



XPERT  
DESIGN  
AND  
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JUN 30 1997

June 26, 1997

Mr. Ramanand Pergadia, P.E.  
New York State Department of Environmental Conservation  
Division of Hazardous Waste Remediation, Region III  
21 South Putt Corners Road  
New Paltz, NY 12561-1696

Re: Workplan for Supplemental Data Collection Hanger D, Bay 2 Westchester County Airport, Town of Harrison, New York.

Dear Mr. Pergadia,

XDD has prepared on behalf of Mobil Oil Corporation the attached workplan for supplemental data collection activities at the above referenced site. In accordance with our discussions with you at your offices on May 23<sup>rd</sup>, 1997 the objectives of the supplemental data collection are:

- To collect additional ground water quality data to further evaluate the degree and extent of natural attenuation occurring at the site.
- To collect additional soil gas VOC data to evaluate the current source strength in the vadose zone soils in the vicinity of the former drum storage area.

It is projected that a brief report on the results of the data collection effort and a proposed Focussed Feasibility Study outline will be forwarded to you for review within eight weeks of approval of the workplan.

If you have any questions or concerns on the workplan, please feel free to call Greg Hill of Mobil Oil Corporation at (609) 737-4940.

Sincerely,

  
Mike Marley, President  
XDD

*Handwritten notes and signatures:*  
Call Greg Hill  
Hill  
S. Hill  
7/1/97

WORKPLAN  
FOR  
SUPPLEMENTAL DATA COLLECTION  
HANGAR D BAY 2  
WESTCHESTER COUNTY AIRPORT  
TOWN OF HARRISON, NEW YORK

Prepared for:

Mobil Oil Corporation  
Princeton, NJ

Prepared by:

XDD, Inc.  
Portsmouth, New Hampshire

June 26, 1997

## **OVERVIEW**

A Remedial Investigation (RI) is being completed for the Hangar D Bay 2 at the Westchester County Airport in the Town of Harrison, New York (site). The results of the RI suggest the following:

- The storage of solvent drums along the south-east wall of the hangar resulted in limited release(s) of chlorinated hydrocarbons.
- The released chlorinated hydrocarbons impacted the shallow soils beneath the hangars concrete floor slab in the vicinity of the drum storage area.
- Transport of the chlorinated hydrocarbons (pre-dominantly in the gaseous phase) has resulted in impacts to the vadose zone soils beyond the vicinity of the drum storage area and to the underlying shallow groundwater at the site.
- The soils underlying the hangar floor consists of bedrock over the western half of the hangar and fill materials in the eastern half of the hangar. The fill materials were placed in a former channel bed that existed at the site prior to the airport construction.
- The impacted groundwater within the fill materials is located at approximately 10 feet below floor level and flows at a darcian velocity of approximately 4 feet per year in a southerly direction from the former Mobil hangar underneath the adjacent, Phillips-Morris hangar.
- The groundwater data collected from the four monitoring wells located at the site indicate that natural attenuation of the chlorinated hydrocarbon plume is ongoing and that the attenuation rates may be sufficient to control plume migration.

Based on these observations and in preparation for the development of a focused feasibility study for the site, it is proposed that a supplemental data collection effort be performed.

## **OBJECTIVES OF SUPPLEMENTAL DATA COLLECTION**

The objectives of the supplemental data collection effort are:

- to collect additional groundwater quality data to further evaluate the degree and extent of natural attenuation occurring at the site.
- to collect additional soil gas VOC data to evaluate the current source strength in the vadose zone soils in the vicinity of the former drum storage area.

## **SCOPE OF WORK**

### **A. Groundwater Quality Data Collection**

Groundwater samples will be collected from existing monitoring wells MW1, MW2, MW3, and MW4 (see attached Figure). Standard low flow sampling techniques will be used to collect the groundwater samples. To further evaluate the degree and extent of natural attenuation ongoing at the site, the following parameters will be analyzed for:

#### **Biochemical:**

VOCs - chlorinated compounds and daughter products  
Dissolved Oxygen  
Redox Potential  
Methane  
Ethane  
Ethene  
Temperature  
pH  
Ammonia/TKN

#### **Total Anion Suite Including:**

Chloride  
Sulfate  
Nitrate  
Nitrite  
Ortho-Phosphate

The samples will be shipped overnight on ice to Lancaster Laboratories in Lancaster, PA for analysis.

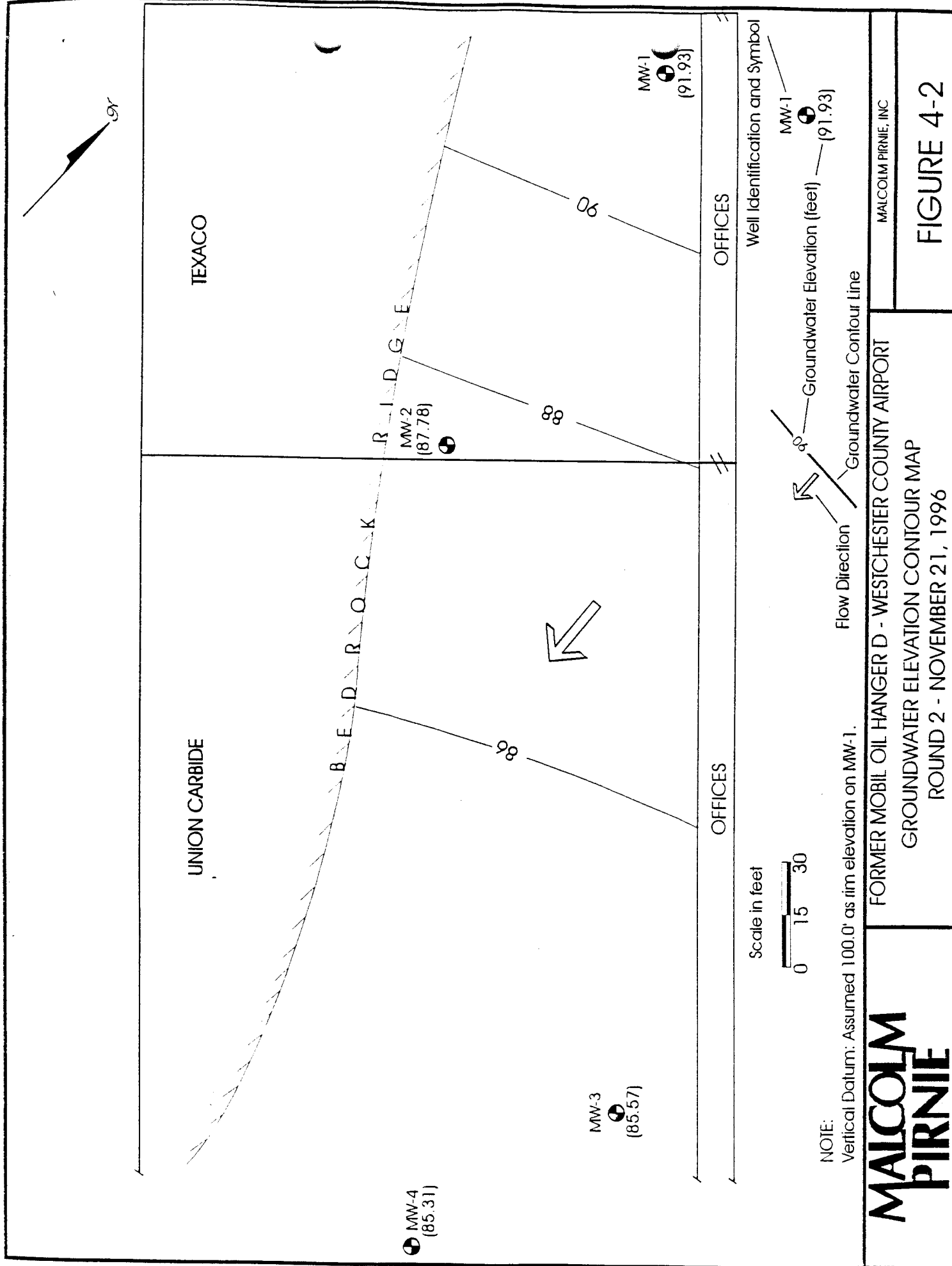
**B. Soil Gas Data Collection**

Using standard soil gas techniques, the existing soil gas/vacuum monitoring network (see attached Figure) will be sampled for VOCs. In addition, a geoprobe soil gas sampling unit will be used to collect shallow and deep soil gas samples from two proposed sampling locations (see attached Figure) along the south-eastern wall of the hangar where the previous ground water quality geoprobe survey results indicated an anomalous and relatively high VOC concentration.

The soil gas samples will either be analyzed on-site with the geoprobe systems gas chromatographic system for VOCs using EPA Method TO14 or equivalent or the samples will be sent on ice to Lancaster Laboratories in Lancaster, PA.

**C. Brief Report**

A brief report will be prepared that will present the sampling methods and results from both the ground water quality and soil gas sampling. An analysis and interpretation of the data with respect to the degree and extent of natural attenuation and current source strength, respectively, will be presented. Based on the data analysis and interpretation, a recommended focused feasibility study (FFS) format will be developed and presented.



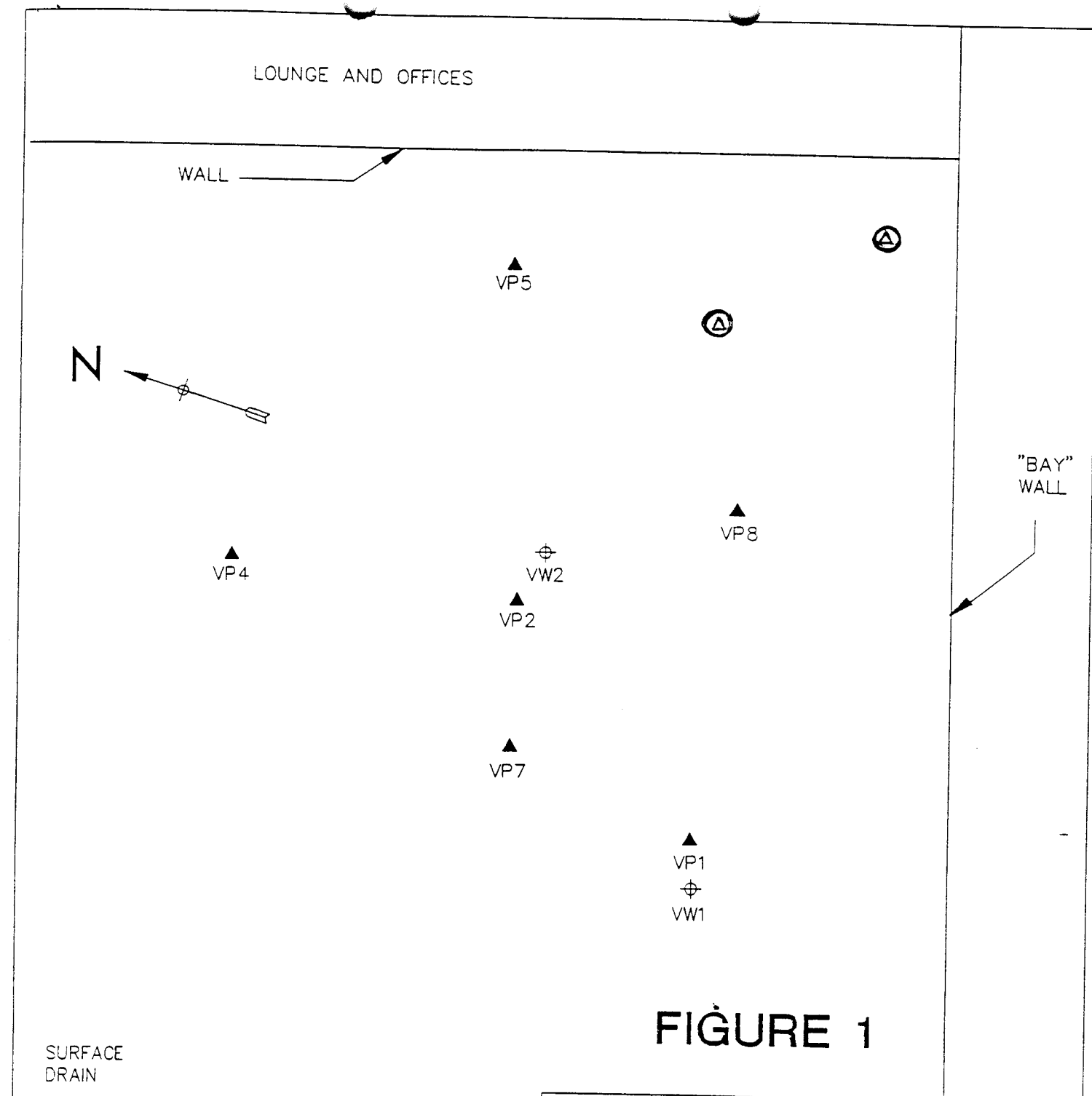


FIGURE 1

SURFACE  
DRAIN

# LEGEND

- ▲ - VAPOR PROBE
- ⊕ - VAPOR EXTRACTION WELL
- Ⓐ - PROPOSED VAPOR SAMPLING LOCATION

JOB#: 91-205	TITLE: SITE PLAN
DATE: 3/29/91	SITE: MOBIL/HANGER D WESTCHESTER COUNTY AIRPORT WESTCHESTER COUNTY, NY
SCALE: NTS	DRAWING#: 205-SP-A
DRAWN:	<b>VAIPEX</b> <sup>®</sup> Environmental Technologies 480 Neponset Street Canton, MA 02021 Tel. 617 821-5560 Fax 617 821-4967
CHECKED:	