Engineers
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August 15, 1994

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Subject: Work Plan for Focused Soil Remediation, East Parcel
Del Monte Plant 35, Emeryville, California

Enclosed is a copy of a work plan for excavating soil containing chlorinated hydrocarbons on the East Parcel at Plant 35 in Emeryville. Del Monte would like to conduct this limited soil remediation activity in advance of site demolition for the purpose of removing soil that may be acting as a continuing source of chlorinated hydrocarbons in groundwater beneath the East Parcel. Del Monte would like to conduct the soil excavation during the week of August 22nd.

Please call me with any questions that you may have. I can be reached at (510) 251-2888 ext 2189.

Sincerely,

CH2M HILL

Madeline Wall

Madeline Wall
Project Manager

cc: Dr. Ravi Arulanantham/ACDEH/RWQCB
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Work Plan
for
Focused Soil Remediation
East Parcel, Del Monte Plant 35

Prepared for
Del Monte Foods, San Francisco

Prepared by
CH2M HILL, Oakland

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Section 1
Introduction

This document presents a plan for focused soil remediation at Del Monte Plant 35, located at 1250 Park Avenue and 4204 Hollis Street in Emeryville, California. The remediation focuses on soil containing chlorinated hydrocarbons on the East Parcel of the property. The soil is believed to be contributing to the presence of chlorinated hydrocarbons in the groundwater beneath the main processing building and east of the boiler house and label room (see Figure 1-1).

1.1 Purpose

The purpose of the focused soil remediation is to remove a potential source of chlorinated hydrocarbons in groundwater. Del Monte had initially planned to conduct this activity along with other remediation activities after demolition of site buildings and other property improvements. To avoid delaying the potential source removal, Del Monte has decided to excavate accessible soil containing chlorinated hydrocarbons before the facility is demolished.

1.2 Background

Between March and June 1994, Del Monte investigated the presence of chlorinated hydrocarbons in soil and groundwater on the East Parcel of the Plant 35 property. Results were reported in *Supplemental Onsite Investigation Report for Del Monte Plant 35* (prepared by CH2M HILL dated May 1994) and a technical memorandum from CH2M HILL to Del Monte dated August 12, 1994.

Results of the investigation activities indicated that groundwater beneath the main processing building and east of the boiler house and label room contained chlorinated hydrocarbons. The highest concentrations were detected between the boiler house and label room and the foundation of the former warehouses. Maximum concentrations of chlorinated hydrocarbons detected in groundwater samples include:

• Tetrachloroethene	520 ppb
• Trichloroethene	130 ppb
• Chloromethane	340 ppb
• Cis-1,2-dichloroethene	250 ppb
• Vinyl chloride	120 ppb

Soil samples were collected in the areas where the highest concentrations of chlorinated hydrocarbons were detected in groundwater. Maximum concentration of chlorinated hydrocarbons in soil samples include:

• Tetrachloroethene	8.2 ppm

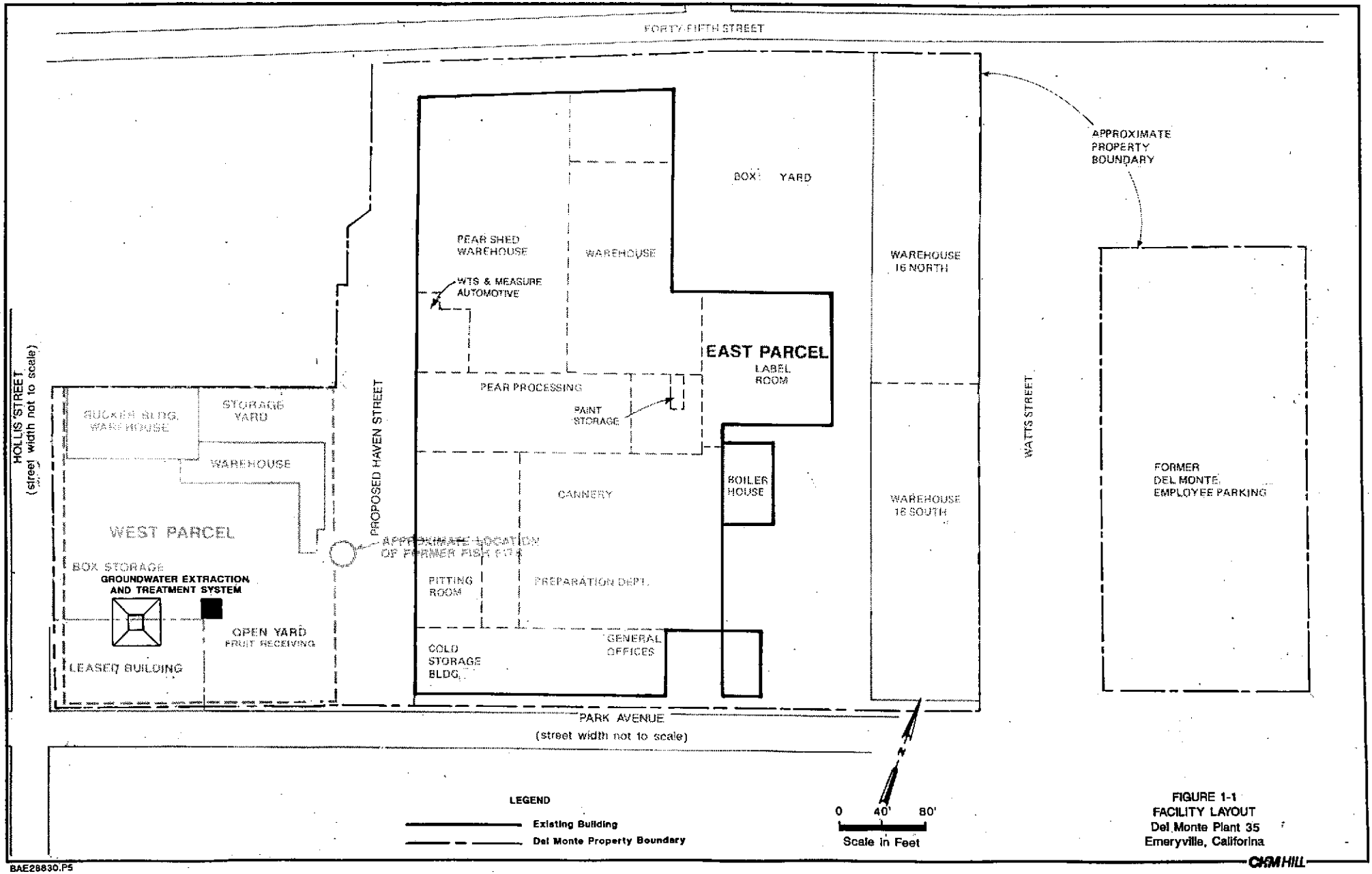

FIGURE 1-1
FACILITY LAYOUT
Del Monte Plant 35
Emeryville, California

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- Trichloroethene 0.21 ppm
- Chloromethane 0.0030 ppm
- Cis-1,2-dichloroethene 0.390 ppm
- Vinyl chloride 0.0082 ppm

Chlorinated hydrocarbons were primarily detected in soil beneath the paved area between the label room and the former warehouse foundation. Two sets of railroad tracks run through this area. Soil sample locations are shown on Figure 1-2 and analytical results are provided in Table 1-1.

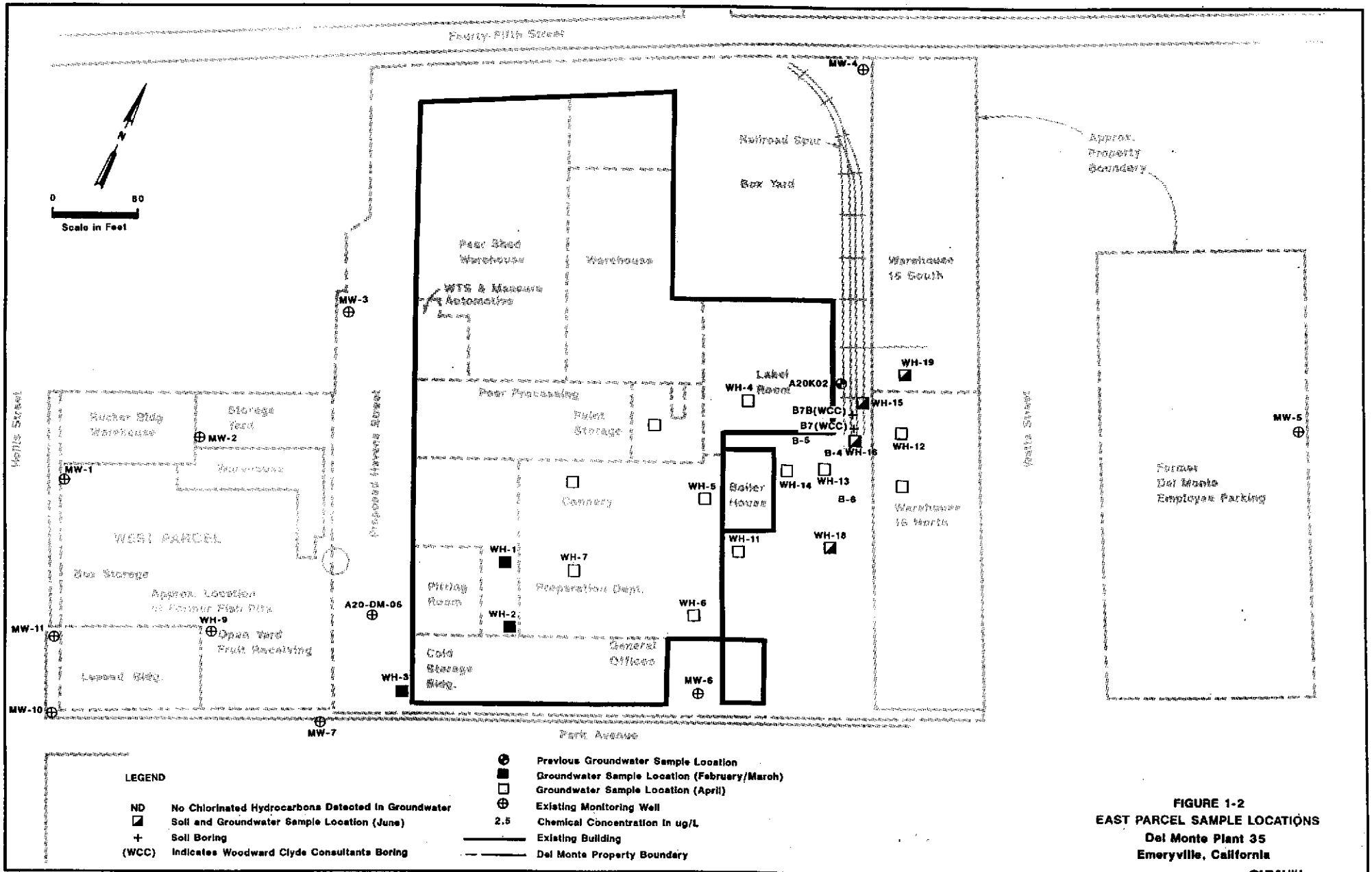

FIGURE 1-2
EAST PARCEL SAMPLE LOCATIONS
Del Monte Plant 35
Emeryville, California

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Table 1-1

Results of Onsite Soil Sample Analyses

Date Sampled: April -June 1994

Del Monte Plant 35, Emeryville, California

Units are mg/kg

Sample Location	Analytes												
	Trans-1,2-Dichloro-ethene	Bromodi-chloro-methane	Methylene Chloride	Cis-1,2-dichloro-ethene	Trichloro-ethene	Tetra-chloro-ethene	Chloro-methane	1,1-Dichloro-ethene	Vinyl Chloride	TPH Motor Oil	TPH Kerosene	[illegible] UNK HC	[illegible] UNK HC
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WH-15 (8.5-9')	<0.001	ND	ND	<0.001	<0.001	<0.001	<0.002	<0.001	ND	ND	70.0	ND	ND
WH-16 (8.5-9')	0.0008	ND	ND	0.0059	0.0046	0.0096	0.0030	0.0008	ND	ND	<1.0	ND	ND
WH-18 (9-9.5')	<0.0005	ND	ND	0.0008	<0.0005	0.0009	<0.0005	<0.0005	ND	ND	<1.0	ND	ND
WH-19 (11.5-12')	<0.0005	ND	ND	<0.0005	<0.0005	0.0005	<0.0005	0.0008	ND	ND	<1.0	ND	ND
B-4 (7.5-8')	[illegible]	ND	ND	0.0051	0.0011	0.0010	0.0077	0.0010	ND	ND	[illegible]	ND	ND
B-4 (12.5-13')	0.015	ND	ND	[illegible]	0.0220	0.0035	0.0290	0.0011	ND	ND	<1.0	ND	ND
B-4 (7.5-8')	0.0008	ND	ND	[illegible]	0.0013	0.0005	0.0043	0.0009	ND	ND	8.80	ND	ND
B-6 (8.5-9')	0.0009	ND	ND	0.0014	0.0023	0.0024	0.0016	0.0009	ND	ND	<1.0	ND	ND
WCC													
B7 (6.5')	[illegible]	[illegible]	<0.005	0.380	0.20	0.340	ND	ND	0.0082	45.0	[illegible]	ND	[illegible]
B7 (8.0')	<0.010	<0.010	<0.010	0.240	[illegible]	0.280	ND	ND	<0.010	[illegible]	[illegible]	[illegible]	[illegible]
B7B (7.5')	<0.005	<0.005	[illegible]	0.390	[illegible]	[illegible]	ND	ND	<0.005	[illegible]	<1.0	[illegible]	[illegible]
B7B (9')	<0.005	<0.005	[illegible]	[illegible]	[illegible]	[illegible]	ND	ND	<0.005	[illegible]	<1.0	[illegible]	[illegible]
B7B (10.5')	<0.005	<0.005	0.0150	[illegible]	[illegible]	[illegible]	ND	ND	<0.005	<10	<1.0	ND	[illegible]

Note:

1. "<" indicates that the laboratory detection limit was not exceeded
2. ND = not detected
3. TEPH = total extractable petroleum hydrocarbons
4. TPH = total petroleum hydrocarbons
5. UNK HC = unknown hydrocarbon
6. CH2M HILL refers to samples collected by CH2M HLL
7. WCC refers to samples collected by Woodward Clyde Consultants

Section 2
Approach

2.1 General Overview

The focused soil remediation will include the removal of approximately 600 cubic yards of soil that has been identified as a potential source of chlorinated hydrocarbons in groundwater. The excavated soil will be transferred to a prepared stockpile area located north of the label room and spread uniformly to enhance volatilization. The excavated area will be backfilled with clean fill material and compacted. The stockpiled soil will be sampled approximately 3 months later and recommendations on soil disposition will be made.

2.2 Target Clean-up Levels

The target clean-up level for this removal action will be as shown below:

Compound	Proposed Cleanup Level (mg/kg)	EPA PRG for Residential at 10^{-6}* (mg/kg)
Bromodichloromethane	1	2.9
Chloromethane	1	3.7
1,1-dichloroethene	0.07	0.07
Cis-1,2-dichloroethene	1	210
Trans-1,2-dicholorethene	1	620
Methylene Chloride	1	22
Tetrachloroethene	1	22
Trichloroethene	1	14
Vinyl Chloride	0.0097	0.0097

***USEPA Region IX Preliminary Remediation Goals (PRGs), First Half 1994.**

The primary propose of removing soil containing chlorinated hydrocarbons is to protect groundwater quality. The proposed cleanup levels are intended as criteria for removal of soil that could potentially act as a continuing source of chlorinated hydrocarbons to

groundwater. Protection of public health was also considered when proposing these clean up levels. The table above lists the EPA Region IX Preliminary Remediation Goals (PRGs) for chlorinated hydrocarbons in soil in a residential setting for an increased cancer risk of 1×10^{-6}.[1] The proposed clean up levels for groundwater protection are well below the PRGs except two that are proposed at the PRG: 1,1-dichlorothene and vinyl chloride.

The clean up levels will be used to determine the extent, both areal and depth, to which soil will be excavated. Soil beneath buildings or other structures will be left in place for removal after site demolition. Soil at depths that encounter groundwater sufficient to make excavation impractical will not be removed.

2.3 Estimated Area and Depth of Excavation

The target area of excavation is shown in Figure 2-1. The area is based on analytical results of soil samples. The target area is approximately 30 feet by 40 feet. The maximum depth of excavation is expected to be 10 to 15 feet below ground surface (bgs).

[1]PRGs are developed by EPA based on EPA toxicity values for the specific compound and health-protective exposure assumptions to develop safe contaminant levels in environmental media. PRGs for soil consider exposure from ingestion and inhalation of particulate and volatiles, including exposure to indoor air from soil gas.

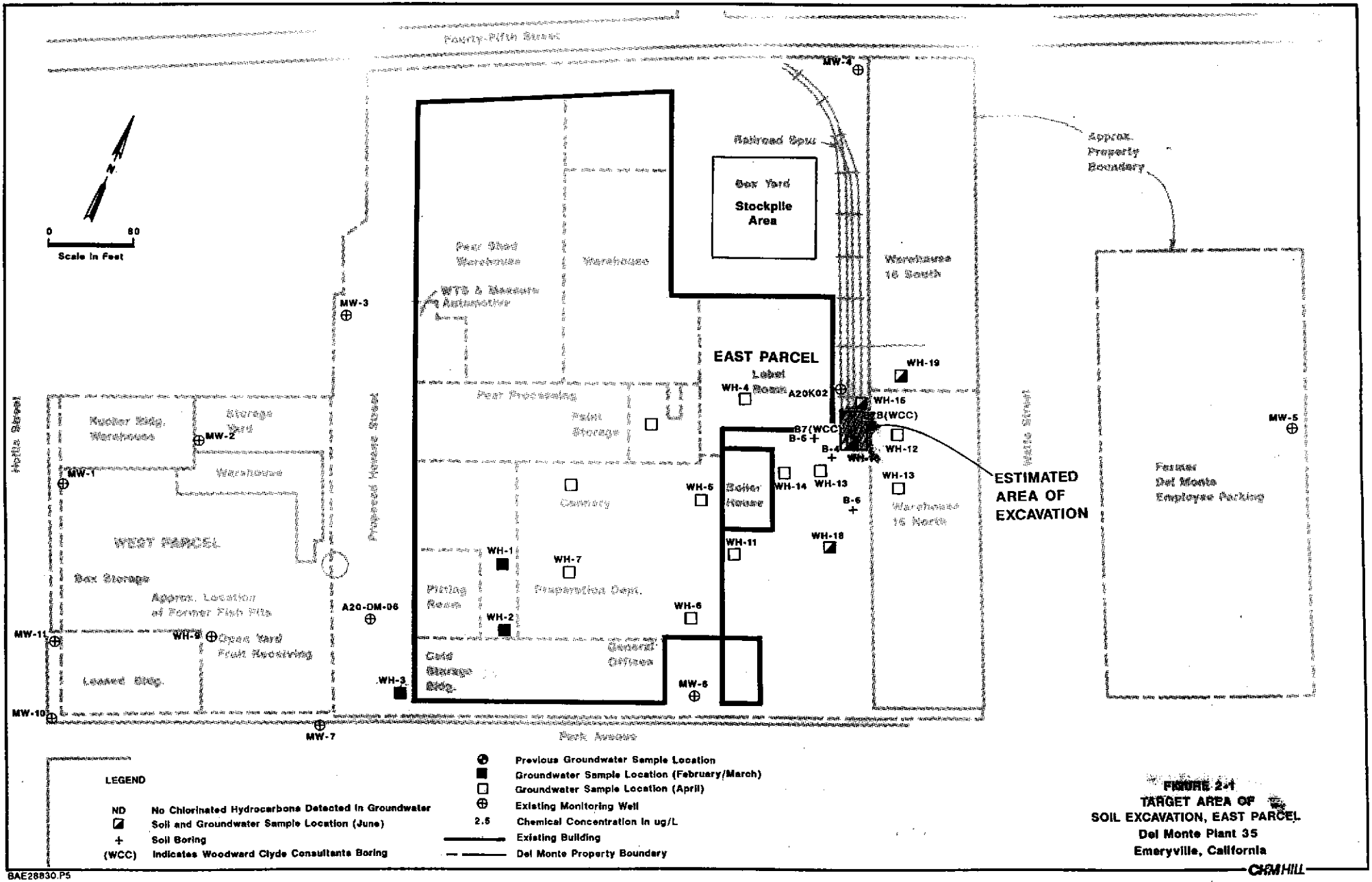

FIGURE 2-1
TARGET AREA OF SOIL EXCAVATION, EAST PARCEL
Del Monte Plant 35
Emeryville, California

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Section 3

Field Preparation

3.1 Health and Safety Plan

CH2M HILL will update the existing Health and Safety Plan for Del Monte Plant 35 and obtain the necessary health and safety equipment for the proposed activities. Other contractors at the site will be responsible for implementing their own health and safety plan.

3.2 BAAQMD Requirements

CH2M HILL has reviewed the necessary air permit requirements for the storage and aeration of stockpiled soil. According to Bay Area Air Quality Management District (BAAQMD) Regulation 8 Rule 40 Section 301 (8-40-301), uncontrolled aeration of contaminated soil is permissible as long as the organic content at any given time is below 50 ppm (weight). However, if the organic content is greater than 50 ppm, then limitations apply to the volume of contaminated soil that can be aerated daily.

Previous soil sample results from the target remediation area at Plant 35 indicated that an unknown hydrocarbon analyzed by the TPH-gas/BTEX methodology was found in concentrations greater than 50 ppm. Assuming the unknown hydrocarbon has volatile characteristics similar to gasoline, then the excavated soil will be subject to BAAQMD 8-40-301. CH2M HILL will provide written notification to BAAQMD according to 8-40-402.

3.3 Scheduling with Agencies

Representatives of the Alameda County Department of Environmental Health (ACDEH) and the Regional Water Quality Control Board (RWQCB) will be notified at least 48 hours in advance of beginning the remediation. In addition, the BAAQMD will be notified as discussed in Section 3.2.

Section 4

Field Activities

4.1 Excavation and Backfill

The remediation will be conducted by a licensed contractor with Hazardous Substance Removal and Remedial Action Certification.

Before soil excavating commences, Del Monte's remediation contractor will remove the pavement (concrete and asphalt) that covers the remediation area. Asphalt will be removed up to a distance of 4.5 feet from the east wall of the label room and approximately 1.0 foot from the former warehouse foundations. Two sets of railroad tracks located in the asphalt area will be removed. The debris will be handled separately from the excavated soil and stockpiled onsite.

Soil excavation and backfilling will be accomplished with conventional earth moving equipment such as backhoes and loaders. Backfill material will be compacted in uniform lifts of 8 inches or less to a minimum of 95 percent of the maximum dry density at optimum moisture as determined from the standard or modified Proctor Test.

4.2 Confirmation Sampling

During soil excavation, CH2M HILL will collect confirmation soil samples from the excavation bottom and sidewalls. Sidewall samples will be obtained at approximately 5 feet below grade on approximately 25 foot centers. Bottom samples will also be located on 25 foot centers. An estimated twelve to fourteen soil samples will be collected from the excavation sidewalls and analyzed for chlorinated hydrocarbons by EPA Method 8010 and for TPH-diesel, -motor oil, and -kerosene by EPA Method 8015 (modified).

An onsite laboratory will be used for analysis of confirmation soil samples. All samples will be collected in appropriate containers provided by the onsite laboratory. Any sample preservation required will be handled at the time of collection by the onsite laboratory.

4.3 Waste/Soil Management

Excavated soil will be collected and stored separately in an area of approximately 100 feet x 100 feet located in the former box yard area at Plant 35 (see Figure 2-1). The excavated soil will be stockpiled on visqueen. To enhance volatility and compound degradation, the excavated soil will be evenly distributed across the visqueen to a height of 1 to 2 feet and left uncovered. The stockpile area will be bermed to prevent runoff in the event of rainfall.

Approximately 3 months following the removal action, samples will be collected from the stockpiled soil and analyzed for chlorinated hydrocarbons (EPA Method 8010) and TPH-

diesel, -kerosene, and -motor oil (EPA Method 8015, modified). Approximately one sample per 100 cubic yards of stockpiled soil will be analyzed. Based on results, a recommendation will be made regarding soil disposition.

4.4 Equipment Decontamination

All equipment used to collect confirmation and stockpile soil samples will be decontaminated prior to each sample collected to avoid cross contamination. The decontamination procedure will include a wash with Alconox soap, a first rinse with tap water, and a second rinse with deionized water.

Wastewater generated during the sampling equipment decontamination procedure will be collected in 55-gallon drums and discharged to the groundwater treatment system on the West Parcel.

Construction equipment will be steam cleaned before exiting the property. Cleaning will take place on a plastic-lined surface and water will be collected and either discharged to the West Parcel treatment system or sprayed onto the stockpiled soil.

Section 5
Documentation

Upon completion of the above task, a letter-report will be prepared summarizing the field activities and the analytical results and findings. The report will include appendices that will contain the analytical data sheets and fields notes. A discussion of the conclusions or recommendations will also be included.

After the second sampling and analysis of stockpiled soil (estimated to occur 3 months after the first sampling), a letter-report will be prepared to present the results and make recommendations regarding the disposition of the soil.

Both letter-reports will be submitted to the ACDEH and the RWQCB.