	10	2.7	11	-	-
MW-2	3/7/95	6.69	1.45	3.0	500	15	5.8	16	-	-
MW-2	6/9/95	7.00	1.14	2.1	300	14	5.8	13	-	-
MW-2	9/21/95	6.91	1.23	1.6	120	9.6	ND	15	-	-
MW-2	12/18/95	6.73	1.41	2.8	120	16	5.2	19	-	-
MW-2	2/29/96	6.36	1.78	1.7	170	15	2.9	17	-	-
MW-2	7/15/96	7.11	1.03	2.8	160	22	3.5	17	-	-
MW-2	1/7/97	6.40	1.74	3.0	350	25	8.1	24	-	-
MW-2	7/12/97	6.98	1.16	2.1	55	11	<2.5	18	-	-
MW-2	1/26/98	6.45	1.69	1.8	310	29	5.0	15	-	-
MW-2	7/3/98	6.91	1.23	1.9	85	9.3	1.8	17	-	-
MW-2	1/13/99	7.07	1.07	2.1	48	33	2.0	16	-	-
MW-2	9/27/99	7.22	0.92	1.5	20	6.8	2.6	11	-	-
MW-2	1/28/00	6.61	1.53	1.3	22	6.4	1.5	11	-	<5.0



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MW-3	10/14/88	8.25	0.88	3.4	ND	ND	-	2.8	-	-
MW-3	12/29/89	7.79	1.34	ND	ND	ND	ND	ND	0.205 (1)	-
MW-3	5/28/92	7.83	1.30	ND	0.8	0.5	ND	ND	0.016 (2)	-
MW-3	9/3/92	8.22	0.91	ND	ND	ND	ND	ND	0.033 (2)	-
MW-3	11/24/92	8.29	0.84	ND	ND	ND	ND	ND	0.011 (2)	-
MW-3	3/9/93	7.30	1.83	0.1	1.8	ND	ND	ND	ND(1)	-
MW-3	7/21/93	7.87	1.26	ND	ND	ND	ND	ND	ND(1)	-
MW-3	11/4/93	8.23	0.90	0.07	0.6	0.5	ND	ND	ND(1)	-
MW-3	2/1/94	7.56	1.57	ND	ND	ND	ND	ND	ND(1)	-
MW-3	6/2/94	7.46	1.67	0.06	ND	ND	ND	ND	ND(1)	-
MW-3	9/1/94	7.83	1.30	0.07	1.7	0.9	ND	ND	ND(1)	-
MW-3	12/13/94	7.07	2.06	0.06	1.4	ND	ND	ND	-	-
MW-3	3/8/95	7.27	1.86	0.06	1.5	ND	ND	ND	-	-
MW-3	6/9/95	7.79	1.34	0.10	5.7	ND	ND	ND	-	-
MW-3	9/21/95	7.87	1.26	ND	1.5	ND	ND	ND	-	-
MW-3	12/18/95	7.30	1.83	ND	1.3	ND	ND	ND	-	-
MW-3	2/29/96	6.84	2.29	ND	2.1	0.6	ND	0.7	-	-
MW-3	7/15/96	7.79	1.34	-	-	-	-	-	-	-
MW-3	1/7/97	6.62	2.51	0.05	1.0	<0.5	<0.5	<0.5	-	-
MW-3	7/12/97	7.83	1.30	-	-	-	-	-	-	-
MW-3	1/26/98	6.60	2.53	<0.05	0.8	<0.5	<0.5	<0.5	-	-
MW-3	7/3/98	7.48	1.65	-	-	-	-	-	-	-
MW-3	1/13/99	7.63	1.50	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-3	9/27/99	7.94	1.19	-	-	-	-	-	-	-
MW-3	1/28/00	7.12	2.01	<0.05	<0.5	<0.5	<0.5	<0.5	-	<5.0



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MW-4	10/14/88	8.33	0.74	4.6	1.2	ND	-	2.2	-	-
MW-4	12/29/89	8.08	0.99	0.5	0.7	ND	ND	ND	ND (1)	-
MW-4	5/28/92	8.19	0.88	0.27	8.8	1	ND	3.2	0.030 (2)	-
MW-4	9/3/92	8.37	0.70	0.20	4.5	4.4	ND	1.9	0.022 (2)	-
MW-4	11/24/92	8.28	0.79	0.14	3.2	3.2	ND	1.0	0.005 (2)	-
MW-4	3/9/93	7.98	1.09	0.47	10	ND	ND	2.5	ND (1)	-
MW-4	7/21/93	8.17	0.90	0.28	4.4	5.9	ND	ND	ND(1)	-
MW-4	11/4/93	8.14	0.93	0.08	1.3	1.6	ND	ND	ND(1)	-
MW-4	2/1/94	7.79	1.28	0.08	ND	ND	ND	ND	ND(1)	-
MW-4	6/2/94	7.53	1.54	0.30	3.1	2.9	ND	0.8	ND(1)	-
MW-4	9/1/94	7.69	1.38	0.12	1.6	ND	ND	ND	ND(1)	-
MW-4	12/13/94	6.70	2.37	ND	ND	ND	ND	ND	-	-
MW-4	3/8/95	6.83	2.24	0.09	ND	ND	ND	ND	-	-
MW-4	6/9/95	7.66	1.41	0.19	ND	ND	ND	ND	-	-
MW-4	9/21/95	7.93	1.14	0.09	ND	ND	ND	ND	-	-
MW-4	12/18/95	6.98	2.09	-	-	-	-	-	-	-
MW-4	2/29/96	6.54	2.53	0.14	1.6	1.0	ND	0.6	-	-
MW-4	7/15/96	7.74	1.33	-	-	-	-	-	-	-
MW-4	1/7/97	6.46	2.61	0.09	1.0	0.5	<0.5	<0.5	-	-
MW-4	7/12/97	7.82	1.25	-	-	-	-	-	-	-
MW-4	1/26/98	6.67	2.40	0.09	1.1	0.8	<0.5	<0.5	-	-
MW-4	7/3/98	7.45	1.62	-	-	-	-	-	-	-
MW-4	1/13/99	7.51	1.56	0.12	1.1	0.62	<0.5	0.57	-	-
MW-4	9/27/99	7.88	1.19	-	-	-	-	-	-	-
MW-4	1/28/00	6.73	2.34	0.072	<0.5	<0.5	<0.5	<0.5	-	<5.0



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MW-5	10/14/88	8.04	0.89	3.2	ND	ND	-	ND	-	-
MW-5	12/29/89	7.40	1.53	ND	ND	ND	ND	ND	ND (1)	-
MW-5	5/28/92	7.53	1.40	ND	ND	ND	ND	ND	0.008 (2)	-
MW-5	9/3/92	8.02	0.91	ND	ND	ND	ND	ND	0.034 (2)	-
MW-5	11/24/92	7.75	1.18	ND	ND	ND	ND	ND	0.011 (2)	-
MW-5	3/9/93	6.91	2.02	ND	ND	ND	ND	ND	ND (1)	-
MW-5	7/21/93	7.57	1.36	ND	ND	ND	ND	ND	ND(1)	-
MW-5	11/4/93	7.77	1.16	ND	ND	ND	ND	ND	ND(1)	-
MW-5	2/1/94	7.05	1.88	ND	ND	ND	ND	ND	ND(1)	-
MW-5	6/2/94	7.18	1.75	ND	ND	ND	ND	ND	ND(1)	-
MW-5	9/1/94	7.53	1.40	ND	ND	ND	ND	ND	-	-
MW-5	3/8/95	6.67	2.26	ND	ND	ND	ND	ND	-	-
MW-5	6/9/95	7.33	1.60	ND	ND	ND	ND	ND	-	-
MW-5	9/21/95	7.67	1.26	ND	ND	ND	ND	ND	-	-
MW-5	12/18/95	6.62	2.31	-	-	-	-	-	-	-
MW-5	2/29/96	6.16	2.77	ND	ND	ND	ND	ND	-	-
MW-5	7/15/96	7.47	1.46	-	-	-	-	-	-	-
MW-5	1/7/97	6.11	2.82	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	7/12/97	7.61	1.32	-	-	-	-	-	-	-
MW-5	1/26/98	6.17	2.76	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	7/3/98	7.23	1.70	-	-	-	-	-	-	-
MW-5	1/13/99	7.27	1.66	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	9/27/99	7.76	1.17	-	-	-	-	-	-	-
MW-5	1/28/00	6.43	2.50	<0.05	<0.5	<0.5	<0.5	<0.5	-	<5.0



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MW-6	12/29/89	5.02	1.11	1.1	5.4	4.5	ND	ND	ND (1)	-
MW-6	3/9/93	5.10	1.03	2.3	2.3	2.8	ND	3.1	ND (1)	-
MW-6	7/21/93	5.23	0.90	0.59	ND	7.6	ND	ND	ND(1)	-
MW-6	11/4/93	5.25	0.88	1.5	ND	1.2	ND	0.7	ND(1)	-
MW-6	2/1/94	5.05	1.08	1.9	2.5	3.9	1.6	1.1	ND(1)	-
MW-6	6/2/94	4.49	1.64	1.3	ND	1	ND	ND	ND(1)	-
MW-6	9/1/94	4.53	1.60	2.2	ND	1.7	ND	ND	ND(1)	-
MW-6	12/13/94	4.27	1.86	0.66 (3)	ND	ND	ND	ND	-	-
MW-6	3/8/95	3.37	2.76	1.0 (3)	ND	ND	ND	ND	-	-
MW-6	6/9/95	4.40	1.73	1.5	ND	3.3	ND	ND	-	-
MW-6	9/21/95	4.69	1.44	0.28	ND	ND	ND	ND	-	-
MW-6	12/18/95	4.42	1.71	-	-	-	-	-	-	-

Note: Based on the February 6, 1996 letter from Jennifer Eberle, monitoring of well MW-6 is no longer required.



TABLE 1. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-7	12/29/89	8.35	-3.32	ND	ND	ND	ND	ND	0.235 (1)	-
MW-7	3/9/93	13.60	-8.57	ND	ND	ND	ND	ND	ND (1)	-
MW-7	7/21/93	12.59	-7.56	ND	ND	ND	ND	ND	ND(1)	-
MW-7	11/4/93	9.84	-4.81	ND	ND	ND	ND	ND	ND(1)	-
MW-7	2/1/94	10.38	-5.35	ND	ND	ND	ND	ND	ND(1)	-
MW-7	6/2/94	10.10	-5.07	ND	ND	ND	ND	ND	ND(1)	-
MW-7	9/1/94	9.63	-4.60	ND	ND	ND	ND	ND	ND(1)	-
MW-7	12/13/94	11.27	-6.24	ND	ND	ND	ND	ND	-	-
MW-7	3/7/95	9.68	-4.65	ND	ND	ND	ND	ND	-	-
MW-7	6/9/95	9.37	-4.34	ND	ND	ND	ND	ND	-	-
MW-7	9/21/95	9.43	-4.40	ND	ND	ND	ND	ND	-	-
MW-7	12/18/95	13.28	-8.25	-	-	-	-	-	-	-
MW-7	2/29/96	11.70	-6.67	ND	ND	ND	ND	ND	-	-
MW-7	7/15/96	11.12	-6.09	-	-	-	-	-	-	-
MW-7	1/7/97	14.35	-9.32	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-7	7/12/97	15.12	-10.09	-	-	-	-	-	-	-
MW-7	1/26/98	15.28	-10.25	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-7	7/3/98	14.10	-9.07	-	-	-	-	-	-	-
MW-7	1/13/99	14.55	-9.52	<0.05	<0.5	<0.5	<0.5	<0.5	-	-
MW-7	9/27/99	14.03	-9.00	-	-	-	-	-	-	-
MW-7	1/28/00	10.91	-5.88	<0.05	<0.5	<0.5	<0.5	<0.5	-	<5.0

Notes:

MTBE = methyl tertiary butyl ether. TPH = total petroleum hydrocarbons.

(1)=Organic Lead, (2)=Total Lead, and (3)=chromatographic peak array does not match gasoline standard.

ND = not detected at laboratory reporting limit, <= less than given laboratory reporting limit.

µg/L = micrograms per liter. mg/l = milligrams per liter. - = not analyzed.

MSL = mean seal level

Groundwater elevations based on the following well casing elevations in feet above MSL:

MW-1 (8.87'), MW-2 (8.14'), MW-3 (9.13'), MW-4 (9.07'), MW-5 (8.93'), MW-6 (6.13') and MW-7 (5.03').





PROJECT NUMBER: 29.13
 PACIFIC SUPPLY COMPANY
 OAKLAND, CALIFORNIA

DRAWING NUMBER: 29.13-01

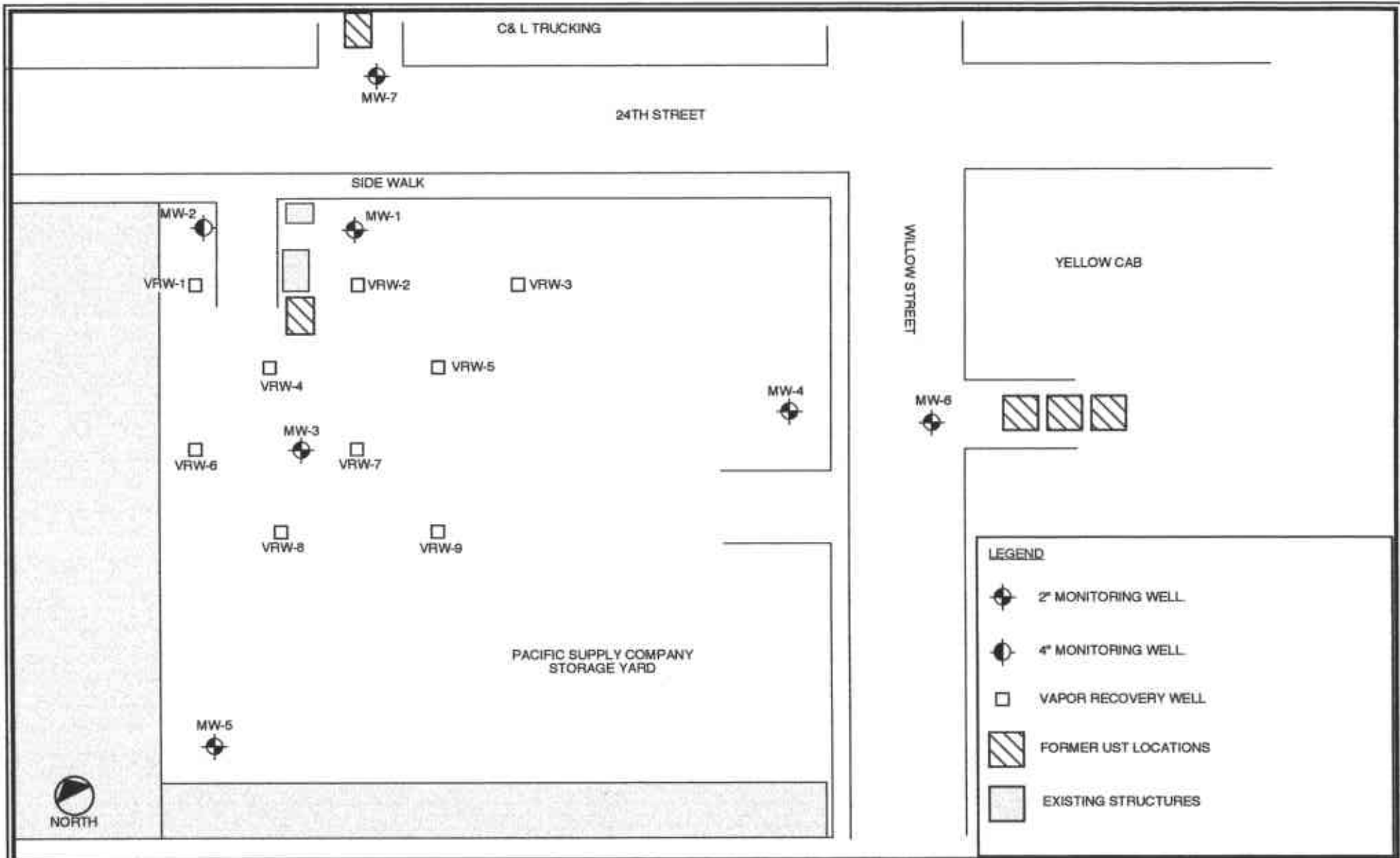
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APPROVED BY:	DMD	
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SCALE:

BACE Environmental
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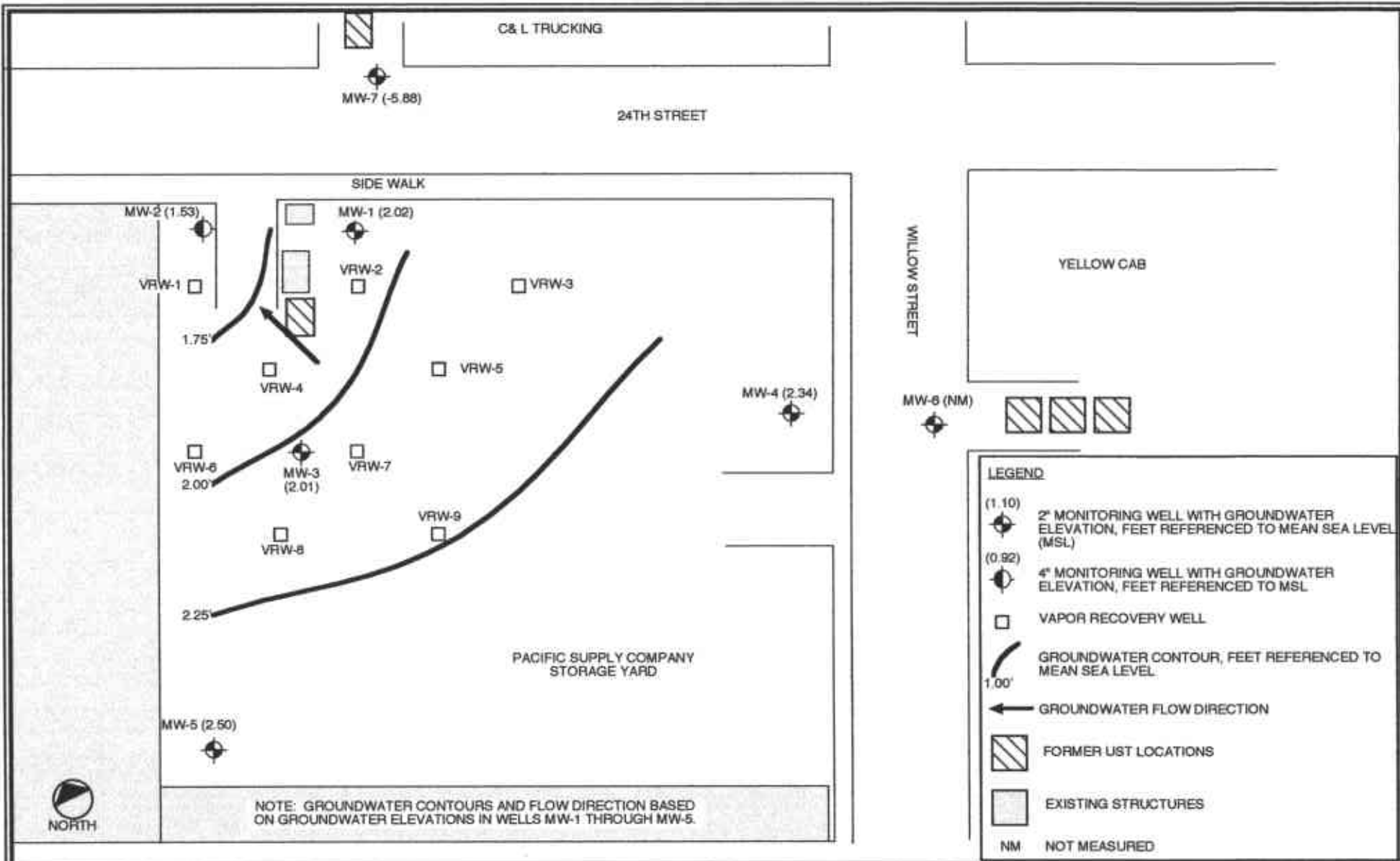
PLATE 1
 VICINITY MAP
 PACIFIC SUPPLY COMPANY
 1735 24TH STREET
 OAKLAND, CALIFORNIA



PROJECT NUMBER: 29.13
 PACIFIC SUPPLY COMPANY
 OAKLAND, CALIFORNIA
 DRAWING NUMBER: 29.13-02
 DRAWN BY: TFA 2/1/2000
 APPROVED BY: DMD
 SCALE: 1 inch = 50 Feet

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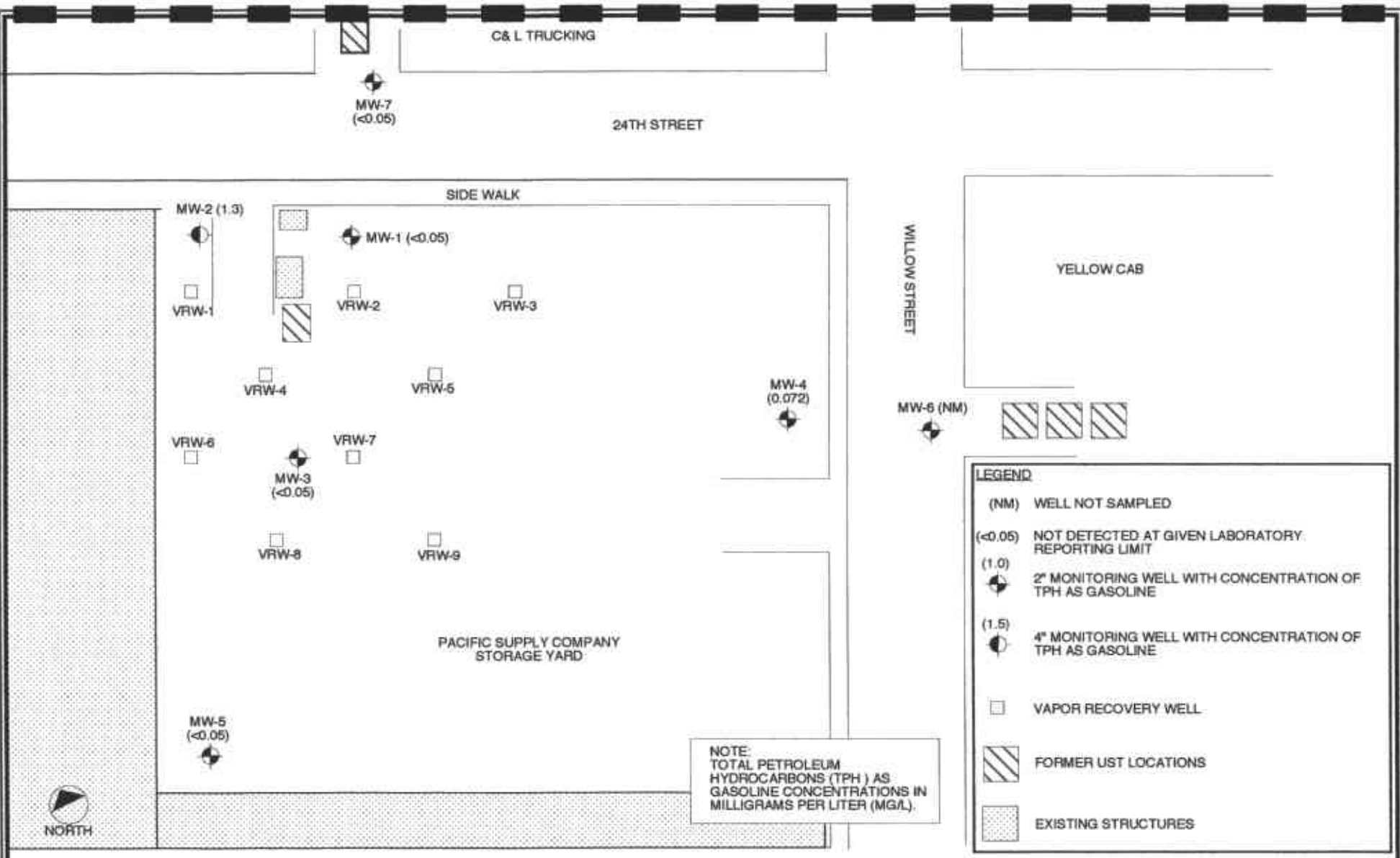
PLATE 2
SITE PLAN
 PACIFIC SUPPLY COMPANY
 1735 24TH STREET
 OAKLAND, CALIFORNIA



PROJECT NUMBER: 29.13
 PACIFIC SUPPLY COMPANY
 OAKLAND, CALIFORNIA
 DRAWING NUMBER: 29.13-02
 DRAWN BY: TFA 2/1/2000
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 SCALE: 1 inch = 50 Feet

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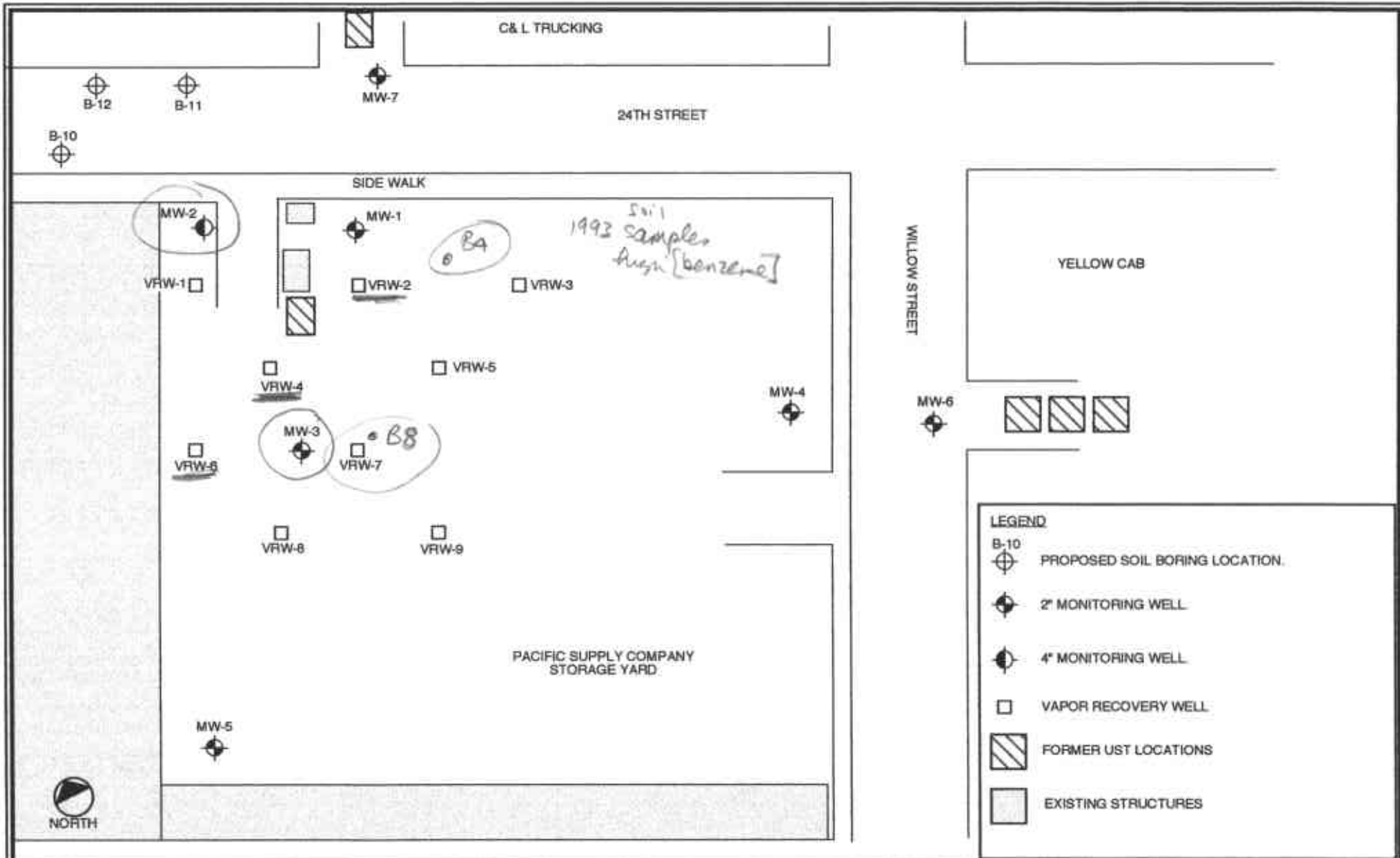
PLATE 3
 GROUNDWATER ELEVATIONS
 JANUARY 28, 2000
 PACIFIC SUPPLY COMPANY
 1735 24TH STREET
 OAKLAND, CALIFORNIA



PROJECT NUMBER: 29.13		
PACIFIC SUPPLY COMPANY		
OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.13		
REVISED BY:	TFA	2/17/2000
APPROVED BY:	DMD	
SCALE: 1 Inch = 50 Feet		

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PLATE 4
TOTAL PETROLEUM HYDROCARBONS
AS GASOLINE IN GROUNDWATER
 JANUARY 28, 2000
 PACIFIC SUPPLY COMPANY
 1735 24TH STREET
 OAKLAND, CALIFORNIA



PROJECT NUMBER: 29.13
 PACIFIC SUPPLY COMPANY
 OAKLAND, CALIFORNIA
 DRAWING NUMBER: 29.13-02
 DRAWN BY: TFA 2/1/2000
 APPROVED BY: DMD
 SCALE: 1 inch = 50 Feet

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PLATE 5
 PROPOSED SOIL BORING
 LOCATIONS
 PACIFIC SUPPLY COMPANY
 1735 24TH STREET
 OAKLAND, CALIFORNIA

APPENDIX A

**Post-Remediation Soil Analytical Results and
Contour Maps**



TABLE 2
SOIL ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

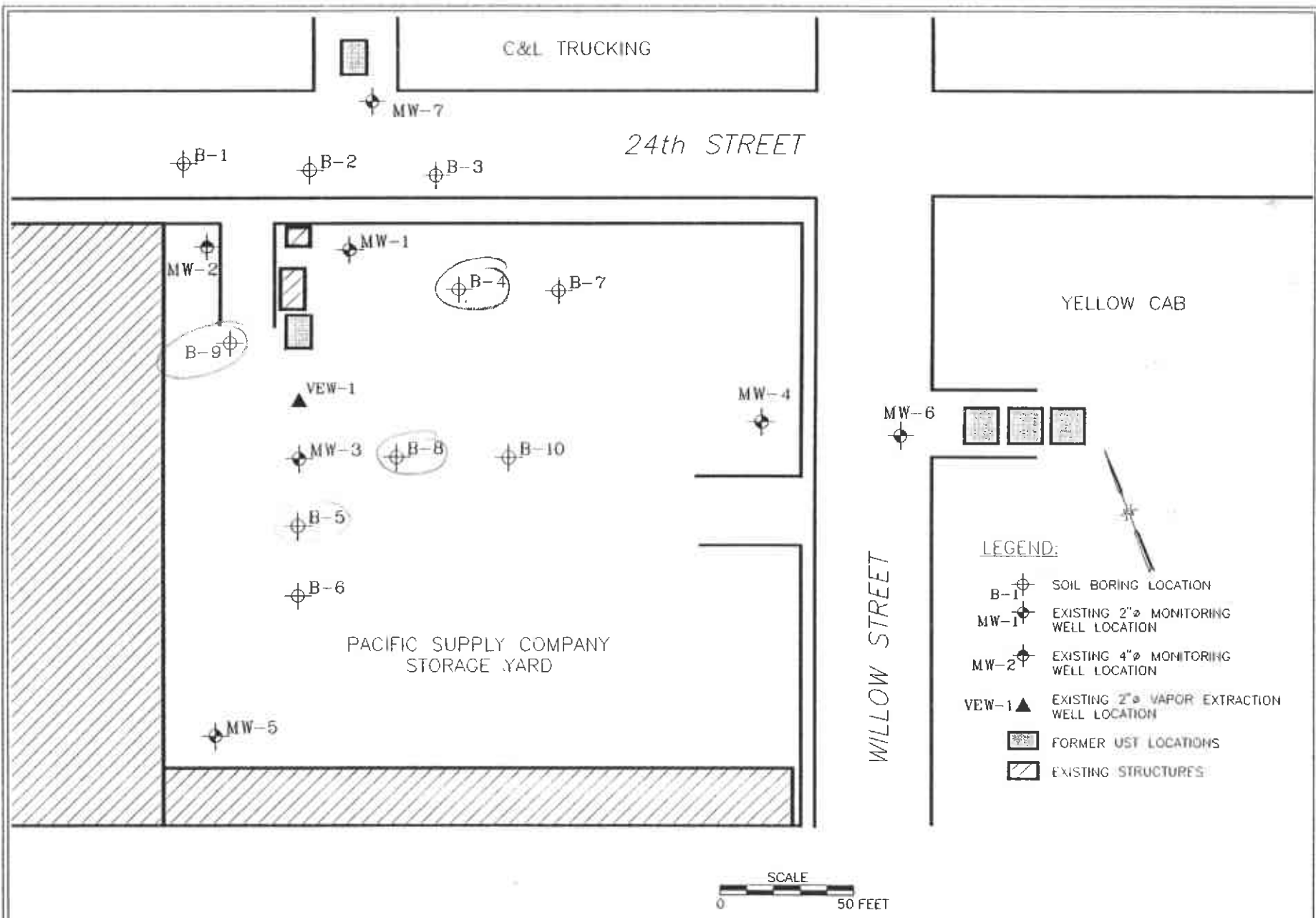
Sampling Date	Lab Number	Descriptor	Benzene µg/kg	Toluene µg/kg	Ethylbenzene µg/kg	Xylene µg/kg	TPH (gasoline) mg/kg
3/5/93	1691-1	B1 @ 3'	ND	ND	ND	ND	ND
3/5/93	1691-2	B2 @ 6'	ND	ND	ND	ND	ND
3/5/93	1691-3	B3 @ 8'	ND	ND	ND	ND	ND
3/5/93	1691-4	B4 @ 8'	28000	17000	73000	43000	7000
3/5/93	1691-5	B5 @ 7'	1600	2400	10000	6200	900
3/5/93	1691-6	B6 @ 7'	71	38	78	100	10
3/5/93	1691-7	B7 @ 7'	30	42	30	110	10
3/5/93	1691-8	B8 @ 2.5'	10000	41000	21000	91000	2200
3/5/93	1691-9	B9 @ 8.5'	1200	1500	3700	6700	910
3/5/93	1691-10	B10 @ 6'	ND	5.0	ND	ND	ND

* See original laboratory report dated 3/22/93
for complete results.

TABLE 3
SOIL ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

Well Identification	Depth of Sample (ft)	TPH (gasoline) mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Xylene mg/Kg
MW-1	8.0	26	ND	0.22	0.85
MW-2	7.5	1400	0.99	0.70	1.10
MW-3	7.5	1300	0.53	5.90	22.00
MW-3	8.0	3700	2.40	8.90	12.00

Drawn By: NORTH GRAPHICS • San Mateo, California • (415) 572-8690



DATE: 5-6-93	PROJECT NO:	29.9
CHECKED BY:	MEV	5-7-93
APPROVED BY:	MEV	5-7-93
DRAWN BY:	--NG--	5-6-93
REV:	△	

PACIFIC SUPPLY CO.
 1735 24TH STREET
 OAKLAND, CALIFORNIA

BACE ENVIRONMENTAL


FIGURE 2
 SITE PLAN

APPENDIX B

Site Background and History



Site History and Background

Monitoring wells MW-1 through MW-5 were constructed in September 1988 as the first phase of a soil and groundwater investigation. Monitoring wells MW-6 and MW-7 were constructed on December 19, 1989 during Phase II of the same investigation. The construction and sampling of these wells are documented in BAI's Report of Findings, dated March 23, 1990.

Vapor recovery wells VRW-1 through VRW-9 were constructed in August 1993 as part of a vapor recovery system. Installation of these wells were documented in a February 7, 1994 report. A vapor extraction system was installed in the Fall of 1993 and began operation on December 26, 1993. This system consisted of an internal combustion engine with a spray aeration tank for treatment of groundwater and activated carbon treatment of groundwater prior to discharge. The internal combustion unit and spray aeration unit was manufactured by Remediation Service International (RSI), under the trade name Spray Aeration Vapor Extraction (SAVE) system.

On June 28, 1996, the treatment system was shut down with the concurrence of Pacific Supply Company. Prior to shut down, the system had destroyed an estimated 6,550 pounds of petroleum hydrocarbons since start of operations on December 26, 1993. After shut down, the water in the water tank was treated and discharged to the sanitary sewer under the existing permit and the inside of the tank was cleaned on July 15, 1996.

The permit with the Bay Area Air Quality Management District (BAAQMD) expired on September 1, 1996, and was not renewed. The water discharge permit was discontinued on July 31, 1996. The total volume of water discharged to the sanitary sewer was 151,089 gallons. In December 1996, the shut down and decommissioning of the system was authorized by Jennifer Eberle of the Alameda County Department of Health Services. Decommissioning of the system hardware is complete.

