HARTCROWSER

Earth and Environmental Technologies

WORK PLAN

FOR

SUPPLEMENTAL SITE ASSESSMENT

SHELL SERVICE STATION

4226 FIRST STREET

PLEASANTON, CALIFORNIA 94566

Project 6006

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I. INTRODUCTION

This Work Plan outlines a Supplemental Site Assessment to be performed by Hart Crowser, Inc. at the Shell Service Station located at 4226 First Street, on the southeast corner of First and Vineyard in Pleasanton, California. A site location map is provided in Figure 1. This assessment will further evaluate the presence of petroleum hydrocarbons in the soil resulting from past leaks and spills associated with operations onsite. If shallow groundwater is encountered, then the scope of work for this assessment will be extended to include an evaluation of petroleum hydrocarbons in the shallow groundwater.

II. BACKGROUND/SITE HISTORY

The site originally had five underground fuel storage tanks (one 1,550 gallon waste oil tank, two 8,000 gallon gasoline tanks and two 5,000 gallon gasoline tanks). On September 27, 1985, EMCON Associates drilled five borings onsite in the proximity of these tanks. Seven soil samples from these borings, which ranged in total depth from 20 to 28 feet, were analyzed for total petroleum hydrocarbons (TPH), with benzene, toluene, ethylbenzene and xylene (BTEX) distinction by EPA Methods 8015.

In a sample from the boring drilled between two of the tanks (at a depth of approximately five feet below the

bottom of the tank) the TPH concentration was found to be 1,300 parts per million (ppm). Detectable levels of toluene, ethylbenzene and xylene were associated with this sample. Benzene was not detected in any of these samples.

One of the borings drilled by EMCON in the assumed downgradient direction from the tanks was converted into a groundwater monitoring well at a depth of 28 feet. According to Mr. J. Killingstad, Alameda County Flood Control District, depth-to-groundwater in this area averages 50 to 100 feet. Hart Crowser personnel confirmed that no water was present in the well on December 26, 1989. There is no mention of the water level or groundwater sampling associated with this well in any of the reports reviewed.

EMCON drilled one additional boring on March 6, 1986. This boring was necessary to evaluate soil conditions adjacent to the underground product lines on site. Three soil samples (collected at depths of 5.5 feet, 10.5 feet and 15.5 feet below ground surface) analyzed from this boring contained no TPH or BTEX compounds above the detection limits.

The five existing tanks were removed on May 27, 1986. During this process, Blaine Technologies collected nine soil samples (one from beneath both ends of each tank, as well as one from beneath the waste oil tank) from the excavation pits. Eight of the samples were analyzed for TPH (EPA Method 8015), while a waste oil analysis (EPA Method 3510) was completed on the remaining sample.

Reported concentrations of TPH ranged from non-detected to 240 ppm for the samples collected from the fuel tank excavation pit. No waste oil was detected in the sample from the waste oil pit. The excavation pit was backfilled once the tanks were removed.

Three ten thousand gallon double-walled fiberglass tanks were installed at a new location on site, directly in front of the station building. A new waste oil tank was installed in the same location as the original waste oil tank.

Approximately 40 gallons of gasoline were spilled onsite on August 12, 1988. This surface spill occurred in the area of the pump islands. The station manager immediately contacted Central Petroleum, who proceeded to clean up the spill. Soil was removed from the spill area to a depth of one to two feet below ground surface. No samples were collected for laboratory analysis from the bottom of this excavation.

III. OBJECTIVE AND SCOPE OF WORK

The subsurface assessments performed to date have only partially evaluated the impact of petroleum hydrocarbons onsite. The objective of the supplemental assessment proposed in this Work Plan is to more completely evaluate the nature and extent of petroleum hydrocarbons in soil onsite. If shallow groundwater is encountered, the scope of work will include evaluation of petroleum hydrocarbons in the groundwater.