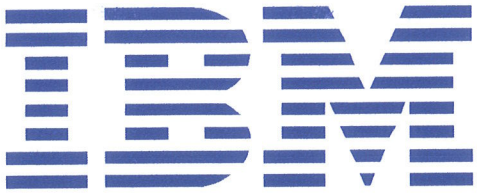

Hudson Valley, New York

IBM POUGHKEEPSIE
FORMER ANTENNA DRUM STORAGE AREA
SOIL RCRA FACILITY INVESTIGATION
MAIN PLANT SITE

Part 373 Hazardous Waste Permit 3-1346-00035/00123

US EPA ID # NYD 08480734

Prepared for:

IBM Hudson Valley
Poughkeepsie, New York

December 18, 1997

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Table of Contents

Table of Tables

Table of Figures

Table of Appendices

1 SUMMARY INTRODUCTION

1.1 Summary

The RCRA Facility Investigation (RFI) performed at the Former Antenna Drum Storage Area for soil was performed to satisfy Module Condition III.E.5.(a) of the site's Part 373 Hazardous Waste Permit. Based on the schedule provided to the New York State Department of Environmental Conservation (NYSDEC) in the original work plan prepared for this RFI, the due date for this report is December 18, 1997. The report presents the results of 16 collected from a depth of zero to two feet at locations above, below, and downslope from the retaining wall above which the Former Antenna Drum Storage Area formerly operated. The samples were analyzed for semi-volatiles, volatiles, and polychlorinated biphenyls (PCBs)/pesticides using various SW846 analytical methods.

The results indicate that 7 volatile organic compounds (VOCs), 19 base-neutral compounds (BNCs), 7 pesticides and 2 PCB arachlors were detected. One or more of these compounds was present in seven of the 16 samples at concentrations exceeding the recommended soil cleanup objectives published by NYSDEC in a 1994 technical and administrative guidance memorandum. However, due to access limitations to this area and the presence of crushed stone or heavy vegetative cover on those areas where cleanup objectives are exceeded, it has been concluded that there is no significant potential for an exposure pathway to be completed for direct contact to the portion of the soil which exceeds these cleanup objectives. Therefore, it has been concluded that no further RFI or corrective measure study (CMS) activity is necessary in this area beyond the CMS to be performed for groundwater in the Former Antenna Drum Storage Area. The need for this groundwater CMS has already been identified in the groundwater RFI report submitted December 15, 1997 and will be addressed further in a CMS work plan being submitted to NYSDEC on December 31, 1997.

1.2 Facility Background

The Former Antenna Area Drum Storage Facility (SWMU No. 127) is located as shown on Figure 1-1 at a distance of approximately 300 feet east of the Hudson River at the north end of what IBM terms the "lower plant area." The area of investigation measures approximately 40 feet by 100 feet, and is

bounded on the west side by a 12-foot high stone retaining wall. The area behind this wall has been graded with fill to provide a gently sloping pad area.

1.2.1 Current Conditions

In the early 1980s when investigations were performed at this location, a radio antenna dish was in place in the pad area. The name "Antenna Area" is derived from the historical placement of this dish. The antenna dish has since been removed and the pad is currently used as a storage area for plastic and metal piping on elevated racks and as a parking area for pick-up trucks and trailer-mounted equipment. In the northwest corner of the pad area adjacent to the stone wall, there is a concrete pad which measures approximately 60 feet long from north-northeast to south-southwest and is approximately 14-16 feet wide. This concrete pad exhibits circular rust rings, suggesting that it was historically used for the storage of drums.

Based on interviews with current and former IBM employees who were familiar with the drum storage activities in the Antenna Area, this area was used for the storage of both virgin chemicals and waste chemicals in drums in the time period from 1968 to 1973. As such, this drum storage facility was operated in conjunction with former Building 025 (B025) as an area which provided additional drum storage capacity beyond that available in B025. There was reportedly transfer of chemicals both between drums and from trucks to drums.

1.2.2 Chemical Occurrence

Previous investigations have been performed in the Antenna Area beginning in 1979 and concluding in 1982. The initial investigations involved the installation of a single groundwater monitoring well northwest of the drum storage area (MW-B10 on Figure 1-2). This was followed by the installation of four additional monitoring wells (T-83R, T-98R, T-99S, and T-100R) in 1982 (Figure 1-2). Results of chemical analyses of groundwater samples collected from these monitoring wells, and in particular, T-83R, revealed the presence of numerous VOCs, including 1,1,1-trichloroethane (TCA), and

trichloroethene (TCE), and their transformation products, including total 1,2-dichloroethene (1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC). Two micrograms per liter (2 µg/l) of PCB Arachlor 1254 were also detected in monitoring well T-83R.

During this same time period, soil samples were collected from the locations shown in plan view on Figure 1-2 and in cross section on Figure 1-3. These include soil samples from hand-auger locations above the retaining wall ('UV' locations), into the retaining wall at a level 2 feet above its base ('W' locations), and at the base of the retaining wall ('LV' locations). A field report documenting this soil sampling is reproduced herein as Appendix A. As documented in this Appendix and as shown in Figure 1-2, soil sampling was attempted at eight locations, including three above the wall, two behind the wall, and three at the base of the wall. At two of these locations (W-1 and UV-2), it was not possible to recover a soil sample. One soil sample was collected at each of the six remaining locations at various depths ranging from 1 to 8 feet.

Table 1-1 summarizes the results of this sampling effort. As shown on this table, the most prominently detected compound was TCE at concentrations ranging from 16 - 3,400 ug/kg. The highest concentration of TCE (3,400 ug/kg) was present in a sample taken at the base of the wall from a depth of 1 foot, 10 inches to 2 feet. This sample also contained 12,000 ug/kg of PCB Arachlor 1254, which was not detected in any of the other soil samples.

2 CURRENT INVESTIGATION ACTIVITIES

As shown in Figure 1-2, the former Antenna Drum Storage Facility is located above a retaining wall at the head of a small hollow adjacent to the Hudson River. Both the topographic contours on Figure 1-2 and the cross section on Figure 1-3 show that the ground surface slopes steeply away from the base of this retaining wall. Data from monitoring wells beyond the base of the wall shows that the depth to the shale bedrock is generally much less than ten feet and the depth to the water table is 5 feet or less. Groundwater chemistry data recently published in the site's groundwater RFI (GSC, December 15, 1997) also shows that there are substantial concentrations of VOCs in the groundwater downgradient from this SWMU. The focus of this soil investigation, therefore, has been on shallow surficial soils that may have been impacted by releases from this SWMU, including potential spills in the drum storage area and potential surface drainage of liquids downslope from the base of the retaining wall.

Based on this rationale, investigation activities focused on determining the chemical characteristics of surficial soil in three areas: 1.) within the Former Antenna Area Drum Storage Facility, 2.) at the base of the wall adjacent to this drum storage facility, and 3.) down the slope of the ground surface from this wall to the northwest. As such, this investigation involved the collection of surficial soil samples at sixteen locations. Six locations were in the drum storage area above the wall ('UV' locations), five locations were at the base of the wall ('LV' locations), and five locations were located at various distances downslope from the wall ('DS' locations). These locations are shown on Figure 2-1. One sample was collected at each location from a depth of 0-2 feet below ground surface and was analyzed for VOCs by SW846 Method 8240, PCBs and pesticides by SW846 Method 8080, and semi-volatile organic compounds by SW846 Method 8270.

Sampling activities above the wall included the collection of shallow soil samples at two historical sampling locations UV-1 and UV-3. (Previous sampling at these locations was conducted in deeper intervals ranging from 3 to 7 feet). The remaining four locations included two locations in the area of

the concrete pad, UV-5 and UV-6, one location between the concrete pad and the stone retaining wall, UV- 4 , and one location south of the concrete pad, UV-7 (Figure 2-1).

Sampling activities at the base of the wall included the collection of shallow soil samples at two historical sampling locations LV-2 and LV-3. (Previous sampling at LV-2 revealed the highest concentrations of TCE and PCB Arachlor 1254 and previous sampling at LV-3 was conducted from 2 feet, 10 inches to 3 feet, 5 inches). The remaining three soil samples were collected at locations LV-4, LV-5, and LV-6, which are spaced out along the base of the retaining wall as shown in Figure 2-1.

Soil samples were also collected downslope from the stone retaining wall. Samples at two of these locations, DS-1 and DS-3 were collected in an area coincident with a drainage swale extending from former sampling location LV-2 to the nearest groundwater monitoring well T-83R. The remaining three samples were collected at DS-2, DS-4, and DS-5, which are located at various distances to the northwest of the retaining wall as shown on Figure 2-1.

Field Data Sheets and Chain of Custody Records for each of the samples collected as part of this investigation are attached hereto in Appendix B. The description of soils encountered at each location are presented in the "Additional Notes" section of each field data sheet.

3 RESULTS OF INVESTIGATION

The results of the soil investigation at the Former Antenna Drum Storage Area are presented in a full printout of analytical data in Appendix C together with associated QA/QC data. Summaries of chemical compounds detected are presented on Figures 3-1 through 3-4 and in Tables 3-1 through 3-3. The four Figures show the distribution of detections of each of the chemical classes (e.g., VOCs) throughout the area of investigation. By contrast, the three tables show the detections of these four groups of compounds within each of the specific areas sampled (e.g., upper vertical locations which are above the retaining wall). The first of the two following subsections examines the data as shown on the four figures and the second subsection examines the data as presented in the three tables.

3.1 Chemical Occurrence

Chemical compounds detected during these investigations fall into four general classes. These include BNCs, VOCs, pesticides and PCBs.

3.1.1 Base-Neutral Compounds

Figure 3-1 shows the distribution of BNCs detected in the soil sampling locations during these investigations. In total, 19 BNCs were detected. These include primarily polynuclear aromatic hydrocarbons (PAHs) such as benzo(a)pyrene, a single phthalate (bis-2-ethylhexyl phthalate), and a single furan (dibenzofuran). Concentrations of these compounds range as high at 19,000 µg/kg in the case of flouranthene at sampling location UV-03.

The PAHs that predominate in the BNC fraction are very commonly present at industrial facilities. They are also very commonly present in many urban environments as a result of atmospheric deposition of combustion products from fossil fuels. It is, therefore, not surprising to find PAHs at the Main Plant site at the concentrations identified during the sampling.

3.1.2 Volatile Organic Compounds

In total, seven VOCs were detected during these investigations. As shown on Figure 3-2, these VOCs include 1,1,1-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA), total 1,2-dichlorethene (1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichlorobenzene (1,2-DCB) and toluene (TOL). As such, these compounds include five chlorinated alkanes or alkenes, one chlorinated benzene, and one aromatic compound. The highest concentration of any one of these VOCs detected during this sampling was 660 µg/kg of TCE at location LV-02.

3.1.3 Pesticides

As shown on Figure 3-3, in all, seven pesticides were detected based on the results of this investigation. These seven pesticides include 4,4′-DDD, 4,4′-DDE, 4,4′-DDT, dieldrin, endrin, methoxychlor, and chlordane. The highest concentration detected among this class of compounds was 400 µg/kg of chlordane at location LV-04 at the northern end of the retaining wall.

3.1.4 Polychlorinated Biphenols

As shown on Figure 3-4, only two PCB arachlors were detected during this sampling. These are PCB-1254 and PCB-1260. The highest concentration of a PCB arachlor detected during this sampling was 1,800 µg/kg at location LV-06 near the southern end of the retaining wall.

3.2 Spatial Distribution of Soil Chemistry

Tables 3-1 through 3-3 show the occurrence of chemicals in soil grouped according to their location. In this regard, Table 3-1 shows soil sampling results for the"upper vertical locations" which are above the retaining wall, Table 3-2 shows results for sampling locations termed "lower vertical locations" that are at the base of the retaining wall, and finally, Table 3-3 shows the data for the "downslope locations" that are down the slope of the topography in a west-northwesterly direction from the retaining wall.

These tables have also been annotated to show those concentrations of various compounds detected which exceed the recommended soil cleanup objectives published by NYSDEC in a technical and administrative guidance memorandum dated January 24, 1994. As can be seen from Table 3-1, those cleanup objectives are exceeded in samples collected above the retaining wall only for a group of PAHs that occur primarily at one sampling location (UV-03). Other than these PAHs, there are no exceedences of the cleanup objectives in samples collected above the retaining wall.

As shown on Table 3-2, several of these same PAHs are also present in samples collected at the lower vertical locations at concentrations which exceed their respective cleanup objectives. However, in general, the concentrations of PAHs detected in these lower vertical location samples are much lower than the maximum concentrations identified in the upper vertical location, UV-03. In addition to these several PAH compounds which exceed cleanup objectives, there is also one pesticide (dieldrin) and one PCB arachlor (PCB-1254) which also exceed their respective cleanup objectives in a single sample collected at location LV-06.

Finally, looking at the downslope locations as shown on Table 3-3, the only values exceeding the cleanup objectives are for three PAHs at one sampling location and a single PAH at a second sampling location. Furthermore, the concentrations of PAHs in soils downslope from the retaining wall are, on the whole, much lower than the concentrations present above the wall or at the base of the wall.

4 CORRECTIVE MEASURE STUDY NEEDS

Based on the results of the RFI sampling, the need for a CMS has been evaluated. On the basis of this evaluation, it has been concluded that no further RFI or CMS activities are necessary. This is based on the following:

1. The portion of the study area above the retaining wall is completely enclosed by an 8-foot high fence with three strands of barbed wire around its top. This area is accessed by way of a gate which is locked at all times. Furthermore, the ground surface within this enclosed area is comprised either of a concrete pad or a layer of crushed stone. Given that the constituents which exceed there respective cleanup objectives in this area are semi-volatile compounds, any exposure would be associated with direct contact by ingestion. Due to the current configuration of this area, therefore, there is no completed exposure pathway to the limited area of soil that exhibits concentrations exceeding the cleanup objectives.

2. The area adjacent to the base of the retaining wall is heavily overgrown and approached by climbing a fairly steep slope in heavy underbrush, much of which is poison ivy. The only road servicing this area is also fenced off and gated, thus restricting access to this area. Given the current conditions of this area, the limitations on access, and the limited extent of any concentrations exceeding cleanup objectives, there is no significant potential for an exposure pathway to be completed in this area.

3. For the area downslope of the wall, the concentrations of PAHs and their areal distribution are limited and the access to this area is restricted, as noted above for the lower vertical locations. Therefore, there is also no significant potential for a completed pathway to exist in this area.

Given the foregoing description of site conditions as it relates to exposure, it has been concluded that no further action is necessary in the Former Antenna Drum Storage Area other than those CMS activities planned to address groundwater conditions. In this regard, the recently submitted RFI for

groundwater identifies the Former Antenna Drum Storage Area as one of four areas in which a CMS will be performed to determine the feasibility and approach to be taken to controlling groundwater migration. However, the results of soil sampling performed in the current study do not indicate that soil mitigation efforts could provide any meaningful improvement in the groundwater contamination problem at this SWMU.

Table 1-1
Hand Augered Soil Samples Antenna Area
10 March 1982

	LV-2 S-3	LV-1 S-4	LV-3 S-3	W-2 S-4	UV-3 S-5	UV-1 S-2
Sampling Depth	1'10" - 2'0"	1'0" - 1'4"	2'10" - 3'5"	6'0" - 8'0"	6'6" - 7'0"	3'2" - 5'2"
% Dry Weight	85	85	89	93	93	92
TCM	≤10	ND	ND	≤10	ND	≤10
DCM	≤10	≤10	≤10	74	ND	23
PCE	17	30	ND	≤10	ND	ND
1,1,1-TCA	22	≤10	ND	ND	ND	ND
TCE	3400	59	19	660	16	17
CBZ	ND	≤10	ND	ND	ND	ND
-BHC	40	20	40	30	90	20
Endrin	ND	ND	70	ND	ND	ND
PCB 1254	12,000	ND	ND	ND	ND	ND

Concentrations are in ug/kg.
Note: For Sampling Locations, see Figures 1-2 and 1-3

Table 3-1

Summary of Soil Sampling Hits - Upper Vertical Locations

Parameter Name	Soil Sampling Location (All results are in ug/kg) UV-1	UV-3	UV-4	UV-5	UV-6	UV-7	Recommended Soil Cleanup Objectives* (ug/kg)
B/N/Extractables							
2-Methylnaphthalene	ND@370	190J	ND@380	ND@370	ND@370	ND@370	36,400
Acenaphthene	ND@370	2,800	ND@380	ND@370	ND@370	ND@370	50,000
Acenaphthylene	ND@370	140J	ND@380	ND@370	ND@370	ND@370	41,000
Anthracene	ND@370	3,200	43J	ND@370	ND@370	ND@370	50,000
Benzo(a)anthracene	ND@370	8,500D	230J	ND@370	ND@370	ND@370	224 or MDL
Benzo(a)pyrene	ND@370	8,300D	170J	ND@370	ND@370	ND@370	61 or MDL
Benzo(b)fluoranthene	ND@370	9,900D	270J	ND@370	ND@370	ND@370	1,100
Benzo(ghi)perylene	ND@370	3,000	99J	ND@370	ND@370	ND@370	50,000
Benzo(k)fluoranthene	ND@370	3,500DJ	92J	ND@370	ND@370	ND@370	1,100
Bis(2-ethylhexyl)phthalate	88J	140J	1,800	75J	ND@370	ND@370	50,000
Chrysene	ND@370	7,400DJ	210J	ND@370	ND@370	ND@370	400
Dibenzo(ah)anthracene	ND@370	300J	ND@380	ND@370	ND@370	ND@370	14 or MDL
Dibenzofuran	ND@370	670	ND@380	ND@370	ND@370	ND@370	6,200
Fluoranthene	ND@370	19,000D	440	ND@370	ND@370	ND@370	50,000
Fluorene	ND@370	1,400	ND@380	ND@370	ND@370	ND@370	50,000
Indeno(1,2,3-c,d)pyrene	ND@370	3,200	100J	ND@370	ND@370	ND@370	3,200
Naphthalene	ND@370	170J	ND@380	ND@370	ND@370	ND@370	13,000
Phenanthrene	ND@370	6,300DJ	260J	ND@370	ND@370	ND@370	50,000
Pyrene	ND@370	20,000D	510	ND@370	ND@370	ND@370	50,000
Volatile Organics							
1,1,1-Trichloroethane	ND@11	7J	ND@11	ND@11	ND@11	ND@11	800
1,1,2-Trichloroethane	ND@11	4J	ND@11	ND@11	ND@11	ND@11	NA
1,2-Dichlorobenzene	ND@11	2J	ND@11	ND@11	ND@11	ND@11	7,900
1,2-Dichloroethene (Total)	ND@11	11	ND@11	ND@11	ND@11	ND@11	100
Tetrachloroethane	ND@11	27	ND@11	ND@11	ND@11	2J	1,400
Toluene	ND@11	ND@11	ND@11	ND@11	ND@11	2J	1,500
Trichloroethane	3J	140	1J	ND@11	1J	18	700
Pesticides							
4,4'-DDD	ND@3.7	ND@3.8	ND@3.8	ND@3.6	ND@3.7	ND@3.6	2,900
4,4'-DDE	1.8JP	ND@3.8	0.8J	ND@3.6	ND@3.7	6.4	2,100
4,4'-DDT	ND@3.7J	ND@3.8	5J	ND@3.6J	ND@3.7J	4J	2,100
Dieldrin	0.6JP	12	0.7JP	ND@3.6	ND@3.7	ND@3.6	44
PCBs							
PCB-1260	21	ND@38	ND@38	ND@36	ND@37	ND@36	1,000

ND@ - Not detected at Detection Limit X
MDL - Method detection limit
D - Compounds identified at a secondary dilution factor
J - Estimated Value
P - Lower of 2 GC column concentrations that have more than 25% difference
- Value exceeds recommended soil cleanup objectives
*NYSDEC Technical and Administrative Guidance Document (January 24, 1994)

Table 3-2

Summary of Soil Sampling Hits - Lower Vertical Locations

Parameter Name	Soil Sampling Location (All results are in ug/kg) LV-2	LV-3	LV-4	LV-5	LV-6	Recommended Soil Cleanup Objectives* (ug/kg)
B/N/Extractables						
Acenaphthene	ND@390J	ND@410	59J	ND@380	ND@380	50,000
Acenaphthylene	ND@390J	ND@410	ND@360	ND@380	ND@380	41,000
Anthracene	ND@390J	ND@410	240J	ND@380	ND@380	50,000
Benzo(a)anthracene	200J	ND@410	1,200	ND@380	120J	224 or MDL
Benzo(a)pyrene	230J	ND@410	930	ND@380	100J	61 or MDL
Benzo(b)fluoranthene	290J	ND@410	1,800	ND@380	180J	1,100
Benzo(ghi)perylene	180J	ND@410	360	ND@380	84J	50,000
Benzo(k)fluoranthene	96J	ND@410	420	ND@380	ND@380	1,100
Bis(2-ethylhexyl)phthalate	170J	ND@410	1,100	ND@380	150J	50,000
Chrysene	200J	ND@410	1,100	ND@380	160J	400
Dibenzo(ah)anthracene	ND@390J	ND@410	130J	ND@380	ND@380	14 or MDL
Di-n-octyl phthalate	ND@390J	ND@410	36J	ND@380	ND@380	50,000
Fluoranthene	320J	ND@410	1,900D	ND@380	230J	50,000
Fluorene	ND@390J	ND@410	75J	ND@380	ND@380	50,000
Indeno(1,2,3-c,d)pyrene	100J	ND@410	340J	ND@380	60J	3,200
Phenanthrene	130J	ND@410	1,500	ND@380	140J	50,000
Pyrene	440J	ND@410	2,600	ND@380	220J	50,000
Volatile Organics						
1,1,1-Trichloroethane	34	2J	ND@11	ND@11	2J	800
1,2-Dichloroethene (Total)	ND@12	2J	ND@11	ND@11	2J	100
Tetrachloroethane	30	11J	ND@11	ND@11	3J	1,400
Toluene	1J	ND@12	ND@11	ND@11	1J	1,500
Trichloroethane	660D	52	1J	4J	190D	700
Pesticides						
4,4'-DDD	ND@3.9	ND@4.1	3P	ND@3.8	ND@3.8	2,900
4,4'-DDE	33	2J	ND@3.6	3.1J	90E	2,100
4,4'-DDT	170D	2.7J	33J	7J	190D	2,100
Dieldrin	ND@3.9	ND@4.1	9.4P	ND@3.8	160EP	44
Endrin	ND@3.9	ND@4.1	1.7P	ND@3.8	ND@3.8	100
Methoxychlor	ND@20J	ND@20J	ND@18J	ND@19J	ND@19J	2,100
Technical Chlordane	ND@20	ND@20	400D	ND@19	ND@19	540
PCBs						
PCB-1254	85	ND@41	ND@36	ND@38	1,800D	1,000
PCB-1260	ND@39	ND@41	ND@36	ND@38	170P	1,000

ND@ - Not detected at Detection Limit X
MDL - Method detection limit
D - Compounds identified at a secondary dilution factor
E - Concentration exceeds the calibration range of the GC/MS instrument
J - Estimated Value
P - Lower of 2 GC column concentrations that have more than 25% difference
 - Value exceeds recommended soil cleanup objectives
*NYSDEC Technical and Administrative Guidance Document (January 24, 1994)

Table 3-3

Summary of Soil Sampling Hits - Downslope Locations

Parameter Name	Soil Sampling Location (All results are in ug/kg) DS-1	DS-2	DS-3	DS-4	DS-5	Recommended Soil Cleanup Objectives* (ug/kg)
B/N/Extractables						
2-Methylnaphthalene	48J	ND@370	ND@370	ND@350	ND@380	36,400
Acenaphthene	55J	ND@370	ND@370	ND@350	ND@380	50,000
Acenaphthylene	170J	ND@370	ND@370	ND@350	ND@380	41,000
Anthracene	82J	ND@370	ND@370	ND@350	ND@380	50,000
Benzo(a)anthracene	740	ND@370	ND@370	36J	67J	224 or MDL
Benzo(a)pyrene	890	ND@370	ND@370	ND@350	62J	61 or MDL
Benzo(b)fluoranthene	2,600	ND@370	ND@370	57J	110J	1,100
Benzo(ghi)perylene	530	ND@370	ND@370	ND@350	ND@380	50,000
Benzo(k)fluoranthene	490	ND@370	ND@370	ND@350	ND@380	1,100
Bis(2-ethylhexyl)phthalate	450	ND@370	ND@370	ND@350	89J	50,000
Chrysene	1,700	ND@370	ND@370	40J	75J	400
Dibenzo(ah)anthracene	190J	ND@370	ND@370	ND@350	ND@380	14 or MDL
Fluoranthene	3,300D	ND@370	46J	66J	140J	50,000
Indeno(1,2,3-c,d)pyrene	580	ND@370	ND@370	ND@350	ND@380	3,200
Naphthalene	110J	ND@370	ND@370	ND@350	ND@380	13,000
Phenanthrene	2,200D	ND@370	ND@370	42J	67J	50,000
Pyrene	3,000	41J	41J	73J	110J	50,000
Volatile Organics						
1,1,1-Trichloroethane	2J	ND@11	ND@11	ND@10	ND@11	800
Tetrachloroethane	2J	ND@11	ND@11	ND@10	ND@11	1,400
Trichloroethane	98	2J	2J	2J	2J	700
Pesticides						
4,4'-DDD	0.3JP	ND@3.7	ND@3.8	ND@3.5	ND@3.8	2,900
4,4'-DDE	16	1.7J	0.7J	1J	0.8JP	2,100
4,4'-DDT	32J	1.8J	1.0JP	2.6JP	1.2J	2,100
Methoxychlor	ND@18J	ND@18J	1.2J	ND@18J	ND@19J	2,100

ND@ - Not detected at Detection Limit X
MDL - Method detection limit
D - Compounds identified at a secondary dilution factor
J - Estimated Value
P - Lower of 2 GC column concentrations that have more than 25% difference
- Value exceeds recommended soil cleanup objectives
*NYSDEC Technical and Administrative Guidance Document (January 24, 1994)

Figures

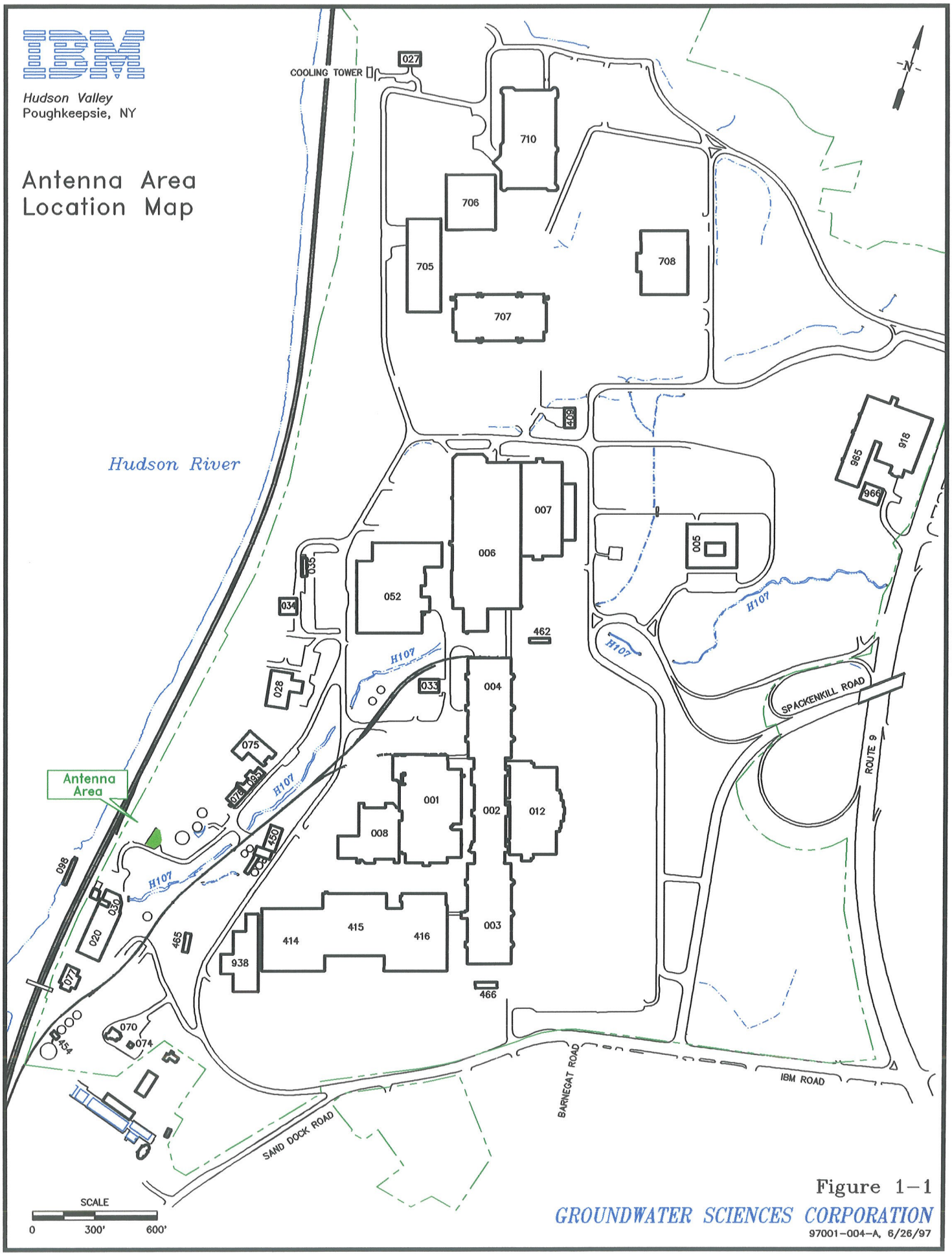


Figure 1–1

GROUNDWATER SCIENCES CORPORATION

97001–004–A, 6/26/97

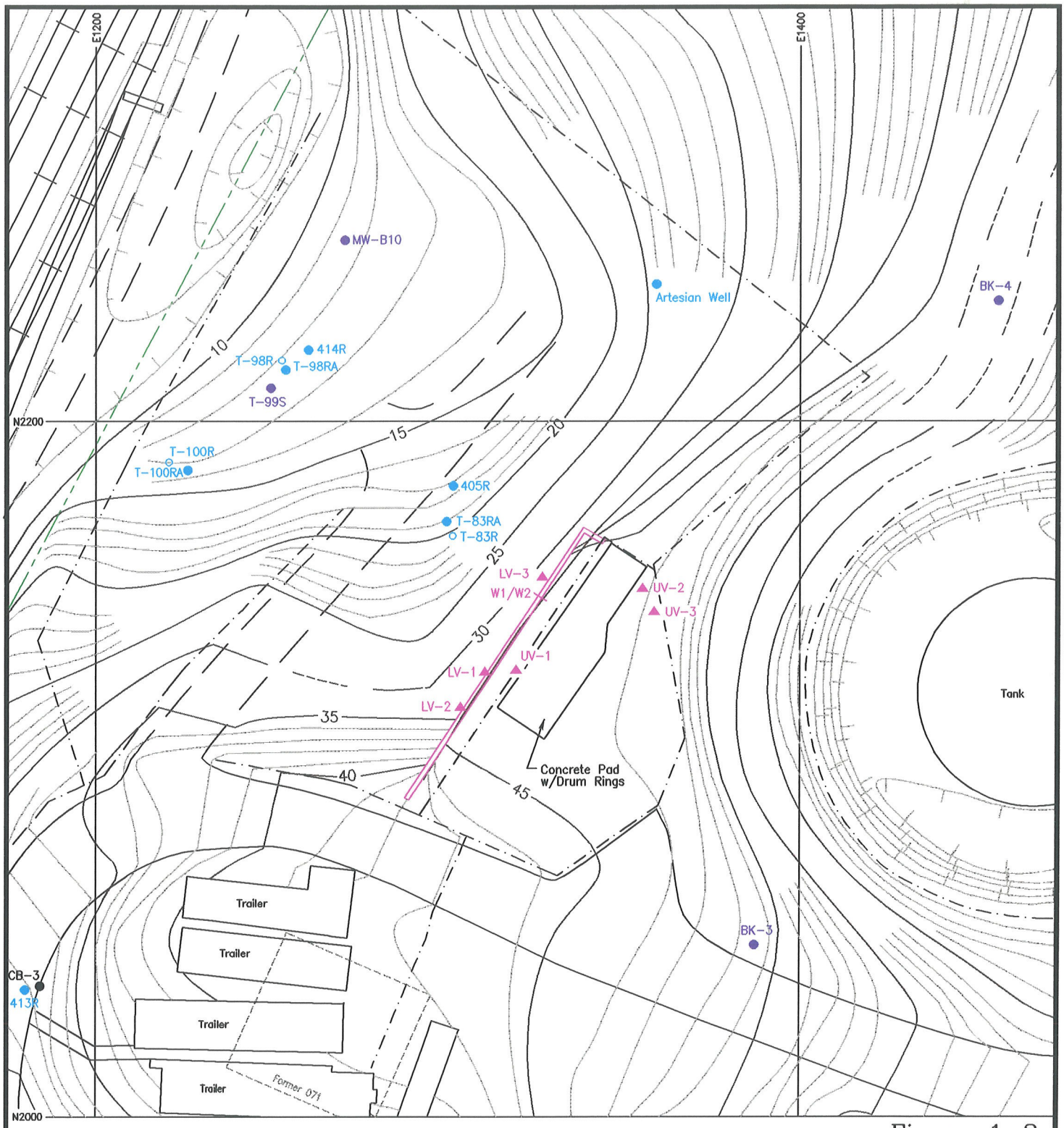


Figure 1-2

UV-1 ▲ – Historical Soil Sampling Location
– Stone Wall
– Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Bedrock Monitoring Well (Abandoned)

Scale
0 20' 40'

IBM
Poughkeepsie, New York

Antenna Area
Historical Sampling Locations

DRAWN BY: MKM	DATE: 6/26/97	DRAWING NO. 97001-003-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

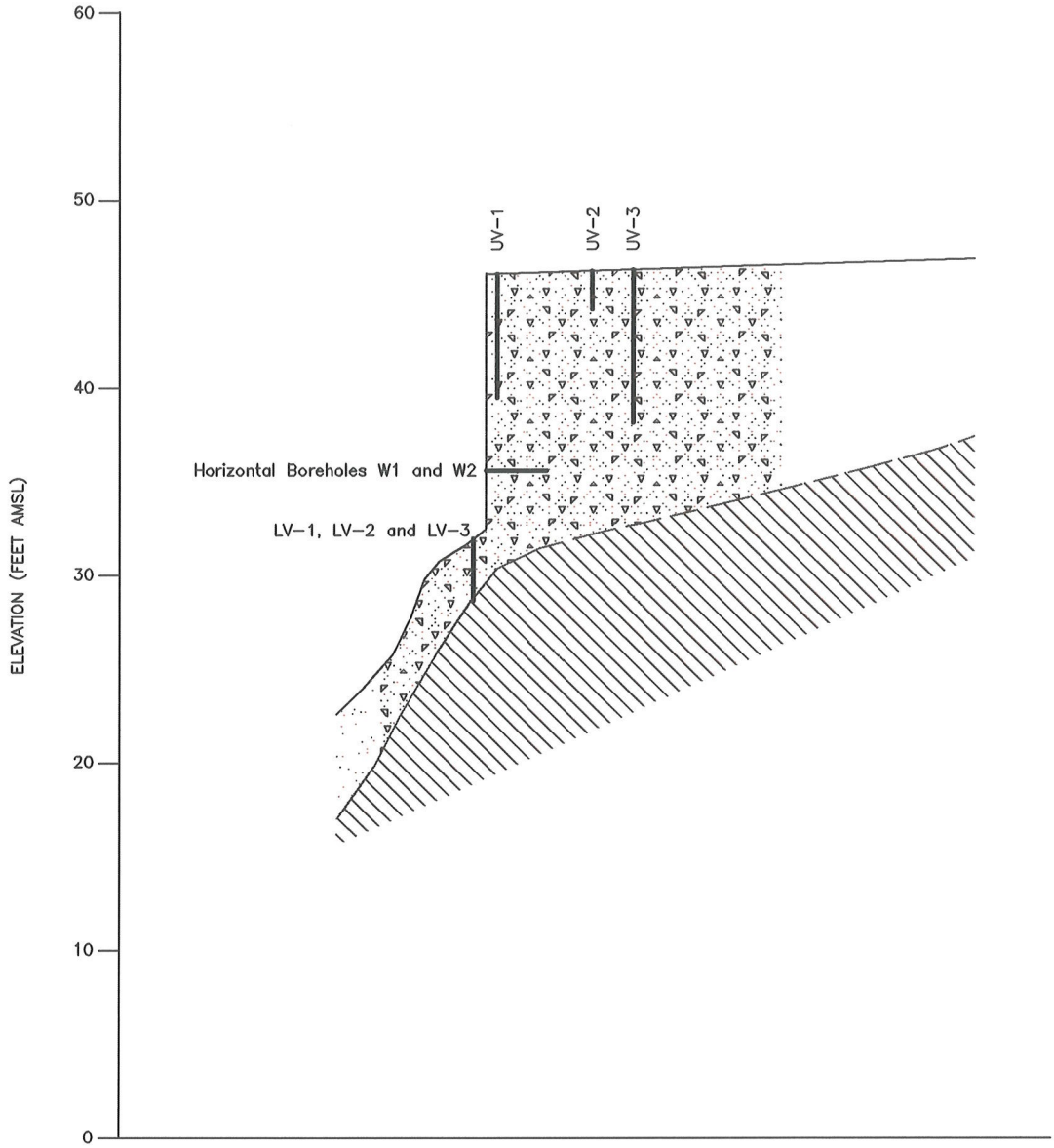


Figure 1-3

Scale
0 5' 10'

From REWAI drawing no. 8061-026-B, 5/12/82.

IBM
Poughkeepsie, New York

Antenna Area
Soil Sampling Cross Section

DRAWN BY: MKM DATE: 7/21/97	DRAWING NO.
CHECKED & APPROVED BY: CGR	97001-CS01

GROUNDWATER SCIENCES CORPORATION

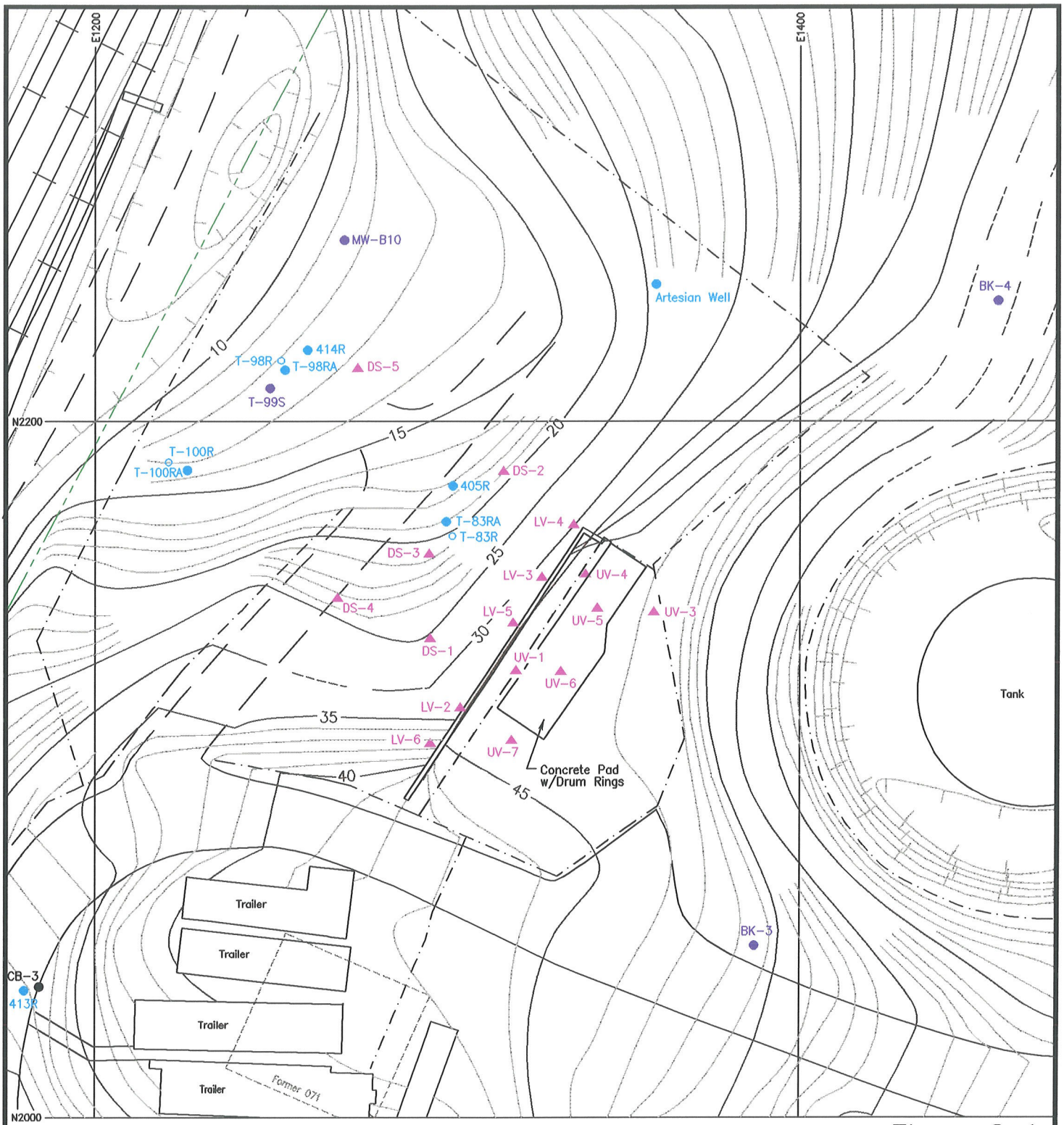


Figure 2-1

▲ – Soil Sampling Location
UV – Upper Vertical
LV – Lower Vertical
DS – Down Slope
– Stone Wall
– Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Bedrock Monitoring Well (Abandoned)

Scale
0 20' 40'

IBM
Poughkeepsie, New York

Antenna Area Sampling Locations

DRAWN BY: MJM	DATE: 12/3/97	DRAWING NO. 97001-003-D
CHECKED & APPROVED BY: DAB/DRM		

GROUNDWATER SCIENCES CORPORATION

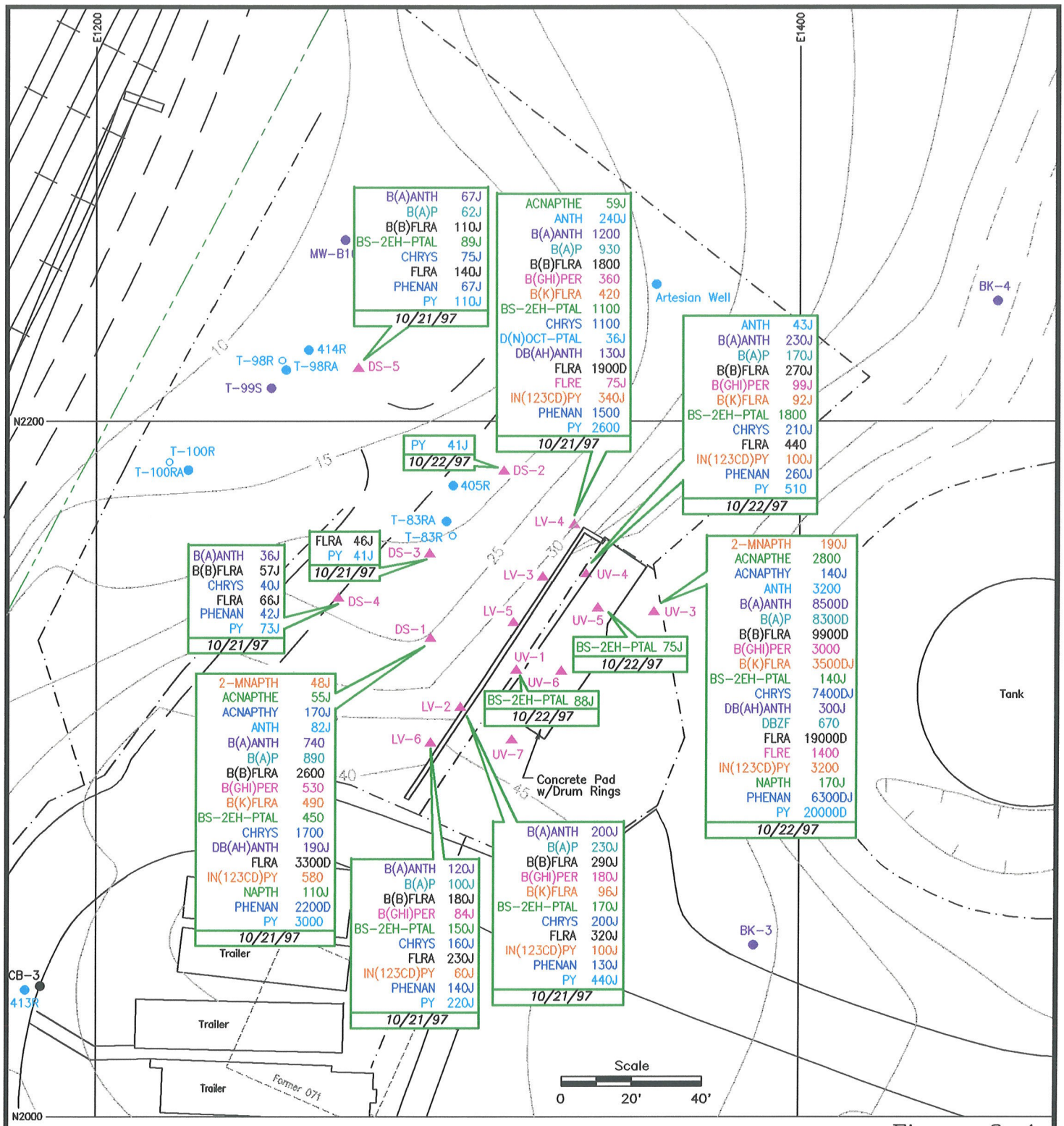


Figure 3-1

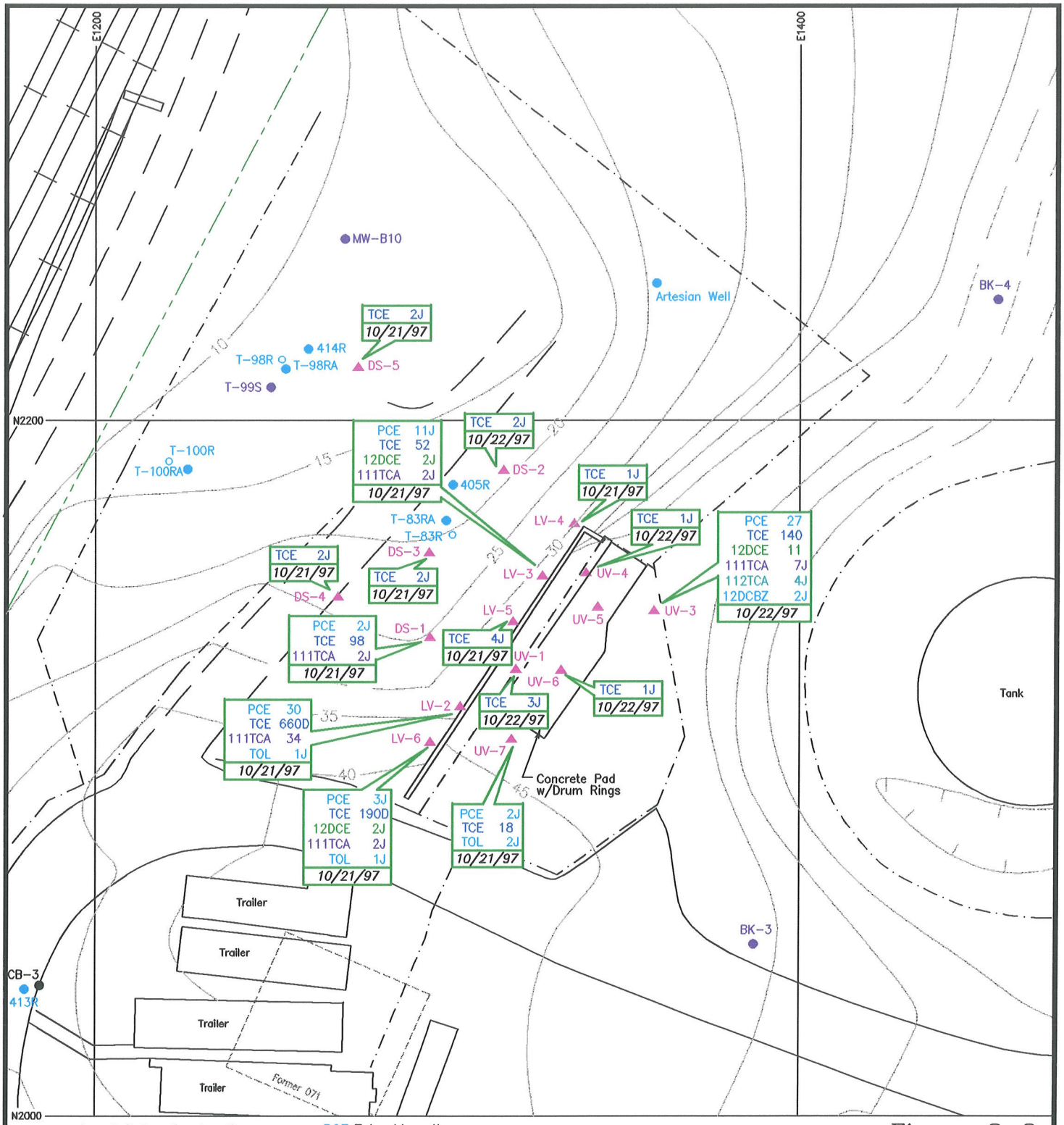
▲ – Soil Sampling Location
UV – Upper Vertical
LV – Lower Vertical
DS – Down Slope
– Stone Wall
– Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Abandoned BR MW
2-MNAPTH 2-Methylnaphthalene
ACNAPTHE Acenaphthene
ACNAPTHY Acenaphthylene
ANTH Anthracene
B(A)ANTH Benzo(a)anthracene
B(A)P Benzo(a)pyrene
B(B)FLRA Benzo(b)fluoranthene
B(GHI)PER Benzo(ghi)perylene
B(K)FLRA Benzo(k)fluoranthene
BS-2EH-PTAL Bis(2-ethylhexyl)phthalate
CHRYS Chrysene
D(N)OCT-PTAL Di-n-octyl phthalate
DB(AH)ANTH Dibenzo(a,h)anthracene
DBZF Dibenzofuran
FLRA Fluoranthene
FLRE Fluorene
IN(123CD)PY Indeno(1,2,3-c,d)pyrene
NAPTH Naphthalene
PHENAN Phenanthrene
PY Pyrene
D Compounds identified at a secondary dilution factor
J Estimated Value
(All concentrations ug/kg)

IBM
Poughkeepsie, New York

Antenna Area Semi-Volatiles Sampling Results (Method 8240)

DRAWN BY: MJM	DATE: 12/18/97	DRAWING NO. 97001-008-A
CHECKED & APPROVED BY: DRM		

GROUNDWATER SCIENCES CORPORATION



▲ – Soil Sampling Location
UV – Upper Vertical
LV – Lower Vertical
DS – Down Slope
– Stone Wall
– Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Abandoned BR MW

Scale
0 20' 40'

PCE Tetrachloroethene
TCE Trichloroethene
12DCE 1,2-Dichloroethene (Total)
111TCA 1,1,1-Trichloroethane
112TCA 1,1,2-Trichloroethane
TOL Toluene
12DCBZ 1,2-Dichlorobenzene
D Compounds identified at a secondary dilution factor
J Estimated Value
(All concentrations ug/kg)

Figure 3-2

IBM
Poughkeepsie, New York

Antenna Area Volatiles Sampling Results (Method 8240)

DRAWN BY: MKM	DATE: 12/18/97	DRAWING NO. 97001-007-A
CHECKED & APPROVED BY: DRM		

GROUNDWATER SCIENCES CORPORATION

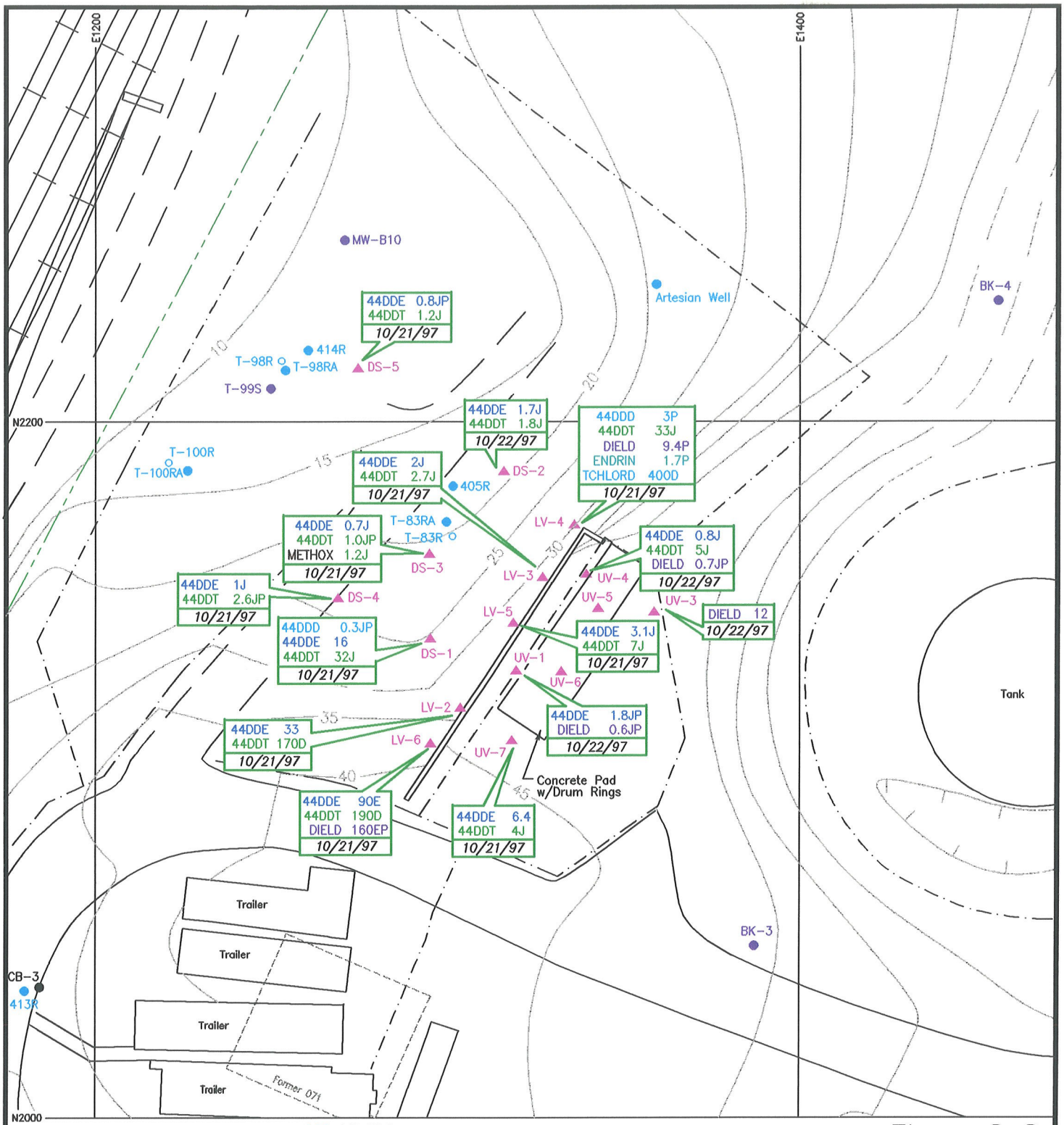


Figure 3-3

▲ – Soil Sampling Location
UV – Upper Vertical
LV – Lower Vertical
DS – Down Slope
– Stone Wall
– – – – Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Abandoned BR MW

Scale
0 20' 40'

44DDD 44'-DDD
44DDE 44'-DDE
44DDT 44'-DDT
DIELD Dieldrin
ENDRIN Endrin
METHOX Methoxychlor
TCHLORD Technical Chlordane
D Compounds identified at a secondary dilution factor
E Concentration exceeds the calibration range of the GC/MS instrument
J Estimated value
P Lower of 2 GC column concentrations that have more than 25% difference

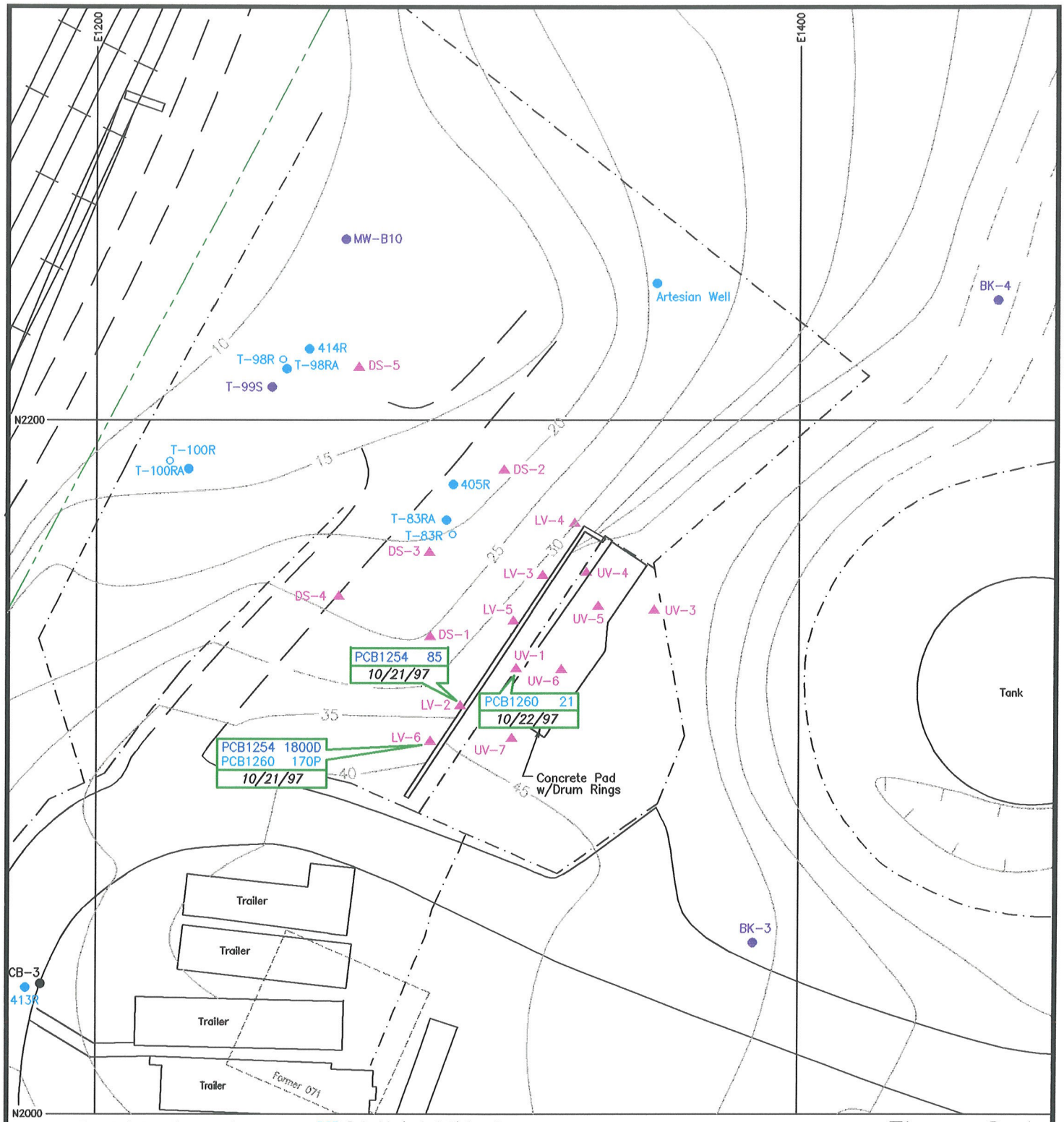
(All concentrations ug/kg)

IBM
Poughkeepsie, New York

Antenna Area Pesticides Sampling Results (Method 8080)

DRAWN BY: MHM	DATE: 12/18/97	DRAWING NO. 97001-010-A
CHECKED & APPROVED BY: DRM		

GROUNDWATER SCIENCES CORPORATION



▲ – Soil Sampling Location
UV – Upper Vertical
LV – Lower Vertical
DS – Down Slope
– Stone Wall
– · – · – Fence
CB-3 ● – Core Boring
MW-B10 ● – Soil Monitoring Well
T-100RA ● – Bedrock Monitoring Well
T-100R ○ – Abandoned BR MW

Scale
0 20' 40'

PCB Polychlorinated biphenyl
D Compounds identified at a secondary dilution factor
P Lower of 2 GC column concentrations that have more than 25% difference

(All concentrations ug/kg)

Figure 3-4

IBM
Poughkeepsie, New York

Antenna Area PCBs Sampling Results (Method 8080)

DRAWN BY: MJM	DATE: 12/16/97	DRAWING NO. 97001-009-A
CHECKED & APPROVED BY: DRM		

GROUNDWATER SCIENCES CORPORATION

Appendix A
Field Documentation for Soil Sampling Activities, March 8 - 10, 1982

Field Report
Hand-Augered Samples
Antenna Site
~~May~~ March 8-10, 1982

The following represents a summary of soil samples collected with hand-driven sampling devices. Samples were collected with either the hand-driven split spoon assembly or the hand-auger equipment, and placed within glass jars and an aluminum foil-lined cap. The sampling code is as follows:

W - x horizontal samples taken through stone wall
LV - x vertical samples taken downgradient from the stone wall
UV - x vertical samples taken upgradient from the stone wall, and within the fence enclosing the antenna.

Horizontal Samples Through Wall

Hole No.	Sample No.	Depth	Comments
W-1	S-1	0" - 1'	Mortar; fines taken from between stones in wall
	S-2	1' - 2'	Mortar; fines taken from between stones in wall
	S-3	2'9" - 2'9"	Fair spoon sample. Detectable odor in sample. Sand (coarse-grained) and gravel mixture.
	S-4	4'9" - 6'3"	Similar to previous sample
W-2			Hole augered to a depth of approximately 10', at roughly 2' intervals. No mortar samples were saved, since W-2 was taken so close to W-1. Mortar at this location is essentially the same. This hole was augered at another angle through the same hole in the wall as W-1. 6-8' and 8-10' depth yielded the best core samples (even though the length of the collected core was only 4-6" per 24" of spoon).

Horizontal Samples Through Wall (Continued)

Hole No.	Sample No.	Depth	Comments
W-2	S-1	0" - 2'	No sample taken. Mortar same as W-1.
	S-2	2'6" - 4'0"	Gravelly sand mixed with mortar. faint hydrocarbon odor.
	S-3	4'0" - 6'3"	Similar material. Very faint odor. Gravelly coarse sand.
	S-4	6' - 8'	Dirty sand, medium and coarse-graine sand with some silt and clay. Approximately 6" of core in 24" spoon. Cohesive.
	S-5	8' - 10'	Similar to previous sample coarse sand with some fine material cohesive core approximately 4" within spoon.

Lower Vertical Samples

LV-1	S-1	0" - 6"	
	S-2	6" - 10"	Brown sand
	S-3	10" - 1'0"	Dark gray clay with sand; hit large rock.
	S-4	1'0" - 1'4"	Dark gray soil with pieces of shale and clayey rock.
LV-2	S-1	0" - 9"	Brown sandy soil and black material concoidal fracture appears to be anthracite, glossy.
	S-2	9" - 1'10"	Dark brown clayey soil with weathere shale fragments (also, same black concoidal, plastic-like rock fragments).
	S-3	1'10"- 2'0"	Dark brown clay associated with pebbles of shale and larger (2"x2") shale fragments; saturated at 28 inches.
	S-4	2'0" - 2'4"	Brown saturated soil with shale fragments.
	S-5	2'4" - 2'7"	Brown saturated soil with shale fragments.

Lower Vertical Samples (Continued)

Hole No.	Sample No.	Depth	Comments
LV-3	S-1	0" - 9"	Black humic soil fines.
		9" - 2'1"	Brown clayey soil with some shale fragments.
	S-2	2'1" - 2'10"	Dark brown silty soil with shale fragments and pebbles.
	S-3	2'10"- 3'5"	Dark brown very wet clayey soil with shale fragments and pebbles.

Upper Vertical Samples

UV-1	S-1	0" - 3'2"	Note: Throughout fenced in area, surface stone is underlain with sheet of black plastic just beneath surface.
			Coarse sand and gravel, lousy sample.
	S-2	3'2" - 5'2"	Coarse sand and gravel with fractured and weathered shale fragments. Very lousy sample per 2'.
	S-3	5'2" - 6'6"	Refusal at 6'6".
UV-2	S-1	0" - 1'	(Hand augured) coarse sand with few fines. "Power" cables at 1'4" - bypassed. Dark brown (wood overlying cable?).
	S-2	1' - 2'	Increased saturation with depth. Abandoned hole - 480 volts More wood. Same sand with a few more fines. Abandoned at 24 inches.
UV-3	S-1	0" - 18"	Loamy sand (hand augered); dark brown; with few pebbles.
	S-2	18" - 38"	Fine sand to loamy fine sand with few pebbles (yellowish-brown).
	S-3	38" - 58"	Sandy loam to loamy sand; <10% coarse fragments; increasing fine content, yellowish-brown.
	S-4	58" - 78"	Increased saturation to yellowish-brown loamy sand to sandy loam.
	S-5	78" - 84+"	10-20% coarse fragments.
			Brown coarse sand and fine gravel; 10-20% coarse fragments; (can't hand auger any deeper); Use split spoon sampler to 8', no sample was retrieved - (no check valve and fl sand material).

Appendix B

Chains of Custody and Field Data Sheets

EnviroTest Laboratories Inc. CHAIN OF CUSTODY RECORD

315 Fullerton Avenue, Newburgh, NY 12550 (914) 562-0890 FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corporation
ADDRESS: 2 Summit Court Suite 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D. Bergmann PHONE NO.: 896-6288
PROJECT LOCATION: IBM Poughkeepsie Main Plant
PROJECT NUMBER / PO NO.: 97001 NONROUTINE

FORMER ANTENNA DRUM STORAGE AREA SWMU 127

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER IBM HV Specific Deliverables

TURNAROUND
☑ NORMAL
☐ QUICK
☐ VERBAL

LABORATORY # (Lab Use Only)
TEMP BLANK Y ✓ N ___ ___ °C
pH CHECK Y ___ N ___
REVIEWED BY: ___

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

LAB USE ONLY

ETL#	SAMPLING DATE	TIME AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	10/21/97	14:00	✓		SOIL	127DS0171021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	15:03	✓		SOIL	127DS0271021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	14:42	✓		SOIL	127DS0371021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	13:32	✓		SOIL	127DS0471021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	15:32	✓		SOIL	127DS0571021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	16:26	✓		SOIL	127LV0271021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	17:38	✓		SOIL	127LV0371021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	17:50	✓		SOIL	127LV0471021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	17:20	✓		SOIL	127LV0571021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	16:08	✓		SOIL	127LV0671021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	8:32	✓		SOIL	127UV0171022	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	9:32	✓		SOIL	127UV0371022	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	ETL	10/8/97	11:25	Denise R Murciano	GSC	10/8/97	11:25
Denise R Murciano	GSC	10/22/97	12:15	[signature]	GSC	10-22-97	12:15
[signature]	GSC	10-22-97	13:04	[signature]	STL	10/22/97	1:04

COMMENTS: All Samples received intact And in good Condition Temp 2 & 4°C 10/22/97 1:04

EnviroTest Laboratories Inc.

315 Fullerton Avenue, Newburgh, NY 12550 (914) 562-0890 FAX (914) 562-0841

CHAIN OF CUSTODY RECORD

CUSTOMER NAME	Groundwater Sciences Corporation
ADDRESS	2 Summit Court Suite 204
CITY, STATE, ZIP	Fishkill NY 12524
NAME OF CONTACT / PHONE NO.	D Bergmann / 896-0288
PROJECT LOCATION	IBM Poughkeepsie Main Plant
PROJECT NUMBER / PO NO.	97001 NONROUTINE

FORMER ANTENNA DRUM STORAGE AREA

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER IBM AV Special Deliverables

TURNAROUND
☑ NORMAL
☐ QUICK
☐ VERBAL

LABORATORY # (Lab Use Only)
TEMP BLANK Y ✓ N 4 °C
pH CHECK Y___ N___
REVIEWED BY:

NY PUBLIC WATER SUPPLIES
SOURCE ID
ELRP TYPE
FEDERAL ID

LAB USE ONLY

ETL#	Sampling Date	Time AM PM	COMP	GRAB	Matrix	Client I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	Analysis Requested
	10/22/97	8:52	✓		SOIL	127UV0471022	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	11:44	✓		SOIL	127UV0571022	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	11:58	✓		SOIL	127UV0671022	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/21/97	18:22	✓		SOIL	127UV0771021	2										1	1	8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	10:32		✓	AQ	MEQ71022AUGR	7	3		4									8240 VOCs, 8080 PCBs, 8080 Pesticides, 8270 SVOCs
	10/22/97	—		—	AQ	MTB71021022	2	2											8240 VOCs

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	ETL	10/8/97	11:25	Denise R Murcello	GSC	10/8/97	11:25
Denise R Murcello	GSC	10/22/97	12:15	[signature]	GSC	10-22-97	12:15
[signature]	GSC	10-22-97	13:04	[signature]	STL	10/22/97	1:04

COMMENTS: All Samples received intact and in good Condition. Temp blank 4°C 1:04p—

NYSDOH 10142 NJDEP 73507 CTDOHS PH-0554 EPA NY049

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-DS-01 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Downslope Location 1, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 D S 0 1 7 1 0 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon Steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1358 **Stop** 1400

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R Mueller

***LAB INFO**

Lab Enviroteat **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/ Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:** Composite sample collected for lab analysis 0-24"
0-23": Sand, dark brown (0-12") & light brown (12-23"), f-med w/ f. gravel, tr. roots near surface, tr. glass & brick debris 6-8"
23-24": Sand w/ f-crs. gravel, some cobbles.

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

*GENERAL INFORMATION

Sample Location 127-DS-02 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Downslope location 2, SWMU 127

*PURGING

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA) - SWL(NA)}{10}\right) + SWL(NA) =$ NA

Personnel (Signature): NA

*SAMPLING

Sample ID: 1 2 7 D S Ø 2 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 to 2 feet **Sampling Method:** composite **Start** 1501 **Stop** 1503

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Rmuricen

*LAB INFO

Lab Enviratest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

*ADDITIONAL NOTES:

0-24" Sand, f-med. gd. dark brown (0-12") to light brown (12-24") w/ tr. f-crs. gravel & shale fragments, loose, dry } composited sample for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-DS-03 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Downslope Location 3, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 D S Ø 3 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** Calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** Composite **Start** 1441 **Stop** 1442

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Rymuricek

***LAB INFO**

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticide, 8270 SVOCs

***ADDITIONAL NOTES:**

0-16": Dark brown, f-med sand w/ f. gravel, tr. roots
16-23": Brown, silty clay, w/ f-crs. gravel, moist
23-24" Gravel, cobbles

} sample composited for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-DS-04 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area; Downslope location 4; SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA)=$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 D S Ø 4 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1331 **Stop** 1332

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R Municiel

***LAB INFO**

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-5" Sand (med) w/ f-crs, angular gravel
5-24" Sand (med) w/ f-crs gravel & cobbles
Large cobble at 18"

} Sample composited for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location ~~IBM~~ SWMU 127-DS-05 Site IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Downslope Location 5, SWMU 127

***PURGING**

Date NA Air Temp NA Skies NA Wind Speed/Direction NA

TD NA SWL NA TD - SWL NA Required Purge Volume NA

Equipment Decon NA Purge Water Disposal NA

Method NA Start NA Stop NA Volume/Minutes NA

WL end of purge NA Max WL end of Recovery = $\left(\frac{TD(NA) - SWL(NA)}{10}\right) + SWL(NA) = NA$

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 D S Ø 5 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other SOIL

Date 10/21/97 Air Temp 65° Skies clear Wind Speed/Direction calm

Equipment Decon Steam clean hand auger

Sampled Depth Interval: 0 to 2 feet Sampling Method: Composite Start 1530 Stop 1532

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R Murricah

***LAB INFO**

Lab Envirotest Turnaround Time Normal No. of Containers 2

Date Shipped 10/22/97 Method Shipped Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24": Sand - fine - med, grayish-brown (0-14") to brown (14-24") w/ fers gravel throughout; tr. silty clay toward base } composited sample for lab analysis 0-24"

QA/QC Review: Initial _____ Date _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-LV-02 **Site** IBM Poughkeepsie Main Plant

☐ Manhole ☐ Standpipe ☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Lower Vertical Location 2, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA) - SWL(NA)}{10}\right) + SWL(NA) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 L V Ø 2 7 1 Ø 2 1

☐ GW ☐ Surface ☒ Other soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 to 2 feet **Sampling Method:** composite **Start** 1624 **Stop** 1626

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature):

***LAB INFO**

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24": Sand: Dark brown, med-crs gd w/f-crs. angular gravel, tar fragments 12-24"; tr. silty clay throughout, metal debris near surface, slight odor } composited sample for lab analyses 0-24'

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-LV-03 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Lower Vertical Location 3, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery =** $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA)=$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 127LV03710021

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1735 **Stop** 1738

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Mauriello

***LAB INFO**

Lab Environtest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-8": SAND: Blackish brown, med, loose, dry
8-24": SANDY SILT: Brown, f-med sand w/ some silty clay, very moist (no standing water at base of hand augered boring, tr. clay remnants (pot or pipe)

} Composited soil sample for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-LV-Ø4 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Lower Vertical Location 4, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) = \text{NA}$

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 L V Ø 4 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 60° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1748 **Stop** 1750

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R. Murreen

***LAB INFO**

Lab Environtest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24" - SAND: Brown, med, loose, dry w/f-crs gravel throughout, cobble at 18" } Sample composited for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-LV-05 **Site** IBM Poughkeepsie Main Plant

☐ Manhole ☐ Standpipe ☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Lower Vertical Location 5, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery =** $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 127LVØ5710Ø21

☐ GW ☐ Surface ☒ Other Soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon DRM ~~Hand augered so~~ steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1718 **Stop** 1720

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Rinaldi

***LAB INFO**

Lab Enviratest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24": SAND: brownish black (0-12") to brown (12-24") w/ v. crs. angular gravel at top and f-crs. gravel near base, loose. } composited sample collected for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

*GENERAL INFORMATION

Sample Location 127-LV-Ø6 **Site** IBM Poughkeepsie

☐ **Manhole**
☐ **Standpipe**
☒ **Other** hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Lower Vertical Location 6, SWMU 127

*PURGING

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA) - SWL(NA)}{10}\right) + SWL(NA) =$ NA

Personnel (Signature): NA

*SAMPLING

Sample ID:

1	2	7	L	V	Ø	6	7	1	Ø	2	1

☐ **GW**
☐ **Surface**
☒ **Other** soil

Date 10/21/97 **Air Temp** 65° **Skies** clear **Wind Speed/Direction** Calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 to 2 feet **Sampling Method:** Composite **Start** 1607 **Stop** 1608

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R Muricello

*LAB INFO

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

*ADDITIONAL NOTES:

0-24" Sand- dark brown, med w/ tr. f-crs. gravel, v loose, soft w/ brick, glass debris & bolt } composited sample for lab analysis 0-24"

QA/QC Review: Initial ______ **Date** ______

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-UV-01 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Upper Vertical Location 1, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) = \text{NA}$

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 U V Ø 1 7 1 Ø 2 2

☐ GW
☐ Surface
☒ Other Soil

Date 10/22/97 **Air Temp** 38° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand augers

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 8:30 **Stop** 8:32

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Renaurald

***LAB INFO**

Lab Enviroteat **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24": SAND: Dark brown (0-18") to light brown (w/ some silt) ('8-24"), med w f-crs grained near top & f-grained near base; loose, dry } composited sample collected for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

*GENERAL INFORMATION

Sample Location 127 UV Ø3 **Site** IBM Poughkeepsie Main Plant

☐ Manhole **Physical Well/Location Condition:** Former Antenna Area,
☐ Standpipe
☒ Other hand augered soil sample boring (DRM) Upper Vertical Location 3, SWMU 127

*PURGING

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery =** $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA) =$ NA

Personnel (Signature): NA

*SAMPLING

Sample ID:

1	2	7	U	V	Ø	3	7	1	Ø	2	2

☐ GW
☐ Surface
☒ Other soil

Date 10/22/97 **Air Temp** 40° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand augers

Sampled Depth Interval: 0 to 2 feet **Sampling Method:** composite **Start** 9:30 **Stop** 9:32

Field Data (in well/in line)

Depth	pH	Sp. Cond.	Temperature	Clarity
NA	NA	NA	NA	NA

Personnel (Signature): Denise R. Murucelah

*LAB INFO

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

*ADDITIONAL NOTES:

0-10": SAND: Dark brown, med w/ f-v.crs. ang-sr gravel, loose, dry
10-24": SAND/SILTY SAND: Brown, fine-med sand w/ some silt, loose, DRM, tr. f-crs gravel, slightly moist

Composited sample for lab analysis 0-24"

QA/QC Review: Initial ________ **Date** ________

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-UV-04 **Site** IBM Poughkeepsie Main Plant

☐ Manhole ☐ Standpipe ☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Upper vertical location 4, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA)=$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 1 2 7 U V Ø 4 7 1 Ø 2 2

☐ GW ☐ Surface ☒ Other Soil

Date 10/22/97 **Air Temp** 38° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 8:50 **Stop** 8:52

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Rimmele

***LAB INFO**

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-24" SAND: Dark brown (0-14") to brown (14-24"), med, loose, w/ fers gravel throughout, silty sand near base, moist } composited sample collected for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-UV-05 **Site** IBM Poughkeepsie Main Plant

☐ **Manhole** **Physical Well/Location Condition:** Former Antenna Area,
☐ **Standpipe**
☒ **Other** hand augered soil boring Upper vertical location 5, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA)=$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 127UV05710225

☐ **GW**
☐ **Surface**
☒ **Other** Soil

Date 10/22/97 **Air Temp** 40° **Skies** clear **Wind Speed/Direction** Calm

Equipment Decon Steam clean hand augers

Sampled Depth Interval: ~~0~~ DRM 0" to ~~2~~ DRM 2'8" feet **Sampling Method:** composite **Start** 1145 **Stop** 1144

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Rinnucci

***LAB INFO**

Lab Envirotest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides

***ADDITIONAL NOTES:**

0-8": Concrete
8"-2'8" - SAND: Brown, med, loose w/ f-crs gravel throughout, moist } composite sample for lab analysis collected 8"-2'8"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

*GENERAL INFORMATION

Sample Location 127-UV-Ø6 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Upper Vertical Location is, canMW-127

*PURGING

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(NA)-SWL(NA)}{10}\right)+SWL(NA)=$ N/A

Personnel (Signature): NA

*SAMPLING

Sample ID: 1 2 7 4 V Ø 6 7 1 Ø 2 2

☐ GW
☐ Surface
☒ Other Soil

Date 10/22/97 **Air Temp** 40° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon steam clean hand auger

Sampled Depth Interval: ~~0~~ DRM 7" to 2 DRM 2'7" feet **Sampling Method:** Composite **Start** 1156 **Stop** 1158

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise R Murielle

*LAB INFO

Lab Environtest **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 827Ø SVOCs

*ADDITIONAL NOTES:

0-7": CONCRETE
7"-2'7": SAND; Dark brown (7"-12") to brown (12"-~~2'~~ 21" DRM) med, w/ f-crs angular gravel throughout, moist

} composited sample for lab analysis collected 7"-2'7"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location 127-UV-07 **Site** IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other hand augered soil boring

Physical Well/Location Condition: Former Antenna Area, Upper Vertical Location 7, SWMU 127

***PURGING**

Date NA **Air Temp** NA **Skies** NA **Wind Speed/Direction** NA

TD NA **SWL** NA **TD - SWL** NA **Required Purge Volume** NA

Equipment Decon NA **Purge Water Disposal** NA

Method NA **Start** NA **Stop** NA **Volume/Minutes** NA

WL end of purge NA **Max WL end of Recovery** = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: 12 7 U V Ø 7 7 1 Ø 2 1

☐ GW
☐ Surface
☒ Other Soil

Date 10/21/97 **Air Temp** 58° **Skies** clear **Wind Speed/Direction** calm

Equipment Decon Steam clean hand auger

Sampled Depth Interval: 0 **to** 2 **feet** **Sampling Method:** composite **Start** 1820 **Stop** 1822

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	NA

Personnel (Signature): Denise Renuricen

***LAB INFO**

Lab Enviroteat **Turnaround Time** Normal **No. of Containers** 2

Date Shipped 10/22/97 **Method Shipped** Drop off

Analyses Requested 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

0-2": Gravel base
2-24": Sand; Brown, med-crs w/f-crs gravel throughout, loose dry

} Composited Sample Collected for lab analysis 0-24"

QA/QC Review: Initial _____ **Date** _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location: Equipment Rinse Site: IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other: QAQC

Physical Well/Location Condition: Former Antenna Area, Downslope Lower Vertical, & Upper Vertical Locations, SWMU 127

***PURGING**

Date: NA Air Temp: NA Skies: NA Wind Speed/Direction: NA

TD: NA SWL: NA TD - SWL: NA Required Purge Volume: NA

Equipment Decon: NA Purge Water Disposal: NA

Method: NA Start: NA Stop: NA Volume/Minutes: NA

WL end of purge: NA Max WL end of Recovery = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) = \text{NA}$

Personnel (Signature): NA

***SAMPLING**

Sample ID: MEQ71Ø22AUGR

☐ GW
☐ Surface
☒ Other: QA&C

Date: 10/22/97 Air Temp: 40° Skies: clear Wind Speed/Direction: Calm

Equipment Decon: Steam clean hand auger

Sampled Depth Interval: NA to NA feet Sampling Method: Grab Start: 1028 Stop: 1032

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	clear

Personnel (Signature): Denise R. Muriello

***LAB INFO**

Lab: Envirotest Turnaround Time: Normal No. of Containers: 7

Date Shipped: 10/22/97 Method Shipped: Drop off

Analyses Requested: 8240 VOCs, 8080 PCBs/Pesticides, 8270 SVOCs

***ADDITIONAL NOTES:**

QA/QC Review: Initial _____ Date _____

IBM MID-HUDSON VALLEY
SAMPLING FIELD DATA SHEET

***GENERAL INFORMATION**

Sample Location: Trip Blank Site: IBM Poughkeepsie Main Plant

☐ Manhole
☐ Standpipe
☒ Other: QA/QC

Physical Well/Location Condition: Former Antenna Area; Downslope, Lower Vertical & Upper Vertical Locations, SWMU 127

***PURGING**

Date: NA Air Temp: NA Skies: NA Wind Speed/Direction: NA

TD: NA SWL: NA TD - SWL: NA Required Purge Volume: NA

Equipment Decon: NA Purge Water Disposal: NA

Method: NA Start: NA Stop: NA Volume/Minutes: NA

WL end of purge: NA Max WL end of Recovery = $\left(\frac{TD(\text{NA}) - SWL(\text{NA})}{10}\right) + SWL(\text{NA}) =$ NA

Personnel (Signature): NA

***SAMPLING**

Sample ID: MTB71Ø211Ø22

☐ GW
☐ Surface
☒ Other: QA/QC

Date: 10/22/97 Air Temp: NA Skies: NA Wind Speed/Direction: NA

Equipment Decon: NA

Sampled Depth Interval: NA to NA feet Sampling Method: Sealed vial Start: 10/22/97 Stop: 10/22/97

Field Data (in well/in line)	Depth	pH	Sp. Cond.	Temperature	Clarity
	NA	NA	NA	NA	clear

Personnel (Signature): Denise R Murricah

***LAB INFO**

Lab: Envirotest Turnaround Time: Normal No. of Containers: 2

Date Shipped: 10/22/97 Method Shipped: Drop off

Analyses Requested: 8240 VOCs

***ADDITIONAL NOTES:**

QA/QC Review: Initial _____ Date _____

Appendix C

Soil Sampling Results and QA/QC Results

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-01	DS-02	DS-03	DS-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-01	178006-02	178006-03	178006-04
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ALCOHOLS, ACETATES, ALDEHYDES, KETONES					
BENZYL ALCOHOL	ug/kg	ND@370	ND@370	ND@370	ND@350
METHYL BUTYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@10
METHYL ETHYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@10
METHYL ISOBUTYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@10
VINYLACETATE	ug/kg	ND@11	ND@11	ND@11	ND@10
ACID EXTRACTABLES					
2,4,5-TRICHLOROPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2,4,6-TRICHLOROPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2,4-DICHLOROPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2,4-DIMETHYLPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2,4-DINITROPHENOL	ug/kg	ND@920J	ND@930J	ND@940J	ND@890J
2-CHLOROPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2-CRESOL	ug/kg	ND@370	ND@370	ND@370	ND@350
2-NITROPHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
4,6-DINITRO-2-CRESOL	ug/kg	ND@920J	ND@930J	ND@940J	ND@890J
4-CHLORO-3-CRESOL	ug/kg	ND@370	ND@370	ND@370	ND@350
4-CRESOL	ug/kg	ND@370	ND@370	ND@370	ND@350
4-NITROPHENOL	ug/kg	ND@920	ND@930	ND@940	ND@890
PENTACHLOROPHENOL	ug/kg	ND@920J	ND@930J	ND@940J	ND@890J
PHENOL	ug/kg	ND@370	ND@370	ND@370	ND@350
BASE/NEUTRAL EXTRACTABLES					
1,2,4-TRICHLOROBENZENE	ug/kg	ND@370	ND@370	ND@370	ND@350
1,2-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,3-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,4-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
1-CHLOROPROPANE	ug/kg	ND@370	ND@370	ND@370	ND@350

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-01	DS-02	DS-03	DS-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-01	178006-02	178006-03	178006-04
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
2,4-DINITROTOLUENE	ug/kg	ND@370	ND@370	ND@370	ND@350
2,6-DINITROTOLUENE	ug/kg	ND@370	ND@370	ND@370	ND@350
2-CHLOROETHYLVINYL ETHER	ug/kg	ND@11	ND@11	ND@11	ND@10
2-CHLORONAPHTHALENE	ug/kg	ND@370	ND@370	ND@370	ND@350
2-METHYLNAPHTHALENE	ug/kg	48J	ND@370	ND@370	ND@350
2-NITROANILINE	ug/kg	ND@920	ND@930	ND@940	ND@890
3,3'-DICHLOROBENZIDENE	ug/kg	ND@730	ND@740	ND@750	ND@710
3-NITROANILINE	ug/kg	ND@920	ND@930	ND@940	ND@890
4-BROMOPHENYL PHENYL ETHER	ug/kg	ND@370	ND@370	ND@370	ND@350
4-CHLOROANILINE	ug/kg	ND@370	ND@370	ND@370	ND@350
4-CHLOROPHENYL PHENYL ETHER	ug/kg	ND@370	ND@370	ND@370	ND@350
4-NITROANILINE	ug/kg	ND@920J	ND@930J	ND@940J	ND@890J
ACENAPHTHENE	ug/kg	55J	ND@370	ND@370	ND@350
ACENAPHTHYLENE	ug/kg	170J	ND@370	ND@370	ND@350
ANTHRACENE	ug/kg	82J	ND@370	ND@370	ND@350
BENZO(A)ANTHRACENE	ug/kg	740	ND@370	ND@370	36J
BENZO(A)PYRENE	ug/kg	890	ND@370	ND@370	ND@350
BENZO(B)FLUORANTHENE	ug/kg	2600	ND@370	ND@370	57J
BENZO(GHI)PERYLENE	ug/kg	530	ND@370	ND@370	ND@350
BENZO(K)FLUORANTHENE	ug/kg	490	ND@370	ND@370	ND@350
BIS(2-CHLOROETHOXY)METHANE	ug/kg	ND@370	ND@370	ND@370	ND@350
BIS(2-CHLOROETHYL)ETHER	ug/kg	ND@370	ND@370	ND@370	ND@350
BIS(2-ETHYLHEXYL)PHTHALATE	ug/kg	450	ND@370	ND@370	ND@350
BUTYL BENZYL PHTHALATE	ug/kg	ND@370	ND@370	ND@370	ND@350
CHRYSENE	ug/kg	1700	ND@370	ND@370	40J
DI-N-BUTYL PHTHALATE	ug/kg	ND@370	ND@370	ND@370	ND@350
DI-N-OCTYL PHTHALATE	ug/kg	ND@370	ND@370	ND@370	ND@350
DIBENZO(A,H)ANTHRACENE	ug/kg	190J	ND@370	ND@370	ND@350
DIBENZOFURAN	ug/kg	ND@140J	ND@370	ND@370	ND@350
DIETHYL PHTHALATE	ug/kg	ND@370	ND@370	ND@370	ND@350
DIMETHYL PHTHALATE	ug/kg	ND@370	ND@370	ND@370	ND@350
FLUORANTHENE	ug/kg	3300D	ND@370	46J	66J
FLUORENE	ug/kg	ND@140J	ND@370	ND@370	ND@350
HEXACHLOROBENZENE	ug/kg	ND@370	ND@370	ND@370	ND@350

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-01	DS-02	DS-03	DS-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-01	178006-02	178006-03	178006-04
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
HEXACHLOROBUTADIENE	ug/kg	ND@370	ND@370	ND@370	ND@350
HEXACHLOROCYCLOPENTADIENE	ug/kg	ND@370J	ND@370	ND@370J	ND@350J
HEXACHLOROETHANE	ug/kg	ND@370	ND@370	ND@370	ND@350
INDENO(1,2,3,-C,D)PYRENE	ug/kg	580	ND@370	ND@370	ND@350
ISOPHORONE	ug/kg	ND@370	ND@370	ND@370	ND@350
N-NITROSODI-N-PROPYLAMINE	ug/kg	ND@370	ND@370	ND@370	ND@350
N-NITROSODIMETHYLAMINE	ug/kg	ND@370	ND@370	ND@370	ND@350
N-NITROSODIPHENYLAMINE	ug/kg	ND@370	ND@370	ND@370	ND@350
NAPHTHALENE	ug/kg	110J	ND@370	ND@370	ND@350
NITROBENZENE	ug/kg	ND@370	ND@370	ND@370	ND@350
PCB 1016	ug/kg	ND@18	ND@18	ND@19	ND@18
PCB 1221	ug/kg	ND@18	ND@18	ND@19	ND@18
PCB 1232	ug/kg	ND@18	ND@18	ND@19	ND@18
PCB 1242	ug/kg	ND@18	ND@18	ND@19	ND@18
PCB 1248	ug/kg	ND@18	ND@18	ND@19	ND@18
PCB 1254	ug/kg	ND@37	ND@37	ND@38	ND@35
PCB 1260	ug/kg	ND@37	ND@37	ND@38	ND@35
PHENANTHRENE	ug/kg	2200D	ND@370	ND@370	42J
PYRENE	ug/kg	3000	41J	41J	73J
STYRENE	ug/kg	ND@11	ND@11	ND@11	ND@10
TOXAPHENE	ug/kg	ND@37	ND@37	ND@38	ND@35
PESTICIDES/HERBICIDES					
4,4'-DDD	ug/kg	0.3JP	ND@3.7	ND@3.8	ND@3.5
4,4'-DDE	ug/kg	16	1.7J	0.7J	1J
4,4'-DDT	ug/kg	32J	1.8J	1.0JP	2.6JP
ALDRIN	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
ALPHA-BHC	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
BETA-BHC	ug/kg	ND@1.8J	ND@1.8J	ND@1.9J	ND@1.8J
DELTA-BHC	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
DIELDRIN	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-01	DS-02	DS-03	DS-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-01	178006-02	178006-03	178006-04
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
PESTICIDES/HERBICIDES (Continued)					
ENDOSULFAN I	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5
ENDOSULFAN II	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5
ENDOSULFAN SULFATE	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5
ENDRIN	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5
ENDRIN ALDEHYDE	ug/kg	ND@3.7	ND@3.7	ND@3.8	ND@3.5
GAMMA-BHC	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
HEPTACHLOR	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
HEPTACHLOR EPOXIDE	ug/kg	ND@1.8	ND@1.8	ND@1.9	ND@1.8
METHOXYCHLOR	ug/kg	ND@18J	ND@18J	1.2J	ND@18J
TECHNICAL CHLORDANE	ug/kg	ND@18	ND@18	ND@19	ND@18
VOLATILE ORGANICS					
1,1,1-TRICHLOROETHANE	ug/kg	2J	ND@11	ND@11	ND@10
1,1,2,2-TETRACHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,1,2-TRICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,1-DICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,1-DICHLOROETHENE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,2-DICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
1,2-DICHLOROETHENE, TOTAL	ug/kg	ND@11	ND@11	ND@11	ND@10
1,2-DICHLOROPROPANE	ug/kg	ND@11	ND@11	ND@11	ND@10
ACETONE	ug/kg	ND@11	ND@11	ND@11	ND@10
BENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
BROMODICHLOROMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
BROMOFORM	ug/kg	ND@11	ND@11	ND@11	ND@10
BROMOMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
CARBON DISULFIDE	ug/kg	ND@11	ND@11	ND@11	ND@10
CARBON TETRACHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@10
CHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
CHLORODIBROMOMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
CHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
CHLOROFORM	ug/kg	ND@11	ND@11	ND@11	ND@10

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-01	DS-02	DS-03	DS-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-01	178006-02	178006-03	178006-04
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
CHLOROMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@10
CIS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11	ND@11	ND@10
ETHYLBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@10
METHYLENE CHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@10
TETRACHLOROETHENE	ug/kg	2J	ND@11	ND@11	ND@10
TOLUENE	ug/kg	ND@11	ND@11	ND@11	ND@10
TRANS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11	ND@11	ND@10
TRICHLOROETHENE	ug/kg	98	2J	2J	2J
VINYL CHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@10
XYLENE, TOTAL	ug/kg	ND@11	ND@11	ND@11	ND@10

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-05	LV-02	LV-03	LV-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-05	178006-06	178006-07	178006-08
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ALCOHOLS, ACETATES, ALDEHYDES, KETONES					
BENZYL ALCOHOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
METHYL BUTYL KETONE	ug/kg	ND@11	ND@12	ND@12	ND@11
METHYL ETHYL KETONE	ug/kg	ND@11	ND@12	ND@12	ND@11
METHYL ISOBUTYL KETONE	ug/kg	ND@11	ND@12	ND@12	ND@11
VINYLACETATE	ug/kg	ND@11	ND@12	ND@12	ND@11
ACID EXTRACTABLES					
2,4,5-TRICHLOROPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2,4,6-TRICHLOROPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2,4-DICHLOROPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2,4-DIMETHYLPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2,4-DINITROPHENOL	ug/kg	ND@950J	ND@980J	ND@1000J	ND@910J
2-CHLOROPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2-CRESOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
2-NITROPHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
4,6-DINITRO-2-CRESOL	ug/kg	ND@950J	ND@980J	ND@1000J	ND@910J
4-CHLORO-3-CRESOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
4-CRESOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
4-NITROPHENOL	ug/kg	ND@950	ND@980J	ND@1000	ND@910
PENTACHLOROPHENOL	ug/kg	ND@950J	ND@980J	ND@1000J	ND@910J
PHENOL	ug/kg	ND@380	ND@390J	ND@410	ND@360
BASE/NEUTRAL EXTRACTABLES					
1,2,4-TRICHLOROBENZENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
1,2-DICHLOROBENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,3-DICHLOROBENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,4-DICHLOROBENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
1-CHLOROPROPANE	ug/kg	ND@380	ND@390J	ND@410	ND@360

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-05	LV-02	LV-03	LV-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-05	178006-06	178006-07	178006-08
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
2,4-DINITROTOLUENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
2,6-DINITROTOLUENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
2-CHLOROETHYLVINYL ETHER	ug/kg	ND@11	ND@12	ND@12	ND@11
2-CHLORONAPHTHALENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
2-METHYLNAPHTHALENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
2-NITROANILINE	ug/kg	ND@950	ND@980J	ND@1000	ND@910
3,3'-DICHLOROBENZIDENE	ug/kg	ND@760	ND@780J	ND@810	ND@720
3-NITROANILINE	ug/kg	ND@950	ND@980J	ND@1000	ND@910
4-BROMOPHENYL PHENYL ETHER	ug/kg	ND@380	ND@390J	ND@410	ND@360
4-CHLOROANILINE	ug/kg	ND@380	ND@390J	ND@410	ND@360
4-CHLOROPHENYL PHENYL ETHER	ug/kg	ND@380	ND@390J	ND@410	ND@360
4-NITROANILINE	ug/kg	ND@950J	ND@980J	ND@1000J	ND@910J
ACENAPHTHENE	ug/kg	ND@380	ND@390J	ND@410	59J
ACENAPHTHYLENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
ANTHRACENE	ug/kg	ND@380	ND@390J	ND@410	240J
BENZO(A)ANTHRACENE	ug/kg	67J	200J	ND@410	1200
BENZO(A)PYRENE	ug/kg	62J	230J	ND@410	930
BENZO(B)FLUORANTHENE	ug/kg	110J	290J	ND@410	1800
BENZO(GHI)PERYLENE	ug/kg	ND@380	180J	ND@410	360
BENZO(K)FLUORANTHENE	ug/kg	ND@380	96J	ND@410	420
BIS(2-CHLOROETHOXY)METHANE	ug/kg	ND@380	ND@390J	ND@410	ND@360
BIS(2-CHLOROETHYL)ETHER	ug/kg	ND@380	ND@390J	ND@410	ND@360
BIS(2-ETHYLHEXYL)PHTHALATE	ug/kg	89J	170J	ND@410	1100
BUTYL BENZYL PHTHALATE	ug/kg	ND@380	ND@390J	ND@410	ND@360
CHRYSENE	ug/kg	75J	200J	ND@410	1100
DI-N-BUTYL PHTHALATE	ug/kg	ND@380	ND@390J	ND@410	ND@360
DI-N-OCTYL PHTHALATE	ug/kg	ND@380	ND@390J	ND@410	36J
DIBENZO(A,H)ANTHRACENE	ug/kg	ND@380	ND@390J	ND@410	130J
DIBENZOFURAN	ug/kg	ND@380	ND@390J	ND@410	ND@360
DIETHYL PHTHALATE	ug/kg	ND@380	ND@390J	ND@410	ND@360
DIMETHYL PHTHALATE	ug/kg	ND@380	ND@390J	ND@410	ND@360
FLUORANTHENE	ug/kg	140J	320J	ND@410	1900D
FLUORENE	ug/kg	ND@380	ND@390J	ND@410	75J
HEXACHLOROBENZENE	ug/kg	ND@380	ND@390J	ND@410	ND@360

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-05	LV-02	LV-03	LV-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-05	178006-06	178006-07	178006-08
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
HEXACHLOROBUTADIENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
HEXACHLOROCYCLOPENTADIENE	ug/kg	ND@380J	ND@390J	ND@410	ND@360J
HEXACHLOROETHANE	ug/kg	ND@380	ND@390J	ND@410	ND@360
INDENO(1,2,3,-C,D)PYRENE	ug/kg	ND@380	100J	ND@410	340J
ISOPHORONE	ug/kg	ND@380	ND@390J	ND@410	ND@360
N-NITROSODI-N-PROPYLAMINE	ug/kg	ND@380	ND@390J	ND@410	ND@360
N-NITROSODIMETHYLAMINE	ug/kg	ND@380	ND@390J	ND@410	ND@360
N-NITROSODIPHENYLAMINE	ug/kg	ND@380	ND@390J	ND@410	ND@360
NAPHTHALENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
NITROBENZENE	ug/kg	ND@380	ND@390J	ND@410	ND@360
PCB 1016	ug/kg	ND@19	ND@20	ND@20	ND@18
PCB 1221	ug/kg	ND@19	ND@20	ND@20	ND@18
PCB 1232	ug/kg	ND@19	ND@20	ND@20	ND@18
PCB 1242	ug/kg	ND@19	ND@20	ND@20	ND@18
PCB 1248	ug/kg	ND@19	ND@20	ND@20	ND@18
PCB 1254	ug/kg	ND@38	85	ND@41	ND@36
PCB 1260	ug/kg	ND@38	ND@39	ND@41	ND@36
PHENANTHRENE	ug/kg	67J	130J	ND@410	1500
PYRENE	ug/kg	110J	440J	ND@410	2600
STYRENE	ug/kg	ND@11	ND@12	ND@12	ND@11
TOXAPHENE	ug/kg	ND@38	ND@39	ND@41	ND@36
PESTICIDES/HERBICIDES					
4,4'-DDD	ug/kg	ND@3.8	ND@3.9	ND@4.1	3P
4,4'-DDE	ug/kg	0.8JP	33	2J	ND@3.6
4,4'-DDT	ug/kg	1.2J	170D	2.7J	33J
ALDRIN	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
ALPHA-BHC	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
BETA-BHC	ug/kg	ND@1.9J	ND@2J	ND@2J	ND@1.8J
DELTA-BHC	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
DIELDRIN	ug/kg	ND@3.8	ND@3.9	ND@4.1	9.4P

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-05	LV-02	LV-03	LV-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-05	178006-06	178006-07	178006-08
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
PESTICIDES/HERBICIDES (Continued)					
ENDOSULFAN I	ug/kg	ND@3.8	ND@3.9	ND@4.1	ND@3.6
ENDOSULFAN II	ug/kg	ND@3.8	ND@3.9	ND@4.1	ND@3.6
ENDOSULFAN SULFATE	ug/kg	ND@3.8	ND@3.9	ND@4.1	ND@3.6
ENDRIN	ug/kg	ND@3.8	ND@3.9	ND@4.1	1.7P
ENDRIN ALDEHYDE	ug/kg	ND@3.8	ND@3.9	ND@4.1	ND@3.6
GAMMA-BHC	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
HEPTACHLOR	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
HEPTACHLOR EPOXIDE	ug/kg	ND@1.9	ND@2	ND@2	ND@1.8
METHOXYCHLOR	ug/kg	ND@19J	ND@20J	ND@20J	ND@18J
TECHNICAL CHLORDANE	ug/kg	ND@19	ND@20	ND@20	400D
VOLATILE ORGANICS					
1,1,1-TRICHLOROETHANE	ug/kg	ND@11	34	2J	ND@11
1,1,2,2-TETRACHLOROETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,1,2-TRICHLOROETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,1-DICHLOROETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,1-DICHLOROETHENE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,2-DICHLOROETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
1,2-DICHLOROETHENE, TOTAL	ug/kg	ND@11	ND@12	2J	ND@11
1,2-DICHLOROPROPANE	ug/kg	ND@11	ND@12	ND@12	ND@11
ACETONE	ug/kg	ND@11	ND@12	ND@12	ND@11
BENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
BROMODICHLOROMETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
BROMOFORM	ug/kg	ND@11	ND@12	ND@12	ND@11
BROMOMETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
CARBON DISULFIDE	ug/kg	ND@11	ND@12	ND@12	ND@11
CARBON TETRACHLORIDE	ug/kg	ND@11	ND@12	ND@12	ND@11
CHLOROBENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
CHLORODIBROMOMETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
CHLOROETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
CHLOROFORM	ug/kg	ND@11	ND@12	ND@12	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		DS-05	LV-02	LV-03	LV-04
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/21/97	10/21/97
LABORATORY SAMPLE I.D.		178006-05	178006-06	178006-07	178006-08
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
CHLOROMETHANE	ug/kg	ND@11	ND@12	ND@12	ND@11
CIS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@12	ND@12	ND@11
ETHYLBENZENE	ug/kg	ND@11	ND@12	ND@12	ND@11
METHYLENE CHLORIDE	ug/kg	ND@11	ND@12	ND@12	ND@11
TETRACHLOROETHENE	ug/kg	ND@11	30	11J	ND@11
TOLUENE	ug/kg	ND@11	1J	ND@12	ND@11
TRANS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@12	ND@12	ND@11
TRICHLOROETHENE	ug/kg	2J	660D	52	1J
VINYL CHLORIDE	ug/kg	ND@11	ND@12	ND@12	ND@11
XYLENE, TOTAL	ug/kg	ND@11	ND@12	ND@12	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		LV-05	LV-06	UV-01	UV-03
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-09	178006-10	178006-11	178006-12
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ALCOHOLS, ACETATES, ALDEHYDES, KETONES					
BENZYL ALCOHOL	ug/kg	ND@380	ND@380	ND@370	ND@380
METHYL BUTYL KETONE	ug/kg	ND@11	ND@11J	ND@11	ND@11
METHYL ETHYL KETONE	ug/kg	ND@11	ND@11J	ND@11	ND@11
METHYL ISOBUTYL KETONE	ug/kg	ND@11	ND@11J	ND@11	ND@11
VINYLACETATE	ug/kg	ND@11	ND@11J	ND@11	ND@11
ACID EXTRACTABLES					
2,4,5-TRICHLOROPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2,4,6-TRICHLOROPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2,4-DICHLOROPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2,4-DIMETHYLPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2,4-DINITROPHENOL	ug/kg	ND@950J	ND@960	ND@920J	ND@950J
2-CHLOROPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2-CRESOL	ug/kg	ND@380	ND@380	ND@370	ND@380
2-NITROPHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
4,6-DINITRO-2-CRESOL	ug/kg	ND@950J	ND@960J	ND@920J	ND@950J
4-CHLORO-3-CRESOL	ug/kg	ND@380	ND@380	ND@370	ND@380
4-CRESOL	ug/kg	ND@380	ND@380	ND@370	ND@380
4-NITROPHENOL	ug/kg	ND@950	ND@960	ND@920	ND@950
PENTACHLOROPHENOL	ug/kg	ND@950J	ND@960J	ND@920J	ND@950J
PHENOL	ug/kg	ND@380	ND@380	ND@370	ND@380
BASE/NEUTRAL EXTRACTABLES					
1,2,4-TRICHLOROBENZENE	ug/kg	ND@380	ND@380	ND@370	ND@380
1,2-DICHLOROBENZENE	ug/kg	ND@11	ND@11J	ND@11	2J
1,3-DICHLOROBENZENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1,4-DICHLOROBENZENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1-CHLOROPROPANE	ug/kg	ND@380	ND@380	ND@370	ND@380

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		LV-05	LV-06	UV-01	UV-03
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-09	178006-10	178006-11	178006-12
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
2,4-DINITROTOLUENE	ug/kg	ND@380	ND@380J	ND@370	ND@380
2,6-DINITROTOLUENE	ug/kg	ND@380	ND@380	ND@370	ND@380
2-CHLOROETHYLVINYL ETHER	ug/kg	ND@11	ND@11J	ND@11	ND@11
2-CHLORONAPHTHALENE	ug/kg	ND@380	ND@380	ND@370	ND@380
2-METHYLNAPHTHALENE	ug/kg	ND@380	ND@380	ND@370	190J
2-NITROANILINE	ug/kg	ND@950	ND@960	ND@920	ND@950
3,3'-DICHLOROBENZIDENE	ug/kg	ND@760	ND@770	ND@730	ND@760
3-NITROANILINE	ug/kg	ND@950	ND@960	ND@920	ND@950
4-BROMOPHENYL PHENYL ETHER	ug/kg	ND@380	ND@380	ND@370	ND@380
4-CHLOROANILINE	ug/kg	ND@380	ND@380	ND@370	ND@380
4-CHLOROPHENYL PHENYL ETHER	ug/kg	ND@380	ND@380	ND@370	ND@380
4-NITROANILINE	ug/kg	ND@950J	ND@960J	ND@920J	ND@950J
ACENAPHTHENE	ug/kg	ND@380	ND@380	ND@370	2800
ACENAPHTHYLENE	ug/kg	ND@380	ND@380	ND@370	140J
ANTHRACENE	ug/kg	ND@380	ND@380	ND@370	3200
BENZO(A)ANTHRACENE	ug/kg	ND@380	120J	ND@370	8500D
BENZO(A)PYRENE	ug/kg	ND@380	100J	ND@370	8300D
BENZO(B)FLUORANTHENE	ug/kg	ND@380	180J	ND@370	9900D
BENZO(GHI)PERYLENE	ug/kg	ND@380	84J	ND@370	3000
BENZO(K)FLUORANTHENE	ug/kg	ND@380	ND@380	ND@370	3500DJ
BIS(2-CHLOROETHOXY)METHANE	ug/kg	ND@380	ND@380	ND@370	ND@380
BIS(2-CHLOROETHYL)ETHER	ug/kg	ND@380	ND@380	ND@370	ND@380
BIS(2-ETHYLHEXYL)PHTHALATE	ug/kg	ND@380	150J	88J	140J
BUTYL BENZYL PHTHALATE	ug/kg	ND@380	ND@380	ND@370	ND@380
CHRYSENE	ug/kg	ND@380	160J	ND@370	7400DJ
DI-N-BUTYL PHTHALATE	ug/kg	ND@380	ND@380	ND@370	ND@380
DI-N-OCTYL PHTHALATE	ug/kg	ND@380	ND@380	ND@370	ND@380
DIBENZO(A,H)ANTHRACENE	ug/kg	ND@380	ND@380	ND@370	300J
DIBENZOFURAN	ug/kg	ND@380	ND@380	ND@370	670
DIETHYL PHTHALATE	ug/kg	ND@380	ND@380	ND@370	ND@380
DIMETHYL PHTHALATE	ug/kg	ND@380	ND@380	ND@370	ND@380
FLUORANTHENE	ug/kg	ND@380	230J	ND@370	19000D
FLUORENE	ug/kg	ND@380	ND@380	ND@370	1400
HEXACHLOROBENZENE	ug/kg	ND@380	ND@380	ND@370	ND@380

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		LV-05	LV-06	UV-01	UV-03
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-09	178006-10	178006-11	178006-12
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
HEXACHLOROBUTADIENE	ug/kg	ND@380	ND@380	ND@370	ND@380
HEXACHLOROCYCLOPENTADIENE	ug/kg	ND@380J	ND@380J	ND@370	ND@380J
HEXACHLOROETHANE	ug/kg	ND@380	ND@380	ND@370	ND@380
INDENO(1,2,3,-C,D)PYRENE	ug/kg	ND@380	60J	ND@370	3200
ISOPHORONE	ug/kg	ND@380	ND@380	ND@370	ND@380
N-NITROSODI-N-PROPYLAMINE	ug/kg	ND@380	ND@380	ND@370	ND@380
N-NITROSODIMETHYLAMINE	ug/kg	ND@380	ND@380	ND@370	ND@380
N-NITROSODIPHENYLAMINE	ug/kg	ND@380	ND@380	ND@370	ND@380
NAPHTHALENE	ug/kg	ND@380	ND@380	ND@370	170J
NITROBENZENE	ug/kg	ND@380	ND@380	ND@370	ND@380
PCB 1016	ug/kg	ND@19	ND@19	ND@18	ND@19
PCB 1221	ug/kg	ND@19	ND@19	ND@18	ND@19
PCB 1232	ug/kg	ND@19	ND@19	ND@18	ND@19
PCB 1242	ug/kg	ND@19	ND@19	ND@18	ND@19
PCB 1248	ug/kg	ND@19	ND@19	ND@18	ND@19
PCB 1254	ug/kg	ND@38	1800D	ND@37	ND@38
PCB 1260	ug/kg	ND@38	170P	21	ND@38
PHENANTHRENE	ug/kg	ND@380	140J	ND@370	6300DJ
PYRENE	ug/kg	ND@380	220J	ND@370	20000D
STYRENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
TOXAPHENE	ug/kg	ND@38	ND@38	ND@37	ND@38
PESTICIDES/HERBICIDES					
4,4'-DDD	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
4,4'-DDE	ug/kg	3.1J	90E	1.8JP	ND@3.8
4,4'-DDT	ug/kg	7J	190D	ND@3.7J	ND@3.8J
ALDRIN	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
ALPHA-BHC	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
BETA-BHC	ug/kg	ND@1.9J	ND@1.9J	ND@1.8J	ND@1.9J
DELTA-BHC	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
DIELDRIN	ug/kg	ND@3.8	160EP	0.6JP	12

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		LV-05	LV-06	UV-01	UV-03
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-09	178006-10	178006-11	178006-12
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
PESTICIDES/HERBICIDES (Continued)					
ENDOSULFAN I	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
ENDOSULFAN II	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
ENDOSULFAN SULFATE	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
ENDRIN	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
ENDRIN ALDEHYDE	ug/kg	ND@3.8	ND@3.8	ND@3.7	ND@3.8
GAMMA-BHC	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
HEPTACHLOR	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
HEPTACHLOR EPOXIDE	ug/kg	ND@1.9	ND@1.9	ND@1.8	ND@1.9
METHOXYCHLOR	ug/kg	ND@19J	ND@19J	ND@18J	ND@19J
TECHNICAL CHLORDANE	ug/kg	ND@19	ND@19	ND@18	ND@19
VOLATILE ORGANICS					
1,1,1-TRICHLOROETHANE	ug/kg	ND@11	2J	ND@11	7J
1,1,2,2-TETRACHLOROETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1,1,2-TRICHLOROETHANE	ug/kg	ND@11	ND@11J	ND@11	4J
1,1-DICHLOROETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1,1-DICHLOROETHENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1,2-DICHLOROETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
1,2-DICHLOROETHENE, TOTAL	ug/kg	ND@11	2J	ND@11	11
1,2-DICHLOROPROPANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
ACETONE	ug/kg	ND@11	ND@11J	ND@11	ND@11
BENZENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
BROMODICHLOROMETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
BROMOFORM	ug/kg	ND@11	ND@11J	ND@11	ND@11
BROMOMETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CARBON DISULFIDE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CARBON TETRACHLORIDE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CHLOROBENZENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CHLORODIBROMOMETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CHLOROETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CHLOROFORM	ug/kg	ND@11	ND@11J	ND@11	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		LV-05	LV-06	UV-01	LV-03
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/21/97	10/21/97	10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-09	178006-10	178006-11	178006-12
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
CHLOROMETHANE	ug/kg	ND@11	ND@11J	ND@11	ND@11
CIS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
ETHYLBENZENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
METHYLENE CHLORIDE	ug/kg	ND@11	ND@11J	ND@11	ND@11
TETRACHLOROETHENE	ug/kg	ND@11	3J	ND@11	27
TOLUENE	ug/kg	ND@11	1J	ND@11	ND@11
TRANS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11J	ND@11	ND@11
TRICHLOROETHENE	ug/kg	4J	190D	3J	140
VINYL CHLORIDE	ug/kg	ND@11	ND@11J	ND@11	ND@11
XYLENE, TOTAL	ug/kg	ND@11	ND@11J	ND@11	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		UV-04	UV-05	UV-06	UV-07
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/22/97	10/22/97	10/22/97	10/21/97
LABORATORY SAMPLE I.D.		178006-13	178006-14	178006-15	178006-16
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ALCOHOLS, ACETATES, ALDEHYDES, KETONES					
BENZYL ALCOHOL	ug/kg	ND@380	ND@370	ND@370	ND@370
METHYL BUTYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@11
METHYL ETHYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@11
METHYL ISOBUTYL KETONE	ug/kg	ND@11	ND@11	ND@11	ND@11
VINYLACETATE	ug/kg	ND@11	ND@11	ND@11	ND@11
ACID EXTRACTABLES					
2,4,5-TRICHLOROPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2,4,6-TRICHLOROPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2,4-DICHLOROPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2,4-DIMETHYLPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2,4-DINITROPHENOL	ug/kg	ND@950J	ND@920J	ND@930J	ND@920
2-CHLOROPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2-CRESOL	ug/kg	ND@380	ND@370	ND@370	ND@370
2-NITROPHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
4,6-DINITRO-2-CRESOL	ug/kg	ND@950J	ND@920J	ND@930J	ND@920J
4-CHLORO-3-CRESOL	ug/kg	ND@380	ND@370	ND@370	ND@370
4-CRESOL	ug/kg	ND@380	ND@370	ND@370	ND@370
4-NITROPHENOL	ug/kg	ND@950	ND@920	ND@930	ND@920
PENTACHLOROPHENOL	ug/kg	ND@950	ND@920J	ND@930J	ND@370
PHENOL	ug/kg	ND@380	ND@370	ND@370	ND@370
BASE/NEUTRAL EXTRACTABLES					
1,2,4-TRICHLOROBENZENE	ug/kg	ND@380	ND@370	ND@370	ND@370
1,2-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,3-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,4-DICHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
1-CHLOROPROPANE	ug/kg	ND@380	ND@370	ND@370	ND@370

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		UV-04	UV-05	UV-06	UV-07
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/22/97	10/22/97	10/22/97	10/21/97
LABORATORY SAMPLE I.D.		178006-13	178006-14	178006-15	178006-16
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
2,4-DINITROTOLUENE	ug/kg	ND@380	ND@370	ND@370	ND@370J
2,6-DINITROTOLUENE	ug/kg	ND@380	ND@370	ND@370	ND@370
2-CHLOROETHYLVINYL ETHER	ug/kg	ND@11	ND@11	ND@11	ND@11
2-CHLORONAPHTHALENE	ug/kg	ND@380	ND@370	ND@370	ND@370
2-METHYLNAPHTHALENE	ug/kg	ND@380	ND@370	ND@370	ND@370
2-NITROANILINE	ug/kg	ND@950	ND@920	ND@930	ND@920
3,3'-DICHLOROBENZIDENE	ug/kg	ND@760	ND@730	ND@740	ND@730
3-NITROANILINE	ug/kg	ND@950	ND@920	ND@930	ND@920
4-BROMOPHENYL PHENYL ETHER	ug/kg	ND@380	ND@370	ND@370	ND@370
4-CHLOROANILINE	ug/kg	ND@380	ND@370	ND@370	ND@370
4-CHLOROPHENYL PHENYL ETHER	ug/kg	ND@380	ND@370	ND@370	ND@370
4-NITROANILINE	ug/kg	ND@950J	ND@920J	ND@930J	ND@920J
ACENAPHTHENE	ug/kg	ND@380	ND@370	ND@370	ND@370
ACENAPHTHYLENE	ug/kg	ND@380	ND@370	ND@370	ND@370
ANTHRACENE	ug/kg	43J	ND@370	ND@370	ND@370
BENZO(A)ANTHRACENE	ug/kg	230J	ND@370	ND@370	ND@370
BENZO(A)PYRENE	ug/kg	170J	ND@370	ND@370	ND@370
BENZO(B)FLUORANTHENE	ug/kg	270J	ND@370	ND@370	ND@370
BENZO(GHI)PERYLENE	ug/kg	99J	ND@370	ND@370	ND@370
BENZO(K)FLUORANTHENE	ug/kg	92J	ND@370	ND@370	ND@370
BIS(2-CHLOROETHOXY)METHANE	ug/kg	ND@380	ND@370	ND@370	ND@370
BIS(2-CHLOROETHYL)ETHER	ug/kg	ND@380	ND@370	ND@370	ND@370
BIS(2-ETHYLHEXYL)PHTHALATE	ug/kg	1800	75J	ND@370	ND@370
BUTYL BENZYL PHTHALATE	ug/kg	ND@380	ND@370	ND@370	ND@370
CHRYSENE	ug/kg	210J	ND@370	ND@370	ND@370
DI-N-BUTYL PHTHALATE	ug/kg	ND@380	ND@370	ND@370	ND@370
DI-N-OCTYL PHTHALATE	ug/kg	ND@380	ND@370	ND@370	ND@370
DIBENZO(A,H)ANTHRACENE	ug/kg	ND@380	ND@370	ND@370	ND@370
DIBENZOFURAN	ug/kg	ND@380	ND@370	ND@370	ND@370
DIETHYL PHTHALATE	ug/kg	ND@380	ND@370	ND@370	ND@370
DIMETHYL PHTHALATE	ug/kg	ND@380	ND@370	ND@370	ND@370
FLUORANTHENE	ug/kg	440	ND@370	ND@370	ND@370
FLUORENE	ug/kg	ND@380	ND@370	ND@370	ND@370
HEXACHLOROBENZENE	ug/kg	ND@380J	ND@370	ND@370	ND@370

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		UV-04	UV-05	UV-06	UV-07
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/22/97	10/22/97	10/22/97	10/21/97
LABORATORY SAMPLE I.D.		178006-13	178006-14	178006-15	178006-16
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
BASE/NEUTRAL EXTRACTABLES (Continued)					
HEXACHLOROBUTADIENE	ug/kg	ND@380	ND@370	ND@370	ND@370
HEXACHLOROCYCLOPENTADIENE	ug/kg	ND@380	ND@370J	ND@370J	ND@370J
HEXACHLOROETHANE	ug/kg	ND@380	ND@370	ND@370	ND@370
INDENO(1,2,3,-C,D)PYRENE	ug/kg	100J	ND@370	ND@370	ND@370
ISOPHORONE	ug/kg	ND@380	ND@370	ND@370	ND@370
N-NITROSODI-N-PROPYLAMINE	ug/kg	ND@380	ND@370	ND@370	ND@370
N-NITROSODIMETHYLAMINE	ug/kg	ND@380	ND@370	ND@370	ND@370
N-NITROSODIPHENYLAMINE	ug/kg	ND@380	ND@370	ND@370	ND@370
NAPHTHALENE	ug/kg	ND@380	ND@370	ND@370	ND@370
NITROBENZENE	ug/kg	ND@380	ND@370	ND@370	ND@370
PCB 1016	ug/kg	ND@19	ND@18	ND@19	ND@18
PCB 1221	ug/kg	ND@19	ND@18	ND@19	ND@18
PCB 1232	ug/kg	ND@19	ND@18	ND@19	ND@18
PCB 1242	ug/kg	ND@19	ND@18	ND@19	ND@18
PCB 1248	ug/kg	ND@19	ND@18	ND@19	ND@18
PCB 1254	ug/kg	ND@38	ND@36	ND@37	ND@36
PCB 1260	ug/kg	ND@38	ND@36	ND@37	ND@36
PHENANTHRENE	ug/kg	260J	ND@370	ND@370	ND@370
PYRENE	ug/kg	510	ND@370	ND@370	ND@370
STYRENE	ug/kg	ND@11	ND@11	ND@11	ND@11
TOXAPHENE	ug/kg	ND@38	ND@36	ND@37	ND@36
PESTICIDES/HERBICIDES					
4,4'-DDD	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
4,4'-DDE	ug/kg	0.8J	ND@3.6	ND@3.7	6.4
4,4'-DDT	ug/kg	5J	ND@3.6J	ND@3.7J	4J
ALDRIN	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
ALPHA-BHC	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
BETA-BHC	ug/kg	ND@1.9J	ND@1.8J	ND@1.9J	ND@1.8J
DELTA-BHC	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
DIELDRIN	ug/kg	0.7JP	ND@3.6	ND@3.7	ND@3.6

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		UV-04	UV-05	UV-06	UV-07
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/22/97	10/22/97	10/22/97	10/21/97
LABORATORY SAMPLE I.D.		178006-13	178006-14	178006-15	178006-16
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
PESTICIDES/HERBICIDES (Continued)					
ENDOSULFAN I	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
ENDOSULFAN II	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
ENDOSULFAN SULFATE	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
ENDRIN	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
ENDRIN ALDEHYDE	ug/kg	ND@3.8	ND@3.6	ND@3.7	ND@3.6
GAMMA-BHC	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
HEPTACHLOR	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
HEPTACHLOR EPOXIDE	ug/kg	ND@1.9	ND@1.8	ND@1.9	ND@1.8
METHOXYCHLOR	ug/kg	ND@19J	ND@18J	ND@19J	ND@18J
TECHNICAL CHLORDANE	ug/kg	ND@19	ND@18	ND@19	ND@18
VOLATILE ORGANICS					
1,1,1-TRICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,1,2,2-TETRACHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,1,2-TRICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,1-DICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,1-DICHLOROETHENE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,2-DICHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
1,2-DICHLOROETHENE, TOTAL	ug/kg	ND@11	ND@11	ND@11	ND@11
1,2-DICHLOROPROPANE	ug/kg	ND@11	ND@11	ND@11	ND@11
ACETONE	ug/kg	ND@11	ND@11	ND@11	ND@11
BENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
BROMODICHLOROMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
BROMOFORM	ug/kg	ND@11	ND@11	ND@11	ND@11
BROMOMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
CARBON DISULFIDE	ug/kg	ND@11	ND@11	ND@11	ND@11
CARBON TETRACHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@11
CHLOROBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
CHLORODIBROMOMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
CHLOROETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
CHLOROFORM	ug/kg	ND@11	ND@11	ND@11	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

SAMPLE LOCATION		UV-04	UV-05	UV-06	UV-07
SAMPLE DEPTH		0'-2'	0'-2'	0'-2'	0'-2'
SAMPLE DESCRIPTION		SOIL	SOIL	SOIL	SOIL
SAMPLE DATE		10/22/97	10/22/97	10/22/97	10/21/97
LABORATORY SAMPLE I.D.		178006-13	178006-14	178006-15	178006-16
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
CHLOROMETHANE	ug/kg	ND@11	ND@11	ND@11	ND@11
CIS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11	ND@11	ND@11
ETHYLBENZENE	ug/kg	ND@11	ND@11	ND@11	ND@11
METHYLENE CHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@11
TETRACHLOROETHENE	ug/kg	ND@11	ND@11	ND@11	2J
TOLUENE	ug/kg	ND@11	ND@11	ND@11	2J
TRANS-1,3-DICHLOROPROPENE	ug/kg	ND@11	ND@11	ND@11	ND@11
TRICHLOROETHENE	ug/kg	1J	ND@11	1J	18
VINYL CHLORIDE	ug/kg	ND@11	ND@11	ND@11	ND@11
XYLENE, TOTAL	ug/kg	ND@11	ND@11	ND@11	ND@11

IBM POUGHKEEPSIE RFI SAMPLING VISIT
SOIL SAMPLING RESULTS
12/14/97

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	*Not Analyzed*
ND@X	*Not Detected at Detection Limit X*
BMRL@X	*Below Minimum Reporting Limit of X*

CODE	*EXPLANATION*
^	*Non-Standard Measurement Unit*
c	*Sample contained sediment which may have contributed to reported results*
d	*24 Hour Composite Sample*
B	*Organic analyte detected in both the sample and the laboratory blank*
D	*Compounds identifed at a secondary dilution factor*
E	*Concentration exceeds the calibration range of the GC/MS instrument*
J	*Estimated Value*
N	*Spiked sample recovery not within control limits*
P	*Lower of 2 GC column concentrations that have more than 25% difference*
R	*Reported value is less than the CRDL but greater than the IDL*
S	*Surrogate recoveries exceed acceptable control limits*
W	*Post digestion spike FAA out of control limits; sample absorbance < 50%*
*	*Manhole flooded when sediment sample collected*

IBM POUGHKEEPSIE RFI SAMPLING VISIT
QA/QC RESULTS
12/14/97

SAMPLE LOCATION		EQ RINSE BLK	TRIP BLANK
SAMPLE DESCRIPTION		HAND AUGER	10/21-22/97
SAMPLE DATE		10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-17	178006-18
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
ALCOHOLS, ACETATES, ALDEHYDES, KETONES			
BENZYL ALCOHOL	ug/l	ND@10	NA
METHYL BUTYL KETONE	ug/l	ND@10	ND@10
METHYL ETHYL KETONE	ug/l	ND@10	ND@10
METHYL ISOBUTYL KETONE	ug/l	ND@10	ND@10
VINYLACETATE	ug/l	ND@10	ND@10
ACID EXTRACTABLES			
2,4,5-TRICHLOROPHENOL	ug/l	ND@10	NA
2,4,6-TRICHLOROPHENOL	ug/l	ND@10	NA
2,4-DICHLOROPHENOL	ug/l	ND@10	NA
2,4-DIMETHYLPHENOL	ug/l	ND@10	NA
2,4-DINITROPHENOL	ug/l	ND@25J	NA
2-CHLOROPHENOL	ug/l	ND@10	NA
2-CRESOL	ug/l	ND@10	NA
2-NITROPHENOL	ug/l	ND@10	NA
4,6-DINITRO-2-CRESOL	ug/l	ND@25J	NA
4-CHLORO-3-CRESOL	ug/l	ND@10	NA
4-CRESOL	ug/l	ND@10	NA
4-NITROPHENOL	ug/l	ND@25	NA
PENTACHLOROPHENOL	ug/l	ND@25J	NA
PHENOL	ug/l	ND@10	NA
BASE/NEUTRAL EXTRACTABLES			
1,2,4-TRICHLOROBENZENE	ug/l	ND@10	NA
1,2-DICHLOROBENZENE	ug/l	ND@10	ND@10
1,3-DICHLOROBENZENE	ug/l	ND@10	ND@10
1,4-DICHLOROBENZENE	ug/l	ND@10	ND@10
1-CHLOROPROPANE	ug/l	ND@10	NA
2,4-DINITROTOLUENE	ug/l	ND@10	NA

IBM POUGHKEEPSIE RFI SAMPLING VISIT
QA/QC RESULTS
12/14/97

SAMPLE LOCATION		EQ RINSE BLK	TRIP BLANK
SAMPLE DESCRIPTION		HAND AUGER	10/21-22/97
SAMPLE DATE		10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-17	178006-18
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
BASE/NEUTRAL EXTRACTABLES (Continued)			
2,6-DINITROTOLUENE	ug/l	ND@10	NA
2-CHLOROETHYLVINYL ETHER	ug/l	ND@10	ND@10
2-CHLORONAPHTHALENE	ug/l	ND@10	NA
2-METHYLNAPHTHALENE	ug/l	ND@10	NA
2-NITROANILINE	ug/l	ND@25	NA
3,3'-DICHLOROBENZIDENE	ug/l	ND@20J	NA
3-NITROANILINE	ug/l	ND@25	NA
4-BROMOPHENYL PHENYL ETHER	ug/l	ND@10	NA
4-CHLOROANILINE	ug/l	ND@10	NA
4-CHLOROPHENYL PHENYL ETHER	ug/l	ND@10	NA
4-NITROANILINE	ug/l	ND@25J	NA
ACENAPHTHENE	ug/l	ND@10	NA
ACENAPHTHYLENE	ug/l	ND@10	NA
ANTHRACENE	ug/l	ND@10	NA
BENZO(A)ANTHRACENE	ug/l	ND@10	NA
BENZO(A)PYRENE	ug/l	ND@10	NA
BENZO(B)FLUORANTHENE	ug/l	ND@10	NA
BENZO(GHI)PERYLENE	ug/l	ND@10	NA
BENZO(K)FLUORANTHENE	ug/l	ND@10	NA
BIS(2-CHLOROETHOXY)METHANE	ug/l	ND@10	NA
BIS(2-CHLOROETHYL)ETHER	ug/l	ND@10	NA
BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	ND@10	NA
BUTYL BENZYL PHTHALATE	ug/l	ND@10	NA
CHRYSENE	ug/l	ND@10	NA
DI-N-BUTYL PHTHALATE	ug/l	ND@10	NA
DI-N-OCTYL PHTHALATE	ug/l	ND@10	NA
DIBENZO(A,H)ANTHRACENE	ug/l	ND@10	NA
DIBENZOFURAN	ug/l	ND@10	NA
DIETHYL PHTHALATE	ug/l	ND@10	NA
DIMETHYL PHTHALATE	ug/l	ND@10	NA
FLUORANTHENE	ug/l	ND@10J	NA
FLUORENE	ug/l	ND@10	NA
HEXACHLOROBENZENE	ug/l	ND@10	NA
HEXACHLOROBUTADIENE	ug/l	ND@10	NA
HEXACHLOROCYCLOPENTADIENE	ug/l	ND@10	NA

IBM POUGHKEEPSIE RFI SAMPLING VISIT
QA/QC RESULTS
12/14/97

SAMPLE LOCATION		EQ RINSE BLK	TRIP BLANK
SAMPLE DESCRIPTION		HAND AUGER	10/21-22/97
SAMPLE DATE		10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-17	178006-18
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
BASE/NEUTRAL EXTRACTABLES (Continued)			
HEXACHLOROETHANE	ug/l	ND@10	NA
INDENO(1,2,3,-C,D)PYRENE	ug/l	ND@10	NA
ISOPHORONE	ug/l	ND@10	NA
N-NITROSODI-N-PROPYLAMINE	ug/l	ND@10	NA
N-NITROSODIMETHYLAMINE	ug/l	ND@10	NA
N-NITROSODIPHENYLAMINE	ug/l	ND@10	NA
NAPHTHALENE	ug/l	ND@10	NA
NITROBENZENE	ug/l	ND@10	NA
PCB 1016	ug/l	ND@0.5	NA
PCB 1221	ug/l	ND@0.5	NA
PCB 1232	ug/l	ND@0.5	NA
PCB 1242	ug/l	ND@0.5	NA
PCB 1248	ug/l	ND@0.5	NA
PCB 1254	ug/l	ND@1	NA
PCB 1260	ug/l	ND@1	NA
PHENANTHRENE	ug/l	ND@10	NA
PYRENE	ug/l	ND@10	NA
STYRENE	ug/l	ND@10	ND@10
TOXAPHENE	ug/l	ND@1	NA
PESTICIDES/HERBICIDES			
4,4'-DDD	ug/l	ND@0.1	NA
4,4'-DDE	ug/l	ND@0.1	NA
4,4'-DDT	ug/l	ND@0.1J	NA
ALDRIN	ug/l	ND@0.05	NA
ALPHA-BHC	ug/l	ND@0.05	NA
BETA-BHC	ug/l	ND@0.05J	NA
DELTA-BHC	ug/l	ND@0.05	NA
DIELDRIN	ug/l	ND@0.1	NA
ENDOSULFAN I	ug/l	ND@0.1	NA
ENDOSULFAN II	ug/l	ND@0.1	NA
ENDOSULFAN SULFATE	ug/l	ND@0.1	NA

SAMPLE LOCATION		EQ RINSE BLK	TRIP BLANK
SAMPLE DESCRIPTION		HAND AUGER	10/21-22/97
SAMPLE DATE		10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-17	178006-18
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
PESTICIDES/HERBICIDES (Continued)			
ENDRIN	ug/l	ND@0.1	NA
ENDRIN ALDEHYDE	ug/l	ND@0.1	NA
GAMMA-BHC	ug/l	ND@0.05	NA
HEPTACHLOR	ug/l	ND@0.05	NA
HEPTACHLOR EPOXIDE	ug/l	ND@0.05	NA
METHOXYCHLOR	ug/l	ND@0.5J	NA
TECHNICAL CHLORDANE	ug/l	ND@0.5	NA
VOLATILE ORGANICS			
1,1,1-TRICHLOROETHANE	ug/l	ND@10	ND@10
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@10	ND@10
1,1,2-TRICHLOROETHANE	ug/l	ND@10	ND@10
1,1-DICHLOROETHANE	ug/l	ND@10	ND@10
1,1-DICHLOROETHENE	ug/l	ND@10	ND@10
1,2-DICHLOROETHANE	ug/l	ND@10	ND@10
1,2-DICHLOROETHENE, TOTAL	ug/l	ND@10	ND@10
1,2-DICHLOROPROPANE	ug/l	ND@10	ND@10
ACETONE	ug/l	2J	ND@10
BENZENE	ug/l	ND@10	ND@10
BROMODICHLOROMETHANE	ug/l	ND@10	ND@10
BROMOFORM	ug/l	ND@10	ND@10
BROMOMETHANE	ug/l	ND@10	ND@10
CARBON DISULFIDE	ug/l	ND@10	ND@10
CARBON TETRACHLORIDE	ug/l	ND@10	ND@10
CHLOROBENZENE	ug/l	ND@10	ND@10
CHLORODIBROMOMETHANE	ug/l	ND@10	ND@10
CHLOROETHANE	ug/l	ND@10	ND@10
CHLOROFORM	ug/l	ND@10	ND@10
CHLOROMETHANE	ug/l	ND@10	ND@10
CIS-1,3-DICHLOROPROPENE	ug/l	ND@10	ND@10
ETHYLBENZENE	ug/l	ND@10	ND@10
METHYLENE CHLORIDE	ug/l	2J	2J

IBM POUGHKEEPSIE RFI SAMPLING VISIT
QA/QC RESULTS
12/14/97

SAMPLE LOCATION		EQ RINSE BLK	TRIP BLANK
SAMPLE DESCRIPTION		HAND AUGER	10/21-22/97
SAMPLE DATE		10/22/97	10/22/97
LABORATORY SAMPLE I.D.		178006-17	178006-18
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
VOLATILE ORGANICS (Continued)			
TETRACHLOROETHENE	ug/l	ND@10	ND@10
TOLUENE	ug/l	ND@10	ND@10
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@10	ND@10
TRICHLOROETHENE	ug/l	ND@10	ND@10
VINYL CHLORIDE	ug/l	ND@10	ND@10
XYLENE, TOTAL	ug/l	ND@10	ND@10

IBM POUGHKEEPSIE RFI SAMPLING VISIT
QA/QC RESULTS
12/14/97

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	*Not Analyzed*
ND@X	*Not Detected at Detection Limit X*
BMRL@X	*Below Minimum Reporting Limit of X*

CODE	*EXPLANATION*
^	*Non-Standard Measurement Unit*
c	*Sample contained sediment which may have contributed to reported results*
d	*24 Hour Composite Sample*
B	*Organic analyte detected in both the sample and the laboratory blank*
D	*Compounds identifed at a secondary dilution factor*
E	*Concentration exceeds the calibration range of the GC/MS instrument*
J	*Estimated Value*
N	*Spiked sample recovery not within control limits*
P	*Lower of 2 GC column concentrations that have more than 25% difference*
R	*Reported value is less than the CRDL but greater than the IDL*
S	*Surrogate recoveries exceed acceptable control limits*
W	*Post digestion spike FAA out of control limits; sample absorbance < 50%*
*	*Manhole flooded when sediment sample collected*