360037

Mobil Oil Corporation

AUG 1 1 1995

ENVIRONMENTAL HEALTH
AND SAFETY DEPARTMENT
P.O. BOX 1031
PRINCETON, NEW JERSEY 08543

Mr. Keith Browne
NYSDEC
Div. of Hazardous Waste Remediation, Region 3
21 South Putt Corners Rd.
New Paltz, NY 12561-1696

August 8, 1995

Subject: Submittal of the PSA Report for the Former Mobil Hangar, Westchester County Airport

Dear Mr. Browne,

Attached is the Preliminary Site Assessment (PSA) Report for the subject site. The PSA was performed in accordance with the PSA Work Plan previously approved by your office. (Minor changes from the Work Plan dictated by field conditions are noted in the Report).

As documented in the Report, groundwater contamination above NYSDEC standards (Division of Water Technical and Operational Guidance Series Ambient Water Quality Standards and Guidance Values dated November 1991) was detected. Because of this finding, Mobil will submit to NYSDEC a work plan detailing an additional groundwater investigation to characterize the extent of this contamination. We would like to discuss this additional investigation with the Department prior to submittal of the work plan.

Please give me a call at 609-737-4940 to discuss any comments you have on the PSA Report and the additional investigation. (Please note that I'll be on vacation and out of the office until August 21st.)

Keith Pl. review & discuss over next more on 8/17/95

Sincerely,

D. Gregory Hill

J. Gregory Hill

cc: Harry Houckes, Mobil
Wendel Russell, Mobil

360037

PRELIMINARY SITE ASSESSMENT REPORT

FORMER MOBIL OIL HANGAR D, BAY 1
WESTCHESTER COUNTY AIRPORT
TOWN OF HARRISON, WESTCHESTER COUNTY

AUGUST 1995

PREPARED BY:

MALCOLM PIRNIE INC.
One International Boulevard
Mahwah, New Jersey

MOBIL OIL CORPORATION
TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

1.1 OVERVIEW

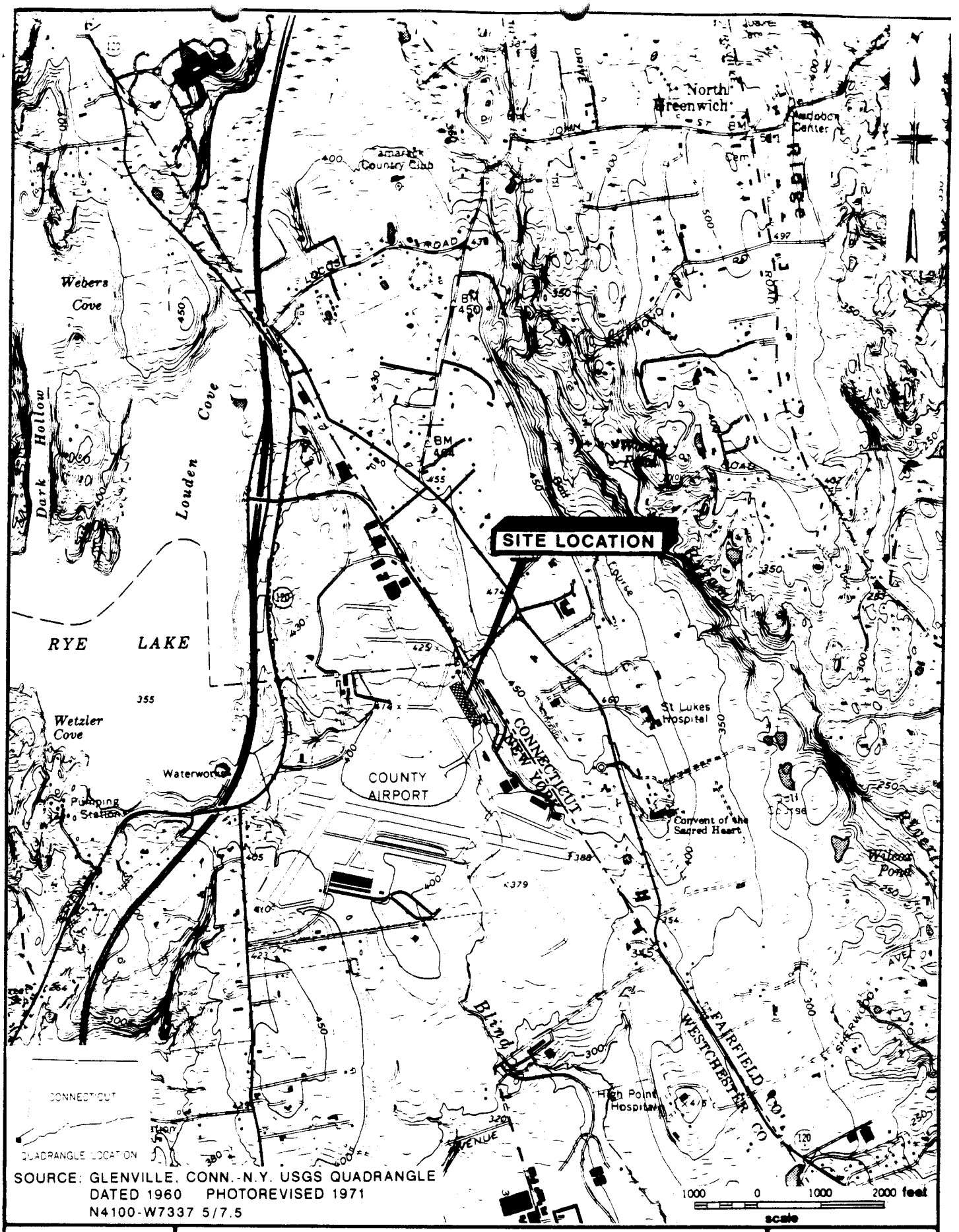
In 1990, Mobil Oil Corporation (Mobil) entered into discussions with Texaco, Inc. relative to a transfer of Mobil's long-term lease of Hangar D, Bay 1 at the Westchester County Airport, Town of Harrison, New York (Figure 1-1). In response to the possible lease transfer, Texaco authorized the performance of a subsurface environmental investigation in and around the hangar. The results of the investigation revealed concentrations of total volatile chlorinated hydrocarbons (CHCs) up to 54 parts per million (ppm) in the soil beneath the concrete hangar floor near the suspected source area. The suspected source area was in the vicinity where drummed solvents were stored. Based on this finding, Mobil agreed to conduct additional investigations, which are summarized in Section 1.2.

This Preliminary Site Assessment (PSA) was conducted to further characterize subsurface contamination at the hangar, and is based upon the PSA Work Plan submitted to the New York State Department of Environmental Conservation (NYSDEC) dated March 1994 and approved April 21, 1995. The PSA consisted of the collection and laboratory analysis of three groundwater samples, collected from the former Mobil Hangar using PowerPunch Probes and five soil samples, collected from three soil borings located in the adjacent Union Carbide Hangar. In addition, field duplicate samples were collected and submitted for laboratory analysis as part of the Quality Assurance/Quality Control Protocol.

1.2 PREVIOUS INVESTIGATIONS

Four environmental investigations were conducted prior to the implementation of this PSA. The results of all four investigations have been previously submitted to the NYSDEC and are also summarized in the Site Assessment Summary submitted to the NYSDEC on November 12, 1993. These reports include:

- Pilko & Associates, January 1991 - Phase II, III and IV Pre-Leasing Environmental Assessment of Mobil Flight Operations Hangar, Westchester County Airport.



SOURCE: GLENVILLE, CONN.-N.Y. USGS QUADRANGLE
DATED 1960 PHOTOREVISED 1971
N4100-W7337 5/7.5

MALCOLM PIRNIE

MOBIL OIL CORPORATION
FORMER MOBIL HANGAR
WESTCHESTER COUNTY AIRPORT

SITE LOCATION MAP

MALCOLM PIRNIE, INC

FIGURE 1-1

- Target Environmental Services, Inc., January 1991 - Soil Gas Survey, Mobil Hangar, Westchester County Airport.

- Legette, Brashers and Graham, May 1991 - Mobil Oil Corporation, Subsurface Investigation of the Mobil Hangar, Westchester County Airport.

- Legette, Brashers and Graham, August 1991 - Letter report to Greg Hill, Mobil Oil Corporation, from Keith Yocus and Charles Olmsted.

Specific details pertaining to each study can be found in the original reports submitted to the NYSDEC. A brief summary of the analytical results generated from the investigation is provided below:

- Concentrations of CHCs in soil were detected up to 54 ppm near the source area.

- Concentrations of CHCs in the soil decreased with depth, typically, non-detected or detected at concentrations less than 1 ppm at depths below 24 inches.

- Concentrations of CHCs in the soil decreased with distance from the source area, typically detected at concentrations of 1 ppm or less at a distance of 40 feet from the source area.

- The CHCs detected in the soil were likely attributable to the chlorinated solvent or solvents previously used at the hangar. Solvents used at the hangar include primarily 1,1,1-trichloroethane (1,1,1-TCA) and tetrachloroethylene (PCE). Minor concentrations of trichloroethylene (TCE) and 1,1,-dichloroethane (1,1-DCA) are also associated with solvent usage.

- Benzene, toluene, ethylbenzene and total xylenes (BTEX) were not detected, with the exception of a single detection of xylenes in one soil boring at a shallow depth (0"-6") and at a low concentration (0.096 ppm.)

- Concentrations of Total Petroleum Hydrocarbons (TPH) were generally considered to be low (below 50 ppm) in soil samples inside and outside of the hangar.

- Concentrations of CHCs in soil vapors were present in the immediate vicinity of the source area at concentrations up to 73 ppm. Soil gas concentrations decreased with distance, to approximately 1 ppm at 60 feet from the source area.

1.3 GEOLOGIC SETTING

Six soil borings were advanced as part of this PSA. Two of the borings extended to the water table while the remaining four continued to the top of the bedrock surface. Geologic logs are provided in Appendix A.

Based upon the observation of split spoon soil samples, it appears that the subsurface is fairly heterogeneous and was likely subjected to filling and grading of material as part of the airport construction. The subsurface consisted primarily of poorly sorted sands and silt. Occasional small pockets of cobbles were also encountered several of the borings. The bedrock consisted of a schist that was encountered as shallow as 5.8 feet below ground surface in soil boring SB-1 and as deep as 17.25 feet below ground surface in PowerPunch boring HP-2.

2.0 FIELD PROCEDURES

2.1 QUALITY ASSURANCE/QUALITY CONTROL

This PSA was conducted in accordance with current NYSDEC requirements for Phase II investigations identified in the Division of Hazardous Waste Remediation Technical and Administrative Guidance Memorandums 4007 and 4008 and the following documents:

- Data Quality Objectives for Remedial Response Activities: Developmental Process, EPA/540/G-87/003, OSWER Directive 9355.0-7B, March 1987,

- Compendium of Superfund Field Operations Methods, EPA/540/P-87/001, OSWER Directive 9355.0-14, December 1987, as supplemented by the NYSDEC; and

- Occupational Safety and Health Administration (OSHA) requirements contained in 29 CFR Part 1910 and 1926 including the final rule contained in 29 CFR Part 1910.120.

As part of the general QA/QC protocol, the procedures described below were followed:

- All sample bottles were laboratory cleaned and field prepared with the sample identification, requested analysis, job number, and date and time of collection clearly marked in ink on the lid and/or label;

- All samples were placed on ice in coolers immediately after collection and retained in same until delivered to the analytical laboratory;

- Chain of custody forms were completed for all samples;

- Sampling and handling of field equipment was performed while wearing clean latex gloves. The latex gloves were changed prior to collection each sample; and

- Sampling equipment was either laboratory cleaned and dedicated for one time usage in the field or decontaminated prior to each use following the step procedure described below:

  (1) Laboratory, grade, non phosphate detergent plus tap water wash
  (2) Distilled and deionized water rinse
  (3) Hexane rinse
  (4) Total air dry
  (5) Methanol rinse
  (6) Total air dry
  (7) Distilled and deionized water rinse

Three types of QA/QC samples (trip blank, equipment rinsate blank, and field duplicate sample) were collected and analyzed to validate the integrity of the sampling and decontamination procedures. The trip blank was prepared by the laboratory and stored in the sample cooler that was used to transport the sample jars from the laboratory to the site, then back to the laboratory upon completion of the sampling event. One trip blank was collected and analyzed for volatile organic compounds (VOC) using EPA Method 601 during the groundwater sampling event.

The equipment rinsate blank was collected in field by pouring distilled and deionized water over/through decontaminated field equipment and collecting the water in appropriate sample jars. One equipment rinsate blank was collected for each type of equipment (stainless steel bailer and stainless steel split spoon) used.

One field duplicate sample was collected for each matrix sampled. The field duplicate for the soil sample was collected by equally dividing the contents of one split-spoon into two sample jars. The field duplicate sample for groundwater was collected by alternatively pouring the collected groundwater from the bailer into two sample jar sets.

In general, the field investigation was completed in accordance with the March 1994 NYSDEC approved PSA Work Plan. However, minor modifications were necessary. These modifications included:

- Groundwater samples were obtained through the use of a PowerPunch Probe rather than a HydroPunch probe. The equipment and procedures followed are essentially identical. Specific procedures used are described in Section 2.2.

- The relocation of PowerPunch boring HP-1 approximately 10 feet to the southwest due to the presence of an expansion joint in the concrete floor and a low ceiling support beam;

- The relocation of Soil Boring SB-2 approximately 10 feet to the southeast due to a low ceiling support beam and the presence of cobbles 2 to 4 feet below ground surface:

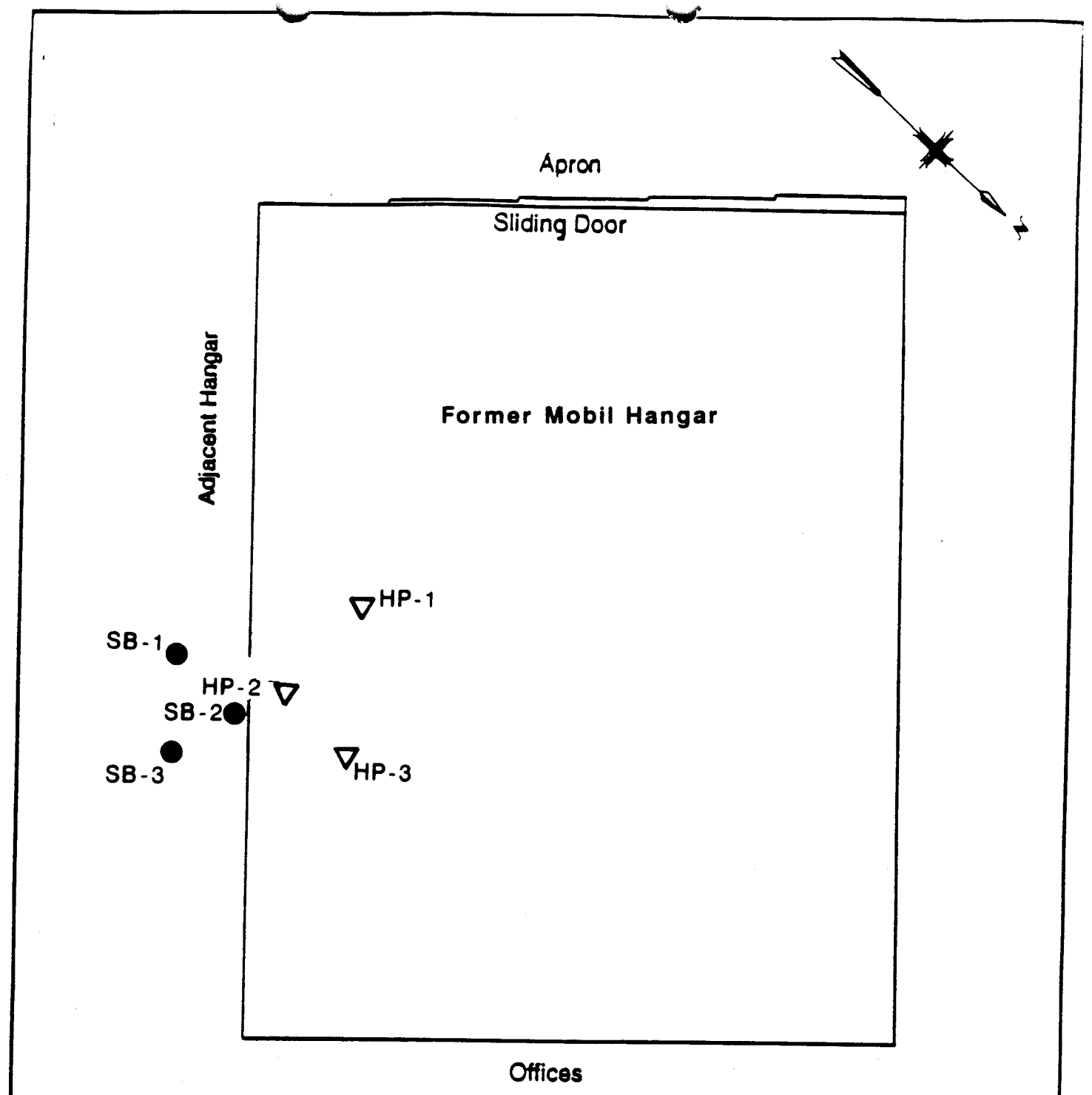
- The collection of only one soil sample (SB-1A) from Soil Boring SB-1 due to an elevated bedrock surface; and

- The laboratory analysis was performed by AccuTest, Inc. located in New Jersey. AccuTest is a New York State Department of Health-Environmental Laboratory Approval Program (NYSDOH-ELAP) approved laboratory.

2.2 GROUNDWATER INVESTIGATION

The groundwater investigation consisted of the installation of three Power Punch probes located in Hangar D, Bay 1 (Figure 2-1). At each sample location, the borehole was advanced by the continuous collection of split spoon soil samples from the base of the concrete slab to the water table. Split spoon soil samples were visually classified according to the Unified Soil Classification System (USCS). After transferring, the soil from the split spoon to labeled sample jars, headspace measurements of VOCs were obtained using an HNu photoionization detector (PID). Geologic logs of the boreholes are provided in Appendix A.

Upon encountering the water table by the repeated split spoon sample collection, the 2-inch diameter, stainless steel Power Punch probe was driven several feet below the water table, until the top of the bedrock was encountered. A 5 foot section of 3/4 inch diameter PVC screen attached to 3/4 inch diameter PVC casing was inserted into the Power Punch



MALCOLM PIRNIE

MOBIL OIL CORPORATION
FORMER MOBIL HANGAR
WESTCHESTER COUNTY AIRPORT
SOIL AND GROUNDWATER SAMPLING LOCATIONS

MALCOLM PIRNIE, INC

FIGURE 2-1

probe, dislodging the disposable drive tip of the probe. The probe was then completely withdrawn from the borehole and steam cleaned for use at the next sample location as formation water filled the PVC. After a sufficient volume of water entered the PVC, a decontaminated bailer was inserted into the PVC and a groundwater sample was collected.

Groundwater samples were immediately poured into two labeled, 40-ml vials preserved by adjusting the Ph to 2 with laboratory grade hydrochloric acid, and capped with no visible headspace. The samples were then placed in an iced cooler where they were stored until delivered to the analytical laboratory.

2.3 SOIL INVESTIGATION

The soil investigation consisted of the advancement of three soil borings located in Hangar D, Bay 2 (Figure 2-1). At each sample location, the borehole was advanced by the continuous collection of split spoon soil samples from the base of the concrete slab to the water table. Split spoon soil samples were visually classified according to the USCS. After transferring the soil from the split spoon to labeled sample jars, headspace measurements of VOCs were obtained using an HNu PID. Geologic logs of the boreholes are provided in Appendix A.

Two samples from each of the three borings were to be submitted for laboratory analysis: one sample that exhibited the highest headspace reading in each boring and one sample collected from each of the deepest split spoons (i.e., just above the water table). However, as discussed in Section 2.1, only one sample (SB-1A) was collected from Soil Boring SB-1 due to an elevated bedrock surface. The selected soil samples were then placed in an iced cooler where they were stored until delivered to the analytical laboratory.

3.1 GROUNDWATER INVESTIGATION

The groundwater investigation consisted of the collection and laboratory analysis of four groundwater samples, including one field duplicate sample. The analytical results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values dated November 1991 to allow a relative evaluation of the concentrations detected.

Analytical results indicate the presence of three chlorinated hydrocarbons at concentrations above the applicable standards (Table 3-1).

Sample Numbers HP-1 and HP-1(dup) reported 1,1-DCA concentrations of 750 parts per billion (ppb) and 730 ppb, respectively; above the TOGS standard of 5 ppb. No other VOCs were detected in sample HP-1 or HP-1(dup).

Sample HP-2 contained 2100 ppb 1,1,-DCA, 460 ppb 1,1,1-TCA, and 360 ppb cis-1,2-dichloroethene (cis-1,2-DCE). The TOGS standard for 1,1,1-TCA is 5 ppb. There is no TOGS for cis-1,2-DCE. However, in cases where there is no TOGS standard, the Principle Organic Contaminant (POC) standards applies. The POC standard for cis-1,2-DCE is 5 ppb. No other VOCs were detected in sample HP-2.

Sample HP-3 contained 59 ppb 1,1,1-DCA and 240 ppb cis-1,2-DCE; above the applicable standard of 5 ppb. No other VOCs were detected in sample HP-3.

3.2 SOIL INVESTIGATION

The soil investigation consisted of the collection and analysis of six soil samples, including one field duplicate sample. The analytical results are compared to the NYSDEC Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (TAGM) on the Determination of Soil Cleanup Objectives and Cleanup Levels dated January 1994 to allow a relative evaluation of the concentrations detected.

Analytical results indicate the presence of two chlorinated hydrocarbons in the soil samples at concentrations below applicable TAGM standards (Table 3-1). The TAGM standard for 1,1-DCA is 200 ppb. However, no TAGM standard exists for cis-1,2-DCE.

TABLE 3-1

SUMMARY OF ANALYTICAL RESULTS
Former Mobil Oil Hangar D
Town of Harrison, Westchester County

SAMPLE I.D.	SB-1A	SB-1A(dup)	SB-2C	SB-2F	SB-3C	SB-3G	HP-1	HP-1(dup)	HP-2	HP-3
SAMPLE MATRIX	soil	soil	soil	soil	soil	soil	groundwater	groundwater	groundwater	groundwater
SAMPLE DEPTH(FT)	1.5-2.0	1.5-2.0	5.5-6.0	11.5-12.0	5.5-6.0	12.0-12.5	-	-	-	-
1,1-dichloroethane	-	-	-	15	-	1.1	750	730	2100	59
1,1,1-trichloroethane	-	-	-	-	-	-	-	-	460	-
cis-1,2-dichloroethene	53	32	-	5.5	2.3	1.1	-	--	360	240

NOTES:

1) All results in ppb (groundwater reported in ug/l and soil reported in ug/kg).
2) Laboratory deliverable provided in Appendix B.

Samples SB-1A and SB-1A(dup) reported cis-1,2-DCE concentrations of 53 ppb and 32 ppb, respectively. No other VOCs were detected in samples SB-1A or SB-1A(dup).

Sample SB-2C contained no detectable levels of VOCs. Sample SB-2F contained 15 ppb 1,1-DCA and 5.5 ppb cis-1,2-DCE. No other VOCs were detected in Sample SB-2F.

Sample SB-3C contained 2.3 ppb cis-1,2-DCE. Sample SB-3G contained 1,1-DCA and cis-1,2-DCE. No other VOCs were detected in Samples SB-3C or SB-3G.

4.0 CONCLUSIONS

Based upon the interpretation of the analytical results derived from the implementation of the PSA Work Plan at the Former Mobil Oil Hangar D, Bay 1, the following conclusions can be made.

- The subsurface is fairly heterogeneous and was likely subjected to filling and grading as part of the airport construction. The unconsolidated material consists of poorly sorted sands and silt with some isolated pockets of cobbles. The bedrock consists of a schist that ranged in depth from 5.8 feet to 17.25 feet below grade.

- Low levels (i.e. below available NYSDEC standards for chlorinated hydrocarbons (1,1-DCA and cis-1,2-DCE) were detected in soil samples collected from the Hangar D, Bay 2 subsurface.

- Concentrations of 1,1-DCA, 1,1,1-TCA, and cis-1,2-DCE were detected above applicable NYSDEC standards in each of the groundwater samples collected from Power Punch probes located in Hangar D, Bay 1.

APPENDIX A

GEOLOGIC LOGS

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018

BORING SB-1

PROJECT: Former Mobil Oil [illegible]	PROJECT NO: [illegible]
DATE: May 18, 1995	LOCATION: Westchester County [illegible]
ELEVATION:	DATUM:

SAMPLE no.	SAMPLE depth	SAMPLE recovery %	SAMPLE blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *	WELL CONST.	REMARKS
						cement [illegible]		
SB-1A		78				SP- [illegible] SAND, [illegible] silt		HNu [illegible] ppm
SB-1B		100						[illegible] ppm
SB-1C		42		5				[illegible] ppm
						End of Boring @ 6'		refusal @ 5.6
				10				
				15				
				20				
				25				
				30				
				35				
				40				

NOTES: Samples SB-1A and SB-1A(dup) submitted for lab analysis

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR,
COMP. = COMPONENT, MOIST. = MOISTURE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018

BORING SB-2

PROJECT: Former Mobil Oil [illegible]	PROJECT NO: [illegible]
DATE: May 18 1995	LOCATION: Westchester County Airport
ELEVATION:	DATUM:

SAMPLE no.	depth	recovery %	blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *	WELL CONST.	REMARKS
						Cement [illegible]		
SB-2A		50				[illegible] SAND [illegible] gravel		HNu = 0.0 ppm
SB-2B		67				COBBLES (predominantly, some [illegible])		0.2
SB-2C		75		5		SM. mf gray/brn SAND, tr. silt tr. gravel		0.0
SB-2D		50						0.0
SB-2E		75		10				0.0
SB-2F		1				moist @ 12'		0.2
						End of Boring @ 12'		
				15				
				20				
				25				
				30				
				35				
				40				

NOTES: Samples SB-2C and SB-2F submitted for lab analysis.

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR, COMP. = COMPONENT, MOIST. = MOISTURE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018

BORING SB-3

PROJECT: Former Mobil Oil [illegible]	PROJECT NO: [illegible]
DATE: May 18, [illegible]	LOCATION: Westchester County Airport
ELEVATION:	DATUM:

SAMPLE no.	SAMPLE depth	SAMPLE recovery %	SAMPLE blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *	WELL CONST.	REMARKS
						Cement slab		
SB 3A		[illegible]				SP- cf gry m SAND tr silt tr gravel		H-Nu = 0 ppm
SB 3B		33		5				0.4
SB 3C		92						0.2
SB 3D		0				No Recovery		—
SB 3E		1		10		ML- [illegible] gry SILT, some sand		0.2
SB 3F		75						0.2
SB 3G		75				moist @ 14'		0.4
				15		End of Boring @ 14'		
				20				
				25				
				30				
				35				
				40				

NOTES:

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR,
COMP. = COMPONENT, MOIST. = MOISTURE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018

BORING: HP 1

PROJECT: Former Mobil Oil Hangar D	PROJECT NO: [illegible]
DATE: May 18, 1995	LOCATION: [illegible] County Airport
ELEVATION:	DATUM:

SAMPLE no.	SAMPLE depth	SAMPLE recovery %	SAMPLE blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION (M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *)	WELL CONST.	REMARKS
						cement floor		
		78				SP - c-f gr/brn SAND, some gravel		Hnu: 1.5ppm
		100						0.5
		100		5		SW - f-c gr/brn SAND, some silt, tr. clay		0.2
		75				ML - gr/brn SILT, tr. f. sand, tr. clay		0.2
						schist COBBLES		0.4
		83		10		ML - gr/brn SILT tr. f. sand tr. clay moist		0.6
		83				SM - m-f gr/brn SAND, tr. silt, moist to wet		0.4
		1						refusal @ 12.25
				15		End of Boring @ 12.25		
				20				
				25				
				30				
				35				
				40				

NOTES: PowerPunch screen installed in borehole to depth of 12.25'. Sample collected at 1100.

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR, COMP. = COMPONENT, MOIST. = MOISTURE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018 BORING LP-2

PROJECT: Former Mobil Oil [illegible]	PROJECT NO: [illegible]
DATE: May 17, 1995	LOCATION: Westchester County Airport
ELEVATION:	DATUM:

SAMPLE no.	SAMPLE depth	SAMPLE recovery %	SAMPLE blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *	WELL CONST.	REMARKS
						Cement Floor		
		67				SP - cf brn SAND, tr. gravel, tr silt		HNu: 2 [illegible]
		23						4.
		50		5		SM - mf gry/brn SAND, some silt		3.0
		42				ML - gry SILT, tr. f. sand, tr. peat moist to wet		1.0
		42		10				0.2
		42						0.2
		50						0.6
		50		15		SM - mf gry brn SAND, tr. silt wet		0.6
						End of Boring @ 16'		
				20				
				25				
				30				
				35				
				40				

NOTES: Power Punch advanced to 17.25'. Power Punch screen installed in borehole to depth of 17.25'. Sample collected at 1345

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR,
COMP. = COMPONENT, MOIST. = MOISTURE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC. ONE INTERNATIONAL BOULEVARD MAHWAH, NJ 07495-0018

BORING HP-3

PROJECT: Former Mobil Garage D	PROJECT NO: 0360060100
DATE: May 17, 1995	LOCATION: Westchester County Airport
ELEVATION:	DATUM:

SAMPLE no.	SAMPLE depth	SAMPLE recovery %	SAMPLE blows per 6"	DEPTH	STRATA	SOIL DESCRIPTION: M. COMP., TEX., C., 2nd COMP., TEX. C.; 3rd COMP., ETC., MOIST., OTHER *	WELL CONST.	REMARKS
						cement floor		
		100				SP - cf brn SAND, some gravel, tr silt		HNU - 0 ppm
		42						0.2
		50		5		schist COBBLES		0.2
		58						0.4
		42		10		SP - cf gry/brn SAND, some silt & cobbles		0.4
		50				SM - mf gry/brn SAND, some silt, moist		0.4
						ML - gry/brn SILT, tr f sand, moist		0.4
		100		15		SM - mf gry/brn SAND some silt, wet		0.6
						End of Boring @ 16'		
				20				
				25				
				30				
				35				
				40				

NOTES: Power Punch advanced to 17.00 Power Punch screen installed in borehole to depth of 17.00 sample collected at 1645

* NOTE: M. COMP. = MAJOR COMPONENT, TEX. = TEXTURE, C. = COLOR, COMP. = COMPONENT, MOIST. = MOISTURE

APPENDIX B

LABORATORY DELIVERABLE

MALCOLM PIRNIE

Malcolm Pirnie Laboratory
707 Old Saw Mill River Road
Tarrytown, NY 10591
Phone: (914) 345-8230
Fax: (914) 345-8741

TECHNICAL REPORT

WESTCHESTER COUNTY

Approved by: _____

Project Number : 1030-060-100

Date : 06-16-1995

MALCOLM PIRNIE ENVIRONMENTAL LABORATORY

CERTIFICATIONS

- New York State Department of Health:
  ELAP # 10202 Water, Wastewater, Solid and Hazardous Waste

- New Jersey Department of Environmental Protection:
  LAB ID# 73171
  Water, Wastewater (including solid and hazardous waste)

- Connecticut Department of Health Services:
  LAB ID# PH-0536 Water and Wastewater

ANALYTICAL REFERENCES

The Malcolm Pirnie Environmental Laboratory utilizes a variety of methods and procedures based on the analytical references listed below.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 3/83 Revision.

Test Methods for Evaluating Solids Waste-Physical/Chemical Methods, SW-846, 3rd Edition. Office of Solid Waste and Emergency repairs, USEPA, Washington, D.C., 1986.

USEPA Contract Laboratory Program, Statement of Work for Organics Analysis, USEPA, OLM01.8.

USEPA Contract Laboratory Program, Statement of Work for Inorganics Analysis, USEPA, ILM03.0.

Standard Methods for the Examination of Water and Wastewater, 16 Edition, APHA, Washington D.C., 1985.

Annual Book of ASTM Standards, Part 31 - Water. American Society for Testing and Materials, Philadelphia, PA, 1981.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, Appendix A, CFR Part 136, Federal Register, Vol. 49, No. 209, 1984.

CLIENT IDENTIFICATION	LAB ID	DATE SAMPLED
FB51895	95-01093-N	05/18/95
FB51795	95-01094-N	05/17/95
TB51795	95-01095-N	05/17/95
HP-1	95-01096-N	05/18/95
HP-1 DUP	95-01097-N	05/18/95
HP-2	95-01098-N	05/17/95
HP-3	95-01099-N	05/17/95
SB-1A	95-01100-N	05/18/95
SB-1A DUP	95-01101-N	05/18/95
SB-2C	95-01102-N	05/18/95
SB-2F	95-01103-N	05/18/95
SB-3C	95-01104-N	05/18/95
SB-3G	95-01105-N	05/18/95

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01093-N	FB51895	05/18/95	05/25/95	SUB	GC601	Bromoform	0.2U	ug/L
				05/25/95	SUB		Bromodichloromethane	0.2U	ug/L
				05/25/95	SUB		Bromomethane	0.2U	ug/L
				05/25/95	SUB		Carbon Tetrachloride	0.2U	ug/L
				05/25/95	SUB		Chlorobenzene	0.2U	ug/L
				05/25/95	SUB		Chloroethane	0.2U	ug/L
				05/25/95	SUB		Chloroform	0.2U	ug/L
				05/25/95	SUB		Chloromethane	0.2U	ug/L
				05/25/95	SUB		cis-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		Dibromochloromethane	0.2U	ug/L
				05/25/95	SUB		Dichlorofluoromethane	0.2U	ug/L
				05/25/95	SUB		1,1-Dichloroethane	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloroethane	0.7	ug/L
				05/25/95	SUB		1,1-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,2-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloropropane	0.2U	ug/L
				05/25/95	SUB		Methylene Chloride	0.2U	ug/L
				05/25/95	SUB		1,1,2,2-Tetrachloroethane	0.2U	ug/L
				05/25/95	SUB		Tetrachloroethene	0.2U	ug/L
				05/25/95	SUB		1,1,1-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		1,1,2-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		Trichloroethene	0.2U	ug/L
				05/25/95	SUB		Trichlorofluoromethane	0.2U	ug/L
				05/25/95	SUB		Vinyl Chloride	0.2U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01093-N	FB51895	05/18/95	05/25/95	SUB	GC601	2-Chloroethyl vinyl ether	0.2U	ug/L
				05/25/95	SUB		1,3-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,4-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		cis-1,2-Dichloroethene	0.2U	ug/L

1030-060-100	95-01094-N	FB51795	05/17/95	05/25/95	SUB	GC601	Bromoform	0.2U	ug/L
				05/25/95	SUB		Bromodichloromethane	0.2U	ug/L
				05/25/95	SUB		Bromomethane	0.2U	ug/L
				05/25/95	SUB		Carbon Tetrachloride	0.2U	ug/L
				05/25/95	SUB		Chlorobenzene	0.2U	ug/L
				05/25/95	SUB		Chloroethane	0.2U	ug/L
				05/25/95	SUB		Chloroform	0.2U	ug/L
				05/25/95	SUB		Chloromethane	0.2U	ug/L
				05/25/95	SUB		cis-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		Dibromochloromethane	0.2U	ug/L
				05/25/95	SUB		Dichlorofluoromethane	0.2U	ug/L
				05/25/95	SUB		1,1-Dichloroethane	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloroethane	0.87	ug/L
				05/25/95	SUB		1,1-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,2-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloropropane	0.2U	ug/L
				05/25/95	SUB		Methylene Chloride	0.2U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01094-N	FB51795	05/17/95	05/25/95	SUB	GC601	1,1,2,2-Tetrachloroethane	0.2U	ug/L
				05/25/95	SUB		Tetrachloroethene	0.2U	ug/L
				05/25/95	SUB		1,1,1-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		1,1,2-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		Trichloroethene	0.2U	ug/L
				05/25/95	SUB		Trichlorofluoromethane	0.2U	ug/L
				05/25/95	SUB		Vinyl Chloride	0.2U	ug/L
				05/25/95	SUB		2-Chloroethyl vinyl ether	0.2U	ug/L
				05/25/95	SUB		1,3-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,4-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		cis-1,2-Dichloroethene	0.2U	ug/L

1030-060-100	95-01095-N	TB51795	05/17/95	05/25/95	SUB	GC601	Bromoform	0.2U	ug/L
				05/25/95	SUB		Bromodichloromethane	0.2U	ug/L
				05/25/95	SUB		Bromomethane	0.2U	ug/L
				05/25/95	SUB		Carbon Tetrachloride	0.2U	ug/L
				05/25/95	SUB		Chlorobenzene	0.2U	ug/L
				05/25/95	SUB		Chloroethane	0.2U	ug/L
				05/25/95	SUB		Chloroform	0.2U	ug/L
				05/25/95	SUB		Chloromethane	0.2U	ug/L
				05/25/95	SUB		cis-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		Dibromochloromethane	0.2U	ug/L
				05/25/95	SUB		Dichlorofluoromethane	0.2U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01095-N	TB51795	05/17/95	05/25/95	SUB	GC601	1,1-Dichloroethane	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloroethane	1.7	ug/L
				05/25/95	SUB		1,1-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,2-Dichloroethene	0.2U	ug/L
				05/25/95	SUB		trans-1,3-Dichloropropene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichloropropane	0.2U	ug/L
				05/25/95	SUB		Methylene Chloride	0.2U	ug/L
				05/25/95	SUB		1,1,2,2-Tetrachloroethane	0.2U	ug/L
				05/25/95	SUB		Tetrachloroethene	0.2U	ug/L
				05/25/95	SUB		1,1,1-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		1,1,2-Trichloroethane	0.2U	ug/L
				05/25/95	SUB		Trichloroethene	0.2U	ug/L
				05/25/95	SUB		Trichlorofluoromethane	0.2U	ug/L
				05/25/95	SUB		Vinyl Chloride	0.2U	ug/L
				05/25/95	SUB		2-Chloroethyl vinyl ether	0.2U	ug/L
				05/25/95	SUB		1,3-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,4-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		1,2-Dichlorobenzene	0.2U	ug/L
				05/25/95	SUB		cis-1,2-Dichloroethene	0.2U	ug/L

1030-060-100	95-01096-N	MP-1	05/18/95	05/26/95	SUB	GC601	Bromoform	20U	ug/L
				05/26/95	SUB		Bromodichloromethane	20U	ug/L
				05/26/95	SUB		Bromomethane	20U	ug/L
				05/26/95	SUB		Carbon Tetrachloride	20U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01096-N	HP-1	05/18/95	05/26/95	SUB	GC601	Chlorobenzene	20U	ug/L
				05/26/95	SUB		Chloroethane	20U	ug/L
				05/26/95	SUB		Chloroform	20U	ug/L
				05/26/95	SUB		Chloromethane	20U	ug/L
				05/26/95	SUB		cis-1,3-Dichloropropene	20U	ug/L
				05/26/95	SUB		Dibromochloromethane	20U	ug/L
				05/26/95	SUB		Dichlorofluoromethane	20U	ug/L
				05/26/95	SUB		1,1-Dichloroethane	750	ug/L
				05/26/95	SUB		1,2-Dichloroethane	20U	ug/L
				05/26/95	SUB		1,1-Dichloroethene	20U	ug/L
				05/26/95	SUB		trans-1,2-Dichloroethene	20U	ug/L
				05/26/95	SUB		trans-1,3-Dichloropropene	20U	ug/L
				05/26/95	SUB		1,2-Dichloropropane	20U	ug/L
				05/26/95	SUB		Methylene Chloride	20U	ug/L
				05/26/95	SUB		1,1,2,2-Tetrachloroethane	20U	ug/L
				05/26/95	SUB		Tetrachloroethene	20U	ug/L
				05/26/95	SUB		1,1,1-Trichloroethane	20U	ug/L
				05/26/95	SUB		1,1,2-Trichloroethane	20U	ug/L
				05/26/95	SUB		Trichloroethene	20U	ug/L
				05/26/95	SUB		Trichlorofluoromethane	20U	ug/L
				05/26/95	SUB		Vinyl Chloride	20U	ug/L
				05/26/95	SUB		2-Chloroethyl vinyl ether	20U	ug/L
				05/26/95	SUB		1,3-Dichlorobenzene	20U	ug/L
				05/26/95	SUB		1,4-Dichlorobenzene	20U	ug/L
				05/26/95	SUB		1,2-Dichlorobenzene	20U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01096-N	HP-1	05/18/95	05/26/95	SUB	GC601	cis-1,2-Dichloroethene	20U	ug/L
1030-060-100	95-01097-N	HP-1 DUP	05/18/95	05/26/95	SUB	GC601	Bromoform	20U	ug/L
				05/26/95	SUB		Bromodichloromethane	20U	ug/L
				05/26/95	SUB		Bromomethane	20U	ug/L
				05/26/95	SUB		Carbon Tetrachloride	20U	ug/L
				05/26/95	SUB		Chlorobenzene	20U	ug/L
				05/26/95	SUB		Chloroethane	20U	ug/L
				05/26/95	SUB		Chloroform	20U	ug/L
				05/26/95	SUB		Chloromethane	20U	ug/L
				05/26/95	SUB		cis-1,3-Dichloropropene	20U	ug/L
				05/26/95	SUB		Dibromochloromethane	20U	ug/L
				05/26/95	SUB		Dichlorofluoromethane	20U	ug/L
				05/26/95	SUB		1,1-Dichloroethane	730	ug/L
				05/26/95	SUB		1,2-Dichloroethane	20U	ug/L
				05/26/95	SUB		1,1-Dichloroethene	20U	ug/L
				05/26/95	SUB		trans-1,2-Dichloroethene	20U	ug/L
				05/26/95	SUB		trans-1,3-Dichloropropene	20U	ug/L
				05/26/95	SUB		1,2-Dichloropropane	20U	ug/L
				05/26/95	SUB		Methylene Chloride	20U	ug/L
				05/26/95	SUB		1,1,2,2-Tetrachloroethane	20U	ug/L
				05/26/95	SUB		Tetrachloroethene	20U	ug/L
				05/26/95	SUB		1,1,1-Trichloroethane	20U	ug/L
				05/26/95	SUB		1,1,2-Trichloroethane	20U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01097-N	HP-1 DUP	05/18/95	05/26/95	SUB	GC601	Trichloroethene	20U	ug/L
				05/26/95	SUB		Trichlorofluoromethane	20U	ug/L
				05/26/95	SUB		Vinyl Chloride	20U	ug/L
				05/26/95	SUB		2-Chloroethyl vinyl ether	20U	ug/L
				05/26/95	SUB		1,3-Dichlorobenzene	20U	ug/L
				05/26/95	SUB		1,4-Dichlorobenzene	20U	ug/L
				05/26/95	SUB		1,2-Dichlorobenzene	20U	ug/L
				05/26/95	SUB		cis-1,2-Dichloroethene	20U	ug/L

1030-060-100	95-01098-N	HP-2	05/17/95	05/26/95	SUB	GC601	Bromoform	200U	ug/L
				05/26/95	SUB		Bromodichloromethane	200U	ug/L
				05/26/95	SUB		Bromomethane	200U	ug/L
				05/26/95	SUB		Carbon Tetrachloride	200U	ug/L
				05/26/95	SUB		Chlorobenzene	200U	ug/L
				05/26/95	SUB		Chloroethane	200U	ug/L
				05/26/95	SUB		Chloroform	200U	ug/L
				05/26/95	SUB		Chloromethane	200U	ug/L
				05/26/95	SUB		cis-1,3-Dichloropropene	200U	ug/L
				05/26/95	SUB		Dibromochloromethane	200U	ug/L
				05/26/95	SUB		Dichlorofluoromethane	200U	ug/L
				05/26/95	SUB		1,1-Dichloroethane	2100	ug/L
				05/26/95	SUB		1,2-Dichloroethane	200U	ug/L
				05/26/95	SUB		1,1-Dichloroethene	200U	ug/L
				05/26/95	SUB		trans-1,2-Dichloroethene	200U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01098-N	HP-2	05/17/95	05/26/95	SUB	GC601	trans-1,3-Dichloropropene	200U	ug/L
				05/26/95	SUB		1,2-Dichloropropane	200U	ug/L
				05/26/95	SUB		Methylene Chloride	200U	ug/L
				05/26/95	SUB		1,1,2,2-Tetrachloroethane	200U	ug/L
				05/26/95	SUB		Tetrachloroethene	200U	ug/L
				05/26/95	SUB		1,1,1-Trichloroethane	460	ug/L
				05/26/95	SUB		1,1,2-Trichloroethane	200U	ug/L
				05/26/95	SUB		Trichloroethene	200U	ug/L
				05/26/95	SUB		Trichlorofluoromethane	200U	ug/L
				05/26/95	SUB		Vinyl Chloride	200U	ug/L
				05/26/95	SUB		2-Chloroethyl vinyl ether	200U	ug/L
				05/26/95	SUB		1,3-Dichlorobenzene	200U	ug/L
				05/26/95	SUB		1,4-Dichlorobenzene	200U	ug/L
				05/26/95	SUB		1,2-Dichlorobenzene	200U	ug/L
				05/26/95	SUB		cis-1,2-Dichloroethene	360	ug/L

1030-060-100	95-01099-N	HP-3	05/17/95	05/26/95	SUB	GC601	Bromoform	8.0U	ug/L
				05/26/95	SUB		Bromodichloromethane	8.0U	ug/L
				05/26/95	SUB		Bromomethane	8.0U	ug/L
				05/26/95	SUB		Carbon Tetrachloride	8.0U	ug/L
				05/26/95	SUB		Chlorobenzene	8.0U	ug/L
				05/26/95	SUB		Chloroethane	8.0U	ug/L
				05/26/95	SUB		Chloroform	8.0U	ug/L
				05/26/95	SUB		Chloromethane	8.0U	ug/L

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01099-N	HP-3	05/17/95	05/26/95	SUB	GC601	cis-1,3-Dichloropropene	8.0U	ug/L
				05/26/95	SUB		Dibromochloromethane	8.0U	ug/L
				05/26/95	SUB		Dichlorofluoromethane	8.0U	ug/L
				05/26/95	SUB		1,1-Dichloroethane	59	ug/L
				05/26/95	SUB		1,2-Dichloroethane	8.0U	ug/L
				05/26/95	SUB		1,1-Dichloroethene	8.0U	ug/L
				05/26/95	SUB		trans-1,2-Dichloroethene	8.0U	ug/L
				05/26/95	SUB		trans-1,3-Dichloropropene	8.0U	ug/L
				05/26/95	SUB		1,2-Dichloropropane	8.0U	ug/L
				05/26/95	SUB		Methylene Chloride	8.0U	ug/L
				05/26/95	SUB		1,1,2,2-Tetrachloroethane	8.0U	ug/L
				05/26/95	SUB		Tetrachloroethene	8.0U	ug/L
				05/26/95	SUB		1,1,1-Trichloroethane	8.0U	ug/L
				05/26/95	SUB		1,1,2-Trichloroethane	8.0U	ug/L
				05/26/95	SUB		Trichloroethene	8.0U	ug/L
				05/26/95	SUB		Trichlorofluoromethane	8.0U	ug/L
				05/26/95	SUB		Vinyl Chloride	8.0U	ug/L
				05/26/95	SUB		2-Chloroethyl vinyl ether	8.0U	ug/L
				05/26/95	SUB		1,3-Dichlorobenzene	8.0U	ug/L
				05/26/95	SUB		1,4-Dichlorobenzene	8.0U	ug/L
				05/26/95	SUB		1,2-Dichlorobenzene	8.0U	ug/L
				05/26/95	SUB		cis-1,2-Dichloroethene	240	ug/L

1030-060-100	95-01100-N	SB-1A	05/18/95	06/01/95	SUB	GC8010	Bromoform	1.2U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01100-N	SB-1A	05/18/95	06/01/95	SUB	GC8010	Bromodichloromethane	1.2U	ug/kg
				06/01/95	SUB		Bromomethane	1.2U	ug/kg
				06/01/95	SUB		Carbon Tetrachloride	1.2U	ug/kg
				06/01/95	SUB		Chlorobenzene	1.2U	ug/kg
				06/01/95	SUB		Chloroethane	1.2U	ug/kg
				06/01/95	SUB		Chloroform	1.2U	ug/kg
				06/01/95	SUB		Chloromethane	1.2U	ug/kg
				06/01/95	SUB		cis-1,3-Dichloropropene	1.2U	ug/kg
				06/01/95	SUB		Dibromochloromethane	1.2U	ug/kg
				06/01/95	SUB		Dichlorofluoromethane	1.2U	ug/kg
				06/01/95	SUB		1,1-Dichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,2-Dichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,1-Dichloroethene	1.2U	ug/kg
				06/01/95	SUB		trans-1,2-Dichloroethene	1.2U	ug/kg
				06/01/95	SUB		trans-1,3-Dichloropropene	1.2U	ug/kg
				06/01/95	SUB		1,2-Dichloropropane	1.2U	ug/kg
				06/01/95	SUB		Methylene Chloride	1.2U	ug/kg
				06/01/95	SUB		1,1,2,2-Tetrachloroethane	1.2U	ug/kg
				06/01/95	SUB		Tetrachloroethylene	1.2U	ug/kg
				06/01/95	SUB		1,1,1-Trichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,1,2-Trichloroethane	1.2U	ug/kg
				06/01/95	SUB		Trichloroethylene	1.2U	ug/kg
				06/01/95	SUB		Trichlorofluoromethane	1.2U	ug/kg
				06/01/95	SUB		Vinyl Chloride	1.2U	ug/kg
				06/01/95	SUB		2-Chloroethyl vinyl ether	1.2U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01100-N	SB-1A	05/18/95	06/01/95	SUB	GC8010	1,2-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		1,3-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		1,4-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		cis-1,2-Dichloroethene	53	ug/kg

1030-060-100	95-01101-N	SB-1A DUP	05/18/95	06/01/95	SUB	GC8010	Bromoform	1.2U	ug/kg
				06/01/95	SUB		Bromodichloromethane	1.2U	ug/kg
				06/01/95	SUB		Bromomethane	1.2U	ug/kg
				06/01/95	SUB		Carbon Tetrachloride	1.2U	ug/kg
				06/01/95	SUB		Chlorobenzene	1.2U	ug/kg
				06/01/95	SUB		Chloroethane	1.2U	ug/kg
				06/01/95	SUB		Chloroform	1.2U	ug/kg
				06/01/95	SUB		Chloromethane	1.2U	ug/kg
				06/01/95	SUB		cis-1,3-Dichloropropene	1.2U	ug/kg
				06/01/95	SUB		Dibromochloromethane	1.2U	ug/kg
				06/01/95	SUB		Dichlorofluoromethane	1.2U	ug/kg
				06/01/95	SUB		1,1-Dichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,2-Dichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,1-Dichloroethene	1.2U	ug/kg
				06/01/95	SUB		trans-1,2-Dichloroethene	1.2U	ug/kg
				06/01/95	SUB		trans-1,3-Dichloropropene	1.2U	ug/kg
				06/01/95	SUB		1,2-Dichloropropane	1.2U	ug/kg
				06/01/95	SUB		Methylene Chloride	1.2U	ug/kg
				06/01/95	SUB		1,1,2,2-Tetrachloroethane	1.2U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01101-N	SB-1A DUP	05/18/95	06/01/95	SUB	GC8010	Tetrachloroethylene	1.2U	ug/kg
				06/01/95	SUB		1,1,1-Trichloroethane	1.2U	ug/kg
				06/01/95	SUB		1,1,2-Trichloroethane	1.2U	ug/kg
				06/01/95	SUB		Trichloroethylene	1.2U	ug/kg
				06/01/95	SUB		Trichlorofluoromethane	1.2U	ug/kg
				06/01/95	SUB		Vinyl Chloride	1.2U	ug/kg
				06/01/95	SUB		2-Chloroethyl vinyl ether	1.2U	ug/kg
				06/01/95	SUB		1,2-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		1,3-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		1,4-Dichlorobenzene	1.2U	ug/kg
				06/01/95	SUB		cis-1,2-Dichloroethene	32	ug/kg

1030-060-100	95-01102-N	SB-2C	05/18/95	05/25/95	SUB	GC8010	Bromoform	0.23U	ug/kg
				05/25/95	SUB		Bromodichloromethane	0.23U	ug/kg
				05/25/95	SUB		Bromomethane	0.23U	ug/kg
				05/25/95	SUB		Carbon Tetrachloride	0.23U	ug/kg
				05/25/95	SUB		Chlorobenzene	0.23U	ug/kg
				05/25/95	SUB		Chloroethane	0.23U	ug/kg
				05/25/95	SUB		Chloroform	0.23U	ug/kg
				05/25/95	SUB		Chloromethane	0.23U	ug/kg
				05/25/95	SUB		cis-1,3-Dichloropropene	0.23U	ug/kg
				05/25/95	SUB		Dibromochloromethane	0.23U	ug/kg
				05/25/95	SUB		Dichlorofluoromethane	0.23U	ug/kg
				05/25/95	SUB		1,1-Dichloroethane	0.23U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01102-N	SB-2C	05/18/95	05/25/95	SUB	GC8010	1,2-Dichloroethane	0.23U	ug/kg
				05/25/95	SUB		1,1-Dichloroethene	0.23U	ug/kg
				05/25/95	SUB		trans-1,2-Dichloroethene	0.23U	ug/kg
				05/25/95	SUB		trans-1,3-Dichloropropene	0.23U	ug/kg
				05/25/95	SUB		1,2-Dichloropropane	0.23U	ug/kg
				05/25/95	SUB		Methylene Chloride	0.23U	ug/kg
				05/25/95	SUB		1,1,2,2-Tetrachloroethane	0.23U	ug/kg
				05/25/95	SUB		Tetrachloroethylene	0.23U	ug/kg
				05/25/95	SUB		1,1,1-Trichloroethane	0.23U	ug/kg
				05/25/95	SUB		1,1,2-Trichloroethane	0.23U	ug/kg
				05/25/95	SUB		Trichloroethylene	0.23U	ug/kg
				05/25/95	SUB		Trichlorofluoromethane	0.23U	ug/kg
				05/25/95	SUB		Vinyl Chloride	0.23U	ug/kg
				05/25/95	SUB		2-Chloroethyl vinyl ether	0.23U	ug/kg
				05/25/95	SUB		1,2-Dichlorobenzene	0.23U	ug/kg
				05/25/95	SUB		1,3-Dichlorobenzene	0.23U	ug/kg
				05/25/95	SUB		1,4-Dichlorobenzene	0.23U	ug/kg
				06/01/95	SUB		cis-1,2-Dichloroethene	0.23U	ug/kg

1030-060-100	95-01103-N	SB-2F	05/18/95	05/25/95	SUB	GC8010	Bromoform	0.25U	ug/kg
				05/25/95	SUB		Bromodichloromethane	0.25U	ug/kg
				05/25/95	SUB		Bromomethane	0.25U	ug/kg
				05/25/95	SUB		Carbon Tetrachloride	0.25U	ug/kg
				05/25/95	SUB		Chlorobenzene	0.25U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01103-N	SB-2F	05/18/95	05/25/95	SUB	GC8010	Chloroethane	0.25U	ug/kg
				05/25/95	SUB		Chloroform	0.25U	ug/kg
				05/25/95	SUB		Chloromethane	0.25U	ug/kg
				05/25/95	SUB		cis-1,3-Dichloropropene	0.25U	ug/kg
				05/25/95	SUB		Dibromochloromethane	0.25U	ug/kg
				05/25/95	SUB		Dichlorofluoromethane	0.25U	ug/kg
				05/25/95	SUB		1,1-Dichloroethane	15	ug/kg
				05/25/95	SUB		1,2-Dichloroethane	0.25U	ug/kg
				05/25/95	SUB		1,1-Dichloroethene	0.25U	ug/kg
				05/25/95	SUB		trans-1,2-Dichloroethene	0.25U	ug/kg
				05/25/95	SUB		trans-1,3-Dichloropropene	0.25U	ug/kg
				05/25/95	SUB		1,2-Dichloropropane	0.25U	ug/kg
				05/25/95	SUB		Methylene Chloride	0.25U	ug/kg
				05/25/95	SUB		1,1,2,2-Tetrachloroethane	0.25U	ug/kg
				05/25/95	SUB		Tetrachloroethylene	0.25U	ug/kg
				05/25/95	SUB		1,1,1-Trichloroethane	0.25U	ug/kg
				05/25/95	SUB		1,1,2-Trichloroethane	0.25U	ug/kg
				05/25/95	SUB		Trichloroethylene	0.25U	ug/kg
				05/25/95	SUB		Trichlorofluoromethane	0.25U	ug/kg
				05/25/95	SUB		Vinyl Chloride	0.25U	ug/kg
				05/25/95	SUB		2-Chloroethyl vinyl ether	0.25U	ug/kg
				05/25/95	SUB		1,2-Dichlorobenzene	0.25U	ug/kg
				05/25/95	SUB		1,3-Dichlorobenzene	0.25U	ug/kg
				05/25/95	SUB		1,4-Dichlorobenzene	0.25U	ug/kg
				05/25/95	SUB		cis-1,2-Dichloroethene	5.5	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	---------								
1030-060-100	95-01104-N	SB-3C	05/18/95	06/01/95	SUB	GC8010	Bromoform	0.23U	ug/kg
				06/01/95	SUB		Bromodichloromethane	0.23U	ug/kg
				06/01/95	SUB		Bromomethane	0.23U	ug/kg
				06/01/95	SUB		Carbon Tetrachloride	0.23U	ug/kg
				06/01/95	SUB		Chlorobenzene	0.23U	ug/kg
				06/01/95	SUB		Chloroethane	0.23U	ug/kg
				06/01/95	SUB		Chloroform	0.23U	ug/kg
				06/01/95	SUB		Chloromethane	0.23U	ug/kg
				06/01/95	SUB		cis-1,3-Dichloropropene	0.23U	ug/kg
				06/01/95	SUB		Dibromochloromethane	0.23U	ug/kg
				06/01/95	SUB		Dichlorofluoromethane	0.23U	ug/kg
				06/01/95	SUB		1,1-Dichloroethane	0.23U	ug/kg
				06/01/95	SUB		1,2-Dichloroethane	0.23U	ug/kg
				06/01/95	SUB		1,1-Dichloroethene	0.23U	ug/kg
				06/01/95	SUB		trans-1,2-Dichloroethene	0.23U	ug/kg
				06/01/95	SUB		trans-1,3-Dichloropropene	0.23U	ug/kg
				06/01/95	SUB		1,2-Dichloropropane	0.23U	ug/kg
				06/01/95	SUB		Methylene Chloride	0.23U	ug/kg
				06/01/95	SUB		1,1,2,2-Tetrachloroethane	0.23U	ug/kg
				06/01/95	SUB		Tetrachloroethylene	0.23U	ug/kg
				06/01/95	SUB		1,1,1-Trichloroethane	0.23U	ug/kg
				06/01/95	SUB		1,1,2-Trichloroethane	0.23U	ug/kg
				06/01/95	SUB		Trichloroethylene	0.23U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01104-N	SB-3C	05/18/95	06/01/95	SUB	GC8010	Trichlorofluoromethane	0.23U	ug/kg
				06/01/95	SUB		Vinyl Chloride	0.23U	ug/kg
				06/01/95	SUB		2-Chloroethyl vinyl ether	0.23U	ug/kg
				06/01/95	SUB		1,2-Dichlorobenzene	0.23U	ug/kg
				06/01/95	SUB		1,3-Dichlorobenzene	0.23U	ug/kg
				06/01/95	SUB		1,4-Dichlorobenzene	0.23U	ug/kg
				06/01/95	SUB		cis-1,2-Dichloroethene	2.3	ug/kg

1030-060-100	95-01105-N	SB-3G	05/18/95	06/01/95	SUB	GC8010	Bromoform	0.24U	ug/kg
				06/01/95	SUB		Bromodichloromethane	0.24U	ug/kg
				06/01/95	SUB		Bromomethane	0.24U	ug/kg
				06/01/95	SUB		Carbon Tetrachloride	0.24U	ug/kg
				06/01/95	SUB		Chlorobenzene	0.24U	ug/kg
				06/01/95	SUB		Chloroethane	0.24U	ug/kg
				06/01/95	SUB		Chloroform	0.24U	ug/kg
				06/01/95	SUB		Chloromethane	0.24U	ug/kg
				06/01/95	SUB		cis-1,3-Dichloropropene	0.24U	ug/kg
				06/01/95	SUB		Dibromochloromethane	0.24U	ug/kg
				06/01/95	SUB		Dichlorofluoromethane	0.24U	ug/kg
				06/01/95	SUB		1,1-Dichloroethane	1.1	ug/kg
				06/01/95	SUB		1,2-Dichloroethane	0.24U	ug/kg
				06/01/95	SUB		1,1-Dichloroethene	0.24U	ug/kg
				06/01/95	SUB		trans-1,2-Dichloroethene	0.24U	ug/kg
				06/01/95	SUB		trans-1,3-Dichloropropene	0.24U	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: ORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01105-N	SB-3G	05/18/95	06/01/95	SUB	GC8010	1,2-Dichloropropane	0.24U	ug/kg
				06/01/95	SUB		Methylene Chloride	0.24U	ug/kg
				06/01/95	SUB		1,1,2,2-Tetrachloroethane	0.24U	ug/kg
				06/01/95	SUB		Tetrachloroethylene	0.24U	ug/kg
				06/01/95	SUB		1,1,1-Trichloroethane	0.24U	ug/kg
				06/01/95	SUB		1,1,2-Trichloroethane	0.24U	ug/kg
				06/01/95	SUB		Trichloroethylene	0.24U	ug/kg
				06/01/95	SUB		Trichlorofluoromethane	0.24U	ug/kg
				06/01/95	SUB		Vinyl Chloride	0.24U	ug/kg
				06/01/95	SUB		2-Chloroethyl vinyl ether	0.24U	ug/kg
				06/01/95	SUB		1,2-Dichlorobenzene	0.24U	ug/kg
				06/01/95	SUB		1,3-Dichlorobenzene	0.24U	ug/kg
				06/01/95	SUB		1,4-Dichlorobenzene	0.24U	ug/kg
				06/01/95	SUB		cis-1,2-Dichloroethene	1.1	ug/kg

CLIENT RESULTS SUMMARY REPORT
Revision Notes: COMPLETE REPORT

WESTCHESTER COUNTY

Contact: MIKE VAN DER HEIJDEN, MPI-NNJ
MPI Project Manager:

Group: INORGANICS

Project #	Lab Id	Client Id	Date Sampled	Date Analyzed	By	Analysis	Parameter	Result	Units
1030-060-100	95-01100-N	SB-1A	05/18/95	06/01/95	SUB	TS-%	Total Solids	82	%
1030-060-100	95-01101-N	SB-1A DUP	05/18/95	06/01/95	SUB	TS-%	Total Solids	84	%
1030-060-100	95-01102-N	SB-2C	05/18/95	06/01/95	SUB	TS-%	Total Solids	88	%
1030-060-100	95-01103-N	SB-2F	05/18/95	06/01/95	SUB	TS-%	Total Solids	79	%
1030-060-100	95-01104-N	SB-3C	05/18/95	06/01/95	SUB	TS-%	Total Solids	87	%
1030-060-100	95-01105-N	SB-3G	05/18/95	06/01/95	SUB	TS-%	Total Solids	83	%

MALCOLM PIRNIE, INC.
ENVIRONMENTAL LABORATORY
707 OLD SAW MILL RIVER ROAD
TARRYTOWN, NY 10591
TEL. 914-345-8230
FAX. 914-345-8741

CHAIN OF CUSTODY RECORD

NAME OF CLIENT Malcolm Pirnie
PROJECT NUMBER 10300601.00
ADDRESS One International Blvd
CITY Mahwah STATE NJ ZIPCODE
CONTACT NAME Mike Van der Heijden TEL#

FOR LAB USE ONLY
CCR #
QUOTE #
REPORT #

PROJECT DESCRIPTION:

SAMPLER SIGNATURE: Charles Trim DATE: 5/19/95

IF SAMPLE(S) REQUIRE SPECIAL QA/QC, CHECK HERE ☐ AND DESCRIBE:
NY ELAP

PRESERVATIVE TYPE CHECK(S)
1. HNO3 ☐
2. H2SO4 ☐
3. H3PO4 ☐
4. HCl ☒
5. NaOH ☐
6. Na2SO3 ☐
7. None ☐
8. Other(s) ☐

SAMPLE RECEIVE ☐
SAMPLE LOGGING ☐
SAMPLE DISTRIB. ☐

SAMPLE I.D	DESCRIPTION	DATE	TIME	MATRIX	PRESERVATION	NO. OF CONTAINERS: 20	Volatiles Organic Compounds	Acid Extractable Compounds	Base/Neutral Extractable Compounds	Pesticides	PCB's	Herbicides	Cyanide	EP. Toxicity-Organics	EP. Toxicity-Inorganics	Phenols	Metals	Others:	REMARKS
FB51895	Field Blank	5/18/95	1350	water	HCL		X												95-1093
FB51795	Field Blank	5/17/95	1420	Water	HCL		X												1094
TB51795	Trip Blank	5/17/95		Water	HCL		X												1095
HP-1	HydroPunch -1	5/18/95	1100	Groundwater	HCL		X												1096
HP-1 DUP	HydroPunch-1 duplicate	5/18/95	1100	Groundwater	HCL		X												1097
HP-2	Hydropunch - 2	5/17/95	1345	Groundwater	HCL		X												1098
HP-3	Hydropunch - 3	5/17/95	1645	Groundwater	HCL		X												1099
SB-1A	Soil Boring-1 (1.5'-2.0')	5/18/95	1730	soil	—		X												1100
SB-1A DUP	Soil Boring-1 Duplicate (1.5'-2.0')	5/18/95	1730	Soil	—		X												1101
SB-2C	Soil Boring-2 (5.5'-6.0')	5/18/95	1610	soil	—		X												1102
SB-2F	Soil Boring-2 (11.5'-12.0')	5/18/95	1615	Soil	—		X												1103
SB-3C	Soil Boring 3 (5.5-6.0')	5/18/95	1400	Soil	—		X												1104
SB-3G	Soil Boring 3 (11.0-12.5')	5/18/95	1410	Soil	—		X												1105

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time	Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
Charles Trim	5/19/95		[illegible]	5/19/95	14:00						
Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time						

REMARKS
VOC Analyses of Soil - EPA method 8010 *
VOC Analyses of water - EPA method 601 *

FORM#MPL # 002 7/90

KEY TO REPORT

LAB ID -D = MATRIX DUPLICATE OF ORIGINAL SAMPLE
-N = ORIGINAL SAMPLE
-S = MATRIX SPIKE OF ORIGINAL SAMPLE

ATT--SEE ATTACHED.

B--THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE BLANK AS WELL AS THE SAMPLE. IT INDICATES POSSIBLE/PROBABLE CONTAMINATION, AND WARNS THE USER TO TAKE APPROPRIATE ACTION.

BR--BROKEN UPON RECEIPT.

D--THIS VALUE IS FROM A SECONDARY DILUTION ANALYSIS.

E--INDICATES THIS VALUE EXCEEDED THE CALIBRATION RANGE.

J--INDICATES AN ESTIMATED VALUE. THE RESULT IS LESS THAN THE SAMPLE QUANTITATIVE LIMIT BUT GREATER THAN ZERO.

LE--LABORATORY ERROR.

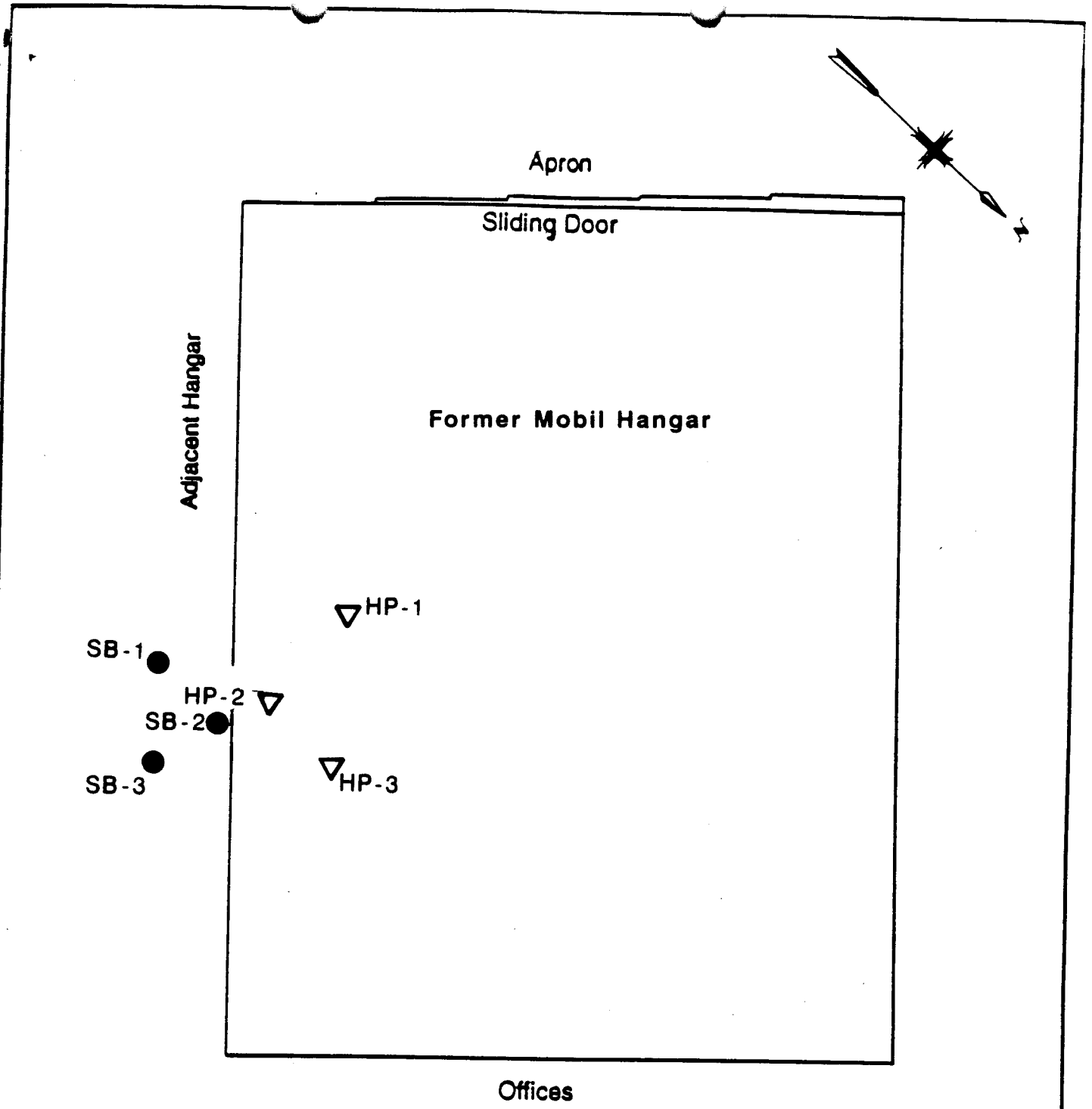
NA--NOT APPLICABLE.

ND--NOT DETECTED.

NES--NOT ENOUGH SAMPLE.

R--REPETITIVE.

U--INDICATES COMPOUND WAS ANALYZED FOR BUT NOT DETECTED.



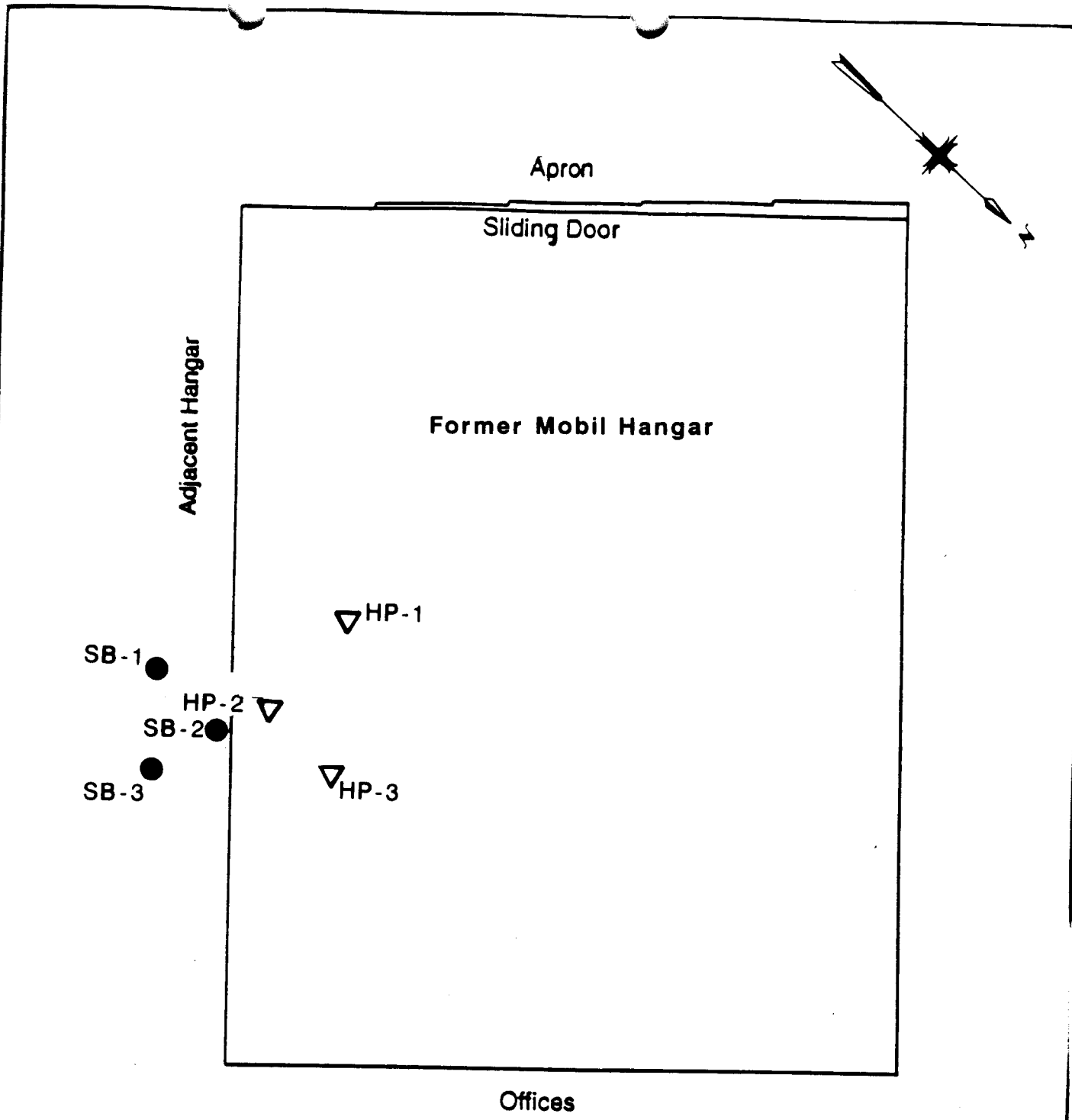
MALCOLM PIRNIE

MOBIL OIL CORPORATION
FORMER MOBIL HANGAR
WESTCHESTER COUNTY AIRPORT
SOIL AND GROUNDWATER SAMPLING LOCATIONS

MALCOLM PIRNIE, INC

FIGURE 2-1

07504/



MALCOLM PIRNIE

MOBIL OIL CORPORATION
FORMER MOBIL HANGAR
WESTCHESTER COUNTY AIRPORT

MALCOLM PIRNIE, INC.

FIGURE 2-1

075047