BASIC CARBON

NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT

932004

September 6, 1983

Prepared By:

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For:

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Albany, New York 12233-0001

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1.0 Executive Summary

The Basic Carbon Company was located at 820 Connecting Road in Niagara Falls, New York on the property now owned by Wizard Methods, Inc. The small graphite specialty company operated from 1951 to 1960, at which time the plant relocated to Corey Road in Wheatfield, New York.

During the active years, Basic Carbon disposed of waste materials generated on-site in an area located between the plant building and Great Lakes Carbon. These waste materials consisted of coal tar, carbon, graphite and refuse. The quantity of material disposed of is unknown.

Today, evidence of past dumping can be observed through the ground surface, which is covered with a black carbon-like material. However, the extent of the disposal area, both lateral and vertical, still remains undetermined.

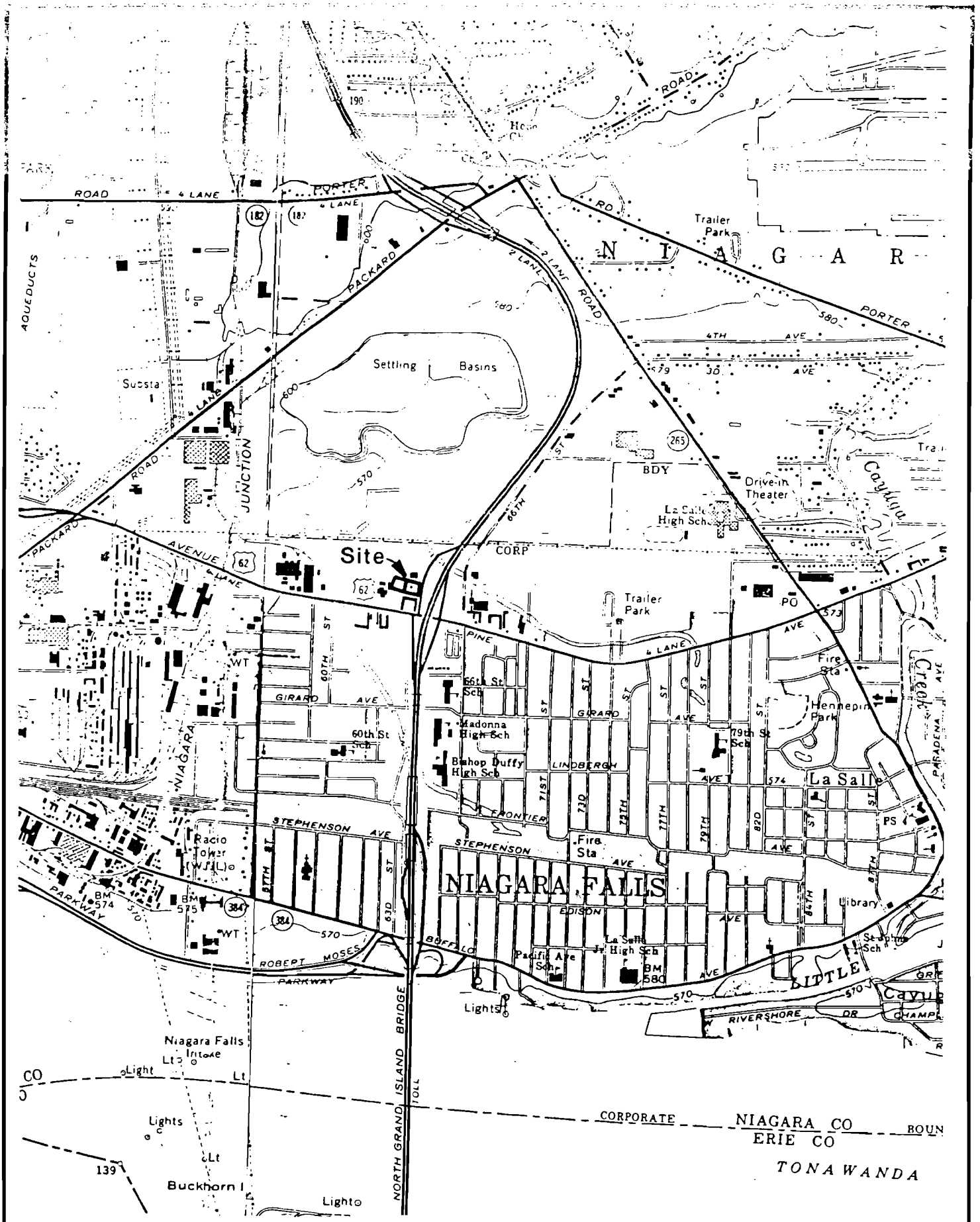
Soil samples were collected on-site by the U.S. Geological Survey in June of 1982; however, analytical results are still pending.

2.0 Site Description

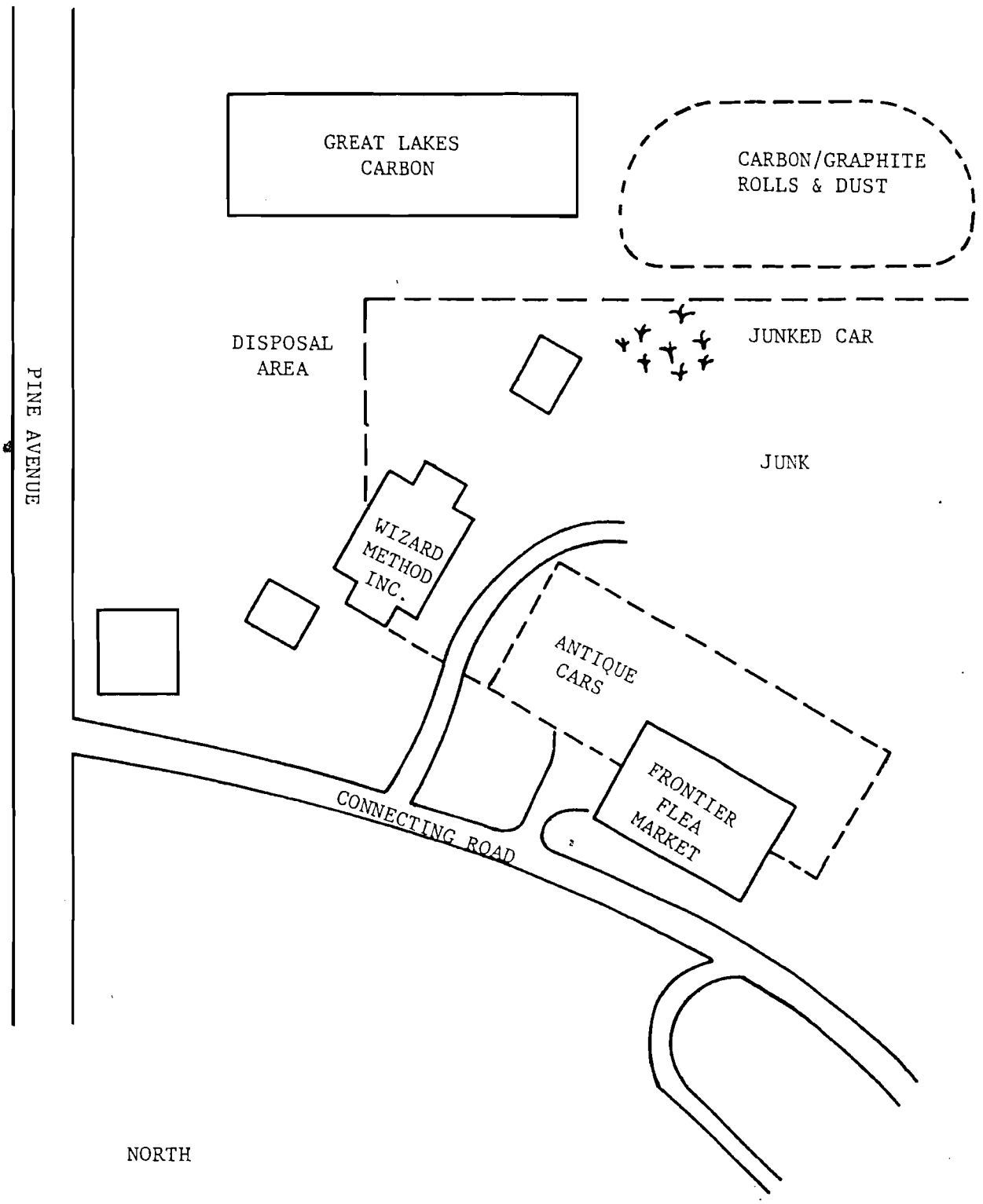
The Basic Carbon site, which is now occupied by Wizard Methods, Inc. was located on Connecting Road in Niagara Falls, New York (Figure 2). From 1951 to 1960 Basic Carbon used an area between their plant building and Great Lakes Carbon as a disposal site for carbon, coal tar, graphite and refuse. The disposal site is bounded to the north by property owned by George Salerno, west by Great Lakes Carbon, east by the plant building and south by property owned by Samuel Rizzo (Figure 3). The total site occupies approximately 1.0 acres of which perhaps one-half acre was used for disposal.

Presently, the area does show signs of past dumping of the aforementioned materials. The topsoil native to the area is not visible as the surface is covered with a fine black-carbon-like material. In addition to these wastes, low lying areas along the Great Lakes Carbon property fence contained such debris as old tires, wood and farm machinery intermingled with wetland vegetation.

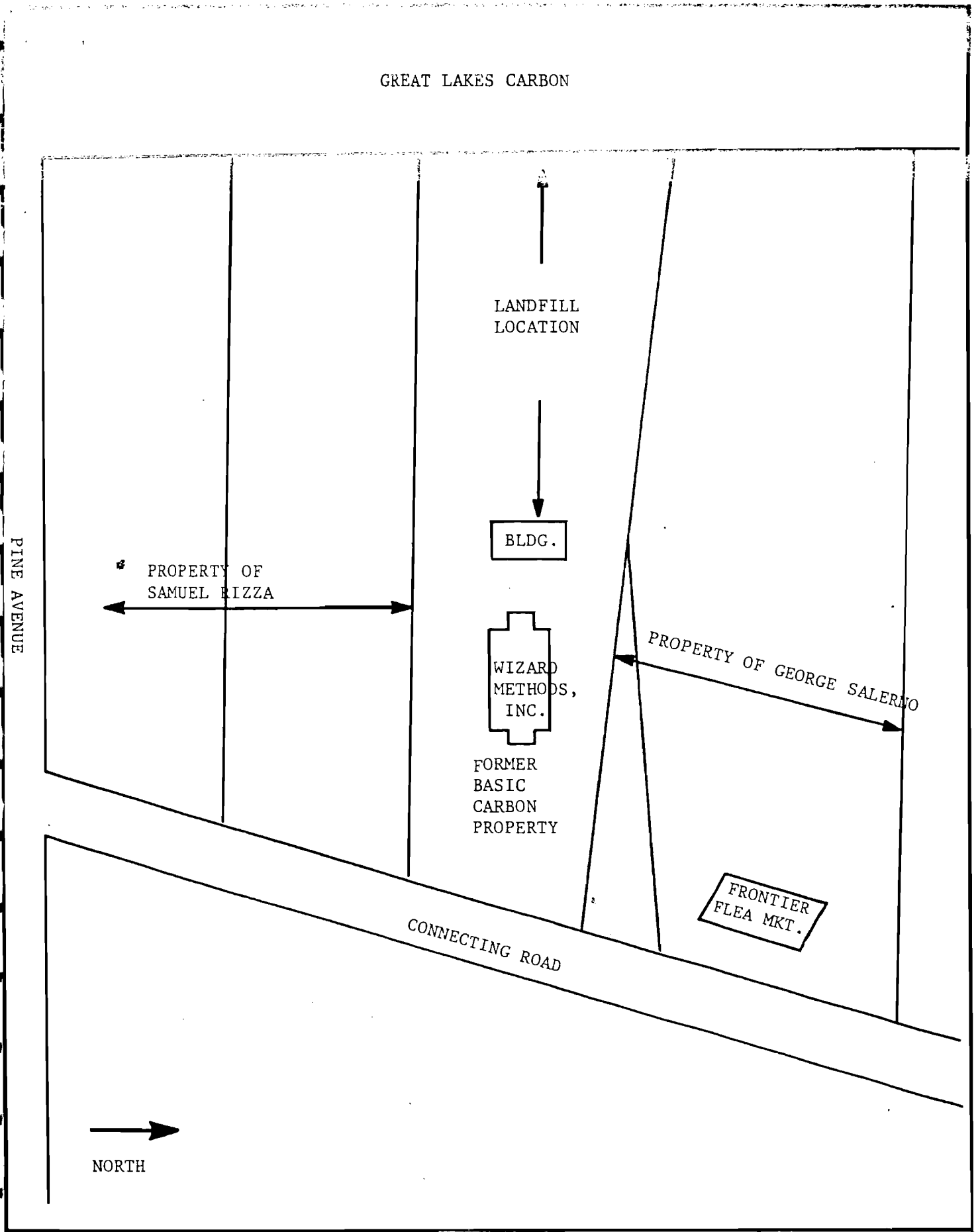
Preliminary analytical testing of on-site soils has been conducted by the U.S. Geological Survey; however, results are not yet available.



USGS TOPOGRAPHIC MAP TONAWANDA WEST QUAD 1965	VICINITY MAP BASIC CARBON SITE	FIGURE 1



NOT TO SCALE	SITE MAP BASIC CARBON	FIGURE 2



NOT TO SCALE	TAX MAP BASIC CARBON	FIGURE 3

Facility name: Basic Carbon

Location: Connecting Rd., Niagara Falls, N.Y.

EPA Region 2

Person(s) in charge of the facility: George Salerno, Jr.

1120 Connecting Rd.

Niagara Falls, N.Y. 14304

Name of Reviewer: Recra Research Date: 9/6/83

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.)

The Basis Carbon Site was located on Connecting Rd. in Niagara Falls, New York. Operation were conducted from 1951 to 1960. In the area located between the rear of the Basic Carbon Building and Great Lakes Carbon, an unknown quantity of coal tar, carbon, graphite and refuse was deposited by Basic Carbon. Analytical data is not yet available.

Scores: $S_M = 8.7$ ($S_{gw} = 1.8$ $S_{sw} = 15.0$ $S_a = 0$)

$S_{FE} = 0$

$S_{DC} = 62.5$

Range 8.7 to 20.0

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	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	2	3	
Total Route Characteristics Score			9	15	
3 Containment	0 1 2 (3)	1		3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 [1] 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			13	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			1053	57,330	
7 Divide line 6 by 57,330 and multiply by 100	S_{gw} = 1.8				

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0) 45	1	1	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	2	6	
Physical State	0 1 (2) 3	1	2	3	
Total Route Characteristics Score			6	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	12	18	
Hazardous Waste Quantity	0 [1] 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			13	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	0	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 / 12 16 18 20 / 24 30 (32) 35 40	1	32	40	
Total Targets Score			41	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]				64,350	
[7] Divide line [6] by 64,350 and multiply by 100			S_{sw} = 1[illegible]0		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	○	45	5.1
Date and Location:					
Sampling Protocol:					
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	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100			S_a = ○		

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	1.8	3.24
Surface Water Route Score (S_{sw})	15.3	[illegible]
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		[illegible]
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		[illegible]
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		5.7

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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} =		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
[1] Observed Incident	(0) 45	1	0	45	8.1
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 (3)	1	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	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]			13,500	21,600	
[7] Divide line [6] by 21,600 and multiply by 100	S_{DC} = 62.5				

FIGURE 12
DIRECT CONTACT WORK SHEET

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: Basic Carbon

LOCATION: Connecting Rd., Niagara Falls, NY

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

AT THE TIME OF PREPARING THIS HRS FORM, ANALYTICAL RESULT FOR SOIL SAMPLES COLLECTED ON 7-8-82 BY THE U.S.G.S. ARE NOT AVAILABLE.

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

LOCKPORT DOLOMITE FORMATION - SILURIAN ROCK OVERALL THICKNESS 150 FT. DIPS GENTLY TO THE SOUTH AT 30 FT/MILE (REF. 1)

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

30FT (REF. 1)

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

UNKNOWN

Net Precipitation

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

32"

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

27"

Net precipitation (subtract the above figures):

5"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

UNCONSOLIDATED PLEISTOCENE DEPOSITS - COMPOSED OF CLAY, SILT & FINE SAND (REF 2)

Permeability associated with soil type:

10^{-7} CM/SEC

Physical State

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

SOLIDS & FINE POWDERS.

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NO CONTAINMENT PRACTICED

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

COAL TAR:
BENZENE PHENOL
TOLUENE
XYLENES
CUMENE

Compound with highest score:

BENZENE
PHENOL

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 - EST. AT LEAST TO BE 1-10 TON/CUBIC YD.

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Ground Water Use

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

GROUNDWATER IS USED FOR INDUSTRIAL PURPOSES ONLY.

Distance to Nearest Well

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

INDUSTRIAL WELL

Distance to above well or building:

>3 MILES AWAY FROM SITE. (REF. 2)

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:

0

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):

0

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

0

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

NO SAMPLING OF THIS NATURE PERFORMED.

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0

Name/description of nearest downslope surface water:

NIAGARA RIVER - A CLASS "A" WATER BODY.

REF. 3

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

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

2.2"

Distance to Nearest Downslope Surface Water

≈1.5 MILES (REF 1)

Physical State of Waste

SOLIDS & FINE POWDERS

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NONE

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

BENZENE
PHENOL

Compound with highest score:

BOTH

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- EST. A MINIMUM OF 1-10 TON/CUB. YD.

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Surface Water Use

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

NIAGARA RIVER - USE AS A DRINKING WATER SOURCE.

Is there tidal influence?

NO

Distance to a Sensitive Environment

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

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

NO WETLANDS REF

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

NO ENDANGERED SPECIES REF

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:

INTAKE IS LOCATED IN THE NIAGARA RIVER, 1 ½ MILE DOWN STREAM OF THE No. GRAND ISLAND BRIDGE, POPULATION SERVICED ≈71,000.

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

0

Total population served:

>10,000 POPULATION OF NIAG. FLS

Name/description of nearest of above water bodies:

NIAGARA RIVER- CLASS "A" WATER BODY
ALSO A SPECIAL LISTING AS AN INTERNATIONAL BOUNDARY.

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

1.5 MILES

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

NO DATA AVAILABLE

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how det ied:

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

Distance to a Sensitive Environment

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

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

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

Land Use

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

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

Distance to residential area, if 2 miles or less:

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

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

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

3.2 EPA Preliminary Assessment

EPA

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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER
BASIC CARBON	1120 CONNECTING RD

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

09 COORDINATES LATITUDE 43° 05' 25" N | LONGITUDE 78° 59' 35"

10 DIRECTIONS TO SITE (Starting from nearest public road)

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
WIZARD METHODS, INC	620 CONNECTING RD.

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
NIAGARA FLS	NY	14304	716'283-

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 8, 2, 83 (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): RECRA RESEARCH, INC.

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

03 YEARS OF OPERATION
1951 (BEGINNING YEAR) | 1960 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
COAL TAR, CARBON, GENERAL REFUSE

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 (Inspection 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
RICK CROUCH	RECRA RESEARCH, INC.	716'838-6200

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
PATRICIA M. PERRY	RECRA RESEARCH		716'838-6200	8, 2, 83 (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

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

PHYSICAL STATES (Check all that apply)

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

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

- TONS: UNKNOWN
- CUBIC YARDS: _____
- NO OF DRUMS: _____

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

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)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☑ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

THE POPULATION OF THE AREA IS SERVICED BY MUNCIPAL WATER FROM NIAG. FLS, AND THEREFORE NOT DIRECTLY EFFECTED. HOWEVER GROUNDWATER MAY BECOME EFFECT AS CONTAMINANTS PERMEATE THROUGH THE SOIL.

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

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

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

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

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

REPORTEDLY, WASTE PRODUCTS WERE DESPOSED DIRECTLY ON THE SOIL WITH NO METHOD OF CONTAINMENT. THE POTENTIAL FOR SOIL CONTAMINATION IS HIGH.

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

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

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

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

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

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

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

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

TOTAL POPULATION POTENTIALLY AFFECTED: _____

III. COMMENTS

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
BASIC CARBON	1120 CONNECTING RD

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

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
43° LATITUDE 05 25." | 78° LONGITUDE 59 35."	☒ 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
8 / 2 / 83 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1951 (BEGINNING YEAR) | 1960 (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 RECRA RESEARCH (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
PATRICIA M. PERRY	GEOLOGIST	RECRA RESEARCH	(716) 838-6200
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
ANDRE LAPRES	GEOLOGIST	"	( ) "
			( )
			( )
			( )
			( )

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

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☐ PERMISSION ☐ WARRANT	2:00 PM	SUNNY & FAIR

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
RICK CROUCH	RECRA RESEARCH	716 838-6200

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
PATRICIA M. PERRY	RECRA RESEARCH			8 / 2 / 83 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A SOLID
- [X] 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: UNKNOWN

CUBIC YARDS: _____

NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] 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

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			

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

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		

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

POTENTIAL EXISTS - CARBON-LIKE MATERIAL WAS OBSERVED IN DIRECT CONTACT WITH LAND SURFACE.

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

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

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

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

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

POTENTIAL FOR SOIL TO BE CONTAMINATED IS HIGH. WASTE WAS IN DIRECT CONTACT WITH SOIL.

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

POTENTIAL IS EXTREMELY LOW. WATER FOR DRINKING IS TAKEN FROM THE NIAGARA RIVER. GROUNDWATER IS NOT USED

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

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

HAZARDOUS CONDITIONS AND INCIDENTS

J. DAMAGE TO FLORA — 02 ☒ OBSERVED (DATE: 6-2-00) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION

VEGETATION ON SITE WAS SPARSE FOR MOST OF THE REA. VEGETATION WHICH WAS OBSERVED WAS OF WETLAND ARIETY. DUMPING WAS OBSERVED IN THESE WETLAND AREAS.

☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION (Include numbers and species)

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

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

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

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

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

DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

TOTAL POPULATION POTENTIALLY AFFECTED: _____

COMMENTS

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. PERMIT INFORMATION

01 TYPE 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

_____ (Acres)

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.

NO METHOD OF CONTAINMENT EMPLOYED.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☑ YES ☐ NO

02 COMMENTS

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

DRINKING WATER SUPPLY

01 TYPE OF DRINKING WATER SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☑	B. ☐	A. ☐	B. ☐	C. ☐	A. _____ (mi)
NON-COMMUNITY	C. ☐	D. ☐	D. ☐	E. ☐	F. ☐	B. _____ (mi)

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 GROUNDWATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
0	— (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
_____ (ft)	Ø	_____ (ft)	_____ (gpd)	☐ YES ☐ NO

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

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

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
NIAGARA RIVER	☐	1/4 (mi)
_____	☐	_____ (mi)
_____	☐	_____ (mi)

DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

(1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	02 DISTANCE TO NEAREST POPULATION
A. >10,000 NO. OF PERSONS	B. _____ NO. OF PERSONS	C. _____ NO. OF PERSONS	<0.10 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
>10,000	<0.10 (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 AREA IS MOSTLY INDUSTRIAL WITH RESIDENTIAL AREAS NEAR BY. THE POPULATION IS DENSE WITHIN A ¼ MILE RADIUS.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

[illegible]

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
_____ (ft)	_____ (ft)	_____	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
_____ (in)	_____ (in)	0 %		_____ %

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE OTHER

A. _____ (mi) B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

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. <0.10 (mi)	B. 0.25 (mi)	C. _____ (mi)	D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

PLES TAKEN

MPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
UNDWATER			
FACE WATER			
TE			
R			
FF			
LL			
GETATION			
R			

ELD MEASUREMENTS TAKEN

PE	02 COMMENTS

HOTOGRAPHS AND MAPS

☐ GROUND ☐ AERIAL — 02 IN CUSTODY OF _____ (Name of organization or individual)

☐ YES
☐ NO — 04 LOCATION OF MAPS _____

ER FIELD DATA COLLECTED (Provide narrative description)

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

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

01 NAME GEORGE SALERNO		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS (P O Box, RFD #, etc) 1120 CONNECTING RD		04 SIC CODE	10 STREET ADDRESS (P O Box, RFD #, etc)		11 SIC CODE
05 CITY NIAGARA FALLS	06 STATE NY	07 ZIP CODE 14304	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 BASIC CARBON (CORP)		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P O Box, RFD #, etc.) 820 CONNECTING RD		04 SIC CODE	03 STREET ADDRESS (P O Box, RFD #, etc)		04 SIC CODE
05 CITY NIAG. FLS	06 STATE NY	07 ZIP CODE 14304	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)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

...RRENT OPERATOR | **OPERATOR'S PARENT COMPANY**

...ME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
ORGE SALERNO, JR			

...EET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
SAME ADD.			

...TY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

YEARS OF OPERATION	09 NAME OF OWNER	

...EVIOUS OPERATOR(S) (List most recent first; provide only if different from owner) | **PREVIOUS OPERATORS' PARENT COMPANIES** (If applicable)

NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

...EET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

...Y	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD	

...ME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

...REET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

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

...ARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD	

...ME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

...TY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD	

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. ON-SITE GENERATOR

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

IV. TRANSPORTER(S)

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

S1 RESPONSE ACTIVITIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. PAST RESPONSE ACTIVITIES (Cont'd)

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

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

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

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

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

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

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

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

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

01 ☐ 1. ACCESS TO SITE RESTRICTED 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

ENFORCEMENT INFORMATION

03 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

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

4.0 Site History

In 1951, Basic Carbon was founded by Mr. R. Corey under the name of Graphite Specialties. The original facility was located at 820 Connecting Road, Niagara Falls, until 1960, when the company relocated to Corey Road in Wheatfield, New York. In 1965 the company merged with the Carborundum Company. Wizard Methods, a tank cleaning company, purchased the former Basic Carbon site in 1981. Prior to this date, the site had several private owners (Reference 7).

During the company's active years, 1951 to 1960, Basic Carbon disposed of wastes generated from their manufacturing process on-site. The waste materials consisted of carbon, graphite, coal tar and general refuse (Reference 4). The quantity of material disposed of is unknown; however, due to the relatively small size of the operation, the quantity of waste generated is anticipated to be small.

Two (2) additional buildings have been constructed subsequent to Basic Carbon's ownership of the property. It has been speculated that some of the waste material may have been removed to an alternate site during excavation or that the waste material still remains under the building foundations (Reference 4). Test borings installed by the U.S. Geological Survey indicated fill material to a depth of 3.5 feet in the suspected disposal area (Reference 8). Samples collected while borings were performed are still pending analytical results.

5.0 Site Data

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - The former Basic Carbon site lies within a topographically flat region. Any variation in surface features is due to urban/industrial development.

Surface drainage, generally is thought to be toward the Niagara River to the south. However, due to heavy industrial development, surface drainage may be in all directions. Storm sewers are located in the vicinity to help facilitate surface runoff and area drainage.

5.1.2 Environmental Setting - The site is located in an urban/-industrial district of the City of Niagara Falls. There are no endangered species, wildlife refuges, or protected wetlands in the site vicinity. The site is located approximately one mile to the north of the Niagara River. The Niagara River, a Class "A" water resource, is used by the City of Niagara Falls as a potable water supply source. Water supply intakes are located approximately two (2) miles upstream of the disposal area on the west side of Grand Island (Reference 9).

5.2 Hydrogeology

5.2.1 Geology - The Basic Carbon site is underlain by the Lockport Dolomite Formation at a depth of between 30 to 40 feet. Characteristically, this Bedrock formation is composed primarily of dolomite, a slightly soluble carbonate rock, with a thin bed of limestone appearing near the base. The overall thickness of the Lockport dolomite is approximately 150 feet. The regional dip is reported to be 30 feet/mile to the south (Reference 5).

5.2.2 Soil - Unconsolidated Pleistocene deposits consisting of glacial till overlain by clay, silt and fine sand layers form the general surficial geology in the site area (Reference 5). Associated permeabilities of these soils would range from 10^{-5} to 10^{-7} cm/sec (Reference 6). The U.S. Department of Agricultural Soil Conservation Service classifies the surficial soils of the site as cut and fill land, connotating the soils have been disturbed or altered through urban development (Reference 2).

5.2.3 Groundwater - Groundwater wells are not used as a potable supply of water largely due to the availability of surface water in the area. However, groundwater wells are thought to be used for industrial purposes. The Lockport Dolomite is the water bearing unit with groundwater storage occurring in hori-

zontal bedding joints, vertical joints and cavities resulting from the dissolution of gypsum. Wells in this unit have yields ranging from 2 to 110 gpm. The Lockport Dolomite aquifer is recharged through vertical migration of water in the unconsolidated deposits. Direction of groundwater movement is to southwest towards the Niagara River or Niagara River Gorge. The seasonal high groundwater table is reported to be within ten (10) feet of the ground surface (Reference 5).

5.3 Previous Sampling and Analysis

5.3.1 Groundwater Quality Data - No sampling of this nature performed.

5.3.2 Surface Water Quality Data - No sampling of this nature performed.

5.3.3 Air Quality Data - No sampling of this nature performed.

5.3.4 Other Analytical Data - On July 8, 1982, two (2) test holes were drilled by the U.S. Geological Survey to a depth of seven (7) to ten (10) feet in the east and west corners of the site area. Soil samples were collected from these borings at depths of five (5) and six (6) feet. Analytical results from these samples are not yet available.

6.0 Adequacy of Available Data

In compiling the Hazardous Ranking score, the Basic Carbon site was found to have a score for migration potential (S_m) equal to 8.7. However, due to data inadequacies a certain degree of subjectivity is involved; therefore, a range for S_m has been developed. For Basic Carbon, the range for S_m was found to be 8.7 to 20.0. Data inadequacies are as follows:

- No analytical results for soil samples collected.
- Lack of knowledge regarding lateral and vertical extent of the fill area and quantity of waste material disposed.
- Lack of a data base for the groundwater quality of the area.
- Lack of data regarding the site sepcific geological and hydro-geological features.
- No air quality data.

7.0 PROPOSED PHASE II WORK PLAN

7.1 Objectives

As per the inadequacies of the data base that were itemized in the preceding section, a work plan has been developed which, to the extent practical, will provide the information required to address the following:

- o Potential environmental effects of the landfill.
- o The extent and magnitude of contamination, based on site specific hydrogeologic conditions.
- o The data inputs necessary to effectuate the development and recommendation of cost effective remedial actions.

Detailed descriptions of the elements of this work plan are herein provided.

7.2 Scope of Work

The primary purpose of this work element is to fill the data gaps identified in the preliminary assessment so as to permit a complete site characterization/ranking (HRS) and engineering evaluation of remedial alternatives. The preliminary field investigation includes the following items:

- o Air Monitoring
- o Subsurface Investigation
- o Monitoring Well Installation
- o Sampling and Analysis

Throughout the investigative effort, field activities will be performed in strict accordance with established safety protocol, presented in Recra Research, Inc.'s Operation Manual - Field and Analytical Services (previously submitted to NYSDEC by Recra as part of a prequalifying submission).

7.2.1 Air Monitoring - Prior to implementation of the various field investigative techniques associated with this element, an initial site screening will be conducted using a Century Organic Vapor Analyzer (OVA) and/or an HNU photoionizer. Based upon described site characteristics, Recra team personnel engaged in this activity will enter the site equipped with level 3 respiratory protection. A grid pattern will be established at the site and readings taken and recorded at each grid point. This survey will determine the initial level of protection necessary for workers' safety. In addition, upgradient and downgradient air monitoring stations will be established.

If the results are indicative of air quality problems, additional testing will be initiated at specified distances away from the site.

During actual field investigative work, ambient and worker air monitoring will be conducted periodically using appropriate instrumentation, such as the photoionizer and/or OVA. When deemed necessary from actual readings, the level of respiratory protection will be adjusted to meet existing conditions. All disposable equipment necessary for worker safety will be placed daily into covered on-site drums provided by Recra, and removed from the site and disposed of either upon reaching full capacity or upon completion of all field work.

7.2.2 Subsurface Investigation - In order to facilitate additional information concerning possible groundwater contamination, preliminary findings indicate a need for subsurface investigations. This investigation will include:

A.) One (1) exploratory boring upgradient of groundwater flow (assumed east) of the site. This boring will be extended to bedrock and will be used to determine the specific on-site geology.

B.) Two (2) exploratory borings downgradient of groundwater flow (assumed west) of the site.

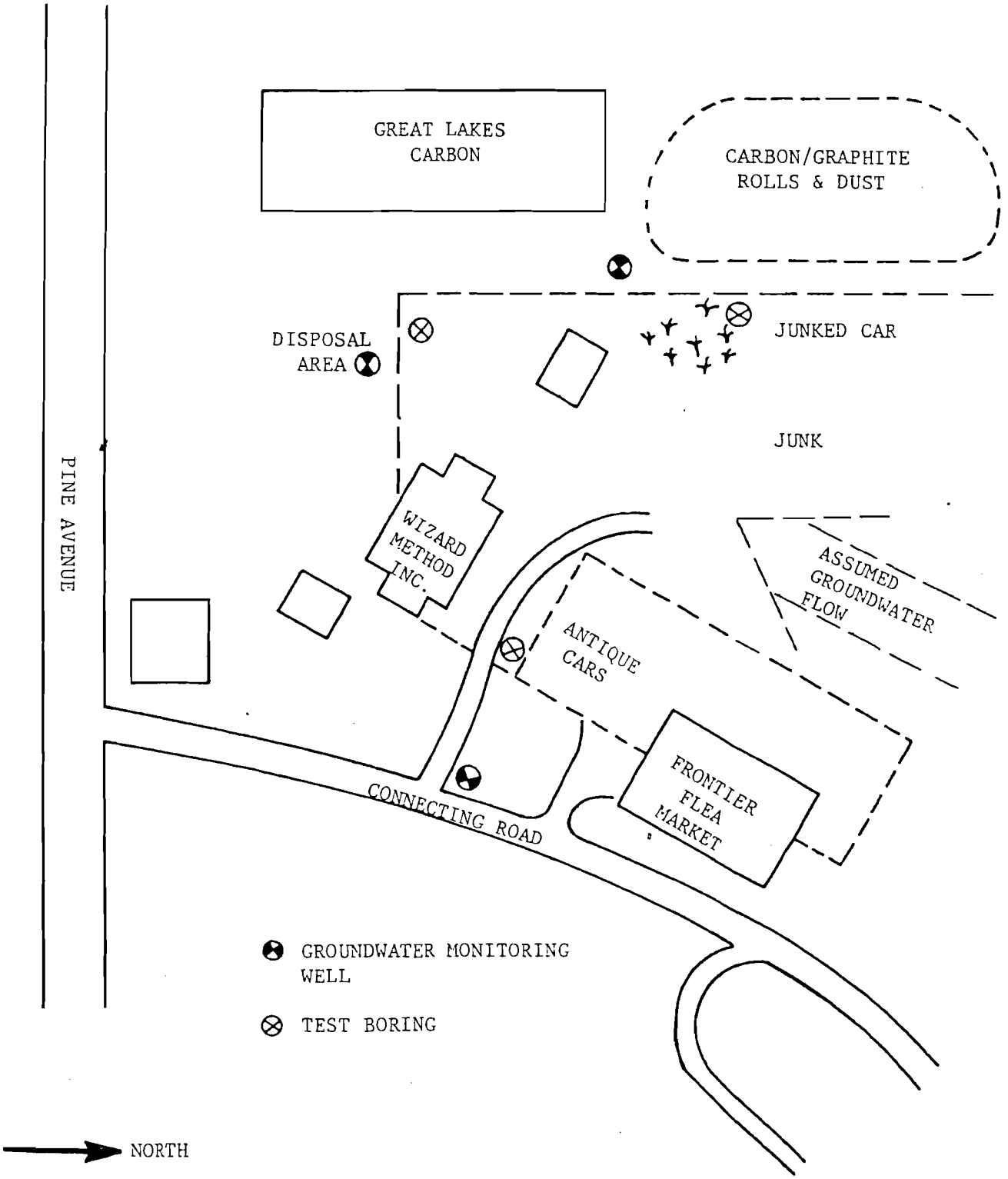
All borings will be completed as groundwater monitoring wells constructed with a five (5) foot screened interval in the uppermost seasonal groundwater table.

C.) Three (3) auger borings at various locations in the fill area. These borings will be used to determine the nature, integrity and extent of the fill material. They will be grouted at completion with a cement/bentonite mixture.

Well and sampling locations for this site are illustrated in Figure 4.

The borings will be drilled with a truck, trailer, and/or all-terrain-mounted auger rig using hollow stem augers. During construction of the borings, split spoon samples will be continuously obtained from the initial boring. In the other borings, split spoon samples will be obtained at five (5) foot intervals and/or when noticeable changes in lithology or drilling characteristics occur. If the unconsolidated material is found to be extremely heterogeneous, all borings will be continuously sampled. Also, if a confining layer is encountered, Shelby tube samples will be obtained to determine its undisturbed permeability.

The acquired samples will be visually identified in the field following the procedure set forth in ASTM-D-2488, noted appropriately on the boring logs with the sample number and



NOT TO SCALE	SAMPLING AND WELL LOCATIONS BASIC CARBON	FIGURE 4

recorded standard penetration test results (ASTM-D-1586), and placed in precleaned, teflon-lined, screw-cap glass jars for return to Recra Research, Inc.'s Tonawanda, New York laboratory.

In order to avoid possible cross-contamination during construction of the borings, the apparent upgradient borings will be completed first; then the downgradient holes will be drilled. Between each boring, the augers will be cleaned with water obtained from a known non-contaminated source. Also, between each split spoon sample, the split spoon will be cleaned with water, acetone and distilled water. All spent water/acetone liquid accumulated during this process will be disposed of in an on-site drum. Prior to leaving the site, the drill rig will be decontaminated using high pressure water.

7.2.3 Monitoring Well Installation - The monitoring wells will be constructed of two-inch I.D. cast iron riser pipe with a five-foot long galvanized, wire-wound-wrapped steel screen. The screen will be placed just below the encountered water table. The annulus between the casing/screen and boring well will be properly sand-packed and sealed (cement/bentonite and cement) to the ground surface and the well provided with a locking cap. In the event that the designed monitoring well invert depth is above its boring completion depth, the open bore hole (i.e. interval from well screen invert to boring completion) will be

sealed with bentonite or a cement/bentonite mixture. A typical monitoring well is illustrated in Figure 5.

Upon completion of well construction, all monitoring wells will be properly developed, and all borings and/or top of well casings will be surveyed to determine their location and elevation above sea level. At that time, variable head tests will be performed on the wells around the site to estimate the in-situ permeability of the screened interval.

All field activity will be under the direct supervision of a qualified geologist and/or hydrogeologist.

7.2.4 Sampling and Analysis - The following procedures will encompass the sampling and analysis from the newly installed wells, sampling and analysis of the samples obtained during air monitoring, and analysis of selected samples from the boring program. If desired, all samples will be split with the owner of the site. Also, upon completion of the analytical program, the owner will be notified of the results if he so requests. All samples will be analyzed for the parameters listed in Table 1.

7.2.4.1 Groundwater - Following equilibrium of water levels within the installed wells, water elevations will be measured to determine the water table surface. Representative ground-

TABLE 1: ANALYTICAL PARAMETERS

Parameters	Surface Water	Groundwater
pH	.	.
Specific Conductance	.	.
Chloride	.	.
Sulfate	.	.
Total Organic Carbon	.	.
Cadmium	.	.
Chromium (Total)	*	o
Chromium (Hexavalent)	*	o
Copper	*	o
Iron	*	o
Lead	*	o
Mercury	*	o
Nickel	*	o
Silver	*	o
Zinc	*	o
Total Recoverable Phenolics	.	.
Volatile Organic Scan (VOS)	.	.
Halogenated Organic Scan (HOS)	.	.
Volatile Halogenated Organic Scan	.	.
Dry Weight		

o = Soluble Metals * = Total Metals

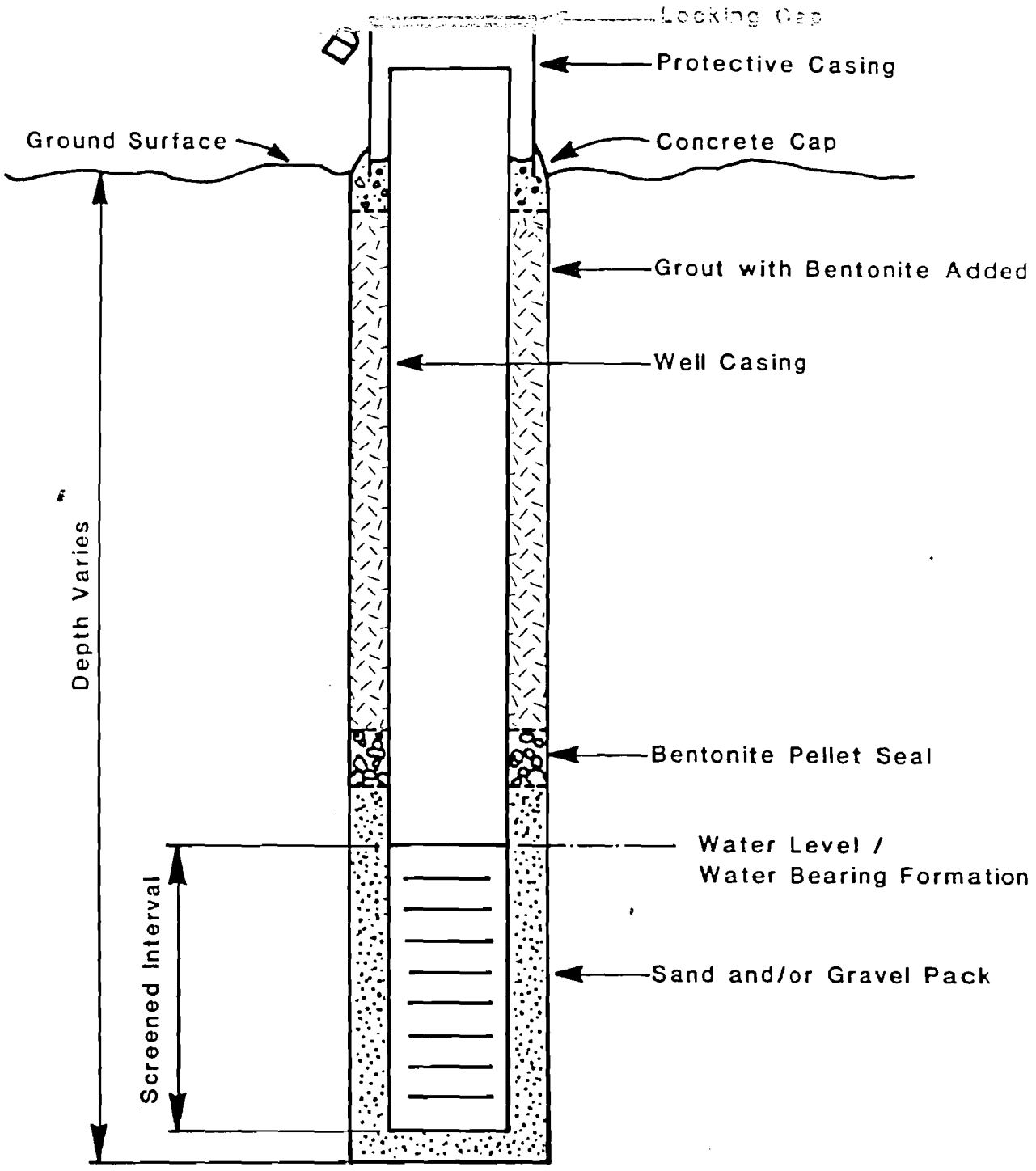
VOS is a screening procedure to identify the presence or absence of volatile chlorinated organic compounds. Analyses are performed via purge and trap concentration, gas, liquid chromatography and an electrolytic conductivity detector.

HOS is a screening procedure to identify the presence or absence of halogenated organics. Analyses are performed via solvent extraction concentration gas liquid chromatography and an electron capture detector.

Figure 5

MONITORING WELL DETAIL

In Unconsolidated Formation



water samples will then be collected after the wells have been fully evacuated or a volume of three times the well contents have been removed.

Evacuation of water from the wells and the acquisition of the samples will be accomplished with an ISCO Model 1580 peristaltic pump, using separate low-density polyethylene tubing for each well and changing the silicon rubber tubing within the ISCO between wells. An exception to this procedure will be employed when obtaining the required volume of sample for volatile organic analysis. This will be accomplished using small volume galvanized steel bailers that have been separately designated for each well.

Upon collection of the samples, field pH, temperature and conductivity measurements will be recorded. The samples will be placed in appropriate precleaned bottles/septa vials, labelled, chilled and immediately returned to Recra's Tonawanda, New York laboratory for preservation and analysis of previously listed chemical parameters. If the samples cannot be returned to Recra's laboratory in a timely fashion due to the distance between the site and Recra's laboratory, field preservation will be performed prior to chilling.

7.2.4.2 Soil - Selected subsurface soil samples will undergo both physical and chemical analyses. The remaining samples will be archived by Recra Research, Inc. for a period of six (6) months after completion of the contract.

The physical analysis will aid in the characterization of the underlying unconsolidated material. The physical parameters of concern during this investigation are grain size distribution (ASTM-D-422), Atterberg limits (ASTM-D-423 and 424) and classification (ASTM-D-248). The number of samples to undergo analysis for the above parameters is dependent on the homogeneity of the subsurface conditions underlying the bottom of the uncontrolled hazardous waste landfill. The results from these tests, in conjunction with Standard Penetration Test results, will aid in the design and evaluation of remedial programs.

Chemical analysis of selected samples will be used to characterize attenuation by on-site soils. A sample from the unsaturated zone and a sample from the saturated zone will generally be utilized from each test boring.

7.2.5 Chemical Analytical Methods - The procedures to be utilized for analyses of water and soil samples during this investigation are in basic accordance with one or more of the following

reference texts:

- Methods for Chemical Analysis of Water and Wastes, United States Environmental Protection Agency,
- NIOSH Manual of Analytical Methods, 2nd Edition, United States Department of Health, Education and Welfare,
- Standard Methods for the Examination of Water and Wastewater, 14th Edition, APHA, AWWA, WPCF.

7.2.6 Quality Assurance Program - An overall Quality Assurance Program is essential for the production of high-quality analytical data. Such a program requires precise control of laboratory activities. For the Quality Assurance Program in effect at the laboratories of Recra Research, Inc., the reader is referred to a document previously submitted by Recra Research, Inc. to NYSDEC, entitled "Operations Manual - Field and Analytical Services".

7.2.7 Engineering Evaluation Report/HRS Score - The purpose of this evaluation report is to compile all existing and newly-developed information concerning the sites, and utilize this information to:

- Evaluate feasible remedial alternatives at the sites and prepare budget-level cost estimates for these alternatives.

- Based upon this evaluation, recommend the most cost-effective and environmentally sound course of remedial action.

- Prepare a Hazard Ranking System (HRS) score for the sites.

It is presently anticipated that the output from this Evaluation Report will consist of a single bound report, subdivided into at least the following sections:

- HRS Score - Utilizing USEPA's formal method of presentation (Federal Register/Vol. 47, No. 137/Friday, July 16, 1982), the following completed work sheets will be included in this opening section: HRS Cover Sheet; Groundwater Route Work Sheet; Surface Water Route Work Sheet; Air Route Work Sheet; Fire and Explosion Work Sheet; and Direct Contact Work Sheet.

- Background

- Summary of Project Activities

- Identification and Evaluation of Remedial Alternatives

- Recommendations

- Appendix - Complete Site Data Base

7.3 Estimated Costs

The estimated costs per individual element of the preceding scope of work are listed as follows:

o	Preliminary Field Investigation	$ 9,461
o	Sampling and Analysis	5,063
o	Engineering Evaluation	4,030
	Total	$ 18,554

APPENDIX A

REFERENCES

1.) Personal interview with Michael Hopkins, Niagara Falls Health Department, June 28, 1983.

2.) U.S. Department of Agriculture Soil Survey of Niagara County. Issued October, 1972.

3.) Code, Rules and Regulations of NYSDEC, Water Resources, Volume 6(C), Article 8, Section 837, Item 1, 1966.

4.) Site Profile prepared by the Niagara County Health Department.

5.) Groundwater Resources in Niagara Falls, New York and the potential impacts of Hazardous Waste Contaminants by Kevin Owen.

6.) U.S. Envirnomental Protection Agency, HRS Users Manual, June, 1982.

7.) Telephone conversation with City of Niagara Falls Tax Assessor; August 9, 1983.

8.) U.S. Geological Survey Report, July 8, 1982.

9.) U.S. Geological Survey Topographical Map. Niagara Falls, Ontario Quadrangle, 1965.

APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

REVISED

Code: B

Site Code: 932004

Name of Site: Basic Carbon Co.

Region: 9

County: Niagara

Town/City: Niagara Falls (C)

Street Address: 820 Connecting Road

Status of Site:

- o Inactive landfill, operated from 1951-1960.
- o Located in an industrial area.
- o Wastes disposed of were: carbon, graphite, coal tar and refuse.
- o Surface water intakes located 1.5 miles south of the site.
- o Soils are unconsolidated pleistocene deposits of glacial till overlain by clay silt and fine sand.

Type of Site: Landfill

Hazardous Waste Disposed? suspected

Type and Quantity of Hazardous Waste:

- o Coal tar
- o Carbon & graphite
- o Quantity unknown

Present Owner: Wizard Methods, Inc.; 820 Connecting Road, Niagara Falls, NY

Time Period Site Was Used: 1951 - 1960

Appendix C

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Office of Public Health II University Place Albany, New York 12203-3399

Barbara A. DeBuono, M.D., M.P.H.
Commissioner

Karen Schimke
Executive Deputy Commissioner

Soil Samples

March 9, 1995

Mr. Mike Hinton
Division of Hazardous Waste Remediation
NYS Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203

RE: Basic Carbon
Niagara Falls, Niagara County
Site ID #932004

Dear Mr. Hinton:

As promised, here is the report on soil sampling prepared by NUS Corporation.

If you observe a resumption of activity at the Basic Carbon site, please give me a call. Thank you for your help on this matter.

Sincerely,

Stephen J. Shost
Environmental Health Specialist 2
Bureau of Environmental Exposure
Investigation

pdk/95046PRO0069

Enclosure

cc: Dr. G.A. Carlson
Mr. A. Wakeman/Mr. C. Amento

F. Budde

New York State Department of Environmental Conservation

MEMORANDUM

TO: Robert Glazegaski, Supervisor, Site Control Section
FROM: Keith Gronwald, BNSC
SUBJECT: Reclassification of Inactive Hazardous Waste Disposal Sites
DATE: 6-9-86

This is to recommend that the following inactive hazardous waste disposal site be reclassified from a Class 2a to a Class 3 site.

Site Name/Location: BASIC CARBON / NIAGARA FALLS
NY I.D. NO. 932004

This recommendation is based on the following:

✓ A. The presence of hazardous wastes has been confirmed.
___ B. No evidence of hazardous wastes on site exists.
___ C. The site poses a significant threat to the environment or public health based on:

___ 1. DOH has determined it to pose a threat to public health.
___ 2. Preliminary HRS Score greater than 28.5 and/or listed on the NPL.
___ 3. Violation of Part___ environmental standards.
___ 4. The site has been declared a significant threat to public health or the environment thru litigation.
___ 5. Other: _____

_____

___ D. The site does not pose a significant threat to the environment based on the following: _____

_____

___ E. The site has been remediated or closed and:

___ 1. Requires long term monitoring.
___ 2. Does not require monitoring and may be delisted from the Registry in accordance with Article 27, Title 13 of the ECL

___ F. Region Concurs: _____

___ G. Comments: NUS (9/13/85) SITE INSPECTION REVEALS ELEVATED LEVELS OF PAH's, METALS VOLATILES AND SEMI-VOLATILES

_____

If you have any questions or require additional information, please see me.

cc: C. Goddard
W. Demick
M. Chen
w/att. → Regional Solid Waste Engineer
~~K. Gronwald~~ R. Dana

Attachments ✓ Registry Form ✓ Other ___ None

932004

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

Basic Carbon Company Site Name	NY 000010216 EPA Site ID Number
1100 Connecting Road Niagara Falls, New York Address	02-8505-10 TDD Number

SITE DESCRIPTION

The Basic Carbon Company was located at 1100 Connecting Road in Niagara Falls, New York on the property now owned by Wizard Methods, Inc. The small graphite specialty company operated from 1951 to 1960, at which time the plant relocated to Corey Road in Wheatfield, New York.

During the active years, Basic Carbon disposed of waste materials generated on-site in an approximately ½ acre landfill located between the plant building and Great Lakes Carbon. These waste materials consisted of coal tar, carbon, graphite and refuse. The quantity of material disposed of is unknown. A layer of fill 4-6 feet thick is reported to have been deposited on the site after the cessation of disposal activities.

Today, the ground surface is covered with a black carbon-like material. The extent of the disposal area, both lateral and vertical, still remains undetermined.

Soil sampling and air monitoring were conducted during the site investigation on 6/21/85. Five soil samples were taken and submitted for organic and inorganic analysis.

Varying concentrations of volatile and semi-volatile compounds were detected in the soil samples. A pesticide (alpha-BHC) and a poly chlorinated biphenyl (Aroclor 1248) were also detected. Cadmium, Chromium, lead and mercury were all detected at levels above background.

Not all of these potential contaminants were found at each of the sample locations.

SEE ATTACHMENT A

HAZARD RANKING SCORE:

Prepared by: Scott W. Engle
of NUS Corporation

Date: 9/13/85

Table 5-1
ANALYTICAL DATA
BASIC GARDEN
SAMPLING DATE: 06/12/85
CASE: 3449/17250

VOLATILES

SAMPLE NUMBER UNITS	NYA5-S1 ug/Kg	NYA5-S2 ug/Kg	NYA5-S3 ug/Kg	NYA5-S4 ug/Kg	NYA5-S5 ug/Kg	NYA5-B1 ug/l
Chloromethane						
Bromomethane						
Vinyl Chloride						
Chloroethane						
Methylene Chloride	510	850	5500	1400	410	18
Acetone	35		200	93	67	14
Carbondisulfide						
1,1-Dichloroethene						
1,1-Dichloroethane						
Trans-1,2-Dichloroethene						
Chloroform						J
1,2-Dichloroethane						
2-Butanone						
1,1,1-Trichloroethane		6.3	27	J	3.75	
Carbon Tetrachloride						
Vinyl Acetate						
Bromodichloromethane						
1,1,2,2-Tetrachloroethane						
1,2-Dichloropropane						
Trans-1,3-Dichloropropene						
Trichloroethene			110			
Dibromochloromethane						
1,1,2-Trichloroethane						
Benzene						
Cis-1,3-Dichloropropene						
2-Chloroethylvinylether						
Bromoform						
2-Hexanone		E				
4-Methyl-2-Pentanone						
Tetrachloroethene						
Toluene	6	21			34	
Chlorobenzene						
Ethylbenzene						
Styrene						
Total Xylenes						

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 05/12/05
CASE: 4449/17250

SEMI-VOLATILES

SAMPLE NUMBER UNITS	NYA5-61 ug/Kg	NYA5-62 ug/Kg	NYA5-63 ug/Kg	NYA5-64 ug/Kg	NYA5-65 ug/Kg
N-Nitrosodimethylamine					
Phenol					J
Aniline					
Bis(2-Chloroethyl)Ether					
2-Chlorophenol					
1,3-Dichlorobenzene					
1,4-Dichlorobenzene		J			
Benzyl Alcohol					
1,2-Dichlorobenzene		J			
2-Methylphenol					
Bis(2-Chloroisopropyl)Ether					
4-Methylphenol					J
N-Nitroso-Di-n-Propylamine					
Hexachloroethane					
Nitrobenzene					
Isophorone					
2-Nitrophenol					
2,4-Dimethylphenol					J
Benzoic Acid					
Bis(2-Chloroethoxy)Methane					
2,4-Dichlorophenol					
1,2,4-Trichlorobenzene					
Naphthalene	J	J			J
4-Chloroaniline					
Hexachlorobutadiene		J			
4-Chloro-3-Methylphenol					
2-Methylnaphthalene		J			
Hexachlorocyclopentadiene					
2,4,6-Trichlorophenol					
2,4,5-Trichlorophenol					
2-Chloronaphthalene					
2-Nitroaniline					
Dimethyl Phthalate					
Acenaphthylene					
3-Nitroaniline					
Acenaphthene	J				J
2,4-Dinitrophenol					
4-Nitrophenol					
Dibenzofuran	J	J			
2,4-Dinitrotoluene					
2,6-Dinitrotoluene					
Diethyl Phthalate	J				
4-Chlorophenylphenylether					
Fluorene	J				
4-Nitroaniline					

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/85
CASE: 4449/1725B

SEMI-VOLATILES						
SAMPLE NUMBER UNITS	NYA5-61 ug/Kg	NYA5-62 ug/Kg	NYA5-63 ug/Kg	NYA5-64 ug/Kg	NYA5-65 ug/Kg	
4,6-Dinitro-2-Methylphenol						
N-Nitrosodiphenylamine						
4-Bromophenylphenylether						
Hexachlorobenzene		J				
Pentachlorophenol	J					
Phenanthrene	1900	880		46000	930	
Anthracene	670	J		J	J	
Di-n-Butylphthalate		E				
Fluoranthene	3000	1100		52000	1500	
Benzidine						
Pyrene	2500	800		46000	1100	
Butylbenzylphthalate	J					
3,3'-Dichlorobenzidine						
Benzo(a)Anthracene	2400	510		27000	740	
Bis(2-Ethylhexyl)Phthalate	E				JB	
Chrysene	2500	530		30000	820	
Di-n-Octyl Phthalate						
Benzo(b)Fluoranthene	3400	520		45000	920	
Benzo(k)Fluoranthene	2700	590		J	835	
Benzo(a)Pyrene	3500	520		J	920	
Indeno(1,2,3-cd)Pyrene	16000	J		J	440	
Dibenzo(a,h)Anthracene	470	J			J	
Benzo(ghi)Perylene	1400	J		J	J	

NOTES:
Blank space = compound analyzed for but not detected
E = analysis did not pass QA/QC requirements
J = compound present below the specified detection limit
B = compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/05
CASE: 4449/1725B

PESTICIDES/PCBs

SAMPLE NUMBER UNITS	NYA5-S1 ug/Kg	NYA5-S2 ug/Kg	NYA5-S3 ug/Kg	NYA5-S4 ug/Kg	NYA5-S5 ug/Kg
Alpha-BHC	E		J		
Beta-BHC	E				
Delta-BHC	E				
Gamma-BHC (Lindane)	E				
Heptachlor	E				
Aldrin	E				
Heptachlor Epoxide	E				
Endosulfan I	E				
Dieldrin	E				
4,4'-DDE	E				
Endrin	E				
Endosulfan II	E				
4,4'-DDD	E				
Endosulfan sulfate	E				
Endrin Aldehyde	E				
4,4'-DDT	E				
Methoxychlor	E				
Endrin Ketone	E				
Chlordane	E				
Toxaphene	E				
Aroclor-1016	E				
Aroclor-1221	E				
Aroclor-1232	E				
Aroclor-1242	E				
Aroclor-1248	E			6200	
Aroclor-1254	E				
Aroclor-1260	E				

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/05
CASE: 4449/1725b

INORGANICS

SAMPLE NUMBER UNITS	NYAS-01 mg/kg	NYAS-02 mg/kg	NYAS-03 mg/kg	NYAS-04 mg/kg	NYAS-05 mg/kg
Aluminum	27600	7800	9930	7040	7030
Antimony					
Arsenic	25	12	12	J	9
Barium	407	571	349	199	J
Beryllium	46	J	J	J	J
Cadmium	5.5	2.9	34	5.1	
Calcium	29100	79900	96700	69500	121000
Chromium	57	16	2760	101	32
Cobalt	57	J	J	J	J
Copper	J	J	J	J	J
Iron	90000	15300	25100	22000	14100
Lead	729	29	250	236	110
Magnesium	6560	24500	20300	32000	16000
Manganese	1470	703	1590	533	330
Mercury	0.12	2.1	0.91	0.3	0.2
Nickel	256	J	59	86	J
Potassium	4300	J	J	J	J
Selenium	J	J	J	J	J
Silver	7.3		J		
Sodium		J	J	J	J
Thallium					
Tin	240				
Vanadium	50	J	114	40	J
Zinc	J	J	J	J	J

NOTES:
Blank space - compound analyzed for but not detected
J - compound present below the specified detection limit
B - compound appears in the laboratory blank as well as the sample

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

CLASSIFICATION CODE: ~~2a~~ 3 REGION: 9 SITE CODE: 932004

NAME OF SITE : Basic Carbon
STREET ADDRESS: 64th St., West of Connecting Rd North of Pine Av
TOWN/CITY: COUNTY: ZIP:
Niagara Falls Niagara

SITE TYPE: Open Dump-X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: -1 1/2 Acres

SITE OWNER/OPERATOR INFORMATION: OK
CURRENT OWNER NAME....: ~~George Salerno~~ ~~[illegible]~~.
CURRENT OWNER ADDRESS.: ~~1150~~ 1100 Connecting Road, Niagara Falls, NY
OWNER(S) DURING USE...: Basic Carbon Company
OPERATOR DURING USE...: OK Same
OPERATOR ADDRESS......: ~~Unknown~~ Carey Road, Wheatfield, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1951 To 1960

SITE DESCRIPTION:
Wastes generated by Basic Carbon included graphite, 30% coal tar pitch, carbon and ~~garbage~~ refuse. This site is now used as a storage site for antique automobiles and heavy equipment. The U.S. Geological Survey sampled this site in July 1982 and May 1983, taking 2 soil borings. Analysis of the soil samples detected ~~few of the~~ 13 organic priority pollutants, ~~most at very low concentrations.~~ 7 non priority pollutant organics. ~~and~~ Only one compound was high enough above the detection limit to be quantified - pyrene at 52.0 μg/kg. A Phase I state superfund investigation was completed in ~~June~~ September, 1983. No samples were taken. A Site Inspection Report was completed by NUS Corporation for EPA in September, 1985. ~~Surface soil samples~~ Seventeen different ~~[illegible]~~ organic chemicals were identified and quantified in ~~[illegible]~~ four surface soil samples. The highest being fluoranthene at 52 mg/kg. Other compounds included ~~-~~ 1,1,1 trichloroethane, trichloroethene, toluene, naphthalene, phenanthrene, anthracene, fluoranthene and pyrene. ~~Metals~~ Of the metals, only cadmium, chromium, lead and mercury were detected above background. A pesticide (alpha-BHC) and polychlorinated biphenyl (Arochlor 1248) were also detected.

HAZARDOUS WASTE DISPOSED: Confirmed- Suspected -X

TYPE	QUANTITY (units)
Coal Tar Pitch	Unknown
Carbon	
Graphite	

SITE CODE: 932004

NALYTICAL DATA AVAILABLE:

ir- Surface Water- Groundwater- Soil-X Sediment- None-~~X~~

ONTRAVENTION OF STANDARDS:

roundwater- Drinking Water- Surface Water- Air-

EGAL ACTION:

YPE..: none State- Federal-
TATUS: In Progress- Completed-

EMEDIAL ACTION:

roposed-X Under Design- In Progress- Completed-
ATURE OF ACTION: ~~None~~ Phase II Investigation.

EOTECHNICAL INFORMATION:
OIL TYPE: Topsoil underlain by clay
ROUNDWATER DEPTH: unknown

SSESSMENT OF ENVIRONMENTAL PROBLEMS:

lo known environmental problems.

SSESSMENT OF HEALTH PROBLEMS:

Medium	Contaminants Available	Migration Potential	Potentially Exposed Population	Need for Investigation
Air	Likely	Highly Likely	Yes	High
Surface Soil	Likely	Highly Likely	Yes	High
Groundwater	Likely	Unlikely	Yes	Medium
Surface Water	Likely	Unlikely	No	Low

Health Department Site Inspection Date : 5/85

NUS Phase I Checklist

1. Site Name: Basic Carbon Region: 9 Reg. Class. 2a
   County: Niagara ID #: 932004 Consultant Recra

2. Owner's name and address if different than Registry:

   Wizard Methods Inc
   Niagara Falls, NY

   Classify Owner
   Private X
   Federal ____
   State ____
   Municipal ____
   Unknown ____

3. Other responsible parties to notify:

   Basic Carbon Company
   Corey Road
   Wheatfield, NY

4. HRS Scores: Sm = 9.32 Sgw = 2.39 Ssw = 15.94 Sa = 0.00
   (note observed release by "*" after score) S_{FE} = 0.00 S_{DC} = 10.00

   Comments: ____

   Maximum likely: Sm = 9.32 Sgw = 2.39 Ssw = 15.94 Sa = 0.00

   Assumptions for max.: No large waste quantity

5. Is hazardous waste presence confirmed by analyses ✓ or expert testimony ____, letter date and author ____.

6. Hazardous Waste Quantity: unknown

7. Site Size: Acres ≈ 1½

8. Has any site sampling been done? Yes Date-Yr. ____

9. Recommendations: NPL ____ Phase II ✓ Delay ____
   Change Classif. ✓ Form Attached ✓ Limited Sampling ____
   List Media and Analyses GW

10. Regional Comments: Person ____, Date: ____

Phase I Checklist (continued)

11. Report Corrections: (See RFP Guidelines)

A. All key existing data was used.	
B. Topographic map has coordinates.	No
C. The question of multiple aquifers is addressed.	No
D. The HRS documentation lists references.	Yes
E. Are the cited reference pages or ref. included?	No
F. Other (list report page and correction).	Needs D.C.+ F+E
G. Report Acceptable (yes or no)	No

12. Attach photocopy of Executive or Narrative Summary page and topographic map page.

13. Reviewer: Richard H. Dana Date: 7/3/86

14. Second Reviewer to check HRS for NPL sites:

_____ Date: _____

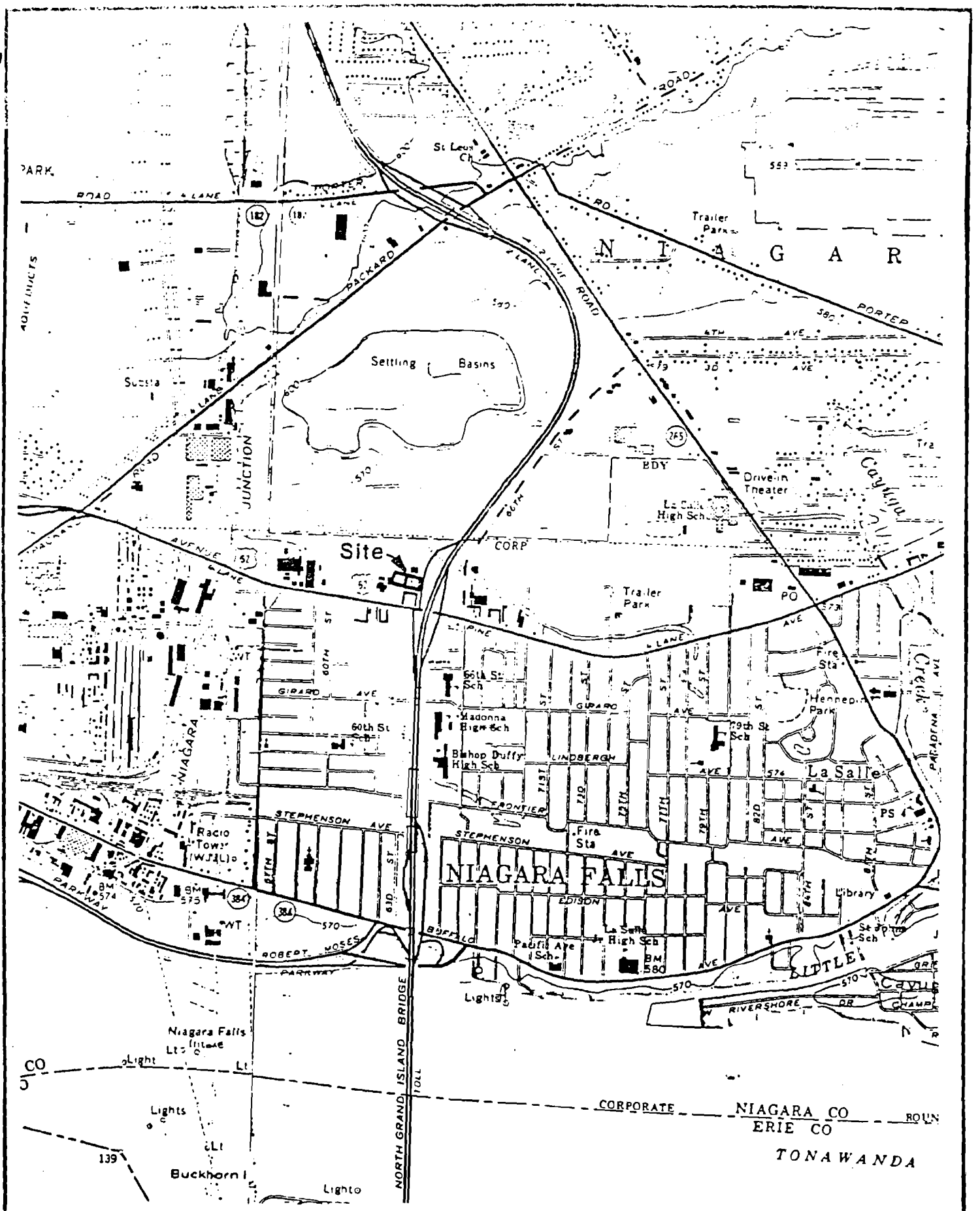
1.0 Executive Summary

The Basic Carbon Company was located at 820 Connecting Road in Niagara Falls, New York on the property now owned by Wizard Methods, Inc. The small graphite specialty company operated from 1951 to 1960, at which time the plant relocated to Corey Road in Wheatfield, New York.

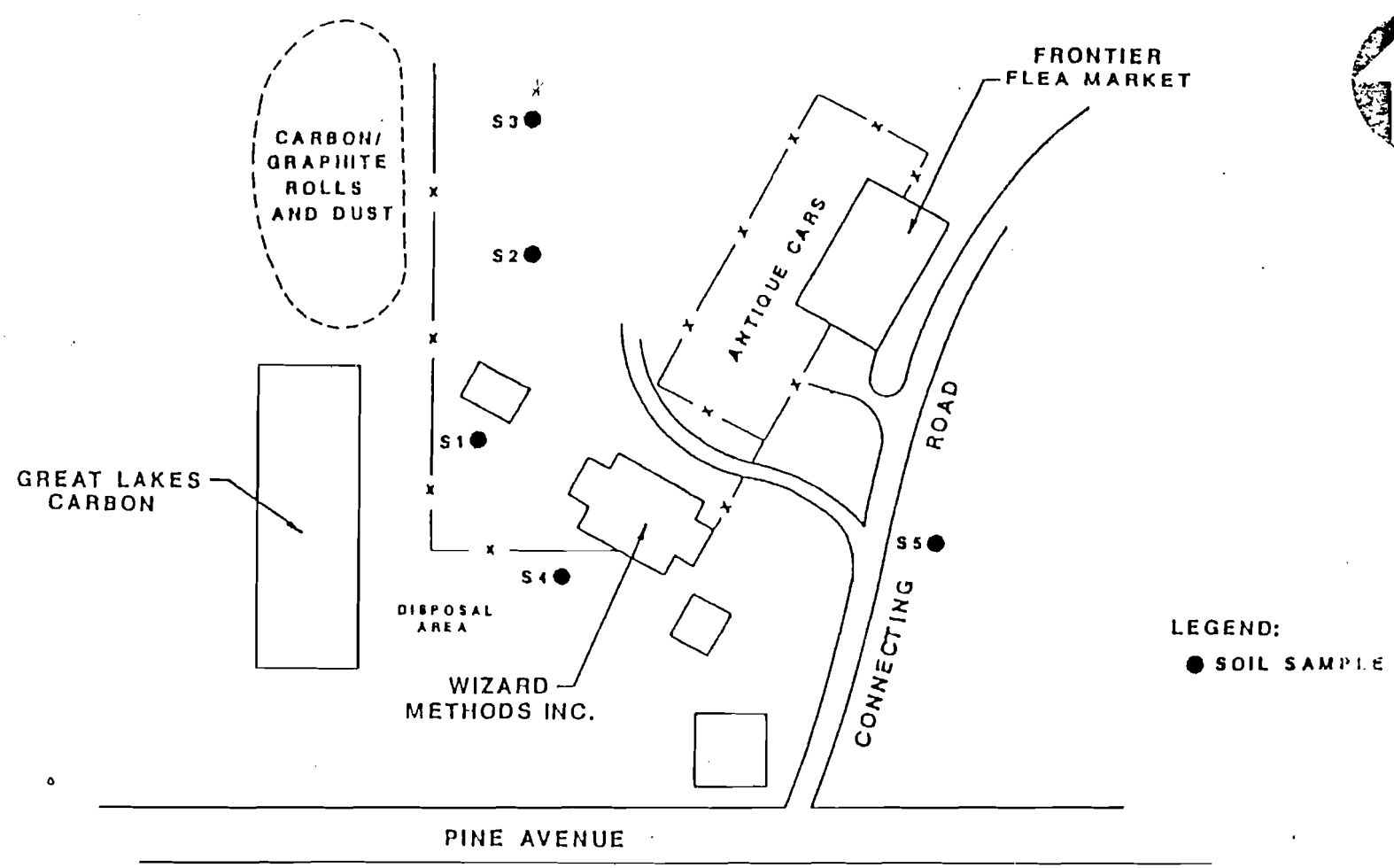
During the active years, Basic Carbon disposed of waste materials generated on-site in an area located between the plant building and Great Lakes Carbon. These waste materials consisted of coal tar, carbon, graphite and refuse. The quantity of material disposed of is unknown.

Today, evidence of past dumping can be observed through the ground surface, which is covered with a black carbon-like material. However, the extent of the disposal area, both lateral and vertical, still remains undetermined.

Soil samples were collected on-site by the U.S. Geological Survey in June of 1982; however, analytical results are still pending.



USGS TOPOGRAPHIC MAP TONAWANDA WEST QUAD 1965	VICINITY MAP BASIC CARBON SITE	FIGURE 1



SAMPLE LOCATION MAP

BASIC CARBON/WIZARD METHODS, NIAGARA FALLS, N.Y.

(NOT TO SCALE)

FIGURE 4-1

NUS CORPORATION
A Halliburton Company

5.0 FINDINGS

This section presents the analytical results of the hazardous substance analyses of the surface and sub-surface soil samples. Each organic fraction of the sample is usually analyzed at "low" concentration detection limits. The semi-volatile and pesticide/polychlorinated biphenyl (PCB) fractions of samples NYA5-S3 and NYA5-S4 were analyzed at "medium" concentration detection limits. The decision to analyze at "medium" concentration detection limits was determined by a preliminary gas chromatographic screen which revealed high levels of compounds in each fraction. The "medium" detection limit is 3 to 5 orders of magnitude higher than the "low" detection limit.

Table 5-1 provides the analytical results of these samples. Various notations are used in the table. The notation "E" is used when the sample analysis did not pass EPA QA/QC requirements and was rejected. The notation "B" is used when the compound was found in the analytical laboratory's blank as well as the sample. The notation "J" is used to designate the presence of a compound and to indicate that the amount present was below the analytical laboratory's quantitation limit.

Methylene chloride was detected in the analytical laboratory's reagent blank and acetone was detected in the QA/QC field blank. Both of these chemicals were found in a number of the samples. Acetone and methylene chloride are common laboratory solvents used in sample extraction and glassware cleaning. They are not discussed further since their presence and levels in the samples, with the possible exception of acetone in sample NYA5-S3, are indistinguishable from laboratory induced contamination.

5.1 Soil Analysis

The five soil samples were analyzed for volatile and semi-volatile organic, pesticide, PCB and inorganic compounds.

Table 5-1
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/85
CASE: 1449/17258

VOLATILES						
SAMPLE NUMBER	NYA5-51	NYA5-52	NYA5-53	NYA5-54	NYA5-55	NYA5-R1
UNITS	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/l
	ppb					
Chloromethane						
Bromomethane						
Vinyl Chloride						
Chloroethane						
Methylene Chloride	510	850	5600	1400	410	JB
Acetone	35		200	93	87	14
Carbondisulfide						
1,1-Dichloroethene						
1,1-Dichloroethane						
Trans-1,2-Dichloroethene						
Chloroform						J
1,2-Dichloroethane						
2-Butanone						
1,1,1-Trichloroethane		6.3	27	J	3.75	
Carbon Tetrachloride						
Vinyl Acetate						
Bromodichloromethane						
1,1,2,2-Tetrachloroethane						
1,2-Dichloropropane						
Trans-1,3-Dichloropropene						
Trichloroethene			110			
Dibromochloromethane						
1,1,2-Trichloroethane						
Benzene						
Cis-1,3-Dichloropropene						
2-Chloroethylvinylether						
Bromoform						
2-Hexanone		E				
4-Methyl-2-Pentanone						
Tetrachloroethene						
Toluene	5	21			34	
Chlorobenzene						
Ethylbenzene						
Styrene						
Total Xylenes						

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIN CANYON
SAMPLING DATE: 06/12/85
CASE: 4449/17258

SEMI-VOLATILES

SAMPLE NUMBER UNITS	NYA5-S1 ug/Kg	NYA5-S2 ug/Kg	NYA5-S3 ug/Kg	NYA5-S4 ug/Kg	NYA5-S5 ug/Kg
N-Nitrosodimethylamine					
Phenol					J
Aniline					
Bis(2-Chloroethyl)Ether					
2-Chlorophenol					
1,3-Dichlorobenzene					
1,4-Dichlorobenzene		J			
Benzyl Alcohol					
1,2-Dichlorobenzene		J			
2-Methylphenol					
Bis(2-Chloroisopropyl)Ether					
4-Methylphenol					J
N-Nitroso-Di-n-Propylamine					
Hexachloroethane					
Nitrobenzene					
Isophorone					
2-Nitrophenol					
2,4-Dimethylphenol					J
Benzoic Acid					
Bis(2-Chloroethoxy)Methane					
2,4-Dichlorophenol					
1,2,4-Trichlorobenzene					
Naphthalene	J	J			J
4-Chloroaniline					
Hexachlorobutadiene		J			
4-Chloro-3-Methylphenol					
2-Methylnaphthalene		J			
Hexachlorocyclopentadiene					
2,4,6-Trichlorophenol					
2,4,5-Trichlorophenol					
2-Chloronaphthalene					
2-Nitroaniline					
Dimethyl Phthalate					
Acenaphthylene					
3-Nitroaniline					
Acenaphthene	J				J
2,4-Dinitrophenol					
4-Nitrophenol					
Dibenzofuran	J	J			
2,4-Dinitrotoluene					
2,6-Dinitrotoluene					
Diethyl Phthalate	J				
4-Chlorophenylphenylether					
Fluorene	J				
4-Nitroaniline					

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/85
CASE: 4449/17258

SEMI-VOLATILES					
SAMPLE NUMBER UNITS	NYA5-51 ug/Kg	NYA5-52 ug/Kg	NYA5-53 ug/Kg	NYA5-54 ug/Kg	NYA5-55 ug/Kg
4,6-Dinitro-2-Methylphenol					
N-Nitrosodiphenylamine					
4-Bromophenylphenylether					
Hexachlorobenzene		J			
Pentachlorophenol	J				
Phenanthrene	1900	800		46000	930
Anthracene	670	J		J	J
Di-n-Butylphthalate		E			
Fluoranthene	3000	1100		52000	1500
Benzidine					
Pyrene	2500	800		46000	1100
Butylbenzylphthalate	J				
3,3'-Dichlorobenzidine					
Benzo(a)Anthracene	2400	410		27000	740
Bis(2-Ethylhexyl)Phthalate	E				JB
Chrysene	2500	630		30000	820
Di-n-Octyl Phthalate					
Benzo(b)Fluoranthene	3400	620		45000	920
Benzo(K)Fluoranthene	2700	590		J	830
Benzo(a)Pyrene	3300	620		J	920
Indeno(1,2,3-cd)Pyrene	16000	J		J	440
Dibenzo(a,h)Anthracene	470	J			J
Benzo(ghi)Perylene	1400	J		J	J

NOTES:
Blank space = compound analyzed for but not detected
E = analysis did not pass QA/QC requirements
J = compound present below the specified detection limit
B = compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/85
CASE: 4449/17250

PESTICIDES/PCBs					
SAMPLE NUMBER UNITS	NYA5-S1 ug/Kg	NYA5-S2 ug/Kg	NYA5-S3 ug/Kg	NYA5-S4 ug/Kg	NYA5-S5 ug/Kg
Alpha-BHC	E		J		
Beta-BHC	E				
Delta-BHC	E				
Gamma-BHC (Lindane)	E				
Heptachlor	E				
Aldrin	E				
Heptachlor Epoxide	E				
Endosulfan I	E				
Dieldrin	E				
4,4'-DDE	E				
Endrin	E				
Endosulfan II	E				
4,4'-DDD	E				
Endosulfan sulfate	E				
Endrin Aldehyde	E				
4,4'-DDT	E				
Methoxychlor	E				
Endrin Ketone	E				
Chlordane	E				
Toxaphene	E				
Arochlor-1016	E				
Arochlor-1221	E				
Arochlor-1232	E				
Arochlor-1242	E				
Arochlor-1248	E			6200	
Arochlor-1254	E				
Arochlor-1260	E				

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound appears in the laboratory blank as well as the sample

Table 5-1 (Cont'd)
ANALYTICAL DATA
BASIC CARBON
SAMPLING DATE: 06/12/05
CASE: 4449/17250

INORGANICS					
SAMPLE NUMBER	NYA5-S1	NYA5-S2	NYA5-S3	NYA5-S4	NYA5-S5
UNITS	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aluminum	27600	7800	9930	7040	7030
Antimony					
Arsenic	35	12	12	J	9
Barium	407	571	349	199	J
Beryllium	45	J	J	J	J
Cadmium	5.5	2.9	34	5.1	
Calcium	29100	79900	96700	69500	121000
Chromium	57	16	2760	101	32
Cobalt	57	J	J	J	J
Copper	J	J	J	J	J
Iron	98000	15300	25100	22000	14100
Lead	729	29	250	236	110
Magnesium	6660	26500	30300	32000	16000
Manganese	1470	703	1590	535	330
Mercury	0.12	2.1	0.91	0.3	0.6
Nickel	256	J	59	86	J
Potassium	4300	J	J	J	J
Selenium	J	J	J	J	J
Silver	7.3		J		
Sodium		J	J	J	J
Thallium					
Tin	240			40	J
Vanadium	50	J	114	J	J
Zinc	J	J	J		

NOTES:
Blank space = compound analyzed for but not detected
J = compound present below the specified detection limit
B = compound appears in the laboratory blank as well as the sample

Volatile Organic Compounds

Concentrations of 1,1,1-trichloroethane, trichloroethene and toluene were detected in one or more of the soil samples collected.

Semi-Volatile Organic Compounds

With the exception of NYA5-S3, each of the samples analyzed contained varying concentrations of polycyclic aromatic hydrocarbons (PAHs). Naphthalene, phenanthrene, anthracene, fluoranthene, pyrene and their derivatives were detected at concentrations as high as 52,000 ug/kg. The PAH compounds are components of petroleum and petroleum products including coal tar. Numerous substituted PAHs were also tentatively identified in these samples. Although no semi-volatile compounds were recorded for sample NYA5-S3, analyzed as a "medium" concentration sample, mass spectra identified the presence of polycyclic hydrocarbons common to petroleum products. Phthalate esters, phenolic and benzene based compounds, and other semi-volatile compounds were detected in one or more samples below the analytical laboratory's quantitation limit.

Pesticides and PCBs

Sample NYA5-S3 contained an indeterminable amount of alpha-BHC. Sample NYA5-S4 contained 6,200 ug/kg of Aroclor 1248. No other pesticides or PCBs were detected.

Inorganic Compounds

Concentrations of a number of inorganic compounds present in the samples were in excess of that normally found in soils (Bohn, et al. 1979). Mercury was detected at elevated levels in all samples except NYA5-S1. Sample NYA5-S1 contained elevated levels of lead and tin.