932084 A

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

97th Street Methodist Church
City of Niagara Falls

Site No. 932084A
Niagara County

Date: January 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*

By:
ENGINEERING-SCIENCE
In Association With
DAMES & MOORE

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

97TH STREET CHURCH SITE
9610 COLVIN BLVD.
NYS SITE NUMBER 932084A
CITY OF NIAGARA FALLS
NIAGARA COUNTY
NEW YORK STATE, 14304

Prepared For

DIVISION OF SOLID AND HAZARDOUS WASTE
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD
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DATE OF SUBMITTAL: JANUARY, 1986

97TH STREET CHURCH

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SECTION I

EXECUTIVE SUMMARY
97TH STREET CHURCH SITE

This report, prepared for the New York State Department of Environmental Conservation (NYSDEC), presents the results of the Phase I investigtion for the 97th Street Church Site (NYS Number 932084A, EPA Site Number D980534697) located in the City of Niagara Falls, Niagara County, New York (see Figure I-1).

SITE BACKGROUND

The 2-acre 97th Street Church Site (Wesley United Methodist Church), has been owned by the Western New York Conference since 1961. Prior to then, the site was undeveloped and owned by Mary Anne Nye Johnston and Mabel George, respectively. In 1958, Olin Chemical reportedly disposed of 23 tons of broken concrete potentially contaminated with mercury. This material may have been used as on-site fill to improve the property for future development. A site plan is provide in Figure I-2.

There has been some confusion concerning the disposal of concrete at the 97th Street Church According to Olin Chemicals, Olin Chemicals disposed of concrete at the 99th Street site in 1958. The church on the 99th Street site was demolished and sold in 1965 (Bitterman, 1985). No wastes from Olin Chemicals were disposed of at the 97th Street site (Olin Chemicals, 1985).

Sampling conducted at the site indicated the presence of several organic compounds; however, mercury was below detection limits. Since no record of past disposal of organics at the site exists, coupled with the sites close proximity to Love Canal, it is possible that Love Canal may be the source of organic contamination.

ASSESSMENT

In an attempt to quantify the risk associated with this site, the Hazard Ranking Scoring system (HRS) was applied as currently being used by the NYSDEC to evaluate abandoned hazardous waste sites in New York State. This system takes into account the types of wastes at the site, receptors, and transport routes to apply a numerical ranking of the site. As stated in 40 CFR Subpart H Section 300.81, the HRS scoring system was developed to be used in evaluating the relative potential of uncontrolled hazardous substance facilities to cause health or safety problems or ecological or environmental damage. It is assumed by the EPA that a uniform application of the ranking system in each state will permit EPA to identify those releases of hazardous substances that pose the greatest hazard to humans or the environment.

Under the HRS, three numerical scores are computed for each site, to express the relative risk or danger from the site, taking into account the population at risk, the potential for contamination of drinking water supplies, for direct human contact, and for destruction of sensitive ecological systems and other appropriate factors. The three scores are:

- S_M reflects the potential for harm to humans or the environment from migration of a hazardous substance away from the facility by routes involving groundwater, surface water or air. It is a composite of separate scores for each of the three routes (S_{GW} = groundwater route score, S_{SW} = surface water route score, and S_A = air route score).

- S_{FE} reflects the potential for harm from substances that can explode or cause fires.

- S_{DC} reflects the potential for harm from direct contact with hazardous substances at the facility (i.e., no migration need be involved).

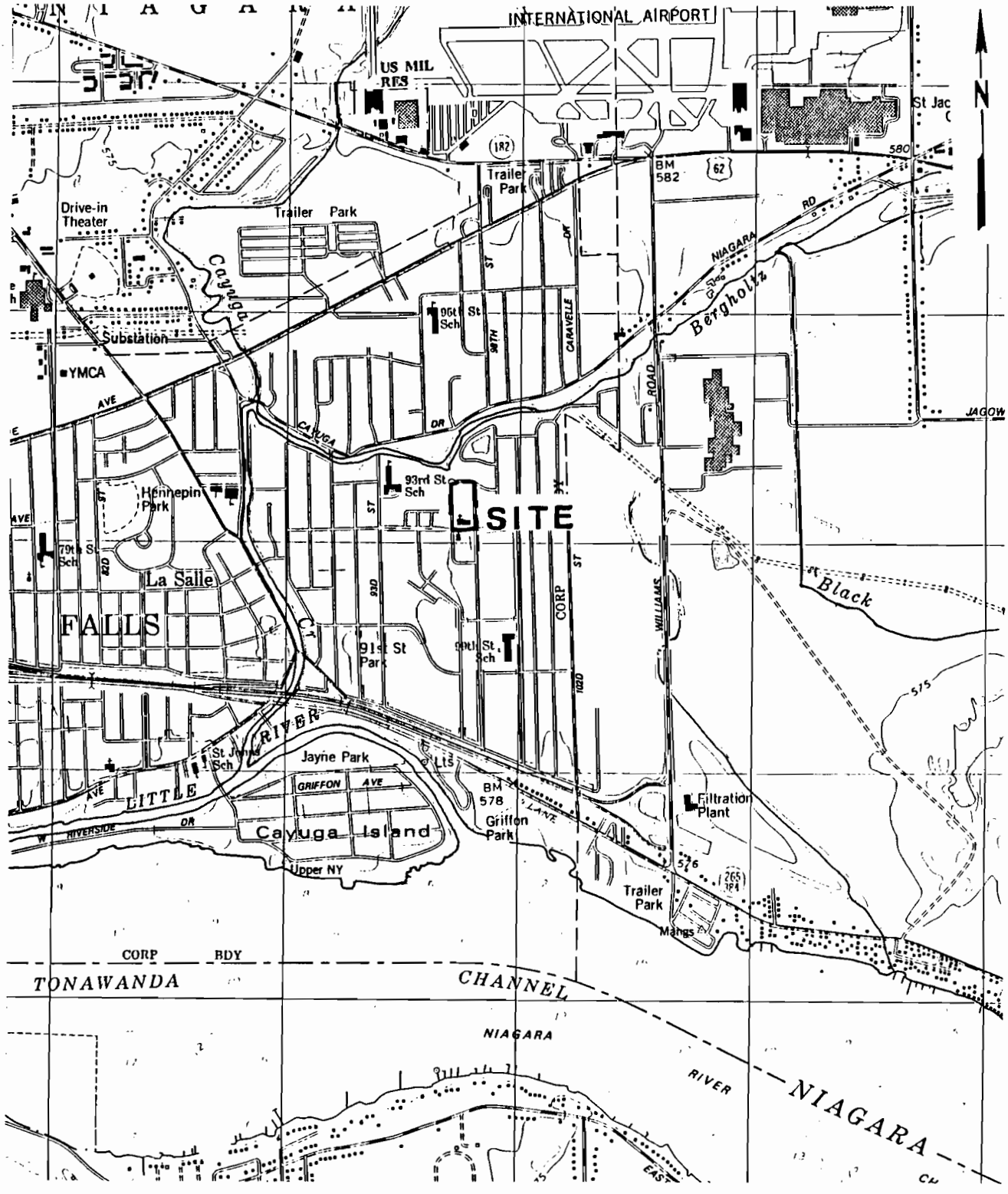
The preliminary HRS score was:

S_M	=	0	S_A	=	0
S_{GW}	=	0	A_{FE}	=	0
S_{SW}	=	0	S_{DC}	=	0

These scores are relatively low and reflect low target ratings.

RECOMMENDATIONS

No Phase II work is recommended for the 97th Street Methodist Church site as a result of information discovered during this study. Olin Chemical reports that the 23 tons of concrete containing mercury was disposed of at the 99th Street Methodist Chruch site, not the 97th Street Methodist Church site.



LATITUDE: 43°04'51"
LONGITUDE: 78°57'05"

SCALE

0 1000 2000 3000 4000 FEET

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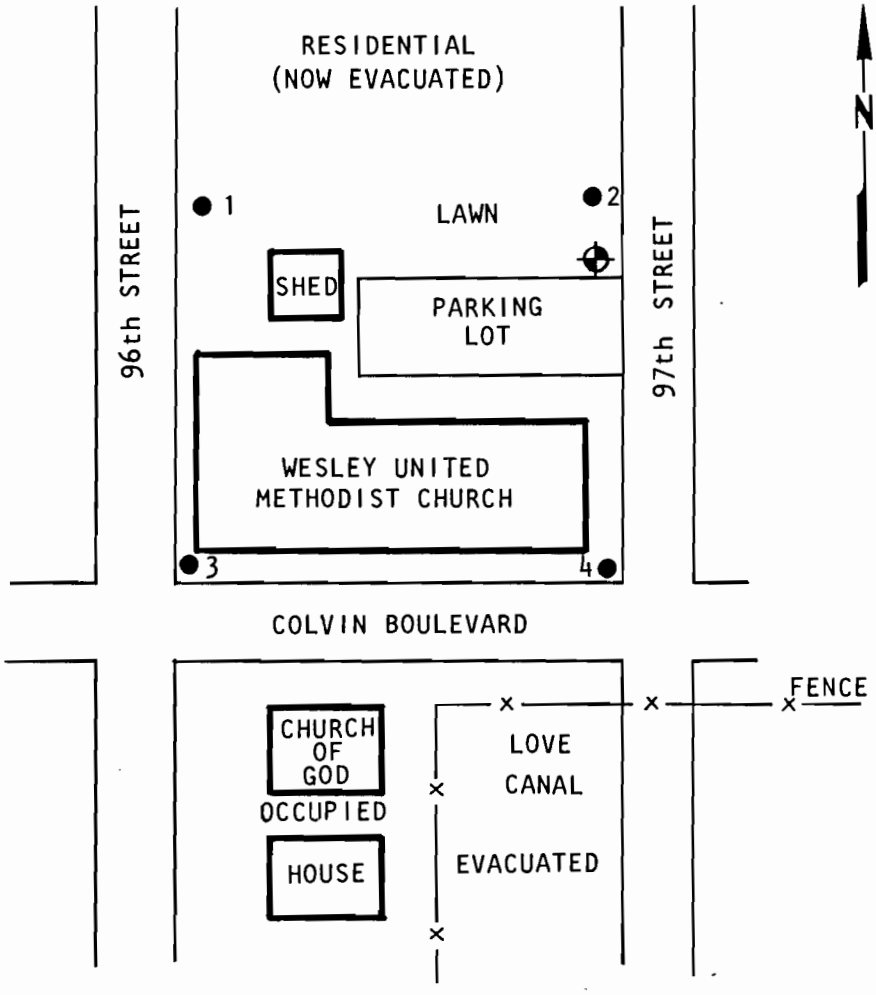
SITE LOCATION MAP

97th ST. METHODIST CHURCH

FIGURE I-1

REFERENCE: U.S.G.S. 7.5' Topographic Map
Tonawanda West, NY (1980) Quadrangle



NOT TO SCALE

EXPLANATION:

- ● 3 TEST BORING AND SUBSTRATE SAMPLE by U.S.G.S. 1982
- ⊕ MONITORING WELL FOR LOVE CANAL STUDY

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PLOT PLAN

97th ST. METHODIST CHURCH

FIGURE I-2

SECTION II

PURPOSE

The purpose of the Phase I investigation at the 97th Street Church Site site was to assess the hazard to the environment caused by the present condition of the site. This assessment is based on the Hazard Ranking System, which involves the compilation and rating of numerous geological, toxicological, environmental, chemical, and demographic factors and the calculation of an HRS score. Details of HRS implementation are included in Section V. During the initial portion of the investigation, all available data and records, combined with information collected from a site inspection, were reviewed and evaluated. The investigation at this site focused on the suspected deposition of 23 tons of broken concrete at the site in August and September of 1958. Based on this initial evaluation of the 97th Street Church Site, Olin Chemical did not dispose of 23 tons of concrete containing mercury at the 97th Street Methodist Church Site. Therefore, a Phase II study is not recommended, and a Phase II work plan and cost estimate have not been provided herein.

SECTION III

SCOPE OF WORK

The scope of work for the New York State Inactive Site Investigation Program (Phase I) was to collect and review all available information necessary for the documentation and preparation of a Hazard Ranking System score and a Phase II work plan and cost estimate if required. The work activities performed included data collection and review, a site inspection, and interviews with knowledgeable individuals of past and present disposal activities at the site.

The sources contacted during this Phase I investigation included government agencies (federal, state and local), present site owners and operators, and any other individuals that may have knowledge of the site, as identified during the performance of the investigation. These sources are listed in Appendix A. The intent of the list is to identify all persons, departments, and/or agencies contacted during the third round of the Phase I investigations even though useful information may not have been collected from each source contacted.

SECTION IV

SITE ASSESSMENT

SITE HISTORY

The two (2) acre 97th Street Church Site (Wesley United Methodist Church) has been owned by the Western New York Conference since 1961 (Western NY Conference, 1985). Prior to then, it was owned by Mary Anne Nye Johnston, who purchased the property from Mabel George (Niagara County, 1985 and French, 1985). The church was abandoned in 1978 following the discovery of contamination at the Love Canal, 400 feet to the southeast ((Niagara County, 1982).

According to the NYSDEC Site Profile Report for the 97th Street Methodist Church, Olin Chemical was thought to have used the site to dispose of 23 tons of broken concrete in August and September of 1958. The materials were supposedly used as fill in the low-lying areas of the site. No other incidents of waste disposal are known to have occurred at the site.

There has been some confusion concerning the alledged disposal of Olin Chemical wastes at the 97th Street Church site. According to Olin Chemical, concrete from Olin Chemical was disposed of in 1958 at the 99th Street Church. The church congregation later moved to the 97th Street Church location (Kapteina, 1985). The 99th Street Church was sold in 1965 and the church building was demolished so private residences could be constructed (Bitterman, 1985).

SITE TOPOGRAPHY

The 97th Street Church Site site is located in the City of Niagara Falls, Niagara County, New York State. The ground surface is flat and has been developed into an asphalt-surfaced parking lot and a small lawn surrounding the church.

The approximately 2-acre rectangular site is located in a surburban area which has now been largely abandoned due to its proximity to the Love Canal, immediately across the street to the south of this site. To the east, north, and west of the site are abandoned surburban homes. Surface water on this site drains into Black Creek via the 96th Street storm sewer. Black Creek is 3/4 of a mile east of the site and flows northward into Bergholtz Creek. North of the site, Bergholtz Creek flows west into Cayuga Creek, and passes within 500 feet of the site.

Local Sensitive Environments

There are no wetlands within 1 mile of the site. However, the Niagara River and associated tributaries are located along the migration pathway of three endangered species: peregrine falcon, bald eagle, and golden eagle. The river and its major tributaries may provide a wintering-over area for these birds; an adult eagle was observed on the upper Niagara River in late December, 1984. In addition, these rivers may provide potential breeding areas for these endangered birds, but this has never been confirmed.

The river supports a large water fowl population because of its year-round rich fishing grounds, especially at the source of the river and north of Grand Island (approximately 5 miles down river from the site). Wetlands also provide habitats for waterfowl. The largest wetland in the Upper Niagara area is on Buckhorn Island (north end of Grand Island).

The fish population within the Niagara River is part of the larger Lake Erie fish population. The threatened lake sturgeon occurs in Lake Erie and the Niagara River. It is a deep water benthic fish, which may occasionally injest bottom sediment. It commonly occurs off Sturgeon Point (southeast shore of Lake Erie), and is caught occasionally in the Niagara River.

The effects of contamination on the fish and wildlife populations of the Niagara River are largely unknown. An ongoing toxicological study of the common golden eye duck, which feeds on mollusks, is aimed at assessing the impact of known and suspected contaminants on the health of this population.

SITE HYDROLOGY

This summary of site hydrogeology is based on information from USGS Topographic Maps, NYS Museum and Science Service Bedrock Geology Map and Quaternary Geology Map, site profile reports from the Niagara County Health Department (NCHD) and NYSDEC, and a subsurface investigation by E. C. Jordan Company.

Regional Geology and Hydrology

The site is located in the Erie-Ontario lowlands physiographic province. The bedrock of this region is predominantly limestone, dolostone, and shale. Most of the rocks are deep aquifers with regional flow to the south.

In the recent past, most of New York State, including the site, has been repeatedly covered by a series of continental ice sheets. The activity of the glacier widened pre-existing valleys, and deposited widespread accumulations of till. The melting of ice, ending approximately 12,000 years ago, produced large volumes of meltwater; this water subsequently shaped channels and deposited thick accumulations of stratified, granular sediments.

As glacial ice retreated from the region, meltwater formed lakes in front of the ice margin. This region is covered by both lake sediments and morainal materials. Sediments associated with Lake Tonawanda are especially widespread in this region. Lake Tonawanda was a shallow elongate lake which occupied an east-west valley and drained north into Lake Iroquois. The sediments consist of beach ridges and lacustrine silts and clays (indicating quiet or deeper water deposition).

Granular deposits in this region frequently act as shallow aquifers, whereas lacustrine clays, as well as tills, often inhibit groundwater movement. However, fine-grained, water-lain sediments, such as silts and clays, frequently contain horizontal laminations and sand seams. These internal features facilitate lateral groundwater movement through otherwise low permeability materials.

Site Hydrogeology

Bedrock beneath the site is expected to be Lockport Dolomite and to occur at a depth of approximately 26 ft. This rock unit is massive and jointed and forms an (unused) bedrock aquifer.

Overlying the bedrock is a sandy till layer, approximately 3 feet thick. Over this soil unit is a sequence of lacustrine reddish brown and grey-brown silt and clay with fine sand seams (Lake Tonawanda deposits) (USGS Boring Descriptions, 1982). Due to the low permeability of these fine grained deposits, there is not expected to be a soil aquifer. For the HRS score, a permeability of less than 10^{-7} cm/sec has been assumed.

Due to the proximity of the site to the Love Canal, pumping and other activities which alter the natural groundwater flow regime in the Canal area may also influence the groundwater flow in the subsurface of

the site. Therefore, depth to groundwater and flow direction is indeterminant.

SITE CONTAMINATION

Based on information provided in NYSDEC Site Profile Report for the 97th Street Methodist Church Site, Olin Chemical was thought to have disposed of approximately 23 tons of broken concrete at the site in 1978. According to Olin, this material was comprised of discarded concrete "cells" or reactors, used in chlorine manufacture. Olin indicated that the concrete may have been contaminated by residual mercury, used in an amalgam to remove sodium from the reactor vessels (NYSDEC, 1985). No waste material was visible during a site investigation (ES and D&M Site Inspection, 3/25/85).

There has been some confusion concerning the alledged disposal of Olin Chemical wastes at the 97th Street site. A site listed as the "99th Street Methodist Church" was thought to have received the Olin wastes rather than the 97th Street site. According to Olin Chemicals' records (provided in Appendix), concrete from Olin Chemicals was disposed of in 1958 at the 99th Street Methodist Church. The church's congregation was later transferred to the 97th Street Methodist Church when the 99th Street Church was closed (Kapteina, 1985). According to the NYS telephone directory, the 99th Street Methodist Church did exist on 99th Street in 1946 until approximately 1961 (Olin Chemicals, 1985). The church sold the property in 1965 and the church structure was demolished so private residences could be constructed (Bitterman, 1985). No information is available which indicates if the Olin Chemicals concrete wastes were excavated and removed from the 99th Street Church site following the demolition of the church building. The 99th Street site is located within the fenced area of the Love Canal site, which has been capped.

In 1982, the USGS drilled four test borings at the 97th Street site (see Figure IV-1). Soil samples were taken from all four borings and a groundwater sample was taken from one boring. Analytical results are

presented in Table IV-1. As can be seen from these results, mercury, the contaminant suspected to be present at the site, was not found in any of the soil samples at the site (USGS, 1982). However, three priority pollutants were detected in the groundwater, two of which were at high concentrations. The samples were interpreted via GC/MS analysis.

As part of the Love Canal investigation and remedial action program, two monitoring wells were installed adjacent to the church's parking lot (see Figure IV-2). One well (No. 31-51) was completed in the overburden; the second (No. 32-51), in the bedrock. These wells were most recently sampled by the NYSDEC in the summer of 1984, at which time analyses were conducted for both organic and inorganic priority pollutants. Quantifiable results of these and previous EPA samplings of the two wells are presented in Table IV-2. Mercury, the contaminant of interest, was below detection limits (0.2 ug/liter for the EPA analysis) in all samples.

However, several organic priority pollutants were found at levels ranging from 10 to 30 ug/liter. Due to the lack of evidence of past disposal of organic compounds at the site, coupled with the site's location, 400 feet northeast from the Love Canal, it is possible that the Canal may be the source of the organic contaminants at the 97th Street Church Site.

In addition, the site was surveyed for volatile organics using an HNu meter. All readings were below 1 ppm (ES and D&M Site Inspection, 3/25/85).

TABLE IV-1

RESULTS OF SOIL SUBSTRATE AND GROUNDWATER SAMPLING AT
97TH STREET CHURCH SITE CONDUCTED BY USGS

Parameter[a]	Sample Number Soild Substrate (depth) 1 (16.5')	2 (11.5')	3 (8.0')	4 (26.0')	Groundwater 4A
pH					7.0
Specific Conductance (umhos/cm)					2,730
Inorganics					
Iron	6,500	5,200	4,300	2,400	
Mercury	b	b	b	b	
Organics					
Diethylphthalate					LT[c]
Butylbenzyl-phthalate					315
Bis(2-ethylhexyl)-phthalate					252

SOURCE: USGS, 1982.

[a] Soil results are reported in mg/kg; water results in mg/liter.

[b] Constituent was not found.

[c] LT indicates consituent found, but at levels below the quantifiable detection limit.

TABLE IV-2

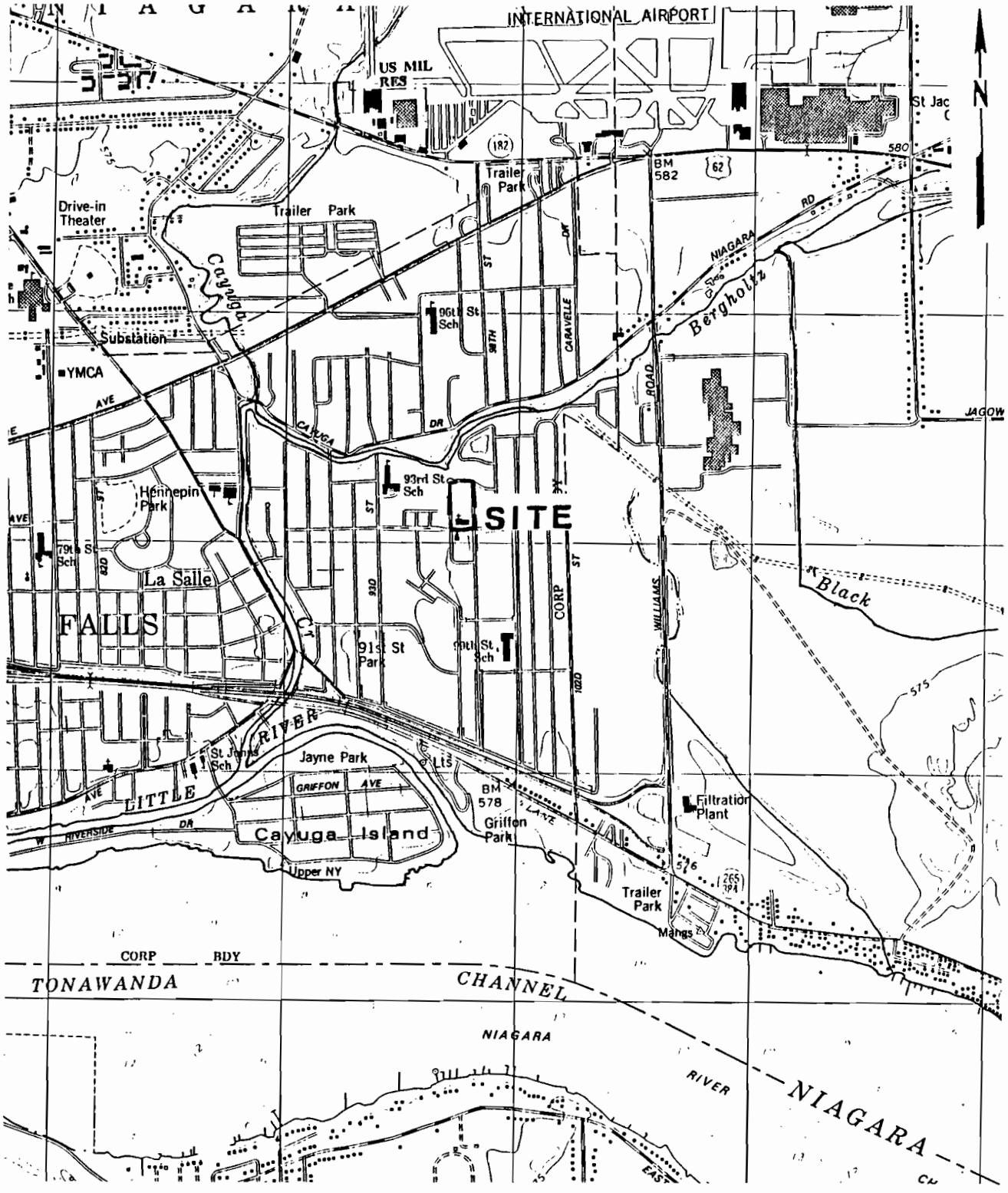
RESULTS OF GROUNDWATER SAMPLING AT 97TH STREET CHURCH SITE CONDUCTED BY USEPA AND NYSDEC AS PART OF LOVE CANAL INVESTIGATION/REMEDIATION[a]

Parameters (ug/liter)	EPA Sampling (Date Unknown)	NYSDEC Sampling (1984)
Overburden Well		
Mercury	BDL	BDL
Gamma - BHC	12	[b]
Beta - BHC	10	[b]
Endosulfan	[b]	15
Pyrene	[b]	31
Fluoranthene	[b]	23
Zinc	[b]	2,500
Bedrock Well[b]		

SOURCE: S. Barlowe, NYSDEC-Albany, Personal Communication, 4/23/85.

[a] Priority pollutants (inorganic and organic) were either not detected or below quantifiable detection limits.

[b] Constituent either not detected or below quantifiable detection limits.



LATITUDE: 43°04'51"
LONGITUDE: 78°57'05"

SCALE

0 1000 2000 3000 4000 FEET

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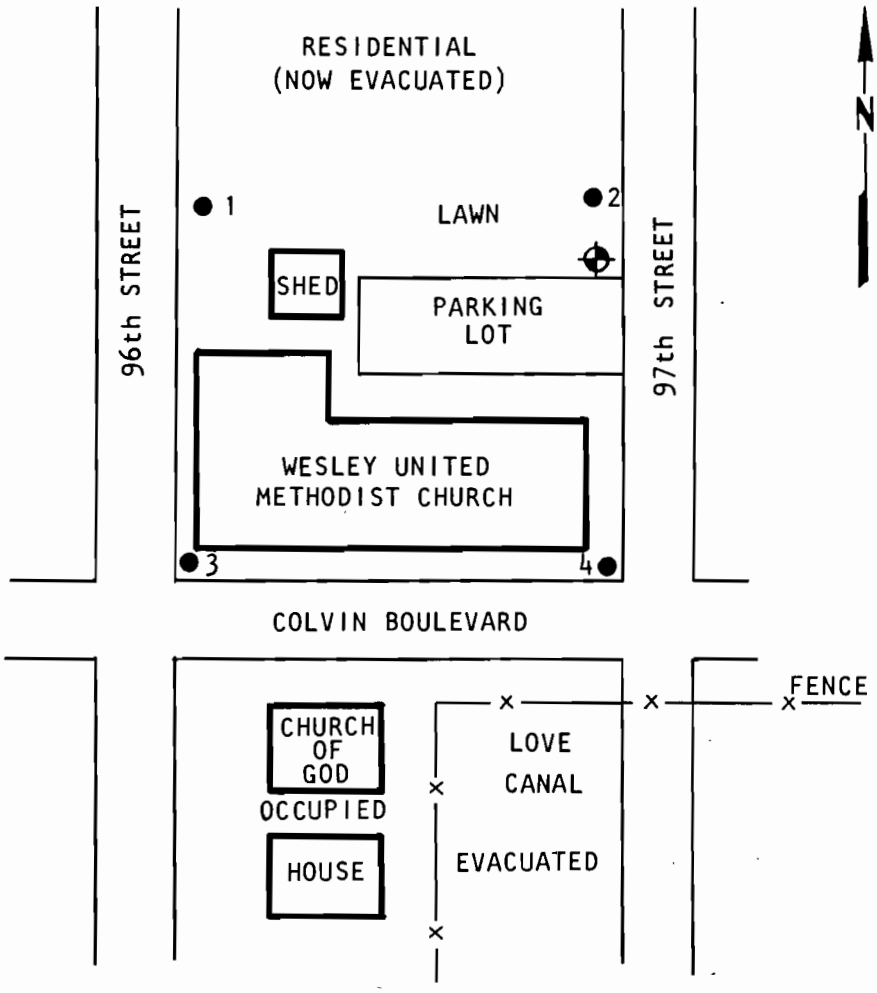
SITE LOCATION MAP

97th ST. METHODIST CHURCH

FIGURE IV-1

REFERENCE: U.S.G.S. 7.5' Topographic Map
Tonawanda West, NY (1980) Quadrangle



NOT TO SCALE

EXPLANATION:

- ● 3 TEST BORING AND SUBSTRATE SAMPLE by U.S.G.S. 1982
- ⊕ MONITORING WELL FOR LOVE CANAL STUDY

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PLOT PLAN

97th ST. METHODIST CHURCH

FIGURE IV-2

PRELIMINARY APPLICATION OF HAZARD RANKING SYSTEM

NARRATIVE SUMMARY

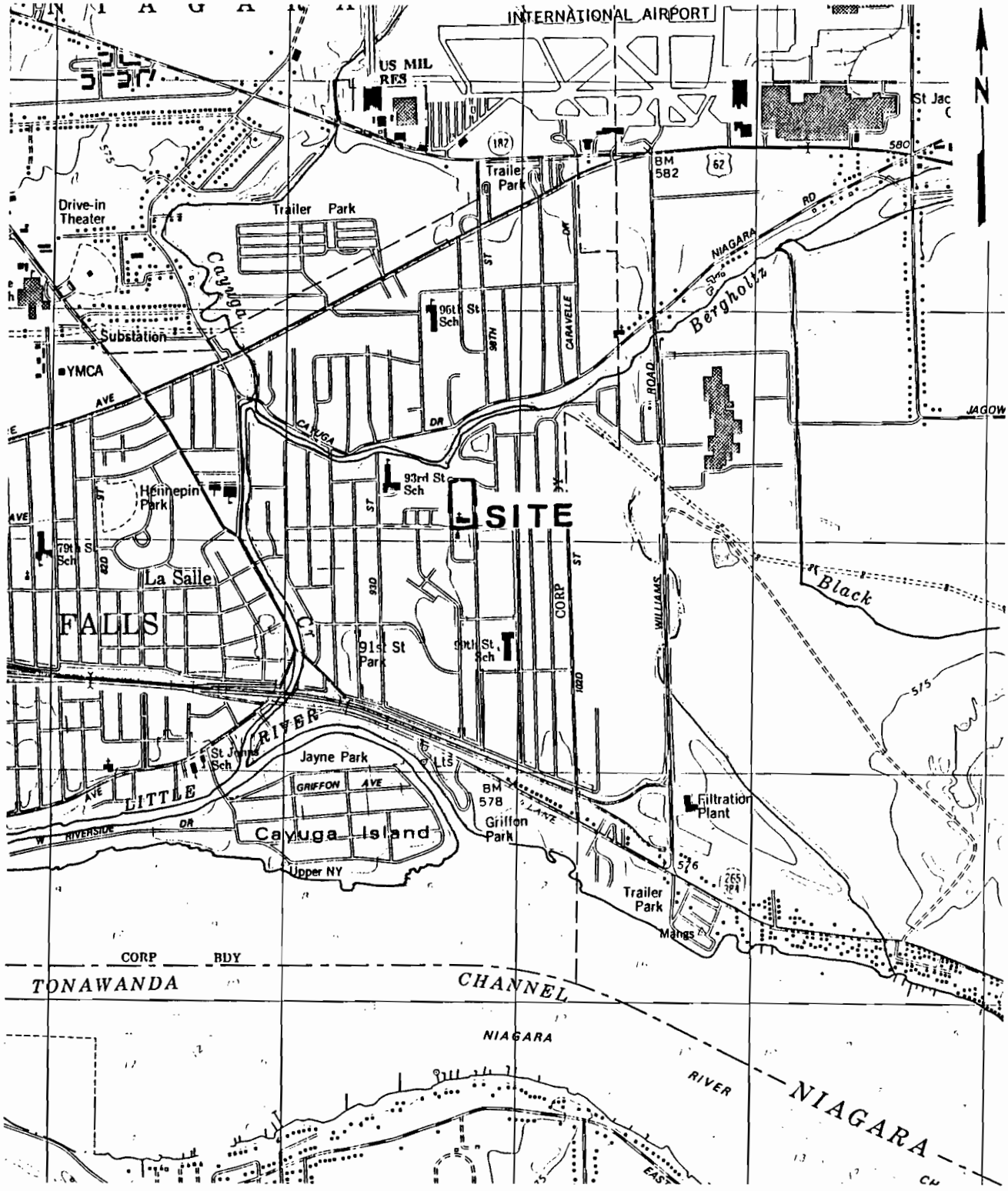
The two (2) acre 97th Street Church Site (Wesley United Methodist Church) has been owned by the Western New York Conference since 1961. The church, completed in 1968, was abandoned in 1978 as a result of contamination at nearby Love Canal.

Based on information provided in the NYSDEC Site Profile Report for the 97th Street Methodist Church site, Olin Chemical may have disposed of 23 tons of broken concrete "cells" (reactors) at the site in 1958. According to Olin, these cells were used in chlorine production and may have retained residual amounts of mercury (NYSDEC, 1985 and Niagara County, 1985).

There has been some confusion concerning the alledged disposal of Olin Chemical wastes at the 97th Street site. According to Olin Chemical, concrete from Olin Chemical was disposed of in 1958 at the 99th Street Church site. The church's congregation later moved to the 97th Street Church location (Kapteina, 1985). The 99th Street Church was sold in 1965, and the church building was demolished so private residences could be constructed (Bitterman, 1985).

No mercury was detected (detection limits of 0.2 ppb) at the site based on sampling conducted by the USGS (soil substrate and groundwater) and the USEPA and NYSDEC (groundwater). Several organics were found at levels on the order of 10 to 100 ug/liter; however, due to the lack of evidence of disposal of organic compounds at the site, coupled with the site's downgradient position in relation to the nearby Love Canal, it is possible that these wastes may have originated from the Love Canal.

HNU sampling conducted at the site detected no volatile organics above 1 ppm (ES and D&M Site Inspection, 3/25/85).



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REFERENCE: U.S.G.S. 7.5' Topographic Map
Tonawanda West, NY (1980) Quadrangle

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OF ENVIRONMENTAL CONSERVATION
PHASE I REPORT

SITE LOCATION MAP

97th ST. METHODIST CHURCH

FIGURE ii-1

HRS COVER SHEET

Facility Name: 97th Street Church Site (Wesley United Methodist Church)

Location: 9610 Colvin Blvd., Niagara Falls, NY

EPA Region: II

Person(s) in charge of the facility: V. French, Western NY Conference

Name of Reviewer: S. J. Tiffany Date: 4/24/85

General Description of the facility:

Recent interviews with Olin Chemicals and Western NY Conference of the United Methodist Church employees indicates that Olin Chemical disposed of concrete waste at the 99th Street Methodist Church site rather than the 97th Street Church site. Contaminants detected in groundwater samples at the 97th Street Church site may be from the Love Canal site located approximately 400 feet from the site. No mercury has been detected in groundwater samples collected to date. However, several organic contaminants were detected during past USEPA and NYSDEC sampling efforts. The source of organics is possibly from the nearby Love Canal.

Scores: $S_M = 0$ ($S_{gw} = 0$ $S_{sw} = 0$ $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 0$

Facility Name: 97th Street Church Date: 4/24/85

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	1	3	
Physical State	(0) 1 2 3	1	0	3	
Total Route Characteristics Score			7	15	
3 Containment	(0) 1 2 3	1	0	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	[0] 3 6 9 12 15 18	1	0	18	
Hazardous Waste Quantity	[0] 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	26	
5 Targets					3.5
Ground Water Use	0 (1) 2 3	3	3	9	
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	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			0	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 0.0		

GROUND WATER ROUTE WORK SHEET

Facility Name: 97th Street Church Date: 4/24/85

Surface 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	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	1	3	
Total Route Characteristics Score			9	15	
3 Containment	(0) 1 2 3	1	0	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	(0) 3 6 9 12 15 18	1	0	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			0	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			0	64,350	
7 Divide line 6 by 64,350 and multiply by 100			S_{sw} = 0		

SURFACE WATER ROUTE WORK SHEET

Facility Name: 97th Street Church Date: 4/24/85

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	0 45	1	0	45	5.1
Date and Location:	March/April 1985				
Sampling Protocol:	HNu meter survey				
If line [1] is 0, the S_a = 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	0	3	
Toxicity	(0) 1 2 3	3	0	9	
Hazardous Waste	(0) 1 2 3 4 5 6 7 8	1	0	8	
	Total Waste Characteristics Score		0	20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 (21) 24 27 30	1	21	30	
Distance to Sensitive Environment	(0) 1 2 3	2	0	6	
Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score		24	39	
[4] Multiply [1] x [2] x [3]			0	35,100	
[5] Divide line [4] by 35,100 and multiply by 100			S_a = 0		

AIR ROUTE WORK SHEET

Facility Name: 97th Street Church Date: 4/24/85

Worksheet for Computing S_M

	S	S^2
Groundwater Route Score (S_{gw})	0	0
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0

WORK SHEET FOR COMPUTING S_M

Facility Name: 97th Street Church Date: 4/24/85

Fire and Explosion Work Sheet					
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 4 by 1,440 and multiply by 100			S_{FE} = 0		

FIRE AND EXPLOSION WORK SHEET

Facility Name: 97th Street Church Date: 4/24/85

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	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	3	3	8.2
3 Containment	(0) 15	1	0		8.3
4 Waste Characteristics Toxicity	(0) 1 2 3	5	0	15	8.4
5 Targets					8.5
Population Within 1-Mile Radius	0 1 2 3 4 (5)	4	20	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			20	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				21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 0		

DIRECT CONTACT WORK SHEET

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

FACILITY NAME: 97th Street Church Site (Wesley United Methodist Church)

LOCATION: 9610 Colvin Blvd., Niagara Falls, NY

GROUNDWATER ROUTE

1. OBSERVED RELEASE

Contaminants detected (5 maximum):

Bis(2-ethylhexyl) phthalate, Iron, Butylbenzyl phthalate (USGS Draft Report, 1982) were detected. However, no organic wastes are suspected to be disposed on-site. Furthermore, the probable source of the groundwater contamination is the Love Canal, located approximately 400 feet from the site.

Rationale for attributing the contaminants to the facility:

The above-listed contaminants are not attributed to this site. For HRS scoring, no observed release is considered.

* * *

2. ROUTE CHARACTERISTICS

(USGS Borings Descriptions, USGS, 1982)

Depth to Aquifer of Concern

Name/description of aquifer(s) in concern:

1. Probable shallow, perched aquifer.
2. Bedrock aquifer in Lockport Dolomite.

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

Approximately 1.5' to local perched water level. 42' to Lockport Dolomite which is the aquifer of concern.

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

Unknown.

Net Precipitation

U.S. Dept. of Commerce, National Climatic Center, (Climatic Atlas of the United States, 1979).

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

Mean annual precipitation is 36".

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

Mean annual lake evaporation is 27".

Net precipitation (subtract the above figures):

9" (36" - 27" = 9").

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

1. Topsoil at 0 - 1.5' depth.
2. Clay at 1.5' to 26'.

Permeability associated with soil type

10^{-7} cm/sec for clay (Freeze, R.A., and J.A. Cherry, Ground Water, 1979).

Physical State

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

Not applicable, no waste were disposed at the 97th Street Site (Kapteina, 1985).

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No waste disposal activities are known to have occurred on-site. Waste disposal activities were suspected at this site but have been determined to have occurred at the 99th Street Church Site (Olin Chemicals, 1985, and Kapteina, 1985).

Method with highest score:

Not applicable. No waste disposal activities occured at the site.

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Not applicable (Kapteina, 1985).

Compound with highest score:

Not applicable.

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):

Not applicable - see above (Kapteina, 1985).

Basis of estimating and/or computing waste quantity:

Not applicable - see above (Kapteina, 1985).

5. TARGETS

(Niagara County Health Department, Site Profile Report, 1982)

Ground Water Use

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

No uses of aquifer within a 3 mile radius.

Distance to Nearest Well

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

No uses of aquifer within a 3 mile radius.

Distance to above well or building:

Not applicable.

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

(NYS Atlas of Community Water System Sources, 1982).

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

None within 3 miles.

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):

None within 3 miles.

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

Not applicable.

SURFACE WATER ROUTE

1. OBSERVED RELEASE

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

No surface water samples collected for analysis (NYSDEC Registry Sheet, 12/83).

Rationale for attributing the contaminants to the facility:

Not applicable.

2. ROUTE CHARACTERISTICS

(USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980)

Facility Slope and Intervening Terrain

Average slope of facility in percent:

1.0%.

Name/description of nearest downslope surface water:

Bergholtz Creek.

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

1.0%.

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

No.

Is the facility completely surrounded by areas of higher elevation?

No.

1-Year 24-Hour Rainfall in Inches

2.1" (U.S. Department of Commerce Technical Paper No. 40).

Distance to Nearest Downslope Surface Water

0.4 mile (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980)

Physical State of Waste

Not applicable. No waste have been disposed on-site (Kapteina, 1985).

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Not applicable. No wastes have been disposed on-site (Kapteina, 1985).

Method with highest score:

Not applicable, see above.

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

No waste disposal activities are known to have occurred on-site. The disposal of concrete containing mercury were suspected at this site but have been determined to have occurred at the 99th Street Church site (Olin Chemicals, 1985 and Kapteina, 1985).

Compound with highest score:

Not applicable - see above (Olin Chemicals, 1985 and Kapteina, 1985).

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):

Not applicable - see above (Olin Chemicals, 1985 and Kapteina, 1985).

Basis of estimating and/or computing waste quantity:

Not applicable.

* * *

5. TARGETS

Surface Water Use

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

Recreational greenspace and boating.
Commercial and industrial shipping.

Is there tidal influence?

No.

Distance to a Sensitive Environment

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

None within 2 miles (western NYS not a coastal area).

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

None within 1 mile (NYS Wetlands Maps).

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

None within 1 mile (NYSDEC Region 9, Dept. of Fish & Wildlife Files).

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 within specified distances (NYS Atlas of Community Water System Sources, 1982).

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

Not applicable.

Total population served:

Not applicable.

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:

ES and D&M Site Inspection, 3/25/85.

Methods used to detect the contaminants:

HNu meter readings were taken and all readings were less than 1 ppm, indicating no releases of volatile organics.

Rationale for attributing the contaminants to the site:

Not applicable.

* * *

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No known reactive compounds exist on-site.

Most incompatible pair of compounds:

No known incompatible compounds exist on-site.

Toxicity

Most toxic compound:

No hazardous wastes were disposed on-site (Kapteina, 1985).

Hazardous Waste Quantity

Total quantity of hazardous waste:

No hazardous wastes were disposed on-site (Kapteina, 1985).

Basis of estimating and/or computing waste quantity:

No hazardous wastes were disposed on-site (Kapteina, 1985).

* * *

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

48,763 (Compiled from 1980 US Census Data - current population may be lower as result of Love Canal evacuation).

Distance to a Sensitive Environment

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

None within 2 miles (western NYS not a coastal area).

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

None within 1 mile (NYS Wetlands Maps).

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

None within 1 mile (NYSDEC Region 9, Dept. of Fish & Wildlife Files).

Land Use

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

Approximately 0.5 mile (ES and D&M Site Inspection, 3/25/85).

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

More than 2 miles (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

Distance to residential area, if 2 miles or less:

Site is in residential area, which is currently partially abandoned due to proximity to the Love Canal (ES and D&M Site Inspection, 3/25/85).

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

More than 1 mile (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

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

More than 2 miles (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

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

No.

FIRE AND EXPLOSION

1. CONTAINMENT

Hazardous substances present:

No information was discovered during the Phase I study which indicates that a fire and explosion situation existed or presently exists at the site.

Type of containment, if applicable:

Not applicable, see above comment.

* * *

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

No measurements to determine the fire and explosion potential were taken on-site.

Ignitability

Compound used:

No ignitable compounds are known to exist on-site (Olin Chemical, 1985 and Kapteina, 1985).

Reactivity

Most reactive compound:

No reactive compounds are known to exist on-site (Olin Chemical, 1985 and Kapteina, 1985).

Incompatibility

Most incompatible pair of compounds:

No incompatible compounds are known to exist on-site (Olin Chemical, 1985 and Kapteina, 1985).

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

No hazardous waste are known to be disposed on-site that create a potential fire and explosion situation.

Basis of estimating and/or computing waste quantity:

(Olin Chemical, 1985 and Kapteina, 1985).

* * *

3. TARGETS

Distance to Nearest Population

Site is in a residential area, 0.0 mile (ES and D&M Site Inspection, 3/25/85).

Distance to Nearest Building

97th Street Church building is located on-site (ES and D&M Site Inspection, 3/25/85).

Distance to Sensitive Environment

Distance to wetlands:

None within 1 mile of the site (NYS Wetlands Maps).

Distance to critical habitat:

None within 1 mile (NYSDEC, Region 9, Department of Fish and Wildlife, 1985).

Land Use

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

Approximately 0.5 mile (ES and D&M Site Inspection, 3/25/85).

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

More than 2 miles (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

Distance to residential area, if 2 miles or less:

Site is in a residential area, which is currently partially abandoned due to the proximity to Love Canal (ES and D&M Site Inspection, 3/25/85).

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

More than 1 mile (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

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

More than 2 miles (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

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

No.

Population with 2-Mile Radius

24,493 people (US Census Data, 1980).

Buildings Within 2-Mile Radius

6,445 buildings (USGS Topographic Map: Tonawanda West, NY Quadrangle, 1980).

DIRECT CONTACT

1. OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No information was obtained during the Phase I investigation which indicates that a direct contact incident occurred at this site.

* * *

2. ACCESSIBILITY

Describe type of barrier(s):

Barriers do not completely surround the facility (ES/D&M Site Visit).

* * *

3. CONTAINMENT

Type of containment, if applicable:

No waste disposal activities are known to have occurred on-site. Waste disposal activites were suspected at this site but have been determined to have occurred at the 99th Street Church site (Olin Chemicals, 1985; Kapteina, 1985). Unlined landfill.

* * *

4. WASTE CHARACTERISTICS

<u>Toxicity</u>

Compounds evaluated:

Not applicable (Kapteina, 1985).

Compound with highest score:

Not applicable.

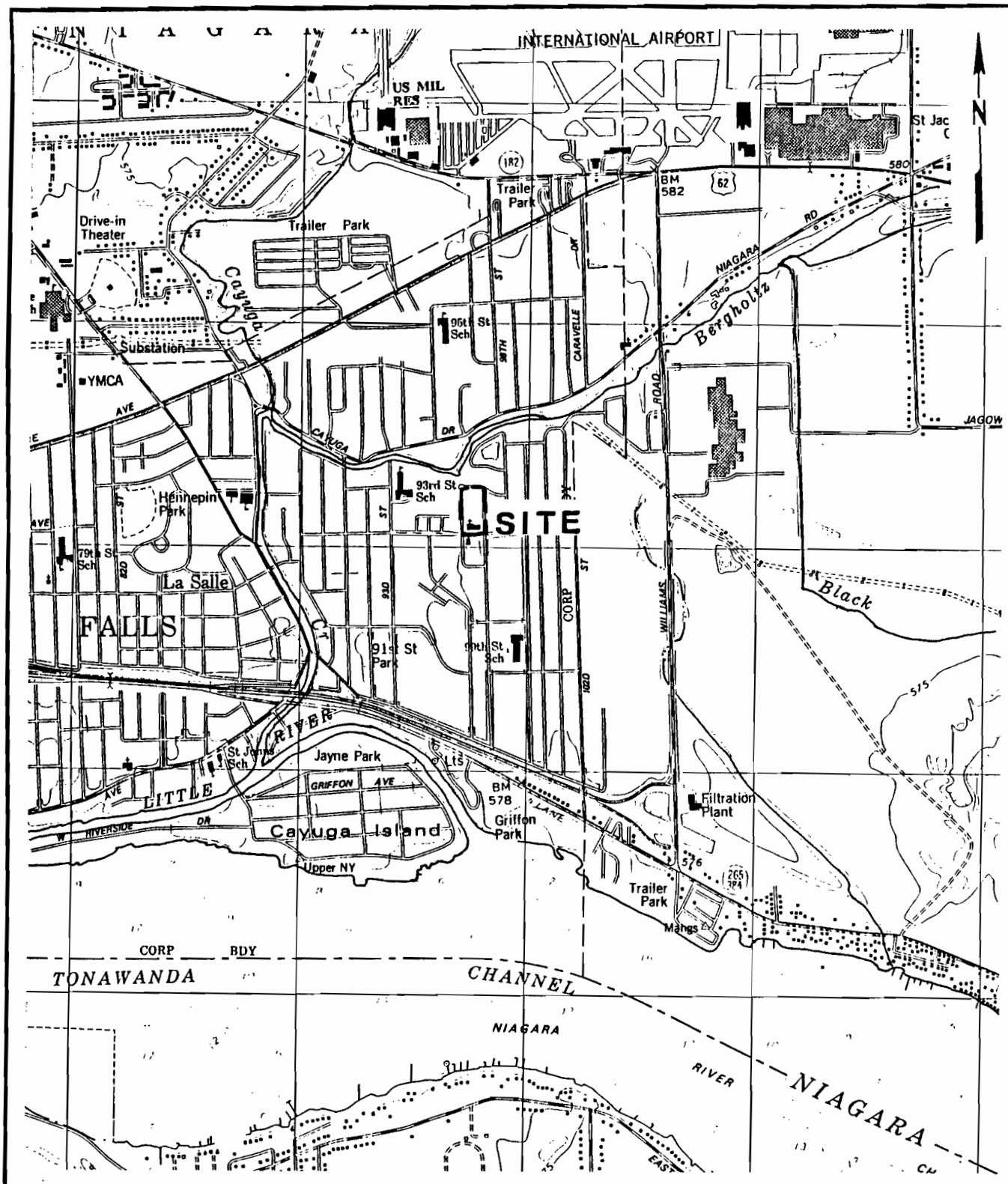
5. TARGETS

Population within one-mile radius

11,264 (US Census Data, 1980).

Distance to critical habitat (of endangered species)

None within one mile (NYSDEC, Region 9).



LATITUDE: 43°04'51"
LONGITUDE: 78°57'05"

SCALE

0 1000 2000 3000 4000 FEET

REFERENCE: U.S.G.S. 7.5' Topographic Map
Tonawanda West, NY (1980) Quadrangle

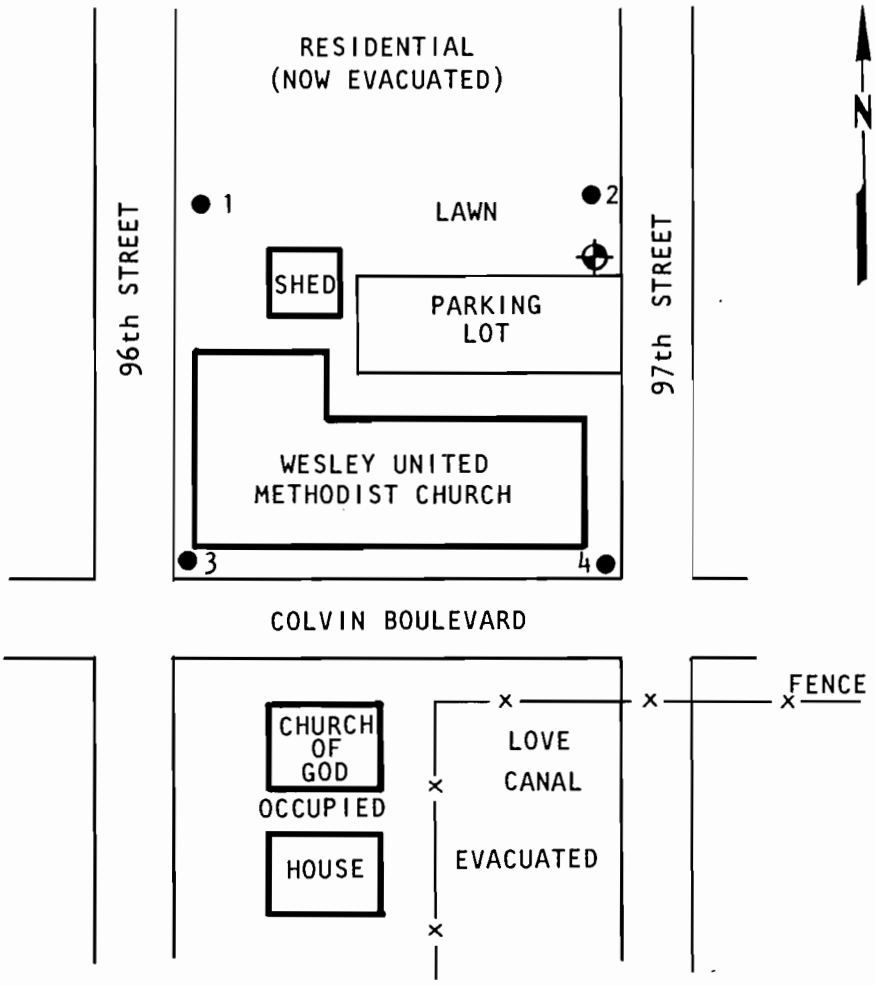
ENGINEERING-SCIENCE, INC.
IN ASSOCIATION WITH
DAMES & MOORE

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
PHASE I REPORT

SITE LOCATION MAP

97th ST. METHODIST CHURCH

FIGURE iv-1



NOT TO SCALE

EXPLANATION:

- ● 3 TEST BORING AND SUBSTRATE SAMPLE by U.S.G.S. 1982
- ⊕ MONITORING WELL FOR LOVE CANAL STUDY

ENGINEERING-SCIENCE, INC.
IN ASSOCIATION WITH
DAMES & MOORE

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
PHASE I REPORT

PLOT PLAN

97th ST. METHODIST CHURCH

FIGURE iv-2

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D980534677

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
97th Street Methodist Church	9610 Colvin Blvd

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Niagara Falls	NY	14304	Niagara	063	36

09 COORDINATES	LATITUDE	LONGITUDE
	43 04 51	078 57 05

10 DIRECTIONS TO SITE (Starting from nearest public road)

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
United Methodist Church	9499 Main St

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Buffalo	NY	14221	(716) 633-8558

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 DATE 12 / 8 / 81 (MONTH DAY YEAR)
☐ NO

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): _____

02 SITE STATUS (Check one)
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1958 (BEGINNING YEAR) | — (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

NO Hazardous wastes are known to be disposed at 97th Street Church site

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

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
SR Steele, II	Engineering-Science (ES)	(703) 591-7575

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
SR Steele, II	EPA	ES	(703) 591-7575	4 / 15 / 85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] 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			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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
	23 tons of concrete containing mercury compounds was suspected of being disposed at the 97th Street Church site. However, information obtained from Olin Chemical during the phase I study determined that this waste was disposed at the 99th Street church site, not 97th Street. The 99th Street church site is no longer there because the cover system for Love ~~Canal~~ Canal covers the former site.				

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)

Olin Chemical

EPA

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

I. IDENTIFICATION	
01 STATE: NY	02 SITE NUMBER: 0980534697

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
02 [X] OBSERVED (DATE: 1985 1982) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~~Unknown~~
04 NARRATIVE DESCRIPTION
Levels of Bis(2-ethylhexyl) phthalate, iron, Butylbenzyl phthalate

01 [X] B. SURFACE WATER CONTAMINATION
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown
04 NARRATIVE DESCRIPTION

01 [ ] C. CONTAMINATION OF AIR
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [ ] E. DIRECT CONTACT
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: No (Acres)
04 NARRATIVE DESCRIPTION

01 [ ] G. DRINKING WATER CONTAMINATION
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [ ] H. WORKER EXPOSURE/INJURY
02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [X] I. POPULATION EXPOSURE/INJURY
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D980534697

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
Unknown

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

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

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No

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

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
No

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
Site visit (1985), USGS (1982)

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
97th Street Methodist Church	9610 Colvin Blvd

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
NIAGARA FALLS	NY	14304	NIAGARA	063	36

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
43 04 51.	078 57 05.	☒ 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
3 25 85 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1958 (BEGINNING YEAR) — (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 [illegible] (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
[illegible]	Environmental Scientist	[illegible]	( )
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
[illegible]	[illegible]	[illegible]	( )
[illegible]		Niagara County Health Dept	(716) 284-3124
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
[illegible]	[illegible]	8499 Main Street Buffalo, NY	[illegible]
Mr. Donald [illegible]	[illegible]	2 Brentwood Rd Buffalo, NY	( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	3:15 PM	Sunny [illegible]

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
S. Robert Stache II	[illegible]	( ) [illegible]

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
S. Robert Stache II		EC	(Same)	[illegible] (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] 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			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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
	23 tons of concrete containing mercury compounds was suspected of being disposed at the 97th Street Church site. However, information obtained from Olin Chemical during the phase I study determined that this waste was disposed at the 99th Street church site, not 97th Street. The 99th Street church site is no longer there because the cover system for Love ~~Canal~~ Canal covers the former site.				

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)

Olin Chemical

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980534697

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
02 ☐ OBSERVED (DATE: 1982) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
Bis(2-ethylhexyl) phthalate, iron, and butylbenzyl phthalate detected in groundwater

01 [X] B. SURFACE WATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown
04 NARRATIVE DESCRIPTION

01 ☐ C. CONTAMINATION OF AIR
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL
02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) No
04 NARRATIVE DESCRIPTION

01 ☐ G. DRINKING WATER CONTAMINATION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

01 [X] I. POPULATION EXPOSURE/INJURY
02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: No
04 NARRATIVE DESCRIPTION

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER: NY D980534697

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

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

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION *(Include name(s) of species)*
Unknown

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

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

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No

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

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
No

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION *(Cite specific references, e. g., state files, sample analysis, reports)*
Site visit, (1985), USGS (1982)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IDY	D980554697

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)		

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)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

2 (Acres)

07 COMMENTS

Information collected from Olin chemical indicates that hazardous waste OR the 23 tons of concrete waste suspected of being disposed on-site, have not been disposed at the 97th Street Chemk Site

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.

not applicable

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

no waste on site

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

(Olin chemical)

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D980534697

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	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. >3 (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: 0

03 DISTANCE TO NEAREST DRINKING WATER WELL: N/A (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
≅ 26 (ft)	S	≅ 26 (ft)	unknown (gpd)	☐ YES ☐ NO

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

Numerous [illegible] Canal [illegible]

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☐ NO	COMMENTS: unknown	☐ YES ☐ NO	COMMENTS: unknown

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
Bergholtz Creek	☐	0.04 (mi)
Cayuga Creek	☐	0.8 (mi)
Niagara River	☐	1.2 (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. 11,264 NO. OF PERSONS	B. 24,493 NO. OF PERSONS	C. 33,248 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.0 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 6,445

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0 (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)

The 97th Street church is in a partially abandoned neighborhood in the vicinity of the Love Canal.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one) Clay

☒ 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) Lockport dolomite

☐ 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	
≃ 26 (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
9 (in)	2.1 (in)	1.0 %	N	1.0 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. >2 (mi)

OTHER: B. >1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

MIGRATORY BIRDS >1 (mi)

ENDANGERED SPECIES: AQUILA CHRYSAETOS; HALIAEETUS LEUCOCEPH; FALCO PEREGRENES

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. 1.2 (mi)	B. 0.07 (mi)	C. >2 (mi)	D. >1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Area is flat

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

Site visit

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

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
Air	HNu readings were taken during the site investigation - values obtained were all less than 1 ppm

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF [illegible] - [illegible]
(Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS: Site map was updated during the investigation

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

Site inspection conducted by [illegible] and [illegible]

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

II. CURRENT OWNER(S) / **PARENT COMPANY** *(If applicable)*

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
United Methodist Church		Western New York Conference	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
[illegible]499 [illegible]		8499 Main St	

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
[illegible]	NY	14221	Buffalo	NY	14221

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) *(List most recent first)* / **IV. REALTY OWNER(S)** *(If applicable; list most recent first)*

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Mary Anne Nye Johnston			

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
Mabel George			

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)*

Review of property deed [illegible] site inspection [illegible]
3/25/85
Niagara County Clerks' Office, 4/18/85.

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980534697

II. CURRENT OPERATOR *(Provide if different from owner)*

01 NAME	02 D+B NUMBER
Site is [illegible]	

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
1981-present	

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	10 NAME (Parent company)	11 D+B NUMBER
[illegible] Methodist Church		Western New York [illegible]	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
8499 Main Street		8495 Main Street	

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
Buffalo	NY	14221	Buffalo	[illegible]	[illegible]

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1961 - [illegible]	Same

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Mary Anne Nye Johnston			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
(assume same as owner)			

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
? -1961	same

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Mabel George			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
(Assume same as owner)			

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
?	same

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

- Interview of [illegible] Methodist Church Representatives [illegible] Weaver and French during site inspection conducted by ES and [illegible] 3/25/87
- N

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	[illegible]

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
None	

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

05 CITY	06 STATE	07 ZIP CODE

[illegible]

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Olin Chemicals			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
2400 Buffalo Ave			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Niagara Falls	NY				

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
unknown			

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)

- J. Iannotti, NYSDEC, personal communication, 4/24/85

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980534697

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION No	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION No	02 DATE	03 AGENCY

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D980534697

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

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

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
[illegible]

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/D [illegible] fence surrounds the site

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Church services no longer held.

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Ground water monitoring wells [illegible] installed [illegible] monitor groundwater conditions [illegible] Love Canal located to the southeast across the street [illegible]

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

Site inspection conducted by [illegible]

EPA FORM 2070-13 (7-81)

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

EPA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D980534697

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☑ NO

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

No legal action has been taken against the United Methodist Church or [illegible] Chemicals Company [illegible] disposal of possibly contaminated concrete materials. However, the United Methodist Church in conjunction with other interested parties are presently engaged in civil class action lawsuits against Hooker Chemical Company (presently Occidental Chemical [illegible]) for damages incurred due to disposal activities at the Love Canal.

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

Interview of Vernon French, United Methodist Church by ES 3/14/85

EPA FORM 2070-13 (7-81)

SECTION VI

ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

ASSESSMENT OF DATA ADEQUACY

A summary assessment of the adequacy of existing data for completion of the HRS score is presented in Table VI-1. Based on this assessment, no Phase II work is recommended and, therefore, a work plan and cost estimate have not been provided.

No Phase II work is recommended for the 97th Street Methodist Church site as a result of information that was discovered during this study. Records from Olin Chemical indicate that the 23 tons of concrete containing mercury were disposed of at the 99th Street Methodist Church site, not the 97th Street Methodist Church site. However, since the 97th Street Church is located adjacent to the Love Canal site, groundwater monitoring from wells on the 97th Street Church site will continue to be monitored as part of that investigation.

TABLE VI-1

ASSESSMENT OF ADEQUACY OF DATA

HRS Data Requirement	Comments on Data
Observed Release	
Groundwater	Contamination present, but not from this site
Surface Water	Data inadequate for HRS score
Air	Data adequate for HRS score
Route Characteristics	
Groundwater	Data adequate for HRS score
Surface Water	Data adequate for HRS score
Air	Not applicable, no observed release detected with HNu meter readings
Containment	Data adequate for HRS score
Waste Characteristics	Data inadequate for HRS score
Targets	Data adequate for HRS score
Observed Incident	Data adequate for HRS score
Accessibility	Data adequate for HRS score

APPENDIX A

REFERENCES

Sources Contacted

Documentation

SOURCES CONTACTED FOR
97TH STREET CHURCH SITE INVESTIGATION

CONTACT	DATE CONTACTED	PERSON CONTACTED	TELEPHONE NUMBER	LOCATION	INFORMATION COLLECTED
USEPA Headquarters, Superfund Office	4/2/85	Hamid Saebfed	(202) 382-4839	401 M Street, NW Washington, D.C. 20460	Reviewed list of sites to determine if additional information was available.
USEPA - Region II, OERR	3/22/85	Mel Hauptman	(212) 264-7681	Room 402 26 Federal Plaza NY, NY 10278	General information from site files.
NYSDEC - Division of Solid and Hazardous	12/19/84	Marsden Chen	(518) 457-0639	50 Wolf Road Albany, NY 12233	General information from site files.
NYSDEC - Division of Water	12/19/84	Sal Pagano	(518) 457-6675	50 Wolf Road Albany, NY 12233	Mr. Pagano set up meetings with three bureaus within Division of Water.
NYSDEC - Division of Water SPDES Files	12/20/84	Bob Hannaford	(518) 457-6716	50 Wolf Road Albany, NY 12233	Reviewed SPDES Files for permit numbers and conditions.
NYSDEC - Division of Water DMR Files	12/21/84	George Hansen	(518) 457-2010	50 Wolf Road Albany, NY 12233	Reviewed DMR files for discharge violations.
NYSDEC - Division of Air Toxics	12/21/84	Art Fossa	(518) 457-7454	50 Wolf Road Albany, NY 12233	Reviewed site list to identify sites with potential air emissions.
NYSDEC - Division of Monitoring and Assessment	12/21/84	Bill Berner Frank Estabrook Fred Van Alstyne	(518) 457-7363 (518) 457-7363 (518) 457-7363	50 Wolf Road Albany, NY 12233	Reviewed geology and monitoring information for specific sites.

SOURCES CONTACTED FOR
97TH STREET CHURCH SITE INVESTIGATION

CONTACT	DATE CONTACTED	PERSON CONTACTED	TELEPHONE NUMBER	LOCATION	INFORMATION COLLECTED
NYSDEC - Division of Environmental Enforcement	12/20/84	Kevin Walter	(518) 457-4346	50 Wolf Road Albany, NY 12233	Reviewed list of sites to determine if legal action has occurred in the past, is in progress, and/or is scheduled in the near future.
NYS - Attorney General's Office, Dept. of Law	1/7/85	Val Washington	(518) 473-3105	Empire State Plaza Justice Building Albany, NY 12233	Reviewed list of sites to determine if legal action has occurred in the past, is in progress, and/or is scheduled in the near future.
NYS - Attorney's Office	1/3/85	Albert Bronson	(716) 847-7196	Buffalo State Office Bldg. Buffalo, NY 14202	Reviewed list of sites to determine if legal action has occurred in the past, is in progress, and/or is scheduled in the near future.
NYSDEC - Division of Solid and Hazardous Waste	1/7/85	Ahmad Tayyebi Larry Clare Peter Buechi Jack Tygert	(716) 847-4615 (716) 847-4615 (716) 847-4590 (716) 847-4585	600 Delaware Ave. Buffalo, NY 14202	Collected information from site files.
NYSDEC - Region 9 Division of Air	1/8/85	Henry Sandonato Robert Armbrust	(716) 847-4565	600 Delaware Ave. Buffalo, NY 14202	Collected information concerning previous air emissions from inactive disposal sites.

SOURCES CONTACTED FOR
97TH STREET CHURCH SITE INVESTIGATION

CONTACT	DATE CONTACTED	PERSON CONTACTED	TELEPHONE NUMBER	LOCATION	INFORMATION COLLECTED
NYSDEC - Regional Attorney	1/10/85	Peter J. Burke	(716) 847-4551	600 Delaware Ave. Buffalo, NY 14202	Reviewed list of sites to determine if legal action has occurred in the past, is in progress, and/or is scheduled in the near future.
NYS Dept. of Health, Buffalo Region, Public Health Engineering	1/8/85	Lou Violanti	(716) 847-4500	584 Delaware Ave. Buffalo, NY 14202	Collected information from site files.
NYSDEC - Region 9 Division of Fish and Wildlife	1/10/85 & 1/11/85	Mike Wilkinson Jim Sneider	(716) 847-4600 (716) 847-4600	600 Delaware Ave. Buffalo, NY 14202	Collected information from site files
Niagara County Dept. of Health	1/9/85	Mike Hopkins	(716) 284-3124	Tenth & East Falls Street Niagara Falls, NY 14302	Collected information from Niagara County site files. Obtained additional information through interview.
Niagara County Dept. of Planning and Industrial Development	2/22/85	Dave Urso	(716) 439-6033	59 Park Ave. Lockport, NY 14094	Obtained 1980 U.S. Census Data.
United Methodist Church	3/25/85	Vernon French	(716) 633-8558	8499 Main Street Buffalo, NY 14221	Reviewed ownership history of the site.
Buffalo District - United Methodist Church	3/25/85	Donald Weaver	(716) 832-3233	2 Brantwood Drive Buffalo, NY 14226	Conducted site inspection.

SOURCES CONTACTED FOR
97TH STREET CHURCH SITE INVESTIGATION

CONTACT	DATE CONTACTED	PERSON CONTACTED	TELEPHONE NUMBER	LOCATION	INFORMATION COLLECTED
Niagara County Clerk's Office	4/18/85	County Clerk	(716) 439-6121	Niagara County Court House Lockport, NY 14094	Provided information on site ownership.
NYSDEC - Solid & Hazardous Wastes	4/23/85	Steve Barlow	(518) 457-4343	50 Wolf Road Albany, NY 12233	Provided groundwater information.
NYSDEC - Solid & Hazardous Wastes	4/24/85	John Ianotti	(518) 457-5637	50 Wolf Road Albany, NY 12233	Provided information regarding past disposal.

REFERENCES

1. Bitterman, Sue, Western NY Conference of the United Methodist Church, 11/5/85.

2. Cummings, Dave, Olin Chemicals, Telephone Interview, 11/12/85.

3. Freeze, R. A., and Cherry, J.A., Groundwater, 1985.

4. French, Vernon, C., Western NY Conference, Letter to M. Chen, NYSDEC, 2/7/85.

5. Hopkins, Mike, NCHD, Telephone Interview, 10/28/85.

6. Ianotti, J., NYSDEC, Personal Communication, 4/24/85.

7. Jordan, E. C., Company, Subsurface Investigation.

8. Kapteina, Alan, Olin Chemicals, Telephone Interview, 11/6/85.

9. NYS Atlas of Community Water System Sources, NYS Department of Health, 1982.

10. NYS Museum and Science Service Bedrock Geology Map, Map and Chart Series, No. 15 (compiled by Rickard, L. V., and Fisher, D. W.).

11. NYS Wetlands Maps (Not Provided in Appendix).

12. NYSDEC, Region 9, Department of Fish and Wildlife Files.

13. NYSDEC, Registry Sheet, 12/83.

14. NCHD, Site Profile Report, 1982.

15. Olin Chemicals, Cummings, Letter to Lisa Ryan, 12/19/85.

16. Olin Methieson Chemicals Corporation, Internal Memo, 9/9/58.

17. Olin Mathieson Chemicals Corporation, Internal Memo, 8/12/58.

18. US Census Data, 1980.

19. US Department of Commerce. "Climatic Atlas of the United States". 1979.

20. US Department of Commerce Technical Paper No. 40. "Rainfall Frequency Atlas of the United States". 1963.

21. USGS Topographic Maps: Tonawanda West - NY Quadrangle, 1980.

22. USGS Draft and Final Report of the Preliminary Evaluation of Chemical Migration to Groundwater and the Niagara River from Selected Waste Disposal Sites.

REF-1

INTERVIEW FORM

INTERVIEWEE/CODE Sue Bitterman

TITLE - POSITION Western N.Y Conference of United Methodist Chur

ADDRESS 8499 Main St.

CITY Buffalo STATE N.Y ZIP 14221

PHONE (716) 633-8558 RESIDENCE PERIOD TO

LOCATION telephone conversation INTERVIEWER Lisa A. Ryan

DATE/TIME Nov 5, 1985

SUBJECT: 99th St. Methodist Church

REMARKS: Sue Bitterman provided us with the information that a Methodist Church did exist on 99th St. approximately 40 years ago. The church sold the property in 1965. The church itself was destroyed and a private residence was built on the site.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

Susan R. Bitterman
SIGNATURE

COMMENTS:

REF-2

INTERVIEW FORM

INTERVIEWEE/CODE Dave Cummings /

TITLE - POSITION Environmental Project Supervisor Olin Chemical

ADDRESS P.O. Box 248

CITY Charleston STATE Tennessee ZIP 37310

PHONE (615) 336-4000 RESIDENCE PERIOD TO

LOCATION telephone conversation INTERVIEWER Lisa A. Pyars/D

DATE/TIME Dec. 13, 1985 @ 3:15 PM.

SUBJECT: Disposal of materials by Olin Chemical in Buffalo, N.Y.

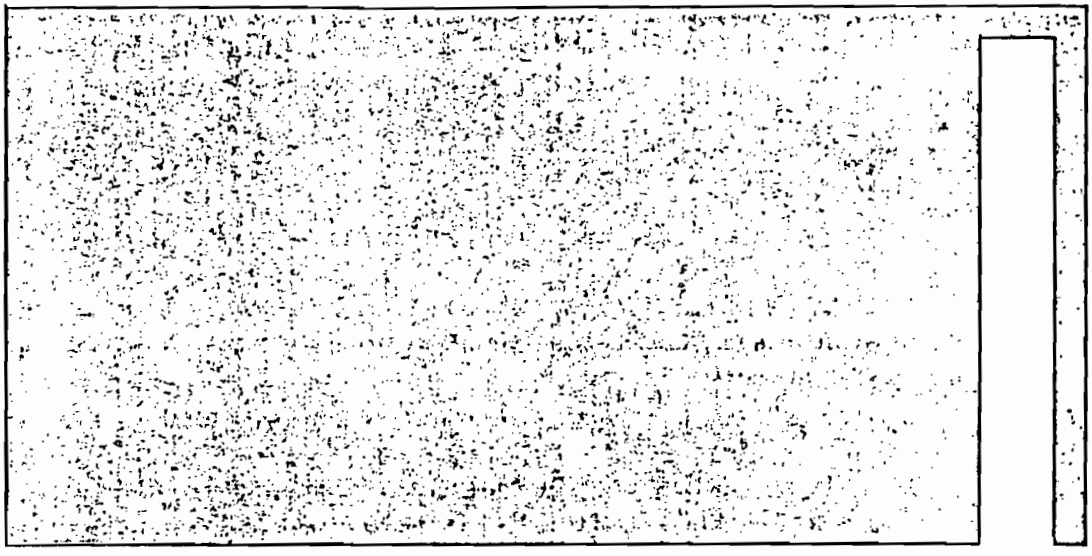
REMARKS: Mr. Cummings is familiar with the issue of whether bricks/concrete was disposed of at a church on 97th St or 99th St. He states that the brick/concrete was used as fill when an addition was added to a Methodist Church on 99th St. He has agreed to provide a monthly report from Olin Chemical that will document that this was the actual site of dumping (99th Street church.)

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE

COMMENTS:

REF-3



R. Allan Freeze

Department of Geological Sciences
University of British Columbia
Vancouver, British Columbia

John A. Cherry

Department of Earth Sciences
University of Waterloo
Waterloo, Ontario

GROUNDWATER

Prentice-Hall, Inc.
Englewood Cliffs, New Jersey 07632

Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

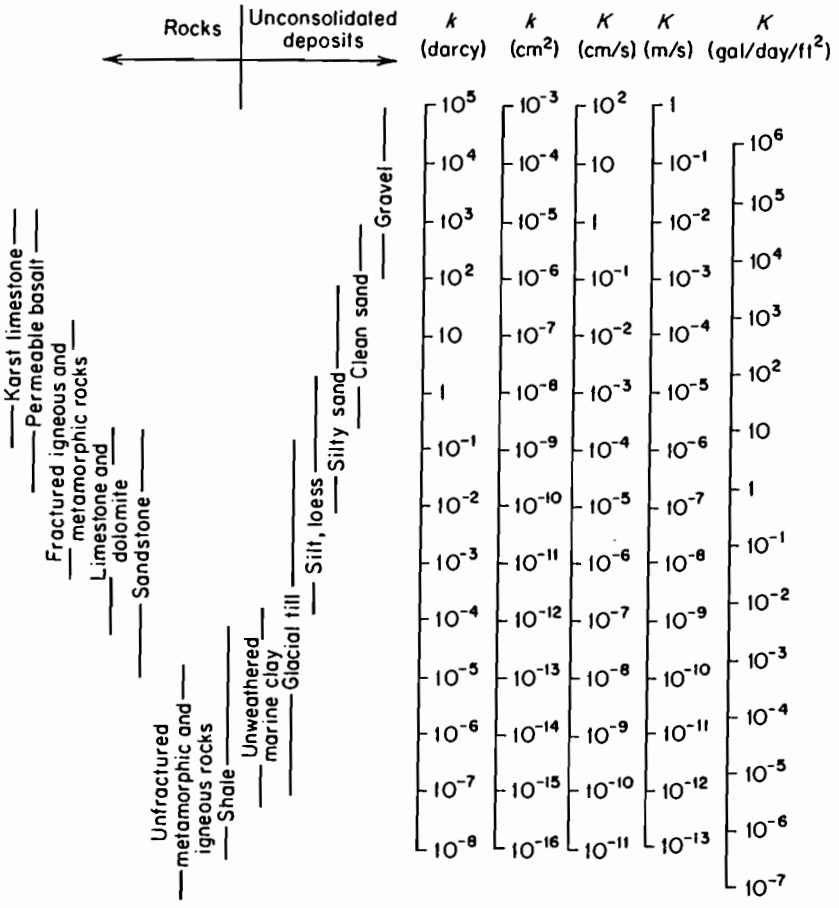


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, k*			Hydraulic conductivity, K		
	cm^2	ft^2	darcy	m/s	ft/s	gal/day/ft^2
cm^2	1	1.08×10^{-3}	1.01×10^{8}	9.80×10^{2}	3.22×10^{3}	1.85×10^{9}
ft^2	9.29×10^{2}	1	9.42×10^{10}	9.11×10^{5}	2.99×10^{6}	1.71×10^{12}
darcy	9.87×10^{-9}	1.06×10^{-11}	1	9.66×10^{-6}	3.17×10^{-5}	1.82×10^{1}
m/s	1.02×10^{-3}	1.10×10^{-6}	1.04×10^{5}	1	3.28	2.12×10^{6}
ft/s	3.11×10^{-4}	3.35×10^{-7}	3.15×10^{4}	3.05×10^{-1}	1	5.74×10^{5}
gal/day/ft^2	5.42×10^{-10}	5.83×10^{-13}	5.49×10^{-2}	4.72×10^{-7}	1.74×10^{-6}	1

*To obtain k in ft^2, multiply k in cm^2 by 1.08×10^{-3}.

REF - 4

Western New York Conference

8499 Main Street - Buffalo, New York 14221 Tel: 716-633-8558

February 7, 1985

Mr. Marsden Chen
Division of Solid and Hazardous Waste
50 Wolf Road
Albany, New York 12233-0001

Dear Mr. Chen:

This is to confirm our telephone conversation of February 7, 1985 regarding Mr. Goddard's letter pertaining to the "preliminary field investigations at inactive hazardous waste disposal sites" which would involve our Conference property known as Wesley United Methodist Church located at Colvin Boulevard and 97th Street in Niagara Falls.

As I indicated on the phone, the Conference became owners of this property in 1961. Therefore, we would not have access to any documents that would enable us to provide you the information Mr. Goddard requested in his letter.

It is my understanding that you will refer this matter to a consultant who will research the data. I would appreciate a copy of the results of the consultant's research.

Thank you.

Sincerely,

Vernon C. French

:mg
cc: Charles N. Goddard
Bishop Forrest C. Stith
Rev. Donald Weaver, Buffalo District Superintendent

LISA RYAN

RECEIVED NOV 22 1985 REF-5
FILE
FILED INCOMING
COPIES TO 13305-019
ORIGINATED TO

INTERVIEW FORM

INTERVIEWEE/CODE Mike Hopkins

TITLE - POSITION Niagara County Department of Health

ADDRESS 10th St + E. Falls St

CITY Niagara Falls STATE N.Y. ZIP 14302

PHONE (716) 284-3124 RESIDENCE PERIOD TO

LOCATION phone conversation INTERVIEWER Lisa A. Ryan

DATE/TIME 10/28/85 @ 11:20 AM

SUBJECT: Use of groundwater in Niagara County

REMARKS: Mr. Hopkins provided the following information:
- There is only one industrial well within the limits of Niagara Falls that has a private water well. This company is Olin Chemical (Olin Corporation) on Buffalo Ave, and the water is used for cooling purposes. (Olin Chemical employs ~200 people).
- There are 5 residences with private wells in Niagara ~~Falls~~ Town of Niagara and all are within ½ mile of the Wilmer Rd. Site. At least one of the wells was ~~some~~ dug rather than drilled. Municipal water is available to these residences if they choose to hook up to it.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

Michael F. Hopkins
SIGNATURE

COMMENTS: Note: There are several other potential sources of contamination of the 5 wells off Wilmer Road in Town of Niagara. NCHD has advised residents regarding use of these wells.

REF-6

INTERVIEW FORM

INTERVIEWEE/CODE John Iamotti /

TITLE - POSITION Division of Solid + Hazardous Waste - NYSDEC

ADDRESS Room 414, 50 Wolf Rd

CITY Albany STATE NY ZIP 12233

PHONE (518) 457-5637 RESIDENCE PERIOD ____ TO ____

LOCATION telephone INTERVIEWER SA Tiffany

DATE/TIME 4/24/85 /

SUBJECT: 97th St Church, Niagara Falls, NY - Phase I Site Investigation

REMARKS:

Olin Chemicals provided information on past disposal practices in the 1978 Interagency Task Force Questionnaire.

- Olin indicated they disposed of 23 tons of concrete in August + September of 1958 at the 97th Street Church site (9610 Colvin Blvd, between 96th + 97th Streets)
- they also indicated that the concrete might be contaminated w/ residual mercury.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE:

COMMENTS:

REF-7

E. C. JORDAN COMPANY, SUBSURFACE INVESTIGATION

References was used during Phase I Sutdy (i.e., Library Source) and is not included in this report.

REF-8

INTERVIEW FORM

INTERVIEWEE/CODE Alan Kapteina /

TITLE - POSITION Grand Environmental Manager/Olin Chemicals

ADDRESS

CITY Buffalo STATE N.Y. ZIP

PHONE (716) 278-6584 RESIDENCE PERIOD TO

LOCATION telephone conversation INTERVIEWER Lisa A. Ryan

DATE/TIME 11/4/85 @ 4:00 PM

SUBJECT:

REMARKS: Mr. Kapteina stated that Olin Chemical doesn't agree with the assumption that 23 tons of concrete rubble were disposed of in 1958 at the 97th street Methodist Church site. His records show that the concrete was dumped at a 99th street Methodist Church. The Church congregation was transferred to a site on Colvin Blvd (possibly the 97th street church) before the 99th st church was closed down. He feels that the confusion over the site of disposal could arise because of the congregational move. He also referred us to: Alan Cummings in Charleston, Texas to receive a copy of a letter listing

(615-336-4000)

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE

COMMENTS:

New York State Atlas of Community Water System Sources
1982

NEW YORK STATE
DEPARTMENT OF HEALTH

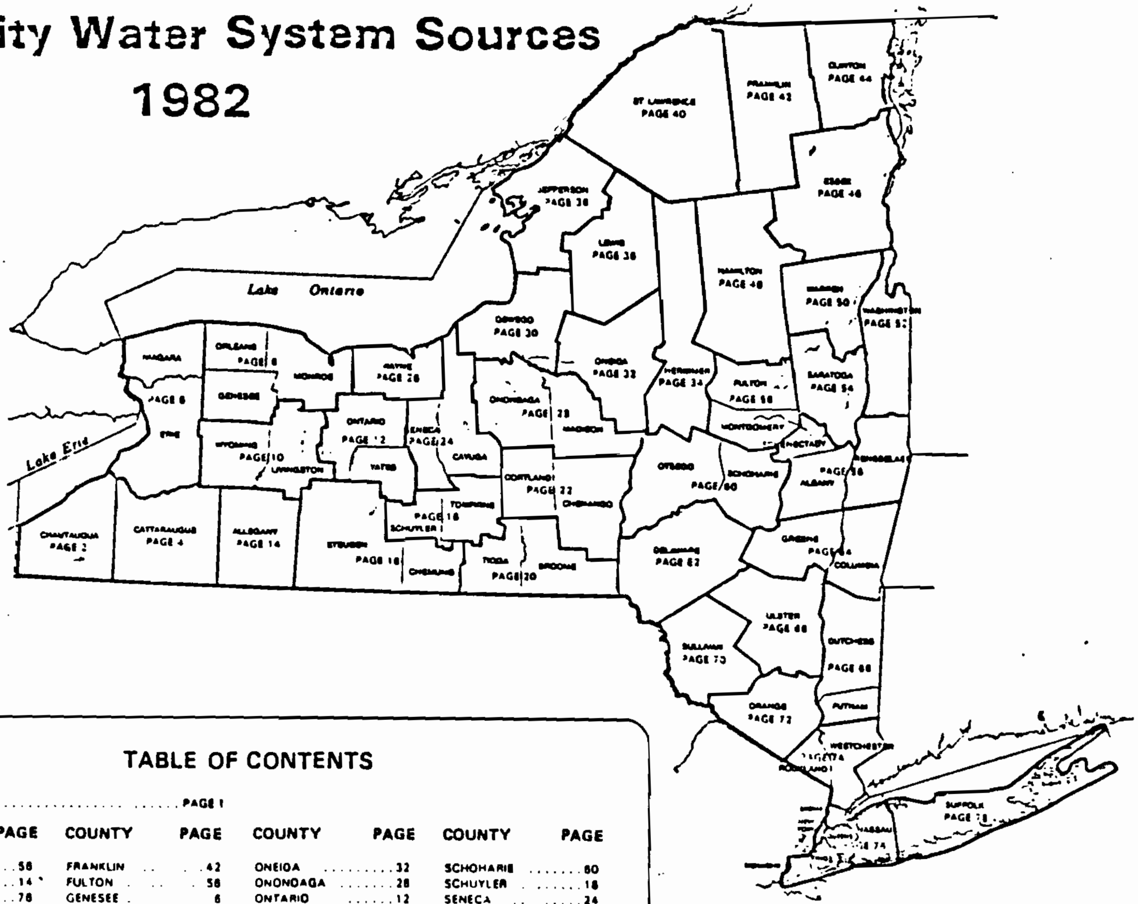


TABLE OF CONTENTS

LEGEND

BOUNDARIES AND PLACES

International
State
County
Town
Indian Reservation
City — Village
Unincorporated Place — Federal Reservation
Built-up Area (Over 25,000 population including any contiguous city or village)

CLASSIFICATION OF POPULATED PLACES

100,000 or more .... YONKERS
50,000 to 100,000 .... Levittown
12,500 to 50,000 .... Poughkeepsie
2,500 to 12,500 .... Hampton Bays
250 to 2,500 .... Bocamo
250 or less

TRANSPORTATION

Highways
- Divided Highways
  - Full Control of Access
  - Partial or No Control of Access
- Undivided Highway
- Interchange
- Touring Route (State, U.S., Interstate) or State Parkway
- Touring Route Markers
  - State; U.S.; Interstate

Railroads
- Operating Line — Service Discontinued
- Operator
- Owner (If Other than Operator)
- Company Having Trackage Rights

Airports (Open to the Public, Military)
- Runway under 4000' — Runway over 4000'

Rest Areas
- Food, Gas, Rest Rooms — Rest Rooms
- Gas, Rest Rooms — Parking Only

RECREATION FACILITIES

State or National Recreation Area
State Campground
State Boat Launching Site
State Canal Park
State Fish Hatchery
Other State Recreation Site

REF-9

GEOLOGIC MAP OF NEW YORK

1970

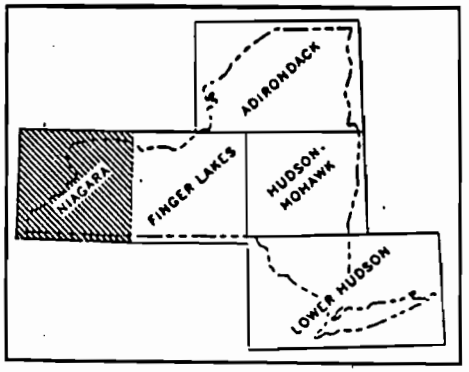
Niagara Sheet

Scale 1:250,000

5 0 5 10 15 Statute Miles 20

5 0 5 10 15 20 25 Kilometers 30

CONTOUR INTERVAL 100 FEET



Topographic Base from AMS Quadrangles 1:250,000 scale.

NEW YORK STATE MUSEUM AND SCIENCE SERVICE

MAP AND CHART SERIES NO. 15

COMPILED AND EDITED BY

Lawrence V. Rickard

Donald W. Fisher

March, 1970

REF-10

NYS WETLANDS MAPS

NYS Wetlands Maps were reviewed during the Phase I investigation. Individual maps for each site were not obtained and are, therefore, not included in the Phase I reports. Site specific information collected concerning the location of a wetland within 1 mile of a given site is recorded in the documentation section of each report.

REF-12

INTERVIEW FORM

INTERVIEWEE/CODE Jim Snieder Mike Wilkenson /
TITLE - POSITION NYSDEC, Div of Fish & Wildlife
ADDRESS Delaware Ave.
CITY Buffalo STATE NY ZIP
PHONE ( ) . RESIDENCE PERIOD TO
LOCATION in DEC office INTERVIEWER Eileen Milligan
DATE/TIME 1/10/85 & 1/11/85 /
SUBJECT: Phase I site information

REMARKS: The above-named interviewees provided us with the following information regarding our Phase I site. (see attached list)

1) Wetlands in Niagara Co. & proximity to sites
2) Types of fish & wildlife in Erie/Niagara area
3) Use by fish & wildlife of Niagara River & tributaries
4) Sensitive environments & proposed wetlands in the Erie/Niagara area

97th Street closed site
- there are no wetlands within 1 mile of site

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE: James R. Snieder - Jr. Wildlife Biologist
Michael A. Wilkinson - Conservation Biologist (Aquatic)

COMMENTS: No discussion of wetlands / wildlife regarding Mine Landfill site - referred to Olean Office

REF-13

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: 2a SITE CODE: 932084

NAME OF SITE: 97th Street Methodist Church REGION: 9

STREET ADDRESS: 97th Street

TOWN/CITY: Niagara Falls (c) COUNTY: Niagara

NAME OF CURRENT OWNER OF SITE: 97th Street Methodist Church

ADDRESS OF CURRENT OWNER OF SITE: 97th Street, Niagara Falls, NY

TYPE OF SITE: OPEN DUMP [X] STRUCTURE [ ] LAGOON [ ]
LANDFILL [ ] TREATMENT POND [ ]

ESTIMATED SIZE: _____ ACRES

SITE DESCRIPTION:

Olin Chemicals used this site to dispose of 23 tons of broken concrete cells in August and September of 1958. The Love Canal is located 400 feet southeast of this site. The church is presently abandoned.

In August of 1982, USGS drilled four test borings to take soil and water samples. The result indicates heavy concentration of iron and organic compounds in the water samples.

HAZARDOUS WASTE DISPOSED: CONFIRMED [ ] SUSPECTED [X]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
None known	

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

August, 19 58 TO September, 19 58

OWNER(S) DURING PERIOD OF USE: Unknown

SITE OPERATOR DURING PERIOD OF USE: Unknown

ADDRESS OF SITE OPERATOR:

ANALYTICAL DATA AVAILABLE: AIR ☐ SURFACE WATER ☐ GROUNDWATER [X]
SOIL [X] SEDIMENT ☐ NONE ☐

CONTRAVENTION OF STANDARDS: GROUNDWATER ☐ DRINKING WATER ☐
SURFACE WATER ☐ AIR ☐

SOIL TYPE: Top soil overlying clay (25 ft.)

DEPTH TO GROUNDWATER TABLE: 26'

LEGAL ACTION: TYPE: None STATE ☐ FEDERAL ☐
STATUS: IN PROGRESS ☐ COMPLETED ☐
REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: None

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The test results of the groundwater samples taken by USGS indicate high concentration of various organic compounds including Butyl benzyl phthalate (315 PPM). More investigation is required to confirm the presence of the organic substances.

ASSESSMENT OF HEALTH PROBLEMS:

INSUFFICIENT INFORMATION

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME Abul Barkat
TITLE Sr. San. Engineer
NAME Peter Buechi
TITLE Associate San. Engineer
DATE: November 18, 1983

NEW YORK STATE DEPARTMENT OF HEALTH

NAME R. Tramontano
TITLE Bur. Tox. Subst. Assess.
NAME
TITLE
DATE: 12/83

REF-14

PRELIMINARY INVESTIGATION AND PROFILE REPORTS FOR TWENTY-SIX SUSPECTED INDUSTRIAL DISPOSAL SITES IN NIAGARA COUNTY, NEW YORK.

PREPARED BY

NIAGARA COUNTY HEALTH DEPARTMENT
10TH & E. FALLS STREETS
NIAGARA FALLS, NEW YORK 14302

MARCH, 1982

NAME

97th Street Methodist Church (DEC #932034)

LOCATION

The site is located at 9610 Colvin Boulevard (between 96th Street and 97th Street) in Niagara Falls, New York. The Wesley United Methodist Church occupies this site.

OWNERSHIP

The owner of this property is the Wesley United Methodist Church. The church is now abandoned and no forwarding address for correspondence was found.

HISTORY

This is believed to be the site listed as "99th Street Methodist Church" in the DEC publication Hazardous Waste Disposal Sites in New York, Volume 3. It was determined that there is no church on 99th Street.

According to the above publication, Olin Chemical had 23 tons of broken concrete disposed of at this site in August and September, 1958. The church is believed to have been built shortly after this date.

The Love Canal is located 400 feet southeast of this site. The majority of the homes within a one half mile radius have been exvacuated after a state of "Health Emergency" was declared in 1978. The church was assumed to have been abandoned at this time.

The pastor of the church before closure was Reverend Bruce H. Stearns. He no longer resides at his previous address, 10089 Mueller Court and no forwarding address was found.

In December, 1981, Niagara County Health Department personnel inspected the site. The church was boarded up at this time. Reverend Jack Hayes, who is the pastor of the Church of God across Colvin Boulevard, did not know of anyone who would be knowledgeable in the matter.

No sign of previous disposal activities could be found by visual inspection.

RESULTS OF PREVIOUS SAMPLING

There is no record of previous sampling at this site.

REVIEW OF AERIAL PHOTOGRAPHY

USDA aerial photographs, ARE 2V-33 (1966) and ARE 2GG-14 (6/2/58) were examined. In 1958, the site was vacant and no sign of disposal was found. In 1966, the church was in place.

SOILS/GEOLOGY

A detailed soil survey for this area is unavailable. The surface is estimated to be 50% covered with structures or pavement, therefore, this portion is impervious. The remainder of the surface is grassed. No boring data from nearby areas was found.

The bedrock is Lockport Dolomite over 140' thick. The depth to groundwater is not known. Several water bearing zones are expected in the Dolomite.

GROUNDWATER

The direction of groundwater flow is believed to be toward the Niagara River. Due to the proximity of this site to the Love Canal, tracing potential groundwater contamination to the 97th Street site could be difficult. The effects of the Love Canal are expected to greatly overshadow any effects from the 97th Street site.

There are no known drinking water wells within three miles of this site. There are no industrial users of groundwater in this area.

SURFACE WATER

The nearest surface water is Black Creek, 200 feet to the north. Black Creek flows to Bergholtz Creek which flows to Cayuga Creek. Cayuga Creek enters the Niagara River roughly two miles downstream from the site.

Black, Bergholtz and Cayuga Creek waters are not used for drinking or industrial use. The City of Niagara Falls water intakes are three miles downstream from the mouth of Cayuga Creek.

The site is not in a 100 year flood plain and there are no wetlands within one mile.

AIR

According to Mr. Yavuz Erk of DEC, workmen have reported odors when servicing catch basins in this area. The source of the odors was not determined.

The number of people remaining within one mile could not be readily determined, but is suspected to be less than 1,000. The nearest occupied residence is the home of Reverend Jack Hayes, 350 feet south on 96th Street. Land use within two miles is primarily residential. Commercial and agricultural land can be found east of Williams Road, over one mile away.

FIRE/EXPLOSION

If the wastes present are as described by the DEC directory, the danger of fire and explosion is small.

Over 10,000 people and several thousand buildings are located

FIRE/EXPLOSION (continued)

within two miles of the site, including two trailer parks, all of Cayuga Island and most of LaSalle.

DIRECT CONTACT

There is no sign of any exposed material. The church is locked, but access to the grounds is unrestricted.

CONCLUSIONS

Sufficient data to determine the potential impacts of this is not available. The type and quantity of wastes present should be verified. Any effects of the Love Canal on this site are unknown.

Samples could be taken from the grassed areas around the church. Test holes could be randomly placed to search for buried wastes. Access for equipment is available, except of course, beneath the church itself.

REF- 15

Olin CHEMICALS
P.O. BOX 248, CHARLESTON, TN 37310, (615) 336-4000

December 19, 1985

Ms. Lisa A. Ryan
Assistant Geologist
Dames & Moore
2996 Belgium Road
Baldwinsville, New York 13027

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: 99th Street Methodist Church

Dear Ms. Ryan:

Thank you for the copy of the page from the report entitled, "Preliminary Investigation and Profile Reports for Twenty-Six Suspected Industrial Disposal Sites in Niagara County, New York" prepared by the Niagara County Health Department-March 1982. As you noted in our telephone conversation of November 12, 1985, the Niagara County Health Department (NCHD) does state that they believe the 99th Street Methodist Church where Olin disposed of some broken concrete was really the 97th Street Methodist Church. It further states that no 99th Street Methodist Church exists (in 1982).

As I noted in our telephone conversation, we have been over this subject several times, have submitted numerous reports to the NYSDEC which apparently were not widely distributed. The most recent review was sent to Mr. Peter Buechi March 6, 1985. While it is true that there is no 99th Street Methodist Church today, nor did it exist in 1982, a very little bit of effort in research would have shown that there was a 99th Street Methodist Church for many years. Enclosed with this submission are pages from the Niagara Falls City Directory for the years 1946-1965. City directories are readily available and provide the information needed in this particular case.

As can be seen in the enclosed photo copies, the 99th Street Methodist Church is reported at 398 - 99th Street in 1946. It is then reported at 448 - 99th Street from 1949-1961. The 1962 directory reports the address vacant. The 1963 and subsequent directories show no street number 448. Furthermore, eyewitnesses can be produced that the 99th Street church existed.

No Methodist church is noted in these directory pages for 97th Street. The church, however, is at the intersection of 97th Street and Colvin Blvd. and the street address is presumed to be Colvin Blvd. rather than 97th Street. The 97th Street church did not exist until long after Olin's reported disposal.

Olin's records clearly show the concrete disposal at the 99th Street Methodist Church. We reported this in out submission to the "Interagency Task Force on Hazardous Waste"[1]. Please note that sections of the two Olin reports from 1958 have been deleted which are not relevant to the 99th Street Methodist Church issue. The 99th Street Methodist Church is now within the capped area of the Love Canal. Olin does not believe the broken concrete was hazardous. The continued efforts to dismiss the 99th Street church as non-existent facility are not clearly understood. We believe the enclosed information clearly shows the time period of its existence (which brackets the time of our reported disposal).

[1] Letter to P. Millock, NYSDEC from Olin dated June 29, 1979. Citation from letter (p.7)

99th Methodist Church
Location 448 - 99th Street
Niagara Falls, NY 14303

Olin stands ready to assume its responsibilities when responsibiity has been appropriately designated, and are willing to work with the various agencies and their representatives to come to judicious solutions to problems. Correcting repetitions of the same misinformation in various reports is time consuming and counter productive. We hope the enclosed information is sufficient to finally close the issue of the 99th Street Methodist Church (now demolished) and the 97th Street Methodist Church.

Sincerely,

OLIN CORPORATION

D.L. Cummings
Supervisor
Environmental Project Services

jmm
Enclosures
cc: P. Buechi
L. Clare
W. Dimmick
C. Goddard
J. Spagnoli
R. Steele

022

TER OFFICE MEMO

DATE REF-16

TO Mr. J. E. Baker Niagara Falls 9/9/58

FROM W. G. Everest "

SUBJECT COMMENTS ON AUGUST OPERATING RESULTS - CAUSTIC, BOILERS AND PLANT GENERAL

COPIES TO

46. Sixty man days of labor loaded to other departments.
47. Nineteen and one half days lost due to excused absences.
48. Handled by yard laborers eighteen truck loads of fly ash, twenty-five loads of lime bags and HTH cardboard cartons, 11 loads of scrap wood and burning of papers for office, stores and gate houses.

Refuse removal for August 1958:

99th Street Church 18 " "
Total 649 Cu. Yds.

Yours very truly,

W. G. Everest

Wm. G. Everest
Supt. Caustic, Boiler & Plt. Services
Chemicals Division
Niagara Falls Operations

NTER OFFICE MEMO

DATE 8/12/58

REF-17

TO Mr. J. E. Baker AT Niagara Falls

FROM W. C. Everest AT " "

SUBJECT COMMENTS ON JULY OPERATING RESULTS -
CAUSTIC, BOILERS & PLANT GENERAL

COPIES TO Messrs. C.C. Hightower
J.E. Baker
W.J. Sakowski

PLANT GENERAL (Continued)

22. Removed section of iron fence south of main office to provide easy access in case of fire or other emergency.
23. Unloaded cement and mercury from trucks and a box car each of sand and gravel for cell making.
24. Delivered mercury from storage to cell rooms.
25. Put pipe, steel, lumber and drums in racks and did other general labor for stores.
26. Recharged fire extinguishers for Hypo after being used on fires.
27. Put lock fluid in all gate locks.
28. Handled by yard laborers were 31 truck loads of fly ash, 25 loads of lime bags and HTH Cartons and six loads of scrap wood.
29. 19 salt dirt sumps cleaned for cell rooms.
30. 16-1/2 man days taken to wash mercury for cell rooms.
31. 46-1/2 man days of labor loaned to other departments.
32. 27 man days of labor lost due to excused absences.

Disposal of Refuse Material

99th St. Church (Broken Cells) 6 " "
Total 810 " "

There was not any material taken by the Research Department to any dump area.

Yours very truly,

W. C. Everest

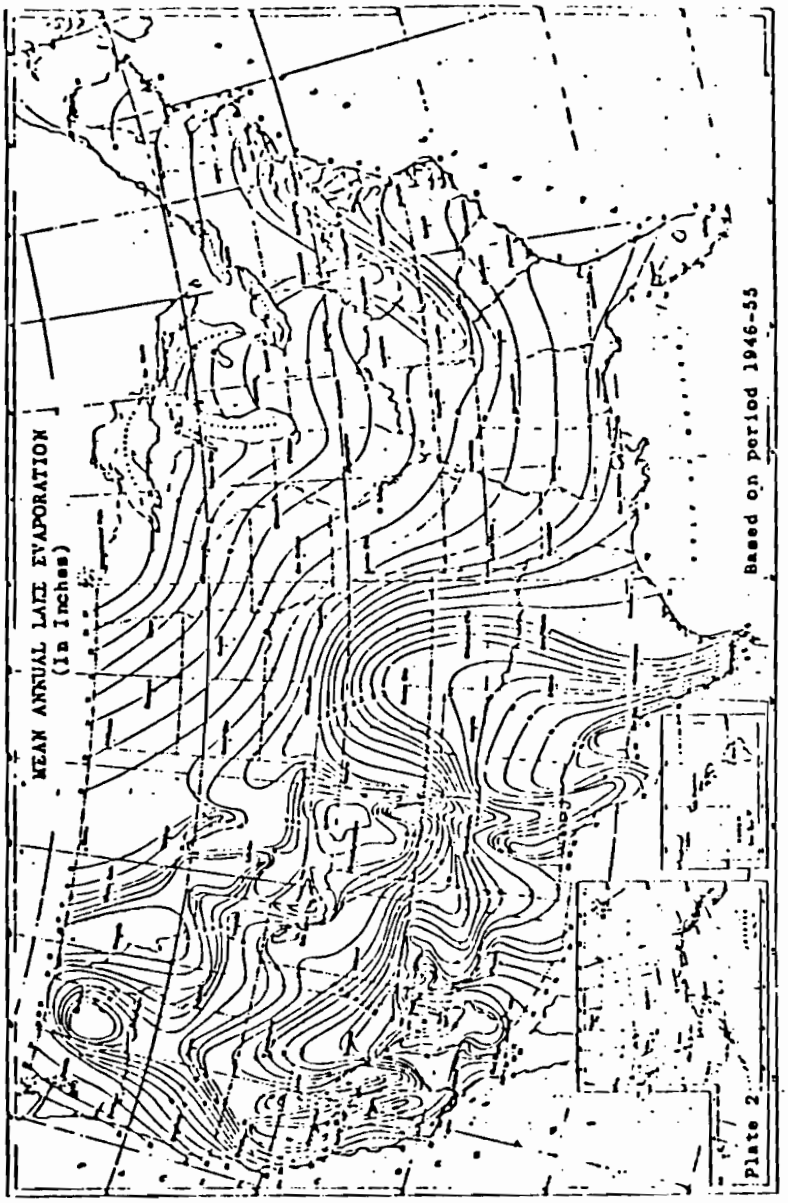
W. C. Everest
Supt. Caustic, Boilers & Plant General
Chemicals Division
Niagara Falls Operations

REF - 18

US CENSUS DATA, 1980

US Census Data used in the HRS scoring was obtained from various County Planning Offices. This data was not obtained from a report. The raw census data combined with County Planning Maps was used to estimate the population within 1, 2, 3, and 4 miles of the Phase I site being investigated. Because of the voluminous amount of data used, the data is not provided in this Appendix.

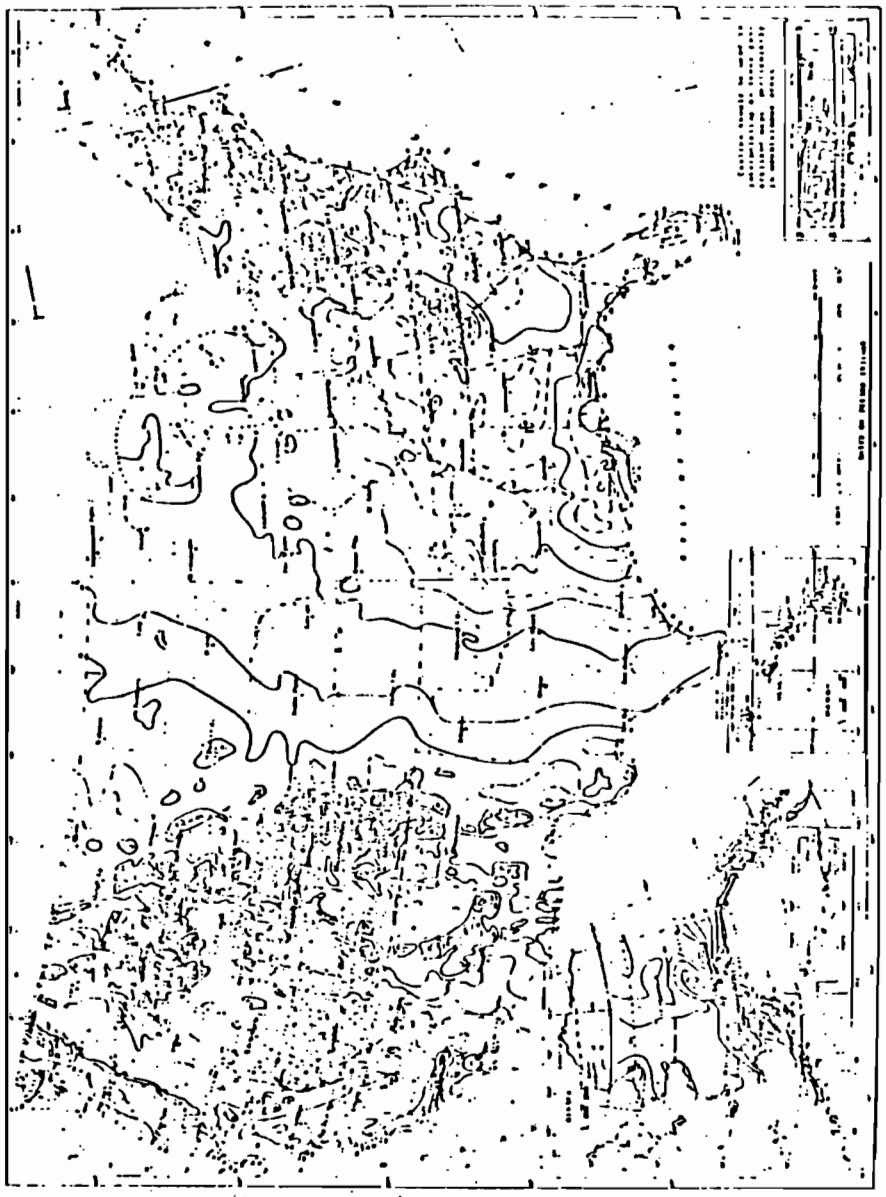
REF-19



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)



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

Figure 5

Normal Annual Total Precipitation (inches)

REF-20

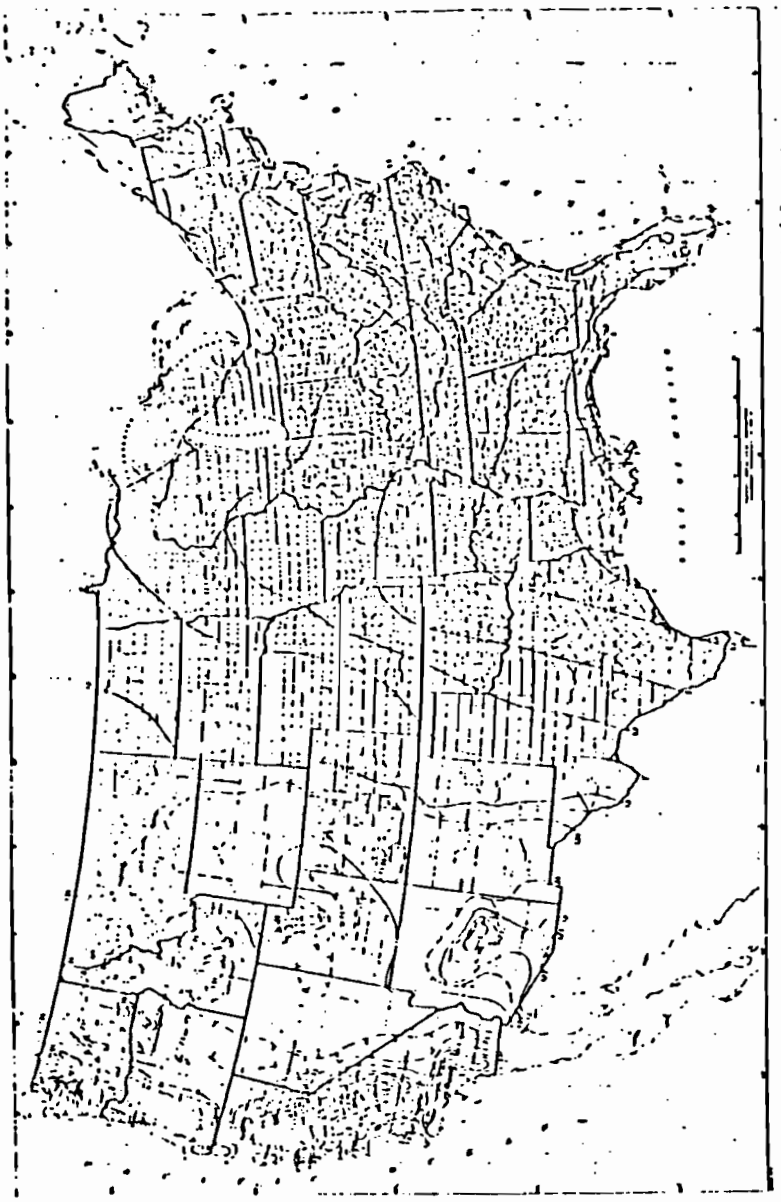
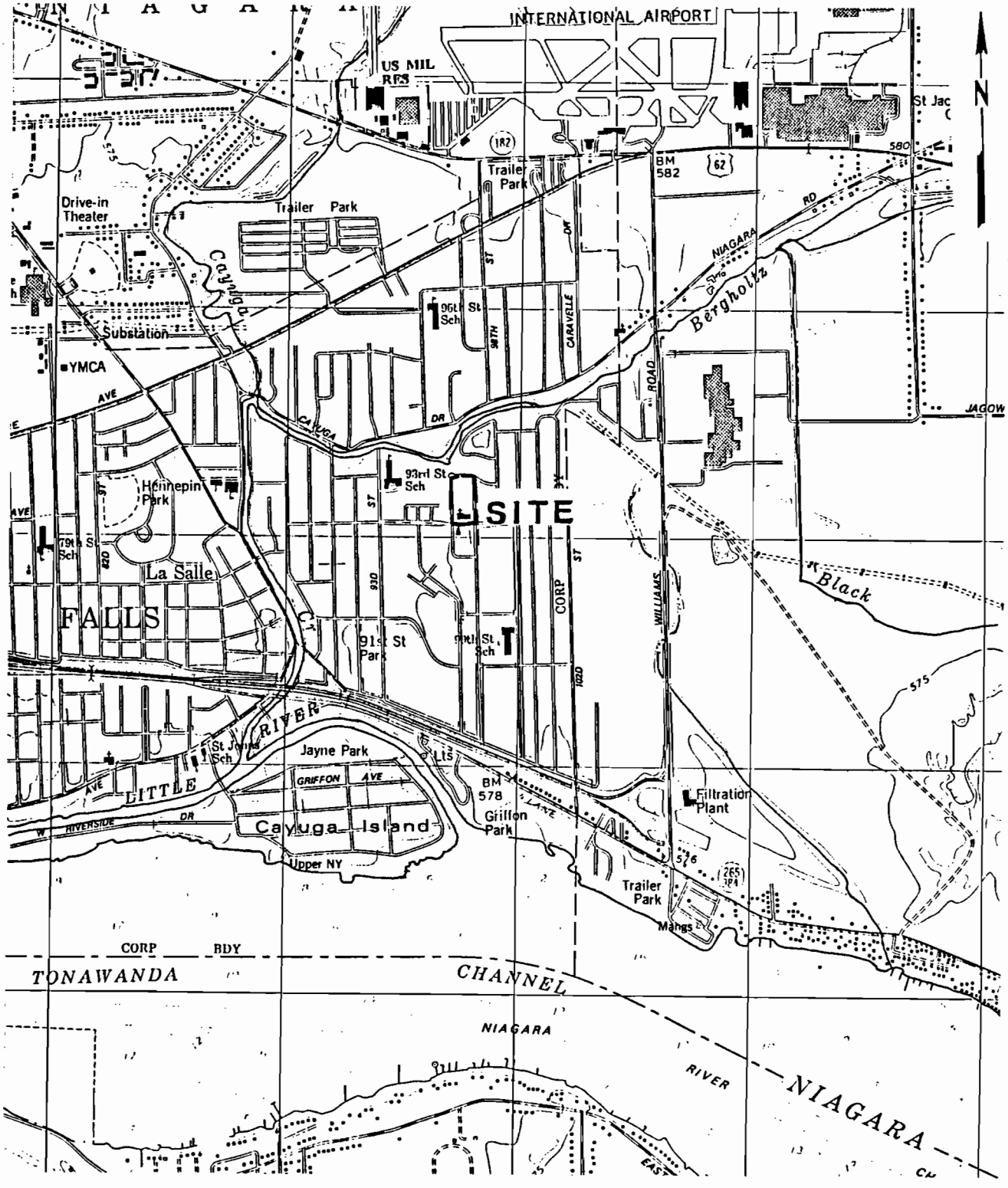


Figure B

1-Year 24-Hour Rainfall (Inches)

Source: Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1963.

REF-21



LATITUDE: 43°04'51"
LONGITUDE: 78°57'05"

SCALE
0 1000 2000 3000 4000 FEET

ENGINEERING-SCIENCE, INC.
IN ASSOCIATION WITH
DAMES & MOORE

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
PHASE I REPORT

SITE LOCATION MAP

97th ST. METHODIST CHURCH

FIGURE ii-1

REFERENCE: U.S.G.S. 7.5' Topographic Map
Tonawanda West, NY (1980) Quadrangle

245. 97TH STREET METHODIST CHURCH

General information and chemical-migration potential

The church is located in the city of Niagara Falls, and is shown on plate 3.

The site was used to dispose of 23 tons of broken concrete cells by Olin Corporation in 1978.

The chemical and geologic data indicate a minimal potential for contaminant migration. The extensive clay unit underlying the site should inhibit downward migration, and the chemical analyses do not indicate outward migration from the site. Additional monitoring and sampling would be needed to confirm this, however.

Geologic information

The site consists of a lacustrine clay about 26 ft thick overlying bedrock of Lockport Dolomite. The U.S. Geological Survey drilled four test borings on the site in 1982; the locations are shown in figure ___. The geologic logs are as follows:

Borehole No.	Depth (ft)	Description
1	0 - 1.5	Brown topsoil
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
	11.5 -16.5	Clay, pink.
		SOIL SAMPLE: 16.5 ft.
2	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
		SOIL SAMPLE: 11.5 ft.
3	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 - 9.0	Clay, pink.
		SOIL SAMPLE: 9 ft.

Borehole No.	Depth (ft)	Description
4	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
	11.5 -16.5	Clay, pink, some gravel.
	16.5 -21.5	Clay, pink.
	21.5 -26	Clay, pink.
	26	Bedrock.
		WATER SAMPLE: 26 ft.

Hydrologic information

During the test drilling, the clay became moist at 11.5 ft below land surface and remain so to the top of bedrock. The general direction of ground-water flow in the unconsolidated deposit is probably southward.

Chemical Information

Four soil samples and one water sample were collected and analyzed for iron, mercury, and organic compounds; results are shown in table ____. No

Table ____ belongs near here

mercury was detected. There were three organic priority pollutants found in the ground water, two of which were in concentrations above 250,000 µg/L.

Table . --Analyses of substrate and ground-water samples from 97th Street Methodist Church, Niagara Falls, N.Y., August 27, 1992. (Locations shown in fig. . Concentrations are in ug/kg and ug/L; dashes indicate that constituent or compound was not found, LT indicates it was found but below the quantifiable detection limit.)

	Sample number and depth below land surface (ft)				
	Substrates				Ground water
	1	2	3	4	4A
	14.5	11.5	8.0	26.0	20.0
pH					7.0
Specific conductance (umho/cm)					2,730
Inorganic constituents					
Iron	6,500,000	5,200,000	4,300,000	2,400,000	
Mercury	--	--	--	--	
Organic compounds					
Priority pollutants					
Diethylphthalate	--	--	--	--	LT
Butylbenzylphthalate	--	--	--	--	315,000
Bis(2-ethylhexyl)-phthalate	--	--	--	--	252,000
Possible artifact					
4-Methyl-3-penten-2-one[1]	--	880	--	--	--

[1] Tentative identification based on comparison with the National Bureau of Standards (NBS) library. No external standard was available. Concentration reported is semiquantitative and is based only on an internal standard. GC/MS spectra were examined and interpreted by GC/MS analysts.

245. 97TH STREET METHODIST CHURCH (USGS field reconnaissance) NYSDEC 932084

General information and chemical-migration potential.--The 97th Street Methodist Church property, in the city of Niagara Falls, was used for disposal of 23 tons of broken concrete cells from Olin Corporation in 1958.

The potential for contaminant migration is indeterminable. The extensive clay unit underlying the site may inhibit downward migration; although the chemical analyses indicate high concentrations of some organic priority pollutants, they do not indicate offsite migration.

Geologic information.--The site consists of a lacustrine clay about 26 ft thick overlying bedrock of Lockport Dolomite. The U.S. Geological Survey drilled four test borings on the site in 1982; the locations are shown in figure C-57. The geologic logs are on page 418.

Hydrologic information.--During the test drilling, the clay became moist at 11.5 ft below land surface and remained so to the top of bedrock. The general direction of ground-water flow in the unconsolidated deposit is probably southward.

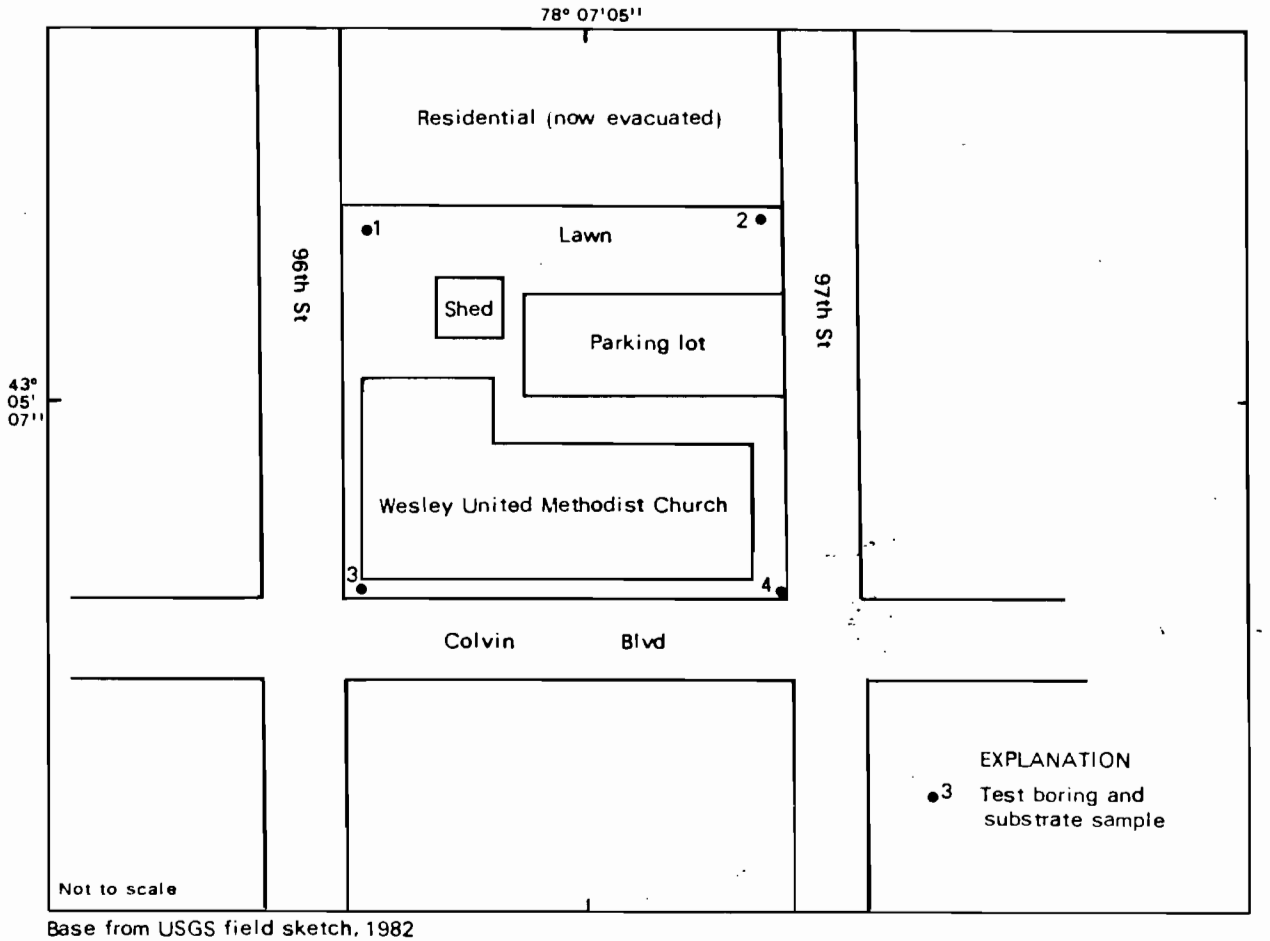


Figure C-57. Location of monitoring wells and sampling holes at 97th St. Methodist Church, site 245, Niagara Falls.

Chemical information.--The U.S. Geological Survey collected four soil samples and one water sample for iron, mercury, and organic-compound analyses; results are shown in table C-36. No mercury was detected. The ground-water sample contained three organic priority pollutants, two of which were in concentrations above 250,000 µg/L.

Table C-36.--Analyses of substrate and ground-water samples from 97th Street Methodist Church, site 245, Niagara Falls, N.Y., August 27, 1982. [Locations shown in fig. C-57. Concentrations are in µg/kg and µg/L; dashes indicate that constituent or compound was not found, LT indicates it was found but below the quantifiable detection limit.]

	Sample number and depth below land surface (ft)				
	Substrates				Ground water
	1 (16.5)	2 (11.5)	3 (8.0)	4 (26.0)	4A (20.0)
pH					7.0
Specific conductance (µmho/cm)					2,730
Inorganic constituents					
Iron	6,500,000	5,200,000	4,300,000	2,400,000	
Mercury	--	--	--	--	
Organic compounds					
Priority pollutants					
Diethyl phthalate	--	--	--	--	LT
Butylbenzyl phthalate	--	--	--	--	315,000
Bis(2-ethylhexyl) phthalate	--	--	--	--	252,000†
Possible artifact					
4-Methyl-3-penten-2-one[1]	--	880	--	--	--

[1] Tentative identification based on comparison with the National Bureau of Standards (NBS) library. No external standard was available. Concentration reported is semiquantitative and is based only on an internal standard. GC/MS spectra were examined and interpreted by GC/MS analysts.

† Exceeds USEPA criterion for maximum permissible concentration in drinking water or New York State standard for maximum concentration in ground water.

Boring no.	Depth (ft)	Description
1	0 - 1.5	Brown topsoil
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
	11.5 -16.5	Clay, pink.
		SOIL SAMPLE: 16.5 ft.
2	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
		SOIL SAMPLE: 11.5 ft.
3	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 - 8.0	Clay, pink.
		SOIL SAMPLE: 8 ft.
4	0 - 1.5	Topsoil.
	1.5 - 6.5	Clay, pink.
	6.5 -11.5	Clay, pink.
	11.5 -16.5	Clay, pink, some gravel.
	16.5 -21.5	Clay, pink.
	21.5 -26	Clay, pink.
	26	Bedrock.
		WATER SAMPLE: 26 ft.

APPENDIX B

PROPOSED UPDATED NYS REGISTRY SHEET

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 932084

NAME OF SITE : 97th St. Methodist Chruch
STREET ADDRESS: 97th Street

TOWN/CITY:	COUNTY:	ZIP:
Niagara Falls (c)	Niagara	

SITE TYPE: Open Dump-X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: 97th St. Methodist Chruch
CURRENT OWNER ADDRESS.: 97th St., Niagara Falls
OWNER(S) DURING USE...: Unknown
OPERATOR DURING USE...: Unknown
OPERATOR ADDRESS.....:
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From August '58 To Sept '58

SITE DESCRIPTION:
Olin Chemicals used this site to dispose of 23 tons of broken concrete cells in August and September of 1958. The Love Canal is located 400 feet southeast of this site. The church is presently abandoned.

In August of 1982, USGS drilled four test borings to take soil and water samples. The result indicates heavy concentration of iron and organic compounds in the water samples.

HAZARDOUS WASTE DISPOSED: Confirmed- Suspected -X

TYPE	QUANTITY (units)
None Known	
Mercury-contaminated concrete (suspected)	23 Tons

SITE CODE: 932084

ANALYTICAL DATA AVAILABLE:

Air- Surface Water- Groundwater-X Soil-X Sediment- None-

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: None X State- Federal-
STATUS: In Progress- Completed-

REMEDIAL ACTION:

Proposed- Under Design- In Progress- Completed-
NATURE OF ACTION: None X

GEOTECHNICAL INFORMATION:
SOIL TYPE: Top Soil overlying clay (25 ft.)
GROUNDWATER DEPTH: Possibly 26'

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The test results of the groundwater samples taken by USGS indicate high concentration of various organic compounds including Butyl benzyl phthalate (315 PPM).

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient Information

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION	NEW YORK STATE DEPARTMENT OF HEALTH
NAME.: Abul Barkatr.	NAME.: Ronald Tramontano
TITLE: Sr. San. Engineerg.	TITLE: Bur. Tox. Subst. Assess.
NAME.. Peter Buechi	NAME.:
TITLE: Ass. San. Engineer	TITLE:
DATE.: 01/24/85	DATE.: 01/24/85