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PFOHL BROTHERS LANDFILL

NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT

FINAL

November 18, 1983

Prepared By:

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For:

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PHASE I SUMMARY REPORT

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1.0 EXECUTIVE SUMMARY

The Pfohl Brothers landfill is located on Aero Drive in Cheektowaga, New York occupying approximately 120 acres of land. Inactive since 1971, the site received municipal and industrial waste during its twenty-five (25) years of operation. The amount of waste disposed of is undetermined. The landfill area is now heavily vegetated although past landfill activity is perceivable.

The topography of the area shows little relief and is in the 100 year flood plain zone. The north section of the study area is designated as protected wetland. Within the region is Aero Lake; created as a result of excavation for cover material. This lake is spring fed and supportive of fish propagation. Aero Lake is drained by intermittent streams and ditches along the north area.

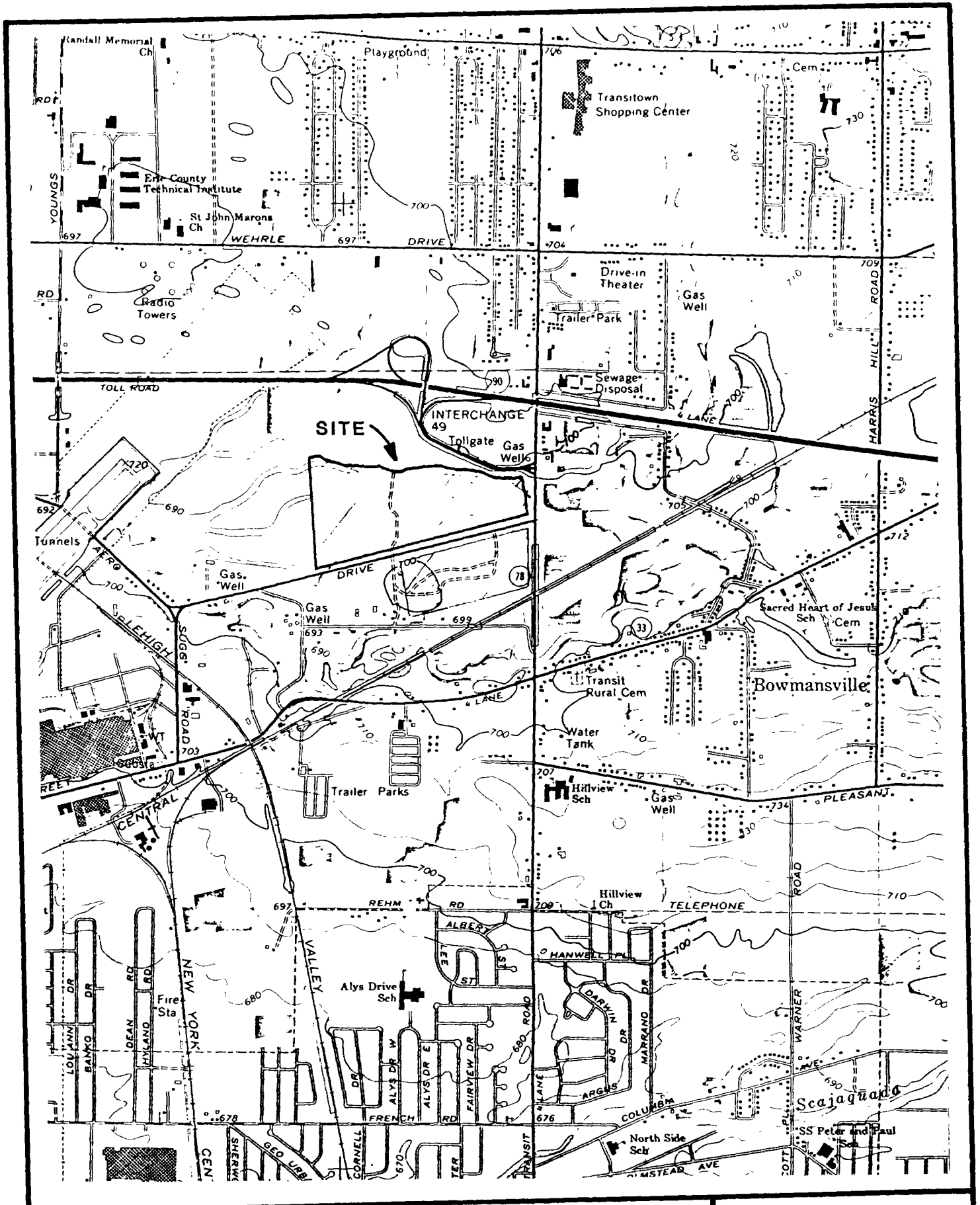
Since the closing of the Pfohl landfill, infrequent sampling has taken place. Sampling results indicate a potential environmental impact on the residents and wildlife of the area. The residences immediately surrounding the site are dependent on groundwater, areas beyond a quarter ($\frac{1}{4}$) mile radius are supplied by public water.

2.0 SITE DESCRIPTION

Located in the town of Cheektowaga, Erie County, New York the Pfohl Brothers landfill was operated from 1946 to 1971. The site has been owned and operated by the Pfohl family since 1946. One hundred and twenty (120) acres was utilized for the landfilling of municipal waste from surrounding townships and industrial wastes from American Optical, Westinghouse, Hooker-Durez and New York State Electric and Gas. The quantity of waste disposed of could not be determined.

Past site inspections have reported: leachate outbreaks along ditches which drain into Ellicott Creek; leachate flowing into wetlands on the west side of site; refuse protruding from areas where cover material has slumped; and, 55-gallon drums containing a tar-like substance.

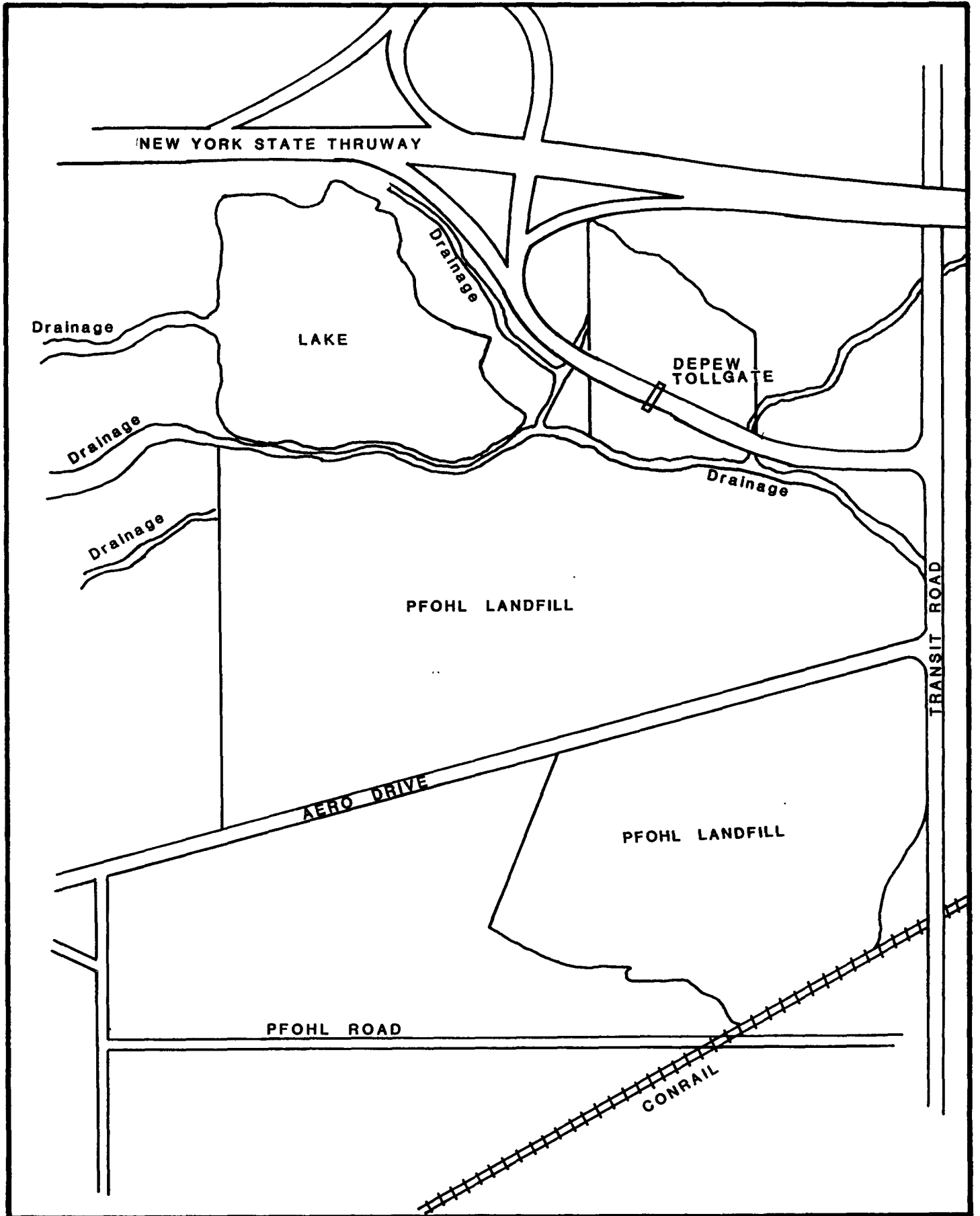
Analytical testing of soil and surface water has been conducted sporadically from the time of closure. The most recent testing occurred in 1982 by the Fred C. Hart Associates of New York.



USGS Topographical Map
Lancaster Quad. 1965

VICINITY MAP
PFOHL BROS LANDFILL

Figure 1



Not To Scale

SITE MAP
PFOHL BROS LANDFILL

Figure 2

3.0 PRELIMINARY HAZARD RANKING SYSTEM SCORE

Facility name:	<u>Pfohl Brothers Landfill</u>		
Location:	<u>Aero Drive, Cheektowaga, N.Y.</u>		
EPA Region:	<u>2</u>		
Person(s) in charge of the facility:	<u>Pfohl Brothers Brian Pfohl</u> <u>Lancaster Stone Products</u> <u>632-1020</u>		
Name of Reviewer:	<u>Recra Research, Inc.</u>	Date:	<u>6-3-83</u>
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.)			
<u>The Pfohl Brothers landfill operated from 1946 to 1971 with the ma-</u> <u>jority of landfilling occurring in the 1960's. The landfill is known</u> <u>to have received municipal waste as well as industrial waste. Soil and</u> <u>water analyses indicate a migration of pollutants which can be</u> <u>attributed to the landfill.</u>			
Scores: $S_M = 29.6$ ($S_{gw} = 47.8$ $S_{sw} = 17.6$ $S_a = \bullet$)			
$S_{FE} = 0$		Range: 21.6 to 31.6	
$S_{DC} = 62.5$			

FIGURE 1
HRS COVER SHEET

Brian Pfohl
Lancaster Stone Products
632-1020

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	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	2	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			13	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	3	8	
Total Waste Characteristics Score			21	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 (20) 24 30 32 35 40	1	20	40	
Total Targets Score			29	49	
6 If line 1 is 45, multiply 1 x 4 x 5			27405		
If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330	
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = 47.8$		

FIGURE 2
GROUND 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	45	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	3	3		
1-yr. 24-hr. Rainfall	0 (1) 2 3	1	1	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			13	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	3	8		
Total Waste Characteristics Score			21	26		
5 Targets					4.5	
Surface Water Use	0 1 (2) 3	3	6	9		
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6		
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			12	55		
6 If line 1 is 45, multiply 1 x 4 x 5			11340			
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			$S_{sw} = 17.6$			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	5.1
Date and Location:					
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					
$S_a =$ 0					

FIGURE 9
AIR ROUTE WORK SHEET

	s	s ²
Groundwater Route Score (S _{gw})	47.8	2284.8
Surface Water Route Score (S _{sw})	17.6	309.8
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		2594.6
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		50.9
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		29.4

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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	SFE = <i>N/A</i>					

FIGURE 11
FIRE AND EXPLOSION 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	12	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			3500	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 62.5			

FIGURE 12
DIRECT CONTACT WORK SHEET

3.1 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: Pfohl Bros. Landfill

LOCATION: Aero Drive, Cheektowaga, N.Y.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

PCB'S

LEAD

AS (ARSENIC)

Cr (CHROMIUM $+6$ & $+3$)

MERCURY (Hg)

Rationale for attributing the contaminants to the facility:

THE CONTAMINANTS LISTED ABOVE MAY BE FOUND IN WASTES LISTED BY INTERAGENCY REPORT 3/79. (REF. 1)

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

AQUIFER IS IN THE BEDROCK \approx 50-60 FT THICKNESS OF BED. ONONDAGA FORMAT'N. (REF. 3 & REF. 7)

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

ONONDAGA OUTCROPS \approx 1000' NO. OF SITE ON WHERLE DR. AND 1000' NO. OF SITE ALONG THE THRUWAY. BEDROCK DEPTH ON PFOHL ROAD WAS LOCATED TO BE 13.5 FT. (REF. 3)

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

WASTE STORAGE/DISPOSAL IS AT GROUND LEVEL FOR NORTHERN SITE. THE SOUTHERN AREA HAS SHALLOW DITCHES FOR DISPOSAL. NO RECORDED DEPTH AVAILABLE. (REF. 3)

Net Precipitation

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

32 (HRS)

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

27 (HRS)

Net precipitation (subtract the above figures):

5

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

SCS LISTS THE SOIL AS "DUMP". THE ADJACENT
SOILS ARE SILTY LOAM TO A FINE SANDY LOAM
(REF. 3)

Permeability associated with soil type:

2 $< 10^{-3} > 10^{-5}$ CM/SEC (HRS)

Physical State

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

PHYSICAL STATE OF SUBSTANCES WERE:
LIQUIDS, SLUDGES AND SOLIDS. (REF. 1)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

LANDFILL - NO LINER, PONDING, NO SURFACE COLLECT'N SYSTEM.
DRUMS - NO LINERS, BREACHED DRUM
(REF. 8)

Method with highest score:

3 - BOTH METHODS

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

PHENOL TAR W/CHLORINATED BENZENES	3	1	
WASTE PAINTS	2	1	(REF. 2)
THINNERS			
CAPACITORS (W/PCB)	3	3	
DIOXIN'S	3	3	

Compound with highest score:

PCB'S	18
DIOXIN	18

Hazardous Waste Quantity

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

3 THE ONLY DOCU. AMT OF WASTE IS THE 125 TONS OF PHENOL TAR

Basis of estimating and/or computing waste quantity:

TASK FORCE 3/79 DATA (REF. 2)

5 TARGETS

Ground Water Use

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

GROUNDWATER IS USED AS A SOLE DRINKING WATER SUPPLY IN A RADIUS OF APPROXIMATELY A QUARTER MILE OF THE FACILITY (REF. 5)

Distance to Nearest Well

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

RESIDENCES OF A. JABLONSKI } PFOHL RD (REF. 3)
E. WARICK }

Distance to above well or building:

4 \approx 1/4 mi (REF. 3)

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:

THE POP. IS SERVICED BY MUNICIPAL H₂O. ONLY THOSE ON PFOHL RD (49.4), SCOTT RD (7.6), REIN RD (30.4); AERO DR (22.6) YOUNG RD (7.6). TOTAL POP. 117.8 (REF. 9)

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):

X

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

20 117.8

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

ARSENIC
MERCURY
LEAD

Rationale for attributing the contaminants to the facility:

REF. 1

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0% (REF. 9)

Name/description of nearest downslope surface water:

A SMALL LAKE LOCATED TO THE NORTH OF LANDFILL IS < 50' AWAY. IT IS ≈ 20' DEPTH AND IS SPRING FED. THE LAKE IS A RESULT OF EXCAVATION OF MAT'L FOR LANDFILL COVER. (REF. 3)

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

< 1%

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

SITE LOCATED PARTIALLY IN PROTECTED WETLANDS. (REF. 4)

Is the facility completely surrounded by areas of higher elevation?

NO -

1-Year 24-Hour Rainfall in Inches

2" (HRS)

Distance to Nearest Downslope Surface Water

< 1000'

Physical State of Waste

PHYSICAL STATES OF SUBSTANCES WERE:
LIQUIDS, SLUDGES AND SOLIDS (REF. 1)

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

LANDFILL - NO LINER, NO LEACHATE COLLECT'N
SYSTEM

DRUMS - NO LINER, BREACHED (REF. 8)

Method with highest score:

3 - BOTH

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

PHENOL TAR W/CHLORINATED
BENZENES

WASTE PAINTS
CAPACITORS (W/PCB)

Compound with highest score:

PCB'S 18

Hazardous Waste Quantity

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

3 125 TONS PHENOL TAR

Basis of estimating and/or computing waste quantity:

REF. 1

* * *

5 TARGETS

Surface Water Use

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

ELLICOTT CRK - IS CLASSIFIED AS "C".
2 AERO LAKE - AREA IS POSTED. HOWEVER
PEOPLE USE LAKE FOR FISHING & BOATING.

Is there tidal influence?

NO

Distance to a Sensitive Environment

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

N/A

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

3 < 1/4 mi (REF 9 & REF. 4)

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

NO

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:

THE WATER INTAKES ARE SITUATED IN THE NIAGARA RIVER. THE NIAGARA R. IS MORE THAN 3 MI AWAY FROM SITE. THE INTAKES SERVICE > 10,000 PERSONS. (REF. 5)

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

N/A

Total population served:

>10,000 (REF.5)

Name/description of nearest of above water bodies:

NIAGARA RIVER - DRAINS LAKE ERIE TO
LAKE ONTARIO.

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

>3 mi. (REF.9)

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

NONE DETECTED

Date and location of detection of contaminants

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

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 determined:

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

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:

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 (FORM 2070-12)

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION	
		01 STATE NY	02 SITE NUMBER 915043
II. SITE NAME AND LOCATION			
01 SITE NAME (Legal, common, or descriptive name of site) PFOHL BROTHERS LANDFILL		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER AERO DRIVE	
03 CITY CHEEKTOWAGA	04 STATE NY	05 ZIP CODE 14225	06 COUNTY ERIE
09 COORDINATES LATITUDE 42° 56' 45"		LONGITUDE 78° 42' 15"	
10 DIRECTIONS TO SITE (Starting from nearest public road) RT 33 TO SUGG RD, TURN NORTH ONTO SUGGRD. AT Y INTERSECTION BEARING EAST. SITE IS 1/2 MILE ON NORTH & SOUTH SIDE OF AERO DR.			
III. RESPONSIBLE PARTIES			
01 OWNER (If known) PFOHL FAMILY (BRIAN PFOHL)		02 STREET (Business, mailing, residential) 5833 MAIN ST.	
03 CITY BFLO	04 STATE NY	05 ZIP CODE 14221	06 TELEPHONE NUMBER (716) 632-1020
07 OPERATOR (If known and different from owner) SAME AS OWNER		08 STREET (Business, mailing, residential) -	
09 CITY -	10 STATE -	11 ZIP CODE -	12 TELEPHONE NUMBER () -
13 TYPE OF OWNERSHIP (Check one) <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			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <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			
01 ON SITE INSPECTION <input type="checkbox"/> YES DATE ____/____/____ MONTH DAY YEAR <input checked="" type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____	
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1946 1971 BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED SITE IS KNOWN TO HAVE RECEIVED INDUSTRIAL WASTES SUCH AS: PHENOL TAR W/ CHLORINATED BENZENES, WASTE PAINTS & THINNERS, CAPACITORS W/ PCB OIL & POSSIBLY WASTE CONTAINING DIOXIN			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION LOCATED DIRECTLY ADJACENT THE SITE IS AERO LAKE. THIS LAKE IS USED BY LOCAL RESIDENTS FOR FISHING & SWIMMING. AS A RESULT THESE RESIDENTS USED TRAILS WHICH RUN THROUGH THE LANDFILL FOR ACCESS TO THE LAKE.			
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) <input type="checkbox"/> A. HIGH (inspection required promptly) <input checked="" 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			
01 CONTACT RICK CROUCH		02 OF (Agency/Organization) RECRA RESEARCH, INC	
04 PERSON RESPONSIBLE FOR ASSESSMENT PATRICIA M. PERRY		05 AGENCY -	06 ORGANIZATION RECRA RESEARCH
		07 TELEPHONE NUMBER (716) 838-6200	08 DATE 6, 4, 83 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE **NY** 02 SITE NUMBER **915043**

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE		*	ALTHOUGH SEVERAL WASTE TYPES HAVE BEEN REPORTED AS BEING DISPOSED OF AT THE SITE. NO QUANTITIES HAVE BEEN ESTIMATED
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
SLU	PHENOL	212.108-95-2	LANDFILLED		
OLW	PCB'S	227.1336-36-3	"		

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 fees, sample analysis, reports)

REPORT : INTERAGENCY TASK FORCE 3/79



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE: **NY** 02 SITE NUMBER: **915043**

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ≈120 04 NARRATIVE DESCRIPTION

REPORTS ON ANALYSIS OF GROUNDWATER WELLS INDICATE
THE PRESENCE OF ^{TRACE} CONTAMINATION REGARDING SUBSTANCES
OF CONCERN.

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

EVIDENCE OF LEACHATE OUTBREAKS IN THE NORTH
SECTION OF SITE. INFORMATION BASED ON PREVIOUS SITE
VISITS.

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

NO ANALYTICAL RESULTS AVAILABLE

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

NO REPORTS

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: 120 (Acres) 04 NARRATIVE DESCRIPTION

SOIL TESTING ON SITE SHOWS EVIDENCE OF SOIL
CONTAMINATION.

REF II

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ≈120 04 NARRATIVE DESCRIPTION

POPULATION IMMEDIATELY SURROUNDING SITE IS SERVICED
BY GROUNDWATER. TEST RESULTS OF THESE WELL INDICATE
THE PRESENCE OF ^{TRACE} CONTAMINATION. REF. 10

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

NO REPORTS

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

||



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY 915043

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

NO REPORTS

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

UNKNOWN

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

REPORTS REVEAL THE PRESENCE OF LEACHATE STREAMS & PROTUDING WASTE
INDICATING THE UNSTABLE CONTAINMENT OF WASTES

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

UNKNOWN

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

UNKNOWN

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

UNKNOWN

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)

- LETTER FROM DON CAMPBELL (DEP) TO PETER BUECHI
REGARDING SITE INSPECTION. 1983
- INTERNAL MEMO FROM R. KOZAJA TO DON. CAMPBELL, REGARDING
SITE INSPECTION. 1999

		POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT			I. IDENTIFICATION	
		PART 1 - SITE LOCATION AND INSPECTION INFORMATION			01 STATE NY	02 SITE NUMBER 915043
II. SITE NAME AND LOCATION						
01 SITE NAME (Legal, common, or descriptive name of site) PFHHL BROS LANDFILL				02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER AERO DR.		
03 CITY CHEEKTOWAGA		04 STATE NY	05 ZIP CODE 14226	06 COUNTY ERIE		07 COUNTY CODE
09 COORDINATES LATITUDE 42° 56' 45" LONGITUDE 78° 42' 15"		10 TYPE OF OWNER (Municipal, State, or Federal) <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 * <u> </u> / <u> </u> / <u> </u> MONTH DAY YEAR		02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE		03 YEARS OF OPERATION 1946 1971 <u> </u> UNKNOWN BEGINNING YEAR ENDING YEAR		
04 AGENCY PERFORMING INSPECTION (Check all that apply.) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input checked="" type="checkbox"/> F. STATE CONTRACTOR RECRA RESEARCH <input type="checkbox"/> G. OTHER _____ <small>(Name of firm) (Name of firm) (Specify)</small>						
05 CHIEF INSPECTOR		06 TITLE		07 ORGANIZATION		08 TELEPHONE NO ()
09 OTHER INSPECTORS		10 TITLE		11 ORGANIZATION		12 TELEPHONE NO ()
						()
						()
						()
						()
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 WEATHER CONDITIONS		
IV. INFORMATION AVAILABLE FROM						
01 CONTACT RICK CROUCH		02 OF (Agency/Organization) RECRA RESEARCH, INC			03 TELEPHONE NO (716) 838-6200	
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM PAT PERRY		05 AGENCY	06 ORGANIZATION RECRA RESEARCH	07 TELEPHONE NO 716-838-6200	08 DATE ____/____/____ MONTH DAY YEAR	

* MR. BRIAN PFHHL WOULD NOT GRANT RECRA RESEARCH, INC. PERMISSION TO PERFORM A SITE INSPECTION.



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	915043

WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 WASTE STATES (Check all that apply): <input type="checkbox"/> A SLURRY <input type="checkbox"/> B POWDER FINES <input type="checkbox"/> C SLUDGE <input type="checkbox"/> D REF <small>Quantity</small>	02 WASTE QUANTITY AT SITE (Measure in lb or kg quantities should be measurement) TONS: _____ CUBIC YARDS: _____ NO OF DRUMS: _____	03 WASTE CHARACTERISTICS (Check all that apply): <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
--	--	--

WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
	SLUDGE			
	OILY WASTE			
	SOLVENTS			
	PESTICIDES			
OC	OTHER ORGANIC CHEMICALS			
IC	INORGANIC CHEMICALS			
AC	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

HAZARDOUS SUBSTANCES (See Appendix for most requirements & 400 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 all references e.g. State or EPA records)



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

1 IDENTIFICATION
01 STATE 02 SITE NUMBER
NY 915043

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

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

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

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

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

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

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

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

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



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I IDENTIFICATION

01 STATE NY 02 SITE NUMBER 915043

HAZARDOUS CONDITIONS AND INCIDENTS

01 J. DAMAGE TO FLORA
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

K. DAMAGE TO FAUNA
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

01 L. CONTAMINATION OF FOOD CHAIN
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

M. UNSTABLE CONTAINMENT OF WASTES
(Spills/Runoff, Standing liquids, Leaking drums)

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

01 N. DAMAGE TO OFFSITE PROPERTY
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

01 P. ILLEGAL/UNAUTHORIZED DUMPING
NARRATIVE DESCRIPTION: _____

02 OBSERVED (DATE _____) POTENTIAL ALLEGED

5 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

COMMENTS

V. SOURCES OF INFORMATION (Cite specific references e.g. state files, sampling and test reports)



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

I IDENTIFICATION

01 STATE NY 02 SITE NUMBER 915045

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED <small>(Check all that apply)</small>	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A NPDES				
<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				
<input type="checkbox"/> H LOCAL				
<input type="checkbox"/> I OTHER				
<input type="checkbox"/> J NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL <small>(Check all that apply)</small>	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT <small>(Check all that apply)</small>	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCENERATION	<input type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	06 AREA OF SITE _____ <small>(Acres)</small>
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<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	
<input type="checkbox"/> I. OTHER <small>(Specify)</small>				

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, CURBS, BARRIERS, ETC

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE YES NO
 02 COMMENTS

VI. SOURCES OF INFORMATION (Check specific references, e.g., SDS, OHS, Material Analysis Reports)



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

IDENTIFICATION
STATE: NY SITE NUMBER: 915043

II. DRINKING WATER SUPPLY

01 TYPE OF COMMUNITY <small>(Check all that apply)</small>		02 STATUS			03 DISTANCE TO SITE	
COMMUNITY	SURFACE A <input type="checkbox"/>	WELL B <input type="checkbox"/>	ENDANGERED A <input type="checkbox"/>	AFFECTED B <input type="checkbox"/>	MONITORED C <input type="checkbox"/>	A _____ (ft)
NON-COMMUNITY	C <input type="checkbox"/>	D <input type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	B _____ (ft)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check all that apply)

A. ONLY SOURCE FOR DRINKING
 B. DRINKING (FOR USE BY COMMERCIAL/INDUSTRIAL IRRIGATION AND OTHER USES OF SOURCE AS STATED)
 C. COMMERCIAL/INDUSTRIAL IRRIGATION (IF OTHER USES OF SOURCE AS STATED)
 D. NOT USED (UNUSEABLE)

02 POPULATION SERVED BY GROUND WATER _____

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (ft)

04 DEPTH TO GROUNDWATER _____ (ft)	05 DIRECTION OF GROUNDWATER FLOW _____	06 DEPTH TO AQUIFER OF CONCERN _____ (ft)	07 POTENTIAL YIELD OF AQUIFER _____ (GPD)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input type="checkbox"/> NO
------------------------------------	--	---	---	--

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

10 RECHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS _____	11 DISCHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS _____
--	---

IV. SURFACE WATER

01 SURFACE WATER USE (Check all that apply)

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
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE A _____ NO. OF PERSONS	TWO (2) MILES OF SITE B _____ NO. OF PERSONS	THREE (3) MILES OF SITE C _____ NO. OF PERSONS	02 DISTANCE TO NEAREST POPULATION _____ (mi)
--	---	---	--

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

04 DISTANCE TO NEAREST OFF SITE BUILDING _____ (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population in the vicinity of site e.g. rural village, dense population area)



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

L IDENTIFICATION
 01 STATE NY 02 SITE NUMBER 915043

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (check one)

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

02 PERMEABILITY OF BEDROCK (check one)

- A IMPERMEABLE (less than 10^{-8} cm/sec) B RELATIVELY IMPERMEABLE ($10^{-6} - 10^{-4}$ cm/sec) C RELATIVELY PERMEABLE ($10^{-4} - 10^{-2}$ 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)

_____ %

09 FLOOD POTENTIAL

10

SITE IS IN _____ YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (to nearest)

ESTUARINE

OTHER

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

A _____ (mi)

B _____ (mi)

_____ (mi)

ENDANGERED SPECIES _____

13 DISTANCE TO

DISTANCE TO _____

RESIDENTIAL AREAS, NATIONAL STATE PARKS,
 FORESTS OR WILDLIFE RESERVES

AGRICULTURAL LANDS
 PRIME AG LAND AG LAND

_____ COMMERCIAL/INDUSTRIAL

A _____ (mi)

B _____ (mi)

C _____ (mi)

D _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

VII. SOURCES OF INFORMATION (Use specific references, e.g. State files, sampling records, reports)



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

L IDENTIFICATION
01 STATE: NY 02 SITE NUMBER: 915043

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			
SOL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE GROUND AERIAL

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

03 MAPS YES NO

04 LOCATION OF MAPS _____

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

[Empty space for narrative description]

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

[Empty space for sources of information]



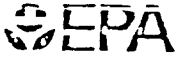
POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION
01 STATE NY 02 SITE NUMBER 915043

II. CURRENT OWNER(S)				PARENT COMPANY (IF APPLICABLE)			
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	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	
06 STATE		07 ZIP CODE		12 CITY		13 STATE	

III. PREVIOUS OWNER(S) (IF APPLICABLE - SEE MOST RECENT FIRST)				IV. REALTY OWNER(S) (IF APPLICABLE - SEE 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	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	
06 STATE		07 ZIP CODE		05 CITY		06 STATE	

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



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

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
NY | 915043

II. CURRENT OPERATOR <i>(Provide 2 different from owner)</i>				OPERATOR'S PARENT COMPANY <i>(If applicable)</i>			
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) <i>(List most recent first; provide only 2 different from owner)</i>				PREVIOUS OPERATORS' PARENT COMPANIES <i>(If applicable)</i>			
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 <i>(Cite specific references e.g., State files, sample analysis reports)</i>							



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 915043

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 (See instructions on page 1 of this report)

Blank area for sources of information.



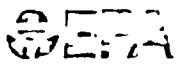
POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE NY 02 SITE NUMBER 915043

II. PAST RESPONSE ACTIVITIES

01 <input type="checkbox"/> A. WATER SUPPLY CLOSED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> D. SPILLED MATERIAL REMOVED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> F. WASTE REPACKAGED 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> H. ON SITE BURIAL 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> L. ENCAPSULATION 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> N. CUTOFF WALLS 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION _____	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 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	915043

II PAST RESPONSE ACTIVITIES

01 <input type="checkbox"/> R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> S. CAPPING/COVERING 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> T. BULK TANKAGE REPAIRED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> V. BOTTOM SEALED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> W. GAS CONTROL 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> X. FIRE CONTROL 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Y. LEACHATE TREATMENT 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Z. AREA EVACUATED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 2. POPULATION RELOCATED 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION:	02 DATE _____	03 AGENCY _____

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



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

I. IDENTIFICATION
01 STATE NY 02 RTR NUMBER 915043

II. ENFORCEMENT INFORMATION

D1 PAST REGULATORY ENFORCEMENT ACTION YES NO

D2 DESCRIPTION OF FEDERAL STATE LOCAL REGULATORY ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (List specific references e.g. state/local newspaper reports)

4.0 SITE HISTORY

Little is known of the owners or land use prior to 1946 regarding the Pfohl Brothers site. From 1946 to 1971, the 120 acres of land owned by the Pfohl family was used for landfilling. The site accepted municipal and industrial wastes. The industrial wastes were identified through generators as: pine tar pitch, waste paints and thinners, waste cutting oils, oil contaminated Fuller's earth, phenol tar containing chlorinated benzenes, oil and capacitors with PCB's. No records were kept on the quantity of wastes received other than an estimate of the amount of phenol tar. This was estimated at 125 tons (Ref. 1).

Management practices of the landfill are generally unknown. However, in a previous site inspection field report, it was stated that pockets existed in the landfill which exposed contents possibly indicating poor compaction practices during operations (Ref. 6).

The northern section contains a man-made lake which was created as a result of excavation for cover material. The lake is spring fed; 40 acres in size, 20 ft. deep and supports a large trout population (Ref. 2). The lake and site surface water drain into Ellicott Creek via intermittent streams and drainage ditches along Transit Road, Conrail tracks and Aero Drive.

5.0 SITE DATA

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - Topographically the site shows little relief (Ref. 9). The landfill is located in the 100-yr. flood plain of Ellicott Creek. The elevation of the actual site area has been raised approximately 3-4 ft. above normal elevation, which is 690 ft. (Ref. 8). The site is bisected into a northern and a southern section by Aero Drive, which runs east-west between Sugg Road and Transit Road.

The drainage for the site and Aero Lake is via ditches and intermittent streams to Ellicott Creek.

The north section of Pfohl Brothers lies within a protected wetland (See Figure 2).

5.1.2 Environmental Setting - The area surrounding Pfohl Brothers is heavily populated. People living more than a quarter mile from the site are serviced by municipal water. Residents living approximately 1200 ft. from the site rely on groundwater as their

drinking water source. They are located on Scott Place, Aero Drive and Pfohl Road (Figure 3).

No endangered species are found in the area of concern, although, Aero Lake has a large fish population.

5.2 Hydrogeology

5.2.1 Geology - Located in the Erie-Niagara Basin, the bedrock is overlain by unconsolidated material of glacial origin consisting of till, glaciolacustrine and gravel deposits. The bedrock consists of Camillus Shale, Onondaga Limestone and Akron Dolomite which are of Silurian and Devonian age. The Camillus Shale contains beds of gypsum which are potential water bearers. The Onondaga Limestone is the most utilized unit for groundwater supply due to its yield. The bedrock is reported as dipping gently to the south at an average dip of 30-40 ft. per mile (Ref. 7). The bedrock underlying Pfohl Landfill is the Onondaga Limestone Formation, total thickness is 110 ft. The formation outcrops on Wherle Drive to the north.

The site lies within the physiographic province of Erie-Ontario lowlands.

5.2.2 Soil - As stated earlier, the unconsolidated material is of glacial origin which is comprised of till, glaciolacustrine and gravel deposits. The surficial soil of the study area is classified as "dump" by the Soil Conservation Survey. The soils along the perimeter were classified as fine sandy loam and silt loam. These soils are typically poorly drained and tend to be of low permeability, 10^{-5} to 10^{-7} cm/sec.

5.2.3 Groundwater - The aquifer of concern under the site appears to be the bedrock. As listed in the groundwater resources of the Erie-Niagara Basin, the wells surrounding Pfohl Brothers are drilled into bedrock. Both the Camillus and Onondaga Formations are water bearing units. However, water obtained from the Camillus Shale is reported to have naturally occurring hydrogen sulfide.

5.3 Previous Sampling and Analyses

5.3.1 Groundwater Quality Data - Samples of this nature

have been limited to the testing of privately owned wells. On May 15, 1980, the Erie County Health Department tested 10 neighboring wells. Location of these wells are depicted on Figure 3. It was found that groundwater wells downgradient contained trace levels of such contaminants as: PCB's, Silvex, Phenol and Heavy Metals. Results are presented in the following pages.

5.3.2 Surface Water Quality Data - Over the past two years, samples from leachate seeps and ditches along Aero Lake have been analyzed by Recra Research, Inc. for the NYSDEC, Fred C. Hart and Associates and the Erie County Health Department. Locations of these sampling points are shown on Figure 5. Results of these samples indicate a migration of contaminants which are of environmental concern. These results are presented in the following pages.

5.3.3 Air Quality Data - No air quality analysis performed to date.

5.3.4 Other Analytical Data - Soil contamination was evident from analyses performed by Recra Research, Inc. and Fred C. Hart Associates. The sampling points were located in the north and northwest

sections and collected from drainage ditches, leachate seeps and the wetlands (Figure 5). Detectable levels of PCB's, pesticides and heavy metals were found. These results are provided in in the following pages.

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-485 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
Place: Cheektowaga County: Erie
Sampling Point: 825 Rein Rd., Rollaway Svce., from creek #1
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value _____		(As) Arsenic _____	
Alkalinity _____		(Ba) Barium _____	
H.B.A.S. _____		(Cd) Cadmium _____	
Chlorides _____		(Cr) Chromium _____	
Fluorides _____		(Cu) Copper _____	
Hardness _____		(Fe) Iron _____	
Phenols _____		Iron-soluble _____	
Sulfates _____		(Pb) Lead _____	
Free Ammonia _____		(Hg) Magnesium _____	
Albuminoid Ammonia _____		(Mn) Manganese _____	
Nitrites _____		(Hg) Mercury _____	
Nitrates $\text{mg. NO}_3 + \text{NO}_2 - \text{N/l}$ _____		(Se) Selenium _____	
Total Solids _____		(Ag) Silver _____	
Total Dissolved Solids _____		(Zn) Zinc _____	
Chemical Oxygen Demand _____		(Na) Sodium _____	
Asbestos Index _____		(Ca) Calcium _____	

PESTICIDES:

	<u>ug/l</u>
alpha Benzene Hexachloride _____	
Lindane _____	
beta Benzene Hexachloride _____	
Heptachlor _____	
Aldrin _____	
Heptachlor epoxide _____	
Dieldrin _____	
Endrin _____	
DDT _____	
DDD _____	
DDE _____	
Heptachlor _____	
Mirex _____	
Toxaphene _____	
2, 4-D _____	
GENOX 2, 4, 5, -T _____	0.2
P.C.B. Aroclor 1248 _____	0.3

REMARKS:

Kenneth C. Wahl
Kenneth C. Wahl
Sr. Sanitary Chemist

Joseph Pulco, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-580 Sent by: W. Sienkiewicz
Date Collected 6/23/80 Received: 6/24/80 Reported: 12/18/80
Place: Cheektowaga County: Eric
Sampling Point: Rollaway Service, 825 Rein Rd. - Creek source of supply #/
Name: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value	_____	(As) Arsenic	_____
Alkalinity	_____	(Ba) Barium	_____
H. T.A.S.	_____	(Cd) Cadmium	_____
Chlorides	_____	(Cr) Chromium	_____
Sulfides	_____	(Cu) Copper	_____
Fluorides	_____	(Fe) Iron	_____
Alcohols	_____	Iron-soluble	_____
Sulfates	_____	(Pb) Lead	_____
Free Ammonia	_____	(Mg) Magnesium	_____
Albuminoid Ammonia	_____	(Mn) Manganese	_____
Total Nitrite	_____	(Hg) Mercury	_____
Total Nitrate as $\text{NO}_3 + \text{NO}_2 - \text{N} / \text{l}$	_____	(Se) Selenium	_____
Total Solids	_____	(Ag) Silver	_____
Total Dissolved Solids	_____	(Zn) Zinc	_____
Chemical Oxygen Demand	_____	(Mn) Sodium	_____
Asbestos Index	_____	(Ca) Calcium	_____

PESTICIDES: NONE DETECTED ug/l

REMARKS:

alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Dieldrin _____
DDT _____
DDT _____
DDE _____
DDE _____
DDE _____
Heptachlor _____
Hexachlor _____
Toxaphene _____
2, 4-D _____
Dieldrin _____
C.C.B. Aroclor 1254, trace (L.T. 0.05)

Fenneth C. Vahl

Sr. Sanitary Chemist

Joseph Puleo, DVM, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-489 Sent by: V. Sienkiewicz
 Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
 Place: Chicktownaga County: erie
 Sampling Point: 999 Rein Rd., Radio Taxi, drilled well #2
 Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value _____		(As) Arsenic _____	
Alkalinity _____		(Ba) Barium _____	
H.A.S. _____		(Cd) Cadmium _____	
Chlorides _____		(Cr) Chromium _____	
Fluorides _____		(Cu) Copper _____	
Hardness _____		(Fe) Iron _____	
Phenols _____		Iron-soluble _____	
Sulfates _____		(Pb) Lead _____	
Free Ammonia _____		(Hg) Magnesium _____	
Albuminoid Ammonia _____		(Mn) Manganese _____	
Nitrites _____		(Hg) Mercury _____	
Nitrates $\text{mg. NO}_3 + \text{NO}_2 - \text{N/l}$ _____		(Se) Selenium _____	
Total Solids _____		(Ag) Silver _____	
Total Dissolved Solids _____		(Zn) Zinc _____	
Chemical Oxygen Demand _____		(Na) Sodium _____	
Asbestos Index _____		(Ca) Calcium _____	

PESTICIDES:

ug/l

REMARKS:

alpha Benzene Hexachloride _____
 Lindane _____
 beta Benzene Hexachloride _____
 Heptachlor _____
 Aldrin _____
 Heptachlor epoxide _____
 Dieldrin _____
 DDT _____
 DDD _____
 DDE _____
 Methoxychlor _____
 mirex _____
 Toxaphene _____
 2, 4-D _____
~~2, 4, 5,-TP~~ SILVEX 36
 P.C.B. _____

Kenneth C. Wahl
 Kenneth C. Wahl
 Sr. Sanitary Chemist

Joseph Puleo, DPH, MPH
 Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 89-482 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/12/80
Place: Cheektowaga County: Erie
Sampling Point: 83 Pfohl Rd., Pfohl Trucking, drilled well #3
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value _____		(As) Arsenic _____	
Alkalinity _____		(Ba) Barium _____	
H.B.A.S. _____		(Cd) Cadmium _____	
Chlorides _____		(Cr) Chromium _____	
Fluorides _____		(Cu) Copper _____	
Hardness _____		(Fe) Iron _____	
Phenols _____		Iron-soluble _____	
Sulfates _____		(Pb) Lead _____	
Free Ammonia _____		(Mg) Magnesium _____	
Albuminoid Ammonia _____		(Mn) Manganese _____	
Nitrites _____		(Hg) Mercury _____	
Nitrates mg. $\text{NO}_3 + \text{NO}_2 - \text{N}/\text{l}$ _____		(Se) Selenium _____	
Total Solids _____		(Ag) Silver _____	
Total Dissolved Solids _____		(Zn) Zinc _____	
Chemical Oxygen Demand _____		(Na) Sodium _____	
Asbestos Index _____		(Ca) Calcium _____	

PESTICIDES:

ug/l
alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDD _____
DDE _____
Methoxychlor _____
Hexachlorocyclopentadiene _____
Toxaphene _____
2, 4-D _____ N.D
Dieldrin _____
P.C.B. rochlor 1248 1.4

REMARKS:

Kenneth C. Wahl
Kenneth C. Wahl
Sr. Sanitary Chemist

Joseph Puleo, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Sample Number 80-717 Sent by: W. Sienkiewicz
Date Collected 10/16/80 Received: 10/16/80 Reported: 12/22/80
Location: Cheektowaga County: Erie
Sampling Point: Pfobl Trucking (drilled well) 85 Pfobl Rd. #3
Owner: _____ Tenant: _____

PHYSICAL CHARACTERISTICS:
Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL CHARACTERISTICS: _____ mg/l _____ mg/l

Alkalinity _____
Alkalinity Hardness _____
Chloride CL⁻ 6500
Sulfate SO₄⁼ 65.1
Phenols 0.001
Ammonia _____
Nitrate _____
Nitrite _____
Total dissolved Solids _____
Chemical Oxygen Demand COD 20.7
Biochemical Index _____

(As) Arsenic _____ L.T. 0.02
(Ba) Barium _____ 6.2
(Cd) Cadmium _____ 0.012
(Cr) Chromium _____ L.T. 0.01
(Cu) Copper _____ 0.16
(Fe) Iron _____ 1.36
Iron-soluble _____
(Pb) Lead _____ 0.17
(Hg) Mercury _____ 275.5
(Mn) Manganese _____ 0.2
(Ni) Nickel _____ L.T. 0.0004
(Se) Selenium _____ L.T. 0.001
(Ag) Silver _____ L.T. 0.21
(Zn) Zinc _____ 0.17
(Na) Sodium _____ 767.0
(Ca) Calcium _____ 663.8
Cyanides _____ 0.007
T.O.C. _____ 52.5
Specific Conductivity 19,788 (umhos/cm)

ORGANIC CHEMICALS: NONE DETECTED ug/l
Benzene _____
Benzene Chloride _____
Benzene Trichloride _____
Benzene Tetrachloride _____
Benzene Pentachloride _____
Benzene Hexachloride _____
Benzene Heptachloride _____
Benzene Octachloride _____
Benzene Nonafluoride _____
Benzene Decafluoride _____
Benzene Undecafluoride _____
Benzene Dodecafluoride _____
Benzene Trichloroethylene _____
Benzene Tetrachloroethylene _____
Benzene Pentachloroethylene _____
Benzene Hexachloroethylene _____
Benzene Heptachloroethylene _____
Benzene Octachloroethylene _____
Benzene Nonafluoroethylene _____
Benzene Decafluoroethylene _____
Benzene Undecafluoroethylene _____
Benzene Dodecafluoroethylene _____
Benzene Trichloroethane _____
Benzene Tetrachloroethane _____
Benzene Pentachloroethane _____
Benzene Hexachloroethane _____
Benzene Heptachloroethane _____
Benzene Octachloroethane _____
Benzene Nonafluoroethane _____
Benzene Decafluoroethane _____
Benzene Undecafluoroethane _____
Benzene Dodecafluoroethane _____
NONE DETECTED

Kenneth C. Gahl
Kenneth C. Gahl
Sr. Sanitary Chemist

Joseph Pulco, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 30-490 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/27/80
Place: Cheektowaga County: Erie
Sampling Point: 661 Aero Dr., R & F Holding, drilled well # 4
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

mg/l

mg/l

pH value _____
Alkalinity _____
H.B.A.S. _____
Chlorides _____
Fluorides _____
Hardness _____
Phenols _____
Sulfates _____
Free Ammonia _____
Albuminoid Ammonia _____
Nitrites _____
Nitrates $\text{mg. NO}_3 + \text{NO}_2 - \text{N/l}$ _____
Total Solids _____
Total Dissolved Solids _____
Chemical Oxygen Demand _____
Asbestos Index _____

(As) Arsenic _____
(Ba) Barium _____
(Cd) Cadmium _____
(Cr) Chromium _____
(Cu) Copper _____
(Fe) Iron _____
Iron-soluble _____
(Pb) Lead _____
(Mg) Magnesium _____
(Mn) Manganese _____
(Hg) Mercury _____
(Se) Selenium _____
(Ag) Silver _____
(Zn) Zinc _____
(Na) Sodium _____
(Ca) Calcium _____

PESTICIDES:

ug/l

REMARKS:

alpha Benzene Hexachloride _____
Lindane _____ L.T. 0.05 trace
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDE _____
DDE _____
Heptoxychlor _____
Mirex _____
Toxaphene _____
2, 4-D _____
SILVEX 2, 4, 5, -TP SILVEX 0.72
P.C.B. _____

Kenneth C. Wahl
Sr. Sanitary Chemist

Joseph Pulco, DVH, MPH
Director

Public Health Division

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-725 Sent by: W. Sienkiewicz
 Dates: Collected 10/23/80 Received 10/23/80 Reported 12/28/80
 Place: Cheektowaga County: Erie
 Sampling Point: R & F Moulding (drilled well) #7
 Owner: _____ Tenant: _____

PHYSICAL CHARACTERISTICS:

Color _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL CHARACTERISTICS:

	<u>mg/l</u>		<u>mg/l</u>
pH value _____		(As) Arsonic _____	L.T. 0.02
Alkalinity _____		(Ba) Barium _____	0.3
Calc. A.S. _____		(Cd) Cadmium _____	L.T. 0.001
Chlorides _____	90.0	(Cr) Chromium _____	L.T. 0.01
Fluorides _____		(Cu) Copper _____	0.03
Hardness _____		(Fe) Iron _____	1.36
Ironols _____	L.T. 0.001	Iron-soluble _____	
Sulfates _____	30.0	(Pb) Lead _____	L.T. 0.01
Free Ammonia _____		(Mg) Magnesium _____	23.4
Albuminoid Ammonia _____		(Mn) Manganese _____	0.02
Nitrites _____		(Hg) Mercury _____	0.0005
Nitrates _____		(Se) Selenium _____	0.003
Total Solids _____		(Ag) Silver _____	L.T. 0.01
Total Dissolved Solids _____		(Zn) Zinc _____	0.07
Chemical Oxygen Demand _____		(Na) Sodium _____	33.5
Asbestos Index _____		(Ca) Calcium _____	93.4
Cyanides _____	L.T. .005	T.O.C. _____	8.2

PESTICIDES: None detected. ug/l

alpha benzene hexachloride _____
 Lindane _____
 beta benzene hexachloride _____
 Heptachlor _____
 Aldrin _____
 Heptachlor epoxide _____
 Dieldrin _____
 Endrin _____
 DDT _____
 DDE _____
 Methoxychlor _____
 Dioxin _____
 Toxaphene _____
 2, 4-D _____
 Silvex _____
 P.C.B. _____ None detected.

CHARACTERISTICS:
 Specific Conductivity 841 umhos/

Kenneth C. Wahl
 Kenneth C. Wahl
 Senior Sanitary Chemist

Joseph Puleo, UPH, DEPT
 Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-491 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
Place: Cheektowaga County: erie
Sampling Point: 221 Aero Dr., Weaver Hqs., drilled well #5
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value _____		(As) Arsenic _____	
Alkalinity _____		(Ba) Barium _____	
H.B.A.S. _____		(Cd) Cadmium _____	
Chlorides _____		(Cr) Chromium _____	
Fluorides _____		(Cu) Copper _____	
Hardness _____		(Fe) Iron _____	
Phenols _____		Iron-soluble _____	
Sulfates _____		(Pb) Lead _____	
Free Ammonia _____		(Mg) Magnesium _____	
Albuminoid Ammonia _____		(Mn) Manganese _____	
Nitrites _____		(Hg) Mercury _____	
Nitrates mg. $\text{NO}_3 + \text{NO}_2 - \text{N/l}$ _____		(Se) Selenium _____	
Total Solids _____		(Ag) Silver _____	
Total Dissolved Solids _____		(Zn) Zinc _____	
Chemical Oxygen Demand _____		(Na) Sodium _____	
Asbestos Index _____		(Ca) Calcium _____	

PESTICIDES:

ug/l
alpha Benzene Hexachloride _____
Lindane _____ L.T. 0.05 trace
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDV _____
DDE _____
Methoxychlor _____
Hex _____
Toxaphene _____
2, 4-D
~~XXXXX~~ 2, 4, 5,-T L.T. 0.05 trace
P.C.B. _____

REMARKS:

Kenneth C. Vahl
Kenneth C. Vahl
Sr. Sanitary Chemist

Joseph Paleo, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-488 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
Place: Cheektovaga County: Eric
Sampling Point: 850 Aero Dr., Hall Trucking, drilled well # 6
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

mg/l

mg/l

pH value _____
Alkalinity _____
M.H.A.S. _____
Chlorides _____
Fluorides _____
Hardness _____
Phenols _____
Sulfates _____
Free Ammonia _____
Albuminoid Ammonia _____
Nitrites _____
Nitrates $\text{mg. NO}_3 + \text{NO}_2 - \text{N/l}$ _____
Total Solids _____
Total Dissolved Solids _____
Chemical Oxygen Demand _____
Asbestos Index _____

(As) Arsenic _____
(Ba) Barium _____
(Cd) Cadmium _____
(Cr) Chromium _____
(Cu) Copper _____
(Fe) Iron _____
Iron-soluble _____
(Pb) Lead _____
(Mg) Magnesium _____
(Mn) Manganese _____
(Hg) Mercury _____
(Se) Selenium _____
(Ag) Silver _____
(Zn) Zinc _____
(Na) Sodium _____
(Ca) Calcium _____

PESTICIDES:

ug/l

REMARKS:

alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Dieldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDD _____
DDE _____
Methoxychlor _____
Mirex _____
Toxaphene: _____
2, 4-D _____
~~SILVEX~~ 2, 4, 5, -TP SILVEX 0.8
P.C.B. Aroclor 1248 0.1

Kenneth C. Vahl
Kenneth C. Vahl
Sr. Sanitary Chemist

Joseph Puleo, DVM, MPH
Director

Public Health Division

RESULTS OF EXAMINATION OF WATER

Laboratory Number 30-724 Sent by: W. Sienkiewicz
 Dates: Collected 10/23/80 Received 10/23/80 Reported 12/29/80
 Place: Cheektowaga County: Erie
 Sampling Point: Hall Trucking (drilled well) # 6
 Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

pH value _____
 Alkalinity _____
 A.T.A.S. _____
 Chlorides 65.0
 Fluorides _____
 Hardness _____
 Irons L.T. 0.001
 Sulfates 62.5
 Free Ammonia _____
 Alkaloid Ammonia _____
 Nitrites _____
 Nitrates _____
 Total Solids _____
 Total Dissolved Solids _____
 Chemical Oxygen Demand _____
 Asbestos Index _____
 Cyanides L.T. .005

(As) Arsenic L.T. 0.02
 (Ba) Barium L.T. 0.2
 (Cd) Cadmium L.T. 0.001
 (Cr) Chromium L.T. 0.01
 (Cu) Copper L.T. 0.02
 (Fe) Iron 0.36
 Iron-soluble _____
 (Pb) Lead L.T. 0.01
 (Mg) Magnesium 23.4
 (Mn) Manganese 0.04
 (Hg) Mercury 0.0005
 (Se) Selenium L.T. 0.001
 (Ag) Silver L.T. 0.01
 (Zn) Zinc L.T. 0.02
 (Na) Sodium 34.9
 (Ca) Calcium 99.6
 T.O.C. 7.4

PESTICIDES:

None detected. ug/l

alpha benzene hexachloride _____
 Dieldrin _____
 beta benzene hexachloride _____
 Heptachlor _____
 Aldrin _____
 Heptachlor epoxide _____
 Dieldrin _____
 Endrin _____
 DDT _____
 DDE _____
 DDD _____
 Methoxychlor _____
 DDTX _____
 Toxaphene _____
 2, 4-D _____
 Silvex _____
 P.C.B. None detected.

CHARS:

Specific Conductivity 825 umhos/c

Kenneth C. Wahl
 Kenneth C. Wahl
 Senior Sanitary Chemist

Joseph Puleo, DPH, MPH
 Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-487 Sent by: M. Sienkiewicz
Date: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
Place: Cheektowaga County: Eric
Sampling Point: Transit Rd., Thruway service entrance #7
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value	_____	(As) Arsenic	_____
Alkalinity	_____	(Ba) Barium	_____
M. H. A. S.	_____	(Cd) Cadmium	_____
Chlorides	_____	(Cr) Chromium	_____
Fluorides	_____	(Cu) Copper	_____
Hardness	_____	(Fe) Iron	_____
Phenols	_____	Iron-soluble	_____
Sulfates	_____	(Pb) Lead	_____
Free Ammonia	_____	(Mg) Magnesium	_____
Albuminoid Ammonia	_____	(Mn) Manganese	_____
Nitrites	_____	(Hg) Mercury	_____
Nitrates mg. NO ₃ +NO ₂ -N/l	_____	(Se) Selenium	_____
Total Solids	_____	(Ag) Silver	_____
Total Dissolved Solids	_____	(Zn) Zinc	_____
Chemical Oxygen Demand	_____	(Na) Sodium	_____
Asbestos Index	_____	(Ca) Calcium	_____

PESTICIDES:

ug/l

alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDD _____
DDE _____
Methoxychlor _____
Mirex _____
Toxaphene _____
2, 4-D _____
Dibutyl 2,4,5,-T _____ 1.0
P.C.B. Aroclor 1248 _____ 1.0

REMARKS:

Kenneth C. Wahl
Kenneth C. Wahl
Sr. Sanitary Chemist

Joseph Pulco, DVM, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 30-581 Sent by: W. Sienkiewicz
Dates: Collected 6/23/80 Received: 6/24/80 Reported: 12/18/80
Place: Cheektowaga County: Erie
Sampling Point: Thruway Service Ctr., Transit & Aero (ECHA) #7
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

_____ mg/l _____ mg/l
pH value _____
Alkalinity _____
H.A.A.S. _____
Chlorides _____
Fluorides _____ 0.8
Hardness _____ 126.7
Phenols _____
Sulfates _____
Free Ammonia _____
Albuminoid Ammonia _____
Nitrites _____
Nitrates mg. $\text{NO}_3 + \text{NO}_2 - \text{N}/1$ _____
Total Solids _____
Total Dissolved Solids _____
Chemical Oxygen Demand _____
Asbestos Index _____

_____ mg/l
(As) Arsenic _____
(Ba) Barium _____
(Cd) Cadmium _____
(Cr) Chromium _____
(Cu) Copper _____
(Fe) Iron _____
Iron-soluble _____
(Pb) Lead _____
(Mg) Magnesium _____
(Mn) Manganese _____
(Hg) Mercury _____
(Se) Selenium _____
(Ag) Silver _____
(Zn) Zinc _____
(Na) Sodium _____
(Ca) Calcium _____

PESTICIDES: NONE DETECTED _____ ug/l

alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDD _____
DDE _____
Methoxychlor _____
 mirex _____
Toxaphene _____
2, 4-D _____
Silvex _____
P.C.B. Aroclor 1254, trace (L.T. 0.05) _____

REMARKS:

Kenneth C. Wahl
Sr. Sanitary Chemist

Joseph Pulco, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-715 Sent by: W. Sienkiewicz
Dates: Collected 10/16/80 Received: 10/16/80 Reported: 12/19/80
Place: Cheektowaga County: Erie
Sampling Point: Transit Rd., Thruway toll area (public water supply) #7
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value	_____	(As) Arsenic	L.T. 0.02
Alkalinity	_____	(Ba) Barium	0.3
H.D.A.S.	_____	(Cd) Cadmium	L.T. 0.001
Chlorides	<u>22.5</u>	(Cr) Chromium	L.T. 0.02
Fluorides	_____	(Cu) Copper	L.T. 0.02
Hardness	_____	(Fe) Iron	L.T. 0.05
Phenols	L.T. 0.001	Iron-soluble	_____
Sulfates	<u>25.7</u>	(Pb) Lead	L.T. 0.01
Free Ammonia	_____	(Mg) Magnesium	7.8
Albuminoid Ammonia	_____	(Mn) Manganese	L.T. 0.01
Nitrites	_____	(Hg) Mercury	L.T. 0.0004
Nitrates mg. NO ₃ +NO ₂ -N/l	_____	(Se) Selenium	L.T. 0.001
Total Solids	_____	(Ag) Silver	L.T. 0.01
Total Dissolved Solids	_____	(Zn) Zinc	L.T. 0.02
Chemical Oxygen Demand	<u>2.3</u>	(Na) Sodium	12.5
Asbestos Index	_____	(Ca) Calcium	39.1
Cyanides	L.T. 0.005		

PESTICIDES: Negative ug/l

alpha Benzene Hexachloride _____
Lindane _____
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Dieldrin _____
DDT _____
DDD _____
DDE _____
Heptoxychlor _____
Mirex _____
Toxaphene _____
2, 4-D _____
Silvex _____
P.C.B. Negative

REMARKS:

Specific Conductivity 318 umhos/cm
T.O.C. 5.5 mg/l

Kenneth C. Wali
Kenneth C. Wali
Sr. Sanitary Chemist

Joseph Pulco, DPH, MPH
Director

ERIE COUNTY LABORATORY
PUBLIC HEALTH DIVISION

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-456 Sent by: W. Sienkiewicz
Dates: Collected 5/15/80 Received: 5/16/80 Reported: 7/22/80
Place: Ches' towaga County: Eric
Sampling Point: I Scott Pl., McLean Trucking, drilled well #9
Owner: _____ Tenant: _____

PHYSICAL EXAMINATION:

Color: _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL EXAMINATION:

	<u>mg/l</u>		<u>mg/l</u>
pH value	_____	(As) Arsenic	_____
Alkalinity	_____	(Ba) Barium	_____
H.B.A.S.	_____	(Cd) Cadmium	_____
Chlorides	_____	(Cr) Chromium	_____
Fluorides	_____	(Cu) Copper	_____
Hardness	_____	(Fe) Iron	_____
Phenols	_____	Iron-soluble	_____
Sulfates	_____	(Pb) Lead	_____
Free Ammonia	_____	(Mg) Magnesium	_____
Albuminoid Ammonia	_____	(Mn) Manganese	_____
Nitrites	_____	(Hg) Mercury	_____
Nitrates mg. \cdot NO ₃ +NO ₂ -N/l	_____	(Se) Selenium	_____
Total Solids	_____	(Ag) Silver	_____
Total Dissolved Solids	_____	(Zn) Zinc	_____
Chemical Oxygen Demand	_____	(Na) Sodium	_____
Asbestos Index	_____	(Ca) Calcium	_____

PESTICIDES:

ug/l
alpha Benzene Hexachloride _____
Lindane _____ L.T. 0.05 trace
beta Benzene Hexachloride _____
Heptachlor _____
Aldrin _____
Heptachlor epoxide _____
Dieldrin _____
Endrin _____
DDT _____
DDD _____
DDE _____
Dethoachlor _____
Difluthrin _____
Toxaphene _____
2, 4-D _____
Silvex _____
TCF _____

REMARKS:

Joseph Palec, DPH, MPH
Director

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ATOMIC ABSORPTION
PRIORITY POLLUTANT ANALYSES

(S4) Report Date: 11/18/81 (S-6) (S9)

METALS SURFACE H₂O DOWN STREAM OF LAKE OUTLET LEACHATE NEAR DITCH AT LAKE OUTLET SURFACE H₂O UPSTREAM OF DITCH OUTLET NEAR DITCH

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION (DATE)			
		S-002-01 (10/28/81)	S-003-04 (10/28/81)	S-003-06 (10/28/81)	S-003-09 (10/28/81)
Total antimony	mg/l	<0.5	<0.5	<0.5	2.9
Total arsenic	ug/l	<7	<7	47	<7
Total beryllium	mg/l	<0.003	<0.003	<0.003	<0.003
Total cadmium	mg/l	<0.005	<0.005	0.046	<0.005
Total chromium	mg/l	0.278	<0.005	0.048	<0.005
Total copper	mg/l	0.030	0.010	0.348	0.012
Total lead	mg/l	<0.03	<0.03	0.12	0.09
Total mercury	ug/l	3.1	5.5	5.0	3.0
Total nickel	mg/l	0.6	<0.03	0.05	0.04
Total selenium	ug/l	<6	<6	<6	<6
Total silver	mg/l	<0.005	<0.005	<0.005	<0.005
Total thallium	mg/l	2.3	1.8	1.1	1.2
Total zinc	mg/l	0.24	0.011	7.8	0.018

COMMENTS: Values reported as "less than" (<) indicate the working detection limit for the particular sample and/or parameter.

FOR RECRA RESEARCH, INC.

R. V. Finn

DATE

11/18/81



Public Health Division

RESULTS OF EXAMINATION OF WATER

Laboratory Number 80-723 Sent by: W. Sienkiewicz
 Dates: Collected 10/23/80 Received 10/23/80 Reported 12/29/80
 Place: Checktowana County: Eric
 Sampling Point: McClellan Trucking (drilled well) #9
 Owner: _____ Tenant: _____

PHYSICAL CHARACTERISTICS:

Color _____ Turbidity, NTU _____ Odor, cold _____

CHEMICAL CHARACTERISTICS:

mg/l

pH value _____
 Alkalinity _____
 Chlorides 80.0
 Fluorides _____
 Hardness _____
 Phenols L.T. 0.001
 Sulfates 44.3
 Free Ammonia _____
 Albuminoid Ammonia _____
 Nitrites _____
 Nitrates _____
 Total Solids _____
 Total Dissolved Solids _____
 Chemical Oxygen Demand _____
 Asbestos Index _____
 Cyanides L.T. .005

mg/l

(As) Arsenic L.T. 0.02
 (Ba) Barium L.T. 0.2
 (Cd) Cadmium L.T. 0.001
 (Cr) Chromium L.T. 0.01
 (Cu) Copper 1.39
 (Fe) Iron 2.83
 Iron-soluble _____
 (Pb) Lead 0.02
 (Mg) Magnesium 22.6
 (Mn) Manganese 0.06
 (Hg) Mercury L.T. 0.0004
 (Se) Selenium L.T. 0.001
 (Ag) Silver L.T. 0.01
 (Zn) Zinc L.T. 0.02
 (Na) Sodium 39.7
 (Ca) Calcium 96.1
 T.O.C. 9.3

PESTICIDES: None detected. ug/l

alpha benzene hexachloride _____
 Lindane _____
 beta benzene hexachloride _____
 Heptachlor _____
 Aldrin _____
 Heptachlor epoxide _____
 Dieldrin _____
 Endrin _____
 DDT _____
 DDE _____
 DDD _____
 Methoxychlor _____
 mirex _____
 Toxaphene _____
 2,4-D _____
 Silvex _____
 P.C.B. None detected.

RESIDUES:

Specific Conductivity 809 umhos/

Kenneth C. Wahl
 Kenneth C. Wahl
 Senior Sanitary Chemist

Joseph Puleo, WPI, DEPT
 Director

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
GAS CHROMATOGRAPHY

Report Date: 11/18/81

PCB'S

SAMPLE IDENTIFICATION	PARAMETER (UNITS OF MEASURE)			
	TOTAL POLYCHLORINATED BIPHENYLS			PERCENT DRY WEIGHT (% DRY)
	µg/g DRY AS AROCOR 1248	µg/g DRY AS AROCOR 1254	µg/g DRY TOTAL	
(S-1) S-003-01 TOP 6" OF SOIL	3.3	4.0	7.3	82
(S-2) S-003-02 6-12" OF SOIL	2.9	4.2	7.1	81
S-001-03	1.6	1.2	2.8	39
S-001-06	1.4	<0.7	1.4	19
S-001-09	<0.5	<0.5	<0.5	20

COMMENTS: Total Polychlorinated Biphenyl (PCB's) analyses were performed by mixing the samples with equal portions (by weight) of anhydrous sodium sulfate prior to a sixteen-hour extraction with 1:1 hexane:acetone in a Soxhlet apparatus. All extracts were subjected to a Florisil column cleanup prior to Gas Chromatographic (GC) analysis with electron capture detection.

Chromatograms of all samples were qualitatively screened for the presence of nine PCB mixtures (Aroclors). These included Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268.

FOR RECRA RESEARCH, INC.

Deborah J. Travis

DATE

11/18/81



NEW YORK STATE
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 ATOMIC ABSORPTION
 PRIORITY POLLUTANT ANALYSES

Report Date: 11/18/81

METALS

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION (DATE)		
		S-002-02 (10/28/81)	S-002-03 (10/28/81)	S-003-07 (10/28/81)
Total antimony	µg/g dry	<60	<20	<90
Total arsenic	µg/g dry	10	53	6.1
Total beryllium	µg/g dry	2.5	<0.1	<0.5
Total cadmium	µg/g dry	<0.6	25	12
Total chromium	µg/g dry	120	170	13
Total copper	µg/g dry	46	4,300	130
Total lead	µg/g dry	320	2,400	5.4
Total mercury	µg/g dry	<0.2	18	12
Total nickel	µg/g dry	38	330	15
Total selenium	µg/g dry	1.0	<0.2	<0.5
Total silver	µg/g dry	0.74	2.5	<1
Total thallium	µg/g dry	77	4.7	55
Total zinc	µg/g dry	360	7,900	1,000
Dry Weight	%	81	85	31

SEDIMENT (S7)
 IN LEACHATE
 AREA

COMMENTS: Samples were received at Recra on 10/28 and 10/29/81.
 Comments pertain to data on one or all pages of this report.

FOR RECRA RESEARCH, INC. R. V. Finn
 DATE 11/18/81



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
GAS CHROMATOGRAPHY
PRIORITY POLLUTANT ANALYSES

Report Date: 11/18/81

PESTICIDES/PCB'S

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION (DATE)	
		S-003-07 (10/28/81)	SEDIMENT (57) IN LEACHATE AREA
Aldrin	µg/g dry	<0.03	
α-BHC	µg/g dry	0.03	
β-BHC	µg/g dry	<0.03	
δ-BHC	µg/g dry	<0.03	
γ-BHC	µg/g dry	<0.02	
Chlordane	µg/g dry	<0.1	
4,4'-DDD	µg/g dry	0.22	
4,4'-DDE	µg/g dry	0.18	
4,4'-DDT	µg/g dry	<0.1	
Dieldrin	µg/g dry	<0.1	
α-Endosulfan	µg/g dry	<0.08	
β-Endosulfan	µg/g dry	<0.1	
Endosulfan sulfate	µg/g dry	<0.08	
Endrin	µg/g dry	<0.1	
Endrin aldehyde	µg/g dry	<0.05	
Heptachlor	µg/g dry	<0.05	
Heptachlor epoxide	µg/g dry	<0.03	
PCB-1016	µg/g dry	<0.1	
PCB-1221	µg/g dry	<0.2	
PCB-1232	µg/g dry	<0.2	
PCB-1242	µg/g dry	<0.1	
PCB-1248	µg/g dry	<0.1	
PCB-1254	µg/g dry	<0.1	
PCB-1260	µg/g dry	<0.1	
Toxaphene	µg/g dry	<0.1	
Dry Weight	%	31	

FOR RECRE RESEARCH, INC.

Deborah J. Travis

DATE

11/18/81





INORGANICS

	DRAINAGE DITCH	LEACHATE SEEP	MARSH AREA ③	MARSH AREA ⑤
Aluminum	1500	80	110	190
Chromium	<1	<1	<1	<1
Barium	86	640	22	35
Beryllium	0.4	<0.2	<0.2	<0.2
Cadmium	<0.5	1.0	0.5	1.5
Cobalt	<1	1	<1	2
Copper	22	14	18	22
Iron	412	46300	4540	7380
Lead	2	10	10	16
Nickel	<2	<2	<2	12
Manganese	82	80	110	51
Zinc	20	80	20	100
Boron	2	2	2	4
Vanadium	2	<1	<1	<1
Calcium	2400	8200	5000	2470
Magnesium	340	300	340	380
Sodium	200	80	340	40
Arsenic	<1	<1	<1	<1
Antimony	<2	<2	<2	<2
Selenium	<1	<2 ^c	<2 ^c	<2 ^c
Thallium	<1	<1	<1	<1
Mercury	<0.1	<0.1	<0.1	<0.1
Tin	<2	<4 ^b	<2	<2
Silver	<2	<2	<2	<2
Ammonia				
Fluoride				
Sulfide	5	15	10	200
Cyanide	-	-	-	-
pH				
TOC				

Concentration is in mg/kg
 a - With a detection limit of 8 mg/kg
 b - With a detection limit of 4 mg/kg
 c - With a detection limit of 2 mg/kg
 - - - Recoveries are not acceptable

6.0 ADEQUACY OF AVAILABLE DATA

In compiling the hazardous ranking score, the Pfohl Brothers Landfill was found to have a migration potential score (S_m) equal to 29.6. However, due to data inadequacies, which involve a certain degree of subjectivity, a range for the S_m score was developed and found to be 21.6 to 31.6. In developing the Hazardous Ranking Score for the Pfohl Brothers Landfill, data inadequacies were found to be as follows:

- o No testing of the southern section of the landfill.
- o Location of sampling points taken by Fred C. Hart. Specifically, the ditch which is a drainage outlet for Aero Lake may have effected the concentration of contaminants by adding a dilution factor (Ref. 2).
- o No records available regarding quantity of solid waste on site.

- o Types and permeability of the soil were based adjacent soil information.
- o Our inability to perform a site inspection. Mr. Brian Pfohl would not consent to request.

7.0 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 list. Potential environmental effects of the landfill; the extent and magnitude of contamination, based on site specific hydrogeologic conditions, and

- 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 (Element 1), so as to permit a complete site characterization/tanking (HRS) and engineering evaluation of remedial alternatives. The preliminary field investigation includes the following items:

- o Air Monitoring

- o Geophysical Exploration
- o Subsurface Investigation
- o Monitoring Well Installation

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).

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 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.

Geophysical Exploration

After initial assessment of the ambient air quality at the site, a geophysical program will be performed to determine the limits of the disposal area and any concentrated areas of buried metals (e.g., drums); it will also aid in determining the possibility and extent of groundwater contamination. This information will be used in the siting of test borings and monitoring wells.

The VLF-EM Terrain Conductivity survey will be performed by recording continuous conductivity measurements on an EM-31 terrain conductivity meter equipped with a strip chart recorder. These measurements will be taken on a grid pattern established using a tape and level, in the area of the disposal site. Additionally, in an effort to define a possible plume of contamination, the conductivity survey will be extended beyond the property boundaries.

Seismic refraction methods will also be employed in order to define berock surface and depth of fill.

Subsurface Investigation

In order to facilitate additional information concerning possible groundwater contamination, preliminary findings indicate a need for both shallow and deep monitoring wells. Three (3) test borings terminating at bedrock and two (2) test borings penetrating surfical till have been proposed (average estimated depth for shallow wells is approximately 45 feet). Additionally, water sample and core sample locations have been established in various crucial areas. Five (5) locations in stream or lake surface waters will have both type samples extracted. Three (3) areas have been arbitrarily chosen in proximity to the dump for sediment coring only. See attached Site Map for illustration of proposed sampling locations.

The test borings will be drilled with a truck, trailer, and/or all-terrain-mounted auger rig using hollow stem augers. During construction of the test borings, split spoon samples will be continuously obtained in one (1) test boring adjacent to the disposal site. In the other test 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 heterogenous, all test borings will be continuously sampled. Also, if a confining layer is encountered, Shelby tube samples will be obtained to determine it's undisturbed permeability.

The acquired samples will be visually identified in the field following the procedure set forth in ASTM-D-2488, noted appropriately on boring logs with the sample number and recorded standard penetration test results (ASTM-D-1586), and placed in pre-cleansed, 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 test borings, the apparent upgradient borings will be completed first; then the downgradient holes will be drilled. Between each test 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. Upon completion of each test boring to bedrock, the test boring will be backfilled with cement bentonite grout to approximately five (5) to six (6) feet below the first encountered water level, in order to avoid the possible vertical migration of contaminated groundwater from the first encountered water-bearing zone down to bedrock. Prior to leaving the site, the drill rig will be decontaminated using high pressure water.

Monitoring Well Installation

After review of the information obtained from the soil samples geophysical results and approximate water levels in the test borings, it

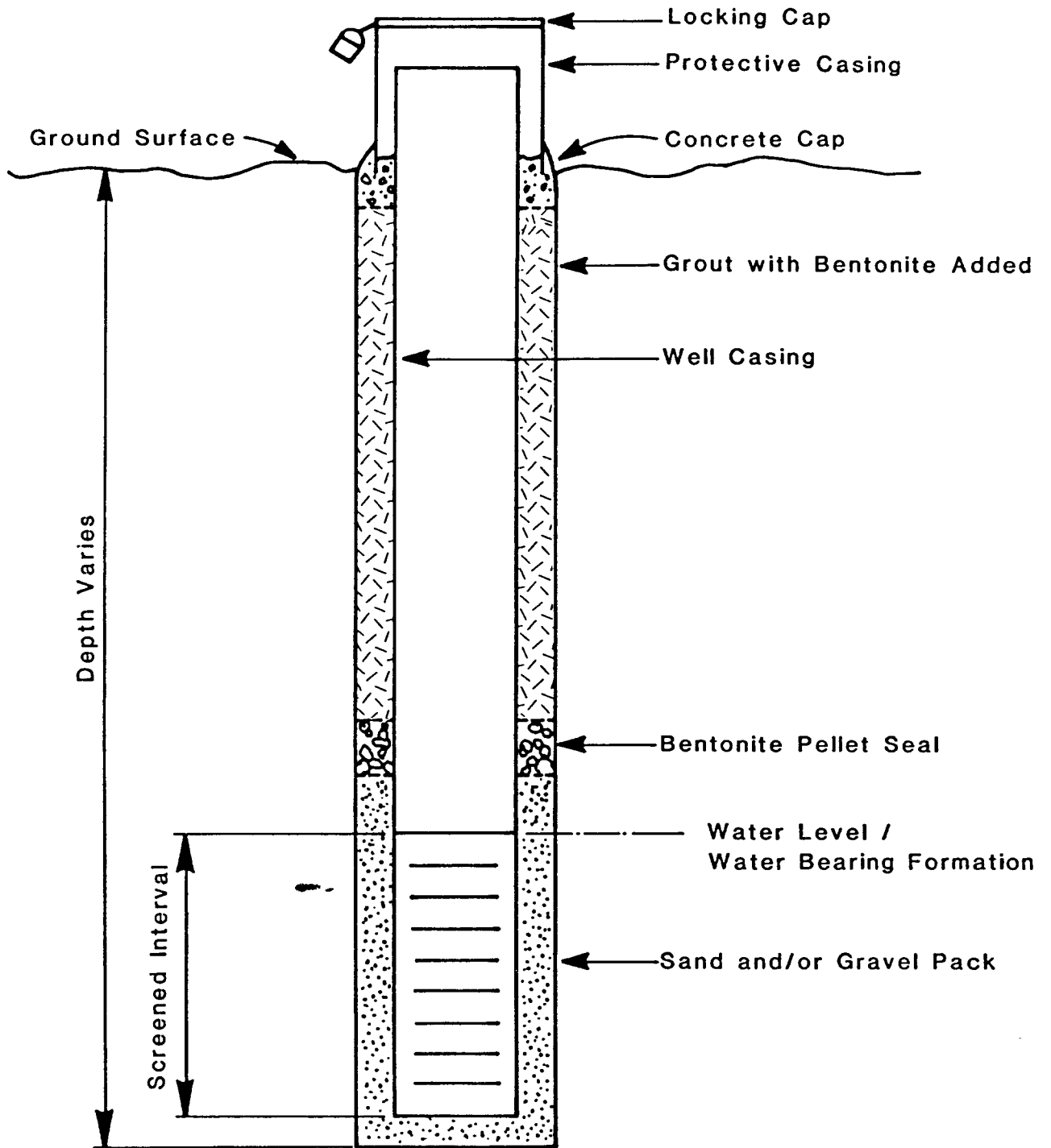
is proposed that five (5) monitoring wells be installed either within the original test boring holes and/or at other selected sites. Any test boring not utilized during the installation of the monitoring wells will be properly closed.

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. Although the use of PVC casing and screens would be less expensive, the possible presence of de-greasing solvents suggests the use of galvanized steel screens and risers. The screen will be placed just below the encountered water table. The annulars 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. A typical monitoring well in unconsolidated material is shown in Figure 4.

Upon completion of well construction, all monitoring wells will be properly developed, and all test 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 five (5) 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.

Figure 4
MONITORING WELL DETAIL
In Unconsolidated Formation



Sampling and Analysis

The following procedures will encompass the sampling and analyses from the newly-installed wells and surface water and sediment sampling analyses of the samples obtained during air monitoring, and analyses of selected samples from the test 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.

Groundwater

Following equilibrium of water levels within the installed wells, water elevations will be measured to determine the water table surface. Representative groundwater 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 sample, field pH, temperature and conductivity measurements will be recorded. The samples will be placed in appropriate pre-cleaned bottles/septa vials, labeled, chilled and immediately returned to Recra's Tonawanda, New York laboratory for preservation and analyses of various 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.

Surface Water

It is proposed that five (5) surface water samples be obtained. The samples will be obtained using a pond sampler with separate sampling bottles designated for each sampling location. The same procedure as previously described for groundwater will be followed after acquisition of the surface water sample, and the samples will be analyzed for the parameters listed in Table 1.

Since the possibility exists that contaminated groundwater from the site discharges into the existing stream as a slug after storm events, any may not be contributing to degradation of the stream during the sampling interval, three (3) stream sediment samples will also be obtained from thr sediment sampling locations shown on Figure 3 by a 2-foot gravity type core sampler, placed in pre-cleaned, teflon lined-screw cap, glass jars, labeled, chilled and returned to Recra for analysis. To avoid cross-contamination during this activity, the core

TABLE 1: ANALYTICAL PARAMETERS

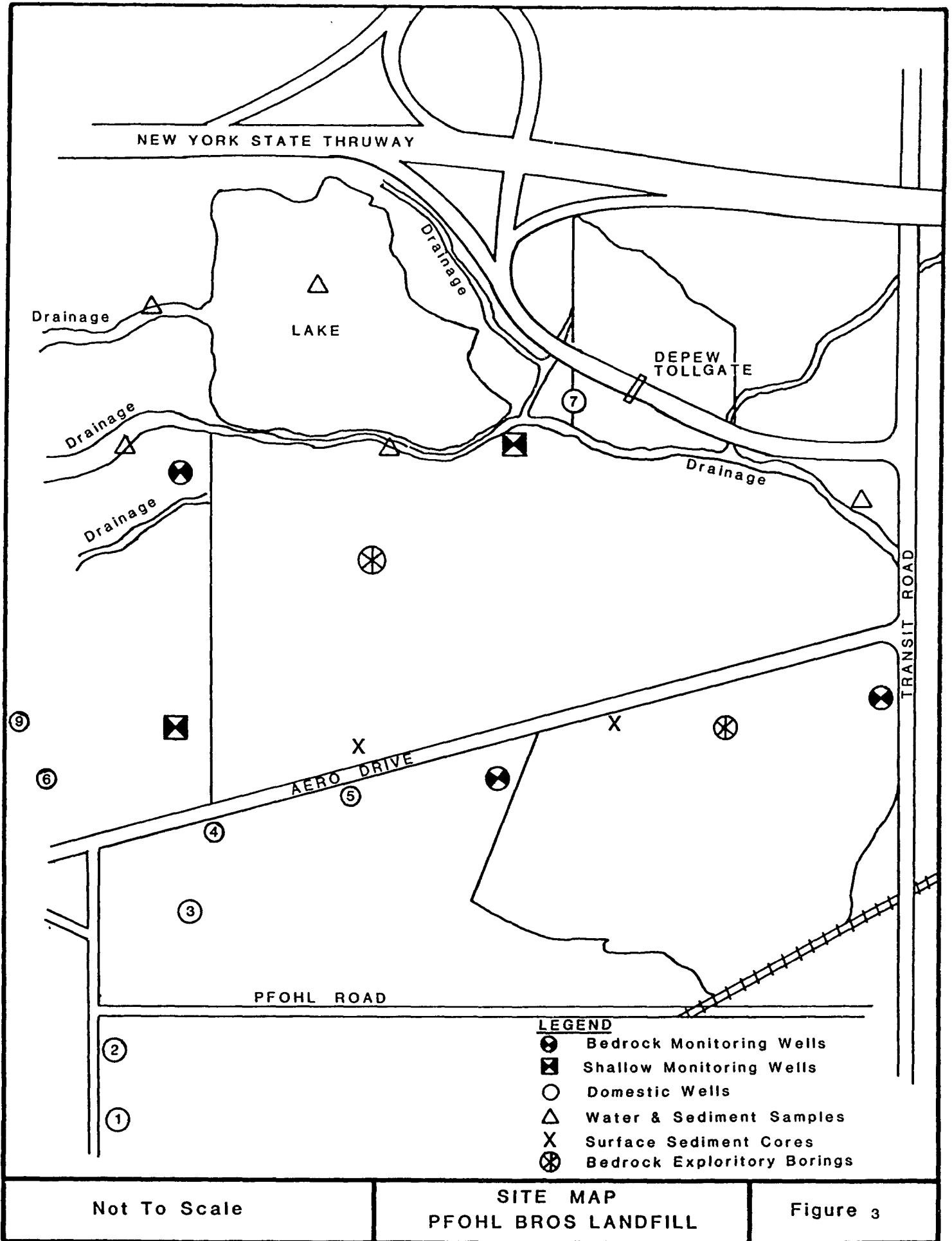
Parameters	Surface Water	Groundwater
pH	.	.
Specific Conductance	.	.
Chloride	.	.
Sulfate	.	.
Cyanide (Total)	.	.
Total Organic Carbon	.	.
Cadmium	*	0
Chromium (Total)	*	0
Chromium (Hexavalent)	*	0
Copper	*	0
Iron	*	0
Lead	*	0
Mercury	*	0
Nickel	*	0
Silver	*	0
Zinc	*	0
Polychlorinated Biphenyls (PCB)	.	.
Volatite Organic Scan (VOS)	.	.
Halogenated Organic Scan (HOS)	.	.
Dry Weight	.	.

0 = 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 halgenated organics. Analyses are performed via solvent extraction concentration gas liquid chromatography and an electron capture detector.



tubes will be cleaned with water, acetone, and distilled water between sample locations.

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 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 & 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 the Standard Penetration Test results obtained during Element 2, will aid in the design and evaluation of remedial programs.

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

Chemical Analytical Methods

The procedure to be utilized for analyses of water, stream sediment 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.

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 referred to a document previously submitted by Recra Research, Inc. to NYSDEC, entitled, "Operation Manual - Field and Analytical Services."

Engineering Evaluation Report/HRS Score

The purpose of this evaluation report is to compile all existing and newly-developed information concerning the site, and utilize this information to:

- o Evaluate feasible remedial alternatives at the site and prepare budget-level cost estimates for these alternatives
- o Based upon this evaluation, recommend the most cost-effective and environmentally sound course of remedial action
- o Prepare a Hazardous Ranking System (HRS) score for the site.

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:

- o 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.

- o Background
- o Summary of Project Activities
- o Identification and Evaluation of Remedial Alternatives
- o Recommendations
- o Appendix - Complete Site Data Base

7.3 Estimated Cost

The estimated cost per individual element of the preceding scope of work are listed as follows.

o Preliminary Field Investigation	\$ 21,217
o Sampling and Analysis	21,953
o Engineering Evaluation	<u>8,169</u>
Total Cost	\$ 51,339

APPENDIX A

DATA SOURCES AND REFERENCES

1. Interagency Task Force on Hazardous Waste Sites, March 1979, Pg. II-86.
2. Ronald Koczaja, Erie County Environmental Planning Office - personal interview regarding site activity and history, April 21, 1983.
3. Summary of Data, Pfohl Brothers Landfill, Town of Cheektowaga.
Ronald D. Koczaja, March 9, 1981.
4. NYSDEC - letter to Stanley Keysa (Supervisor of Town of Lancaster) from Ralph Manna regarding Wetlands information, July 3, 1978.
5. Erie County Health Dept., John Kociela, a conversation regarding water supply, April 21, 1983.
6. NYSDEC - letter from Don Campbell to Peter Buechi regarding site inspection April 5, 1983.
7. Erie-Niagara Basin Groundwater Resources - prepared by A. M. LaSala, Jr. U.S. Dept. of the Interior Geological Survey in cooperation with the NYS Conservation Dept., Division of Water Resources, 1963.

8. Letter from Ron Koczaja to Donald Campbell regarding site inspection, May 8, 1979.
9. U.S.G.S. Topographical Map. Lancaster Quad. 1965.
10. Analytical results performed by Erie County Laboratory, Public Health Division, July 28, 1980.
11. Analytical Data performed by Recra Research, Inc., November 18, 1981.

APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

Code: B

Site Code: 8-50-004

Name of Site: Pfohl Brothers Landfill

Region: 9

County: Erie

Town/City: Cheektowaga

Street Address: Aero Drive

Status of Site:

- o Inactive landfill
- o Located in a relatively densely populated area.
- o Nearest dwelling is approximately 1,500 feet.
- o Nearest water body: Approximately 50 feet to the north of the site is Aero Lake.
- o Nearest water supply: Ground water wells approximately 1,500 feet.
- o Site is located adjacent to a protected wetland.

Type of Site: Landfill

Estimate Size: 120 acres

Hazardous waste disposed? Suspected

Type and quantity of hazardous wastes: Quantity of waste deposited in unknown. Waste from generators known to have used the facility are: phenol tars with chlorinated benzenes, waste paints and thinners, capacitors containing PCB's.

Present owner: Pfohl Family

Time period site was used: 1946 - 1971

Site status: Inactive

Types of samples: None

Remedial action: None

Status of Legal action: None

Permits issued: None

Assessment of environmental problems: Site is located in close proximity with a designated wetland.

Assessment of health problems: Unknown

Person completing this form: Patricia M. Perry, Recra Research, Inc.

Date: June 3, 1983