

PHASE I REPORT
ENGINEERING INVESTIGATIONS
AND EVALUATIONS AT INACTIVE
HAZARDOUS WASTE DISPOSAL SITES

INS Equipment
Erie County, NY



Prepared for
New York State
Department of
Environmental Conservation

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ENGINEERING-SCIENCE

in association with

DAMES & MOORE

SEPTEMBER 1984

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SECTION I
EXECUTIVE SUMMARY
INS Equipment Company

OBJECTIVE

The purpose of this two phase program is to conduct engineering investigations and evaluations at inactive hazardous waste disposal sites in New York State in order to calculate a Hazard Ranking System (HRS) score for each site and estimate the cost of any recommended remedial action. During the initial portion of this investigation (Phase I) all available data and records combined with information collected from a site inspection were reviewed and evaluated to determine the adequacy of existing information for calculating an HRS score. On the basis of this evaluation, a Phase II Work Plan was prepared for collecting additional HRS data (if necessary), evaluating remedial alternatives and preparing a cost estimate for recommended remedial action. The results of the Phase I study for this site are summarized below and detailed in the body of the report.

SITE BACKGROUND

The INS Equipment site is located on River Road in Tonawanda, Erie County, New York. The NYS site code is 915031. The site is currently owned by Mr. Matthew Duggan of Amherst, New York, and the Clarence Materials Corporation which is located on a portion of the site. This site is a part of the adjacent "Cherry Farm Area" and was used to landfill foundry sands, pit sludge and cutting oils. The site is across the street from the INS Equipment Company whose property is not included on the site. Soil analyses have revealed the presence of heavy metals and organic chemicals. Concern centers over the potential contamination of the Niagara River. A water intake of the Erie County Water Authority is downstream from the site.

ASSESSMENT

Insufficient data was available to complete a final HRS scoring. The preliminary HRS scoring was:

S_M	= 16.70	S_A	= 0.00
S_{GW}	= 4.00	S_{FE}	= 0.00
S_{SW}	= 28.62	S_{DC}	= 37.50

The final site score would most likely increase since the hazardous waste quantity is unknown. The high surface water route score is due to the proximity of a drinking water intake. Both surface and groundwater sampling are recommended.

RECOMMENDATIONS

The following recommendations are made for the completion of Phase II:

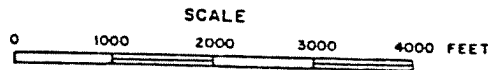
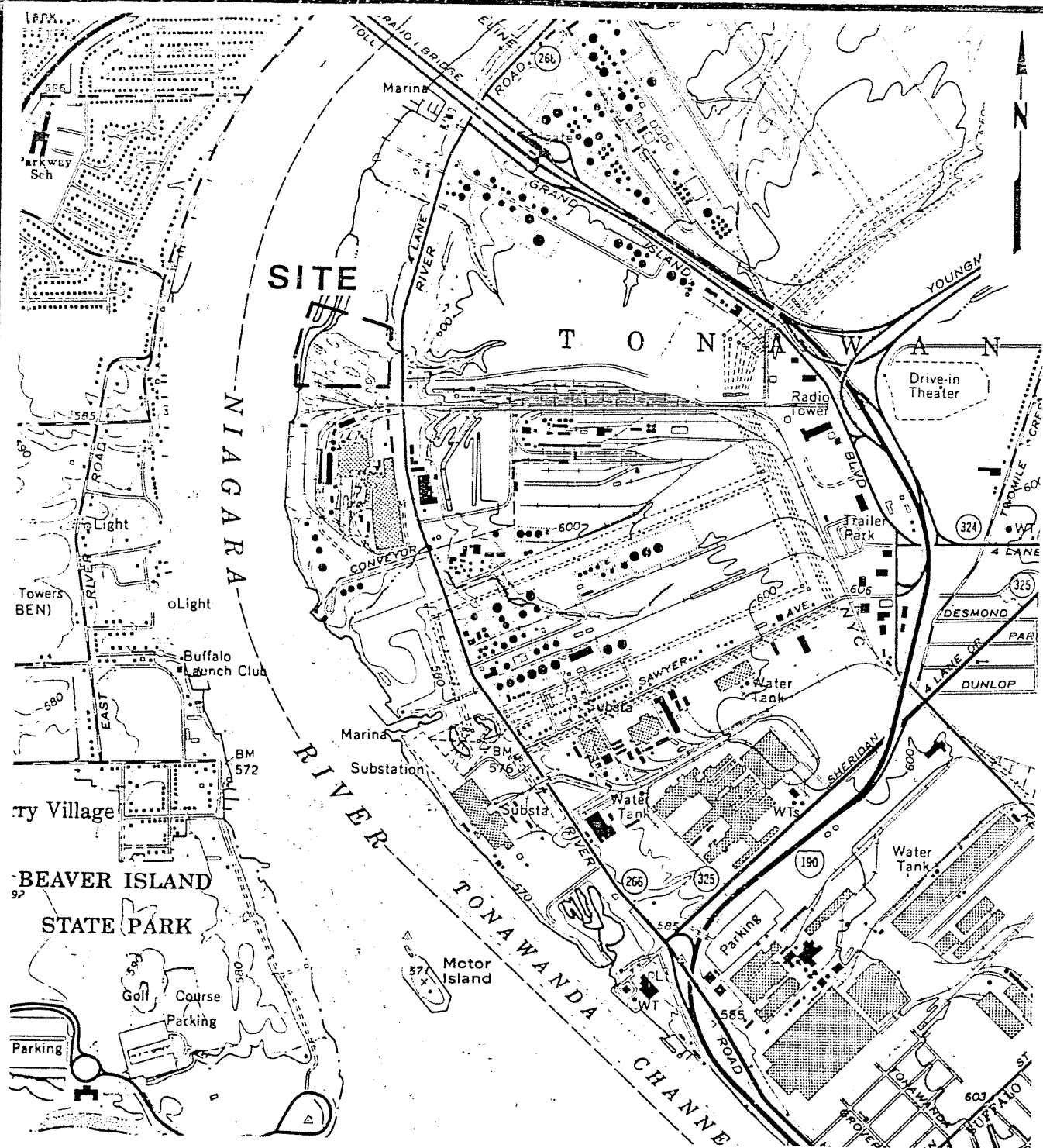
- o a geophysical survey
- o groundwater monitoring system consisting of one up-gradient and two down-gradient wells
- o surface water monitoring system consisting of two stations
- o sample analysis to include mercury, cadmium, lead, chromium and a GC/MS scan
- o air monitoring survey with an HNU meter

The estimated manhour requirements for the completion of Phase II are 628 while the estimated cost is \$39,700.

SECTION II
SITE DESCRIPTION
INS Equipment

The INS Equipment site is located on River Road in Towawanda, Erie County, New York. The site is bordered by River Road on the east, the Niagara River on the west, and the Niagara Mohawk Cherry Farm property on the north. The INS Equipment Company is located on the west side of River Road (across the street) and is not associated with this site.

The INS Equipment site is a part of the adjacent "Cherry Farm Area: and was used to landfill foundry sand, pit sludge, and cutting oils. Soil analysis has revealed the presence of heavy metals and organic chemicals. Concern centers over the potential migration of these toxics to the adjacent Niagara River.



SITE LOCATION MAP
I.N.S. EQUIPMENT

REFERENCE: BASE TAKEN FROM U.S.G.S. 7.5 MIN.
TOPOGRAPHIC MAP, BUFFALO NW, NY-ONT
(1965) QUADRANGLE

HRS COVER SHEET

Facility name: INS Equipment

Location: Tonawanda NY

EPA Region: II

Person(s) in charge of the facility: Matthew Dugan, Amherst

Clarence Materials Corporation.

Tonawanda

Name of Reviewer: John Kubarewicz/Eileen Gilligan

Date: August 27, 1983

General description of the facility:

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

Site does not include INS Equipment property but is directly across street on

river side. Site is part of "Cherry Farm Area" in which flyash, cutting oils,

grinding sludge and pit sludge were landfilled. There are no known health problems

but the site is on the Niagara River near a public water supply intake.

Scores: $S_M = 16.70$ ($S_{GW} = 4.00$ $S_{SW} = 28.62$ $S_a = 0.00$)

$S_{FE} = 0.00$

$S_{OC} = 37.50$

GROUND WATER ROUTE WORK SHEET

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	6	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 (3)	1	3	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			14	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			18	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			2268	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S _{gw} = 4.00		

SURFACE WATER ROUTE WORK SHEET

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	3	3		
Total Route Characteristics Score			11	15		
3 Containment	0 1 2 (3)	1	3	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18		
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1	0	8		
Total Waste Characteristics Score			18	26		
5 Targets					4.5	
Surface Water Use	0 1 2 (3)	3	9	9		
Distance to a Sensitive Environment	0 (1) 2 3	2	2	6		
Population Served/Distance to Water Intake Downstream	0 4 8 8 10 12 16 18 (20) 24 30 32 35 40	1	20	40		
Total Targets Score			31	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			18,414	64,350		
7 Divide line 6 by 64,350 and multiply by 100			S _{SW} = 28.62			

AIR ROUTE WORK SHEET

Air Route Work Sheet ○

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
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1 Observed Release	0	45	1	○	45	5.1
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Date and Location: N/A

Sampling Protocol: N/A

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	3	
Toxicity	0 1 2 3	3	9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	

Total Waste Characteristics Score

20

3 Targets				5.3
Population Within 4-Mile Radius	<div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 5px;">}</div> <div> 0 9 12 15 18 21 24 27 30 </div> </div>	1	30	
Distance to Sensitive Environment	0 1 2 3	2	6	
Land Use	0 1 2 3	1	3	

Total Targets Score

39

4 Multiply 1 x 2 x 3				35,100
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5 Divide line 4 by 35,100 and multiply by 100

-9-

$S_a = ○$

DIRECT CONTACT WORK SHEET

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	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	8	20	
Distance to a Critical Habitat	0 1 2 3	4	4	12	
Total Targets Score			12	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			8100	21,600	
7 Divide line 6 by 21,600 and multiply by 100			SOC = 37.50		

Fire and Explosion Work Sheet

Rating Factor	Assigned Value (Circle One)										Multi- plier	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														

WORKSHEET FOR COMPUTING S_M

	S	S^2
Groundwater Route Score (S_{gw})	4.00	16.00
Surface Water Route Score (S_{sw})	38.62	219.10
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		235.10
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		38.90
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		16.70

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

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

FACILITY NAME: INS Equipment

LOCATION: Tonawanda, NY

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Not applicable. No groundwater samples collected for chemical analysis.

Rationale for attributing the contaminants to the facility:

Not applicable.

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Shallow aquifer in soil.
(USGS study, 1982)

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

Greater than 15'.
(USGS Study, 1982)

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

Greater than 20 ft.
(ES/D&M site visit)

Net Precipitation

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

32 in.

(USDOC Climate Atlas of US, 1979)

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

24 in.

(USDOC Climate Atlas of US, 1979)

Net precipitation (subtract the above figures):

8 in.

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Not applicable.

No soil in unsaturated zone.

Permeability associated with soil type:

Not applicable.

Physical State

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

Mixed sludges, solids, liquids.

(ES/D&M site visit)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Barrels.

Method with highest score:

Leading barrels with no liner - 3

4 WASTE CHARACTERISTICS ES

Toxicity and Persistence

Compound(s) evaluated:

Cadmium

Lead

Bis(z-ethylhexyl) phthalate

Chrysene

(USGS, 1982)

Compound with highest score:

Lead 3,3 - 8

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):

Unknown - 0

Basis of estimating and/or computing waste quantity:

Not applicable.

* * *

5 TARGETS

Ground Water Use

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

Not applicable. Aquifer of concern not used within 3-mile radius of facility.

(ES/D&M site visit)

Distance to Nearest Well

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

Not applicable. No wells drawing from aquifer of concern.

Distance to above well or building:

Not applicable.

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

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

Not applicable. No wells drawing from aquifer of concern within specified distances.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

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):

Not applicable.

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):

Not applicable. No surface water samples collected for chemical analysis.

Rationale for attributing the contaminants to the facility:

Not applicable.

* * *

2 ROUTE CHARACTERISTICS (USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0%

Name/description of nearest downslope surface water:

Niagara River.

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

0.65%

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

Yes (filled in area of river bank)
(ES/D&M site visit)

Is the facility completely surrounded by areas of higher elevation?

No.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

1-Year 24-Hour Rainfall in Inches

2.1"

(USDOC Tech Rep. No. 40).

Distance to Nearest Downslope Surface Water

0.1 mi.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

Physical State of Waste

Mixed solid, liquid sludge.

(ES/D&M site visit)

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Barrels

(USGS, 1982)

Method with highest score:

Leaking barrels with no liners.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Lead

Cadium

(USGS, 1982)

Compound with highest score:

Cadium

- 3,3 - 18

Lead

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):

Unknown.

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:

Drinking

Recreation

Commercial

(ES/D&M site visit)

Is there tidal influence?

No.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

Distance to a Sensitive Environment

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

Not applicable. None within 2 miles.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

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

0.8 mi.

(ES/D&M site visit)

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

0.8 mi.

(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:

3 miles downstream, serving 100,000 people.

(USGS Topographic Map, Buffalo NW)

Computation of land area irrigated 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:

Niagara River.

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

3 miles.

(USGS Topographic Map: Buffalo NW, NY-ONT Quadrangle)

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Not applicable. Air quality not monitored for contamination.

Date and location of detection of contaminants

Not applicable.

Methods used to detect the contaminants:

Not applicable.

Rationale for attributing the contaminants to the site:

Not applicable.

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Not applicable.

Most incompatible pair of compounds:

Not applicable.

Toxicity

Most toxic compound:

Not applicable.

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable.

Basis of estimating and/or computing waste quantity:

Not applicable.

* * *

3 TARGETS

Population Within 4-Mile Radius

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

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

766 people.

(USGS topographic map: Buffalo NW, NY-ONT Quadrangle)

Distance to a Sensitive Environment

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

Not applicable. None within 2 miles.

(USGS Topographic Map: Buffalo, NW, NY-ONT Quadrangle)

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

0.8 mi.

(ES/D&M site visit)

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

0.8 mi.

(NYSDEC Region 9 Dept. of Fish & Wildlife files)

Land Use

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

0.1 mi.

(ES/D&M site visit)

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

Not applicable. None within 2 miles.

(ES/D&M site visit)

Distance to residential area, if 2 miles or less:

1.1 miles.

(ES/D&M site visit)

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

Not applicable. None within 1 mile.

(ES/D&M site visit)

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

Not applicable. None within 2 miles.

(ES/D&M site visit)

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

No.

(ES/D&M site visit)



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY 1071470033

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) INS EQUIPMENT		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER RIVER ROAD				
03 CITY TOWNAWANDA		04 STATE NY	05 ZIP CODE 14150	06 COUNTY ERIE	07 COUNTY CODE 029	08 CONG DIST 36
09 COORDINATES LATITUDE 42° 59' 23.3"		LONGITUDE 78° 56' 04.9"				
10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN						

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 7/27/83 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION BEGINNING YEAR _____ ENDING YEAR _____ <input checked="" type="checkbox"/> UNKNOWN	
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <u>Engineering-Science</u> <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR _____ <input type="checkbox"/> E. STATE <input checked="" type="checkbox"/> F. STATE CONTRACTOR <u>Dames & Moore</u> <input type="checkbox"/> G. OTHER _____ (Name of firm) (Specify)			

05 CHIEF INSPECTOR JOHN KUBAREWICZ	06 TITLE ENGINEER	07 ORGANIZATION ES	08 TELEPHONE NO. (703) 591-7575
09 OTHER INSPECTORS EILEEN GILLIGAN	10 TITLE GEOLOGIST	11 ORGANIZATION D&M	12 TELEPHONE NO. (315) 638-2572

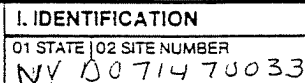
			()
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
			()
			()
			()
			()
			()
			()
			()

17 ACCESS GAINED BY (Check one) <input type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 19:26	19 WEATHER CONDITIONS Clear and sunny
---	--------------------------------	--

IV. INFORMATION AVAILABLE FROM

01 CONTACT JOHN KUBAREWICZ	02 OF (Agency/Organization) ENGINEERING-SCIENCE		03 TELEPHONE NO. (703) 591-7575
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM KATHRYN GLADDOEN	05 AGENCY	06 ORGANIZATION ES	07 TELEPHONE NO. 703-591-7575
			08 DATE 8/4/83 MONTH DAY YEAR



01 PHYSICAL STATES <i>Check all that apply</i>	02 WASTE QUANTITY AT SITE <i>(Measures of waste quantities must be independent)</i>	03 WASTE CHARACTERISTICS <i>(Check all that apply)</i>
<input checked="" type="checkbox"/> A. SOLID <input type="checkbox"/> B. POWDER, FINES <input checked="" type="checkbox"/> C. SLUDGE <input type="checkbox"/> D. OTHER _____ <i>(Specify)</i>	<input type="checkbox"/> E. SLURRY <input type="checkbox"/> F. LIQUID <input type="checkbox"/> G. GAS TONS <u>UNKNOWN</u> CUBIC YARDS _____ NO. OF DRUMS _____	<input type="checkbox"/> A. TOXIC <input type="checkbox"/> B. CORROSIVE <input type="checkbox"/> C. RADIOACTIVE <input type="checkbox"/> D. PERSISTENT <input type="checkbox"/> E. SOLUBLE <input type="checkbox"/> F. INFECTIOUS <input type="checkbox"/> G. FLAMMABLE <input type="checkbox"/> H. IGNITABLE <input type="checkbox"/> I. HIGHLY VOLATILE <input type="checkbox"/> J. EXPLOSIVE <input type="checkbox"/> K. REACTIVE <input type="checkbox"/> L. INCOMPATIBLE <input type="checkbox"/> M. NOT APPLICABLE

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

[illegible]

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Cadmium	7440-43-9	FDS		
FDS		7440-47-3	FDS		
FDS			FDS		
FDS			FDS		

USGS (1982)



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

NY 0671470033

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

Soil found to be contaminated, potential for groundwater

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

Niagara River is adjacent to site, soil is contaminated.

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

No odor

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

unknown

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

unknown

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: 1982) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 55 (Acres) 04 NARRATIVE DESCRIPTION

USGS soil sampling found heavy metals and organics in soil

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

UNKNOWN, but water intake downstream in
Niagara River

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 2 04 NARRATIVE DESCRIPTION

2 workers on site

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

UNKNOWN



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

I. IDENTIFICATION

01 STATE/02 SITE NUMBER

NY 0071470033

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

No apparent damage

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (Include names of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

No apparent damage

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

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

Pieces of broken concrete protruded from field

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☒ OBSERVED (DATE: 7/27/83)

☐ POTENTIAL

☐ ALLEGED

Rusted drums + a large (5000 gal) tank on side, may belong to Clarence Materials Co.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

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

Site Inspection
USGS (1982)



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

NY 0071470033

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES <u>NONE</u>				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/ DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCENERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input checked="" type="checkbox"/> C. DRUMS, ABOVE GROUND	<u>2-3</u>	<u>DR</u>	<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input checked="" type="checkbox"/> D. TANK, ABOVE GROUND	<u>1</u>	<u>TK</u>	<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input checked="" type="checkbox"/> F. LANDFILL	<u>UNKNOWN</u>		<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				

07 COMMENTS

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.

old rusted drums and tank on site, may belong to Clarence material Co.
Flyash visible in many areas on site

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

No fences or restrictions

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

Site Inspection
Vegs Lab



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 00714 70033

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)

☒ C. COMMERCIAL, INDUSTRIAL, IRRIGATION
(Limited other sources available)

☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

02 POPULATION SERVED BY GROUND WATER UNKNOWN

03 DISTANCE TO NEAREST DRINKING WATER WELL 74 (mi)

04 DEPTH TO GROUNDWATER

15 (ft)

05 DIRECTION OF GROUNDWATER FLOW

W

06 DEPTH TO AQUIFER
OF CONCERN

15 (ft)

07 POTENTIAL YIELD
OF AQUIFER

UNKNOWN (gpd)

08 SOLE SOURCE AQUIFER

☒ YES ☐ NO

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

10 RECHARGE AREA

☒ YES
☐ NO

COMMENTS

11 DISCHARGE AREA

☐ YES
☒ NO

COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION
DRINKING WATER SOURCE

☐ B. IRRIGATION, ECONOMICALLY
IMPORTANT RESOURCES

☒ C. COMMERCIAL, INDUSTRIAL

☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

Niagara River

AFFECTED

DISTANCE TO SITE

☐

0.1 (mi)

☐

(mi)

☐

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE

A. 2660
NO. OF PERSONS

TWO (2) MILES OF SITE

B. 1500
NO. OF PERSONS

THREE (3) MILES OF SITE

C. 5300
NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

1.1 (mi)

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

500

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.1 (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)

Area is largely industrial, some urban houses



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 071470003

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-9} - 10^{-8} cm/sec ☐ B. 10^{-4} - 10^{-6} cm/sec ☒ C. 10^{-4} - 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE
(Less than 10^{-9} 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

230 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

220' (ft)

05 SOIL pH

unknown

06 NET PRECIPITATION

8 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.1 (in)

08 SLOPE

SITE SLOPE
0 %

DIRECTION OF SITE SLOPE

TERRAIN AVERAGE SLOPE

0.65 %

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. (mi)

OTHER

B. .8 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

0.8 (mi)

GOLDEN EAGLE
BALD EAGLE

ENDANGERED SPECIES:

PEREGRINE FALCON

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A. 0.1 (mi)

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B. 1.0 (mi)

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

C. N/A (mi) D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is level, borderup Niagara River

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

USGS Topo maps



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

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

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF _____ (Name of organization or individual)
03 MAPS <input type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS _____

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME MR. MATTHEW DUGGAN		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 85 CROSBY BLVD		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY AMHERST		06 STATE NY	07 ZIP CODE 14226	12 CITY		13 STATE	14 ZIP CODE
01 NAME CLARENCE MATERIAL CORP.		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) RIVER ROAD		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY TONAWANDA		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
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	
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
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)

NY STATE DEC



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY | 0671470033

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
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					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
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					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
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					

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



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0671470033

II. ON-SITE GENERATOR

01 NAME NONE	02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	

III. OFF-SITE GENERATOR(S)

01 NAME Niagara - Mohawk	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Hixtley Power Station	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY Tonawanda	06 STATE NY	07 ZIP CODE	
05 CITY	06 STATE	07 ZIP CODE	
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	
05 CITY	06 STATE	07 ZIP CODE	

IV. TRANSPORTER(S)

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

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

NYS Hazard Registry Sheet



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

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
NY 0071470033

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE 1982

03 AGENCY _____

Soil Samples taken by USGS

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

USGS (1982)



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

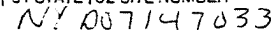
II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

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

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

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION <small>01 STATE 02 SITE NUMBER</small> NY 0671470033	
II. SITE NAME AND LOCATION			
<small>01 SITE NAME (Legal, common, or descriptive name of site)</small> INS EQUIPMENT		<small>02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER</small> RIVER ROAD	
<small>03 CITY</small> TONAWANDA	<small>04 STATE</small> NY	<small>05 ZIP CODE</small> 14150	<small>06 COUNTY</small> ERIE
<small>07 COUNTY CODE</small> 029		<small>08 CENSUS DIST</small> 36	
<small>09 COORDINATES LATITUDE</small> _____		<small>LONGITUDE</small> _____	
<small>10 DIRECTIONS TO SITE (Starting from nearest public road)</small> ON Riverside of River Rd adjacent to Cherry Farm site, across street from INS equipment.			
III. RESPONSIBLE PARTIES			
<small>01 OWNER (if known)</small> MR. MATTHEW DUGGAN		<small>02 STREET (Business, mailing, residential)</small> 85 CROSBY BLVD	
<small>03 CITY</small> AMHERST	<small>04 STATE</small> NY	<small>05 ZIP CODE</small> 14206	<small>06 TELEPHONE NUMBER</small> ()
<small>07 OPERATOR (if known, and different from owner)</small> CLARENCE MAT CORP		<small>08 STREET (Business, mailing, residential)</small> River Road	
<small>09 CITY</small> TONAWANDA	<small>10 STATE</small> NY	<small>11 ZIP CODE</small> 14150	<small>12 TELEPHONE NUMBER</small> ()
<small>13 TYPE OF OWNERSHIP (Check one)</small> <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN			
<small>14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)</small> <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> C. NONE			
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
<small>01 ON SITE INSPECTION</small> <input checked="" type="checkbox"/> YES DATE <u>7 27 83</u> MONTH DAY YEAR <input type="checkbox"/> NO		<small>BY (Check all that apply)</small> <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) <small>CONTRACTOR NAME(S):</small> <u>Engineering Science</u>	
<small>02 SITE STATUS (Check one)</small> <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		<small>03 YEARS OF OPERATION</small> _____ BEGINNING YEAR _____ ENDING YEAR <input type="checkbox"/> UNKNOWN	
<small>04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED</small> Site is a landfill used to dispose of pit sludge, cutting oils, grinding waste and foundry sand. Tanks and drums present at site.			
<small>05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION</small> UNKNOWN			
V. PRIORITY ASSESSMENT			
<small>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)</small> <input type="checkbox"/> A. HIGH (inspection required promptly) <input type="checkbox"/> B. MEDIUM (inspection required) <input type="checkbox"/> C. LOW (inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
VI. INFORMATION AVAILABLE FROM			
<small>01 CONTACT</small> JOHN KUBAREWICZ		<small>02 OF (Agency/Organization)</small> ENGINEERING-SCIENCE	
<small>03 TELEPHONE NUMBER</small> (703) 591-7575		<small>04 PERSON RESPONSIBLE FOR ASSESSMENT</small> KATHRYN GLADDEN	
<small>05 AGENCY</small> _____	<small>06 ORGANIZATION</small> ES	<small>07 TELEPHONE NUMBER</small> (703) 591-7575	<small>08 DATE</small> <u>8 4 83</u> MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

Soil found to be contaminated, potential for groundwater

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

Niagara River is adjacent to site, soil is contaminated

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

No odor

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

unknown

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

unknown

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: 1982) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 55 (Acres) 04 NARRATIVE DESCRIPTION

USGS soil sampling found heavy metals and organics in soil.

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

unknown, but water intake downstream in Niagara River

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 2 04 NARRATIVE DESCRIPTION

2 workers on site

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

unknown



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 0071470033

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

No apparent damage

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

No apparent damage

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

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

Pieces of broken concrete protrude from field.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

Rusted drums and a large (5000 gal) tank on site,
may belong to Clarence Material Co.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

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

Site inspection
USGS (1982)

SECTION IV
SITE HISTORY
INS Equipment

The INS Equipment site is a part of the adjacent "Cherry Farm Area" and was used to dispose of an unknown quantity of pit sludge, cutting oils, grinding waste and foundry sand (USGS, 1982). The site is owned by Mr. Matthew Duggan and partly occupied by the Clarence Material Corporation.

The USGS sampled soil at 10 locations in 1982 (USGS, 1982). Heavy metals and organic contaminants were detected in the soil.

SECTION V
SUMMARY OF AVAILABLE DATA
INS Equipment

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 preexisting 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 lake sediments, the most recent being from Lake Iroquois (a larger predecessor to Lake Ontario) and from Lake Tonawanda (an elongate lake which occupied an east-west valley and drained north into Lake Iroquois). The sediments consist of blanket sands and beach ridges which are occasionally underlain by 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 GEOLOGY

This summary is based on USGS topographic maps, NYS Museum and Science Service Bedrock Geology Map and Quarternary Map, USGS onporne study (1982) and geologic investigations at nearby disposal sites.

The bedrock is Camillus Shale (Salina Group) and may occur at depths below 30 feet. The bedrock is overlain by lacustrine silt, caly, and sand. Above these soil layers in approximately 20 feet of fill material, including foundry sand.

SITE HYDROLOGY

This summary of site hydrology is based on USGS (1982) investigations at this site and another nearby disposal site. A shallow aquifer is known to exist in the fill material, at a depth of 15 feet to 18 feet below gsface. Groundwater flow in this aquifer is probably west, into the Niagara River.

A deep aquifer may be located in the shale bedrock. No water table or flow direction information is available for this aquifer.

SAMPLING AND ANALYSIS

The only available analytical data for the INS site are analyses of substrate samples performed by the USGS (USGS, 1982). Figure V-1 shows the sample locations and Table V-1 summarizes the results. Complete analytical results are included in Appendix A.



FIGURE V-1. LOCATION OF SAMPLING - INS EQUIPMENT SITE (USGS, 1982)

TABLE V-I
SUMMARY OF USGS ANALYSIS OF SUBSTRATE
SAMPLES FOR INS EQUIPMENT CORP. SITE. USGS (1982)

Parameter (ppm)	1	2	3	Well Number			7	8	9	10
				4	5	6				
Cadmium	53	20	1	5	6	1	4	1	2	2
Chromium	430	70	3	30	180	7	12	30	20	120
Iron	100,000	26,000	3,700	16,000	41,000	60,000	29,000	2,900	23,000	19,000
Lead	2,500	630	10	110	170	30	120	30	130	100
Cyclohexane						11				
Phenol	61						10			
Bis (2-ethylhexyl)										
Flouranthene									150	

SECTION VI
ASSESSMENT OF ADEQUACY OF DATA
INS Equipment

HRS Data Requirement	Comments on Data
<hr/>	
Observed Release	
Ground Water	No available data, field data collection recommended.
Surface Water	No available data, field data collection recommended.
Air	No available data, field data collection recommended.
Route Characteristics	
Ground Water	Information available, adequate for HRS evaluation.
Surface Water	
Air	Data available, adequate for HRS evaluation.
Containment	Information available, adequate for HRS evaluation.
Waste Characteristics	Information available, adequate for HRS evaluation.
Targets	Information available, adequate for HRS evaluation.
Observed Incident	Information available revealed no report of incident. No further investigation recommended.
Accessibility	Adequate information available.

SECTION VII
PHASE II WORK PLAN
INS Equipment

OBJECTIVES

The objectives of the Phase II activities are:

- o To collect additional field data necessary to complete the HRS scoring.
- o To perform a conceptual evaluation of remedial alternatives and estimate budgetary costs for the most likely alternative.
- o To prepare a site investigation report.

The additional field data required to complete the HRS are defined as follows:

Geophysical Survey - A geophysical study consisting of electrical resistivity and magnetometry surveys is recommended. The electrical resistivity survey will be performed at various locations within and beyond the perimeter of the site to determine the continuity of site geologic conditions, delineate significant discontinuities and define the horizontal and vertical extent of contaminant plumes. A magnetometry survey will be conducted on a grid system to aid in delineating the limits of the site.

Ground Water - A ground water monitoring system consisting of 3 wells is recommended. The wells are to be approximately 30 feet

in depth and constructed of 2" PVC pipe. The samples will be analyzed for phenol, Hg, Cd, Cr, Pb, and organics using a GC/MS scan.

Surface Water - A surface water monitoring system consisting of two monitoring stations is recommended. The surface water and sediment samples will be analyzed for phenol, Hg, Cd, Cr, Pb and organics using a GC/MS scan.

Air - An air monitoring survey with an HNU meter is recommended to test the air quality above the site.

TASK DESCRIPTION

The proposed Phase II tasks are described in Table VII-1. Previous and proposed well and sampling locations for both the INS and NMPC Cherry Farms sites are shown on Figure 2.

COST ESTIMATE

The estimated manhours required for the Phase II project are presented in Table VII-2 and the estimated project costs by tasks are presented in Table VII-3. The estimated total cost for this project is \$39,697. The lump sum cost for the geophysical survey, surface water and sediment sampling and project reporting is \$25,815. The estimated cost for installation and sampling the monitoring wells is \$13,882.

HEALTH AND SAFETY PLAN

The Health and Safety Plan will be submitted as a separate document.

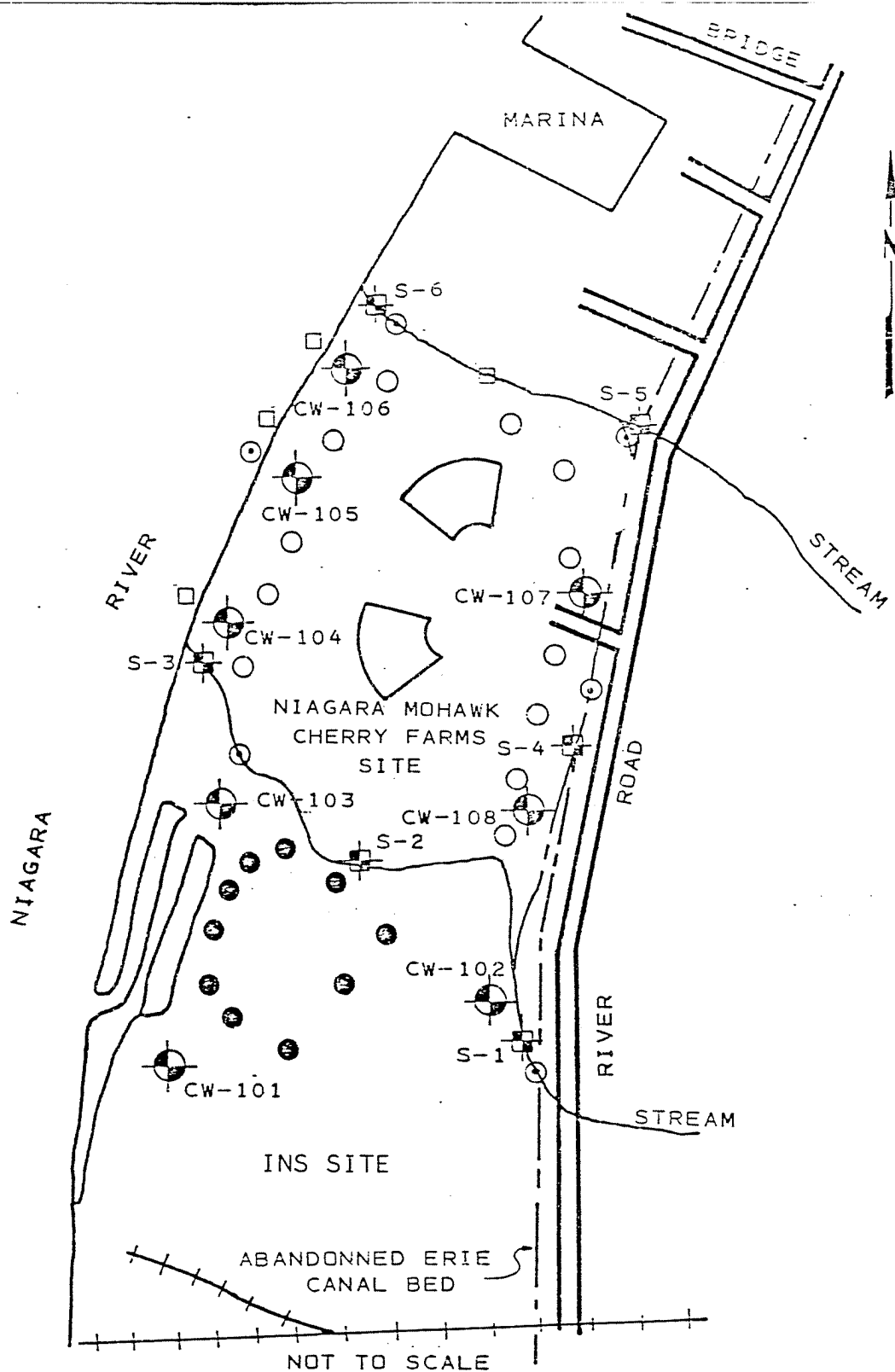
TABLE VII-1
PHASE II WORK PLAN - TASK DESCRIPTION
INS EQUIPMENT

Tasks	Description of Task
TASK	
II-A Update Work Plan	Review the information in the Phase I report, examine aerial photography, conduct a site visit, and revise the Phase II Work Plan, QA Plan and H&S Plan.
II-B Conduct Geophysical Studies	No further studies necessary.
II-C Conduct Boring/Install Monitoring Wells	Install 1 up-gradient and 2 down-gradient wells. The wells are to be located at a depth of approximately 30 feet and constructed of 2" PVC pipe.
II-D Construct Test Pits/Auger Holes	No further construction of test pits/auger holes necessary.
II-E Perform Sampling and Analysis	
Soil samples from borings	Soil samples collected at 5 ft intervals during drilling or at changes in subsurface lithologies. Perform one grain size analysis and permeability test per well.
Soil samples from surface soils	No further studies necessary.
Soil samples from test pits and auger holes	No further studies necessary.
Sediment samples from surface water	Analyze samples using a GC/MS scan. Test for Cd, Cr, Pb, Hg and phenol.
Ground-water samples	Analyze samples using a GC/MS scan. Test for Cd, Cr, Pb, Hg, and phenol.
Surface water samples	Analyze samples using a GC/MS scan. Test for phenol, Cd, Cr, Pb and Hg.
Air samples	Using the HNU determine the presence of organics.
Waste samples	No further sampling necessary.

TABLE VII-1 (Continued)

INS EQUIPMENT

Tasks	Description of Task
TASK	
II-F Calculate Final HRS	Based on the field data collected in Tasks IIB-IIE, complete the HRS form.
II-G Conduct Site Assessment	Prepare final report containing Phase I report, additional field data, final HRS and HRS documentation records, and site assessments. The site assessment will consist of a conceptual evaluation of alternatives and a preliminary cost estimate of the most probable alternative.
II-H Project Management	Project coordination, administration and reporting.



EXPLANATION:

PREVIOUS BORINGS (APPROXIMATE LOCATION)

- TEST HOLE-USGS (INS)
- TEST HOLE-USGS (CHERRY FARMS)
- ⊙ GRAB SAMPLE-SEDIMENT IN DITCH (RECRA)
- SURFACE WATER SAMPLE-USGS

PROPOSED BORINGS

- ⊕ SURFACE WATER SAMPLE S-1
- ⊙ SAMPLING WELLS CW-1

PLOT PLAN
INS SITE
AND

NIAGARA MOHAWK CHERRY FARMS SITE

TABLE VII-2.
PERSONNEL RESOURCES BY TASK
PHASE II HRS SITE INVESTIGATION (SITE: INS EQUIPMENT)

TASK DESCRIPTION	PIC	TRB	PM	DPM	PCM	QAM	HSM	TEAM MEMBERS, MANHOURS					SS	RAAT	RAAL	FT	RAAL	TOTAL HOURS	TOTAL \$
								FTL	FT	RAAL	SS	TOTAL HOURS	TOTAL \$						
II-A UPDATE WORK PLAN	1		4	4		1	1	6		6	8	31	\$557.05						
II-B CONDUCT GEOPHYSICAL STUDIES			4	1			4	4	160		40	213	\$2,483.95						
II-C CONDUCT BORING/INSTALL MONITORING WELLS			2	1		1	4	8	40	2	16	74	\$942.47						
II-D CONSTRUCT TEST PITTS/AUGER HOLES												0	\$0.00						
II-E PERFORM SAMPLING AND ANALYSIS																			
SOIL SAMPLES FROM BORINGS																			
SOIL SAMPLES FROM SURFACE SOILS							4	12			4	20	\$254.96						
SOIL SAMPLES FROM TEST PITTS AND AUGER HOLES												0	\$0.00						
SEDIMENT SAMPLES FROM SURFACE WATER		1						1	6		1	9	\$123.84						
GROUND-WATER SAMPLES		2	1			1	2	8	16	2	10	42	\$579.89						
SURFACE WATER SAMPLES						1	1	1	6		1	10	\$125.69						
ATR SAMPLES		1						1	8		2	12	\$155.26						
WASTE SAMPLES												0	\$0.00						
II-F CALCULATE FINAL HRS		3	3					3	24		16	49	\$628.03						
II-G CONDUCT SITE ASSESSMENT	1	2	8	2				8	32	6	40	139	\$1,768.08						
II-H PROJECT MANAGEMENT	2	6	6	2	3	4	4				8	29	\$500.20						
TOTALS	4	2	31	14	3	8	16	44	304	16	146	628	\$8,119.42						

TABLE VII-3
COST ESTIMATE BREAKDOWN BY TASK
PHASE II HRS SITE INVESTIGATION (SITE: INS EQUIPMENT)

TASK DESCRIPTION	OTHER DIRECT COSTS (ODC), \$							SUBTOTAL ODC	TOTAL (\$)
	DIRECT LABOR HOURS	LABOR COST	LAB ANALYSIS	TRAVEL AND SUBSTANCE	SUPPLIES	EQUIP. CHARGES	SUBCON- TRACTORS	MISC.	
II-A UPDATE WORK PLAN	31	\$557.05		\$100.00	\$50.00	\$50.00		\$25.00	\$782.05
II-B CONDUCT GEOPHYSICAL STUDIES	213	\$2,483.95		\$1,850.00	\$50.00	\$300.00		\$25.00	\$4,708.95
II-C CONDUCT BORING/INSTALL MONITORING WELLS	74	\$942.47		\$550.00	\$100.00	\$50.00	\$4,200.00		\$5,842.47
II-D CONSTRUCT TEST PITS/AUGER HOLES									\$0.00
II-E PERFORM SAMPLING AND ANALYSIS	20	\$254.96				\$50.00		\$50.00	\$354.96
SOIL SAMPLES FROM BORINGS								\$0.00	\$0.00
SOIL SAMPLES FROM SURFACE SOILS								\$0.00	\$0.00
SOIL SAMPLES FROM TEST PITS AND AUGER HOLES								\$0.00	\$0.00
SEDIMENT SAMPLES FROM SURFACE WATER	9	\$123.84	\$2,330.00	\$50.00	\$25.00	\$15.00		\$57.00	\$2,477.00
GROUND-WATER SAMPLES	42	\$579.89	\$3,204.00	\$200.00	\$100.00	\$75.00		\$125.00	\$4,363.89
SURFACE WATER SAMPLES	10	\$125.69	\$1,990.00	\$50.00	\$25.00	\$10.00		\$58.00	\$2,258.69
AIR SAMPLES	12	\$155.26		\$100.00	\$25.00	\$15.00		\$5.00	\$300.26
WASTE SAMPLES								\$0.00	\$0.00
II-F CALCULATE FINAL HRS	49	\$628.03			\$50.00	\$50.00		\$25.00	\$753.03
II-G CONDUCT SITE ASSESSMENT	139	\$1,768.08			\$500.00	\$200.00		\$75.00	\$2,543.08
II-H PROJECT MANAGEMENT	29	\$500.20	\$432.00	\$150.00	\$150.00	\$50.00		\$50.00	\$1,332.20
TOTALS	628	\$8,119.42	\$8,036.00	\$3,050.00	\$1,075.00	\$855.00	\$4,200.00	\$495.00	\$25,840.42

OVERHEAD=
SUBTOTAL=
\$11,594.53
\$37,434.95
\$48,261.99
\$59,096.94

QUALITY ASSURANCE PLAN

The Quality Assurance Plan will be submitted as a separate document.

APPENDIX A
BIBLIOGRAPHY
INS Equipment

Erie County Department of Environment and Planning (1983), Memo from R. Koczaja re: INS Equipment.

Knowles, G. D. and Koczaja, R. C. (1980), Hazardous Waste Disposal Sites Report, NYSDEC. April 15, 1980.

New York State Museum and Science Service (1970), Geologic Map of New York, Niagara Sheet, Map and Chart Series No. 15.

New York State Museum and Science Service (1977). Quaternary Geology of New York, Niagara Sheet by E. H. Muller, Map and Chart Series No. 28.

United States Geological Survey, Topographic Maps, 7.5 Minute Series.

USGS (1982), Draft Report of Preliminary Evaluation of Chemical Migration to Niagara River from Hazardous Waste Disposal Sites in Erie and Niagara County.

USGS (1982), Study of various dumpsites along Niagara River.

15dist.

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT AND PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

* * * MEMORANDUM * * *

FROM: Ronald D. Koczaja

DATE: 10/6/83

TO: Donald Campbell

SUBJECT: Review of Consultants Report
INS Equipment & NMPC "Cherry Farm"

I.N.S. Equipment

This site was evaluated by Dames & Moore (under subcontract with Earth Sciences, Inc.). The report included additional information regarding the depth of fill, materials disposed of on site and current owner. Continued study through a phase II evaluation was recommended at a projected cost of \$24000.

The site is currently owned by Mr. Matthew Duggan (Amherst) and the Clarence Materials Corp. Materials disposed of on site include foundry sands, pit sludges and cutting oils. Barrel disposal was also indicated for this site. Filling was reported to have reached a depth of 20 feet in some places.

I.N.S. equipment site received an overall Mitre score of 16.7. The groundwater hazard potential was scored at 4.0 and the surface water contamination potential was scored as 28.6. A high surface water source was reached due to a potable water supply intake located within 3 miles downstream of the site. The intake reported scores for the Erie County Water Authority plant. This plant is located upstream of the site. The nearest downstream intake, City of Tonawanda, is believed to be located more than three stream miles downstream of the site. Scores assigned were also based on an inadequate data base, according to the consultant.

Inadequacies in available data cited by the consultant include:

- 1) Limited data on release of contaminants to groundwater, surface water, and air.
- 2) The only analytical data results are from the 1982 USGS study.

The consultant also reported two endangered species near the site, Falco Peregrinus and Haliaeetus Lecocephalus.

Recommended Phase II actions have been proposed to further

study of the site. Groundwater monitoring has been proposed with three wells suggested. Three surface water monitoring points have been proposed. Sample analysis would include Cd, Pb, Cr and a GC/MS scan. This would expand upon or confirm the USGS data. Air over the site would be monitored with an OVA meter. The additional Phase II data generated will allow completion of the Hazard Rating Score. Phase II will also include a conceptual evaluation of remedial alternatives and choice of the most favorable alternative. Phase II work will conclude with the completion of an investigation report.

The Dames & Moore report reviewed the USGS analytical data in the context of this site only. Data obtained from the sites on the River Rd. area indicate a general level of contamination may exist throughout this industrial area. The data generated for sites in this area should be compared against a background level and not considered independently.

Cherry Farm

This site was also evaluated by Dames and Moore. The consultant was able to obtain information not contained in the DEP profile. Additional information included waste description and a more complete site history. Insufficient data was available for completion of a Hazard Rating Score in the opinion of the consultant. The lack of sufficient data resulted in a low Phase I score. The site received a overall score of 10.2 with a groundwater hazard potential score of 0.0 and a surface water hazard potential score 17.7. A phase II evaluation was proposed which would provide data to complete the Hazard Rating Score. The proposed study would cost an estimated \$35,000.

Additional historical information uncovered by the Dames and Moore team included site ownership and operation data as well as waste materials received. Niagara Mohawk Power Corporation obtained the property in 1957. Shortly there-after the site was leased to the Seaway Corp. for operation. Seaway operated the site during the period 1957 to 1970. While under Seaway operation the site received flyash (112,000 tons/year), bottom ash (23,000 tons/year), foundry sand, slag, and liquid boiler cleaning waste. Frontier Chemical Waste Co. operated the site from 1970 to 1972. It has been rumored, but not confirmed, that the site also received chlorinated benzene tars from Hooker-Durez Division.

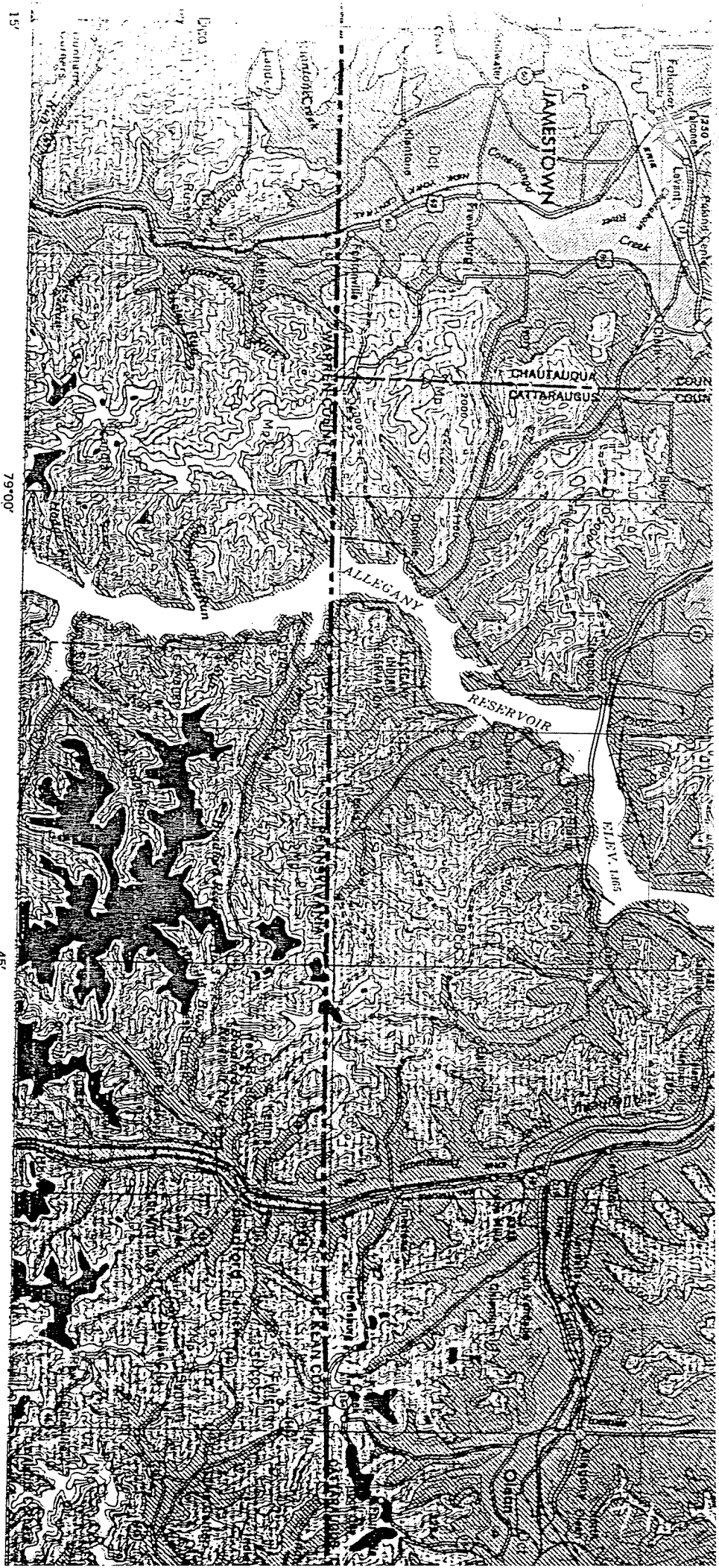
The consultant concluded that a Phase II study was needed to supplement known information and allow completion of a Hazard Ranking Score. Their Phase II proposal would collect additional (air and groundwater) field data, complete a conceptual evaluation of remedial alternatives with a cost estimate for the most feasible alternative, and prepare a site investigation report. Samples would be analyzed for Hg, Pb, phenol and include a GC/MS scan. The air would be monitored with a OVA meter. The cost estimate for the Phase II study is \$35,000 with an expenditure of 342 manhours.

The recommendation for further site monitoring is in conflict with the EPA Superfund consultant report (Fred C. Hart Assoc.) which stated "no evidence of chemical dumping... site appear

TABLE V-I

SUMMARY OF USGS ANALYSIS OF SUBSTRATE
 SAMPLES FOR INS EQUIPMENT CORP. SITE. USGS (1982)

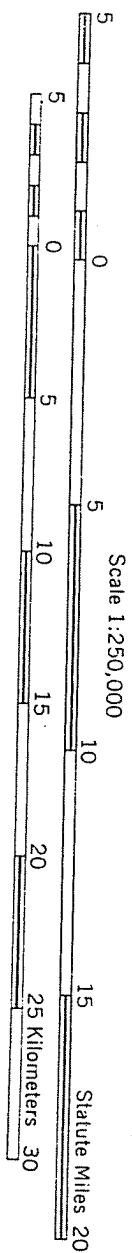
Parameter (ppm)	1	2	3	Well Number			7	8	9	10
				4	5	6				
Cadmium	53	20	1	5	6	1	4	1	2	2
Chromium	430	70	3	30	180	7	12	30	20	120
Iron	100,000	26,000	3,700	16,000	41,000	60,000	29,000	2,900	23,000	19,000
Lead	2,500	630	10	110	170	30	120	30	130	100
Cyclohexane						11				
Phenol	61						10			
Bis (2-ethylhexyl)										
Flouranthene									150	



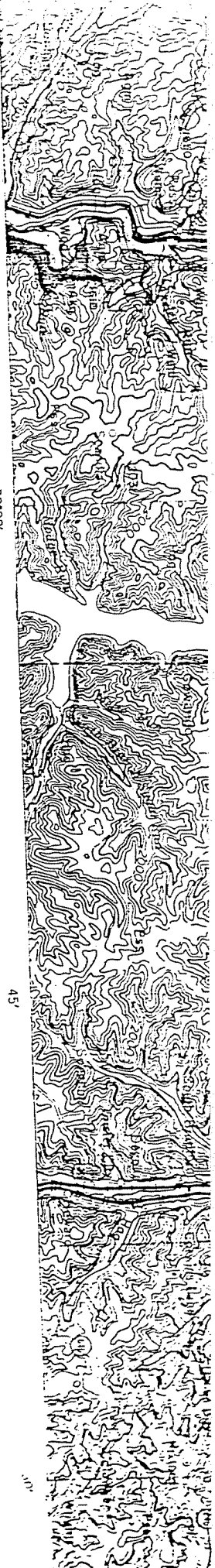
GEOLOGIC MAP OF NEW YORK

1970

Niagara Sheet

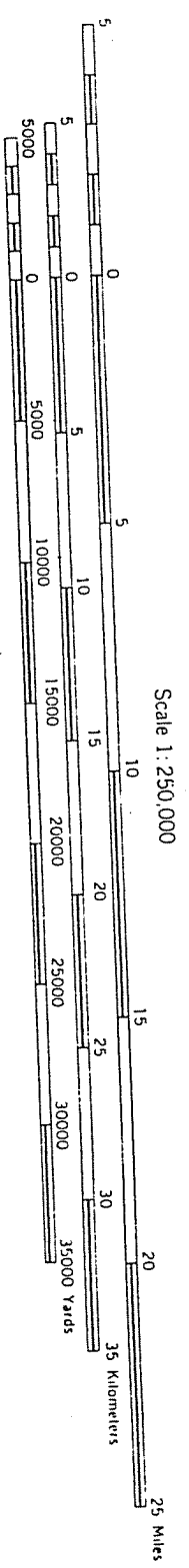


CONTOUR INTERVAL 100 FEET



QUATERNARY GEOLOGY OF NEW YORK, NIAGARA SHEET

by Ernest H. Muller



MAP DATA SOURCES

1. Bartolomucci, Henry A., 1968, A sedimentological study of the Niagara Falls Moraine. S.U.N.Y. Buffalo, M.A. thesis, 76p.
2. Blackmon, Paul, 1956, Glacial geology of the East Aurora, New York Quadrangle. Univ. of Buffalo, M.S. thesis.
3. Karrow, P.F., 1963, Pleistocene geology of the Niagara Falls Moraine. Mines, Geol. Rep. 16, 68p. and Map 2033.
4. Kindie, E.M. and F.B. Taylor, 1913, Description of the Niagara Falls Moraine. Atlas Folio 190, 25p.
5. Leverett, Frank, 1902, Glacial formations and drainage of the Niagara Falls Moraine. U.S. Geol. Surv. Monograph 41, 802p.
6. Paul, 1956, Glacial geology of the East Aurora, New York Quadrangle. Univ. of Buffalo, M.S. thesis.
7. Bartolomucci, Henry A., 1968, A sedimentological study of the Niagara Falls Moraine. S.U.N.Y. Buffalo, M.A. thesis, 76p.
8. Blackmon, Paul, 1956, Glacial geology of the East Aurora, New York Quadrangle. Univ. of Buffalo, M.S. thesis.
9. Karrow, P.F., 1963, Pleistocene geology of the Niagara Falls Moraine. Mines, Geol. Rep. 16, 68p. and Map 2033.
10. Kindie, E.M. and F.B. Taylor, 1913, Description of the Niagara Falls Moraine. Atlas Folio 190, 25p.
11. Leverett, Frank, 1902, Glacial formations and drainage of the Niagara Falls Moraine. U.S. Geol. Surv. Monograph 41, 802p.
12. Paul, 1956, Glacial geology of the East Aurora, New York Quadrangle. Univ. of Buffalo, M.S. thesis.

Draft Report of Preliminary Evaluation
of Chemical Migration to Niagara River from Hazardous
Waste Disposal Sites in Erie and Niagara County

136. INS EQUIPMENT CORP.

#915031

Location and General Information

The INS Equipment Corporation site is located in the City of Tonawanda and is shown on plate 5. The site borders the Huntley Power Station site to the north and is also known as the "Cherry Farm Area."

The 55 acre site was used to dispose of an unknown quantity of pit sludge, cutting oils, grinding waste and foundry sand. The site has been covered, graded, and seeded.

Geologic Information

The site consisted of wetlands and glacial lacustrine deposits prior to grading and seeding. The bedrock underlying the site is Camillus Shale.

Ten test borings were drilled on the site and their locations are shown in figure 1. The geologic description of the borings is as follows:

<u>Well No.</u>	<u>Depth (ft)</u>	<u>Description</u>
1	0 - 1.5	Topsoil.
	1.5 - 14.5	Black foundry sand, asphaltic smell, debris, rubble, everything. Hit hard zone at 14 ft; could barely make 6 inches more. SAMPLE: 14 ft.
2	0 - 15.0	Black and gray zones of foundry sands, debris. Hit hard zone at 15 ft. SAMPLE: 15 ft.
3	0 - 18.0	Black foundry sands, debris.
	18.0 - 18.5	Gravel and pebbles.
	18.5 - 21.5	Sand, black, wet.
	21.5 - 26.5	Clay, gray-green. SAMPLE: 18.5 ft.
4	0 - 16.5	Black foundry sands, cinder ash? debris.
	16.5 - 19.5	Same but saturated.
	19.5 - 21.5	Clay, gray-green. SAMPLE: 16.5 ft

-continued-



Figure 1. Location of sampling sites on the INS Equipment Corp. property

<u>Well No.</u>	<u>Depth (ft)</u>	<u>Description</u>
5	0 - 6.5	Black foundry sands, dry.
	6.5 - 11.5	Same, with rubble-gravel.
	11.5 - 16.5	Same with nuts, bolts, rubber hoses, wood, metal bindings, wet at 15 ft. SAMPLE: 15 ft.
6	0 - 6.5	Foundry sand, black to brown, medium.
	6.5 - 11.5	Same rubble at 10 - 11.5.
	11.5 - 16.5	Sand, brown to black, rubble, hard drilling, no returns.
	16.5 - 21.5	No returns, gray-green sandy clay on bit. SAMPLE: 20 ft.
7	0 - 8.0	Slag on top, then foundry sand, then limestone--couldn't drill. SAMPLE: 8 ft.
8	0 - 9.0	Topsoil, brown to black, slag, debris, gravel, hard drilling.
	9 - 15.0	Gravel, gray and pea rock. Can't drill through. SAMPLE: 14 ft.
9	0 - 0.5	Black cinder ash.
	0.5 - 4.0	"Iron ore" with gravel, couldn't drill through. SAMPLE: 4 ft.
10		<u>Note:</u> Had to move twice to get around hard zone at 1.0 ft. Tried again--still drilling in fresh wood. Fourth try:
	0 - 1.5	Topsoil and wood.
	1.5 - 4.0	Sand, dark brown to black, gravel, can't drill through. SAMPLE: 4 ft.

Hydrologic Information

Ground water was encountered in two of the ten boreholes at depth of 15 and 18 ft below land surface. Past history of the site indicated that some areas of the site were wetlands. The direction of ground-water flow is probably toward the Niagara River.

Chemical Information

A soil sample was collected at each borehole as indicated in the geologic descriptions. Each sample was analyzed for cadmium, chromium, iron, lead, and organic compounds using a GC/MS acid-base neutral scan. The organic analyses were performed by Mead Laboratories. The results of all the analyses are shown in table 1.

Table 1 .--Analyses of substrate samples from I.N.S. Equipment Corporation,
Tonawanda, New York

	Sample Number				
	1	2	3	4	5
Date collected	081082	081082	081082	081082	081082
Depth (ft)	14.0	15.0	20.0	16.5	15.0
Sample Type ¹	s	s	s	s	s
pH					
Conductivity (uMHOS)					
Temperature (°C)					
Inorganic Constituents ²					
Antimony					
Arsenic					
Cadmium	53000	20000	<1000	5000	6000
Chromium	430000	70000	3000	30000	180000
Copper					
Iron	100000000	26000000	3700000	16000000	41000000
Lead	2500000	630000	10000	110000	170000
Mercury					
Nickel					
Selenium					
Zinc					
Flouride					
Sulfide					
Cyanide					
Organic Compounds ²					
	(Mead)	(Mead)	(Mead)	(Mead)	(Mead)
2,4-Dimethyl-1,3-Dioxalane ⁴	30000	-	-	-	-
1,3-Dimethylbenzene ⁴	5200	-	-	-	-
Decane ⁴	25000	-	-	-	-
Undecane ⁴	55000	-	-	-	-
Tridecane ⁴	90000	-	-	-	-
Tetradecane ⁴	270000	-	23000	-	26000
Hexadecane ⁴	305000	13000	-	-	82000
Heptadecane ⁴	160000	-	64000	-	-
Octadecane	310000	-	-	-	600000
					550000

- ¹ Sample type: gw=ground water, sw=surface water, and s=substrate.
 - ² Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
 - ³ Cu(D): analysis done by direct aspiration because of high iron concentration.
 - ⁴ Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
 - ⁵ Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
 - ⁶ Volatile found in GC/ms extractions. Concentration results probably less than actual.
 - ⁷ Low surrogate recoveries.
 - ⁸ Estimated value less than detection limit.
- (Mead): Analyses performed by Mead CompuChem, Inc., Research Triangle Park NC

Table 1 --Analyses of substrate samples from I.N.S. Equipment Corporation,
Tonawanda, New York--continued

Organic Compounds ² (continued)	Sample Number				
	1	2	3	4	5
Eicosane ⁴	188000	-	-	-	570000
Hexacosane ⁴	97000	-	-	-	-
2,6,10,14-Tetramethyl- heptadecane ⁴	88000	-	-	-	-
4-Methyldecane ⁴	7300	-	-	-	63000
Dodecane ⁴	-	-	-	-	-
2,6,11-Trimethyldodecane ⁴	-	-	5300	-	-
Pentadecane ⁴	-	-	8700	-	-
2-Methylpentadecane ⁴	-	-	-	-	260000
Phenol	61000	-	-	-	49000
2-Methylphenol	11000	-	-	-	-
4-Methylphenol	43000	-	-	-	-
2,4-Dimethylphenol	62008	-	-	<10000 ⁸	-
2-Methylnaphthalene	66008	-	-	-	-
Naphthalene	77008	-	-	-	<200008
Acenaphthalene	62008	-	-	-	<100008
Flourene	87008 -	-	-	-	68008
Phenanthrene	41000	-	-	-	-
Anthracene	<100008	-	<100008	<10000 ⁸	33000
Flouranthene	25000	-	-	-	-
Pyrene	18000	-	-	-	-
Di-n-butyphthalate	46008	-	-	-	17000
Benzo(a)anthracene	48008	-	-	-	11000
Chrysene	47008	-	-	-	<100008
Bis(2-ethylhexyl)- phthalate	52000	-	-	-	<100008
Dibenzofuran	-	-	<100008	-	5000
					62008

- ¹ Sample type: gw=ground water, sw=surface water, and s=substrate.
- ² Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
- ³ Cu(D): analysis done by direct aspiration because of high iron concentration.
- ⁴ Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
- ⁵ Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
- ⁶ Volatile found in GC/ms extractions. Concentration results probably less than actual.
- ⁷ Low surrogate recoveries.
- ⁸ Estimated value less than detection limit.

Table 1 .--Analyses of substrate samples from I.N.S. Equipment Corporation,
Tonawanda, New York--continued

	Sample Number				
	6	7	8	9	10
Date collected	081082	081082	081082	081082	081082
Depth (ft)	20.0	8.0	14.0	4.0	4.0
Sample Type ¹	s	s	s	s	s
pH					
Conductivity (uMHOS)					
Temperature (°C)					
Inorganic Constituents ²					
Antimony					
Arsenic					
Cadmium					
Chromium	1000	4000	1000	2000	2000
Copper	7000	120000	30000	20000	120000
Iron					
Lead	6000000	29000000	2900000	25000000	19000000
Mercury	30000	120000	30000	130000	100000
Nickel					
Selenium					
Zinc					
Flouride					
Sulfide					
Cyanide					
Molecular sulfur					
			44000		
Organic Compounds ²					
1,5-Hexadiyne ⁴	(Mead)	(Mead)	(Mead)	(Mead)	(Mead)
Cyclohexane ⁴	30000	-	-	-	-
3-Hexen-2-one ⁴	11000	-	-	-	-
Hexadecane ⁴	4900	-	-	-	-
4-Methylphenanthrene ⁴	-	2500	-	-	-
2-Phenynaphthalene ⁴	-	-	-	-	-
1-Methylpyrene ⁴	-	-	-	18000	-
7 H-Benzo(DE)-	-	-	-	7100	-
Anthracene-7-one ⁴	-	-	-	9500	-
				17500	

- ¹ Sample type: gw=ground water, sw=surface water, and s=substrate.
- ² Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
- ³ Cu(D): analysis done by direct aspiration because of high iron concentration.
- ⁴ Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
- ⁵ Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
- ⁶ Volatile found in GC/ms extractions. Concentration results probably less than actual.
- ⁷ Low surrogate recoveries.
- ⁸ Estimated value less than detection limit.
- (Mead): Analyses performed by Mead CompuChem, Inc., Research Triangle Park NC

Table 1 --Analyses of substrate samples from I.N.S. Equipment Corporation,
Tonawanda, New York--continued

	Sample Number				
	6	7	8	9	10
Organic Compounds ² (continued)					
Benzo(k)phenanthrene ⁴	-	-	-	6000	
Perylene ⁴	-	-	-	16000	
Bis(2-ethylhexyl)phthalate-	-	<10000 ⁸	-	-	
Dibenzofuran	-	-	-	12000	
Flourene	-	-	-	13000	
Phenanthrene	-	-	-	70000	
Anthracene	-	-	-	26000	
Flouranthene	-	-	-	150000	
Pyrene	-	-	-	88000	
Benzo(a)anthracene	-	-	-	47000	
Chrysene	-	-	-	35000	
Benzo(a)pyrene	-	-	-	23000	
Indeno(1,2,3-C,D)pyrene	-	-	-	18000 ⁸	
Di benzo(a,h)anthracene	-	-	-	5900 ⁸	
Benzo(g,h,i)pyren	-	-	-	15000 ⁸	
Benzo(b)flouranthene	-	-	-	33000	
Benzo(k)flouranthene	-	-	-	33000	
2-Methyl naphthalene	-	-	-	<20000 ⁸	
Acenaphthylene	-	-	-	21000	

¹ Sample type: gw=ground water, sw=surface water, and s=substrate.

² Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.

³ Cu(D): analysis done by direct aspiration because of high iron concentration.

⁴ Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.

⁵ Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.

⁶ Volatile found in GC/ms extractions. Concentration results probably less than actual.

⁷ Low surrogate recoveries.

⁸ Estimated value less than detection limit.

APPENDIX B
NYS REGISTRY FORM

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

47-15-11(2/80)

Code: _____

Site Code: 915031

Name of Site: INS Equipment

Region: 9

County: Erie

Town/City Tonawanda

Street Address River Road

Status of Site Narrative:

Site also known as part "Cherry Farm Area". Has been covered, graded and seeded. Some drums visible, some areas barren of vegetation. Mostly foundry sand. Site is across street from INS Equipment Property which is not a part of this site. Soil samples found to contain heavy metals and organic chemical compounds.

Type of Site: Open Dump ☐
Landfill ☒
Structure ☐

Treatment Pond(s) ☐
Lagoon(s) ☐

Number of Ponds _____
Number of Lagoons _____

Estimated Size 55 Acres

Hazardous Wastes Disposed?

Confirmed ☐

Suspected ☒

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tons, gallons)
<u>Pit sludge</u>	<u>Unknown</u>
<u>Cutting oils</u>	<u>Unknown</u>
<u>Grinding waste</u>	<u>Unknown</u>
<u>Foundry Sand</u>	<u></u>
<u></u>	<u></u>

* Use additional sheets if more space is needed.

Name of Current Owner of Site: Matthew DugganAddress of Current Owner of Site: Amherst, NY

Time Period Site Was Used for Hazardous Waste Disposal:

Unknown, 19 To , 19 78

Is site Active ☐ Inactive ☒

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

Types of Samples: Air ☐ Groundwater ☐ None ☐
Surface Water ☐ Soil ☒Remedial Action: Proposed ☐ Under Design ☐
In Progress ☐ Completed ☐

Nature of Action:

Status of Legal Action: State ☐ Federal ☐Permits Issued: Federal ☐ Local Government ☐ SPDES ☐
Solid Waste ☐ Mined Land ☐ Wetlands ☐ Other ☐

Assessment of Environmental Problems:

Potential for water contamination.

Assessment of Health Problems:

Potential contamination of water plant of Erie County Water Authority.

Persons Completing this Form:

John KubarewiczNew York State Department of Environmental
ConservationDate August 26, 1983New York State Department of Health