Final RFI Report

Volume 2 of 2

for the

Bayer Corporation
New Martinsville, West Virginia Facility

Prepared for Submission to

U.S. Environmental Protection Agency
841 Chestnut Street
Philadelphia, Pennsylvania 19107

Prepared on Behalf of

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State Route 2
New Martinsville, West Virginia 26155

Prepared by

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2790 Mosside Boulevard
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IT Project No. 800588

Revision 1

December 2001

APPENDIX A

ECOLOGICAL SURVEY

APPENDIX A
ECOLOGIOCAL SITE SURVEY

A.1 TASK 1B - ECOLOGICAL SITE SURVEY

The ecological site survey considers terrestrial and aquatic environments in its scope. The results of these surveys are presented in the following sections.

A.2 Terrestrial Areas

Figure A-1 is a habitat map of the Bayer, New Martinsville facility and adjacent areas. As indicated in the figure, the majority of the site does not provide habitat for any type of ecological receptor because the surface is entirely covered by coarse gravel, asphalt, cement, buildings, or other facilities. No vegetation or evidence of animals was observed in these areas. Only small portions of the facility are vegetated and could contain limited habitat for wildlife. The vegetated areas are the portions of SWMU 5 (Residue Fill Area 3Fc) not occupied by the equalization basin and rainwater lagoon and SWMU Group A (SWMU 1, SWMU 2, and SWMU 4) in the South Landfill area. Table A-1 summarizes the vegetation and wildlife species observed in the SWMUs. A description of the potential habitat in these areas and adjacent to the plant property follows

Grasses and Chinese pigweed are growing on the berms surrounding the equalization basin and rainwater lagoon on SWMU 5. In addition, three Lombardy poplars, a few small staghorn sumac and tree-of-heaven are growing in the berms. However, the vegetated area of the berms is very small, and there is little cover for birds or mammals.

SWMU 1 and SWMU 2 have been sown with grasses. The only area that is not mowed is a narrow strip (about 5 meters wide) along the ponded area of Beaver Run that supports a low, weedy plant assemblage of goldenrods, Chinese pigweed, grasses, and a few small willows. A few individuals of several bird species were observed in this area which include American goldfinch, Savannah sparrow, and belted kingfisher. Canada geese have historically been observed in the area, but none were present at the time the ecological survey was performed. However, there is little cover and no trees in this area, and these birds are likely to be only occasional visitors to this area.

SWMU 4 is an ash lagoon separated by a narrow berm from the ponded area of Beaver Run. During the ecological survey, a small amount of water had gathered in the depression, but no hydrophytic vegetation was observed. The area supports weedy vegetation such as grasses,

brambles, aster and seedlings of tree-of-heaven. During the ecological survey, a number of killdeer, two Savannah sparrows, and several tame mallards were observed in the area. However, there is little vegetative cover and these birds are likely to be only occasional visitors to the area.

The adjacent property to the north of the site is planted with grasses. This is regularly cut and is used in part for athletic fields. As a result, there is little cover for wildlife. The strip of land between the facility and the Ohio River is occupied primarily by railroad tracks with only a few small patches of weedy vegetation. In addition, there is a narrow band (< 10-meters wide) of vegetation on the embankment to the river. However, these vegetated areas are very limited and do not represent significant cover for wildlife. The valley slopes to the east of WV Route 2 are upgradient from the plant and are forested. It is unlikely that any wildlife in these areas would contact environmental media associated with the facility.

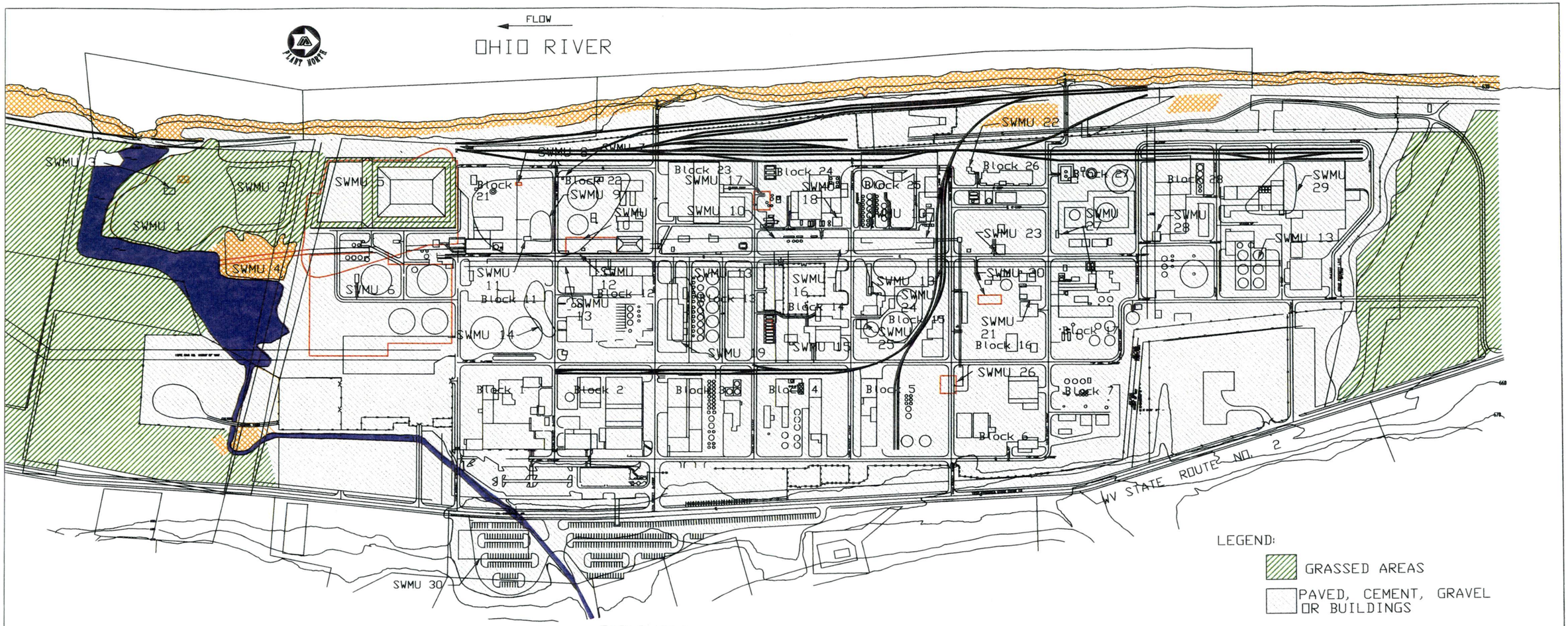
A.3 Aquatic Habitats

The soil surveys for Marshall and Wetzel Counties, West Virginia (SCS, 1960; NRCS, 1995) and the hydric soils list for West Virginia (NRCS, 1993) were reviewed. In addition, the wetlands inventory map for the New Martinsville quadrangle (USFS, 1987) was reviewed. No hydric soils or regulatory wetlands are indicated on the soil surveys or are present on or adjacent to the site. However, a preliminary wetlands study was performed by IT Corp. on January 18 and 19, 1993. This study (IT Corp, 1993) identifies approximately 2 acres of property immediately south of the New Martinsville plant as regulatory wetlands. The wetlands, located on the west side of State Route 2, give the impression of a maintained lawn with scattered trees. Upon closer inspection, a small drainage swale containing mowed wetland vegetation was revealed. This area was mapped as a palastrine emergent scrub/shrub wetland containing mowed sedges and rushes. However, this area is on the opposite side of Beaver Run and is up-gradient from the New Martinsville plant so it is unlikely to be impacted by the Site. The ponded area of Beaver Run and the Ohio River would be considered deep-water aquatic habitats.

The shallow portion of Beaver Run originates in a small valley immediately to the east of the facility and flows between several parking areas and a lawn area before entering the ponded area adjacent to the South Landfill. The stream is less than one meter wide and ten centimeters deep, which is too shallow to support fish. The ponded area is actually an impoundment of the Ohio River caused by the Hannibal Lock and Dam. Most fish and macroinvertebrates that are found in the Ohio River may occasionally occur in the ponded area of Beaver Run. Although the ponded

area of Beaver Run would be deep-water aquatic habitat, it is limited because it is a relatively small backwater area of Hannibal Pool.

The site is located between river miles 121 and 122 of the Ohio River. The Ohio River is impounded for navigation in this area by the Hannibal Lock and Dam, which is about 4.5 miles downstream at river mile 126.5. There is little aquatic or semiaquatic vegetation in the river because it is impounded, used for navigation, and has extensive industrial development upriver of the facility.



LEGEND:

- GRASSED AREAS
- PAVED, CEMENT, GRAVEL OR BUILDINGS
- UNCUT VEGETATION MOSTLY HERBACEOUS WITH SOME SHRUBS AND A FEW TREES
- BEAVER RUN

TABLE SW-1
SOLID WASTE MANAGEMENT UNITS INVESTIGATED

SOLID WASTE MANAGEMENT UNIT	LOCATION (BLOCK OR AREA)
1 South Landfill	South Landfill
2 Sludge Lagoon	South Landfill
3 Fill Area Hydroblasting Station	South Landfill
4 Ash Lagoon	South Landfill
5 Residue Fill Area Unit 3Fc	Equalization Basin/Rainwater Lagoon
6 Residue Fill Area Unit 3Fd	Clarifier and Bioxidation Tanks
7 Fill Materials Block 21	Block 21
8 All Purpose Burning Pit	Block 21
9 Residue Fill Area 3Fe	Block 21
10 Infilled Wastewater Ditch (Former Process Trench)	Throughout Facility
11 Acid Neutralization Facility 5Fg	Block 21
12 Former Neutralization Spill Basin	Block 22
13 Existing ProcessTrench	Throughout Facility
14 Fill Materials Block II	Block 11
15 Neutralization and Settling Basin 5Fa	Block 14
16 Neutralization Basin 5Fe	Block 24
17 Poly1 Spill	Block 24
18 Lab Area 24A	Block 24
19 Residue Fill Area Unit 3Fa	Block 13
20 Nitrations Neutraliz./Settling Basin 5Fb	Block 16
21 Nitrations Neutraliz./Settling Basin 5Fc	Block 16
22 Vortex Burner	Block 26
23 TDI Area 26B	Block 26
24 Neutralization Trench/Basin 5Fd	Block 15
25 HCI Area 15C	Block 15
26 Former Waste Disposal Incinerator	Block 5
27 Mononitrobenzene	Blocks 17 & 27
28 Iron Oxide Area 28A	Block 28
29 Fill Area Block 28	Block 28
30 Residue Fill Area Unit 3Fb	Parking Lot East of Rt 2

0 200 400 600 800
SCALE IN FEET

FIGURE A-1

BAYER CORP., NEW MARTINSVILLE FACILITY
NEW MARTINSVILLE, WV

POTENTIAL ECOLOGICAL HABITATS

IT Corporation

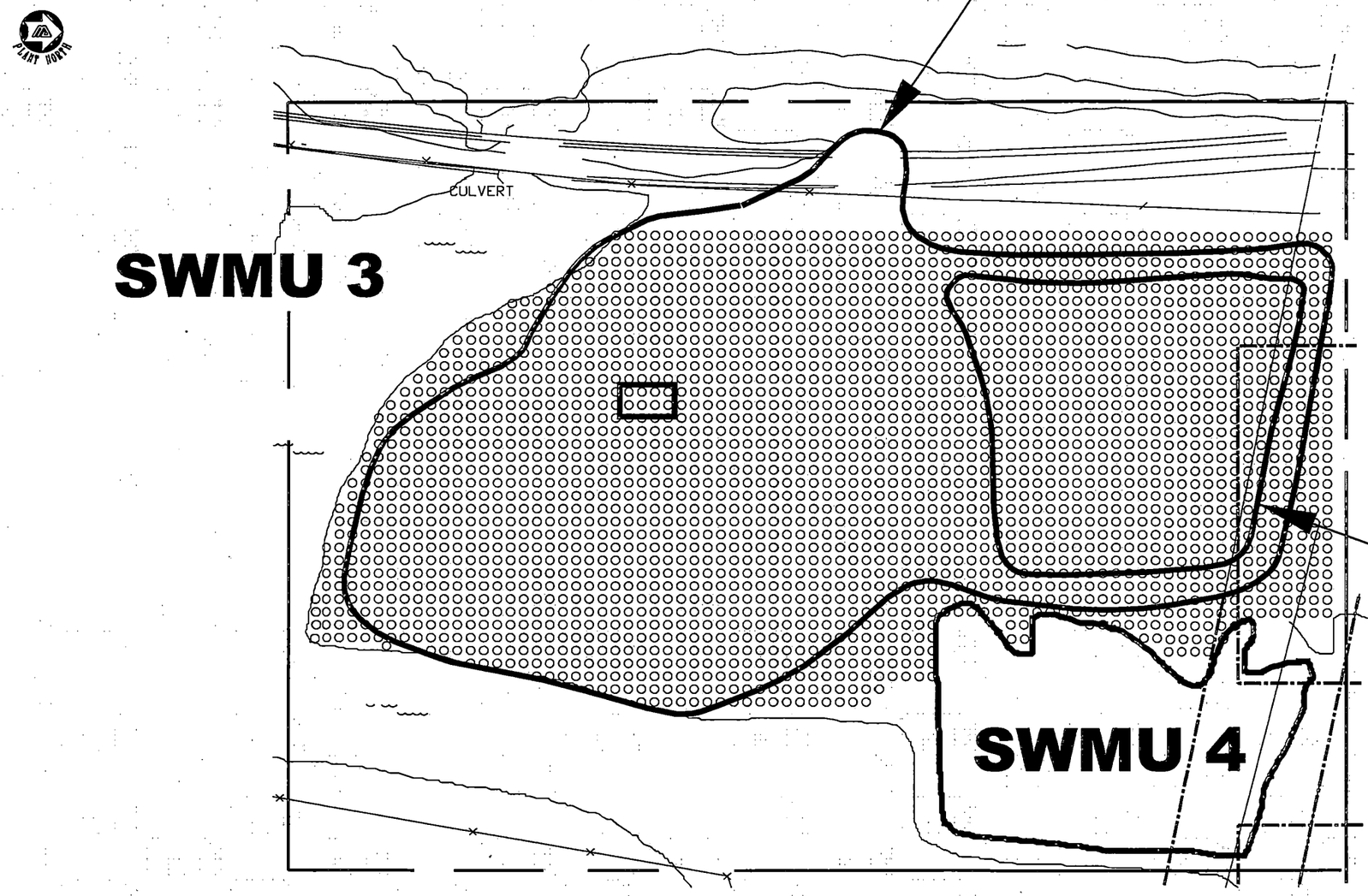
DATE: 2/21/95 | DR.: B. SNYDER
SCALE: AS NOTED | FILE NAME: 800855-B20

TABLE A-1
SUMMARY OF ECOLOGICAL SITE ASSESSMENT

SWMU	Description	Observed Vegetation		Observed Wildlife	
		Popular Name	Scientific Name	Popular Name	Scientific Name
20	Nitrations Neutralization Settling Basin 5Fb	None	N/A	None	N/A
21	Nitrations Neutralization Settling Basin 5Fc	None	N/A	None	N/A
22	Vortex Burner	None	N/A	None	N/A
23	TDI Area 26B	None	N/A	None	N/A
24	Neutralization Trench/ Basin 5Fd	None	N/A	None	N/A
25	HCL Area 15C	None	N/A	None	N/A
26	Former Waste Disposal Incinerator	None	N/A	None	N/A
27	Mononitrobenzene Area	None	N/A	None	N/A
28	Iron Oxide Area 28A	None	N/A	None	N/A
29	Fill Materials Block 28	None	N/A	None	N/A
30	Residue Fill Area Unit 3Fb	None	N/A	None	N/A
N/A	Adjacent Property To the North	Grasses	*Poaceae*	None	N/A
N/A	Adjacent Property To the West	Grasses Golden Rod Staghorn sumac Nightshade Crown vetch Iron weed Silver Maple	*Poaceae* *Solidago* spp. *Rhus typina* *Solanum nigrum* *Vicia sativa* *Veronica spp.* *Acer saccharinum*	None	N/A
N/A	Adjacent Property To the South	Grasses Golden Rod Chinese Pigweed Willows	*Poaceae* *Solidago* spp. *Polygonum polystchyum* *Salix* spp.	American Goldfinch Savannah Sparrow Belted Kingfisher American Coot Blue Heron	*Carduelis tristis* *Passerculus sandwichensis* *Megacertyl alcyon* *Megacertyl alcyon* *Fulica americana*
N/A	Adjacent Property To the East	None	N/A	None	N/A

TABLE A-1
SUMMARY OF ECOLOGICAL SITE ASSESSMENT

SWMU	Description	Observed Vegetation		Observed Wildlife	
		Popular Name	Scientific Name	Popular Name	Scientific Name
1	South Landfill	Grasses Golden Rod Chinese Pigweed Willows	*Poaceae* *Solidago* spp. *Polygonum polystchyum* *Salix* spp.	American Goldfinch Savannah Sparrow Belted Kingfisher	*Carduelis tristis* *Passerculus sandwichensis* *Megacertyl alcyon*
2	Sludge Lagoon	Grasses Golden Rod Chinese Pigweed Willows	*Poaceae* *Solidago* spp. *Polygonum polystchyum* *Salix* spp.	American Goldfinch Savannah Sparrow Belted Kingfisher	*Carduelis tristis* *Passerculus sandwichensis* *Megacertyl alcyon*
3	Fill Area Hydroblasting Station	None	N/A	None	N/A
4	Ash Lagoon	Grasses Aster Tree-of-Heaven	*Poaceae* *Aster* spp *Ailanthus altissima*	Killdeer Savannah Sparrow Mallard Ducks	*Charadrius vociferus* *Passerculus sandwichensis* *Anas platyrhynchos*
5	Residue Fill Area Unit 3Fc	None	N/A	None	N/A
6	Fill Materials Unit 3Fc	None	N/A	None	N/A
7	Residue Fill Area Unit 3Fd	None	N/A	None	N/A
8	All Purpose Burning Pit	None	N/A	None	N/A
9	Residue Fill Area Unit 3Fe	None	N/A	None	N/A
10	Infilled Wastewater Ditch	None	N/A	None	N/A
11	Acid Neutralization Facility 5 Fg	None	N/A	None	N/A
12	Former Neutralization Spill Basin	None	N/A	None	N/A
13	Existing Process Trench	None	N/A	None	N/A
14	Fill Materials Block 11	None	N/A	None	N/A
15	Neutralization and Settling Basin 5Fa	None	N/A	None	N/A
16	Neutralization Basin 5F	None	N/A	None	N/A
17	Polyol Spill	None	N/A	None	N/A
18	Lab Area 24A	None	N/A	None	N/A
19	Residue Fill Area Unit 3a	None	N/A	None	N/A



LEGEND:

o EM SURVEY STATION LOCATION

SWMU BOUNDARY

0 100 200

SCALE IN FEET

FIGURE B-1

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMUs 1, 2, AND 3 EM SURVEY GRIDS	
IT Corporation	DATE: 12/29/99	DR.: B. SNYDER
	SCALE: AS NOTED	DWG. NO. 800588-B6

0 100 200

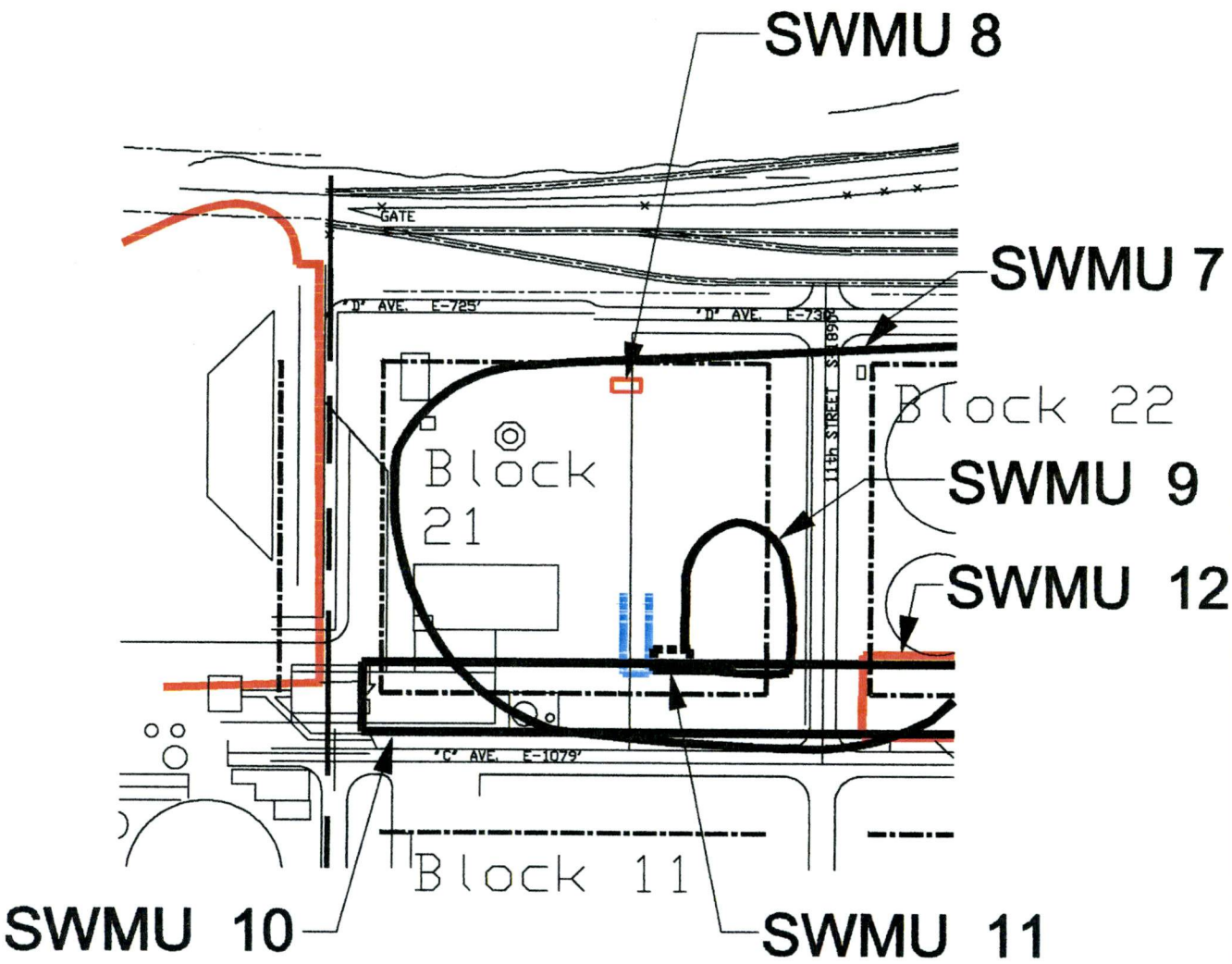
SCALE IN FEET

FIGURE B-2

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMUs 1, 2, AND 3 TERRAIN CONDUCTIVITY (EM) SURVEY MAP
IT Corporation	DATE: 12/29/99 DR.: B. SNYDER SCALE: AS NOTED DWG. NO. 800588-B7

JOB NO.: 80058830400000 PLOT SCALE: 1=70

STARTED ON: 12/29/99 REVISED: 0/00/00



LEGEND

SWMU 7 — SWMU LOCATION

SWMU 8 — MODIFIED SWMU LOCATION

FEATURES DELINEATED BY GPR

BLOCK DELINEATION

0 60 120

SCALE IN FEET

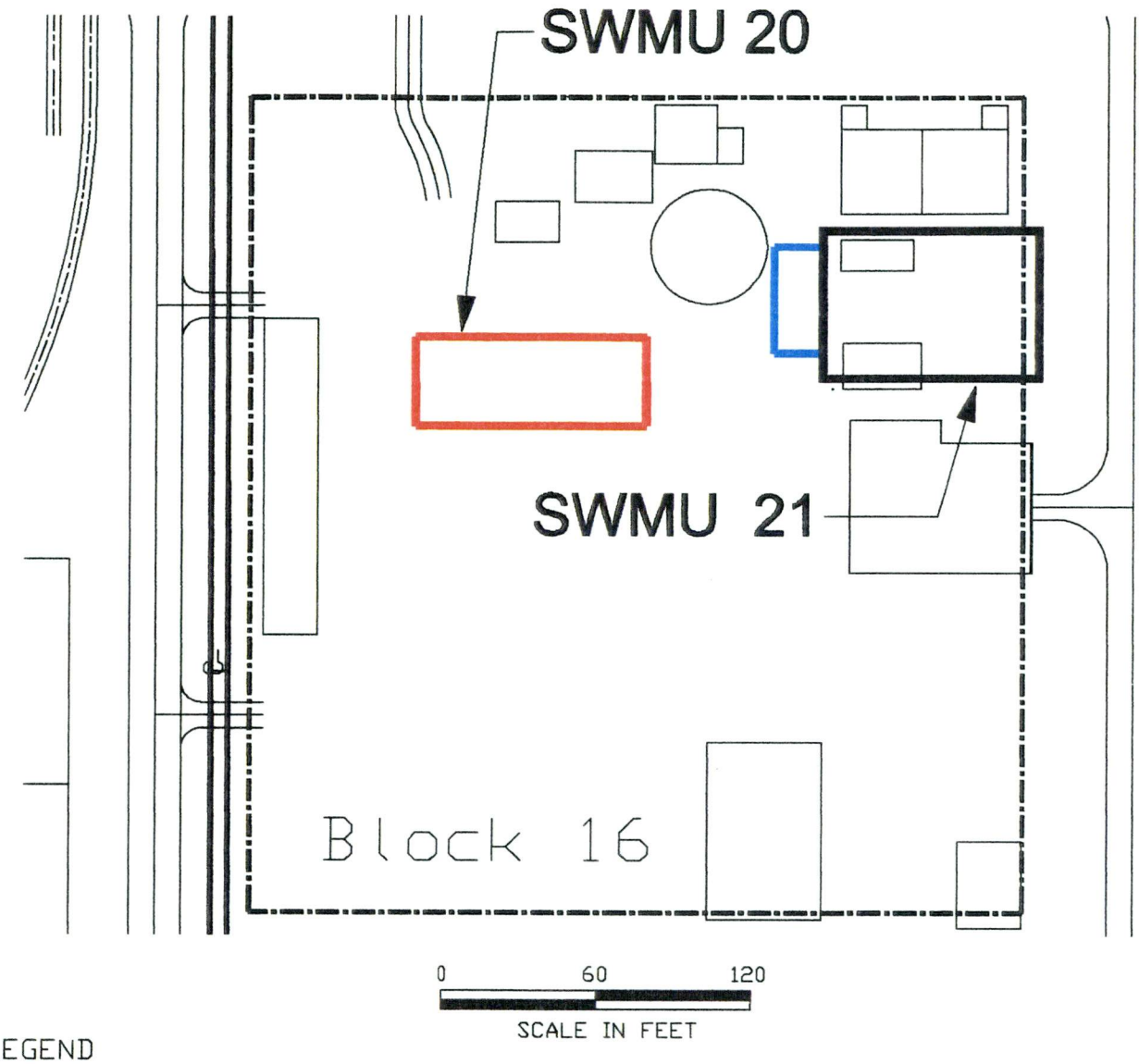
FIGURE B-3

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMU 7 GROUP C (SWMU 7,8,9, AND 11) FEATURES DELINEATED BY GPR

IT Corporation	DATE: 12/29/99	DR.: B. SNYDER
	SCALE: AS NOTED	FILE NAME: 800588-A2

JOB NO.: 80058830400000 PLOT SCALE: 1=70

STARTED ON: 12/29/99 REVISED: 0/00/00



LEGEND

SWMU 7 — SWMU LOCATION

SWMU 20 — MODIFIED SWMU LOCATION

FEATURES DELINEATED BY GPR

BLOCK DELINEATION

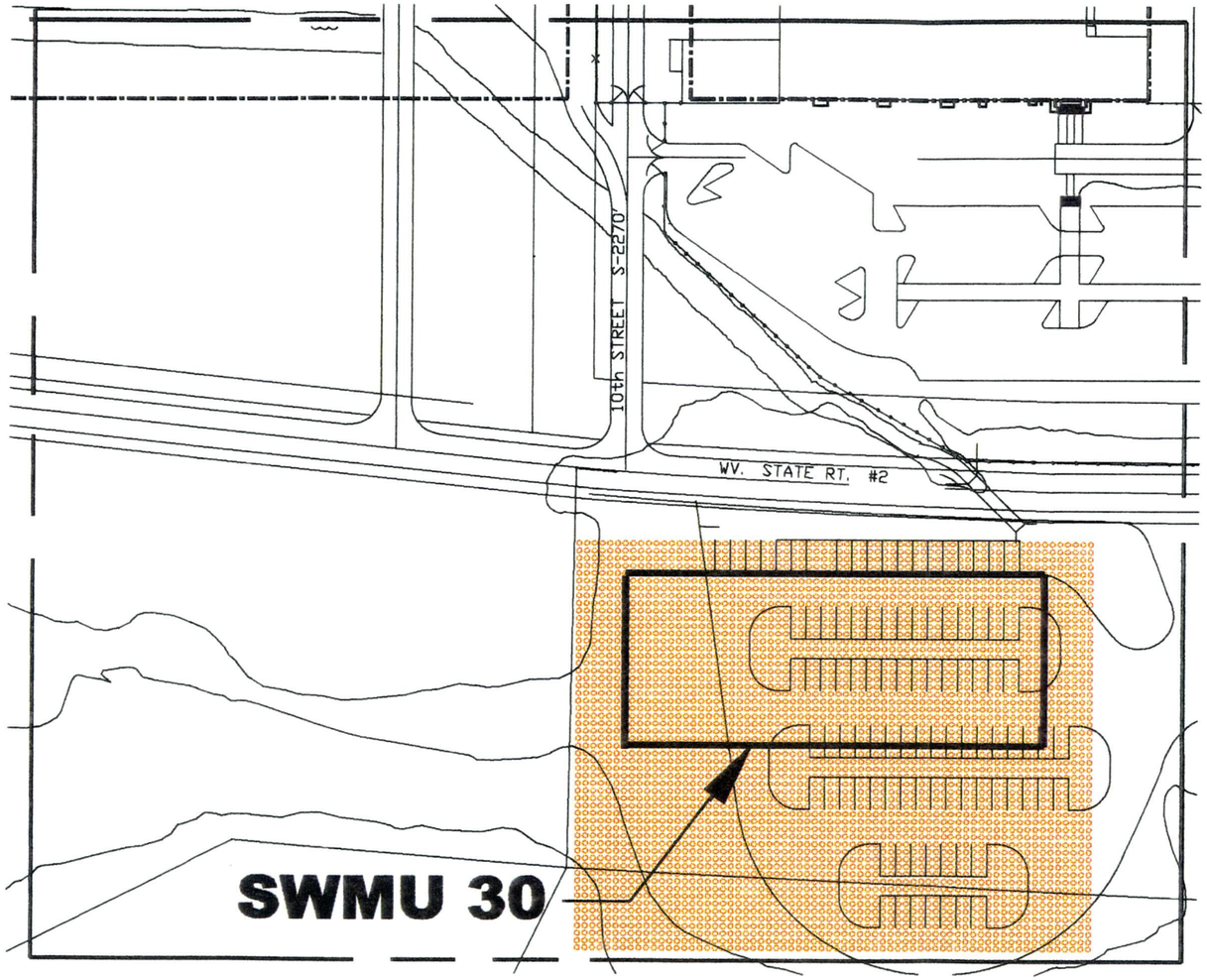
FIGURE B-4

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMU 21 FEATURES DELINEATED BY GPR
IT Corporation	DATE: 12/29/99 DR.: B. SNYDER SCALE: AS NOTED FILE NAME: 800588-A3

LEGEND

EM SURVEY STATION LOCATION

SWMU BOUNDARY



0 100 200

SCALE IN FEET

FIGURE B-5

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMU 30 EM SURVEY GRID	
IT Corporation	DATE: 12/27/99	DR.: B. SNYDER
	SCALE: AS NOTED	DWG. NO. 800588-B8

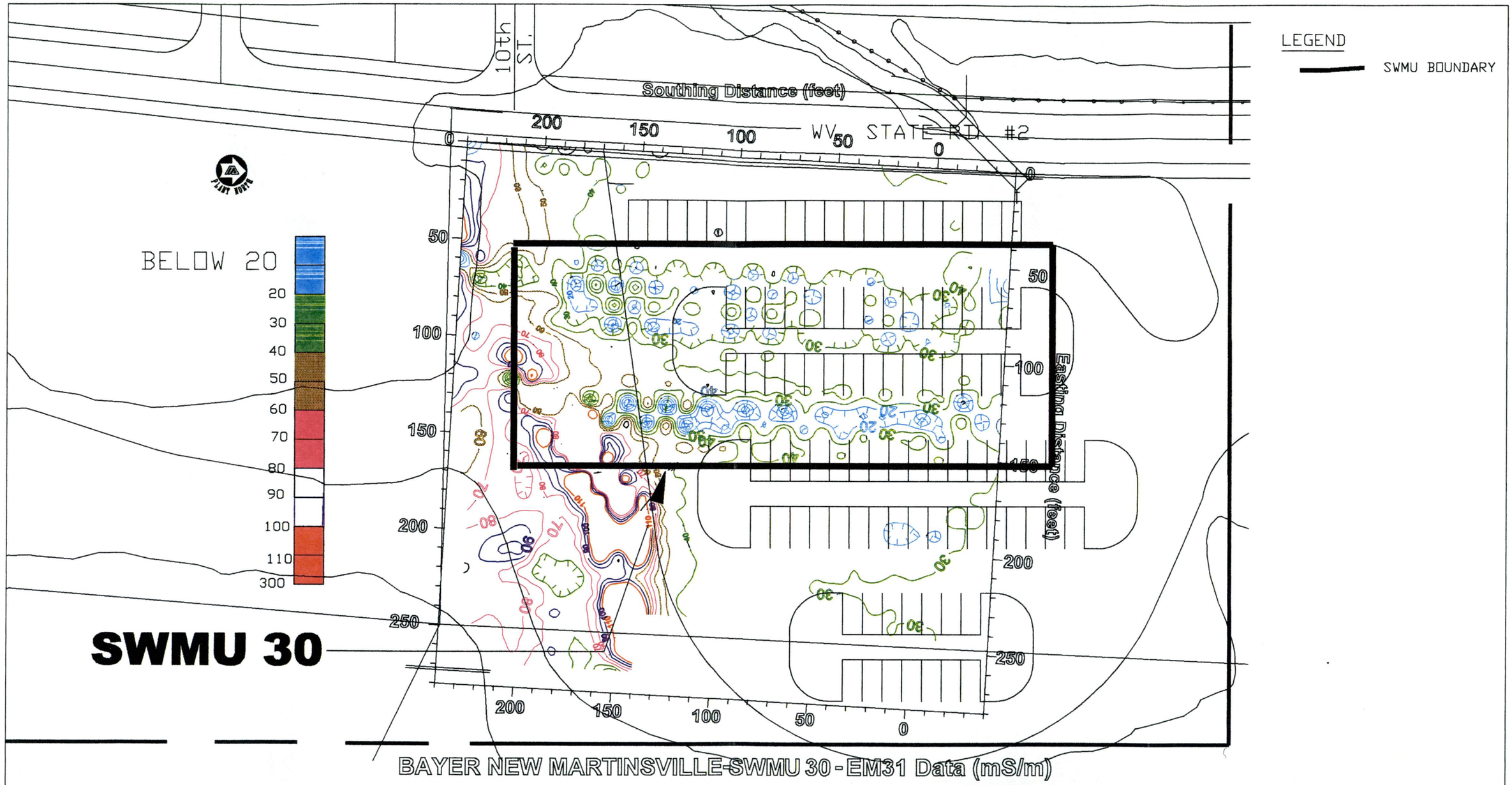


FIGURE B-6

BAYER CORPORATION NEW MARTINSVILLE, WV FACILITY	SWMU 30 TERRAIN CONDUCTIVITY (EM) SURVEY MAP
IT Corporation	DATE: 12/29/99 DR.: B. SNYDER SCALE: AS NOTED DWG. NO. 800588-B9

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

PLANT NORTH

SM003 SG005

Benzene	7.51 µG/L
Chlorobenzene	192.29 µG/L
Ethylbenzene	1.28 µG/L
Freon-11	1.9 µG/L
Hydrocarbons	22.51 µG/L
Methylene Chloride	0.5 µG/L
Toluene	7.77 µG/L
Vinyl Chloride	3.68 µG/L
Xylene (total)	2.84 µG/L
	240

SM003 SM008

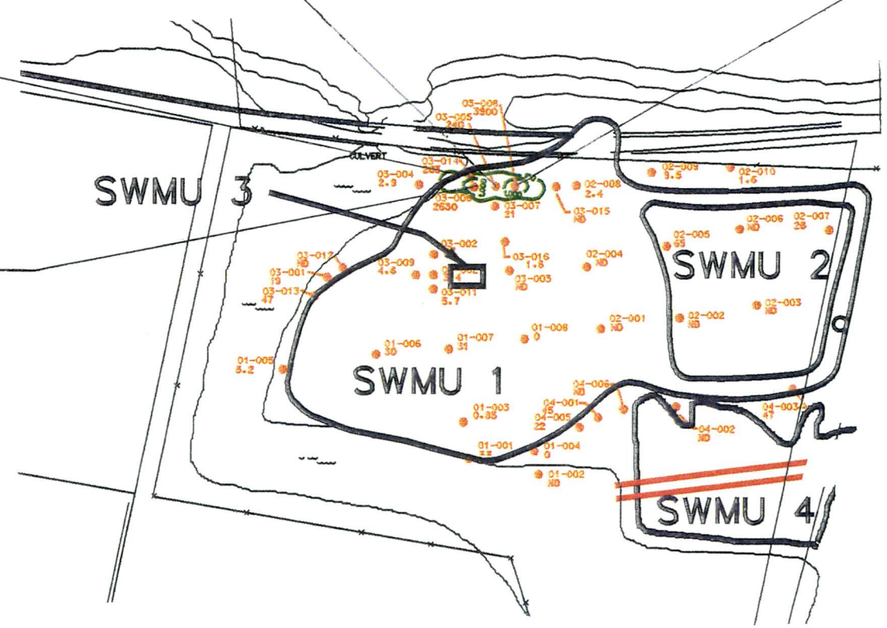
1,1-Dichloroethene	0.56 µG/L
1,2-Dichloroethene (total)	1.16 µG/L
Benzene	13.92 µG/L
Chloroform	3817.1 µG/L
Hydrocarbons	26.23 µG/L
Methylene Chloride	5.04 µG/L
Toluene	15.04 µG/L
Trichloroethene	8.99 µG/L
Vinyl Chloride	7.52 µG/L
	3896

SM003 SG014

Benzene	45.76 µG/L
Chlorobenzene	95.65 µG/L
Freon-12	5.82 µG/L
Freon-22	14.72 µG/L
Hydrocarbons	37.1 µG/L
Vinyl Chloride	5.5 µG/L
	205

SM003 SG006

Benzene	21.1 µG/L
Chloroform	2582.31 µG/L
Hydrocarbons	10.61 µG/L
Toluene	7.19 µG/L
Vinyl Chloride	5.75 µG/L
	2627



LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- ** PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

GRAPHIC SCALE

0 100 200 400

FIGURE C-1

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
2.5 FT-BGS FOR SWMU GROUP A
(SWMUs 1, 2, AND 3)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B10

JOB NO: 80058830400000 PLOT SCALE: 1=1

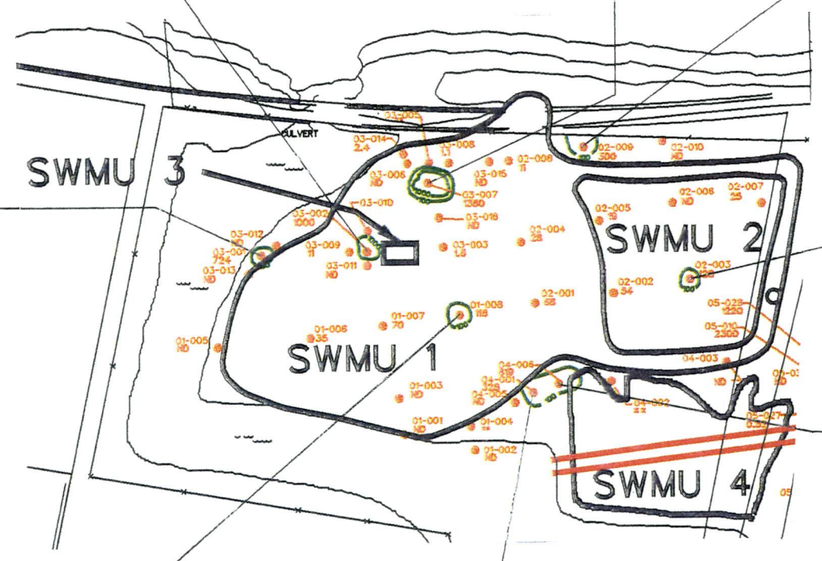
STARTED ON: 1/14/00 REVISED: 0/00/00

SM003 SG002	
1,2-Dichloroethene (total)	1.73 µG/L
Benzene	18.33 µG/L
Chlorobenzene	696.11 µG/L
Ethylbenzene	2.79 µG/L
Freon-12	81.22 µG/L
Freon-22	28.31 µG/L
Hydrocarbons	148.27 µG/L
Methylene Chloride	5.58 µG/L
Toluene	6.63 µG/L
Trichloroethene	3.9 µG/L
Vinyl Chloride	11.3 µG/L
	1004

SM003 SG007	
1,2-Dichloroethene (total)	0.55 µG/L
Benzene	5.96 µG/L
Chloroform	1356.35 µG/L
Hydrocarbons	4.9 µG/L
Methylene Chloride	1.67 µG/L
Toluene	1.06 µG/L
Vinyl Chloride	7.68 µG/L
	1378

SM002 SG009	
1,1,1-Trichloroethane	0.78 µG/L
Benzene	0.64 µG/L
Freon-11	150.35 µG/L
Freon-12	8.25 µG/L
Propene	100 µG/L
Tetrachlorodifluoroethane	20 µG/L
Trichloroethene	19.83 µG/L
	300

SM003 SG001	
Benzene	98.85 µG/L
Chlorobenzene	399.8 µG/L
Ethylbenzene	6.97 µG/L
Freon-12	4.3 µG/L
Freon-22	45.15 µG/L
Hydrocarbons	108.49 µG/L
Toluene	40 µG/L
Vinyl Chloride	3.43 µG/L
Xylene (total)	17.28 µG/L
	724



SM002 SG003	
1,1-Dichloroethene	0.86 µG/L
2-Butanone	5.2 µG/L
Benzene	1.19 µG/L
Chlorobenzene	2.99 µG/L
Freon-12	90.18 µG/L
Hydrocarbons	26.28 µG/L
Toluene	1.3 µG/L
	128

SM004 SG006	
Benzene	403.41 µG/L
Chlorobenzene	363.61 µG/L
Ethylbenzene	1.55 µG/L
Freon-12	5.96 µG/L
Hydrocarbons	40.25 µG/L
Toluene	3.29 µG/L
Xylene (total)	0.56 µG/L
	819

SM001 SG008	
Benzene	2.29 µG/L
Chlorobenzene	0.81 µG/L
Ethylbenzene	1.92 µG/L
Hydrocarbons	111.5 µG/L
MTBE	0.68 µG/L
Toluene	1.22 µG/L
	118

SM004 SG001	
Acetone	21.25 µG/L
Benzene	178.21 µG/L
Chlorobenzene	73.79 µG/L
Toluene	53.18 µG/L
Trichloroethene	1.32 µG/L
	328

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

PLANT NORTH

GRAPHIC SCALE

0 100 200 400

FIGURE C-2

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
7.5 FT-BGS FOR SWMU GROUP A
(SWMUs 1, 2, AND 3)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B11

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

PLANT NORTH

SM005 SG043

Benzene	328.14 µG/L
Chlorobenzene	356.27 µG/L
Dichlorobenzene	1.35 µG/L
Ethylbenzene	0.85 µG/L
Hydrocarbons	48.41 µG/L
Tetrachloroethene	1.42 µG/L
Toluene	84.04 µG/L
Trichloroethene	2.36 µG/L
Xylene (total)	1.02 µG/L
	824

SM005 SG020

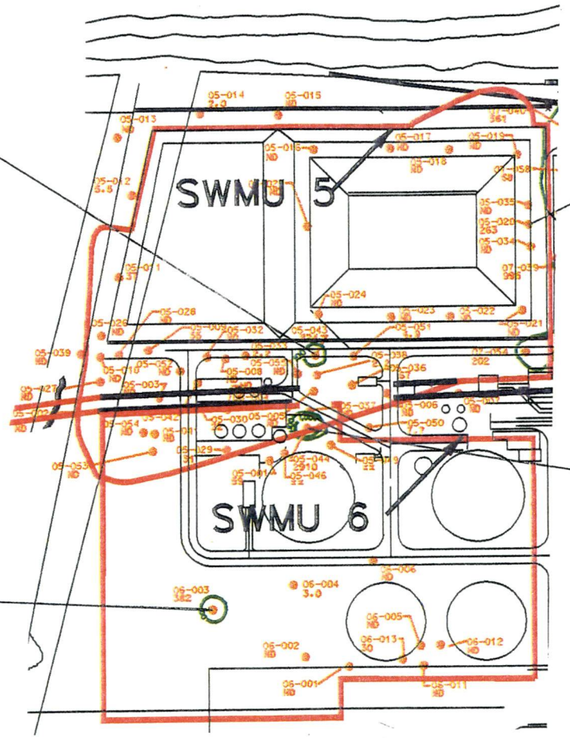
Benzene	1.51 µG/L
Chlorobenzene	239.9 µG/L
Hydrocarbons	21.45 µG/L
	263

SM005 SG044

1,1-Dichloroethene	0.61 µG/L
1,2-Dichloroethene (total)	1.9 µG/L
Benzene	646.02 µG/L
Chlorobenzene	2013.32 µG/L
Chloroform	2.36 µG/L
Ethylbenzene	1.07 µG/L
Freon-11	0.7 µG/L
Hydrocarbons	17.61 µG/L
Methylene Chloride	19.69 µG/L
Tetrachloroethene	2.37 µG/L
Toluene	140.91 µG/L
Trichloroethene	41.72 µG/L
Vinyl Chloride	21.58 µG/L
Xylene (total)	0.93 µG/L
	2911

SM006 SG003

1,1-Dichloroethene	0.52 µG/L
1,2-Dichloroethene (total)	24.46 µG/L
Benzene	81.29 µG/L
Chlorobenzene	88.99 µG/L
Ethylbenzene	1.61 µG/L
Hydrocarbons	51.03 µG/L
Methylene Chloride	0.61 µG/L
Tetrachloroethene	1.18 µG/L
Toluene	77.23 µG/L
Trichloroethene	16.01 µG/L
Vinyl Chloride	36.17 µG/L
Xylene (total)	3 µG/L
	382



LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

GRAPHIC SCALE

0 100 200 400

BAYER CORPORATION NEW MARTINSVILLE, WEST VIRGINIA	FIGURE C-3 TOTAL VOC CONCENTRATIONS 2.5 FT-BGS FOR SWMU GROUP B (SWMUs 5 AND 6)
IT Corporation	DATE: 1/14/00 DR.: B. SNYDER SCALE: 1"=200' FILE NAME:800588-B12

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

SM005 SG032

Benzene	16.29 µG/L
Chlorobenzene	92.84 µG/L
Dichlorobenzene	1.62 µG/L
Toluene	3.5 µG/L
	114

SM005 SG008

Benzene	18.38 µG/L
Chlorobenzene	174.04 µG/L
Toluene	7.76 µG/L
	200

SM005 SM033

Benzene	19.09 µG/L
Chloroform	175.41 µG/L
Freon-11	1.33 µG/L
Freon-141B	0.58 µG/L
Hydrocarbons	8.22 µG/L
Toluene	3.14 µG/L
Trichloroethene	0.71 µG/L
	208

SM005 SG011

1,2-Dichloroethene (total)	8.43 µG/L
Benzene	1.89 µG/L
Chlorobenzene	17.86 µG/L
Toluene	2.2 µG/L
Trichloroethene	63.97 µG/L
Vinyl Chloride	39.54 µG/L
	134

SM005 SG055

Benzene	14.51 µG/L
Chlorobenzene	85.11 µG/L
Dichlorobenzene	1.32 µG/L
Hydrocarbons	15.73 µG/L
Toluene	0.57 µG/L
Vinyl Chloride	1.65 µG/L
	119

LEGEND:

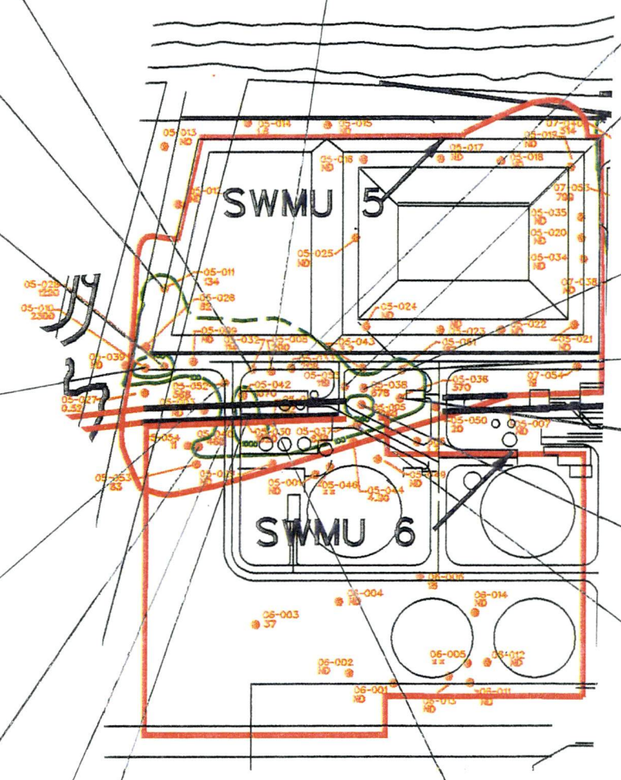
- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- == PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

SM005 SG028

Benzene	1150.79 µG/L
Chlorobenzene	18.4 µG/L
Methylene Chloride	1.57 µG/L
Toluene	28.4 µG/L
Trichloroethene	3.24 µG/L
Vinyl Chloride	18.42 µG/L
	1221

SM005 SG038

Benzene	64.77 µG/L
Chlorobenzene	560.25 µG/L
Hydrocarbons	33.94 µG/L
Toluene	16.76 µG/L
Trichloroethene	0.78 µG/L
Vinyl Chloride	1.22 µG/L
	678



SM005 SG051

Benzene	23.26 µG/L
Chlorobenzene	114.49 µG/L
Hydrocarbons	22.24 µG/L
Toluene	6.73 µG/L
	167

SM005 SG010

Benzene	1484.15 µG/L
Chlorobenzene	533.02 µG/L
Chloroform	2.53 µG/L
Freon-11	2.41 µG/L
Methylene Chloride	29.66 µG/L
Tetrachloroethene	0.51 µG/L
Toluene	239.88 µG/L
Trichloroethene	7.42 µG/L
	2300

SM005 SG036

Benzene	84.74 µG/L
Chlorobenzene	214.5 µG/L
Ethylbenzene	1.14 µG/L
Hydrocarbons	50.11 µG/L
Toluene	6.45 µG/L
Trichloroethene	1.68 µG/L
Vinyl Chloride	8.51 µG/L
Xylene (total)	2.84 µG/L
	370

SM005 SG052

Benzene	194.93 µG/L
Chlorobenzene	282.73 µG/L
Dichlorobenzene	12.94 µG/L
Hydrocarbons	5.74 µG/L
Tetrachloroethene	1.85 µG/L
Toluene	60.89 µG/L
Trichloroethene	1.67 µG/L
Vinyl Chloride	7 µG/L
	568

SM005 SG005

1,2-Dichloroethene (total)	4.33 µG/L
Benzene	246.44 µG/L
Chlorobenzene	837.17 µG/L
Ethylbenzene	2.18 µG/L
Hydrocarbons	76.52 µG/L
Toluene	14.3 µG/L
Trichloroethene	3.98 µG/L
Vinyl Chloride	55.42 µG/L
Xylene (total)	1.87 µG/L
m-Dichlorobenzene	10 µG/L
	1252

SM005 SG037

Benzene	164.19 µG/L
Chlorobenzene	358.07 µG/L
Chloroform	1.34 µG/L
Ethylbenzene	0.97 µG/L
Hydrocarbons	93.11 µG/L
Tetrachloroethene	0.64 µG/L
Toluene	6.96 µG/L
Trichloroethene	3.15 µG/L
Vinyl Chloride	6.41 µG/L
Xylene (total)	4.34 µG/L
	639

SM005 SG041

Benzene	20.34 µG/L
Chlorobenzene	430.42 µG/L
Dichlorobenzene	2.94 µG/L
Tetrachloroethene	0.61 µG/L
Toluene	5.78 µG/L
	460

SM005 SM030

1,2-Dichloroethene (total)	0.6 µG/L
Benzene	125.27 µG/L
Chloroform	687.64 µG/L
Dichlorobenzene	7.56 µG/L
Freon-11	0.5 µG/L
Freon-12	2.45 µG/L
Hydrocarbons	165.32 µG/L
Tetrachloroethene	0.63 µG/L
Toluene	20.76 µG/L
Vinyl Chloride	10.84 µG/L
	1022

SM005 SG004

Benzene	121.79 µG/L
Chlorobenzene	17.14 µG/L
Hydrocarbons	8.56 µG/L
Toluene	1.82 µG/L
Trichloroethene	0.91 µG/L
Vinyl Chloride	11.84 µG/L
	162

SM005 SG042

Benzene	475.21 µG/L
Chlorobenzene	448.54 µG/L
Chloroform	0.78 µG/L
Dichlorobenzene	1.48 µG/L
Ethylbenzene	1.28 µG/L
Freon-11	0.78 µG/L
Hydrocarbons	48.12 µG/L
Tetrachloroethene	0.77 µG/L
Toluene	83.7 µG/L
Trichloroethene	2.15 µG/L
Vinyl Chloride	6.5 µG/L
Xylene (total)	1.49 µG/L
	1071

PLANT NORTH

GRAPHIC SCALE

0 100 200 400

FIGURE C-4

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
7.5 FT-BGS FOR SWMU GROUP B
(SWMUs 5 AND 6)

IT Corporation

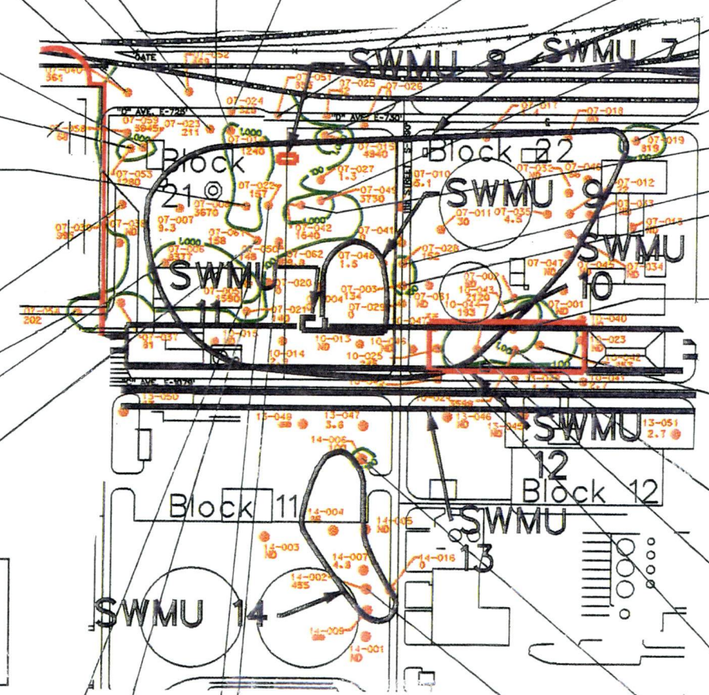
DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B13

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

PLANT NORTH



SM007 SG023	
Benzene	29.32 µG/L
Chlorobenzene	3.99 µG/L
Freon-141B	3.05 µG/L
Freon-22	4.27 µG/L
Hydrocarbons	161.27 µG/L
Toluene	1.21 µG/L
Vinyl Chloride	8.29 µG/L
	211

SM007 SG052	
1,1,1-Trichloroethane	10.67 µG/L
1,1-Dichloroethane	2.8 µG/L
1,1-Dichloroethene	5.79 µG/L
1,2-Dichloroethene (total)	32.32 µG/L
Hydrocarbons	303.54 µG/L
Trichloroethene	39.18 µG/L
Vinyl Chloride	74.31 µG/L
	469

SM007 SG014	
1,1-Dichloroethene	2.27 µG/L
1,2-Dichloroethene (total)	75.25 µG/L
Benzene	43.81 µG/L
Bromodichloromethane	0.96 µG/L
Chlorobenzene	137.91 µG/L
Freon-11	3.41 µG/L
Freon-141B	23.9 µG/L
Freon-22	6.2 µG/L
Hydrocarbons	437.83 µG/L
MTBE	1.59 µG/L
Toluene	28.4 µG/L
Trichloroethene	20.9 µG/L
Vinyl Chloride	460.98 µG/L
	1243

SM007 SG024	
1,1-Dichloroethene	1.16 µG/L
1,2-Dichloroethene (total)	1.64 µG/L
Chlorobenzene	1.07 µG/L
Freon-11	1.88 µG/L
Freon-141B	1.18 µG/L
Hydrocarbons	180.88 µG/L
Trichloroethene	1.06 µG/L
Vinyl Chloride	139.43 µG/L
	328

SM007 SG015	
1,1-Dichloroethene	0.66 µG/L
1,2-Dichloroethane	0.79 µG/L
1,2-Dichloroethene (total)	2.91 µG/L
Benzene	41.64 µG/L
Chlorobenzene	4179.69 µG/L
Chloroform	11.49 µG/L
Freon-11	0.93 µG/L
Freon-141B	3.68 µG/L
Hydrocarbons	546.21 µG/L
Methylene Chloride	4.16 µG/L
Tetrachloroethene	1.18 µG/L
Toluene	5.01 µG/L
Trichloroethene	2.84 µG/L
Vinyl Chloride	140.82 µG/L
	4942

SM007 SG049	
1,1-Dichloroethene	5.81 µG/L
1,2-Dichloroethene (total)	67.15 µG/L
Benzene	357.54 µG/L
Chlorobenzene	170.33 µG/L
Dichlorobenzene	1.81 µG/L
Dichlorofluoromethane	30.27 µG/L
Freon-11	24.99 µG/L
Hydrocarbons	478.88 µG/L
Tetrachloroethene	1.31 µG/L
Toluene	5.11 µG/L
Trichloroethene	76.04 µG/L
Vinyl Chloride	2510.48 µG/L
	3730

SM007 SG040	
1,1-Dichloroethene	1.12 µG/L
1,2-Dichloroethene (total)	3.15 µG/L
Benzene	1.71 µG/L
Chlorobenzene	14.29 µG/L
Hydrocarbons	407.67 µG/L
Toluene	0.6 µG/L
Trichloroethene	0.81 µG/L
Vinyl Chloride	131.81 µG/L
	561

SM007 SG051	
1,1-Dichloroethene	2.67 µG/L
1,2-Dichloroethene (total)	13.26 µG/L
Benzene	108.97 µG/L
Hydrocarbons	350.72 µG/L
Trichloroethene	152.38 µG/L
Vinyl Chloride	226.5 µG/L
	855

SM007 SG059	
1,1-Dichloroethene	4.85 µG/L
1,2-Dichloroethene (total)	294.36 µG/L
Benzene	23.25 µG/L
Chlorobenzene	1032.88 µG/L
Chloroform	0.8 µG/L
Dichlorobenzene	6.78 µG/L
Dichlorofluoromethane	6.13 µG/L
Ethylbenzene	2.96 µG/L
Freon-11	13.48 µG/L
Freon-141B	59.38 µG/L
Hydrocarbons	128.31 µG/L
Methylene Chloride	1.65 µG/L
Toluene	246.45 µG/L
Trichloroethene	89.5 µG/L
Vinyl Chloride	4030.53 µG/L
Xylene (total)	3.97 µG/L
	5945

SM007 SG019	
1,1-Dichloroethane	15.36 µG/L
Benzene	11.19 µG/L
Bromomethane	0.89 µG/L
Chlorobenzene	97.37 µG/L
Hydrocarbons	667.68 µG/L
Toluene	20.16 µG/L
Vinyl Chloride	6.78 µG/L
	819

SM007 SG042	
1,1-Dichloroethene	1.81 µG/L
1,2-Dichloroethene (total)	4.46 µG/L
Benzene	629.11 µG/L
Chlorobenzene	28.05 µG/L
Dichlorobenzene	1.34 µG/L
Freon-11	1.48 µG/L
Hydrocarbons	471.4 µG/L
Methylene Chloride	2.57 µG/L
Tetrachloroethene	1.63 µG/L
Toluene	6.6 µG/L
Trichloroethene	52.14 µG/L
Vinyl Chloride	434.27 µG/L
	1635

SM007 SG053	
1,2-Dichloroethene (total)	4.12 µG/L
Benzene	3.01 µG/L
Chlorobenzene	55.35 µG/L
Hydrocarbons	6.37 µG/L
Toluene	16.57 µG/L
Vinyl Chloride	1197.83 µG/L
	1283

SM007 SG028	
Benzene	5.42 µG/L
Chloroform	120 µG/L
Hydrocarbons	18.77 µG/L
Toluene	7.53 µG/L
	152

SM007 SG008	
Benzene	6.5 µG/L
Chlorobenzene	4236.77 µG/L
Hydrocarbons	269.89 µG/L
Methylene Chloride	11.74 µG/L
Toluene	3.79 µG/L
Trichloroethene	4.47 µG/L
Vinyl Chloride	150.04 µG/L
	4683

SM007 SG003	
Benzene	9.04 µG/L
Chlorobenzene	102.89 µG/L
Hydrocarbons	1.28 µG/L
Toluene	20.86 µG/L
	134

SM010 SG043	
1,1-Dichloroethene	0.97 µG/L
1,2-Dichloroethene (total)	4.85 µG/L
Benzene	623.37 µG/L
Chlorobenzene	941.82 µG/L
Dichlorobenzene	28.83 µG/L
Ethylbenzene	13.52 µG/L
Freon-11	3.4 µG/L
Freon-113	0.64 µG/L
Hydrocarbons	207.45 µG/L
Methylene Chloride	9.19 µG/L
Toluene	151.22 µG/L
Trichloroethene	14.36 µG/L
Vinyl Chloride	116.97 µG/L
	2117

SM007 SG039	
1,2-Dichloroethene (total)	0.98 µG/L
Benzene	16.23 µG/L
Chlorobenzene	393.36 µG/L
Hydrocarbons	52.68 µG/L
Toluene	4.76 µG/L
Vinyl Chloride	526.63 µG/L
	995

SM010 SG042	
Benzene	177.1 µG/L
Chlorobenzene	578.73 µG/L
Dichlorobenzene	3.02 µG/L
Freon-11	0.92 µG/L
Hydrocarbons	21.42 µG/L
Toluene	19.2 µG/L
Trichloroethene	1.82 µG/L
Vinyl Chloride	50.73 µG/L
	853

SM007 SG054	
1,2-Dichloroethene (total)	4.99 µG/L
Benzene	47.31 µG/L
Chlorobenzene	80.95 µG/L
Hydrocarbons	7.47 µG/L
Toluene	6.06 µG/L
Trichloroethene	11.34 µG/L
Vinyl Chloride	43.5 µG/L
	202

SM010 SG024	
Benzene	916.05 µG/L
Chlorobenzene	2221.75 µG/L
Ethylbenzene	1.69 µG/L
Freon-11	2.12 µG/L
Hydrocarbons	222.18 µG/L
Toluene	225.37 µG/L
Trichloroethene	1.03 µG/L
Vinyl Chloride	7.48 µG/L
	3596

SM007 SG061	
1,2-Dichloroethene (total)	4.27 µG/L
Dichlorofluoromethane	5.24 µG/L
Freon-11	36.76 µG/L
Freon-141B	0.55 µG/L
Trichloroethene	0.65 µG/L
Vinyl Chloride	110.28 µG/L
	158

SM010 SG044	
Benzene	139.23 µG/L
Chlorobenzene	44.75 µG/L
Toluene	8.5 µG/L
Trichloroethene	0.91 µG/L
	193

SM007 SG006	
1,1,1-Trichloroethane	0.65 µG/L
1,1-Dichloroethane	1.6 µG/L
1,2-Dichloroethene (total)	129.49 µG/L
Benzene	46.72 µG/L
Chlorobenzene	682.38 µG/L
Chloroform	1.05 µG/L
Dichlorobenzene	0.52 µG/L
Dichlorofluoromethane	41.37 µG/L
Ethylbenzene	4.65 µG/L
Freon-11	232.12 µG/L
Freon-141B	1.75 µG/L
Hydrocarbons	595.34 µG/L
Toluene	576.23 µG/L
Trichloroethene	5.68 µG/L
Vinyl Chloride	6051.31 µG/L
Xylene (total)	5.75 µG/L
	8377

SM007 SG005	
1,1-Dichloroethene	5.32 µG/L
1,2-Dichloroethene (total)	15.88 µG/L
Acetone	269.06 µG/L
Benzene	0.97 µG/L
Chlorobenzene	4.54 µG/L
Chloroform	1.92 µG/L
Freon-11	8.43 µG/L
Freon-113	0.76 µG/L
Hydrocarbons	191.37 µG/L
Trichloroethene	79.11 µG/L
Vinyl Chloride	1012.52 µG/L
	1590

SM007 SG050	
Benzene	30.86 µG/L
Chlorobenzene	19.86 µG/L
Hydrocarbons	28.75 µG/L
Toluene	20.43 µG/L
Vinyl Chloride	49.93 µG/L
	148

SM010 SG025	
Benzene	102.09 µG/L
Chlorobenzene	89.83 µG/L
Hydrocarbons	51.56 µG/L
Toluene	1.24 µG/L
	245

SM014 SG002	
Benzene	38.87 µG/L
Chlorobenzene	412.12 µG/L
Ethylbenzene	0.63 µG/L
Toluene	3.7 µG/L
	455

SM014 SG006	
Carbon Tetrachloride	0.55 µG/L
Chloroform	89.19 µG/L
Freon-11	0.77 µG/L
Hydrocarbons	9.07 µG/L
Methylene Chloride	1.13 µG/L
	101

SM007 SG021	
Freon-11	99.24 µG/L
Freon-141B	0.93 µG/L
Hydrocarbons	5.19 µG/L
Vinyl Chloride	34.88 µG/L
	140

SM007 SG022	
Benzene	2.27 µG/L
Chlorobenzene	53.03 µG/L
Hydrocarbons	58.11 µG/L
Toluene	1.38 µG/L
Vinyl Chloride	41.05 µG/L
	156

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

GRAPHIC SCALE

0 100 200 400

FIGURE C-5

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
2.5 FT-BGS FOR SWMU GROUPS C AND D
(SWMUs 7, 8, 9, 10, 11, 12, 13, AND 14)

IT Corporation

DATE: 1/14/00	DR.: B. SNYDER
SCALE: 1"=200'	FILE NAME: 800588-B14

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

SM007 SG008

1,1-Dichloroethane	1.64 µG/L
1,1-Dichloroethene	2.14 µG/L
1,2-Dichloroethene (total)	7.79 µG/L
Benzene	12.69 µG/L
Chlorobenzene	42.23 µG/L
Freon-11	1.63 µG/L
Hydrocarbons	510.91 µG/L
Methylene Chloride	3.24 µG/L
Toluene	8.71 µG/L
Trichloroethene	10.8 µG/L
Vinyl Chloride	482.15 µG/L
Xylene (total)	0.7 µG/L
	1085

SM007 SG023

1,1-Dichloroethane	1.09 µG/L
1,1-Dichloroethene	1.97 µG/L
1,2-Dichloroethene (total)	4.31 µG/L
Benzene	13.22 µG/L
Chlorobenzene	63.53 µG/L
Freon-11	1.25 µG/L
Freon-141B	8.1 µG/L
Hydrocarbons	316.7 µG/L
Toluene	0.97 µG/L
Trichloroethene	2.33 µG/L
Vinyl Chloride	136.78 µG/L
	550

SM007 SG052

Chlorobenzene	1.56 µG/L
Hydrocarbons	268.39 µG/L
Vinyl Chloride	29.5 µG/L
	299

SM007 SG024

1,1,1-Trichloroethane	1.64 µG/L
1,1-Dichloroethane	1.77 µG/L
1,1-Dichloroethene	8.6 µG/L
1,2-Dichloroethene (total)	17.2 µG/L
Freon-11	1.77 µG/L
Freon-141B	0.64 µG/L
Hydrocarbons	207.13 µG/L
Trichloroethene	9.23 µG/L
Vinyl Chloride	86.03 µG/L
	334

SM007 SG015

1,2-Dichloroethene (total)	4.5 µG/L
Benzene	136.45 µG/L
Chlorobenzene	715.61 µG/L
Ethylbenzene	16.68 µG/L
Freon-11	1.78 µG/L
Freon-141B	9.5 µG/L
Hydrocarbons	633.28 µG/L
MTBE	1.9 µG/L
Tetrachloroethene	0.55 µG/L
Toluene	5.9 µG/L
Trichloroethene	2.51 µG/L
Vinyl Chloride	222.32 µG/L
Xylene (total)	0.68 µG/L
	1752

SM007 SG040

1,1-Dichloroethene	2.31 µG/L
1,2-Dichloroethene (total)	22.28 µG/L
Benzene	1.25 µG/L
Hydrocarbons	397.97 µG/L
Trichloroethene	18.46 µG/L
Vinyl Chloride	71.48 µG/L
	514

SM007 SG032

Benzene	5.72 µG/L
Chlorobenzene	22.6 µG/L
Ethylbenzene	1.1 µG/L
Hydrocarbons	649.25 µG/L
Toluene	1.62 µG/L
	680

SM007 SG058

Benzene	1.29 µG/L
Chlorobenzene	4.56 µG/L
Dichlorofluoromethane	1.28 µG/L
Hydrocarbons	105.26 µG/L
Toluene	14.1 µG/L
Trichloroethene	1.13 µG/L
Vinyl Chloride	72.42 µG/L
	200

SM007 SG012

Benzene	27.4 µG/L
Chlorobenzene	787.44 µG/L
Ethylbenzene	0.82 µG/L
Hydrocarbons	2251.55 µG/L
Toluene	17.29 µG/L
	3085

SM007 SG053

Benzene	12.34 µG/L
Chlorobenzene	365.36 µG/L
Dichlorobenzene	0.68 µG/L
Hydrocarbons	411.47 µG/L
Toluene	1.73 µG/L
Vinyl Chloride	7.42 µG/L
	799

SM007 SG033

Benzene	15.8 µG/L
Chlorobenzene	233.54 µG/L
Hydrocarbons	6.27 µG/L
Toluene	4.62 µG/L
	260

SM007 SG039

1,2-Dichloroethene (total)	20.16 µG/L
Benzene	31.97 µG/L
Chlorobenzene	377.28 µG/L
Hydrocarbons	145.54 µG/L
Methylene Chloride	3.31 µG/L
Toluene	4.52 µG/L
Trichloroethene	8.09 µG/L
Vinyl Chloride	159.99 µG/L
	751

SM007 SG034

Benzene	56.82 µG/L
Chlorobenzene	800.98 µG/L
Hydrocarbons	71.19 µG/L
Tetrachloroethene	0.71 µG/L
Toluene	3.19 µG/L
	933

SM007 SG007

1,1,1-Trichloroethane	1.23 µG/L
1,1-Dichloroethane	1.17 µG/L
1,1-Dichloroethene	6.35 µG/L
1,2-Dichloroethene (total)	124.1 µG/L
Benzene	1086.31 µG/L
Bromomethane	0.51 µG/L
Chlorobenzene	310.13 µG/L
Dichlorobenzene	1.1 µG/L
Ethylbenzene	63.22 µG/L
Freon-11	6.14 µG/L
Hydrocarbons	469.34 µG/L
Methylene Chloride	4.46 µG/L
Toluene	92.12 µG/L
Trichloroethene	15.72 µG/L
Vinyl Chloride	963.71 µG/L
Xylene (total)	435.72 µG/L
	3581

SM007 SG045

Benzene	43.57 µG/L
Chlorobenzene	26.66 µG/L
Freon-12	0.8 µG/L
Hydrocarbons	116.03 µG/L
	187

SM007 SG037

1,2-Dichloroethene (total)	28.51 µG/L
Benzene	0.96 µG/L
Trichloroethene	0.59 µG/L
Vinyl Chloride	216.61 µG/L
	247

SM010 SG023

1,1-Dichloroethene	5.98 µG/L
1,2-Dichloroethene (total)	2.66 µG/L
Benzene	1537.23 µG/L
Bromodichloromethane	0.85 µG/L
Carbon Tetrachloride	9.55 µG/L
Chlorobenzene	6315.76 µG/L
Chloroform	77.79 µG/L
Freon-11	1.83 µG/L
Hydrocarbons	325.12 µG/L
Methylene Chloride	502.59 µG/L
Toluene	43.42 µG/L
Trichloroethene	31.31 µG/L
Vinyl Chloride	13.94 µG/L
	8868

SM007 SG006

1,1-Dichloroethane	1.52 µG/L
1,1-Dichloroethene	0.82 µG/L
1,2-Dichloroethene (total)	4.43 µG/L
Benzene	63.08 µG/L
Chlorobenzene	495.06 µG/L
Dichlorofluoromethane	30.48 µG/L
Ethylbenzene	4.78 µG/L
Freon-11	181.51 µG/L
Freon-141B	1.41 µG/L
Hydrocarbons	636.44 µG/L
Toluene	135.02 µG/L
Trichloroethene	0.68 µG/L
Vinyl Chloride	450.71 µG/L
Xylene (total)	2.45 µG/L
	2008

SM007 SG022

1,1-Dichloroethene	2.09 µG/L
1,2-Dichloroethene (total)	6.39 µG/L
Benzene	50.66 µG/L
Chlorobenzene	354.04 µG/L
Dichlorobenzene	1.46 µG/L
Freon-11	1.55 µG/L
Hydrocarbons	414.48 µG/L
Methylene Chloride	9.3 µG/L
Tetrachloroethene	0.87 µG/L
Toluene	15.04 µG/L
Trichloroethene	26.75 µG/L
Vinyl Chloride	339.78 µG/L
	1222

SM007 SG062

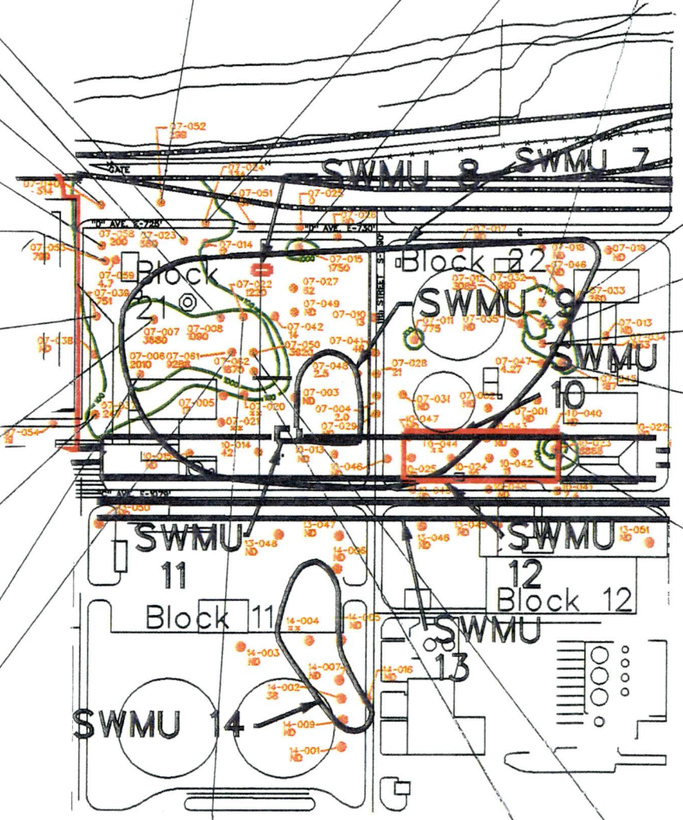
1,1-Dichloroethene	0.79 µG/L
1,2-Dichloroethene (total)	2.46 µG/L
Benzene	8.14 µG/L
Chlorobenzene	2.83 µG/L
Freon-11	58.62 µG/L
Hydrocarbons	1000 µG/L
Toluene	0.8 µG/L
Trichloroethene	3.43 µG/L
Vinyl Chloride	792.93 µG/L
	1870

SM007 SG050

1,1-Dichloroethene	2.17 µG/L
1,2-Dichloroethene (total)	8.8 µG/L
Benzene	23.72 µG/L
Chlorobenzene	1135.25 µG/L
Chloroform	2.64 µG/L
Dichlorobenzene	4.67 µG/L
Freon-11	31.19 µG/L
Hydrocarbons	787.18 µG/L
Tetrachloroethene	6.03 µG/L
Toluene	6.05 µG/L
Trichloroethene	16.4 µG/L
Vinyl Chloride	1890.95 µG/L
Xylene (total)	2.36 µG/L
	3917

SM007 SG061

1,1,1-Trichloroethane	0.59 µG/L
1,1-Dichloroethane	0.55 µG/L
1,1-Dichloroethene	11.89 µG/L
1,2-Dichloroethene (total)	432.49 µG/L
Benzene	9.28 µG/L
Chlorobenzene	5.47 µG/L
Chloroform	2.27 µG/L
Dichlorofluoromethane	50.63 µG/L
Freon-11	340.9 µG/L
Hydrocarbons	4456.58 µG/L
Toluene	4.57 µG/L
Trichloroethene	47.15 µG/L
Vinyl Chloride	3926.01 µG/L
	9288



LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- == PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

PLANT NORTH

GRAPHIC SCALE

0 100 200 400

FIGURE C-6

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
7.5 FT-BGS FOR SWMU GROUP C
AND A PORTION OF SWMU GROUP D
(SWMUs 7, 8, 9, 10, 11, 12, 13, AND 14)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B15

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

SM010 SG034

1,-Chloro-1,1-diFethane	10.84 µG/L
Dichlorofluoromethane	251.72 µG/L
Freon-11	11357.72 µG/L
Freon-141B	44944.67 µG/L
Freon-22	3.94 µG/L
Toluene	1.22 µG/L
	56570

SM010 SG020

Freon-11	745.65 µG/L
Freon-12	5.62 µG/L
Freon-141B	5.85 µG/L
Dichlorofluoromethane	20 µG/L
	777

SM010 SG038

1,1-Dichloroethene	4.8 µG/L
Freon-11	11363.46 µG/L
Freon-141B	807.66 µG/L
Trichloroethene	1.43 µG/L
	12177

SM010 SG031

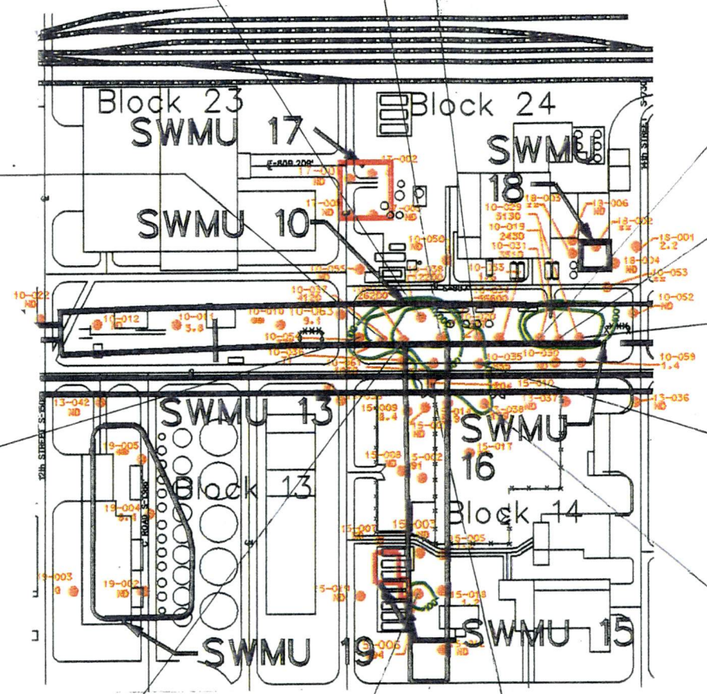
Benzene	272.14 µG/L
Chlorobenzene	1.59 µG/L
Freon-11	0.75 µG/L
Freon-141B	1.12 µG/L
Toluene	3571.45 µG/L
	3847

SM010 SG037

Dichlorofluoromethane	236.84 µG/L
Freon-11	3849.55 µG/L
Freon-141B	47.41 µG/L
Freon-22	2.59 µG/L
	4136

SM010 SG019

Benzene	100.43 µG/L
Toluene	2325.76 µG/L
	2426



SM010 SG029

Benzene	44.98 µG/L
Chlorobenzene	0.54 µG/L
Freon-22	3.87 µG/L
Toluene	5083.37 µG/L
	5133

SM010 SG054

Dichlorofluoromethane	54.3 µG/L
Freon-11	299.41 µG/L
Freon-141B	21.37 µG/L
	375

SM010 SG035

Chlorofluoromethane	5 µG/L
Dichlorofluoromethane	6.1 µG/L
Freon-11	343.86 µG/L
Freon-141B	500.26 µG/L
	355

SM010 SG021

1,-Chloro-1,1-diFethane	1.88 µG/L
1,1-Dichloroethene	11.24 µG/L
Dichlorofluoromethane	358.77 µG/L
Freon-11	23057.44 µG/L
Freon-12	73.74 µG/L
Freon-141B	2721.45 µG/L
Glycol	30 µG/L
	26255

SM013 SG038

Freon-11	128.21 µG/L
Freon-12	1.92 µG/L
Freon-141B	28.5 µG/L
	159

SM015 SG006

Benzene	169.99 µG/L
Chlorobenzene	124.07 µG/L
	294

SM015 SG010

Benzene	146.36 µG/L
Chlorobenzene	44.72 µG/L
Hydrocarbons	12.59 µG/L
	204

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUND(S) DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- PROBE PLUGGED WITH WATER
- 10,000 / 1,000 / 100 CONTOUR INTERVAL (µg/L)

GRAPHIC SCALE

0 100 200 400

FIGURE C-7

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
2.5 FT-BGS FOR (PORTION OF SWMU GROUP D)
(SWMUs 10, 13, 16, 17, AND 18)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B16

JOB NO.: 80058830400000 PLOT SCALE: 1=1

STARTED ON: 1/14/00 REVISED: 0/00/00

SM010 SG033

Benzene	210.07 µG/L
Chlorobenzene	2.84 µG/L
Freon-11	564.74 µG/L
Freon-12	15.08 µG/L
Freon-141B	5.75 µG/L
Hydrocarbons	34.86 µG/L
Toluene	3.95 µG/L
	837

SM010 SG019

Benzene	597.16 µG/L
Chlorobenzene	1.59 µG/L
Freon-11	51.81 µG/L
Freon-141B	13.51 µG/L
Freon-22	107.63 µG/L
Hydrocarbons	43.41 µG/L
Toluene	23848.84 µG/L
	24664

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (µg/L)
- ND NOT DETECTED
- PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (µg/L)

SM010 SG061

1,1-Dichloroethene	3.44 µG/L
Dichlorofluoromethane	19.44 µG/L
Freon-11	368.6 µG/L
Freon-141B	656.05 µG/L
	1048

SM015 SG010

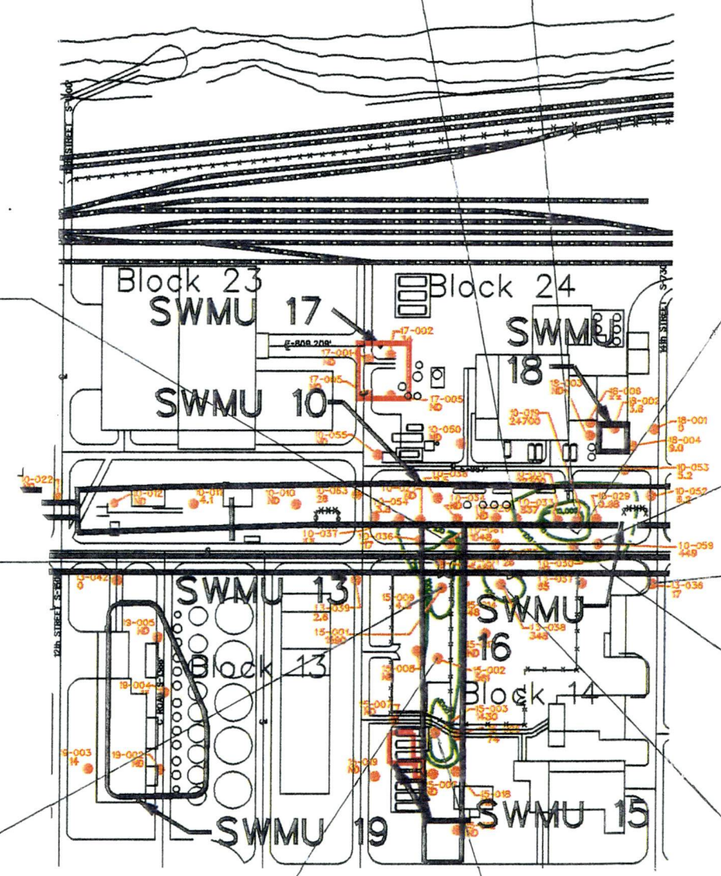
Benzene	2872.89 µG/L
Chlorobenzene	810.61 µG/L
Chloroform	1.91 µG/L
Dichlorobenzene	4.62 µG/L
Freon-11	5.21 µG/L
Freon-22	3.21 µG/L
Hydrocarbons	365.35 µG/L
Methylene Chloride	1.47 µG/L
Tetrachloroethene	2.76 µG/L
Toluene	1391 µG/L
Trichloroethene	3.62 µG/L
Vinyl Chloride	18.87 µG/L
	5482

SM015 SG001

1,2-Dichloroethene (total)	0.64 µG/L
2-Hexanone	29.71 µG/L
Benzene	392.51 µG/L
Chlorobenzene	1110.91 µG/L
Ethylbenzene	1.23 µG/L
Hydrocarbons	48.41 µG/L
Toluene	1.69 µG/L
	1585

SM015 SG002

2-Butanone	30.02 µG/L
Benzene	113.73 µG/L
Chlorobenzene	278.36 µG/L
Ethylbenzene	3.75 µG/L
Hydrocarbons	131.47 µG/L
Xylene (total)	4.04 µG/L
	561



SM015 SG003

Benzene	59.32 µG/L
Chlorobenzene	802.25 µG/L
Ethylbenzene	1.48 µG/L
Hydrocarbons	563.94 µG/L
	1427

SM010 SG031

Benzene	1521.04 µG/L
Chlorobenzene	22.69 µG/L
Dichlorofluoromethane	114.1 µG/L
Freon-11	59.77 µG/L
Freon-12	0.56 µG/L
Freon-141B	6.79 µG/L
Freon-22	96.86 µG/L
Hydrocarbons	39.77 µG/L
Toluene	20394.75 µG/L
Vinyl Chloride	1.97 µG/L
	22258

SM010 SG059

Benzene	247.5 µG/L
Chlorobenzene	24.57 µG/L
Toluene	176.63 µG/L
	449

SM010 SG036

Dichlorofluoromethane	7.9 µG/L
Freon-11	50.71 µG/L
Freon-141B	58.49 µG/L
	117

SM010 SG030

Benzene	103.76 µG/L
Chloroform	0.54 µG/L
Freon-11	1.02 µG/L
Toluene	8.71 µG/L
	114

SM013 SG038

Benzene	15.31 µG/L
Chlorobenzene	1.01 µG/L
Freon-11	271.97 µG/L
Freon-12	4.56 µG/L
Freon-141B	37.98 µG/L
Freon-22	16.96 µG/L
	348

PLANT NORTH

GRAPHIC SCALE

0 100 200 400

FIGURE C-8

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
7.5 FT-BGS FOR
(SWMUs 10, 13, 16, 17, AND 18)
(INCLUDES PORTION OF SWMU GROUP D)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME: 800588-B17

JOB NO.: 80058830400000 PLOT SCALE: 1=200

STARTED ON: 1/14/00 REVISED: 0/00/00

PLANT NORTH

FLOW
OHIO RIVER

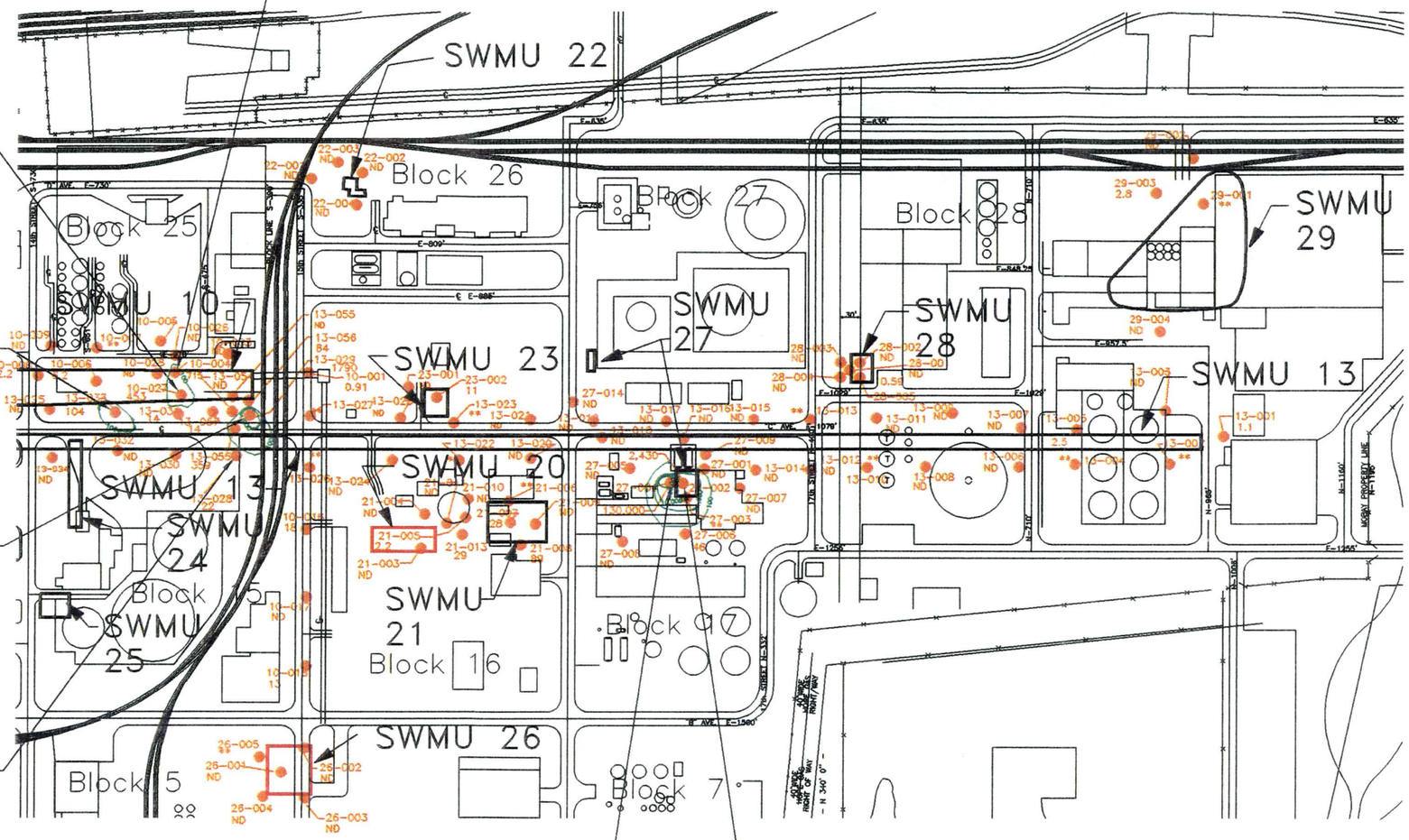
SM010 SG004		
Benzene	1.77	uG/L
Chlorobenzene	646.89	uG/L
Hydrocarbons	65.74	uG/L
	714	

SM010 SG027		
Benzene	11.74	uG/L
Chlorobenzene	120.48	uG/L
Hydrocarbons	319.68	uG/L
Toluene	1.35	uG/L
	453	

SM013 SG033		
Benzene	70.06	uG/L
Chlorobenzene	30.82	uG/L
Tetrachloroethene	1.19	uG/L
Toluene	2.38	uG/L
	104	

SM013 SG029		
Benzene	205.97	uG/L
Chlorobenzene	136.12	uG/L
Freon-11	.69	uG/L
Hydrocarbons	500	uG/L
Toluene	949.28	uG/L
	1792	

SM013 SG055		
Hydrocarbons	358.66	uG/L
	359	



SM027 SG004		
Benzene	124580.96	uG/L
Toluene	4526.56	uG/L
Hydrocarbons	1000	uG/L
	130108	

SM027 SG002		
Benzene	2433.64	uG/L
	2434	

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 — ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 — VOC CONCENTRATION (ug/L)
- ND — NOT DETECTED
- ** — PROBE PLUGGED WITH WATER
- 1,000 / 100 — CONTOUR INTERVAL (ug/L)

GRAPHIC SCALE

0 100 200 400

FIGURE C-9

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

TOTAL VOC CONCENTRATIONS
2.5 FT-BGS FOR (SWMUs 10, 13, 21 AND 27)

IT Corporation

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME:800588-B18

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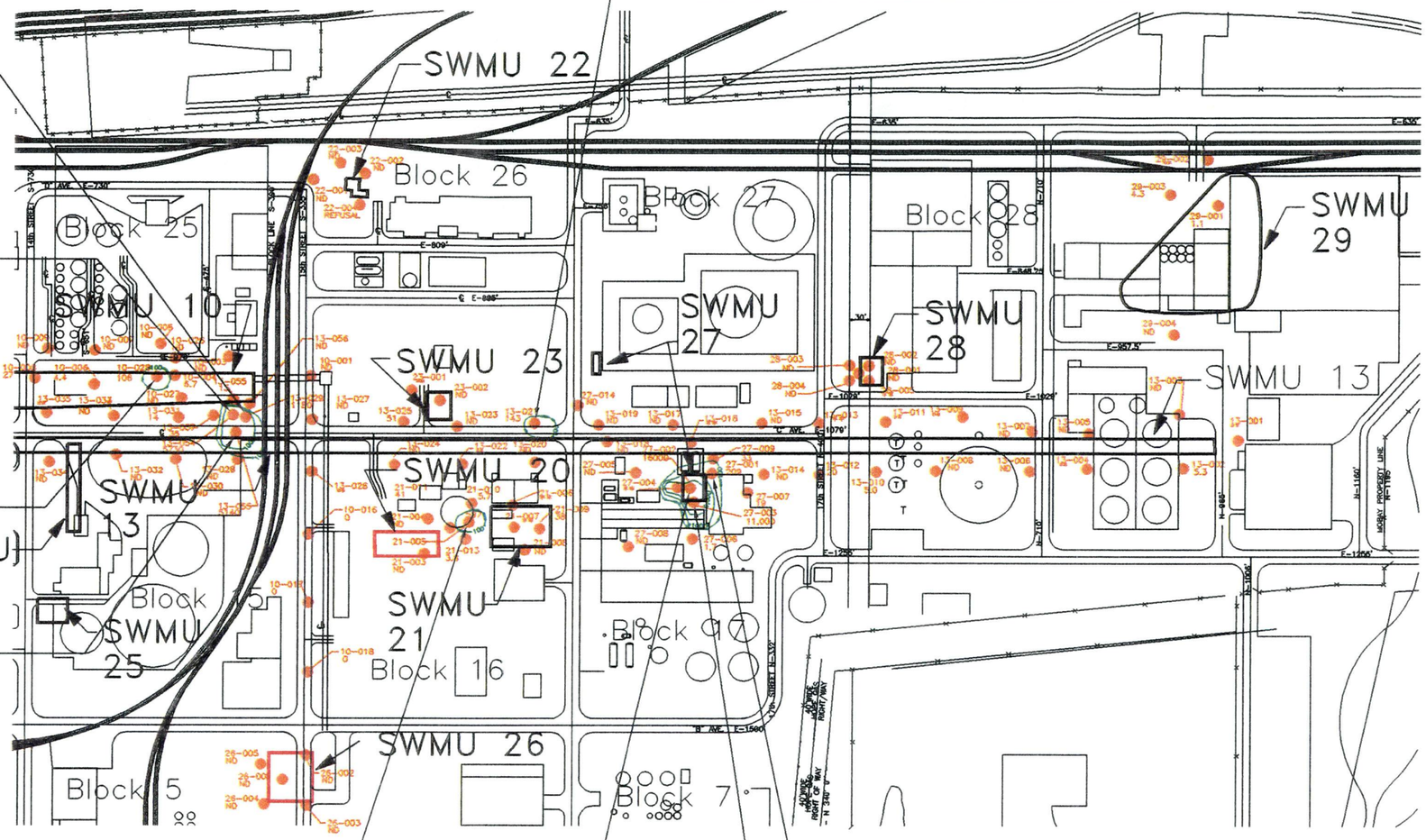
Plotted by: Wsnyder Xref: .

JOB NO.: 80058830400000 PLOT SCALE: 1=200

STARTED ON: 1/14/00 REVISED: 0/00/00

PLANT NORTH

FLOW
OHIO RIVER



SM013 SG021		
Benzene	67.04	uG/L
Hydrocarbons	50	uG/L
Toluene	25.84	uG/L
	143	

SM013 SG029		
Benzene	222.12	uG/L
Chlorobenzene	123.91	uG/L
Hydrocarbons	50	uG/L
Tetrachloroethene	1.35	uG/L
Toluene	786.72	uG/L
	1184	

SM013 SG054		
Benzene	5217.17	uG/L
Chlorobenzene	78.73	uG/L
Chloroform	2.71	uG/L
Freon-141B	.88	uG/L
Hydrocarbons	142.87	uG/L
Tetrachloroethene	1.84	uG/L
Toluene	1788	uG/L
Trichloroethene	.51	uG/L
	7233	

SM010 SG028		
Chlorobenzene	1.45	uG/L
Hydrocarbons	104.39	uG/L
	106	

SM013 SG055		
Benzene	26.15	uG/L
Dichlorobenzene	10.82	uG/L
Ethylbenzene	3.24	uG/L
Hydrocarbons	5061.19	uG/L
Toluene	31.87	uG/L
Xylene (total)	7.24	uG/L
	5141	

SM021 SG005		
Benzene	513.86	uG/L
Toluene	82.92	uG/L
	597	

SM027 SG001		
Benzene	108.83	uG/L
Hydrocarbons	100	uG/L
	209	

SM027 SG002		
Benzene	14485.80	uG/L
Cyclohexanes	20.00	uG/L
Hydrocarbons	50	uG/L
Toluene	1446.29	uG/L
	16002	

SM027 SG003		
Benzene	10967.77	uG/L
	10968	

LEGEND:

- SWMU BOUNDARY
- MODIFIED SWMU BOUNDARY
- 0 ZERO TARGET COMPOUNDS DETECTED
- SOIL GAS SURVEY SAMPLE LOCATION
- 1.4 VOC CONCENTRATION (ug/L)
- ND NOT DETECTED
- ** PROBE PLUGGED WITH WATER
- 1,000 / 100 CONTOUR INTERVAL (ug/L)

GRAPHIC SCALE

0 100 200 400

FIGURE C-10

BAYER CORPORATION
NEW MARTINSVILLE, WEST VIRGINIA

IT Corporation

TOTAL VOC CONCENTRATIONS
7.5 FT-BGS FOR (SWMUs 10, 13, 21 AND 27)

DATE: 1/14/00 DR.: B. SNYDER

SCALE: 1"=200' FILE NAME:800588-B19

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