ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK
PHASE I INVESTIGATIONS

GAF DUMP
BINGHAMTON,BROOME COUNTY, NEW YORK
Site Code:704011

APRIL 1986

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD, ALBANY, NEW YORK 12233
HENRY G. WILLIAMS, COMMISSIONER

Division of Solid and Hazardous Waste
NORMAN H. NOSENCHUCK, P.E. DIRECTOR

WEHRAN ENGINEERING, P.C.
Middletown & Grand Island, New York

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50 WOLF ROAD
ALBANY, NEW YORK 12233-0001

Prepared by

WEHRAN ENGINEERING, P. C.
666 EAST MAIN STREET
MIDDLETOWN, NEW YORK 10940

WE Project No. 01424339 B-30

April 1986

GAF DUMP

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1.0 EXECUTIVE SUMMARY

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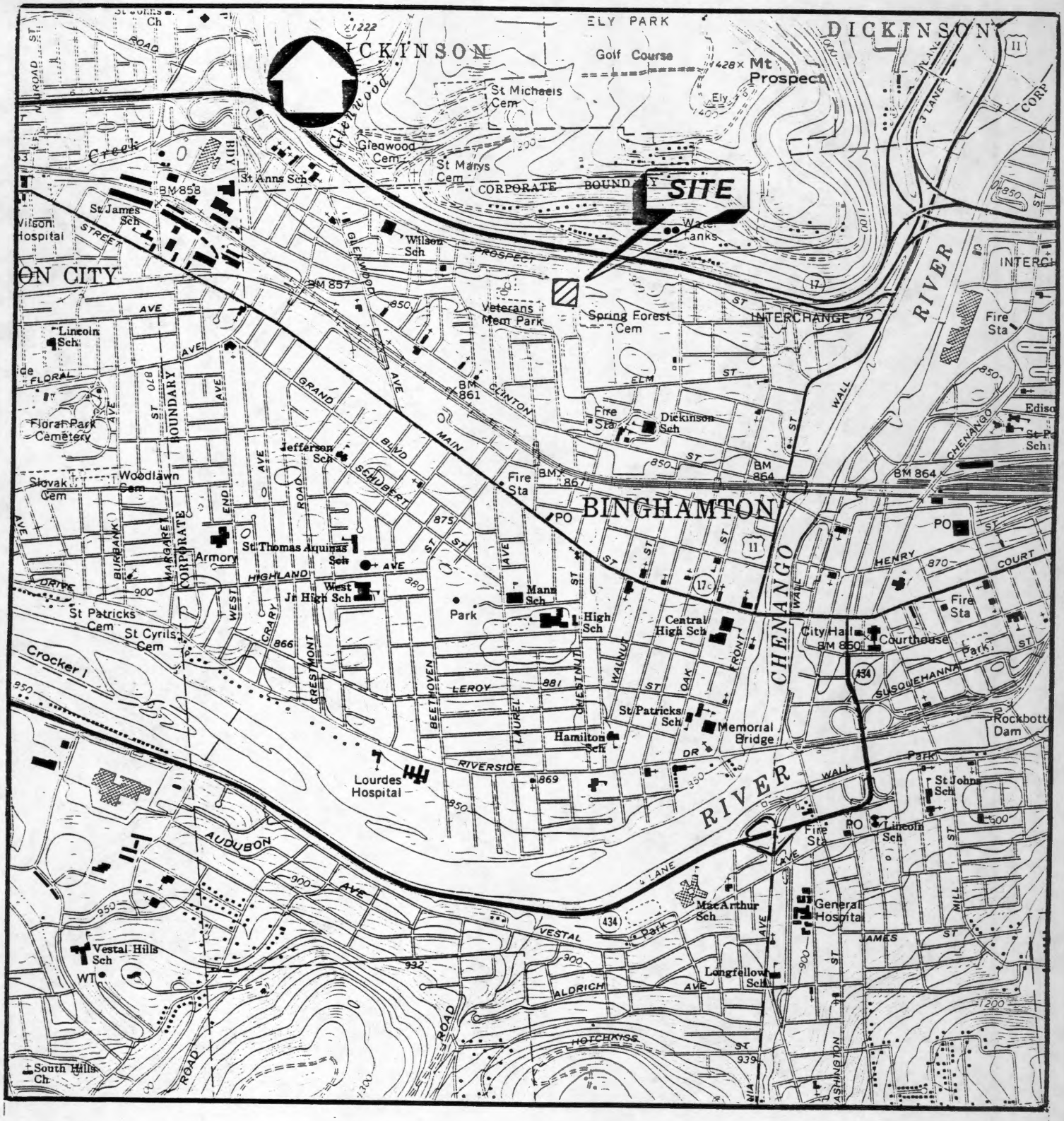
The GAF Dump site is an inactive disposal area located in the City of Binghamton, Broome County. The two-acre site, situated behind the Anitec Corporation facility on Charles Street, was allegedly used (during the time GAF owned and operated the plant facility) for the disposal of industrial photochemical byproducts including silver, cadmium, volatile organics, phenols and intermediate dyestuffs. It is estimated that disposal activities at the site ceased by 1975. Although no information is available regarding when use of the site began, it is known that the plant facility has been in existence since World War II. Alleged disposal practices consisted of spilling 55-gallon drums of waste liquids out onto the ground surface. At the time Anitec purchased the plant facility, GAF retained ownership of the alleged dump site, anticipating further investigation into past use of the site.

The site is located in a mixed commercial and residential neighborhood in the north central region of the City of Binghamton. Immediately to the east of the site is Spring Forest Cemetery, and to the south is the Anitec Corporation plant facility. To the immediate west and downhill is Veterans Memorial Park. Approximately 200 feet downslope from the property boundary, Trout Brook, now flowing through a 66-inch storm sewer, flows in an easterly direction to the Chenango River. A residential neighborhood located to the north on Prospect Street is uphill and upgradient of the site.

On September 24, 1985 a site investigation of the GAF Dump site was undertaken by Wehran Engineering, accompanied by Mr. C. F. Bien of GAF Corporation, Wayne, New Jersey. The eastern portion of the site is covered by an abandoned asphalt parking lot. The remaining, western, portion is ungraded and covered with thick weeds. This portion of the site is filled with approximately 10 feet of demolition debris and cinders, most likely placed on site eight to twelve years ago. No signs of other waste disposal were apparent and no leachate was observed.

Although past sampling programs have detected elevated levels of various volatile organics and heavy metals in the ground and surface waters, the data is difficult to assess due to the lack of background data and lack of

data concerning the quality of the wells and the sampling protocols. Given the nature of the industrial activity (photochemical products), the length of time the site may have been in use (World War II until the mid-1970's) and the manner in which the waste was allegedly disposed (liquid), it is likely that monitoring of the site could reveal the presence of silver, cadmium, t-1,2 dichloroethylene, trichloroethylene and phenols in the groundwater and possibly Trout Brook. There is a potential for the Johnson City well field to be affected by any site contamination that may be present at the GAF Dump. The Hazard Ranking System (HRS) score for this site, based on a review of available data and site inspection, is $S_M = 27.11$.



SCALE: 1"= 2000'

TOPOGRAPHY TAKEN FROM
1968
BINGHAMTON, N.Y
U.S.G.S. QUADRANGLE
7.5 MIN SERIES

MAP LOCATION

FIGURE 1

SITE LOCATION MAP

GAF DUMP SITE

LAT. 42° 06' 29" N LONG. 75° 55' 45" W

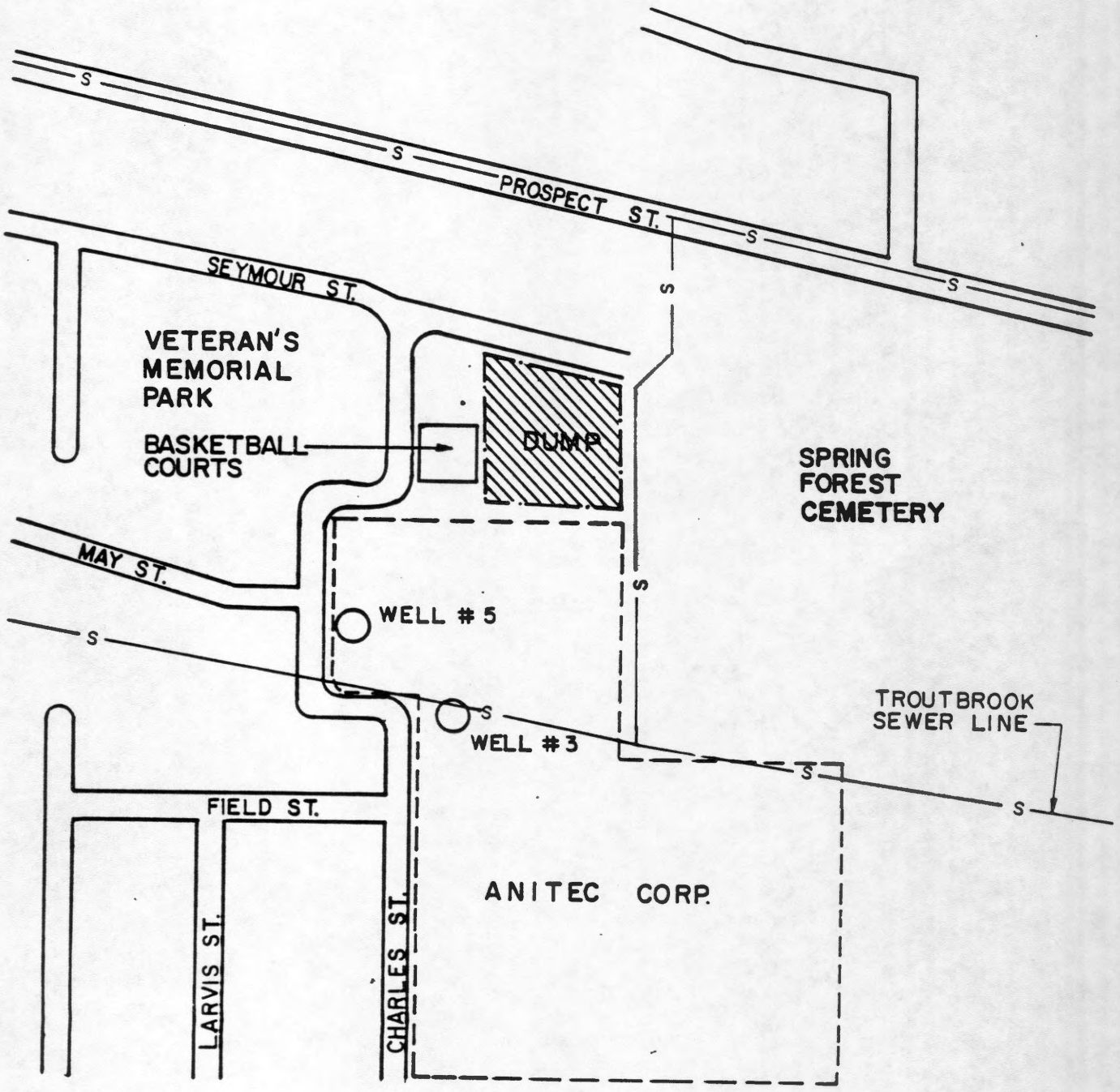


FIGURE 2

SITE SKETCH
(NTS)

GAF DUMP

01424339

2.0 PURPOSE

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This Phase I investigation was conducted under contract to the New York State Department of Environmental Conservation Superfund Program to evaluate the potential environmental or public health hazard associated with past disposal activities at the GAF Dump. Divided into two parts, this initial investigation consisted of a detailed file review of available information and an initial site investigation. The culmination of this phase is the development of a preliminary Hazard Ranking System (HRS) score.

Where information is lacking and a final score cannot be computed, recommendations will be made for a Phase II investigation designed to verify the assumptions made in the preliminary scoring, and to collect the additional data needed to complete the site assessment.

3.0 SCOPE OF WORK

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To complete the preliminary HRS score for the GAF Dump, the following scope of work was completed:

- A review of the following:
  - Available information from federal, state, and municipal agencies
  - Published documents from the U.S. Geological Survey, Soil Conservation Service and state agencies for geological, hydrological and topographical data
  - Available files, reports and court cases
- Interviews with individuals having knowledge of the site

Information gathered included well logs, land use data, water usage patterns, critical habitats and endangered species data, meteorological data, hydrological, geological and topographical data, waste characteristics and demographic information.

Following an initial file review a site inspection was conducted. The intent of the inspection was to verify existing file information and to conduct an organic vapor detector survey to screen for potential air releases. Items of specific interest in the site investigation were:

- Overall site environmental conditions
- The presence of disturbed areas
- Visual signs of waste materials (drums, sludges, etc.)
- The occurrence of leachate
- Site topography

A detailed analysis was performed on all data collected in preparation of a preliminary HRS score. Where information was lacking and a final HRS

score could not be computed, recommendations were made for a Phase II investigation. This investigation was designed to verify the assumptions made in the preliminary scoring and to collect the additional data needed to complete the site assessment. A summary of agencies contacted, contact person, address and information obtained follows.

SOURCES -- GAF DUMP
(Page 1)

Name/Address/Phone	Type of Contact	Date	Information Provided
Mr. Robert Abrams, Attorney General New York State Attorney General Department of Law State Capitol, Room 221 Albany, New York 12224 (581) 474-7330	Letter	8-24-84	None available
Mr. Robert Augenstern, Director Southern Tier East Regional Planning Board O'Neill Building, 4th Floor State at Court Street Binghamton, New York 13901	Letter	7-24-84	Referral to other agencies
Dr. David Axelrod, Commissioner New York State Department of Health Tower Building, Empire State Plaza Albany, New York 12237 (518) 474-8427	Letter	8-24-84	None available
Broome County Health Department 1 Wall Street Binghamton, New York 13901	Letter	7-24-84	Sampling data and maps
Mr. James K. Connors, Regional Director NYSDOT, Region 9 33 Mitchell Avenue Binghamton, New York 13903	Letter	7-24-84	None available
Ms. Juanita Crabb, Mayor City Hall 38 Howley Street Binghamton, New York 13901	Letter	7-24-84	None available
Mr. John Czapor, Environmental Engineer USEPA, Region II 26 Federal Plaza New York, New York 10278 (212) 264-1573	Letter	8-24-84	None available
Mr. Paul Dodd, State Conservationist U.S. Department of Agriculture Soil Conservation Service James M. Hanley Federal Building 100 South Clinton Street Syracuse, New York 13260 (315) 423-5521	Letter	8-24-84	Name and address of local representative

SOURCES -- GAF DUMP
(Page 2)

Name/Address/Phone	Type of Contact	Date	Information Provided
Dr. Robert H. Fakundiny, State Geologist Geological Survey of New York State State Education Department Division of Museum Services Albany, New York 12230 (518) 474-5816	Letter	8-24-84	None available
Mr. John Kowalchyk Broome County Environmental Management Council Broome County Office Building P.O. Box 1766 Binghamton, NY 13902	Letter	7-24-84	Preliminary Register of Hazardous Waste Sites, 1981
Mr. James L. Larocca, Commissioner NYSDOT 1220 Washington Avenue Albany, New York 12232 (518) 457-4422	Letter	8-24-84	None available
Mr. Lawrence A. Martens, District Chief U.S. Department of the Interior U.S. Geological Survey Albany District Office P.O. Box 1350 U.S. Post Office and Court House Albany, New York 12201 (513) 472-3107	Letter	8-24-84	None available
Mr. Carl B. Sciple, Division Engineer Army Corps of Engineers New England Division 424 Trapelo Road Waltham, Massachusetts 02154 (617) 894-2400	Letter	8-24-84	None available
Mr. Frederick J. Scullin, Jr. U.S. Department of Justice U.S. Attorney Northern District of New York 369 Federal Building 100 South Clinton Street Syracuse, New York 13260 (315) 423-5165	Letter	8-24-84	None available
Mr. Richard D. Spear, Chief Surveillance & Monitoring Branch USEPA, Region II Woodbridge Avenue Edison, New Jersey 08817 (201) 321-6685	Letter	8-24-84	None available

4.0 SITE ASSESSMENT

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4.1 SITE HISTORY

The GAF Dump site is an inactive disposal area located in the City of Binghamton, Broome County. The two-acre site, situated behind the Anitec Corporation facility on Charles Street, was allegedly used (during the time GAF owned and operated the plant facility) for the disposal of industrial photochemical byproducts including silver, cadmium, volatile organics, phenols and intermediate dyestuffs. It is estimated that disposal activities at the site ceased by 1975 and, although no information is available regarding when use of the site began, it is known that the plant facility has been in existence since the Second World War. Alleged disposal practices consisted of spilling 55-gallon drums of waste liquids out onto the ground surface. At the time Anitec purchased the plant facility, GAF retained ownership of the alleged dump site, anticipating further investigation into past use of the site.

4.2 SITE TOPOGRAPHY

The site is located in a mixed commercial and residential neighborhood in the north central region of the City of Binghamton. Immediately to the east of the site is Spring Forest Cemetery, and to the south is the Anitec Corporation plant facility. To the immediate west and downhill is Veterans Memorial Park. A residential neighborhood located to the north on Prospect Street is uphill and upgradient of the site. An abandoned parking lot makes up the eastern one-half of the site, while the remainder is ungraded and weed covered. Although the entire perimeter is fenced, the fencing is not secure and it appears the site is used for recreational activities utilizing dirt bikes and three-wheeled vehicles.

The surface of the dump site slopes four percent toward the southern property boundary with Anitec. At the boundary the slope levels off to a maximum of two percent throughout the industrial facility. Approximately 200 feet downslope from the property boundary, Trout Brook, now flowing through a 66-inch storm sewer, flows in an easterly direction to the Chenango River.

The entire area within a three-mile radius of the site is served with community water supplies. The City of Binghamton wells are located east of the site and on the eastern side of the Chenango River. The Binghamton surface water intake is located upstream on the Susquehanna River above the confluence with the Chenango River. The Johnson City well field is located 1.5 miles west of the GAF dump in an area that appears to be upgradient based on regional hydrogeology. There are wells within 500 feet of the site utilized by Anitec Corporation for industrial purposes (cooling water).

4.3 SITE HYDROGEOLOGY

The Binghamton area is underlain by sedimentary rocks of Upper Devonian Age. The blue shale and siltstone rocks are fractured and slightly folded with axes that trend east. Soils are deep, well drained gravelly or silty sand on outwash terraces. Slopes in the area of the site generally range from five to 15 percent. Well data from the vicinity of the site show that regional groundwater is moderately close to the surface, within 50 feet, and flows in an easterly direction toward the Chenango River. There may be some southerly and westerly movement of groundwater in the immediate vicinity of the site. The aquifer of concern in the area of the GAF Dump consists of medium gravel and fine sand with occasional quicksand layers.

4.4 SITE CONTAMINATION

On September 24, 1985 a site investigation of the GAF Dump site was undertaken by Wehran Engineering, accompanied by Mr. C. F. Bien of GAF Corporation, Wayne, New Jersey. During the investigation ambient air monitoring was conducted utilizing an HNU PID 101 organic vapor detector. No readings above background levels were detected. The eastern portion of the site is covered by an abandoned asphalt parking lot. The remaining, western, portion is ungraded and covered with thick weeds. There are a few trees along the western boundary of the site. Based on visual inspection, the USGS Binghamton West Quadrangle map and the height of vegetation, the western portion of the site is filled with approximately 10 feet of demolition debris and cinders, most likely placed on site eight to twelve years ago. No signs of other waste disposal were apparent and no leachate was observed.

Although past sampling programs have detected elevated levels of various volatile organics and heavy metals in the ground and surface waters, the data is difficult to assess due to the lack of background data and lack of data concerning the quality of the wells and the sampling protocols. Given the nature of the industrial activity (photochemical products), the length of time the site may have been in use (World War II until the mid-1970's) and the state in which the waste was allegedly disposed (liquid), it is likely that monitoring of the site could reveal the presence of silver, cadmium, t-1,2 dichloroethylene, trichloroethylene and phenols in the groundwater and possibly the surface water. There is a potential for the Johnson City well field to be affected by any site contamination that may be present at the GAF Dump. Further study and analysis is necessary to determine what contaminants are present in the ground and surface waters and in what amounts, and to determine the dynamics of the site-specific and regional groundwater flow.

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

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5.1 NARRATIVE SUMMARY

The GAF Dump site is an inactive disposal area located in the City of Binghamton, Broome County. The two-acre site, situated behind the Anitec Corporation facility on Charles Street, was allegedly used during the time GAF owned and operated the plant facility for the disposal of industrial photochemical byproducts including silver, cadmium, volatile organics, phenols and intermediate dyestuffs. It is estimated that disposal activities at the site ceased by 1975 and, although no information is available regarding when use of the site began, it is known that the plant facility has been in existence since the Second World War. Alleged disposal practices consisted of spilling 55-gallon drums of waste liquids out onto the ground surface. At the time Anitec purchased the plant facility, GAF retained ownership of the alleged dump site, anticipating further investigation into past use of the site.

The site is located in a mixed commercial and residential neighborhood in the north central region of the City of Binghamton. An abandoned parking lot makes up the eastern one-half of the site, while the remainder is ungraded and weed covered. Approximately 200 feet downslope from the property boundary, Trout Brook, now flowing through a 66-inch storm sewer, flows in an easterly direction to the Chenango River.

The entire area within a three-mile radius of the site is served with community water supplies. The City of Binghamton wells are located east of the site and on the eastern side of the Chenango River. The Binghamton surface water intake is located upstream on the Susquehanna River above the confluence with the Chenango River. The Johnson City well field is located 1.5 miles west of the GAF dump in an area that appears to be upgradient based on regional hydrogeology. There are wells within 500 feet of the site utilized by Anitec Corporation for industrial purposes.

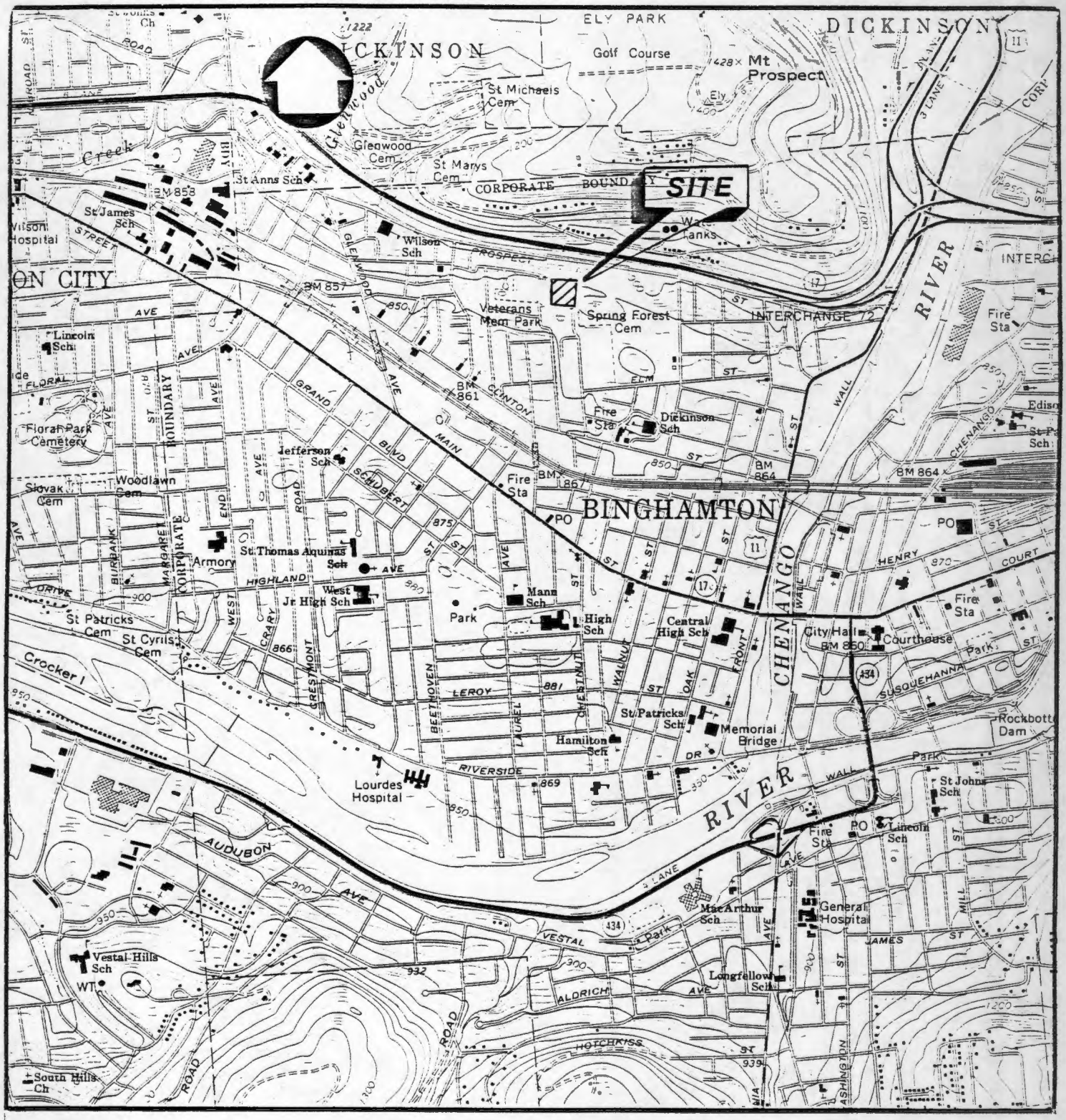
Well data from the vicinity of the site show that regional groundwater is moderately close to the surface, within 50 feet, and flows in an easterly direction toward the Chenango River. There may be some localized southerly and westerly movement of groundwater in the immediate vicinity of the site.

The aquifer of concern in the area of the GAF Dump consists of medium gravel and fine sand with occasional quicksand layers.

On September 24, 1985 a site investigation of the GAF Dump site was undertaken by Wehran Engineering, accompanied by Mr. C. F. Bien of GAF Corporation, Wayne, New Jersey. No signs of waste disposal other than 10 feet of demolition debris and cinders were apparent and no leachate was observed. An HNU Systems PID showed no appreciable organic vapors.

Past sampling programs efforts at the site have provided inadequate data. Given the nature of the industrial activity, the length of time the site may have been in use, and the state in which the waste was allegedly disposed, it is likely that monitoring of the site could reveal the presence of silver, cadmium, t-1,2 dichloroethylene, trichloroethylene and phenols in the groundwater and possibly the surface water. There is a potential for the Johnson City well field to be affected by any site contamination that may be present at the GAF Dump. Further study and analysis is necessary to determine how much if any environmental threat is posed by this site.

LOCATION



SCALE: 1"=2000'

TOPOGRAPHY TAKEN FROM
1968
BINGHAMTON, N.Y
U.S.G.S. QUADRANGLE
7.5 MIN SERIES

FIGURE 1

SITE LOCATION MAP

GAF DUMP SITE

LAT. 42°06'29"N LONG. 75°55'45"W

HRS WORKSHEETS

Facility Name: GAF Dump

Location: Charles Street, City of Binghamton, Broome County

EPA Region: II

Person(s) in Charge of the Facility:

GAF Corporation
Wayne, NJ

Name of Reviewer: Frances C. Geissler **Date:** September 17, 1985

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Inactive facility was allegedly used as a disposal area for industrial photochemical waste. 55-gallon drums of waste material were spilled out on the ground surface. No containment practices are in evidence and site is fenced, partially paved and currently not in use.

Scores: S_M = ~~33.96~~ 27.11 (S_{gw} = 46.53 S_{sw} = 5.85 S_a = 0)

S_{FE} = 0

S_{DC} = 33.33

GROUND WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 (2) 3	2	4	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 (3)	1	3	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			12	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 (30) 32 35 40	1	30	40	
Total Targets Score			39	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			26,676	57.330	
7 Divide line 6 by 57.330 and multiply by 100	S_{gw} = 46.53				

SURFACE WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			3,762	64,350	
7 Divide line 3 by 64,350 and multiply by 100	S_{sw} = 5.85				

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100	S_a = 0				

	S	S^2
Groundwater Route Score (S_{gw})	46.53	2,165.04
Surface Water Route Score (S_{sw})	5.85	34.22
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		2,199.26
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		46.90
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73$		$S_M = 27.11$

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

Not Applicable

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	=	8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 5 by 1,440 and multiply by 100	S_{FE} = 0				

DIRECT CONTACT WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 (2) 3	1	2	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 (4) 5	4	16	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			16	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7,200	21,600	
7 Divide line 6 by 21,600 and multiply by 100	S_{DC} = 33.33				

HRS DOCUMENTATION RECORDS

June 28, 1982

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: GAF Dump

LOCATION: Charles Street, City of Binghamton, Broome County

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

None. Past sampling has revealed elevated levels of volatile organics and heavy metals. Background data is not available; therefore, an observed release cannot be documented.

Source: New York Testing Laboratories, Inc., sample analyses, March 31, 1983

Rationale for attributing the contaminants to the facility:

Not applicable

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Unconsolidated deposits, medium gravel and fine sand, of the Pleistocene age.

Source: A. D. Randall, USGS, Records of Wells and Test Borings in the Susquehanna River Basin, NY, NYSDEC Bulletin 69, 1972

Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table(s)) of the aquifer of concern:

Depths from ground surface to the highest seasonal level of the water table range from 30 to 50 feet for wells in the immediate vicinity of the site.

Source: A. D. Randall, USGS, Records of Wells and Test Borings in the Susquehanna River Basin, NY, NYSDEC Bulletin 69, 1972

Depth from the ground surface to the lowest point of waste disposal/storage:

Wastes poured out on ground surface; unknown as to whether or not wastes were poured onto original surface or onto fill. For purposes of scoring assumed a minimum of six feet.

Source: Personal Communication, Melanie Sviatyla, Engineer, Broome County Health Department, May 20, 1985

Score = 2 (based on depth of 24-50 feet between lowest point of waste disposal and aquifer of concern)

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

39 inches of mean annual precipitation

Source: National Oceanic and Atmospheric Administration, Climates of the States, Vol. 2, p. 719, 1978

Mean annual lake or seasonal evaporation (list months for seasonal):

27.5 inches of mean annual lake evaporation

Source: HRS Users Manual (HW-10), USEPA, 1984

Net Precipitation (subtract the above figures):

11.5 inches mean annual net precipitation

Score = 2

Permeability of Unsaturated Zone

Soil Type in unsaturated zone:

Fine sands, coarse and medium gravels

Source: Ansco Corp., Plan of Well Field and Boring Logs, Wells #3 (Bm 42) and #5 (Bm 44)

Permeability associated with soil type:

$> 10^{-3}$ cm/sec

Score = 3

Source: HRS Users Manual (HW-10), USEPA, 1984

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Liquids, poured out from drums onto dump site

Score = 3

Source: Personal Communication, Melanie Sviatyla, Engineer, Broome County Health Department, May 20, 1985

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None present

Method with highest score:

None present

Score = 3

Source: Site inspection, September 24, 1985, Wehran Engineering

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Specific wastes disposed of are unknown, assume photochemical process wastes, including volatile organics and heavy metals.

Source: K. Goldstein, SUNY Binghamton, Preliminary Register of Hazardous Waste Dump Sites, Broome County, 1981

Compound with highest score:

Heavy Metals

Score = 18

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Total quantity of waste disposed of unknown; for scoring purposes assume minimum quantity.
Liquid wastes allegedly poured on ground surface.

Score = 1

Bases of estimating and/or computing waste quantity:

Source: Letter, J. H. Teitel, Associate Counsel, GAF Corporation, to M. Chen, November 27, 1984
Personal Communication, Charles Bien, September 24, 1985 during site investigation

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Drinking water
Binghamton City Water Supply (east of site on eastern side of Chenango River)
Johnson City Water Works (west of site)

Score = 3

Source: NYSDOH, NYS Atlas of Community Water System Sources, 1982

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Johnson City Water Works (west of site)

Distance to above well or building:

Estimated at 1.5 miles

Value = 2

Source: NYSDOH, NYS Atlas of Community Water System Sources, 1982
USGS Quadrangle, Binghamton West, NY

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Johnson City Water Works, population = 18,102

Source: NYSDOH, Inventory - Community Water Systems, Vol. 1 -Municipal, 1984

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

No irrigation being done within a 3-mile radius from aquifer of concern.

Source: Personal Communication, Lee Nelson, County Cooperative Extension, May 21, 1986

Total Population served by ground water within a 3-mile radius:

At least 18,102

Value = 5

Score = 30

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Contaminants detected, but not directly attributable to site.

Score = 0

Source: Broome County Health Department, Report on Trout Brook Sampling Survey, 1971

Rationale for attributing the contaminants to the facility:

Not applicable

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

4%

Source: Site investigation, September 24, 1985, Wehran Engineering

Name/description of nearest downslope surface water:

Trout Brook (Tributary SR-44), a 66" storm sewer line discharging to the Chenango River

Source: Site investigation, September 24, 1985, Wehran Engineering

Average slope of terrain between facility and above-cited surface water body in percent:

2%

Source: Site investigation, September 24, 1985, Wehran Engineering

Is the facility located either totally or partially in surface water?

No

Score = 0

Source: Site inspection, September 24, 1985, Wehran Engineering

Is the facility completely surrounded by areas of higher elevation?

No

Source: Site inspection, September 24, 1985, Wehran Engineering

1-Year 24-Hour Rainfall in Inches

2.25 inches

Score = 2

Source: HRS Users Manual (HW-10), USEPA, 1984

Distance to Nearest Downslope Surface Water

200 feet

Score = 3

Source: Site inspection, September 24, 1985, Wehran Engineering

Physical State of Waste

Liquid

Score = 3

Source: Personal Communication, Melanie Sviatyla, Engineer, Broome County Health Department, May 20, 1985

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None present

Method with highest score:

None

Score = 3

Source: Site inspection, September 24, 1985, Wehran Engineering
NYSDEC file data

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Specific wastes disposed of are unknown; assume photochemical process wastes, including volatile organics and heavy metals.

Source: K. Goldstein, SUNY Binghamton, Preliminary Register of Hazardous Waste Dump Sites, Broome County, 1981

Compound with highest score:

Heavy Metals

Score = 18

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum);

Total quantity of waste disposed of unknown; liquid wastes allegedly poured on ground surface; for scoring purposes assume minimum quantity.

Score = 1

Basis of estimating and/or computing waste quantity:

Letter, J. H. Teitel, Associate Counsel, GAF Corporation, to M. Chen, November 27, 1984
Personal Communication, Charles Bien, September 24, 1985 during site investigation.

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

- Trout Brook: Class D, Standards D
- Susquehanna River: Class C, Standards C, from Tioga-Broome County boundary to Rock Bottom Dam
- Chenango River: Class B, Standards B, from confluence with Susquehanna River to Tributary 41
- Best Usage of Waters - Class B: Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes

Score = 2

Source: NYCRR6, Part 930, Article 17

Is there tidal influence?

No

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None present

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None present

Source: USGS Quadrangle, Binghamton West, NY

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None

Score = 0

Source: NYSDEC Endangered Species Unit, Significant Wildlife Habitat Maps, Delmar, NY

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None: Water supply intake for Binghamton City Water is located upstream on the Susquehanna River above the confluence with the Chenango River.

Source: Personal Communication, Claudia Stollman, Broome County Environmental Management Council, May 17, 1985

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

No irrigation practiced within 3 miles downstream of the site.

Source: Personal Communication, Lee Nelson, County Cooperative Extension, May 21, 1986

Total population served:

None known

Name/description of nearest of above water bodies:

Not applicable

Distance to above-cited intakes, measured in stream miles.

Not applicable

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

None

Date and location of detection of contaminants

Source: Organic Vapor Analyzer survey, Wehran Engineering, September 24, 1985

Methods used to detect the contaminants:

Not applicable

Rationale for attributing the contaminants to the site:

Not applicable

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most Reactive compound:

Not applicable

Most incompatible pair of compounds:

Not applicable

Toxicity

Most toxic compound:

Not applicable

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi **0 to 1 mi** **0 to 1/2 mi** **0 to 1/4 mi**

Not applicable

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not applicable

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Not applicable

Distance to critical habitat of an endangered species, if 1 mile or less:

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

Not applicable

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

To score the fire and explosion hazard mode either a state or local fire marshall must have certified that the facility presents a significant fire or explosion threat to the public or to a sensitive environment, or there must be a demonstrated threat based on field observations (e.g. combustible gas indicator readings). The available records give no indication that either one of these tasks has been done. Further, the available data do not suggest any imminent threat of fire and explosion at this site. Therefore the route score cannot be completed.

Type of containment, if applicable:

Not applicable

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Not applicable

Ignitability

Compound used:

Not applicable

Reactivity

Most reactive compound:

Not applicable

Incompatibility

Most incompatible pair of compounds:

Not applicable

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

3 TARGETS

Distance to Nearest Population

Not applicable

Distance to Nearest Building

Not applicable

Distance to Sensitive Environment

Distance to wetlands:

Not applicable

Distance to critical habitat

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

Not applicable

Population Within 2-Mile Radius

Not applicable

Buildings Within 2-Mile Radius

Not applicable

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No documentation of direct contact causing injury to humans or animals.

Score = 0

Source: NYSDEC Files

2 ACCESSIBILITY

Describe type of barrier(s):

Fencing is present, but there is no separate means to control entry.

Score = 2

Source: Site inspection, September 24, 1985, Wehran Engineering

3 CONTAINMENT

Type of containment, if applicable:

No containment present.

Score = 15

Source: Site inspection, September 24, 1985, Wehran Engineering

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Specific wastes disposed of are unknown; assume photochemical process wastes, including volatile organics and heavy metals.

Source: K. Goldstein, SUNY Binghamton, Preliminary Register of Hazardous Waste Dump Sites, Broome County, 1981

Compound with highest score:

Heavy Metals

Score = 3

5 TARGETS

Population within one-mile radius

At least 5,000

Score = 4

Source: USGS Quadrangle, Binghamton West, NY

Distance to critical habitat (of endangered species)

No endangered species within one mile of site.

Score = 0

Source: NYSDEC Endangered Species Unit, Significant Wildlife Habitat Maps, Delmar, NY

3/31/83 Well #5

NEW YORK TESTING LABORATORIES, INC.

SAMPLE IDENTIFICATION NO R1700-174

Lab No. 82-64452(D-3)

VOLATILE COMPOUNDS

Parameter	Method No.	CAS No.	Method Detection Limit* (ppb)	Found (ppb)
Acrolein	603, 624	107-02-8	100	ND
Acrylonitrile	603, 624	107-13-1	100	ND
Benzene	624	71-43-2	10	ND
Bromodichloromethane	624	75-27-4	10	ND
Bromoform	624	75-25-2	10	ND
Bromomethane	624	74-83-9	10	ND
Carbon Tetrachloride	624	56-23-5	10	2 ←
Chlorobenzene	624	108-90-7	10	ND
Chlorodibromomethane	624	124-48-1	10	ND
Chloroethane	624	75-00-3	10	ND
2-Chloroethyl vinyl ether	624	110-75-8	10	ND
Chloroform	624	67-66-3	10	3 ←
Chloromethane	624	74-87-3	10	ND
Dichlorodifluoromethane	624	75-71-8	10	ND
1,1-Dichloroethane	624	75-34-3	10	ND
1,2-Dichloroethane	624	107-06-2	10	ND
1,1-Dichloroethylene	624	75-35-4	10	ND
Trans - 1,2-Dichloroethylene	624	156-60-5	10	ND
1,2-Dichloropropane	624	78-87-5	10	ND
1,3-Dichloropropene	624	10061-02-6	10	ND
Ethylbenzene	624	100-41-4	10	ND
Methylene Chloride	624	75-09-2	10	47 ←
1,1,2,2-Tetrachloroethane	624	79-34-5	10	ND
Tetrachloroethylene	624	127-18-4	10	< 1.0 ←
Toluene	624	108-88-3	10	2 ←
1,1,1-Trichloroethane	624	71-55-6	10	< 1.0 ←
1,1,2-Trichloroethane	624	79-00-5	10	1.0 ←
Trichloroethylene	624	79-01-6	10	< 2 ←
Trichlorofluoromethane	624	75-69-4	10	ND
Vinyl chloride	624	75-01-4	10	ND

ND = None Detected
< = Less than

*EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

SAMPLE IDENTIFICATION NO.R1700-174

Lab No. 82-64452(D-3)

BASE/NEUTRAL COMPOUNDS

Parameter	Method No.	CAS #	Method Detection Limit * (ppb)	Found (ppb)
Acenaphthene	625	83-32-9	10	ND
Acenaphthylene	625	208-96-8	10	ND
Anthracene	625	120-12-7	10	ND
Benzo (a) anthracene	625	56-55-3	10	ND
Benzo (b) fluoroanthene	625	205-99-2	10	ND
Benzo (k) fluoroanthene	625	207-08-9	10	ND
Benzo (a) pyrene	625	50-32-8	10	ND
Benzo (g,h,i) perylene	625	191-24-2	25	ND
Benzidine	625	92-87-5	10	ND
Bis (2-chloroethyl) ether	625	111-44-4	25	ND
Bis (2-chloroethoxy) methane	625	111-91-1	10	ND
Bis (2-ethylhexyl) phthalate	625	117-81-7	10	< 10 ←
Bis (2-chloroisopropyl) ether	625	39638-32-9	10	ND
4-Bromophenyl phenyl ether	625	101-55-3	10	ND
Butylbenzylphthalate	625	85-68-7	10	ND
2-Chloronaphthalene	625	91-58-7	10	ND
4-Chlorophenylphenylether	625	7005-72-3	10	ND
Chrysene	625	218-01-9	10	ND
Dibenzo (a,h) anthracene	625	53-70-3	25	ND
Di-N-Butylphthalate	625	84-74-2	10	< 10 ←
1,2-Dichlorobenzene	625	95-50-1	10	ND
1,3-Dichlorobenzene	625	541-73-1	10	ND
1,4-Dichlorobenzene	625	106-46-7	10	ND
3,3'-Dichlorobenzidine	625	91-94-1	10	ND
Diethylphthalate	625	84-66-2	10	ND
Dimethylphthalate	625	131-11-3	10	ND

ND = None Detected
< = Less than

*EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

SAMPLE IDENTIFICATION NOB1700-174

Lab No. 82-64452(D-3)

BASE/NEUTRAL COMPOUNDS - continued

Parameter	Method No.	CAS #	Method Detection Limit* (ppb)	Found (ppb)
2,4-Dinitrotoluene	625	121-14-2	10	ND
2,6-Dinitrotoluene	625	606-20-2	10	ND
Di-octyl-phthalate	625	117-84-0	10	ND
1,2-Diphenylhydrazine	625	112-66-7	10	ND
Fluoroanthene	625	206-44-0	10	ND
Fluorene	625	86-73-7	10	ND
Hexachlorobenzene	625	118-74-1	10	ND
Hexachlorobutadiene	625	87-68-3	10	ND
Hexachloroethane	625	67-72-1	10	ND
Hexachlorocyclopentadiene	625	77-47-4	10	ND
Indeno (1,2,3-cd) pyrene	625	193-39-5	25	ND
Isophorone	625	78-59-1	10	ND
Naphthalene	625	91-20-3	10	ND
Nitrobenzene	625	98-95-3	10	ND
N-Nitrosodimethylamine	625	62-75-9	25	ND
N-Nitrosodi-N-propylamine	625	621-64-7	10	ND
N-Nitrosodiphenylamine	625	86-30-6	10	ND
Phenanthrene	625	85-01-8	10	ND
Pyrene	625	129-00-0	10	ND
1,2,4-Trichlorobenzene	625	120-82-1	10	ND
2,3,7,8-Tetrachlorodibenzo -p-dioxin	625	1746-01-6	-	-

ND = None Detected
< = Less than

*EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

SAMPLE IDENTIFICATION NO. R1700-174

Lab No. 82-64452(D-3)

ACID COMPOUNDS

Parameter	Method No.	CAS #	Method Detection Limit * (ppb)	Found (ppb)
4-Chloro-3-methylphenol	625	59-50-7	25	ND
2-Chlorophenol	625	95-57-8	25	ND
2,4-Dichlorophenol	625	120-83-2	25	ND
2,4-Dimethylphenol	625	105-67-9	25	ND
2,4-Dinitrophenol	625	51-28-5	250	ND
2-Methyl-4,6-dinitrophenol	625	534-52-1	250	ND
2-Nitrophenol	625	88-75-5	25	ND
4-Nitrophenol	625	100-02-7	25	ND
Pentachlorophenol	625	87-86-5	25	ND
Phenol	625	108-95-2	25	ND
2,4,6-Trichlorophenol	625	88-06-02	25	ND

ND = None Detected
< = Less than
*EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

 SAMPLE IDENTIFICATION R 1-700-174 Lab No. 82-64452 (D-3)

METALS AND PHYSICAL CHEMISTRY

Parameters (µg/l)	Method No.	CAS #	Method Detection Limit*	Found
Cyanide, Total	335.2	57-12-5	20	ND
Phenols, Total	420.1	--	5	ND
Antimony	204.1	7440-36-0	200	ND
Arsenic	206.2	7440-38-2	1	9 ←
Beryllium	210.1	7440-41-7	5	ND
Cadmium	213.1	7440-43-9	5	ND
Chromium	218.1	7440-47-3	50	ND
Copper	220.1	7550-50-8	20	28 ←
Lead	239.1	7439-92-1	100	ND
Mercury	245.1	7439-97-6	0.2	0.6 ←
Nickel	249.1	7440-02-0	40	ND
Selenium	270.2	7782-49-2	2	< 2 ←
Silver	272.1	7440-22-4	10	ND
Thallium	279.1	7440-28-0	100	ND
Zinc	289.1	7440-66-6	5	23 ←

ND = None Detected

< = Less than

* EPA published method detection limit

SUMMARY OF WELLS USED FOR DETERMINATION OF REGIONAL GROUNDWATER FLOWS

Location	Owner	Aquifer	Altitude	Water Level(ft.)	Date
4206-21-7556-25	USGS	Unconsolidated gravel	869	25	10-66
4206-45-7556-13	Anitec	Unconsolidated gravel	840	33	10-68
4206-36-7555-42[1]	Anitec	Unconsolidated gravel	848	—	—
4206-12-7555-47	USGS	Bedrock, late devonian	867	17	10-66
4206-38-7555-46[2]	Anitec	Unconsolidated gravel	845	50	10-66
4206-41-7555-57	R. Kocik	None given	840	32	4-66
4206-17-7555-20	USGS	Unconsolidated gravel	856	56	10-66
4206-39-7555-20	USGS	Unconsolidated gravel	852	48	10-66
4206-32-7554-55	USGS	Unconsolidated gravel	840	31	4-66
4206-36-7555-38	Anitec	Unconsolidated gravel	845	49	10-66
4206-34-7556-44	USGS	Unconsolidated gravel	876	53	10-66
4206-38-7556-30	Anitec	Unconsolidated gravel	859	45	4-66

[1] Monitoring Well #3

[2] Monitoring Well #2

Source: A.D. Randall, USGS, Records of Wells and Test Borings in the Susquehanna River Basin, New York, NYSDEC Bulletin 69, 1972

CITY OF BINGHAMTON

WATER SUPPLY WELLS

Location	Aquifer	Depth	Yield
4206-58-7554-16	QG	51	708
4206-12-7553-41	QG	23	1,400

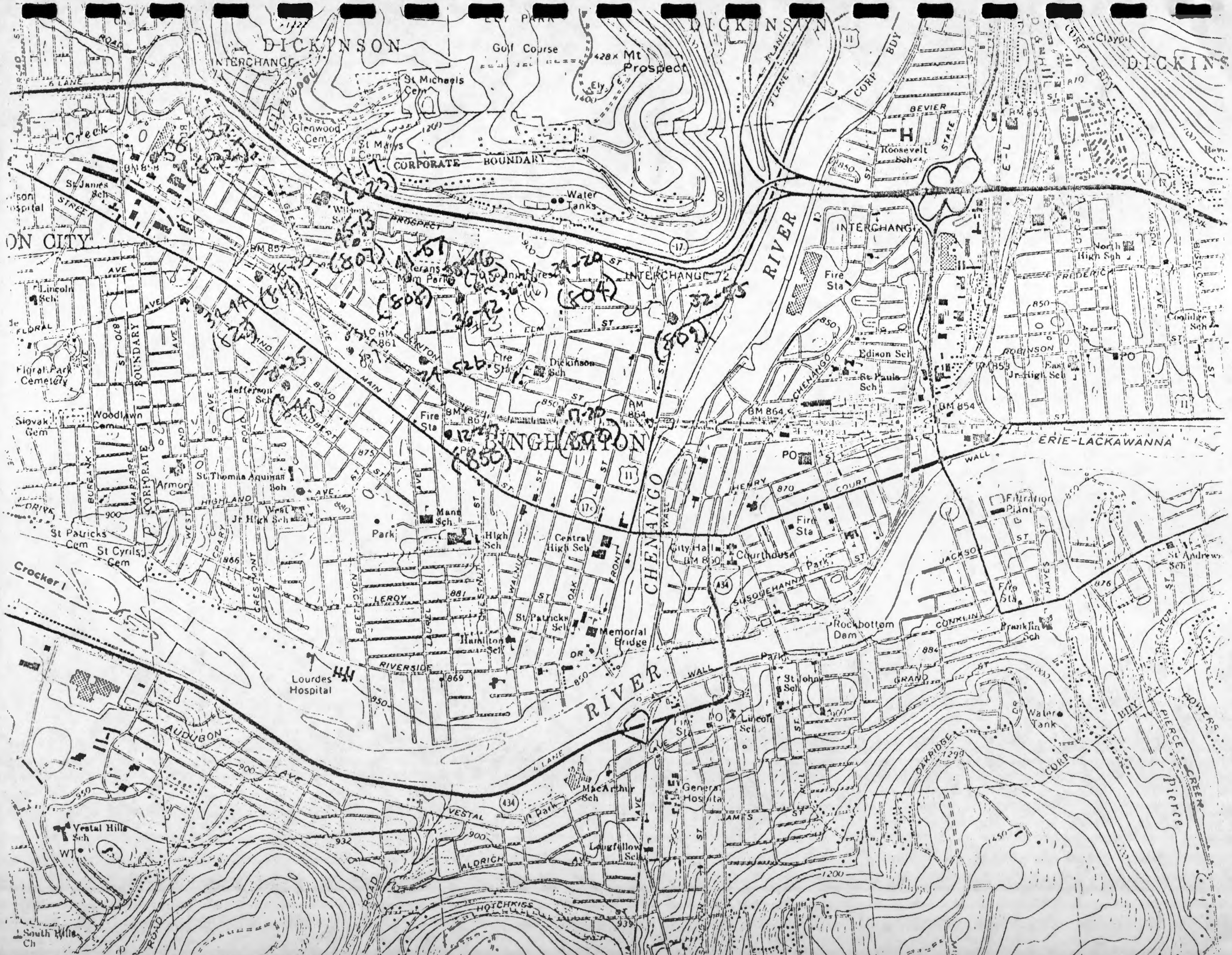
JOHNSON CITY

WATER SUPPLY WELLS

4206-46-7558-40	QG	100	2,100
4206-46-7558-42	QG	101	2,180
4206-46-7558-42	QG	89	2,200
4207-11-7557-24	QG	80	2,400
4207-2-7557-32	QG	98	900
4207-3-7557-46	QG	117	1,900
4207-3-7558-17	QG	109	840

QG: Unconsolidated deposits (sand and gravel) Pleistocene Age.

Source: A.D. Randall, USGS, Records of Wells and Test Borings in the Susquehanna River Basin, New York, NYSDEC Bulletin 69, 1972



DICKINSON
INTERCHANGE
ELY PARK
Golf Course
Mt Prospect
St Michaels Cem
Glenwood Cem
St Marys Cem
CORPORATE BOUNDARY
Water Tanks
PROSPECT
INTERCHANGE 72
Roosevelt Sch
BEVIER
STATE
CORP BDY
INTERCHANGE
RIVER
North High Sch
FREDERICK
Fire Sta
Coolidge Sch
Edison Sch
ROBINSON
East Jr High Sch
St Pauls Sch
CHENANGO
ON CITY
St James Sch
Hospital
Lincoln Sch
FLORAL
Floral Park Cemetery
BOUNDARY
Woodlawn Cem
Slovak Cem
Jefferson Sch
Veterans Mem Park
Dickinson Sch
CLINTON
MAIN
Fire Sta
BINGHAMTON
ERIE-LACKAWANNA
COURT
WALL
HENRY
PO
St Thomas Aquinas Sch
Armory
HIGHLAND
West Jr High Sch
Mann Sch
Park
High Sch
Central High Sch
City Hall
Courthouse
Fire Sta
Filtration Plant
JACKSON
St Andrews Sch
St Patricks Cem
St Cyrils Cem
Crocker I
LEROY
SUSQUEHANNA
Park
Fire Sta
CONKLIN
Rockbottom Dam
Franklin Sch
St Patricks Sch
Memorial Bridge
Hamilton Sch
RIVERSIDE
Lourdes Hospital
RIVER
St Johns Sch
Lincoln Sch
GRAND
Water Tank
AUDUBON
VESTAL
MacArthur Sch
General Hospital
JAMES
OAKRIDGE
Pierce Creek
Vestal Hills Sch
Longfellow Sch
ALDRICH
HOTCHKISS
South Hills Ch

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC Phase I Round 3

PROJ. No. 04339 EX

PROJECT GAF Dump

DATE May 20, 1985

TIME 11:50 a.m.

CALL TO/FROM Melanie Sviatyla

REPRESENTING Engineer, Broome Co. Health Department

PHONE No. 607-772-2887

SUMMARY OF CONVERSATION:

Previous employee of GAF. Reported that 55 gallon drums of waste materials were just dumped out on the site.

GAF probably stopped using site 10 years ago.

Site currently fenced and some areas are tarred over and are now used as a parking lot.

Trout Brook was sampled in 1971; will send final report on results.

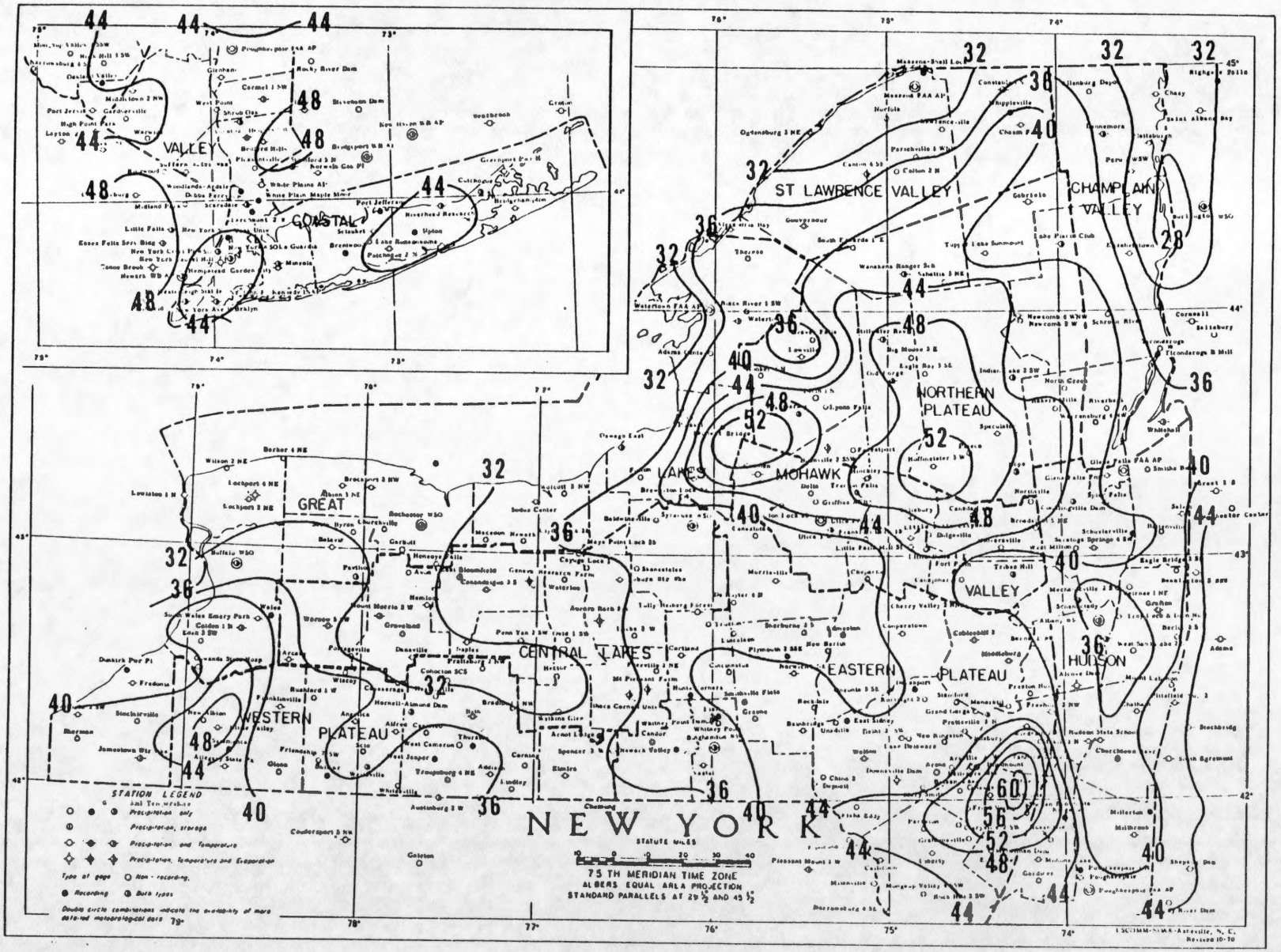
COPIES TO: _____

BY: Fran C. Geissler

Fran Geissler

WEHRAN ENGINEERING
CONSULTING ENGINEERS

MEAN ANNUAL PRECIPITATION, INCHES



Data are based on the period 1931-55. Isolines are drawn through points of approximately equal value. Caution should be used in interpolating on these maps, particularly in mountainous areas.

National Oceanic and Atmospheric Administration, Climates of the States, Vol. 2, p. 719, 1978.

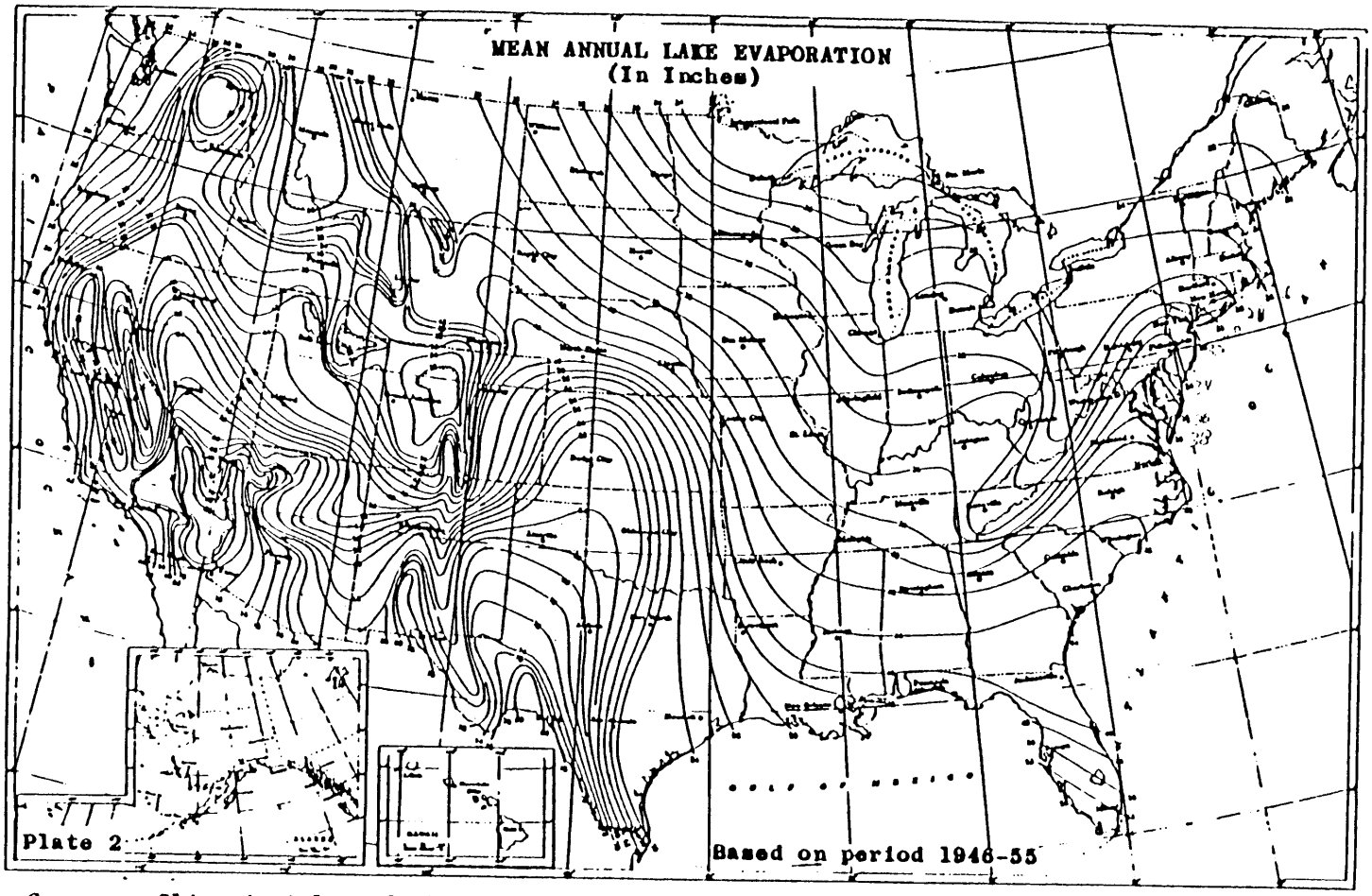
Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984



Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

FIGURE 4
MEAN ANNUAL LAKE EVAPORATION
(IN INCHES)

TABLE 2

PERMEABILITY OF GEOLOGIC MATERIALS*

Type of Material	Approximate Range of Hydraulic Conductivity	Assigned Value
Clay, compact till, shale; unfractured metamorphic and igneous rocks	$<10^{-7}$ cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till	$10^{-5} - 10^{-7}$ cm/sec	1
Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till	$10^{-3} - 10^{-5}$ cm/sec	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite	$>10^{-3}$ cm/sec	3

*Derived from:

Davis, S. N., Porosity and Permeability of Natural Materials in Flow-Through Porous Media, R.J.M. DeWest ed., Academic Press, New York, 1969

Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., New York, 1979

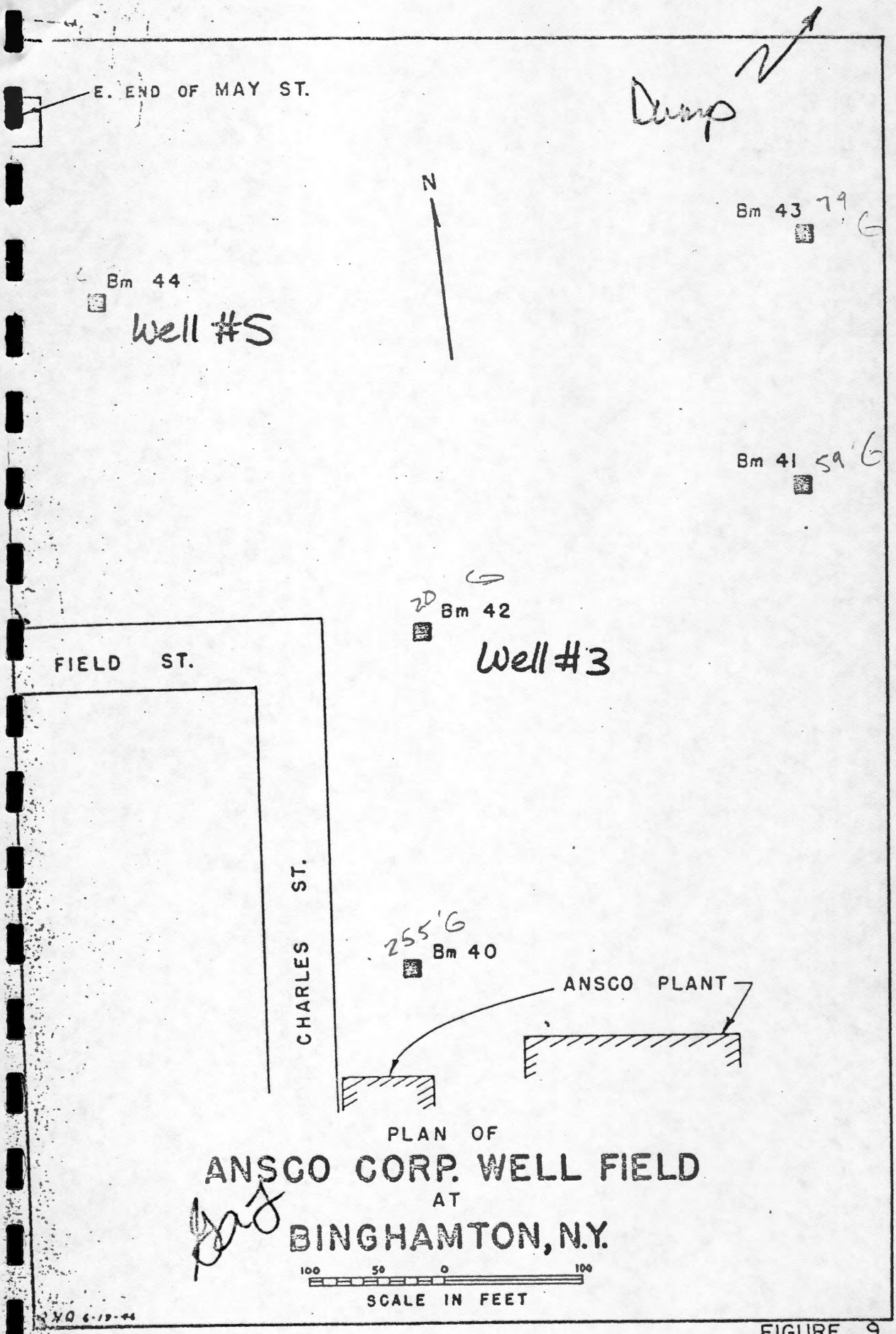

E. END OF MAY ST.
Dump
N
Bm 43
Bm 44
Well #5
Bm 41
Bm 42
Well #3
FIELD ST.
CHARLES ST.
Bm 40
ANSCO PLANT
PLAN OF
ANSCO CORP. WELL FIELD
AT
BINGHAMTON, N.Y.
100 50 0 100
SCALE IN FEET

FIGURE 9

4206 18 7555 13

11259

Bm. 37. Ritz Theatre, Binghamton. North side of Clinton St. near (est of) Murray St. Drilled by H. H. Cranston and Son in June 1938. ltitude 850 feet above mean sea level. Driller's log.

	Thickness (feet)	Depth (feet)
Gravel, coarse, & sand, some clay, yellow.....	7	7
Sand, gravel & clay, yellow.....	35	42
Sand, coarse with some gravel (small vol. of water)	5	47
Sand & gravel, some clay, thin layer of gravel with water.....	13	60
Sand, gravel & clay, some cobbles, thin layers of gravel with water.....	20	80
Sand, very fine, dirty.....	2	82
Sand, fine, some gravel.....	5	87
Sand, hard packed, some gravel.....	6	93
Gravel & fine sand, some water.....	4	97
Sand, fine.....	3	100
Sand & gravel.....	2	102
Sand & gravel, some clay.....	3	105
Sand & gravel, fine.....	3.5	108.5
Clay, light bluish gray, blue pebbles.....	2.5	111
Residual shale gravel.....	2	113
Shale.....	97	210

Casing:	8-inch.
Depth:	135 feet.
Screen:	10 feet by 5-inch Johnson No. 80 slot set at 105.8 feet.
Static water level:	24.5 feet.
Drawdown:	15.5 feet.
Yield:	50 gallons a minute.
Installed pump capacity:	50 gallons a minute.
Aquifer:	Sand and gravel from 96 to 106 feet.

Bm. 38.* Ansco Corp., Binghamton. Northwest corner of Spruce and Streets. Drilled in 1942. Altitude 838 feet above mean sea level. iller's log.

4206 31 7555 13

(Continued on next page)

Bm. 38.* (Cont'd.)

	Thickness (feet)	Depth (feet)
Ashes and clay	9	9
No record	3	12
Silt, sand very fine with clay	53	65
No record	5	70
Gravel, coarse and medium, large stones	40	110
Sand, fine	5	115
Silt and sand, fine	5	120
Sand, coarse, and gravel, fine	5	125
No record	3	128
Rock, blue shale	7	135

Casing: 24-inch.
Depth: 100 feet.
Screen: 35 feet by 24 inch.
Static water level: 30 feet.
Yield: 1,100 gallons a minute.
Installed pump capacity: 1,200 gallons a minute.

(Note: For additional data see table 1.)

Bm. 39. Ansco Corp., Binghamton. About 180 feet north of Elm St. and about 160 feet east of West St. extended. Drilled in 1941. Altitude 843.9 feet above mean sea level. Driller's log.

4206 29 7555 36

	Thickness (feet)	Depth (feet)
Sand, fine, gravel, medium, and some clay	116	116
Rock at		116

Quicksand layers at 40, 50, 75 and 80 feet.
Medium gravel layers at 90, 95, 105 and 114 feet.
Clay layers at 100 and 110 feet.

Casing: 6-inch.
Depth; 116 feet.
Static water level: 43 feet.

Well is not in use and is available for observation purposes.

4206 34 7555 42 11259

Bm. 40. Ansco Corp., Binghamton. East side of Charles St. about 360 eet north of Grace St. Drilled in 1935. Altitude 848.5 feet above mean a level. Driller's log.

	Thickness (feet)	Depth (feet)
No record	25.5	25.5
Gravel, medium	15	40.5
Gravel, medium and sand, fine	40	80.5
Gravel, medium and hardpan	5	85.5
Gravel, coarse	15	100.5
Gravel, medium and sand	12	112.5
Rock at		112.5

Casing: 12-inch.
Depth: 100 feet.
Screen: Cook, 15 feet by 12-inch by 3/32-inch slots from 63.5 to 78.5 feet.
Drawdown: 10 feet.
Yield: 250 gallons a minute.
Installed pump capacity: 800 gallons a minute.
Aquifer: Medium gravel and fine sand.

(Note: For additional data see table 1.)

Bm. 41. Ansco Corp., Binghamton. About 380 feet east of Charles St. and about 120 feet north of Field St. extended. Drilled in 1935. Altide 848.5 feet above mean sea level. Driller's log.

UNKNOWN

	Thickness (feet)	Depth (feet)
No record	34	34
Sand, fine	25	59
Sand and silt	5	64
Gravel, medium and sand	5	69
Gravel, coarse	5	74
Gravel, medium	5	79
Gravel, coarse	5.5	84.5
Sand and clay, at		84.5

(Continued on next page)

41. (Cont'd.)

Casing:	12-inch.
Depth:	100 feet.
Screen:	Cook, 10 feet by 12-inch by 3/32-inch slots from 74.5 to 84.5 feet.
Drawdown:	15 feet.
Yield:	200 gallons a minute.
Installed pump capacity:	500 gallons a minute.
Aquifer:	Gravel, coarse and medium.

(Note: For additional data see table 1.)

Bm. 42.* Ansco Corp., Binghamton. East side of Charles St. at Field t. Drilled in 1935. Altitude 848.5 feet above mean sea level. Driller's

4206 36 7555 42 Well #3

	Thickness (feet)	Depth (feet)
No record	20.5	20.5
Gravel, medium, and sand	15	35.5
Gravel, medium, and stones	15	50.5
Gravel, medium	10	60.5
Gravel, coarse	15	75.5
Gravel, medium and fine	15	90.5
Gravel, fine	5	95.5
Gravel, medium, and clay	10	105.5
Gravel, fine, and clay	5	110.5
Sand and clay	10	120.5
Gravel, fine, and sand	5	125.5
Gravel, fine, and clay	7	132.5

Casing:	16-inch.
Depth:	100 feet.
Screen:	Cook, 28 feet by 16-inch by 3/32-inch slots from 64.5 to 92.5 feet.
Drawdown:	4 feet.
Yield:	1,200 gallons a minute.
Installed pump capacity:	2,000 gallons a minute.
Aquifer:	Gravel, coarse, medium, and fine.

(Note: For additional data see table 1.)

UNKNOWN

11259

Bm. 43. Ansco Corp., Binghamton. About 185 feet north of well m. 41. Drilled in 1935. Altitude 848.5 feet above mean sea level. riller's log.

	Thickness (feet)	Depth (feet)
No record	79	79
Gravel, coarse	15	94
Gravel, medium, and clay	5	99

Casing: 12-inch.
Depth: 100 feet.
Screen: Cook, 10 feet by 12-inch by 3/32-inch slots from 79.5 to 89.5 feet.
Drawdown: 12 feet.
Yield: 150 gallons a minute.
Installed pump capacity: 300 gallons a minute.
Aquifer: Gravel, coarse.

(Note: For additional data see table 1.)

Bm. 44. Ansco Corp., Binghamton. About 260 feet north of Field St. d about 140 feet west of Charles St. extended. Drilled in 1937. Altiude 848.5 feet above mean sea level. Driller's log. Well #5

4206 38 7555 46

	Thickness (feet)	Depth (feet)
No record	18.5	18.5
Gravel, medium	10	28.5
Gravel, medium, and sand	5	33.5
Gravel, medium	5	38.5
Gravel, coarse	9	47.5
Stones, coarse	3	50.5
Sand, fine	25	75.5
Gravel, medium, and sand	5	80.5
Gravel, medium, and rock	5	85.5
Sand, fine	5	90.5
Gravel, coarse, and sand	5	95.5
Gravel, medium, and sand	9	104.5
Gravel, fine, and sand	17	121.5
Rock at		121.5

(Continued on next page)

Bm. 44. (Cont'd.)

Casing:	18-inch.
Depth:	100 feet.
Screen:	Cook, 25 feet by 18-inch by 3/32-inch slots from 92.6 to 117.6 feet.
Drawdown:	7 feet.
Yield:	1,800 gallons a minute.
Installed pump capacity:	2,000 gallons a minute.
Aquifer:	Gravel, coarse, medium and fine, and sand.

(Note: For additional data see table 1.)

Bm. 45. Ansco Corp., Binghamton. Western side of Colfax Ave. at May St. Drilled in 1941. Altitude 840 feet above mean sea level. Driller's log.

UNKNOWN

	Thickness (feet)	Depth (feet)
Clay, gravel, medium and coarse, and sand.....	65	65
No record.....	5	70
Sand, very fine, and clay.....	18	88
No record.....	2	90
Rock, blue shale, at.....		90

Casing:	8-inch.
Depth:	90 feet.

Well is not in use and is available for observation purposes.

Bm. 46. Ansco Corp., Binghamton. Southeast corner of intersection of Ema St. and DL & W R. R. Drilled in 1941. Altitude 856.2 feet above mean sea level. Driller's log.

4206 38 7556 30

	Thickness (feet)	Depth (feet)
Sand, fine, and gravel, medium.....	45	45
Sand, fine, gravel, and some clay.....	15	60
No record.....	5	65
Gravel, coarse ($\frac{1}{2}$-inch), and sand, fine.....	10	75
No record.....	5	80
Clay and sand, fine.....	10	90
No record.....	2	92
Rock, blue shale, at.....		92

(Continued on next page)

Bm. 46. (Cont'd.)

Casing:	6-inch.
Depth:	92 feet.
Static water level:	40 feet.

Well is not in use and is available for observation purposes.

Bm. 47. Water Dep't., Village of Johnson City. Near southwest corner of pool in C. F. Johnson Park. Drilled by Kelly Well Drilling Co. in 1928. Altitude 850 feet above mean sea level. Driller's log.

4206 58 7556 53

	Thickness (feet)	Depth (feet)
Clay and stones	12	12
Clay and sand	8	20
Clay and sandy	8	28
Sand and clay	7	35
Sand, hard, and gravel	10	45
Sand, fine	13	58
Clay	2.7	60.7
Boulders at		60.7

Casing:	25-inch.
Depth:	61 feet.
Screen:	26 feet set from 35 to 61 feet.
Static water level:	18 feet.
Drawdown:	4 feet.
Yield:	500 gallons a minute.
Installed pump capacity:	1,000 gallons a minute.

Well is for emergency and pool filling use only.

Bm. 48. Water Dep't., Village of Johnson City. Northwest corner of Ball Park at North and North Broad Sts. Drilled by Kelly Well Drilling Co. in 1928. Altitude 840 feet above mean sea level. Driller's log.

(Continued on next page)

Winston Fassone · F. Geissler · Scientist
K. Malloy · Scientist
T. Haelen · Geologist

Sept. 24, 1985

Site # 704011

SITE INSPECTION FORM

SITE NAME: GAF Dump   RCRA #: ______

LOCATION: Prospect St. Binghamton, Broome Co.

OWNER/REPRESENTATIVE: Mr. C.F. Bien, GAF Corp Wayne NJ
plant produced photo film now owned by Anitec Corp.

DISPOSAL METHODS: ☐ OPEN DUMP ☐ PIT/LAGOON ☐ LANDFILL ☒ OTHER
plant used since WW II

DESCRIBE: waste liquids spilled out of drums onto ground surface

ENVIRONMENTAL CONTROLS: NONE

LINER ______
COVER ______
LEACHATE COLLECTION ______
FENCING yes but no secure
CUT-OFF WALL ______
OTHER ______

WASTE TYPES: ☐ SOLID ☐ INDUSTRIAL ☒ LIQUID ☐ MUNICIPAL ☐ SLUDGES

DESCRIBE: ______

DESCRIPTION OF SITE VICINITY: mixed residential + commercial, see topo map

SOIL TYPE: fill: demo debris SITE SLOPE: 4% FLORA STRESS: none

FAUNA STRESS: none   intervening slope ≤ 2% to Trout Br.

NEAREST WELL: ☒ INDUSTRIAL ☐ MUNICIPAL ☐ PRIVATE ☐ OTHER

DESCRIBE: W/i 500'

NEAREST SURFACE WATER:

☐ LAKE ☒ ONSITE ☒ STREAM

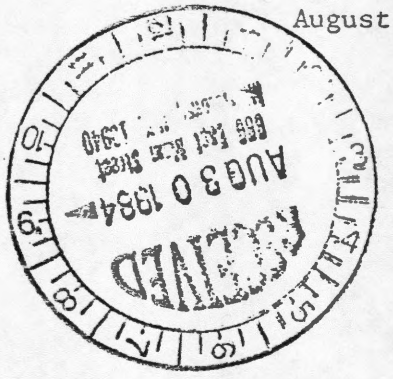
DESCRIBE: Trout Brook 66" storm sewer discharges to Chenango R.

OTHER INFORMATION: 2/3 site abandoned asphalt parking lot
1/3 filled w/ demo debris, ungraded + weed covered
fenced but not secure, dirt bikes etc. use site
fill ± 10' deep deposited ± 8-12 yrs ago

" dump was used informally, like a backyard... things were thrown over the fence..." C.F. Bien

BROOME COUNTY ENVIRONMENTAL MANAGEMENT COUNCIL

August 28, 1984



Ms. Constance Gasparovic
Wehran Engineering
Consulting Engineers
666 East Main Street
Middletown, New York 10940

Dear Ms. Gasparovic:

Enclosed please find the only information assembled by the Broome County Environmental Management Council regarding hazardous waste dump sites. A potential contact person for further information is Robert Denz, Broome County Health Department. There is no charge for these materials.

Sincerely,

John Kowalchyk
Chief Planner

JK/nt

Enclosure

772-2116

PRELIMINARY

Register of Hazardous Waste Dump Sites, Broome County, New York 1981

By

Principle Author

Kenneth Goldstein

Contributing Authors

Karen Berk

Elizabeth Hagg

State University of New York, Binghamton
Department of Geography
Internship Program
for the
Broome County Environmental Management Council

Introduction

In 1979, Broome County's Environmental Management Council published the Broome County Toxic Waste Inventory, its first effort to identify hazardous waste dump sites in the County. This report, representing the Council's second effort, goes beyond the 1979 report by including environmental variables related to the dump sites' potential effect on human health. These variables include soil types at the site, a measure of permeability of those soils, average population density in adjacent areas, and land use. The Register also contains data (where available) on the location of wells and test borings drilled near the dump sites.

Each entry lists information sources used to identify the sites, their users, and materials dumped there. These include published sources and/or information provided by local citizens as a result of an information-gathering campaign initiated by the Council. Other sources include the Soil Survey, Broome County, New York (U.S. Dept. of Agriculture, March 1971) for soil data, and the Broome County Land Use Plan (Broome County Planning Department, June 1977) for population and land use data. Wells and test borings information was obtained from Records of Wells and Test Borings in the Susquehanna River Basin, New York (N.Y.S. Dept. of Environmental Conservation, Bulletin 69, 1972).

Maps showing dump sites, wells, and test borings locations appear to the left of each entry in the Register. Base maps are portions of the Council's Natural Resource Inventory map series.

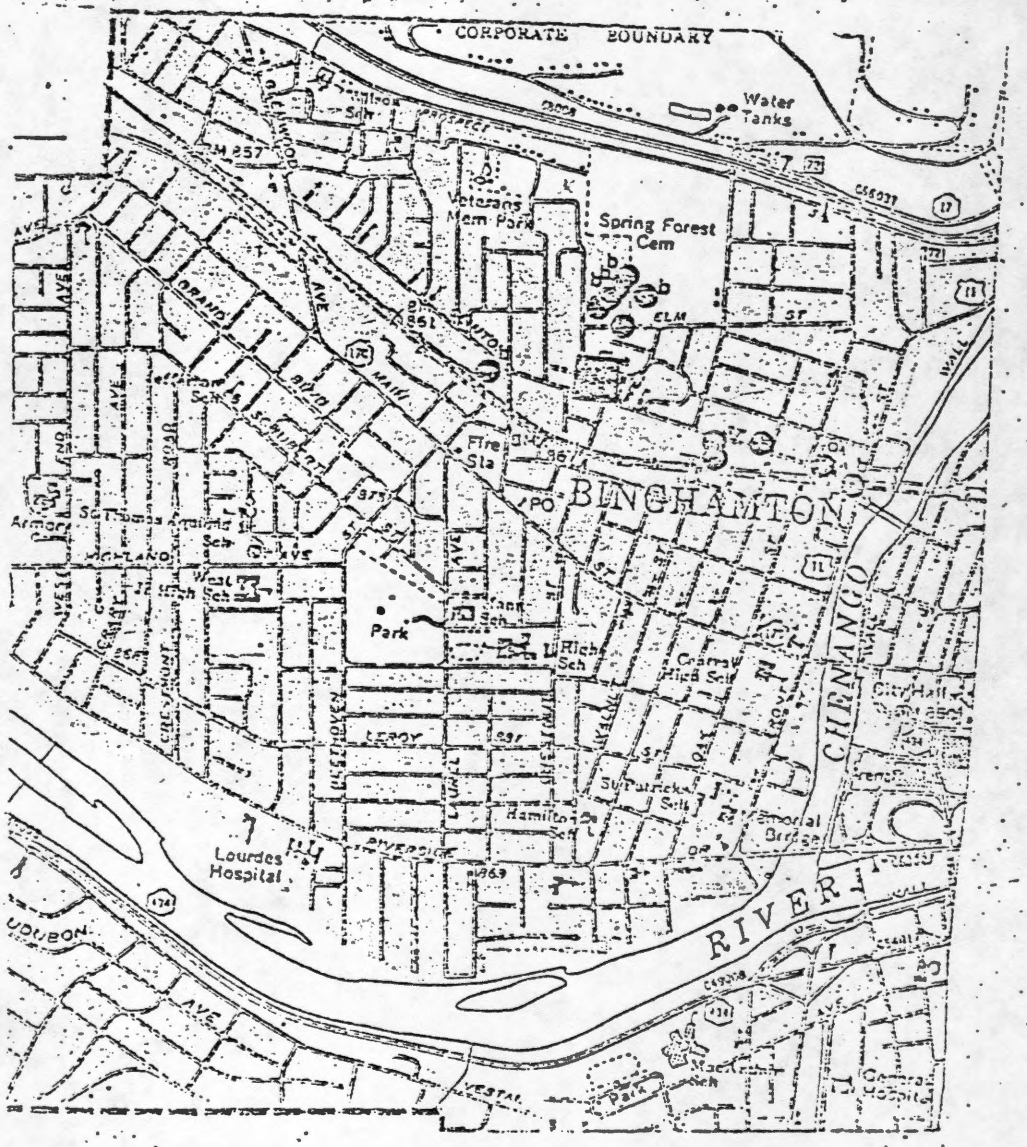
This effort is not considered a definitive register of all hazardous waste dump sites in Broome County. The Council will update the Register whenever information on any site (whether active or closed) becomes available. Local citizens and government officials are encouraged to call the Environmental Management Council at 772-2116 if they have any further information on hazardous waste dump sites documented in this report or information on suspected sites not included here.

LEGEND

DUMP SITES

SUPPLY WELLS

WELL BORINGS


CORPORATE BOUNDARY
Water Tanks
Veterans Mem Park
Spring Forest Cem
ELM
BRAND
MAIN
Fire Sta
P.O.
BINGHAMTON
Park
Rich Sch
Central High Sch
City Hall
LEROY
BEETHOVEN
Hamilton
St Patricks Sch
Memorial Bridge
CHENANGO
RIVER
Lourdes Hospital
AUDUBON
AVE
VESTAL
Mack Park
General Hospital

SITE LOCATION:

GAF dump, Charles Street and Grace Street, Binghamton, New York.

STATUS:

Closed

WASTE MATERIAL:

Industrial, photo chemical by-products.

SOIL SERIES:

Cut and fill lands, used to be marshland.

POPULATION DENSITY AND LAND USE:

34-54 people/acre, Residential/Commercial

PRIORITY:

4 (moderately high)

COMMENTS:

INFORMATION SOURCES:

USERS:

GAF

WELLS AND TEST BORINGS:

24-52b, 17-20, 16-19, 18-13, 15-03b, 14-00b, 31-32b, 28-34, 29-36, 32-35b, 31-35b, 30-36b.

SURFACE WATER:

GROUND WATER:

GAF CORPORATION
1361 Alps Road
Wayne NJ 07470
201 628 3000

Mr. Manden Chen
Bureau of Hazardous Site Control
Division of Solid and Hazardous Waste
N.Y. Department of Environmental Conservation
Albany, N.Y. 12233-0001

November 27, 1984

Re: GAF-Dump ID# 704011
Binghamton/Broome County

Dear Sirs:

GAF has searched its records in response to DEC's September 28 request for information concerning the Binghamton site. GAF has attempted to compile all currently available information consistent with the Environmental Conservation Law (ECL), Section 27-1307.

As provided by Section 27-1307(2), GAF cannot fully comply with DEC's request for information because no records remain. GAF has no knowledge of records or of anyone who can provide information concerning the types or quantities of wastes deposited at Binghamton.

Consequently, GAF is also without information about the period of operation, description of practices, including testing, monitoring or remedial action. There has not been, to GAF's knowledge, any health or environmental problem resulting from disposal of waste at this site.

This response follows a significant effort to locate records which may have provided additional information. Please contact me at (201) 628-4021 if you have any additional questions concerning this matter.

Sincerely yours,

Jeffrey H. Teitel
Associate Counsel

JHT:er

cc: C.F. Bien

Leonard Pascullo
201-628

Water Users w/i 3 mi

1) Johnson City Waterworks — 13 wells => located between 2-3 miles from site
serves Union, Town of — 18000 pop.
item #B on map

2) Binghamton, City of — 2 wells + Susquehanna River => intake from river is upstream, wells located on other side of hydraulic discontinuity (i.e. other side of Susquehanna R.)
item #3 on map

55 & 60 pop.

3) Binghamton WD #1-7 — purchase from Binghamton City
serves Town of Binghamton
total 1,256 pop.

4) Dickinson WD #5 — purchase from Johnson City
serves T. of Dickinson — 102 pop.

5) Dickinson WD #6, 2, 7, 1, 3 — purchase from Binghamton City
serves T. of Dickinson — total pop. 2,292

6) Kirkwood #4 — purchased from Binghamton City
serves T. of Kirkwood

256 pop.

7) Kirkwood #1, 3, 4 ext #1, 3 Langdon Park, 3 ext #1 — purchased from #4 (Binghamton City)
serves T. of Kirkwood — total pop. 1402

Use unit

⑧ Port Dickinson Village — purchased from Binghamton Ci
serves T. of Dickinson

1734 pop.

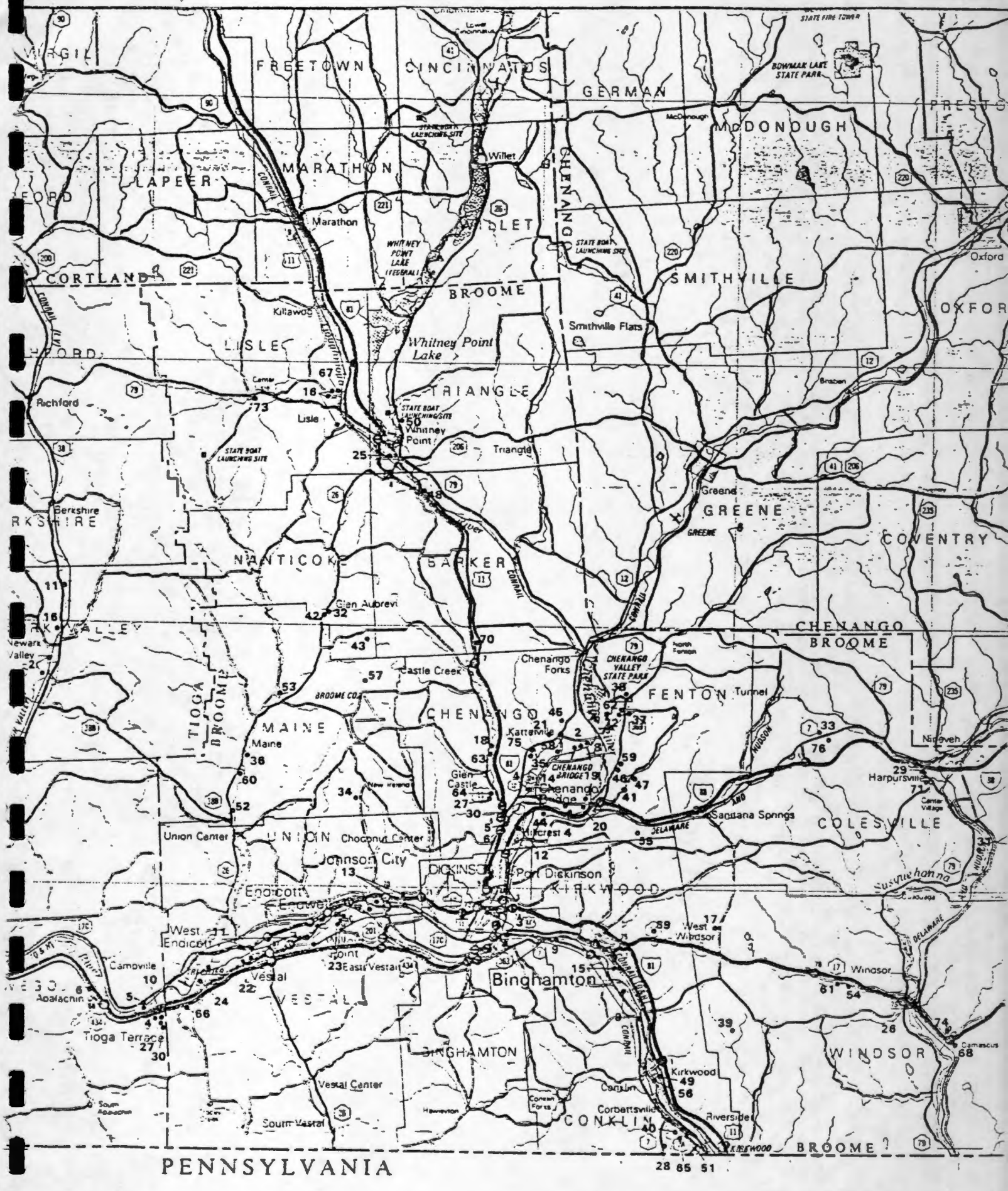
⑨ Vestal WD #6 — purchased from Binghamton Ci
serves T. of Vestal

6000 pop.

SUMMARY

system	Pop. served
Binghamton City	68,800
Johnson City Waterworks	18,102
total pop served	86,902

SOURCES: NYS Atlas of Community Water System Sources, 19
NYS DOH.
Inventory - Community Water Systems, Vol. I - Muni
1984, NYSDOH.


VIRGIL
FREETOWN
CINCINNATUS
GERMAN
McDONOUGH
PRESTON
LAPEER
MARATHON
Willet
Marathon
CHENANGO
CORTLAND
BROOME
SMITHVILLE
OXFORD
Killawog
Smithville Flats
Whitney Point Lake
LISLE
TRIANGLE
Richford
Lisle
Whitney Point
Triangle
Greene
GREENE
COVENTRY
Berkshire
NANTICOKE
BARKER
Glen Aubrey
CHENANGO
BROOME
Chenango Forks
Castle Creek
FENTON
Turnell
MAINE
Maine
Kattelville
Nineveh
Harpursville
Glen Castle
Chenango Bridge
Sanitana Springs
COLESVILLE
Union Center
UNION
Choconut Center
Johnson City
DICKINSON
Port Dickinson
KIRKWOOD
Endicott
West Endicott
West Windsor
Susquehanna
Campville
Vestal
East Vestal
Binghamton
Windsor
Apalachin
Tioga Terrace
VESTAL
BINGHAMTON
WINDSOR
Kirkwood
Vestal Center
South Vestal
Corbettsville
CONKLIN
Riverside
PENNSYLVANIA
SCALE 1:250,000
5 0 5 MILES
NORTH

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC Phase I Round 3 PROJ. No. 04339 EX

PROJECT GAF Dump DATE May 21, 1986

TIME 2:35 p.m.

CALL TO/FROM Lee Nelson REPRESENTING Cooperative Extension, Horticulture Division

PHONE No. (607) 772-8953

SUMMARY OF CONVERSATION:

Lee Nelson is aware of no such irrigation practices being done within a three mile radius from aquifer of concern of the GAF site. Outside of the City, she is aware of strawberry fields being irrigated, but is over a three mile radius.

COPIES TO: _____

BY: Stephen R. Petrisko

Stephen R. Petrisko

WEHRAN ENGINEERING
CONSULTING ENGINEERS

BROOME COUNTY HEALTH DEPARTMENT

TO: Mrs. F. Geissler, Wehran

FROM: Melonie M. Sviatyla, BCHD

DATE: 5/20/85

RE: GAF dumpsite 774607

Eng Anatech Dan Wright 3322

..... here is the final copy of the report on Trout Brook. If you have any additional questions please feel free to call me @ (607) 772-2887

Do not know methods used in data analysis. Some analysis done @ State Lab in Albany

☐ FOR YOUR INFORMATION

☐ FOR YOUR COMMENTS

☑ INFORMATION AS REQUESTED

:mbf
6/81

This sampling survey is of questionable value since dump site is immediately adjacent to industrial discharge pt. (GAF) (time of survey, had primitive treatment facility) cannot attribute contaminants to dump site - metals may well have been from process.

File

CAF

REPORT ON TROUT BROOK SAMPLING SURVEY

Tributary SR - 44

October 18 - 22 1971

Broome County Health Department - Division of Environmental Health Services

An intensive sampling survey was carried out by personnel of the Division of Environmental Health Services, beginning at 9:00 AM October 18, and extending through 5:00 PM October 22. Hourly samples were taken and visual observations and physical measurements and chemical analyses performed on most samples collected. A total of 104 samples were collected from the 66 " storm sewer line known as Trout Brook. At least five determinations were made for every sample collected. These being color, odor, temperature and PH, while three other determinations, namely DO, COD, and conductivity were run for approximately 60 samples. Finally, MBAS determinations and metals were measured on about 30 samples. Therefore a total of 760 determinations were made.

The permanent sampling station was established in the back of a van truck owned by the Department for storage of equipment, chemicals, glassware, and providing space necessary for running the dissolved oxygen determinations in the field. The location was at manhole #2 (see accompanying map) in Spring Forest Cemetery, near the corner of Elm and Mygatt Streets. This manhole is about 600 feet downstream from the GAF Sampling manhole, and the sampling was therefore essentially the total storm water discharge of GAF. Observations were made throughout the period of the flow of manhole #1, located just upstream from the GAF Plant, and also at the manhole located at Colfax Avenue. The observations showed that no storm water flow was found at these points, and therefore the total flow at manhole #2 was due to a combination of industrial wastes, cooling water wastes, and any storm water waste coming from GAF property, plus whatever storm water may have been coming from the 18 inch line which drains a portion of Prospect Street. However, since there was no measurable flow at the Colfax Avenue point which drains a much larger area, there is good reason to assume there was little or no flow coming from the Prospect Street line. It should also be mentioned that the sampling program was preceded by a long stretch of rather dry weather.

Flows

Estimates of flow were made at manhole #2 by measuring the conduit at a cross -section of the stream within the manhole structure, and taking measurements of the flow velocity. Estimates of flow based on hourly measurements ranged from 3.5 to 5.1 MGD. This corresponds to flow rates of 2,000 gallons per minute to 3,500 gallons per minute.

Violations of Water Pollution Laws

Violations were found of Parts 701.3 of Chapter 10, Title 6 - Official Rules, and Regulations. According to these standards, and reports on the Susquehanna River drainage basin which was assigned the standard of D to Trout Brook (see page 38, Table 1) violations exist in the following respects:

Colored Wastes

The standards require "none alone or in a combination with other substances .... in sufficient amounts .... to impair the waters for any class." Since the waters of Trout Brook discharge as a tributary into the Chenango River, and since the Chenango River is classified B from its mouth to tributary 61, colored wastes make the waters unsuitable for fishing, boating or any other recreational use.

Highly colored wastes were observed in nineteen samples. These colors ranged from milky white to blues, pinks, yellow and brown. By color is meant apparent color which includes not only the color due to substances in solution, but also that due to suspended matter, and was determined on the original sample without filtration or centrifugation. The following color scale was used:

0 - none
1 - trace
2 - faint
3 - pronounced
4 - intense

PH

Values for class B water range from 6.5 and 8.5 and for class D waters, from 6.0 and 9.5 Samples exceeded PH range both on low part and high part of the scale on a number of cases.

Settleable Solids

Under the requirements of Part 701.4, Title 6, Chapter 10 of the Official Rules, and Regulations, no settleable solids are allowed. Considerable settleable matter was measured in at least three samples during the sampling period.

Suspended Solids

There is no mention of suspended solids in the Quality Standards for Class D waters, however, we regard the presence of suspended solids in amounts greater than 25 PPM as having a deleterious effect upon the waters of the Chenango River into which Trout Brook discharges downstream. Irrespective of any possible toxic effects contained in these solids due to substances leached out by water, suspended solids are considered injurious to fish by causing abrasive injuries, clogging gills and respiratory passages of fish and other aquatic organisms. Such solids also have been observed blanketing the stream bottom. This is destructive to food organisms as well as the eggs and young, and destroys spawning beds. Suspended solids in these amounts also screen out light, (a condition known as turbidity) and therefore create conditions inimical to aquatic life and thus reducing the quality of water.

Dissolved Oxygen

D.O.'s of less than 3.0 PPM (for Class D waters) were measured in 63 cases. Every 24 hour period showed numerous violations of the dissolved oxygen standard. It must be remembered that these DO levels were measured in great volumes, since up to 5 MGD of wastes are discharged daily from the GAF plant. These low DO's in the volumes found impose a serious deleterious impact upon the receiving stream.

Toxic Wastes

The principle toxic waste found during the sampling period was silver. Ten samples taken during the test period showed values of greater than 1.0 PPM. We are not fully acquainted with the toxic effect of silver in this amount, but note that the toxic threshold for silver nitrate for stickleback fish is as low as 0.0048 PPM. Since the plant above our sampling point is engaged in the production and processing of photographic film, it is believed that the silver detected is the result of amounts of silver nitrate being discharged from the plant. If necessary, supplementary data can be obtained, more precisely defining this substance.

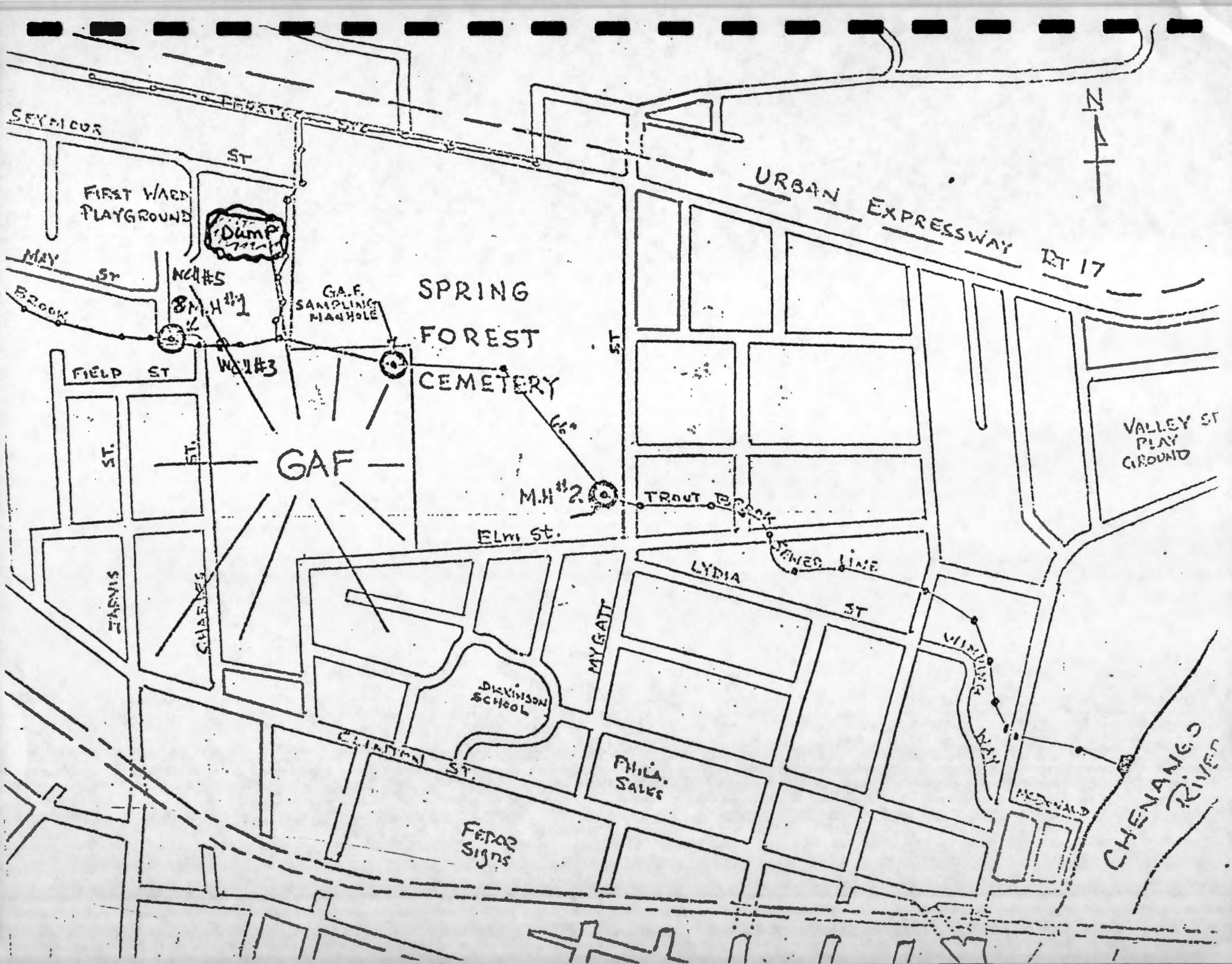
Zinc was also found, and since concentrations of 0.1 to 1.0 PPM have been reported to be lethal to fish, we feel that the amount of zinc pollution is unacceptable. Thirteen samples were found to contain zinc in excess of 0.1 PPM. One sample was as high as 1.66 PPM.

Conclusion

The data collected during the sampling period of October 18 through October 22 demonstrates without question that despite efforts made by GAF to control waste water discharges, serious violations of State pollution control laws occur on a daily basis.

It is recommended that consultation be arranged with officials of GAF and that initial remedial steps be taken immediately by the company to provide necessary industrial waste water treatment required to bring these discharges into compliance with State and County laws.

R. M. Austin
December 17, 1971


SEYMOUR ST
FIRST WARD PLAYGROUND
Dump
MAY ST
BROOK
NC#5
S.M.H #1
G.A.F. SAMPLING MANHOLE
SPRING FOREST CEMETERY
FIELD ST
W.C.#3
GAF
M.H #2
TROUT BROOK
ELM ST.
LYDIA ST
MYGATT
DICKINSON SCHOOL
CLINTON ST.
Phila. Sales
Fedco Signs
URBAN EXPRESSWAY RT 17
VALLEY ST PLAY GROUND
CHENANGO RIVER
N

STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

MARIO M. CUOMO
Governor

GAIL S. SHAFFER
Secretary of State

Published by
DEPARTMENT OF STATE
162 Washington Avenue
Albany, New York 12231

1/83

341	SR-44-14-49-1-1 and tribs.	Trib. of trib. of trib. of Tioughnioga River	Enters trib. 1 of trib. 49 of Tioughnioga River from east 0.7 mile upstream from mouth and 2.4 miles northwest of Freetown Corners.	K-15d	C	C(T)

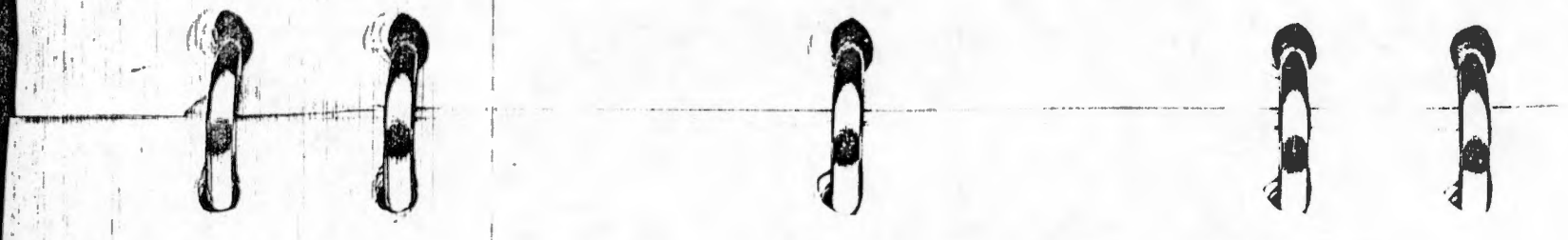
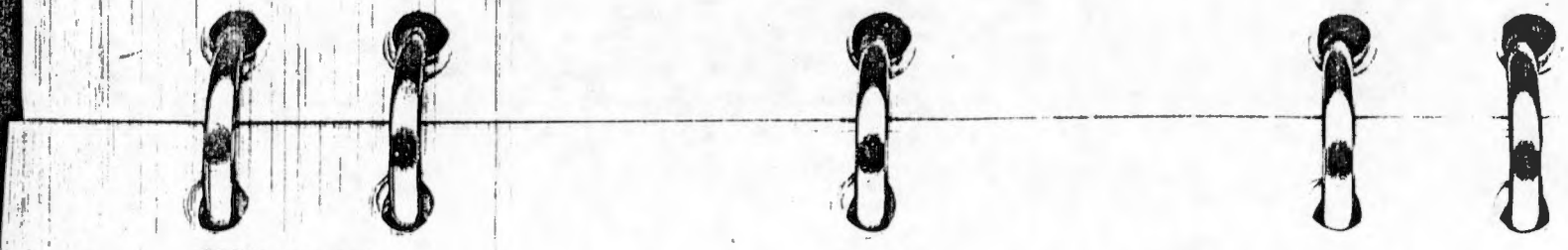


TABLE I *(cont'd)*

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
342	SR-44-14-49-3	Trib. of trib. of Tioughnioga River	Enters trib. 49 of Tioughnioga River from northwest 1.3 miles upstream from trib. 1 and 2.7 miles east of Blodgett Mills.	K-15d	D	D
343	SR-44-14-50,51 52,53 and trib., 56 and trib., 57	Tribs. of Tioughnioga River	Enter Tioughnioga River in section beginning 0.4 mile upstream from trib. 49 and 1.6 miles southeast of Blodgett Mills and extending upstream to a point 0.5 mile north of Blodgett Mills and 1.5 miles southeast of southeast corner of City of Cortland.	K-15d K-15c	D	D
343.1	SR-44-14-55 portion as described and trib.	Trib of Tioughnioga River	Mouth to Kellogg Rd. which crosses stream approx. 0.2 mile upstream of mouth.	K-15d K-15c	D	D
343.2	SR-44-14-55 portion as described	Trib. of Tioughnioga River	From Kellogg Road to source.	K-15c	C	C(TS)
344	SR-44-14-58 portion as described	Trout Brook	Enters Tioughnioga River from northeast 0.6 mile upstream from trib. 57 and 1.0 mile southeast of southeast corner of City of Cortland. Mouth to 0.5 mile upstream of trib. 8.	K-15c K-15d	D	D
1.1	SR-44-14-58 portion as described	Trout Brook	From 0.5 mile upstream of trib. 8 to source.	K-15d K-16c	C	C(TS)



930.4 Table I.

TABLE I

CLASSIFICATIONS AND STANDARDS OF QUALITY AND PURITY WHICH ARE ASSIGNED TO THE WATERS OF THE SUSQUEHANNA RIVER BORDERING OR FLOWING THROUGH THE COUNTIES OF TIOGA, BROOME, CHENANGO, DELAWARE AND OTSEGO

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1		Susquehanna River	From New York-Pennsylvania State line near Waverly, New York, to 3.0 miles downstream from western boundary of Owego Village.	M-14	B	B
2		Susquehanna River	From 3.0 miles downstream from western boundary of Owego Village to eastern boundary of Owego Village.	M-14 M-15	C	C
3		Susquehanna River	From eastern boundary of Owego Village to Tioga-Broome County boundary line southwest of Endicott Village.	M-15	B	B
4		Susquehanna River	From Tioga-Broome County boundary line southwest of Endicott Village to Rock Bottom Dam in Binghamton, New York.	M-15 M-16c	C	C
5		Susquehanna River	From Rock Bottom Dam in Binghamton, New York, to one mile southeast of bridge that crosses the Susquehanna River at Conklin, New York.	M-16c M-16d	A	A

School. P 22 is on trib. 2 of Little Choconut Creek and 0.2 mile northeast of Main Street and Lester Avenue in Johnson City.

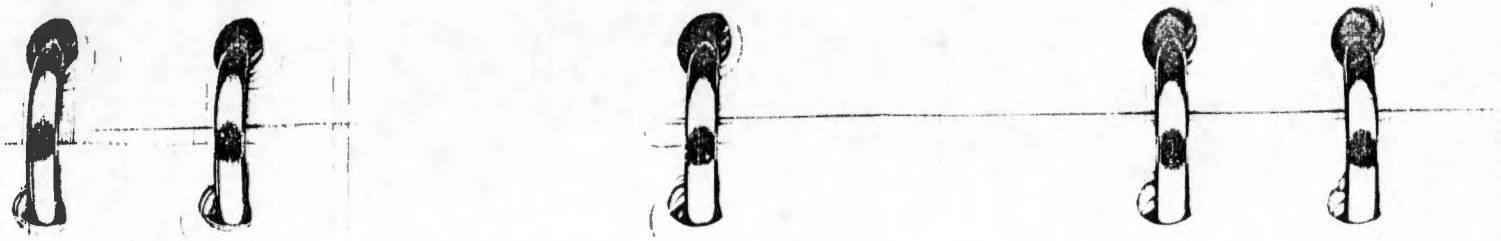
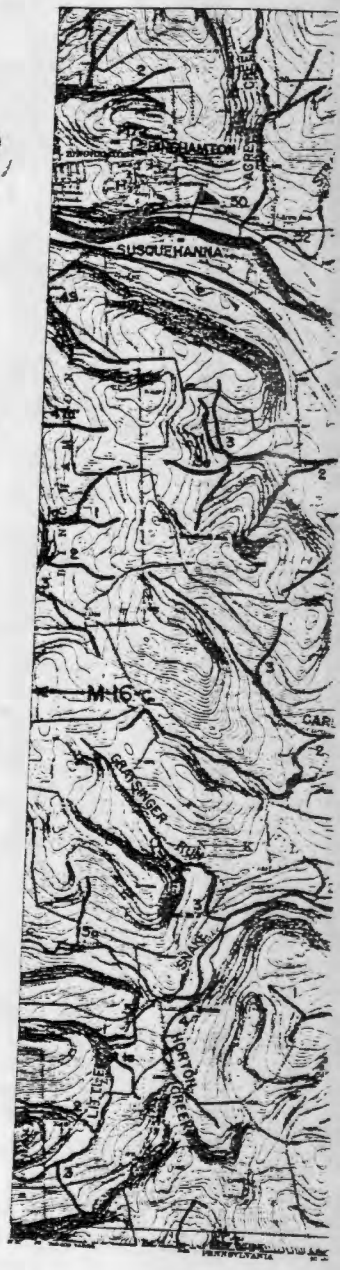


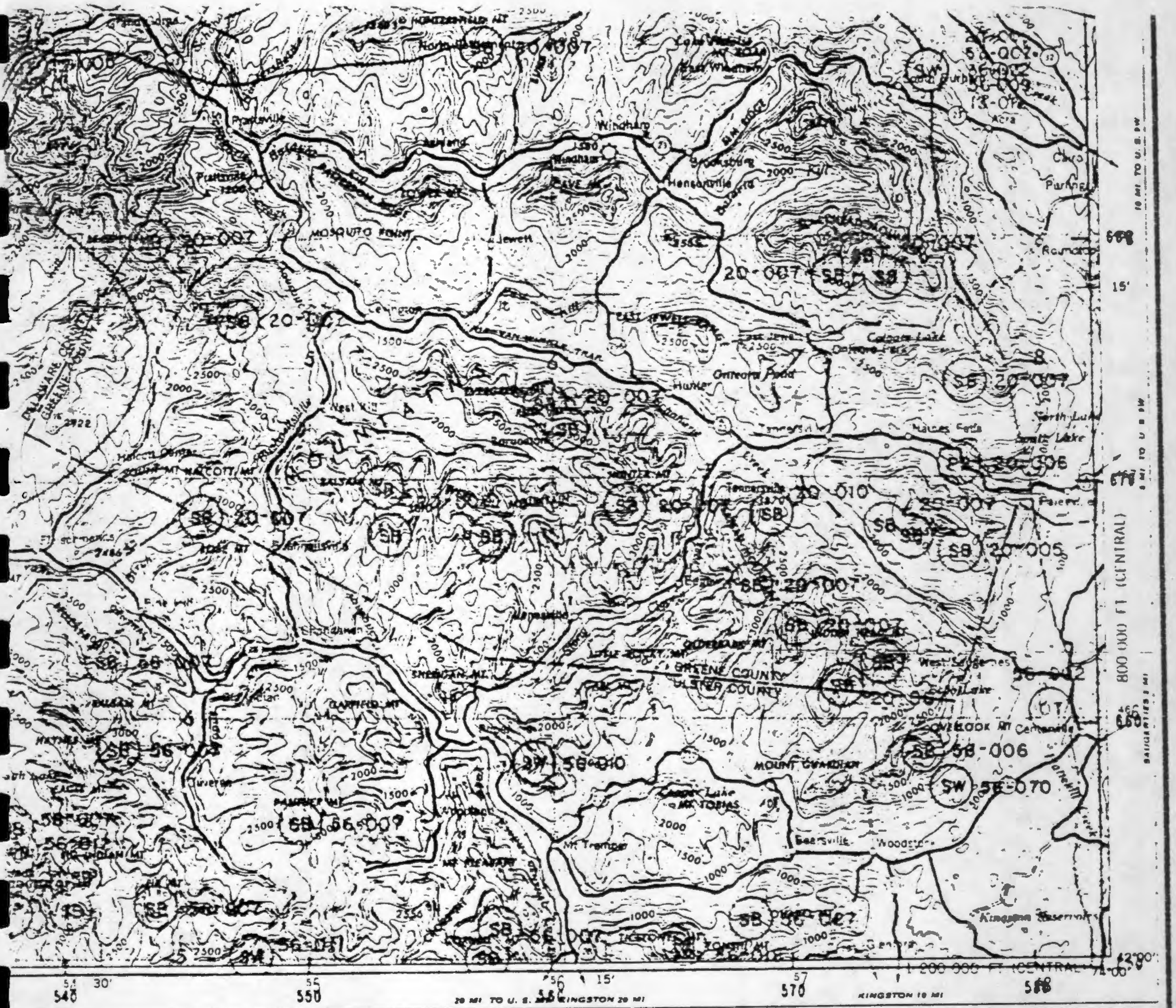
TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
142	SR-40 and tribs., 41 and tribs., 42, 43 and tribs.	Tribs. of Susquehanna River	Enter Susquehanna River along southerly bank in section beginning 1.0 mile upstream from Little Choconut Creek and 0.5 mile southeast of Willow Point and extending upstream to a point 0.6 mile downstream from mouth of Chenango River in City of Binghamton.	M-16c	D	D
143	SR-44 portion as described	Chenango River	Enters Susquehanna River from north at City of Binghamton. Mouth to trib. 41 which enters from northwest 2.0 miles southwest of Village of Oxford.	M-16c M-16a M-16b L-16 L-17	B	B
144	SR-44 portion as described	Chenango River	From trib. 41 to trib. 47 which enters from west 1.0 mile north of south line of Town of Norwich.	L-17	C	C
144a	SR-44 portion as described	Chenango River	From trib. 47 to Norwich-North Norwich town line 0.5 mile north of Woods Corners.	L-17 K-17d	D	D

BINGHAMTON WEST QUADRANGLE

MAP M-16-c





LOCATION DIAGRAM

SIGNIFICANT HABITAT OVERLAY NO. 1 OF 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF FISH AND WILDLIFE

BUREAU OF WILDLIFE

PREPARED FOR: SIGNIFICANT HABITAT UNIT

WILDLIFE RESOURCES CENTER

DELMAR, NEW YORK 12054

(518) 457-5782

PREPARED BY: HABITAT INVENTORY UNIT

GRID ZONE DESIGNATION 18T

100 000 M SQUARE IDENTIFICATION

VB	WB

TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 1000 METERS

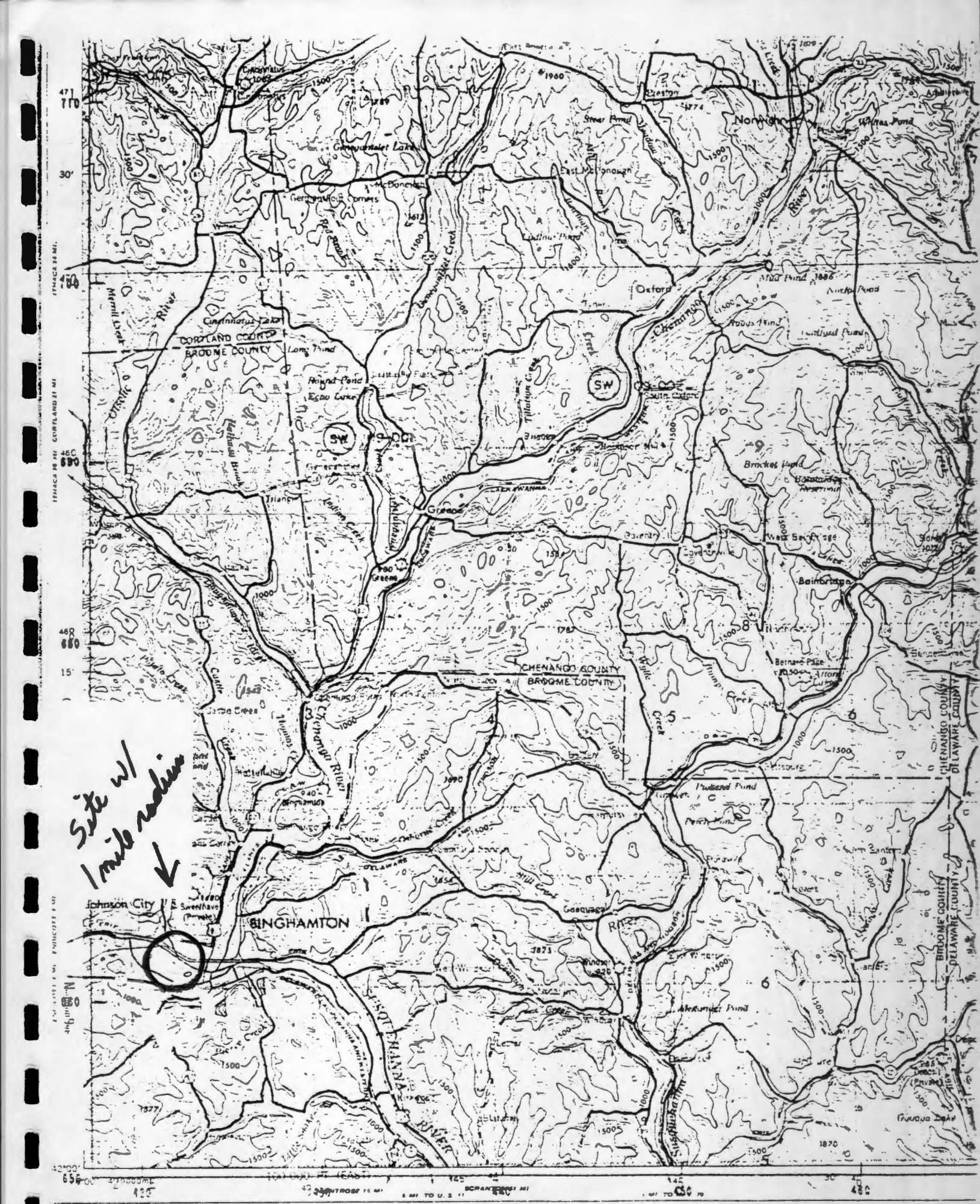
BINGHAMTON

SCALE: 1:250,000

BINGHAMTON, NEW YORK

FEBRUARY, 1981 1948

REVISED: 12/31/85


Site w/ 1 mile radius
Johnson City
BINGHAMTON
CHENANGO COUNTY
BROOME COUNTY
CORTLAND COUNTY
BROOME COUNTY
DELAWARE COUNTY
Oxford
Greene
Norwich
SUSQUEHANNA RIVER

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC

PROJECT GAF Dump

PROJ. No. (04339) 06281 H#

DATE 10/30/86

TIME 9:50 AM

CALL TO/FROM Mr. Griffin, Mgr. Utilities REPRESENTING Anitec

PHONE No. (607) 774-3333

SUMMARY OF CONVERSATION:

Mr. Griffin stated that 2 wells are located at the plant. These wells obtain water which is used for cooling purposes only. Domestic water comes from municipal system.

COPIES TO:

BY: DST

WEHRAN ENGINEERING
CONSULTING ENGINEERS

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC Phase I Round 3

PROJ. No. 04339 EX

PROJECT GAF Dump

DATE May 17, 1985

TIME 3:40 p.m.

CALL TO/FROM Claudia Stollman

REPRESENTING Broome County Environmental Mgt. Council

PHONE No. (607) 772-2116

SUMMARY OF CONVERSATION:

Re: Location of City of Binghamton Water Supply Intake

City uses Susquehana River water above confluence with Chenango River.

John Kowalchyk no longer there.

COPIES TO:

BY: Fran Geissler (fm)

Fran Geissler

WEHRAN ENGINEERING
CONSULTING ENGINEERS

EPA FORMS 2070-12 AND 2070-13

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
GAF Dump	Seymour Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Binghamton	NY	13902	Broome		
09 COORDINATES LATITUDE: 42° 06' 29" N	LONGITUDE: 75° 55' 45" W				

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take Clinton Street west, make right onto Charles Street, follow to Seymour Street, site is on right.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)			
GAF Corporation	1361 Alps Road			
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 TELEPHONE NUMBER**	
Wayne	NJ	07470	(201) 628-3500	
07 OPERATOR (If known and different from owner)	**08 STREET** (Business, mailing, residential)			
09 CITY	**10 STATE**	**11 ZIP CODE**	**12 TELEPHONE NUMBER**	
			( )	

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES ☐ NO DATE 9 / 24 / 85 (MONTH DAY YEAR)

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☒ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): Wehran Engineering

02 SITE STATUS (Check one)

☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

Mid-1940's (BEGINNING YEAR) | Mid-1970's (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Industrial, photchemical by-products including silver, cadmium, t-1,2 dichloroethylene, trichloroethylene, phenols and intermediate deystaffs.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Potential contamination of ground and surface waters.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)		03 TELEPHONE NUMBER
Dennis G. Fenn	Wehran Engineering		(914)343-0660
04 PERSON RESPONSIBLE FOR ASSESSMENT	**05 AGENCY**	**06 ORGANIZATION**	**07 TELEPHONE NUMBER**	**08 DATE**
Frances C. Geissler		Wehran Eng.	(914) 343-0660	10 / 15 / 85 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS _____
- CUBIC YARDS Unknown
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☒ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	t-1,2 dichloroethylene	156-60-5	spilled on surface	unknown	
OCC	trichloroethylene	79-01-6	spilled on surface	unknown	
MES	silver		spilled on surface	unknown	
MES	cadmium		spilled on surface	unknown	
SOL	phenol	108-95-2	spilled on surface	unknown	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC File Data

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 18,102
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

Under certain environmental conditions potential exists for cone of depressions to change groundwater flow gradient such that flow is from site towards Johnson City well field.

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: unknown
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

Site is 200' uphill from Trout Brook storm sewer (66") which discharges to Chenango River

01 ☒ C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No detection of contamination of air using Organic Vapor Analyzer during Wehran Engineering site investigation, September 24, 1985.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None

01 ☐ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No direct contact has been documented, causing injury to humans or animals.

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: unknown (Acres)
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

Waste liquids were spilled out of 55-gallon drums onto soil surface.

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 18,102
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Under certain environmental conditions, potential exists for cone depression to change groundwater flow gradient such that flow is from site towards Johnson City.

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 ☐ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

11 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
14 NARRATIVE DESCRIPTION

Unknown

☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION (Include species of animals)

Unknown

11 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
14 NARRATIVE DESCRIPTION

Unknown

☒ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
(Spills/Runoff/Standing liquids, Leaking drums)
13 POPULATION POTENTIALLY AFFECTED: 18,102 — 04 NARRATIVE DESCRIPTION

Under certain environmental conditions, potential exists for cone of depression to change groundwater flow gradient such that flow is from site towards Johnson City well field.

11 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
14 NARRATIVE DESCRIPTION

Unknown

☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Trout Brook storm sewer (66") 200' from site with laterals adjacent to site.

11 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
14 NARRATIVE DESCRIPTION

Unknown

DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Unknown

TOTAL POPULATION POTENTIALLY AFFECTED: 18,102

COMMENTS

SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC File data
Site Inspection - Wehran Engineering 9/24/85

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
GAF Dump	Seymour Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Binghamton	NY	13902	Broome		

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
LATITUDE 42° 06' 29"N / LONGITUDE 75° 55' 45" W	☒ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
9, 24, 85 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	Mid-1940's (BEGINNING YEAR) Mid-1970's (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☒ F. STATE CONTRACTOR Wehran Engineering (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Frances C. Geissler	Regulatory Specialist	Wehran Eng.	(914) 343-0660
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Karen Maloy	Staff Scientist	Wehran Eng.	(914) 343-0660
Terrance R. Haelen	Staff Geologist	Wehran Eng.	(914) 343-0660
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
C.F. Bien	Director Envir. Engineering	1361 Alps Rd., Wayne, NJ 07470	(201) 628-3500
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	2:15 p.m.	rainy, 55° F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Dennis G. Fenn	Wehran Engineering	(914) 343-0660

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Frances C. Geissler		Wehran Eng.	914-343-0660	10 15 85 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS _____
- CUBIC YARDS _____
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☒ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☒ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	t-1,2 dichloroethylene	156-60-5	spilled onto ground surface	unknown	
OCC	trichloroethylene	79-01-6	spilled onto ground surface	unknown	
MES	silver		spilled onto ground surface	unknown	
MES	Cadmium		spilled onto ground surface	unknown	
SOL	phenol	108-95-2	spilled onto ground surface	unknown	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC File data, Albany, Region 4
Wehran Site Inspection 9/24/85

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 18,102 — 04 NARRATIVE DESCRIPTION

Under certain environmental conditions potential exists for cone of depressions to change groundwater flow gradient such that flow is from site towards Johnson City well field.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown — 04 NARRATIVE DESCRIPTION

Site is 200' uphill from Trout Brook storm sewer (66") which discharges to Chenango River

01 ☒ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

No detection of contamination of air using Organic Vapor Analyzer during Wehran Engineering site investigation, September 24, 1985.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

No direct contact has been documented, causing injury to humans or animals.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 AREA POTENTIALLY AFFECTED: unknown — 04 NARRATIVE DESCRIPTION

Waste liquids were spilled out of 55-gallon drums onto soil surface.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 18,102 — 04 NARRATIVE DESCRIPTION

Under certain environmental conditions, potential exists for cone depression to change groundwater flow gradient such that flow is from site towards Johnson City.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Unknown

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Unknown

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Unknown

☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION (Include common and scientific names)

Unknown

☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Unknown

☒ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
(Spills, Runoff, Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 18,102 — 04 NARRATIVE DESCRIPTION

Under certain environmental conditions, potential exists for cone of depression to change groundwater flow gradient such that flow is from site towards Johnson City well field.

☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Unknown

☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Trout Brook storm sewer (66") 200' from site with laterals adjacent to site.

☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

Unknown

III. DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Unknown

IV. TOTAL POPULATION POTENTIALLY AFFECTED: 18,102

V. COMMENTS

VI. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

NYSDEC File data
Site Inspection - Wehran Engineering 9/24/85

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☒ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER (Specify) waste poured on surface	unknown	

04 TREATMENT (Check all that apply)
- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☒ H. OTHER (Specify) none

05 OTHER
- ☐ A. BUILDINGS ON SITE

06 AREA OF SITE
2 (Acres)

07 COMMENTS
Waste liquids spilled out of drums onto ground surface.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☒ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
None, liquids disposed on soil surface

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS
10' demolition debris and cinders cover disposal area.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Site inspection, Wehran Engineeirng, 9/24/85
NYSDEC File Data

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY	SURFACE	WELL
COMMUNITY	A. ☒	B. ☒
NON-COMMUNITY	C. ☐	D. ☐

02 STATUS	ENDANGERED	AFFECTED	MONITORED
	A. ☒	B. ☐	C. ☐
	D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE
A. 1.5 (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER: 18, 102
03 DISTANCE TO NEAREST DRINKING WATER WELL: 2 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
30-50 (ft)	easterly	30-50 (ft)	2.5 MGD (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)

Please see attachments

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS: runoff drains to low enclosed basin	☐ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☒ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Trout Brook Storm Sewer (66")	☐	Adjacent (mi)
Chenango River	☐	< 1 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. _____ NO. OF PERSONS	B. _____ NO. OF PERSONS	C. 86,902 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 100' (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: _____

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 100' (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Site is mixed residential and commercial neighborhood.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE: NY | 02 SITE NUMBER: 704011

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
>50 (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
11.5 (in)	2.25 (in)	4 %	southerly	filled land 2 %

09 FLOOD POTENTIAL

SITE IS IN none YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. N/A (mi) OTHER: B. None (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

(mi)

ENDANGERED SPECIES: None

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. adj. (mi)	B. adj. (mi)	C. none (mi)	D. none (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located in a mixed commercial and residential neighborhood in the north central region of the City of Binghamton. Immediately to the east is Spring Forest Cemetary, to the south is the Anitec Corp. plant facility and to the immediate west and downhill is Veterans Memorial Park. A residential neighborhood to the north on Prospect Street is up hill and upgradient of the site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site inspection 9/24/85 Wehran Engineering
NYSDEC File data

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	704011

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU PID 101	No readings above background

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF _____ (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: Wehran Engineering, 666 East Main Street, Middletown, NY 10940

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC File data
USGS Binghamton West Quadrangle

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
GAF Corp.		1361 Alps Road		Wayne	NJ	07470

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

GAF Corp. NYSDEC File data

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	704011

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Site is closed	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	704011

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
GAF Corp.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1361 Alps Road	

05 CITY	06 STATE	07 ZIP CODE
Wayne	NJ	07470

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
—			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	704011

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 704011

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☒ 1. ACCESS TO SITE RESTRICTED — 02 DATE unknown — 03 AGENCY _____
04 DESCRIPTION
fenced, but not secure

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

none

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC File Data
Site Inspection 9/24/85 Wehran Engineering

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	704011

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

None

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC FIle Data

6.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 GROUNDWATER ROUTE

Past groundwater sampling activities at the GAF Dump site did not include upgradient monitoring to determine possible migration of contaminants from the site into the water table. The HRS score was then computed based on the alleged properties of the waste, methods of disposal, and the potential for subsurface leaching to cause possible contamination in the water supply.

In evaluating Route Characteristics, conclusions were drawn based on analysis of well data and boring logs for the Anitec industrial well field and the Johnson City municipal well field. Waste disposal was assumed to be at the original ground elevations as shown on the USGS Binghamton West Quadrangle, prior to disposal of the demolition debris.

Characteristics of the waste need to be further investigated to determine the toxicity, persistence, and potential reactivity of the materials involved. Photochemical byproducts, containing heavy metals and phenols, resulted in the maximum score for waste characteristics.

The Johnson City well field is known to serve a population of 18,102, pumping from thirteen wells located within two to three miles of the site. More information is needed on the pumping rates of these wells, the actual distances from the site, and the population served by each.

A groundwater route score of $S_{gw} = 58.46$ ~~46.53~~ was computed based on known and assumed information. The unknown data was estimated conservatively in computing the HRS score. A final score will be determined following a Phase II hydrogeologic investigation designed to achieve the following objectives:

- Determine depths to groundwater(s) at and around the site.
- Identify the soils in the unsaturated zone, and determine permeability characteristics.
- Verify the potential groundwater migration routes.

- Evaluate possible fluctuations in the water table due to pumping or other influential factors.
- Acquire additional information on the Johnson City municipal well field, and determine populations served by individual wells.

6.2 SURFACE WATER ROUTE

The adjacent Trout Brook storm sewer and its receiving water, the Chenango River, would be the primary target for surface water contamination in computing the HRS score. These waters do not directly serve as a drinking water supply, although they may be in hydraulic contact with the aquifer that does. The population served was assigned a value of zero, which resulted in a relatively low score for targets.

The surface of the site has been filled in or is covered with asphalt, both of which are likely to prevent runoff from coming in contact with the wastes and subsequently discharging to the storm sewer. The adequacy of the cover soils needs to be determined during the Phase II hydrogeologic investigation to finalize the surface water score. Under current conditions, a score of $S_{sw} = 5.85$ was computed based on known information from the files or the site inspection.

6.3 AIR ROUTE

No measurable readings of organic vapors were detected with the HNU Photoionizer during the site inspection, so the air route score was 0. Additional monitoring should be performed during the Phase II investigation to check for possible contamination resulting from disturbance of the ground surface by subsurface drilling and also as a standard safety measure for personnel involved in the investigation.

6.4 FIRE AND EXPLOSION

To score the fire and explosion hazard mode either a state or local fire marshall must have certified that the facility presents a significant fire or explosion threat to the public or to a sensitive environment, or there must be a demonstrated threat based on field observations (e.g. combustible gas

indicator readings). The available records give no indication that either one of these tasks has been done. Further, the available data do not suggest any imminent threat of fire and explosion at this site. Therefore the route score cannot be completed.

6.5 DIRECT CONTACT

There was no evidence of exposed waste during the site inspection and there are no records of any direct contact causing injury to humans or animals. The site is covered, the cover appears adequate, and the score for direct contact, $S_{DC} = 33.33$. The Phase II work plan should include analysis of the thickness and quality of the cover soil at the site to determine the actual potential threat by direct contact with the wastes.

7.0 PHASE II WORK PLAN

7.0 PHASE II WORK PLAN AND OBJECTIVES

INTRODUCTION AND OBJECTIVES

During the Phase I investigation, it was determined that the GAF Dump site poses a potential threat to the aquifer supplying the Johnson City municipal water system. This Phase II work plan is designed to further characterize the site as follows:

- Identify the types and concentrations of allegedly disposed materials.
- Further identify subsurface hydrogeologic conditions at the site.
- Determine the presence or absence of contamination in the groundwater, surface water, and Johnson City water supply wells in the vicinity of the site.
- Evaluate whether or not contamination from the site poses any environmental or health concerns.
- Provide a final Hazard Ranking Score (HRS).
- Provide NYSDEC with a preliminary remedial cost estimate.

Procedures to be utilized for sampling and analysis, as well as health and safety, will be conducted in conformance with the consultant's generic procedures previously submitted to NYSDEC.

WORK PLAN

To accomplish the above mentioned objectives, the following tasks and subtasks are recommended:

Task 1 - Preparation of Site-Specific Work Plans

Wehran will prepare and submit for NYSDEC approval revised work plans for those sites NYSDEC recommends for Phase II investigation. These plans will include site-specific:

- Scope of work
- Health and safety plan
- Sampling and analytical plan
- Detailed cost estimate

All plans will conform with the contractor's previously submitted established procedures.

Task 2 - Identify, Obtain and Evaluate Additional Data

To consider the possible cost for future remedial investigations, it will be necessary to collect and evaluate additional information relating to the area surrounding the GAF Dump site including but not limited to:

- Uses of local groundwater and the nearby Chenango River
- Available regional water supply sources
- Boring logs, if available, for all wells in the immediate area

Task 3 - Hydrogeologic Investigation

Data Evaluation

The information obtained in Task 2 will be used to aid in the location of test borings and monitoring wells.

Test Borings

In order to define the geology beneath the subject site, three shallow borings to a maximum depth of 60 feet will be drilled under the continuous supervision of Wehran Engineering. Split-spoon samples will be collected at standard five-foot intervals in accordance with the procedures of the Standard Penetration Test. Soils will be visually classified in the field for grain size (according to the Unified Classification System) and lithology. Representative portions of each sample will be stored in moisture-tight jars at the office of Wehran Engineering in Middletown, New York, for future reference. In addition, it is anticipated that three samples will be analyzed in the laboratory for grain size, Atterberg limits, and hydrometer.

If a confining layer or other strata determined to be of particular significance to the migration of contamination is encountered, additional investigations will be conducted. These additional investigations will be performed as an extra, subject to NYSDEC approval.

Monitoring Well Installation

Monitoring wells will be installed in each of the three borings. All wells will be constructed using two-inch diameter, Schedule 40, threaded flush-joint PVC pipe and fifteen-foot long factory slotted PVC screens. The screened interval will be determined in the field according to the hydrologic conditions encountered. A sand pack will be placed around each screen to prohibit clogging of the screen openings. A bentonite pellet seal will be placed at the top of the sand to isolate it from upper soil zones. The annular space will be filled to the surface with a bentonite-cement grout using the "Tremie" method. A steel casing with a protective lock will then be cemented in place to prevent vandalism.

Survey Well Locations and Elevation

A survey will be conducted to determine the relative elevations of both ground surface and "top of casing" at each boring location. The location of each well will also be determined with sufficient accuracy for plotting on a site map.

In Situ Permeability Determinations

A variable head borehole test will be conducted in order to measure the in situ permeability of the soils at each monitoring well location. This test will involve recording the recovery of water level after bailing. Prior to the procedure, the static water level will be measured and recorded to facilitate a determination of groundwater flow direction.

Groundwater Sample Collection

Groundwater samples will be collected for analysis from each of the three wells using the following procedure.

- The static water level in each well will be measured and recorded.
- Each well will be purged of at least three well volumes of water using a separate teflon bailer for each well. Each bailer will be cleaned in the laboratory prior to use.
- Samples will be collected from each well by the use of the above-mentioned bailer. Each sample will then be placed in the appropriate container, stored on ice, and transported to the lab in accordance with standard chain-of-custody protocol.

The samples will be analyzed for the Hazardous Substances List (HSL), Priority Pollutant Heavy Metals and water quality indicator parameters including: COD, pH, conductivity, chlorides, TSS, TDS, and iron. Samples will also be collected from the Johnson City municipal wells closest to the site by NYSDOH to be analyzed for the same parameters indicated above.

The following assumptions have been made in the development of this scope of services and the associated costs:

- All drilling locations are accessible to a truck-mounted drilling rig as determined by the drilling subcontractor.
- The soils do not contain excessive amounts of cobbles or boulders.
- It is anticipated that three wells will be approximately 60 feet deep and that nine eight-hour days would be required for their installation.

Geophysical Survey

A terrain conductivity or earth resistivity survey will be conducted in order to obtain additional subsurface information. Both of these geophysical methods evaluate changes in the earth's resistance/conductance to an induced electrical current which may reflect changes in stratigraphy and/or groundwater quality. The survey would be implemented in areas of the site deemed appropriate based on existing geologic and water quality data.

Task 4 - Surface Water Investigation

Drainage from the GAF Dump site flows into the Trout Brook storm sewer which empties into the Chenango River. Surface water samples both upstream and downstream of the site will be collected to verify if Trout Brook is being contaminated.

Laboratory analyses of these surface water samples will be for the HSL, Priority Pollutant Heavy Metals and water quality indicator parameters, as indicated in Task 2.

To aid in determining contamination of soil an areal soil sample will be collected. The soil sample will be analyzed for the HSL and Priority Pollutant Heavy Metals.

Task 5 - Qualitative Air Monitoring

Throughout all Phase II activities conducted at the site, air monitoring will be performed using the HNU Systems Photoionizer, both upwind and downwind of the site. If consistent, unusually high values are observed (five to ten ppm above background) with the HNU, a more quantitative air analysis would be recommended as an extra, subject to NYSDEC approval.

Task 6 - Laboratory Analysis

During the field investigation the following samples will be collected for analysis by a subcontractor laboratory:

- Seven water samples (three wells, two surface water, one field blank, one trip blank) for HSL, Priority Pollutants Heavy Metals and water quality indicator parameters
- One soil sample for HSL and Priority Pollutant Heavy Metals

Task 7 - Preliminary Remedial Cost Estimate

The consultant will consider the possible cost for future remedial investigations, engineering plans and specifications, and the physical remediation anticipated for the site. A range of possible remedial costs will be developed using best engineering judgment and previous experience with

possible feasible remedial schemes. This task is not intended to perform a cost-effectiveness analysis of feasible remedial alternatives but rather to provide a cost range estimate adequate for legislative budget reporting purposes.

Task 8 - Phase II Report Preparation

Under this task, the engineer will compile a final report for the site. This report will contain the following:

- Phase II information developed under Tasks 1 through 7
- Final Site Assessment and HRS

Extras

This work plan has been developed based upon available site information as contained in the Phase I report. If conditions encountered during the Phase II investigation indicate the need for additional services or extras such as difficult drilling, poor access, etc., not included within the original scope of work, the costs will be negotiated with the NYSDEC. Such extra services will be performed on a time and materials basis with prior authorization by the NYSDEC project officer.

NYSDEC SUPERFUND INVESTIGATIONS

PHASE II - TOTAL PROJECT COST SUMMARY[1]

SITE: GAF DUMP

Wehran's Labor and Expenses	$	47,000.00
Subcontractors:		
Driller		21,000.00
Laboratory		16,000.00
TOTAL ESTIMATED COST	$	84,000.00*

[1]This cost estimate does not include any provisions for inflation and salary adjustments and can be considered current for approximately three months.

*Note: This cost estimate has been developed for budgeting purposes only. Should this site be selected for Phase II investigation, Wehran will develop a detailed cost estimate for NYSDEC approval.

APPENDIX

T. Haelen

WEHRAN ENGINEERING
Consulting Engineers

September 17, 1985

Edward Shea, Esq.
General Counsel
GAF Corporation
Building No. 10
1361 Alps Road
Wayne, NJ 07470

Re: GAF Dump #704011 Binghamton/Broome County
Hazardous Waste Site Inspection
(WE Project No. 01424339)

Dear Mr. Shea:

As a consultant to the New York State Department of Environmental Conservation, Wehran Engineering has been contracted to conduct investigations of hazardous wastes site. The GAF Dump in Binghamton, Broome County, New York is on the NYSDEC hazardous site list requiring a Phase I, investigation. Wehran Engineering is requesting permission from GAF to have access onto the site such that the investigation can be conducted.

A Phase I site investigation entails a review of any existing site data and a site inspection. The intent of the inspection is to verify file information and to screen for potential air releases utilizing portable air monitoring equipment. Items of specific interest in the site inspection include:

- Overall site environmental conditions
- The presence of disturbed areas
- Visual signs of waste materials
- Occurrence of leachate
- Site topography

I have set a tentative date of September 24, 1985 at 2:00 P. M. for the site inspection. However, if this is inconvenient, would you please advise me as to when a convenient date can be set. Also, enclosed please find a letter from Commissioner Henry G. Williams entitling Wehran Engineering to conduct this study.

Please contact me if you have any questions.

Very truly yours,

WEHRAN ENGINEERING P.C.

Terry R Haelen

T. R. Haelen
Environmental Scientist

TH/mef
Enclosure
cc: Leonard P. Pasculli

Research & Design Center:
666 East Main Street
Middletown, NY 10940
(914) 343-0660

STATE OF NEW YORK
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-0001

HENRY G. WILLIAMS
COMMISSIONER

JUN 6 1985

To Whom it May Concern:

For the purpose of investigating hazardous waste disposal sites, pursuant to Section 27-1309 of the Environmental Conservation Law and Chapter 857 of the Laws of 1982, this Department has contracted with Wehran Engineering, P.C., and is hereby designated as an authorized consultant of the New York State Department of Environmental Conservation (NYSDEC).

As our consultant, Wehran Engineering, P.C., is entitled to collect information from all available sources including, but not limited to, all State, federal, county and municipal offices and private concerns. In addition, our consultant is authorized to conduct Phase II investigations. A Phase II investigation involves a geophysical survey for stratigraphic data, a magnetometer study for the presence of drums, installation of wells and laboratory analyses of samples of groundwater, surface water, air, drum contents for the presence of hazardous wastes, and a preliminary remedial cost estimate. In performing such work, our consultant is authorized to enter any inactive hazardous waste disposal site and areas near such site to inspect and collect environmental samples.

This status, as an authorized consultant of NYSDEC, is valid from December 11, 1984 to April 30, 1986.

Sincerely,

Henry G. Williams

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC Phase I Round 3 PROJ. No. 04339 EX

PROJECT GAF Dump DATE June 14, 1985

TIME

CALL TO/FROM Melanie Sviatyla REPRESENTING Broome County Health Department

PHONE No. 607-772-2887

SUMMARY OF CONVERSATION:

Re: Access to the GAF Dump site.

She informed me that the company is no longer local and is presently operating in New York City. She gave me the number for Anatech (Don Wright (607) 774-3322). Anatech had bought the land which is adjacent to the dump site. It is presently fenced in and paved over. Access can be obtained through Anatech's property. Don Wright told me that he could not take us (T. Roeper and S.Vozza) to the site due to his work load and did not want us to be there without him being present.

Recommendation: Notify GAF in NYC before going out to site and reschedule the visit with Don Wright at his convenience.

COPIES TO:

BY: Tim Roeper

WEHRAN ENGINEERING
CONSULTING ENGINEERS

TELEPHONE CONVERSATION MEMORANDUM

CLIENT NYSDEC Phase I Round 3

PROJ. No. 04339 EX

PROJECT GAF Dump

DATE June 6, 1985

TIME 1:30 p.m.

CALL TO/FROM Melanie Sviatyla

REPRESENTING Broome County Health Department

PHONE No. 607-772-2887

SUMMARY OF CONVERSATION:

1971 Trout Brook sampling survey is of questionable value in terms of assessing toxicity of leachate. The alleged dump site is immediately adjacent to the industrial discharge point. At time of survey, Anatech (now GAF) had primative treatment facilities. Therefore, cannot assign contaminants to dump site - metals may well have been from process wastes.

COPIES TO:

BY: Fran Geissler (fm)

Fran Geissler

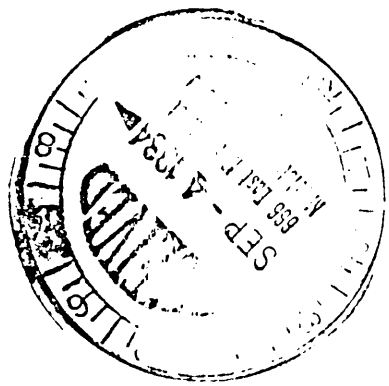
WEHRAN ENGINEERING
CONSULTING ENGINEERS

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
33 MITCHELL AVENUE
BINGHAMTON, N.Y. 13903

JAMES K. CONNORS
REGIONAL DIRECTOR

JAMES L. LAROCCA
COMMISSIONER

August 30, 1984



Wehran Engineering
Research & Design Center
666 East Main Street
Middletown, New York 10940

Attn: Constance A. Gasparovic

Dear Ms. Gasparovic:

In reference to your letter of August 24, 1984, we have had no association with the GAF dump in the Town of Binghamton.

At the Endicott landfille, by permit, we have disposed of stumps, refuse from roadside and rest stops, and sanding material which may contain de-icing chemicals, most of which are sodium chloride salt.

At the BAGS landfille in the Town of Bainbridge we have, by permit, disposed of roadside and rest area refuse and dead animals.

On two occasions, material contaminated by petroleum spills have also been disposed of in this landfill. On each occasion, this has been through a permit with the New York State Department of Environmental Conservation who has more detailed information regarding this.

Attached are copies of the spill reports for these two incidents. To the best of our knowledge, this is the only information available on the three sites listed in your attachments.

Very truly yours,

JAMES K. CONNORS, P.E.
Regional Director

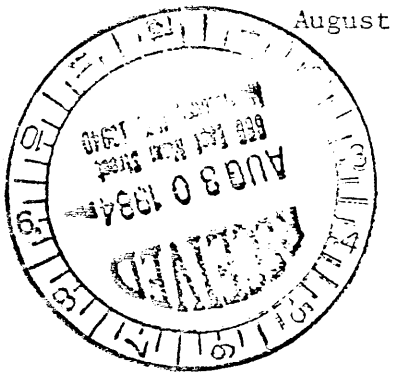
By:

E. A. DAY
Regional Highway Maintenance Engineer

JKC:EAD:DL
Att.

BROOME COUNTY ENVIRONMENTAL MANAGEMENT COUNCIL

August 28, 1984



Ms. Constance Gasparovic
Wehran Engineering
Consulting Engineers
666 East Main Street
Middletown, New York 10940

Dear Ms. Gasparovic:

Enclosed please find the only information assembled by the Broome County Environmental Management Council regarding hazardous waste dump sites. A potential contact person for further information is Robert Denz, Broome County Health Department. There is no charge for these materials.

Sincerely,

John Kowalchyk
Chief Planner

JK/nt

Enclosure

772-2116

Broome County
Memorandum

To: Ron Tramontano, NYSHD
From: Melonie M. Sviatyla, Robert W. Denz, BCHD
Date: December 15, 1983
Subject: Comments on the "Assessment of Health Problems" for the State Superfund List

The following are comments from the Broome County Health Department (BCHD), regarding local landfill sites selected for the State Superfund listing:

(1) Robintech Inc.:

The BCHD has been involved with the installation of a backflow preventor on the water service to the plant. National Pipe (present owners) have drilled four (4) wells on site for cooling water production. These wells may offer a sampling point to check the groundwater quality.

The BCHD has the following concerns:

1) Proximity of the site to the Town of Vestal Well #4-2. This well has already been contaminated with volatile organics.

2) There are a number of private residences nearby who have not connected to municipal water, which have their own wells.

(2) Colesville Landfill:

The BCHD has been involved with the sampling of private resident wells in the vicinity of the landfill. Of the twenty (20) water sources sampled, four (4) have contained levels of volatile organics which exceed New York State Health Department (NYSHD) guidelines. Those organics found in the resident water supplies were also present in the leachate from the landfill. At the present time, these residences are receiving bottled water for drinking and cooking, supplied by the Broome County Dept of Public Works (BCDPW). Bottled water is also being supplied to those residences who may be located in the "contaminated groundwater plume" as presented in a report prepared by the County Engineering consultants. Additional monitoring of residences will commence in January 1984. At that time, the County consultants Phase II report will be presented.

The BCHD has the following concerns:

1) Long term effects of contamination on other wells not presently contaminated (i.e., down-gradient, bedrock).

(3) BEC Trucking:

The BCHD has been involved with the initial inspection of the area used for dumping. Files indicate that a number ~~of~~ 55-gallon drums containing Methanol and Dizco reducer were leaking and saturating the surrounding soil.

The BCHD has the following concerns:

1) Possible groundwater contamination of Vestal wells in Water District #4 and private wells in the area not connected to Municipal water.

(4) Village of Endicott Well (Ranney Well):

The BCHD was involved initially with the New York State Department of Environmental Conservation (NYSDEC) in collecting monitoring samples from the well. This well contains elevated levels of vinyl chloride, a known human carcinogen. Guidelines set by the NYSHD for vinyl chloride is 5 ug/l (ppb) in drinking water. Other volatile organics have also been found in the well.

The BCHD has the following concerns:

1) The long term trends in concentrations, as alternate sources of water will be difficult to develop.

(5) Tri-Cities Barrel Company:

The BCHD has been involved in the SPDES review only under SEQR.

The BCHD has the following concerns:

1) Possible groundwater contamination of private wells in the area as there is no public water.

2) Surface water contamination of Osborne Creek which flows into the Chenango River.

(6) Keytronics:

The BCHD has been involved with sampling at the South Street Well field down-gradient from site. Samples showed that methylene chloride was not present from past dumping practices at this site.

The BCHD has the following concerns:

1) Possible contamination of groundwater in the vicinity of the dumpsite.

(7) GAF Dump:

The BCHD has been involved in the sampling of two (2) wells on Anitec property down-gradient. Both wells sampled showed trace levels of volatile organics.

The BCHD has the following concerns:

1) Possibility of groundwater and surface water contamination.

2) Proximity of the dump to the Veteran's Memorial Park (across the street from the dump site).

(8) Conklin dumps:

One private well directly east of the landfill was sampled on 3/30/83 for the priority pollutants by the BCHD (and Water Resources Commission). Results found trace levels of trichlocoethylene (TCE) and some metals. Leachate wells on site indicate trace TCE contamination and elevated manganese levels in lower dump. The BCHD and Broome County Industrial Development Agency (BCIDA) sampled additional residents in the vicinity on 11/15/83. Results are pending.

The BCHD has the following concerns:

1) Possible groundwater contamination of private wells in the area.

2) Possibility of connecting local residents to the Town of Conklin public water supply, if a problem develops.

(9) Endicott Village Landfill:

The BCHD has been involved in the past site inspections of the landfill. Complete reports are on file in the Environmental Health Division of the BCHD.

The BCHD has the following concerns:

1) Possible contamination of ground and surface waters.

2) BCHD files confirms the dumping of industrial sludge containing various metals on site.

3) Dumping was done on the banks of the Susquehanna River, resulting most likely in the runoff of landfill leachate into the river.

4) Possible impacts on Village of Endicott Ranney Well.

MMS:et

Enclosure
cc: Dr. Kathleen A. Gaffney
Roland M. Austin
Ron Heerkens
Larry Lepak
John Kowalchyk
David Machlica
Robert Denz

COLESVILLE LANDFILL (con't.)

INDUSTRIAL WASTE: Users:

GAF - at least 800, 55 gallon drums

1. 5 Drums/month Solid Waste - dye saturated filter media, dye scrappings, possible traces of mercury or cyanide. Fe, Zn, Al, Sn traces.
2. 10 drums/month Aqueous colored dye wastes.
3. 10 drums/month organic solvent mixtures - includes benzene, cyclohexane, acetone, IPA, methanol, ethanol, n-hexane, toluene, xylene, methyl cellosolve, chlorinated solvents, and diethyl ether.
4. 10 drums/month mixed chemical solvents - includes IPA, methanol, methslene chloride, acetone, and other hydrocarbons and oxygenated solvents.
5. 1 drum/month Lead Iodide Solid
6. 1 drum/month Lead Bromide Solid
7. 5 drums/month - 1. Cadmium, 2. Ammonium salts, 3. Silver, 4. Iron, 5. Zink, 6. Calcium, 7. Magnesium, 8. Copper, 9. Nickel, 10. Sodium, 11. Potassium, 12. Nitrate, 13. Chloride, 14. Sulfate.

WATER SAMPLE ANALYSIS: 2/4/75

Element	Embankment West Side of Landfill	Downstream from Landfill
Iron	17.0 Mg/L	.33 Mg/L
Arsenic	.01 Mg/L	.01 Mg/L
Cadmium	.02 Mg/L	.02 Mg/L
Chromium	.1 Mg/L	.1 Mg/L
Lead	ND Mg/L	.1 Mg/L

Compounds found in near by private wells:
Methylene chloride, toluene, 1,1,1 trichloroethane, trichloroethene, T-1,2 dichloroethene, Chloroform, carbon tetrachloride, 1,1,2 trichloroethane

Extensive sampling has been done in 1983 by Melonie Sviatyla and Broome County Health Department.

LEACHATE HISTORY: 4/70 - 5/73 Leachate observed flowing into a small pond on adjacent property. This pond is the headwaters of a small brook flowing into the Susquehanna Rv.
5/73 Dam and Diversion channel constructed and leachate was landlocked on site.
12/73 Leachate flow into pond resumed.

ROBINTECH INC.

LOCATION: 3421 Old Vestal Rd., Vestal
USGS COORDINATES: 42°6'15" 75°59'45"
NUMBER ON MAP: 31
WASTE MATERIAL: Cutting oils, PVC fillings, chromium and sludge.

MONARCH CHEMICALS

LOCATION: 511 Prentice Rd., Vestal
USGS COORDINATES: 42°6'27" 75°59'58"
NUMBER ON MAP: 32
WASTE MATERIAL: Acids, solvents, electro-plating, materials & other various industrial waste. Trichloroethylene & Tetrachloroethylene

GAF DUMP

LOCATION: Charles & Grace Streets, Binghamton
USGS COORDINATES: 42°6'43" 75°55'42"
NUMBER ON MAP: 33
WASTE MATERIAL: Industrial, photo chemical by-products (silver, cadmium, organics - t-1,2 dichloroethylene, trichloroethylene, phenols, intermediate dyestuffs).

SERVICE MERCHANDISE

LOCATION: 220 Reynolds Rd., N. of Harry L. Drive, Johnson City
USGS Coordinates: 42°7'36" 75°58'14"
STATUS: Closed, developed
NUMBER ON MAP: 34
WASTE MATERIAL: Commercial, J.C. municipal, E.J. industrials, Wilson Hospital Wastes

JENNIE F. SNAPP MIDDLE SCHOOL

LOCATION: Loder Ave. (between North St. & Main St.), Endicott
USGS COORDINATES: 42°5'50" 76°3'39"
NUMBER ON MAP: 35
STATUS: Closed, developed
WASTE MATERIALS: Tanning acids (E.J.), animal hides, municipal wastes, and sludge.

O'BRIEN & GERE

Purgeable Priority Pollutants

Client		Job Number	
BROOME COUNTY		2622.001.517	
Sample Number	**Description**	**Date Analyzed**	**Analyst**
17294	Anitec Well 3, 12-20	12-28-82	TAA

	µg/l		µg/l
1) Chloromethane	<1.	16) 1,2-dichloropropane	<1.
2) Vinyl chloride		17) Chlorobenzene	
3) Chloroethane		18) Chloroform	
4) Benzene		19) 1,4-dichlorobutane	SS
5) Methylene chloride		20) Bromochloromethane	SS
6) Toluene		21) Trichloroethylene	1.
7) Bromomethane		22) 1,1,1-trichloroethane	<1.
8) 1,1-dichloroethylene		23) 1,1,2-trichloroethane	<1.
9) t-1,2-dichloroethylene	1.	24) Trichlorofluoromethane	IS
10) 1,1-dichloroethane	<1.	25) Carbon tetrachloride	<1.
11) 1,2-dichloroethane		26) 2-bromo-1-chloropropane	SS
12) Ethylbenzene		27) Bromodichloromethane	<1.
13) 2-chloroethylvinyl ether	<10.	28) Tetrachloroethylene	
14) t-1,3-dichloropropene	<1.	29) 1,1,2,2-tetrachloroethane	
15) c-1,3-dichloropropene	<1.	30) Chlorodibromomethane	
		31) Bromoform	<10.
		32) Dichlorodifluoromethane	SS

Comments

IS = Internal Standard used for quantitation
SS = Surrogate Standard used for quality control

Authorized: D.R. Hill DRH Date 1-10-83

O Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Road / Syracuse, NY 13221 / (315) 451-4700 / CABLE OBRIENGERE
Boston, MA / New York, NY / Philadelphia, PA / St. Louis, MO / Washington, DC / White Plains, NY

1.38

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

FINAL REPORT FINAL REPORT FINAL REPORT

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 61735 YR/MO/DAY/HR SAMPLE REC'D: 82/12/27/17

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 126 HOUSEHOLD WATER SUPPLIES
STATION (SOURCE) NO:
DRAINAGE BASIN: 06 NY GAZETTEER NO: 0301 COUNTY: BROOME
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUPPLIED: ANITEC IMAGE CORP. CHARLES STREET

EXACT SAMPLING POINT: WELL NO 3 RAW WATER
TYPE OF SAMPLE: 12 WATER, DRILLED WELL
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 12/28/17
REPORT SENT TO: CO (1) PO (1) LPHE (2) LHO (2) FED (3) CHEM (1)

PARAMETER		UNIT	RESULT	NOTATION
00190	PH (LABORATORY)		7.2	
10151	ALKALINITY,ELECTROM.PHA.E	MG/L	283.	
00110	HARDNESS, TOTAL AS CACO3	MG/L	396.	
00160	CHLORIDE	MG/L	13[illegible].	
20241	SULFATE AS SO4	MG/L	132.	
10390	CONDUCTIVITY,MICROMHO/CM		115[illegible].	
70300	SOLIDS,DISS,TOT.180DEG C	MG/L	44[illegible].	
00940	FLUORIDE,FREE	MG/L	.2	

DATE PRINTED: 1/18/83

RECEIVED

JAN 17 1983

DIRECTOR OF ENVIRONMENTAL SANITATION
BROOME COUNTY HEALTH DEPT
2 HALL STREET
BINGHAMTON, N.Y. 13901

BROOME COUNTY
HEALTH DEPARTMENT

SUBMITTED BY: LENT

1705

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

FINAL REPORT FINAL REPORT FINAL REPORT

RESULTS OF EXAMINATION
(PAGE 1 OF 2)

LAB ACCESSION NO: 02152 YR/MO/DAY/HR SAMPLE REC'D: 82/12/27/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 126 HOUSEHOLD WATER SUPPLIES
STATION (SOURCE) NO:
DRAINAGE BASIN: 06 NY GAZETTEER NO: 0301 COUNTY: BROOME
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: ANITEC MAGE CORPORATION CHARLES STREET
BINGHAMTON
EXACT SAMPLING POINT: WELL NO 3 RAWWATER
TYPE OF SAMPLE: 12 WATER, DRILLED WELL
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 12/20/10
REPORT SENT TO: CO (1) RO (1) LPHE (2) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
00940	BARIUM	MG/L	(1.9) high	
01030	MERCURY, TOTAL	MCG/L	0.4	LT
01060	SILVER	MG/L	0.02	LT
30930	ARSENIC	MCG/L	10.	LT
30970	CADMIUM	MCG/L	2.	LT
30980	CHROMIUM	MCG/L	12.	
31010	LEAD	MCG/L	10.	LT
31050	SELENIUM	MCG/L	5.	LT
01020	MANGANESE	MG/L	(.77) mcl	
01000	IRON	MG/L	0.06	
01070	SODIUM	MG/L	(60.) high	
00990	COPPER	MG/L	0.05	LT
01090	ZINC	MG/L	0.13	

DATE PRINTED: 2/26/83

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MAR 3 1983
BROOME COUNTY
HEALTH DEPARTMENT

DIRECTOR OF ENVIRONMENTAL SANITATION
BROOME COUNTY HEALTH DEPT
20 HALL STREET
BINGHAMTON, N.Y. 13901

SUBMITTED BY: NOTGIVEN

1706

NEW YORK STATE DEPARTMENT OF HEALTH
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RESULTS OF EXAMINATION
(PAGE 2 OF 2)

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REPORT SENT TO: CO (1) RO (1) LPHE (2) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
C11401	CALCIUM	MG/L	130.	

DATE PRINTED: 2/26/83

RECEIVED
MAR 3 1983
BROOME COUNTY
HEALTH DEPARTMENT

DIRECTOR OF ENVIRONMENTAL SANITATION
BROOME COUNTY HEALTH DEPT
20 WALL STREET
BINGHAMTON, N.Y. 13901

SUBMITTED BY: NOTGIVEN

GAF

Broome Co Soilsurvey

geo: glaciated Appalachian Plateau
underlain by sedimentary rocks of upper Devonian
Age. The rocks are fractured and slightly folded
w/ axes tilt trend east

soils are deep, well drained soils
formed in stratified water-sorted sand & gravel
on terraces (slopes 5 - 15 %)
(Chenango & Howard gravelly loams)

Well #2 yield 1,200 gpm
#5 yield 1,800 gpm
aquifer = gravel, coarse med & fine + sand

check City of Binghamton - water supply - Susquehanna R.
OK where is intake

NEW YORK STATE REGISTRY FORMS

HAZARDOUS WASTE DISPOSAL SITES REPORT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Code: 2A

Site Code: 704011

Name of Site: GAF Dump Region: 7

County: Broome Town/City Binghamton

Street Address Seymour Street

Status of Site Narrative:

Inactive facility, allegedly used as disposal area for industrial photochemical wastes. Fifty-five gallon drums of waste liquids were spilled out on the ground surface. No containment practices are in evidence and site is fenced, partially paved and currently not in use.

Type of Site: Open Dump [X] Treatment Pond(s) [ ] Number of Ponds ____
Landfill [ ] Lagoon(s) [ ] Number of Lagoons ____
Structure [ ]

Estimated Size 2 Acres

Hazardous Wastes Disposed? Confirmed [ ] Suspected [X]

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tons, gallons)
Heavy metals: silver and cadium	Unknown
organics and trichloroethylene	Unknown
t-1,2 dichoroethylene	Unknown
phenols	Unknown
intermediate dyestaffs	Unknown

* Use additional sheets if more space is needed.

Name of Current Owner of Site: GAF Corporation

Address of Current Owner of Site: C/O General Counsel, GAF Corp. Building #10
1361 Alps Road, Wayne, NJ 07470

Time Period Site Was Used for Hazardous Waste Disposal:

Approx. WWII , 19 To mid-1970's , 19

Is site Active ☐ Inactive ☒
(Site is inactive if hazardous wastes were disposed of at this site and site was closed prior to August 25, 1979)

Types of Samples: Air ☒ Groundwater ☐ None ☐
Surface Water ☒ Soil ☐

Remedial Action: Proposed ☐ Under Design ☐
In Progress ☐ Completed ☐
Nature of Action: None

Status of Legal Action: None State ☐ Federal ☐

Permits Issued: Federal ☐ Local Government ☐ SPDES ☐
Solid Waste ☐ Mined Land ☐ Wetlands ☐ Other ☐

Assessment of Environmental Problems:

Elevated levels of heavy metals and volatile organics have been detected in past sampling efforts. No background date is available. Site is adjacent to numerous industrial wells and the Trout Brook storm sewer. Approximately 1.5 miles to the west is Johnson City municipal well field.

Assessment of Health Problems:

Unknown

Persons Completing this Form:

Frances C. Geissler

New York State Department of Environmental Conservation

Date October 16, 1985

New York State Department of Health