N30.3

Copy 1

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

PHASE II INVESTIGATIONS

HOLIDAY PARK
NORTH TONAWANDA, NIAGARA COUNTY, NEW YORK

SITE CODE: 932033

Prepared for:

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

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

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

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

HOLIDAY PARK
NORTH TONAWANDA, NIAGARA COUNTY, NEW YORK
SITE CODE: 932033

Prepared for

DIVISION OF SOLID AND HAZARDOUS WASTE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD
ALBANY, NEW YORK 12233-0001

Prepared by

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

June 1985

TABLE OF CONTENTS

		Page Number
1.0	**EXECUTIVE SUMMARY**	1
2.0	**PURPOSE**	3
3.0	**SCOPE OF WORK**	4
3.1	Work Plan Summary	4
3.2	Air Sampling Procedures	4
4.0	**SITE ASSESSMENT**	9
4.1	Site Topography	9
4.2	Site Hydrogeology	9
4.3	Site Contamination Assessment	9
4.3.1	Review of Previous Waste Disposal and Site Assessment Activities	9
4.3.2	Phase II Investigation Air Sampling Program Results	12
4.3.3	Findings	16
5.0	**FINAL HAZARD RANKING SCORE/EPA FORMS**	
5.1	Narrative Summary	17
5.2	HRS Worksheets	
5.3	HRS Documentation Records	
5.4	EPA Form 2070-13	
6.0	**CONCLUSIONS AND RECOMMENDATIONS**	18

APPENDICES

Appendix A - Phase II Analytical Data

Appendix B - Phase II File Information

Appendix C - Phase I File Information

SECTION 1.0
EXECUTIVE SUMMARY

SECTION 1.0
EXECUTIVE SUMMARY

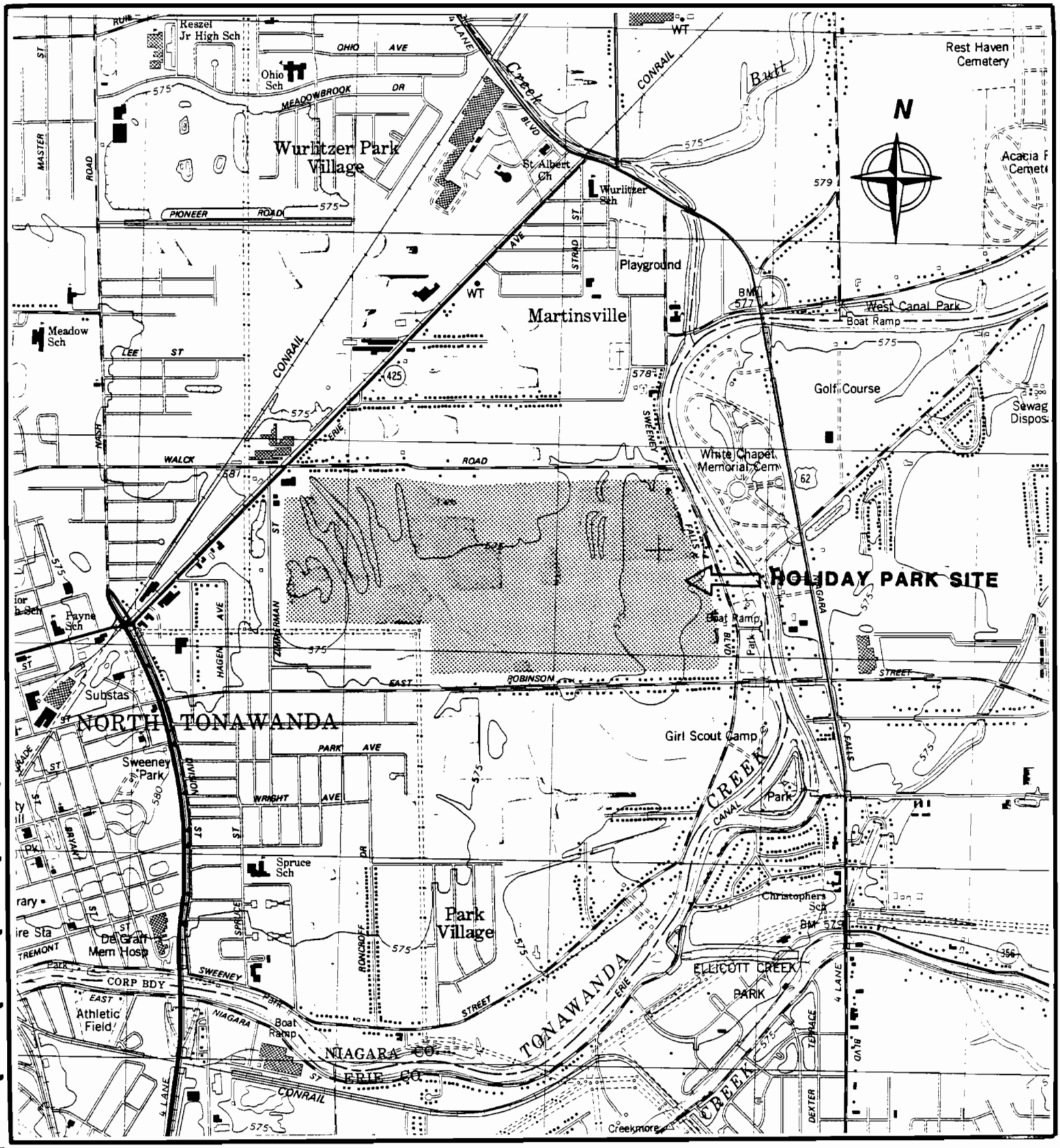
HOLIDAY PARK
Walck Road/East Robinson Street
North Tonawanda (C), Niagara County, New York

Between 1960 and 1974, various portions of the Holiday Park site were used for the disposal of municipal and industrial wastes, including 625 tons of phenolic molding compounds and resins. A small portion of the site, along Zimmerman Street, is still actively utilized by the City of North Tonawanda for the disposal of tree trimmings, grass clippings, leaves and street sweepings. The remaining identified disposal areas are inactive and capped. The majority of the site is occupied by a golf course.

Analysis of groundwater, surface water and substrate samples, reported in the Phase I Investigation Report for the Holiday Park site, dated June 1983 and prepared pursuant to the New York State Department of Environmental Conservation (NYSDEC) Superfund Program, indicated the presence of both inorganic and organic compounds, including copper and iron, as well as low levels of several hydrocarbons. For these organic substances, the reported findings, based on a GC/MS scan/library match, are presented as tentatively identified or quantified.

Qualitative and quantitative ambient air monitoring at Holiday Park performed as part of this Phase II Investigation revealed the presence of low levels of 16 volatile organic compounds. These levels, however, did not exceed the ambient air concentrations for these substances noted at two other North Tonawanda NYSDEC Superfund sites, sampled during the same week as the Holiday Park site. The levels detected were also significantly less than the New York State Air Guide - 1 Acceptable Ambient Levels (AALs) for the volatile organics in question.

A comparison of this air monitoring data to previously reported Phase I groundwater data shows some relationship from a generic standpoint in terms of the chemical groups identified. Three specific organic compounds



SCALE: 1" = 2000'

SOURCE: U.S.G.S. 7.5 MIN.
TONAWANDA, EAST, N.Y.
QUADRANGLE

MAP LOCATION

FIGURE I

SITE LOCATION MAP

LATITUDE: 43° 02' 34.5" N
LONGITUDE: 78° 51' 01.8" W

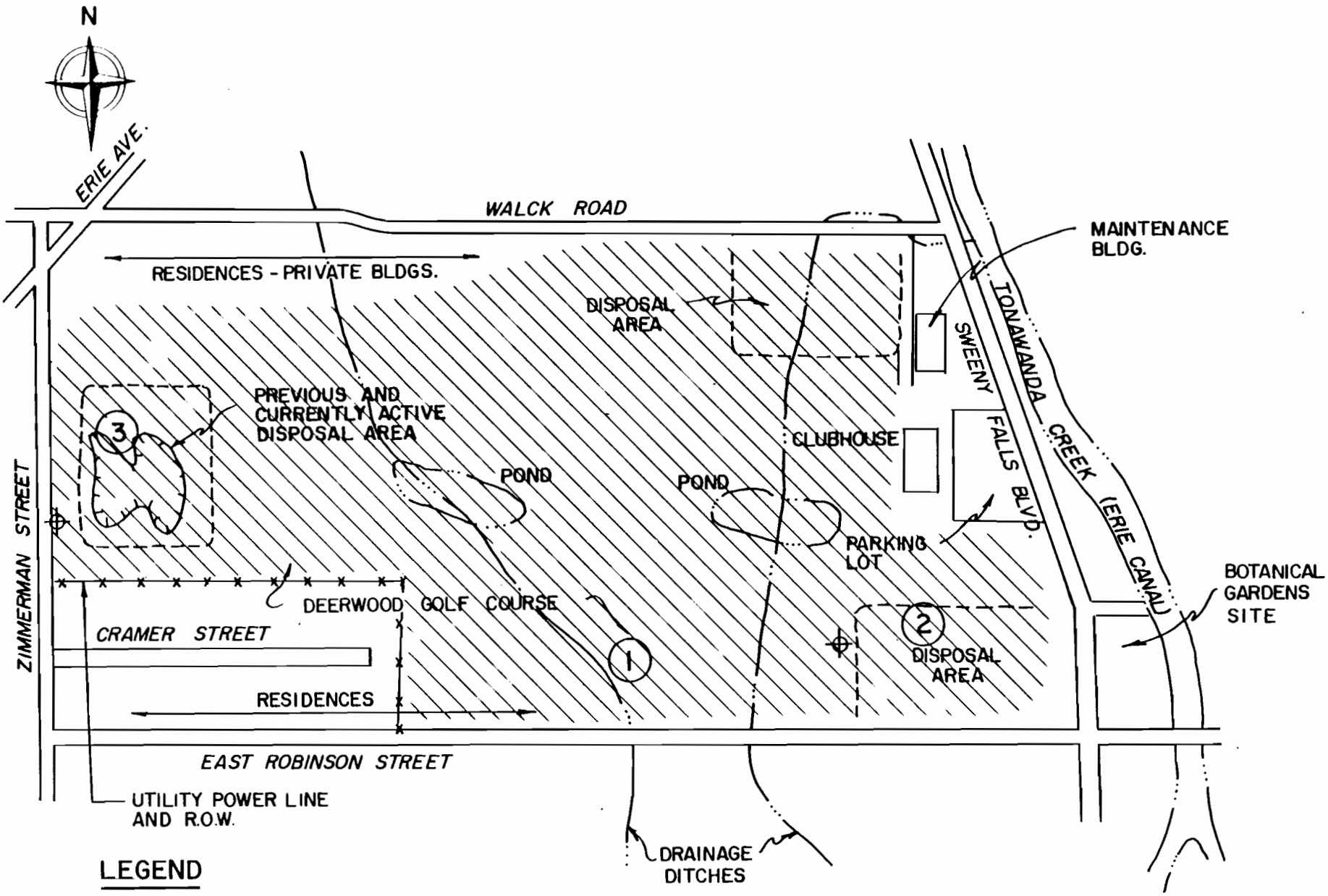


FIGURE 2
HOLIDAY PARK
SITE SKETCH
N.T.S.

detected by the air sampling program (ethyl benzene, 2-butanone and 2-hexanone) could conceivably be attributed to the Holiday Park site. However, this correlation is considered unlikely due to the absence of increasing air concentration gradients on comparison of upwind and on-site sampling locations and the tentative identification and quantification of these substances as noted in the Phase I Report. Additional sampling of the groundwater surface water and substrate at the Holiday Park site is recommended to confirm these tentative results.

The results of this Phase II Investigation indicate that the ambient air concentrations of volatile organic compounds detected at the Holiday Park site do not pose any significant environmental or public health concerns at this point in time. The air monitoring program conducted during the Phase II investigation was a characterization study only. The current results do not indicate that a potential air release problem exists. However, 1,2-dichloroethane was of similar magnitude to the AAL, and therefore further investigation would be necessary to confirm the results of this study.

The HRS score for this site, following the completion of this Phase II Investigation, is $S_M = 4.73$.

SECTION 2.0
PURPOSE

SECTION 2.0
PURPOSE

During the Phase I Investigation performed by Engineering Science Inc., it was determined that the Holiday Park site may pose a potential threat to air quality in the immediate site vicinity. Work under the Phase II Investigation was carried out to characterize this site with regard to the potential for air contamination.

The goals of the Phase II Investigation were as follows:

- Determine the presence of volatile organic air contamination at the site and in the surrounding areas by two means:

  (1) Through eight (8) hours of continuous sampling at three (3) stationary locations; and

  (2) By conducting a pedestrian survey using an HNU PI-101 Photoionization Detector at ground level.

- Evaluate the data obtained from these field evaluations to determine if detected levels of contamination pose any environmental or public health concerns.

SECTION 3.0
SCOPE OF WORK

SECTION 3.0
SCOPE OF WORK

3.1 WORK PLAN SUMMARY

The goals of the Phase II Investigation for the Holiday Park site were accomplished using the following work plan:

Task 1 - Collection of Existing Information

Pertinent information regarding contamination at the Holiday Park site was obtained from a review of file data, and the NYSDEC Phase I Report prepared by Engineering Science. Existing file data was reviewed in light of air sampling requirements.

Task 2 - Qualitative and Quantitative Air Monitoring

Quantitative air sampling was conducted on each of two separate days at three locations (upwind, downwind, and on site) for eight hours. In conjunction with the quantitative sampling, a thorough pedestrian survey of the site was conducted using an HNU Model PI-101 Photoionization Detector.

Task 3 - Report Preparation

This report was prepared to provide the following information:

- Present the Phase II Investigation data developed under Tasks 1 and 2 described above.
- Develop a final HRS score and site assessment for the Holiday Park site.

3.2 AIR SAMPLING PROCEDURES

Selection of Sampling Locations

The Scope of Work for the Holiday Park site specifies that three locations shall be sampled quantitatively for volatile organic air contaminants, including one upwind, one on-site and one downwind location,

based on optimum field conditions. Based upon both a vehicular survey as well as a pedestrian survey of the approximately 375-acre site, three sampling locations were selected based on the following criteria:

- Site size and prevailing, historic wind direction
- File and field evidence of waste disposal activity
- Proximity of the site to industrial sources of air contamination
- HNU readings noted during the initial pedestrian survey

Figure 2 (see Section 1.0) shows the location of the three sampling points selected. The selected axis of sampling station orientation, based on prevailing wind direction measured at Station 2, was southwest to northeast. This orientation was nearly perpendicular to the long axis of the site. Station 1 was located as close as possible to the upwind boundary of the site in an area which reportedly received limited amounts of waste material.

Station 2 was placed on site behind several residences in a documented Phase I waste disposal area. This location was selected because of its proximity to these residences and the use of this area by youngsters as a ballfield. In addition, at Station 2, a "weather station" was erected where routine measurements of wind speed and direction, temperature, and relative humidity were made.

Station 3 was placed in a previous disposal area currently utilized by the Town of North Tonawanda for disposal of municipal debris and some construction debris, street sweepings, stumps and vegetative cuttings. This location is also adjacent to an industrial area.

To prevent vandalism or tampering with sample collection equipment, samplers were secured inside steel-screened, locked, sampling boxes. The samplers within each box were located at a height of approximately 40 centimeters above the ground.

The decision not to include the disposal area near the eastern end of Walck Road as a downwind sampling location was made for the following reasons:

- Relative remote location as compared to other areas
- Mounding observed was caused mainly by construction debris, old bricks and clean fill, etc.
- Negative results of the initial HNU survey

Sampling Equipment and Procedures

Gilian Hi-Flow Samplers, Model No. MFS 113 UT were utilized to collect air samples at each location. Flow meter calibration and high flow performance checks were done prior to use. These checks were done by the use of the Gilian Calibrator, Model IHCP-HL-300, which is designed for both high and low flow applications. The pumps were calibrated to within +/-5% change on the flowmeter. Prior to sampling, each Gilian Pump was calibrated to a one liter/minute flow rate. The rotometers on each pump were only used for spot check purposes and to determine whether or not there were any gross changes in pump performance. The rotometers were not used for calibration. This flow rate was field checked immediately prior to placing each pump and verified once again upon completion of the required eight hours of continuous sampling.

Sampling was conducted on two consecutive days, using sorbent charcoal on one occasion and Tenax on the other, to cover the range of organics which might occur and to help assure the quality of data obtained. The sorbent air sample tubes employed were obtained from SKC, Inc., Eighty-Four, Pennsylvania, and met the following specificiations:

Sorbent	Size (mm) OD x Length	Sections	Sorbent Mg	Seal Type
Tenax	6 x 70	2	15/30	Glass
Charcoal (Coconut Base)	6 x 70	2	50/100	Glass

Field handling of sorbent tubes was limited to breaking of the tube seals immediately prior to placement into the sampler cassette, and subsequent to removal and immediate capping of the tube upon the completion of sampling.

An operational check of each sampling location was conducted approximately once an hour. This check included:

- Flow rate spot check
- Wind direction and speed
- Relative humidity
- Temperature
- Recording of observations

Following collection and sealing of the tubes, samples were sealed in shipment containers and iced for express delivery to ERCO/Energy Resources Co., Inc., Cambridge, Massachusetts, an NYSDEC-approved analytical laboratory for GC/MS analysis by EPA Method 624.

Field Quality Assurance

In accordance with the Quality Assurance Plan for Phase II Superfund Investigations, submitted to NYSDEC prior to the initiation of sampling, laboratory blanks were shipped to the laboratory. Field blanks were carried through the field investigation and transported with the adsorbed samples. These QA/QC results were reviewed along with the other analytical data received from ERCO to ensure the accuracy of the data collected during this air sampling program.

HNU Pedestrian Survey

A pedestrian survey was conducted over a period of three days at the Holiday Park site using an HNU PI-101 Photoionizer Detector to detect volatile organic emissions. Because of the large site area, intensive recreational use and proximity to numerous private homes, an extensive HNU survey was performed. For purposes of this survey, the site was divided into six areas:

- Golf course - driving range
- Golf course - eastern half

- Golf course - western half
- Zimmerman Road disposal area
- Walck Road/Sweeney Falls Boulevard disposal area
- Sweeney Falls Boulevard/Robinson Road disposal area

A survey was conducted in each of these areas in the following manner:

- The HNU Photoionizer was calibrated to 46 ppm benzene at 9.8 span, per standard HNU systems procedure, prior to field measurements. Any atmospheric concentrations of organic gases were noted, expressed in terms of ppm as benzene.
- A background HNU reading was taken at an upwind location prior to beginning each survey.
- A series of continuous transects on the site were surveyed with measurements taken approximately 6 to 12 inches above ground levels at 20 to 30 foot intervals within the three known disposal areas and at 40 to 50 foot intervals within the golf course. Battery charge was checked after every one-half hour of instrument use. The measurement interval was adapted based on field observation to emphasize areas likely of producing a measureable emission, such as: mounded areas or depressions, standing water, exposed waste and freshly exposed areas such as stream banks or excavated areas. In each area, additional measurements were made in the vicinity of private residences.

SECTION 4.0
SITE ASSESSMENT

SECTION 4.0
SITE ASSESSMENT

4.1 SITE TOPOGRAPHY

The Holiday Park site is currently developed as a golf course and driving range. The eastern most and northeast sections are undeveloped and show mounding and evidence of waste disposal activity. Elevations range from 570 to 580 feet with gentle, small knolls and mounds created for the golf course over the majority of the site.

4.2 SITE HYDROGEOLOGY

Bedrock at the Holiday Park site is expected to be camillus shale at a depth of approximately 25 feet. Overlying the bedrock is sandy clay and sandy silt with some gravel. Refuse depths range from zero to approximately ten feet.

Previous file data indicates a shallow water-bearing zone at a depth of approximately six feet. A deep bedrock aquifer exists in the shale bedrock. Groundwater flow direction is undetermined but probably follows the gentle land slope to the south. Surface water occurs on site as several drainage ditches and artificial golf course ponds, with a wetlands or "wet woods" area in the west-central portion of the site.

4.3 SITE CONTAMINATION ASSESSMENT

4.3.1 Review of Previous Waste Disposal and Site Assessment Activities

File records as presented in the Phase I Investigative Report indicate that intermittent disposal of industrial wastes, municipal refuse, putrescibles and other debris had been disposed of at the Holiday Park site between 1960 and 1974. During the site inspection conducted by Wehran Engineering in June 1984, one active disposal area was observed, with visible evidence of past disposal activity in another location described as follows:

- Disposal area near maintenance building (See Section 1.0, Figure 2)
  This area showed evidence of construction and demolition debris only. This area was revegetated by indigenous species.

- Currently active area (See Section 1.0, Figure 2)
  Located in the west/central section of the site. Tree cuttings, leaves, grass clippings, street sweepings and other miscellaneous debris were piled uniformly in this area in thickness ranging from approximately four to eight feet.

Records indicate that the active disposal area may have also accepted part of the 625 tons of phenolic moulding compounds and resins which were allegedly disposed of at the site during the 1960's and early 1970's.

While the entire site may have been used intermittently for disposal activities (including the area directly across from the Botantical Gardens site, see Section 1.0, Figure 2), development of most of the site as a golf course has resulted in its capping, landscaping, and continued maintenance. This development precludes the further location of additional disposal areas based on visual inspection.

Past sampling of groundwater, surface water and substrate indicate the absence of both inorganic and organic constituents. Concentrations of iron as high as 2,300 mg/ug were detected in substrate samples with a high of 96 mg/l in groundwater and 0.37 mg/l in surface water. Copper was also detected at elevated levels in surface water, groundwater and substrate samples. Quantification of organic contamination at the site in groundwater, surface and substrate samples has also been performed. The following list of organic compounds have been either tentatively identified or quantified by a GC/MS scan/library match in past water and substrate samples from the Holiday Park site.

Phenolics
1,3-Dimethylbenzene
Cyclohexanone

Ethyl benzene
1,7,7-Trimethyl-bicyclo(2,2,1) heptan-2-one
2-hexanone
3-methycyclopentanone
1,3,3-Trimethyl-bicyclo(2.2.1)-heptan-2-one
4-(1,1-Dimethylethyl)-phenol
1,3-Isobenzofurandione
1-Butoxy-2-propanol
2-Cyclohexen-1-one
2-Cyclohexen-1-ol
4-Chloro-transcyclohexanol
Dibutylphthalate
Ethanol, 2(2-(2-methoxyethoxy))-acetate
2,2-Dimethyldecane
2-Butoxyethyl-butylphthalate
1-(2-butoxyethoyl) ethanol
3,3-dimethyl-2-butanone
2-butanone
2-methylheptane
4-methyl-3-penten-2-one
acetic acid
2,6-dimethyl heptane
2-methyl-2-propyl-1,3-dioxalane
2,2'-oxybispropane
undecane
tridecane
2,7-dimethyl undecane
2,6-dimethyl octane
2,3,5-dimethyl decane

Air sampling data prior to the Phase II Investigation are not available.

4.3.2 Phase II Investigation Air Sampling Program Results

Weather Conditions

As part of the Phase II Investigation, records of precipitation, wind speed and direction, temperature, and relative humidity were noted at approximately one hour intervals throughout all air sampling activities conducted at the Holiday Park site. Field data sheets completed by the Wehran Engineering air sampling team during the two day air sampling program for this site are presented in Appendix A.

On June 27, 1984, the date when the tenax sorbent tubes were utilized, the wind direction was primarily out of the south-southwest at speeds of up to 10 miles per hour (mph). Temperatures ranged from 70° F to 74° F. Cloudy and rainy conditions were observed during the morning hours with intermittent light showers occurring in the afternoon. During this period, relative humidity ranged between 59 and 81 percent.

For the charcoal tube sampling date, June 28, 1984, weather conditions were similar with regard to relative humdity and temperature. Temperature ranges were from 67° F to 76° F with relative humidity ranging from 59 to 75 percent. Wind speed ranged between 5-10 mph, primarily out of the west southwest, with occasional gusts.

HNU Pedestrian Surveys

In accordance with the Scope of Work developed for the Holiday Park site, several HNU Photoionzer Surveys were conducted in conjunction with the quantitative air sampling efforts performed on June 27 and 28, 1984. The results of these surveys indicated that background levels of organic compounds in ambient air were present at low levels ranging from approximately 0.0 to 0.8 ppm at both the ground surface and at approximately eight feet above the ground. No HNU readings were noted on site above background levels during these surveys.

Quantitative Air Sampling

The flow rate of each Gilian pump was field checked immediately prior to placement and verified once again upon completion of the required eight hours of continuous sampling. Estimates of accuracy are calculated from the results of independent flow rate audits. The results of the accuracy calculation are presented in Table 1. The results indicate that the performances of all the pumps were accurate. The following is a list of equations used to calculate accuracy:

a. Single Analyzer Accuracy -- the percentage difference (d_i) for each flow rate audit was calculated as follows:

$$d_i = \frac{Y_i - X_i}{X_i} \times 100$$

where Y_i = flow rate from the i-th audit check
X_i = known flow rate used for the i-th audit check

b. Accuracy for Reporting Organization -- for each flow rate audit, the average (D) of the individual percentage differences (d_i) for all k Gilian pumps used was calculated as follows:

$$D = \frac{1}{k} \sum_{i=1}^{k} d_i$$

For each flow rate audit, the standard deviation (S_a) of all the individual percentage differences for all Gilian pumps audited during the sampling period was calculated as follows:

$$S_a = \sqrt{\frac{1}{k-1} \left[\sum_{i=1}^{k} d_i^2 - \frac{1}{k} \left(\sum_{i=1}^{k} d_i \right)^2 \right]}$$

For each Gilian pump, the 95 Percent Probability Limits for the accuracy of a reporting organization was calculated as follows:

TABLE 1

NYSDEC
DATA ASSESSMENT FOR CALCULATED ACCURACY

Pump Number	Date	Y_i Known Flow Rate (lpm)	X_i Post Flow Rate (lpm)	d_i Percent Difference	D Average Percent Difference	S_a Standard Deviation	95% Probability Limits Upper	95% Probability Limits Lower
1	6/25/84	1.0	1.0	0	0	2.87	5.63	-5.63
1	6/27/84	1.0	1.0	0	--	--	--	--
1	6/29/84	1.0	1.0	0	--	--	--	--
2	6/25/84	1.0	1.0	0	3.3	2.87	8.93	-2.33
2	6/27/84	1.0	1.0	0	--	--	--	--
2	6/29/84	1.0	1.1	10	--	--	--	--
3	6/25/84	1.0	1.0	0	0.5	2.87	6.13	-5.13
3	6/26/84	1.0	1.0	0	--	--	--	--
3	6/27/84	1.0	1.0	0	--	--	--	--
3	6/28/84	1.0	1.0	0	--	--	--	--
3	6/29/84	1.0	1.03	3	--	--	--	--
3	6/30/84	1.0	1.0	0	--	--	--	--
4	6/26/84	1.0	1.0	0	1.67	2.87	7.30	-3.96
4	6/28/84	1.0	1.0	0	--	--	--	--
4	6/30/84	1.0	1.05	5	--	--	--	--
5	6/26/84	1.0	1.0	0	3.33	2.87	8.96	-2.30
5	6/28/84	1.0	1.05	5	--	--	--	--
5	6/30/84	1.0	1.05	5	--	--	--	--

$$\text{Upper 95 Percent Probability Limit} = D + 1.96\ S_a$$
$$\text{Lower 95 Percent Probability Limit} = D - 1.96\ S_a$$

Appendix A contains a copy of the laboratory report received from ERCO/Energy Resources Co., Inc. as a result of the air sampling program conducted at the Holiday Park site during this Phase II Investigation. All air samples, including the control and field blanks, were analyzed for volatile organics by EPA Method 624. Measurable concentrations were reported for several compounds in terms of nanograms per liter (ng/l), as discussed below, for samples collected on the tenax sorbent media. No detectable levels of volatile organics were measured for samples collected on the charcoal sorbent media or the tenax control blanks.

Table 2 summarizes the results reported for air samples collected on tenax sorbent at the three sampling stations selected for the Holiday Park site. Results are presented by air sampling station location, as well as by Wehran Engineering and ERCO Identification Numbers, for those compouinds with detectable and reportable ambient concentrations. A complete listing of the compounds analyzed for is presented in Appendix A. In addition, the results of upwind location air sampling measurements performed at two other North Tonawanda NYSDEC Superfund Sites are also presented in this table for comparison purposes. The two other sites in question, Botanical Gardens (Site Code: 932068) and Gratwick-Riverside Park (Site Code: 932060), were monitored for volatile organic emissions by Wehran Engineering during the same week as the Holiday Park site, using the same sampling procedures. Only the upwind locations for these sites are presented since they represent ambient air concentrations that are essentially uninfluenced by site atmospheric conditions that could conceivably be correlated to previous disposal activities.

Sixteen volatile organic compounds were measured in low concentrations in the upwind or ambient sample for the Holiday Park site. By comparison, 12 of these same compounds were detected at the nearby Botanical Gardens site, with the following difference: tetrachloroethylene, 1,1,1-trichloroethane, 2-butanone, and 2-hexanone were detected in the

TABLE 2

HOLIDAY PARK SITE
AMBIENT AIR SAMPLING RESULTS

Site	Holiday Park	Holiday Park	Holiday Park	Holiday Park	Botanical[1] Gardens	Gratwick[2] Riverside Park
Sampling Station No.	1	2	3	Control	1	1
Location	Upwind	On Site	On Site	—	Upwind	Upwind
Wehran ID No.	HP-1-T	HP-2-T	HP-3-T	HP-T	BG-1-T	GP-1-T
ERCO ID No.	5154	5155	5156	5153	5061	5352
Compound	Concentration (ng/l)[3]					
Methylene chloride	0.73	0.74	N.D.	N.D.	0.78	0.62
1,1-Dichloroethylene	0.30	0.32	0.32	N.D.	0.32	0.28
Chloroform	0.66	0.68	0.17	N.D.	0.69	0.57
1,2-Dichloroethane	0.32	0.29	0.09	N.D.	0.10	0.25
Trichloroethylene	0.75	0.76	0.35	N.D.	0.75	0.67
Benzene	0.04	0.04	N.D.	N.D.	0.09	N.D.
Tetrachloroethylene	0.49	0.47	0.33	N.D.	N.D.	0.44
Toluene	0.56	0.55	0.41	N.D.	1.2	0.43
Chlorobenzene	0.09	0.08	0.06	N.D.	0.08	0.07
Ethyl benene	0.23	0.23	0.19	N.D.	1.6	0.15
1,1,1-Trichloroethane	0.08	N.D.	N.D.	N.D.	N.D.	N.D.
Acetone	5.3	3.5	3.1	N.D.	2.6	0.65
Carbon Disulfide	2.9	2.8	N.D.	N.D.	2.8	2.3
Xylenes	1.2	1.3	1.0	N.D.	2.8	1.3
2-Butanone	1.1	N.D.	0.82	N.D.	N.D.	N.D.
2-Hexanone	0.81	N.D.	N.D.	N.D.	N.D.	N.D.

Notes:

[1]Wehran Engineering, "Phase II Investigation Report for Botanical Gardens, North Tonawanda, Niagara County, New York (Site Code: 932068)," August 1984.

[2]Wehran Engineering, "Phase II Investigation Report for Gratwick-Riverside Park, North Tonawanda, Niagara County, New York (Site Code: 932060)."

[3]1 ng/l = 1 ug/m^3 via the following conversion:
1 ng/l x 1 ug/10^3 x 10^3 l/m^3

1 ng/l = 0.001 mg/m^3 via the following conversion:
1 ng/l x 1 mg/10^6 ng x 10^3 l/m^3

[4]N.D. = Not detected

ambient upwind sample collected at Holiday Park. Twelve compounds were also detected in the ambient sample for the Gratwick Park site. The four compounds which were present in the Holiday Park ambient sample but not in the Gratwick Park ambient sample include benzene, 1,1,1-trichloroethane, 2-butanone, and 2-hexanone.

The results from the two on-site samples from the Holiday Park site are essentially similar to the results reported for the ambient location, with the following exception; 2-hexanone and 1,1,1-trichloroethane were present in the upwind sample, but not detected on site.

Data Evaluation

To permit an evaluation of the public health and environmental significance of the data collected by the Phase II Investigation air sampling program, a comparison was made between the ambient air concentrations measured at the Holiday Park site (Table 2) and the Acceptable Ambient Levels (AALs) provided by the New York State Air Guide - 1 (Table 3).

In order to compare the data presented in Tables 2 and 3, consideration must be given to the interrelationships between units in which the concentrations or standards noted are presented. Note 3 to Table 1 presents the conversion factors that have been used in the interpretation of this data, in particular, the following relationships:

$$1 \text{ ng/l} = 1 \text{ ug/m}^3$$
$$1 \text{ ng/l} = 0.001 \text{ mg/m}^3$$

In comparing the Holiday Park site data (Table 2) to the AALs in Table 3, the above ng and mg relationship indicates that permitted AALs are at least two to four orders of magnitude greater than those levels noted at the Holiday Park site. For example, at Station 1, an acetone concentration of 5.3 ng/l was measured, the highest level for any volatile organic compound detected at the site, which is significantly less than the AAL of 35,000 ug/m^3. The concentration of 1,2-Dichloroethane slightly exceeds the AAL by less than a factor of 2.

TABLE 3

NEW YORK STATE AIR GUIDE - 1 AALs*
HOLIDAY PARK SITE

Compound	Hazard Classification	TLV's (mg/m^3)	AAL (Method) (ug/m3)
Methylene chloride	Moderate toxicity	350	1,167 (T)
1,1-Dichloroethylene	High toxicity	20	66.7 (T)
Chloroform	Moderate toxicity	50	167 (T)
1,2-Dichloroethane	Moderate toxicity	40	0.2 (DOH/R)
Trichloroethylene	Moderate toxicity	270	900 (T)
Benzene	High toxicity	30	100 (T)
Tetrachloroethylene	Moderate toxicity	335	1,116 (T)
Toluene	Low toxicity	375	7,500 (T)
Chlorobenzene	Moderate toxicity	350	1,167 (T)
Ethyl benzene	Moderate toxicity	435	1,450 (T)
1,1,1-Trichloroethane	Low toxicity	1,900	38,000 (T)
Acetone	Low toxicity	1,780	35,600 (T)
Carbon disulfide	Moderate toxicity	30	100 (T)
Xylenes (o-, m-, p-)	Moderate toxicity	435	1,450 (T)
2-Butanone	Moderate toxicity	590	1,967 (T)
2-Hexanone		20	66.7 (ACGIH)

T - Interim AAL derived from ACGIH TWA-TLV.
DOH/R - Contaminant specific AAL currently under review by DOH.
ACGIH - Hazard classification of moderate to high toxicity assumed to derive AAL.

High Toxicity = TLV/300
Moderate Toxicity = TLV/300
Low Toxicity = TLV/50

4.3.3 Findings

Based upon a review of the information contained in the Phase I Investigation Report and the results of the air sampling program described above, a more complete site contamination assessment was possible.

Comparing the general types of substances and specific compounds reported in site groundwater, surface water and substrate samples with the specific compounds identified by the air monitoring program shows some relationship from a generic standpoint in terms of chemical compound groups, i.e., aliphatic hydrocarbons, halogentated organics, ketones, etc.

Three organic compounds (ethylbenzene, 2-butanone, and 2-hexanone) which were noted during the air monitoring program could conceivably be attributed to the site simply because of their presence in other media (i.e., surface water, groundwater or substrate). However, air data for these compounds indicate low ambient concentrations and do not show any increasing trend from upwind to on-site sampling locations. Rather, all three compounds exhibit either decreasing or constant concentrations. Further, the actual presence of these compounds as reported by the groundwater, surface water and substrate data is questionable, considering the data presentation in the Phase I Report indicates that the organic compounds measured at the site were tentatively identified and quantified upon a GC/MS scan/library match.

The environmental and public health significance of the ambient air concentrations of all the substances measured in air at the site is considered negligible in light of the relatively low levels detected. Further, the levels recorded are significantly less than the limits specified by the New York State Air Guide - 1.

The air monitoring program conducted during the Phase II investigation was a characterization study only. The current results do not indicate that a potential air release problem exists. However, 1,2-dichloroethane was of similar magnitude to the AAL, and therefore further investigation would be necessary to confirm the results of this study.

SECTION 5.0
FINAL HAZARD RANKING SCORE/EPA FORMS

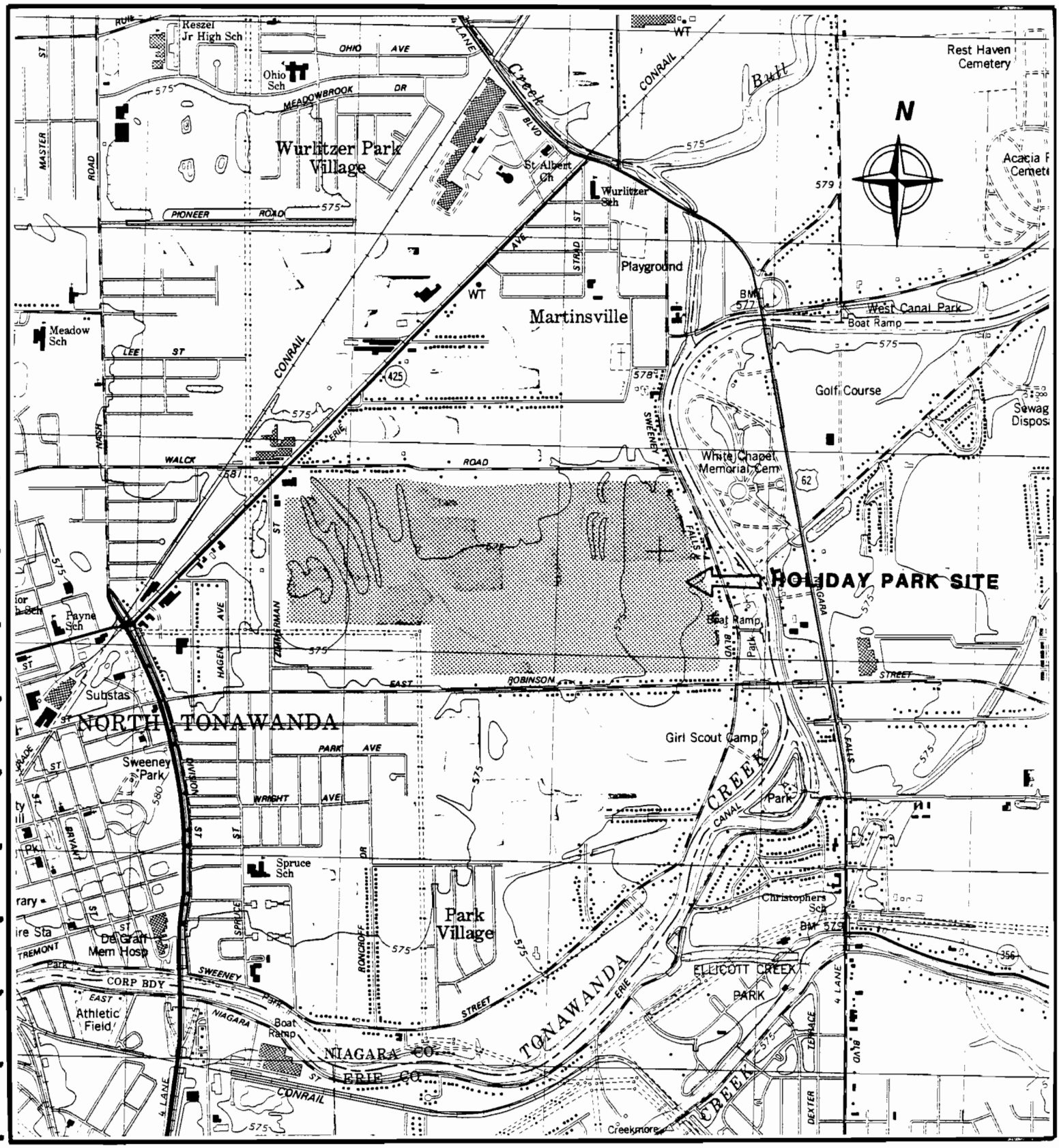
5.1 NARRATIVE SUMMARY

5.1 NARRATIVE SUMMARY

Holiday Park
Sweeney Falls Boulevard
North Tonawanda
Niagara County, New York

. Site Size:	375 acres ±
. Demography:	Approximately 2,300 persons live within one mile of the site (estimated from 1980 U.S. Census)
. Geography:	The site is essentially flat with small knolls and mounds. Elevations range from 570 to 580 feet above MSL.
. Type of Facility:	Inactive Industrial/Municipal Dump; majority of site used as public golf course
. Types of Waste:	Phenolic Resins and Wastes, Municipal Wastes, Rubbish and Trash
. Affected Media:	Soil, surface water and groundwater
. Owner:	City of North Tonawanda
. Cleanup Action:	Majority of site is improved as a public golf course. Western area is an active municipal landfill. Northeastern corner is a mounded, unimproved dump area.
. Enforcement Actions:	Previous regulatory action unknown; none identified during Phase II Investigation.

LOCATION



SCALE: 1" = 2000'

SOURCE: U.S.G.S. 7.5 MIN.
TONAWANDA, EAST, N.Y.
QUADRANGLE

MAP LOCATION

FIGURE I

SITE LOCATION MAP

LATITUDE: 43° 02' 34.5" N
LONGITUDE: 78° 51' 01.8" W

HRS WORKSHEETS

Facility Name: Holiday Park

Location: North Tonawanda

EPA Region: II

Person(s) in Charge of the Facility: Richard Kloch Sr.

City Attorney

North Tonawanda, New York

Name of Reviewer: Anthony Savino **Date:** 10/11/84

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.)

City of North Tonawanda operated this area as a disposal site from early 1960's to present. Site received municipal and industrial wastes including Hooker Durez phenolic materials. A portion of the site is now a golf course. Organic chemicals found in groundwater, soil, and surface water.

Scores: S_M = 4.73 (S_{gw} = 4.0 S_{sw} = 7.13 S_a = 0)

S_{FE} = N/A

S_{DC} = 0

HRS COVER SHEET

GROUND WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 (45)	1	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	
	Net Precipitation	0 1 2 3	1		3	
	Permeability of the Unsaturated Zone	0 1 2 3	1		3	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			0	15	
3	Containment	0 1 2 3	1	0	3	3.3
4	Waste Characteristics					3.4
	Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
	Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1	5	8	
	Total Waste Characteristics Score			17	26	
5	Targets					3.5
	Ground Water Use	0 (1) 2 3	3	3	9	
	Distance to Nearest Well/Population Served	(0) 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
	Total Targets Score			3	49	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			2295	57,330	
7	Divide line 6 by 57,330 and multiply by 100	S_{gw} = 4.0				

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	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	
	1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
	Distance to Nearest Surface Water	0 1 2 3	2		6	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			0	15	
3	Containment	0 1 2 3	1	0	3	4.3
4	Waste Characteristics					4.4
	Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
	Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1	5	8	
	Total Waste Characteristics Score			17	26	
5	Targets					4.5
	Surface Water Use	0 1 (2) 3	3	6	9	
	Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
	Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			6	55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			4590	64,350	
7	Divide line 6 by 64.350 and multiply by 100	S_{sw} = 7.13				

AIR ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 45	1	0	45	5.1
	Date and Location:	6/27-6/28/84; see attached Figure 2				
	Sampling Protocol:	Tenax and charcoal sampling tubes; EPA Method 624				
	If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2	Waste Characteristics					5.2
	Reactivity and Incompatibility	(0) 1 2 3	1		3	
	Toxicity	(0) 1 2 3	3		9	
	Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1	5	8	
	Total Waste Characteristics Score			5	20	
3	Targets					5.3
	Population Within 4-Mile Radius	0 9 12 15 (18) 21 24 27 30	1	18	30	
	Distance to Sensitive Environment	(0) 1 2 3	2	0	6	
	Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score			21	39	
4	Multiply 1 x 2 x 3			0	35,100	
5	Divide line 4 by 35,100 and multiply by 100	S_a = 0				

	S	S^2
Groundwater Route Score (S_{gw})	4.0	16.0
Surface Water Route Score (S_{sw})	7.13	50.84
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		66.84
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		8.18
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73$		$S_M = 4.73$

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

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

DIRECT CONTACT WORK SHEET

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

HRS DOCUMENTATION RECORDS

June 28, 1982

DOCUMENTATION RECORDS FOR HAZARD RANKING SYSTEM

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

FACILITY NAME: Holiday Park

LOCATION: North Tonawanda, NY

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Iron, Copper, Phenols
Chlorobenzene
Dibutylphthalate

Rationale for attributing the contaminants to the facility:

USGS Report 1982/83; Niagara Health Department Report, 1984 (attached)
Score = 45

Groundwater flow is south-southeast. See Phase I Report Dames and Moore for sampling point locations

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Groundwater on site.

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

5 feet

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

Unknown

Net Precipitation

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

40 inches

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

27 inches

Net precipitation (subtract the above figures):

13 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

silty, clay loam

Permeability associated with soil type:

$10^{-4} - 10^{-3}$

Physical State

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

solids, liquids

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Landfill

Method with highest score:

N/A-Direct release observed

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

	Toxicity	Persistence
Phenols	3	1
Chlorobenzene	2	2

Compound with highest score:

Phenols, chlorobenzene

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):

625 tons Score=5

Basis of estimating and/or computing waste quantity:

NYS Hazard Registry Form

* * *

5 TARGETS

Ground Water Use

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

None, but potentially useable, Score=1

Distance to Nearest Well

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

Unknown

Distance to above well or building:

N/A

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:

None

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

None

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

None Score=0

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

Dimethyl Benzene
Iron
Copper
Dibutylphthalate

Rationale for attributing the contaminants to the facility:

USGS Report 1982/83 Attached
Phase I Report Dames and Moore.
Score = 45
Surface water samples were collected in drainage ditches north and south of the site and drained into Tonawanda Creek

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0.09

Site Inspection

Name/description of nearest downslope surface water:

Intermittent on-site streams to Erie Canal (Tonawanda Creek)

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

0.09

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

No

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

2.1"

Distance to Nearest Downslope Surface Water

1.3 miles

Physical State of Waste

Liquids , soilds, resins

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Landfill

Method with highest score:

NA-Direct release observed

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

	Toxicity	Persistence
Dimethylbenzene	1	3
Dibutylphthalate	1	3

Compound with highest score:

Same

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):

625 Tons Score=5

Basis of estimating and/or computing waste quantity:

NYS Hazard Registry Form

Appendix C

* * *

5 TARGETS

Surface Water Use

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

Transportation Score=2
Recreation

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:

N/A Score=0

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

N/A Score=0

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:

N/A Score=0

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

N/A

Total population served:

None

Name/description of nearest of above water bodies:

N/A

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

N/A

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Several volatile compounds detected; see attached ERCO/ Energy Resources Inc.-report

Date and location of detection of contaminants

6/27-6/28/84; see Figure 2 attached

Methods used to detect the contaminants:

Tenax and charcoal air sampling tubes
EPA Method 624
HNU Photoionizer

Rationale for attributing the contaminants to the site:

N/A;levels detected not significantly above background levels recorded. Score=0

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

All compounds Score = 0

Source 40CFR Part 261

Most incompatible pair of compounds:

N/A

Toxicity

Most toxic compound:

1,2 Dichloroethane

Source EPA Hazardous Ranking System Waste Characteristic Values

Hazardous Waste Quantity

Total quantity of hazardous waste:

625 Tons Score = 5

Basis of estimating and/or computing waste quantity:

NYS Hazard Registry Form
Appendix 3

* * *

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**

2,300
Source: EPA Potential Hazardous Waste Site Inspection Report Part 5 #932033

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:

N/A

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

N/A

Land Use

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

The Deerwood Golf Course occupies part of the site

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

N/A

Distance to residential area, if 2 miles or less:

200'

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

N/A

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

N/A

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

N/A

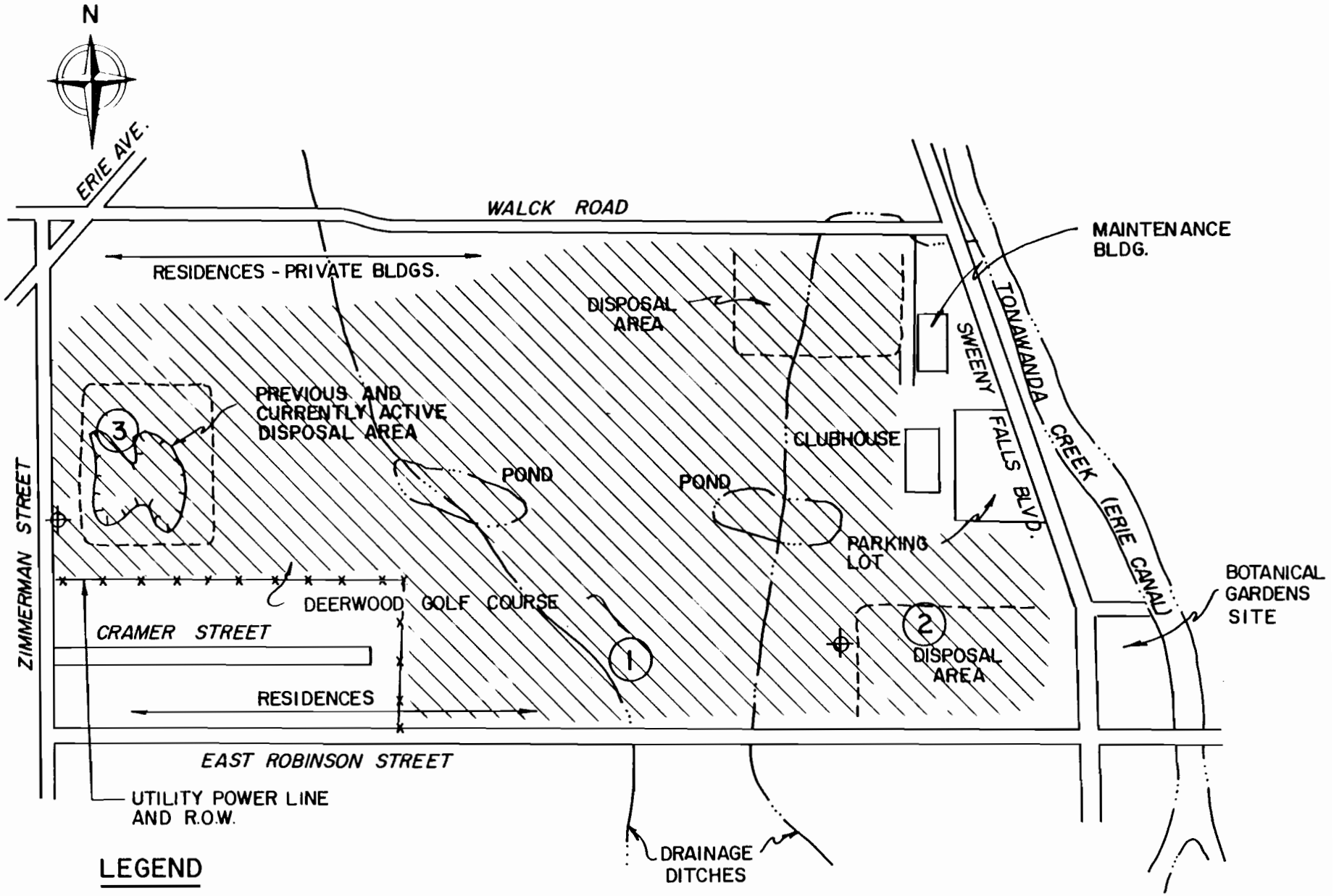


FIGURE 2
HOLIDAY PARK
SITE SKETCH
N.T.S.

Sample Received: 6/29/84
Analysis Completed: 8/24/84
Results in: ng/l
Reported by: JFM
Checked by: JS

ERCO/ENERGY RESOURCES CO. INC.
VOLATILE ORGANICS ANALYSIS
BY EPA METHOD 624
- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: HPT ERCO ID: 5153	HP1T 5154	HP2T 5155	HP3T 5156
Chloromethane	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
Methylene chloride	ND	.73	.74	ND
1,1-dichloroethylene	ND	.30	.32	.32
1,1-dichloroethane	ND	ND	ND	ND
Trans-1,2-dichloroethylene	ND	ND	ND	ND
Chloroform	ND	.66	.68	.17
1,2-dichloroethane	ND	.32	.29	.09
1,1,1-trichloroethane	ND	.08	ND	ND
Carbon tetrachloride	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	ND
Trans-1,3-dichloropropylene	ND	ND	ND	ND
Trichloroethylene	ND	.75	.76	.35
Benzene	ND	.04	.04	ND
Dibromochloromethane	ND	ND	ND	ND
Cis-1,3-dichloropropylene	ND	ND	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	ND
Tetrachloroethylene	ND	.49	.47	.33
Toluene	ND	.56	.55	.41
Chlorobenzene	ND	.09	.08	.06
Ethyl benzene	ND	.23	.23	.19
2-chloroethyl vinyl ether	ND	ND	ND	ND

ND = Not detected.

ERCO/ENERGY RESOURCES CO. INC.

VOLATILE ORGANICS ANALYSIS

BY EPA METHOD 624

- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPT 5153	HP1T 5154	HP2T 5155	HP3T 5156
Additional Compounds					
Acetone		ND	5.3	3.5	3.1
Carbon disulfide		ND	2.9	2.8	ND
2-Butanone		ND	1.1	ND	.82
2-Hexanone		ND	.81	ND	ND
Xylenes		ND	1.2	1.3	1.0
Reporting Limit:		.04	.04	.04	.04

Sample Received: 6/29/84
Analysis Completed: 8/9/84
Results in: ng/l
Reported by: JFM
Checked by: NS

ERCO/ENERGY RESOURCES CO. INC.
VOLATILE ORGANICS ANALYSIS
BY EPA METHOD 624
- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPC 5149	HP1C 5150	HP2C 5151	HP3C 5152
Chloromethane		ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND
Vinyl chloride		ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND
Methylene chloride		ND	ND	ND	ND
1,1-dichloroethylene		ND	ND	ND	ND
1,1-dichloroethane		ND	ND	ND	ND
Trans-1,2-dichloroethylene		ND	ND	ND	ND
Chloroform		ND	ND	ND	ND
1,2-dichloroethane		ND	ND	ND	ND
1,1,1-trichloroethane		ND	ND	ND	ND
Carbon tetrachloride		ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND
1,2-dichloropropane		ND	ND	ND	ND
Trans-1,3-dichloropropylene		ND	ND	ND	ND
Trichloroethylene		ND	ND	ND	ND
Benzene		ND	ND	ND	ND
Dibromochloromethane		ND	ND	ND	ND
Cis-1,3-dichloropropylene		ND	ND	ND	ND
1,1,2-trichloroethane		ND	ND	ND	ND
Bromoform		ND	ND	ND	ND
1,1,2,2-tetrachloroethane		ND	ND	ND	ND
Tetrachloroethylene		ND	ND	ND	ND
Toluene		ND	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND
Ethyl benzene		ND	ND	ND	ND
2-chloroethyl vinyl ether		ND	ND	ND	ND

ND = Not detected.

ERCO/ENERGY RESOURCES CO. INC.

VOLATILE ORGANICS ANALYSIS

BY EPA METHOD 624

- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPC 5149	HP1C 5150	HP2C 5151	HP3C 5152
Additional Compounds					
Reporting Limit:		20	20	20	20

NIAGARA COUNTY HEALTH DEPARTMENT

MEMORANDUM

DATE: January 5, 1984

TO: Peter Buechi

FROM: Mike Hopkins

SUBJECT: PHASE I STATE SUPERFUND REPORT ~~HOLIDAY PARK~~

The Phase I report for Holiday Park has been reviewed. The information contained in this report and the interpretation of this information is generally considered to be accurate and acceptable to this department with the exceptions noted below. There is no information contained in this report which was not previously available to this department.

We have several specific comments on the report:

1. The report states that three disposal areas are known. Apparently, this statement was an interpretation of a statement contained in the 1981 profile report written by this department. To clarify our original statement it should be emphasized that the majority of the area of Deerwood Golf Course and areas to the north and east are suspected to have been used for disposal; however, the three areas referred to are specifically noted as being used for disposal in this department's files. We feel that all non-residential areas between Old Falls Boulevard, Walck Road, Erie Avenue and Zimmerman Street should be considered potential disposal areas, not just the three areas shown. The locations of industrial disposal are unknown.

2. Phenols and benzene were selected as the contaminants for scoring purposes in the groundwater route evaluation section. Benzene has not specifically been identified during any previous sampling program (Recra - 1979, NCHD - 1981 and USGS - 1982). Phenolics were found in small quantities by Recra in 1979 (less than 0.01 to 0.06 mg/l as Total Phenolics) and by NCHD in 1981 (0.008 to 0.01 mg/l as Total Phenolics). ~~The 1979 Recra study was unable to identify any specific phenolic compounds.~~ By my interpretation, ~~the only confirmed identification of a specific contaminant in groundwater was the detection and confirmation of chlorobenzene in Recra Well No. 4 (off Zimmerman Street) in 1979. The concentration was not quantified but was given as "low level".~~

3. Copper and iron are listed as contaminants in groundwater. Although the 1982 USGS Draft Report states that high concentrations of these substances are present, it is not clear whether these substances are contaminants or are naturally occurring.

4. Experience with other sites indicates that using an OVA to measure contaminants in the ambient air is not likely to detect any organic air contamination. Such contamination is not expected to be a problem considering the fact the cover appears to be reasonably good at this site and that the types of waste suspected to be present here (phenolics and municipal refuse) are not generally volatile. Due to the presence of large quantities of raw garbage buried here, there is a potential for methane generation.

5. The proposed Phase II work plan states that additional target data is needed. It is not clear what type of data is needed and why it was not obtained during Phase I.

6. We feel that follow-up investigation should further attempt to verify and document the types and quantities of hazardous waste present. Although the Interagency Task Force Report and the 1980 Registry state that 625 tons of phenolic wastes from Hooker Durez were disposed of here, this department has never seen documentation of the volume, type or source of any industrial wastes buried here. In addition, inquiries should be made to determine whether or not other industries may have used this site.

7. The repeated references to USGS being the author of An Investigation of Selected Inactive Toxic Landfills in Conjunction with the Niagara River Study are incorrect. This report was written by the Niagara County Health Department.

Since the preparation of the profile report for this site in 1981, considerable additional data has become available. We intend to update our profile report during 1984.

Please feel free to contact me with any questions.

MEH:cs

cc: M. N. Vaughan

from USGS ongoing study 1982-83

The geology of the area consists of glacial lacustrine clay overlying a bedrock of Camillus Shale. Six test borings were drilled on the site and their locations are shown in figure 1. The geologic description of the orings is as follows:

ell No.	Depth (ft)	Description
1	0 - 1.5	Dark topsoil, clay.
	1.5 - 5.0	Clay, greenish-gray.
	5.0 - 11.0	No returns; hit all kinds of debris, mattress springs, etc. Depth to water = 5.15 ft below land surface at 1500 hours.
		WATER SAMPLE: 9.2 - 11.2 ft.
2	0 - 0.5	Topsoil with gravel fill.
	0.5 - 1.5	Clay, olive-drab, "modeling clay."
	1.5 - 3.0	Clay, sandy, yellowish, moist.
	3.0 - 3.5	Clay, brown/yellow, saturated, sandy.
	3.5 - 4.5	Clay, sandy, dry, yellow/buff.
	4.5 - 6.0	Clay, sandy, dry.
	6.0 - 7.5	Sand, very fine, rust stained.
	7.5 - 10.0	Clay, sandy, some gravel-size cherty material, may be fill.
	10.0 - 11.5	Clay, sandy.
	11.5 - 15.2	Clay, pinkish color.
		Water level 7.62 ft below land surface.
		WATER SAMPLE: 13.2 - 15.2 ft.

Well No.	Depth (ft)	Description
3	0 - 4.5	Topsoil, light to dark brown.
	4.5 - 6.0	Clay, sandy, greenish gray. Hit saturation at 6.0 ft.
	6.0 - 15.0	Clay, very sandy, gray, super saturated. Water level 7.62 ft below land surface. WATER SAMPLE: 12.4 - 14.4 ft.
4	0 - 2.0	Topsoil, dark brown to yellow tan.
	2 - 3.5	Topsoil, brown, wet at 3.5 ft.
	3.5 - 22.5	Clay, sandy, alternating brown and gray, wet. Hit hard layer at 22.5 ft. Bedrock? Camillus Shale? WATER SAMPLE: 20.5 - 22.5 ft.
6	0 - 1.5	Topsoil, black to brown.
	1.5 - 6.5	Clay, brown, wet.
	6.5 - 9.0	Same, water at 8.0 ft.
	9.0 - 11.5	Clay, pnikish, tight, "modeling clay."
	11.0 - 15.0	Same, extremely tight. Moved forward 3 ft and augered to clay.
7	0 - 1.0	Topsoil, black, organic.
	1.0 - 5.0	Clay, sandy, brown, saturated.
	5.0 - 6.5	Clay, tight, dry. SOIL SAMPLE: 3.5 ft.

Table 1.—Analyses of ground-water and substrate samples from [illegible], N. Tonawanda, New York

	Sample Number			
	1	2	3	4
Date collected	062182	062182	061982	061982
Depth (ft)				
Sample Type[1]	gw	gw	gw	gw
pH	6.9	7.2	7.2	7.2
Conductivity (uMHOS)	2140	1160	760	470
Temperature (°C)	10.0	10.5	12.5	11.0
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	46	11[3]	8;9	25
Iron	90000	49000	4700;5200	19000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Organic Compounds[2]				
Ethyl benzene[6]	17	-	-;-	-
1,7,7-Trimethyl-bicyclo[2.2.1] heptan-2-one[4]	56	-	-;-	-
2-hexanone[5]	<5	-	-;-	-
3-methycyclopentanone[5]	<5	-	-;-	-
1,3,3-Trimethyl-bicyclo[2.2.1]-heptan-2-one[5]	<5	-	-;-	-
4-(1,1-Dimethylethyl)-phenol[5]	<5	-	-;-	-

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	1	2	3	4
Organic Compounds[2] (continued)				
1,3-Isobenzofurandione[5]	<5	-	-;-	-
1-Butoxy-2-propanol[5]	<5	-	-;-	-
2-Cyclohexen-1-one[4]	-	-	~~8.0~~;-	-
2-Cyclohexen-1-ol[5]	-	-	<5;-	-
4-Chloro-transcyclohexanol[5]	-	-	<5;-	-
Dibutylphthalate	-	-	-;-	31.8

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	5	6	7	8
Date collected	062182	062182	061782	062182
Depth (ft)			4.0;4.0	
Sample Type[1]	gw	gw	s	gw
pH	8.0	7.0		7.4
Conductivity (umHOS)	618	1140		1050
Temperature (°C)	9.0	11.0		11.0
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	7;7	110[3]	6000[3];6000[3]	60
Iron	12000;14000	96000	2200000;2300000	37000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Molecular sulfur				<1
Organic Compounds[2]				
2-Cyclohexen-1-one[5]	<1;-	-	-;-	-
Ethanol, 2[2-(2-methoxyethoxy)]-acetate	<1;-	-	-;-	-
2,2-Dimethyldecane[5]	<1;-	-	-;-	-
2-Butoxyethyl-butylphthalate[4]	-;11.7	-	-;-	-
Dibutylphthalate	-;2.0	-	-;-	-
4-Chloro-transcyclohexanol[4]	<1;-	13	-;-	-
1-(2-butoxyethoyl) ethanol[4]	-	49	-;-	-

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number		
	5	6	7
Organic Compounds[2] (continued)			
3,3-dimethyl-2-butanone[5]	-	-	1000;-
2-butanone[5]	-	-	21000;-
2-methylheptane[5]	-	-	2500;-
4-methyl-3-penten-2-one[4]	-	-	4600;<300
acetic acid, 1-methyl ester[5]	-	-	3650;-
2,6-dimethyl. heptane[4]	-	-	2850;-
2-methyl-2-propyl-1,3-dioxalane[5]	-	-	710;-
2,2'-oxybispropane[5]	-	-	4200;-
undecane[4]	-	-	2400;-
tridecane[4]	-	-	2200;-
2,7-dimethyl undecane[5]	-	-	710;-
2,6-dimethyl octane[5]	-	-	560;-
2,3,5-dimethyl decane[5]	-	-	2208;-

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	9	10	11	12
Date collected	070982	070982	070982	070982
Depth (ft)				
Sample Type[1]	sw sediment	sw	sw sediment	sw sediment
pH		9.0		
Conductivity (uMHOS)		163		
Temperature (°C)		24.0		
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	8000	16;16	5000	14000
Iron	3600000	370;370	1800000	370000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Molecular sulfur				
Organic Compounds[2]	(Mead)	(Mead)	(Mead)	(Mead)
1,3-Dimethylbenzene[4]		-;29		
Cyclohexanone[4]		-;29		
Di-n-butylphthalate		-;20		

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

EPA 2070-13

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Holiday Park	Walck-Zimmerman- East Robinson Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
North Tonawanda	NY	14120	Niagara	63	36

09 COORDINATES LATITUDE	LONGITUDE
43° 02 34.5	078 51 01.8

10 TYPE OF OWNERSHIP (Check one)
☐ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL
☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
6/27 & 28/84 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1964 (BEGINNING YEAR) 1974 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☒ F. STATE CONTRACTOR Wehran Engineering (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Anthony Savino	Senior Scientist	Wehran	(914) 343-0660
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Michael Richter	Staff Scientist	Wehran	(914) 343-0660
			( )
			( )
			( )
			( )

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

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	8:00a.m.-4:00p.m.	Cloudy to Partly Cloudy-Cool

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Anthony Savino	Wehran Engineering	(914) 343-0660

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Anthony Savino		Wehran	(914)343-0660	10 / 9 / 84 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

- TONS 625
- CUBIC YARDS
- NO. OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	625	Tons	Suspected phenolic resin and molding compounds, trace amounts of organics found in well/soil sampling.
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
OCC	Phenol	108-95-2	LF	.008-.01	MG/L
SOL	Cyclohexane	110-87-7	LF	29	PPB
OCC	Dibutylphthalate	84-74-2	LF	29	PPB
OCC	Dichlorobenzene	25231-22-6	LF	—	—

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

Previous EPA Form 2070-13 prepared by Engineering Science dated 5/18/83.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: 8/81) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown
04 NARRATIVE DESCRIPTION

Low level organic contamination of groundwater noted in file data.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☒ OBSERVED (DATE: 7/82) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown
04 NARRATIVE DESCRIPTION

One sample in pond showed low levels of dibutyl phthalate; substrate showed tentatively identified and quantified levels of various organic compounds.

01 ☒ C. CONTAMINATION OF AIR — 02 ☒ OBSERVED (DATE: 6/84) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown
04 NARRATIVE DESCRIPTION

An ambient HNU photoionizer survey indicated only background levels of volatile organic compounds. Continuous 8 hour sampling showed background levels of organics.

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

Unknown

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

Site is used as a golf course, cover is intact, except in areas presently used for tree and brush disposal.

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

Potential for soil contamination exists due to contaminated groundwater.

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

Unknown

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

Groundskeepers may be exposed under unusual conditions, i.e., site excavation.

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

Site is a public park direct exposure possible, but unlikely.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: 6/84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Site is a well manicured golf course, visual observations indicate no gross problems present.

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: 6/84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names(s) of species)

See above

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

Unknown

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

Unknown

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

Unknown

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: 6/84) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Infiltration into drainage ditches possible.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: 6/84) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown-Current disposal practice by the City is questionable.

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

Unknown

III. TOTAL POPULATION POTENTIALLY AFFECTED: unknown

IV. COMMENTS

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

Site inspection by Wehran Engineering, 6/84.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. PERMIT INFORMATION

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

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	625 tons	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION N/A
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

☒ A. BUILDINGS ON SITE

Golf Maint. Bldg. & Club House

06 AREA OF SITE

375± (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Site is covered, grassed over most areas, (except active dump areas) no seeps or VOC's detected above background.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Except in active disposal areas.

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

Site inspection by Wehran Engineering

Previous EPA Form 2070-13 prepared by Engineering Science 5/18/83.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL
COMMUNITY	A. ☒	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

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

03 DISTANCE TO SITE: Unknown
A. _____ (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER: 0

03 DISTANCE TO NEAREST DRINKING WATER WELL: N/A (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
7.6 (ft)	SSE	7.6 (ft)	_____ (gpd)	☐ YES ☐ NO Unknown

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

Seven monitoring wells (<22' depth) occur on site.

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

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Unnamed intermittent stream crosses site		
Tonawanda Creek	☐	1.3 (mi)
Niagara River	☐	4.5 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 2,300 NO. OF PERSONS	B. 10,000 NO. OF PERSONS	C. 17,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 200' (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
3,000	200' (mi)

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

Previous: 2070-13 prepared by Engineering Science dated 5/18/83.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
22.5 (ft)	5.0 (ft)	6.6-7.6	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
13 (in)	2.1 (in)	0 %	S	0.09 %

09 FLOOD POTENTIAL	10
SITE IS IN _____ YEAR FLOODPLAIN	☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)		12 DISTANCE TO CRITICAL HABITAT (of endangered species)
ESTUARINE	OTHER	1.4 (mi)
A. _____ (mi)	B. 1.4 (mi)	ENDANGERED SPECIES: See below

13 LAND USE IN VICINITY

DISTANCE TO:			
COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AG LAND
A. _____ (mi)	B. Site is a ~~Park~~ (mi)	C. _____ (mi)	D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is graded to gently rolling to facilitate use as a golf course

12 NOTE:
Bald Eagle: Haliaetus leucocephalus
Peregrine Falcon: Falco perigrinus

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

Previous EPA Form 2070-13 Prepared by Engineering Science dated 5/18/84.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR 8 Hr	6	ERCO/Energy Resources Inc.	See attached
RUNOFF		Cambridge, MA	Report in
SPILL			Appendix A
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU Photoionizer Survey	

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)

HNU Photoionizer Survey-Trace volatile organic levels were obtained consistent with vicinity background levels.

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

Site inspection, and sampling activities performed by Wehran Engineering 6/84

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. CURRENT OWNER(S)			PARENT COMPANY *(If applicable)*		
01 NAME: City of N. Tonawanda		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*: City Hall		04 SIC CODE	10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		11 SIC CODE
05 CITY: North Tonawanda	06 STATE: NY	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) *(List most recent first)*			IV. REALTY OWNER(S) *(If applicable; list most recent first)*		
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE	03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

Previous EPA Form 2070-13 prepared by Engineering Science 5/18/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	14 CITY	15 STATE / 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
City of N. Tonawanda			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
216 Payne Ave.			
05 CITY / 06 STATE / 07 ZIP CODE		14 CITY	15 STATE / 16 ZIP CODE
N. Tonawanda / NY / 14120			
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD /		

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	14 CITY	15 STATE / 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

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

Previous EPA Form 2070-13 prepared by Engineering Science dated 5/18/83

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932032

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
None	

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

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Hooker Chemical *			

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
City of N. Tonawanda			

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
N. Tonawanda	NY	14120			

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
—			

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

*Alleged

Previous EPA form 2070-13 prepared by Engineering Science, 5/18/84.

File information from Niagara County Health Department.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	932033

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION NONE	02 DATE	03 AGENCY

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Active disposal area is open dump with no cover. "Cap" is well vegetated on golf course, some previous disposal areas lack any cover.

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

01 ☒ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Site is a public golf course

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NONE

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

Seven monitoring wells are located on-site.

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

Previous EPA form 2070-13 prepared by Engineering Science, 5/18/83.
Site inspection by Wehran Engineering 6/84.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	932033

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

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

Local authorities have controlled problems regarding the disposal practices of litter and debris according to file data.
NYSDEC levied a fine on the City for illegal dumping in 1977.
Apparently the site was controversial as a dumpsite during the mid-1920's. File information is incomplete regarding the type and extent of enforcement actions.

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

Phase II file information (see attached report)

SECTION 6.0
CONCLUSIONS AND RECOMMENDATIONS

SECTION 6.0
CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluations performed as part of this Phase II Investigation, the following conclusions can be drawn:

- Ambient air monitoring data obtained from two consecutive days of sampling revealed the presence of low levels of several volatile organic compounds at the Holiday Park site. These levels, however, do not exceed the ambient air concentrations noted at two other North Tonawanda NYSDEC Superfund sites Botanical Gardens Site, Code 932068 and Gratwick-Riverside Park, Site Code 932060), as well as several U.S. cities. These levels are also significantly less than enforceable OSHA indoor air workplace standards.

- A comparison of the air monitoring data to previously reported Phase I Investigation sampling data shows some relationship from a generic standpoint, in terms of the chemical groups identified. Three specific organic compounds detected by the air sampling program (ethyl benzene, 2-butanone and 2-hexanone) could conceivably be attributed to the site in light of this data. However, this correlation is considered unlikely due to the absence of increasing air concentration gradients on comparison of upwind to on-site sampling locations and the tentative identification and quantification of these substances as noted in the Phase I Report.

- The ambient air concentrations of volatile organic compounds detected at the Holiday Park site do not pose any significant environmental or public health concerns at this point in time.

In light of these conclusions, it is recommended that additional groundwater, surface water, and substrate sampling be performed at the Holiday Park site. This sampling should be performed to confirm and update on a specific substance basis the data collected from previous sampling efforts for which only tentatively identified or quantified results have been reported.

APPENDICES

APPENDIX A

ERCO | Energy Resources Co. Inc.

205 Alewife Brook Parkway
Cambridge, Massachusetts 02138
(617) 661-3111

September 10, 1984

Mr. Tony Savino
Wehran Engineering
666 East Main Street
Middletown, NY 10940

Dear Tony:

Enclosed please find the results for the 28 samples received on June 27, June 29, July 3, and July 13, 1984, and analyzed for volatile organic compounds using the EPA 624 Method.

If you have any questions, please do not hesitate to call me.

Sincerely,

Nancy Stewart

Nancy Stewart
Manager
GC/MS-VOA Laboratory

NS:rb
Encl.

Sample Received: 6/29/84
Analysis Completed: 8/24/84
Results in: ng/l
Reported by: JFM
Checked by: JRS

ERCO/ENERGY RESOURCES CO. INC.
VOLATILE ORGANICS ANALYSIS
BY EPA METHOD 624
- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPT 5153	HP1T 5154	HP2T 5155	HP3T 5156
Chloromethane		ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND
Vinyl chloride		ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND
Methylene chloride		ND	.73	.74	ND
1,1-dichloroethylene		ND	.30	.32	.32
1,1-dichloroethane		ND	ND	ND	ND
Trans-1,2-dichloroethylene		ND	ND	ND	ND
Chloroform		ND	.66	.68	.17
1,2-dichloroethane		ND	.32	.29	.09
1,1,1-trichloroethane		ND	.08	ND	ND
Carbon tetrachloride		ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND
1,2-dichloropropane		ND	ND	ND	ND
Trans-1,3-dichloropropylene		ND	ND	ND	ND
Trichloroethylene		ND	.75	.76	.35
Benzene		ND	.04	.04	ND
Dibromochloromethane		ND	ND	ND	ND
Cis-1,3-dichloropropylene		ND	ND	ND	ND
1,1,2-trichloroethane		ND	ND	ND	ND
Bromoform		ND	ND	ND	ND
1,1,2,2-tetrachloroethane		ND	ND	ND	ND
Tetrachloroethylene		ND	.49	.47	.33
Toluene		ND	.56	.55	.41
Chlorobenzene		ND	.09	.08	.06
Ethyl benzene		ND	.23	.23	.19
2-chloroethyl vinyl ether		ND	ND	ND	ND

ND = Not detected.

ERCO/ENERGY RESOURCES CO. INC.

VOLATILE ORGANICS ANALYSIS

BY EPA METHOD 624

- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPT 5153	HP1T 5154	HP2T 5155	HP3T 5156
Additional Compounds					
Acetone		ND	5.3	3.5	3.1
Carbon disulfide		ND	2.9	2.8	ND
2-Butanone		ND	1.1	ND	.82
2-Hexanone		ND	.81	ND	ND
Xylenes		ND	1.2	1.3	1.0
Reporting Limit:		.04	.04	.04	.04

Sample Received: 6/29/84
Analysis Completed: 8/9/84
Results in: ng/l
Reported by: JFM
Checked by: NS

ERCO/ENERGY RESOURCES CO. INC.
VOLATILE ORGANICS ANALYSIS
BY EPA METHOD 624
- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPC 5149	HP1C 5150	HP2C 5151	HP3C 5152
Chloromethane		ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND
Vinyl chloride		ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND
Methylene chloride		ND	ND	ND	ND
1,1-dichloroethylene		ND	ND	ND	ND
1,1-dichloroethane		ND	ND	ND	ND
Trans-1,2-dichloroethylene		ND	ND	ND	ND
Chloroform		ND	ND	ND	ND
1,2-dichloroethane		ND	ND	ND	ND
1,1,1-trichloroethane		ND	ND	ND	ND
Carbon tetrachloride		ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND
1,2-dichloropropane		ND	ND	ND	ND
Trans-1,3-dichloropropylene		ND	ND	ND	ND
Trichloroethylene		ND	ND	ND	ND
Benzene		ND	ND	ND	ND
Dibromochloromethane		ND	ND	ND	ND
Cis-1,3-dichloropropylene		ND	ND	ND	ND
1,1,2-trichloroethane		ND	ND	ND	ND
Bromoform		ND	ND	ND	ND
1,1,2,2-tetrachloroethane		ND	ND	ND	ND
Tetrachloroethylene		ND	ND	ND	ND
Toluene		ND	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND
Ethyl benzene		ND	ND	ND	ND
2-chloroethyl vinyl ether		ND	ND	ND	ND

ND = Not detected.

ERCO/ENERGY RESOURCES CO. INC.

VOLATILE ORGANICS ANALYSIS

BY EPA METHOD 624

- Data Report -

Client: Wehran Engineering

COMPOUNDS	Client ID: / ERCO ID:	HPC 5149	HP1C 5150	HP2C 5151	HP3C 5152
Additional Compounds					
Reporting Limit:		20	20	20	20

CONFIRMATION OF SAMPLES RECEIVED

CLIENT/BILLING ADDRESS:

CONTACT:

Wehran Environmental
666 East Main St.,
Middletown,, NY 10940

INVOICE NO: 5648-02
PURCHASE ORDER: Holiday Pk
TODAY'S DATE: 07/03/84
DUE DATE: 07/20/84
ERCO MANAGER: 118

ERCO MANAGER'S APPROVAL: ADW

8 Samples received

This document is sent as confirmation of sample receipt and cost. This is NOT an invoice. For information, please contact the ERCO manager.

SAMPLE INFORMATION: Samples Received on: 06/29/84

SAMPLE NO	CLIENT ID	MATRIX	ANALYSES	COST
5149	HPC	CHCL		
			VOA Method 624	160.00
5150	HP1C	CHCL		
			VOA Method 624	160.00
5151	HP2C	CHCL		
			VOA Method 624	160.00
5152	HP3C	CHCL		
			VOA Method 624	160.00
5153	HPT	TENX		
			VOA Method 624	160.00
5154	HP1T	TENX		
			VOA Method 624	160.00
5155	HP2T	TENX		
			VOA Method 624	160.00
5156	HP3T	TENX		
			VOA Method 624	160.00
			TOTAL AMOUNT OF ORDER:	1280.00

SAMPLE NO	CLIENT ID	MATRIX	ANALYSES	COST

ERCO ACCOUNTING INFORMATION ONLY:

CENTER 17 TOTAL: 1280.00

WEHRAN ENVIRONMENTAL LABORATORY

CHAIN OF CUSTODY RECORD

PROJECT: HOLIDAY PARK

CLIENT: NYSDEC

JOB No.: 0424288 B-7

SAMPLE IDENTIFICATION:

LOCATION No.	LAB SAMPLE No.	CONTAINERS: NUMBER/TYPE	CONTAINER CONDITION
#PC		CHARCOAL TUBE 10X 70 MM	NEW
#P1C		CHARCOAL TUBE 10X 70 MM	NEW
#P2C		CHARCOAL TUBE 10X 70MM	NEW
#P3C		CHARCOAL TUBE 10X 70MM	NEW

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

1. NAME: MICHAEL PICHTER ~~ANTHONY SAMMS~~ DATE: 6/28/84
   SIGNATURE: ~~ANTHONY SAMMS~~ SEALS PLACED ON ~~CONTAINERS~~ CARRIER? ☒ YES ☐ NO

CUSTODY TRANSFERRED TO:

2. NAME: DALLAS WAIT VIA FED. EXPRESS ~~ERCO INC~~ DATE: 6/28/84 TIME:
   SIGNATURE: MARY 1815 ARE SEALS INTACT ? ☒ YES ☐ NO ☐ N/A

CUSTODY TRANSFERRED TO:

3. NAME: DATE: TIME:
   SIGNATURE: ARE SEALS INTACT ? ☐ YES ☐ NO ☐ N/A

RECEIVED IN LABORATORY BY:

4. NAME: DATE: TIME:
   SIGNATURE: ARE SEALS INTACT ? ☐ YES ☐ NO ☐ N/A

DISPOSED BY:

5. NAME: DATE:
   SIGNATURE: AIR

REFER TO "~~WATER~~ AIR QUALITY SAMPLING FIELD DATA SHEET" FOR SPECIFIC SAMPLING DETAILS.

WERE ANY SAMPLES SPLIT WITH ANOTHER PARTY ? ☐ YES ☒ NO

IF YES, IDENTIFY:

REVISED 3/83

WEHRAN ENVIRONMENTAL LABORATORY

CHAIN OF CUSTODY RECORD

PROJECT: HOLIDAY PARK

CLIENT: NYSDEC

JOB No.: 01424288 B-7

SAMPLE IDENTIFICATION:

LOCATION No.	LAB SAMPLE No.	CONTAINERS: NUMBER/TYPE	CONTAINER CONDITION
#PT		TENAX TUBE 6x70 MM	NEW
#P1T		TENAX TUBE 6x70 MM	NEW
#P2T		TENAX TUBE 6x70 MM	NEW
#P3T		TENAX TUBE 6x70 MM	NEW

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

1 NAME: MICHAEL RICHTER ~~ANTHONY SAVINO~~ DATE: 6/28/84

SIGNATURE: [signature] SEALS PLACED ON ~~CONTAINERS~~ CARRIER? ☒ YES ☐ NO

CUSTODY TRANSFERRED TO:

2 NAME: DALLAS WAIT ERCO INC VIA FEDERAL EXPRESS DATE: 6/28/84 TIME:

SIGNATURE: NANCY 18152 ARE SEALS INTACT? ☒ YES ☐ NO ☐ N/A

CUSTODY TRANSFERRED TO:

3 NAME: DATE: TIME:

SIGNATURE: ARE SEALS INTACT? ☐ YES ☐ NO ☐ N/A

RECEIVED IN LABORATORY BY:

4 NAME: DATE: TIME:

SIGNATURE: ARE SEALS INTACT? ☐ YES ☐ NO ☐ N/A

DISPOSED BY:

5 NAME: DATE:

SIGNATURE:

REFER TO "~~WATER~~ AIR QUALITY SAMPLING FIELD DATA SHEET" FOR SPECIFIC SAMPLING DETAILS.

WERE ANY SAMPLES SPLIT WITH ANOTHER PARTY? ☐ YES ☒ NO

IF YES, IDENTIFY:

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING
FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 0142428B B-7
SAMPLER: AS/MER
LAB No.:
LOCATION: 1 UPWIND

DATE: 6/28/84
START TIME: 9:55 AM
FINISH TIME: 4:55 PM PUMP NO. 5
SET FLOW RATE: 1LPM RYDMETER 1.2
TUBE SIZE AND TYPE: GILIBRIOAL HPIC HPC

DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY *	FLOW RATE	BAROMETRIC * PRESSURE	NOTES
6/28	9:55	NO	SAME	AS	71	65	72	OK	29.97	INITIAL READINGS
	9:30	NO	VOLAT.	2	69	63	72	OK	—	* US WEATHER BUREAU
	10:30	NO	↓	↓	74	—	—	OK	—	WET BULB THERM. BROKEN
	12:00	↓	↓	↓	75.5	68	68	OK	—	OBTAINED NEW PSYCHROMETER
	1:05	↓	↓	↓	75	67	66	OK	—	
	2:55	↓	↓	↓	76	68	66	OK	—	
	3:45	↓	↓	↓	77	68	63	OK	—	
	4:55	↓	↓	↓	78	66	67	OK	—	FINISH
										WEATHER: COOL, CLEAR SUNNY, BREEZY

TOTAL VOLUME SAMPLED: 1020 LITERS
TOTAL ELAPSED TIME: 480 MIN (AS PLANNED)
DATE SHIPPED TO LAB: 6/28/84

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING
FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 014242B2 B-7
SAMPLER: AS/MRR
LAB No.:
LOCATION: 2 (ON-SITE)

DATE: 6/28/84
START TIME: 8:05 AM
FINISH TIME: 4:05 PM PUMP No. 5
SET FLOW RATE: 1 LPM ROTAMETER 1.2
TUBE SIZE AND TYPE: CHARCOAL HP2C

DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY *	FLOW RATE	BAROMETRIC PRESSURE *	NOTES
6/28	8:10	NO	W-SW	5-10	67	62	75	OK	29.91	INITIAL READINGS
6/28	9:10	NO	W-SW	5-10	70	64	~~72~~ 72	OK	—	US WEATHER BUREAU
	10:15	NO	W	5-10	71	—	—	OK	—	WET BULB BROKEN ON SLING PSYCHROMETER
	11:45	↓	S-SW	5-10	73	65	~~65~~ 65	OK	—	OBTAINED NEW PSYCHROMETER
	12:55	↓	W-S	5	74	66	65	OK	—	GUSTING TO 25 MPH
	2:30	↓	SW	5-10	75	66	62	OK	—	
	4:05	↓	W-SW	7	76	66	59	OK	—	FINISH

TOTAL VOLUME SAMPLED: 480 LITERS
TOTAL ELAPSED TIME: 480 MIN (AS PROGRAMMED)
DATE SHIPPED TO LAB: 10/25/84

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING
FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 014-4285 B-7
SAMPLER: AS/MRR
LAB No.:
LOCATION: 3 ON-SITE/DOWNWIND

DATE: 6/28/84
START TIME: 8:35 AM
FINISH TIME: 4:40 PM
SET FLOW RATE: 1 LPM ROTAMETER 1.7
TUBE SIZE AND TYPE: CHARCOAL HP3C

DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY *	FLOW RATE	BAROMETRIC PRESSURE *	NOTES
6/28	8:35	NO	SAME	AS	71	65	72	OK	29.89	INITIAL READINGS
	9:45	NO	LOCATION 2		73	64.5	63	OK	—	*US WEATHER BUREAU
	10:40	NO	↓	↓	77	—	—	OK	—	WET BULB THERMOMET. BROKEN
	12:10	NO	↓	↓	76	66	59	OK	—	OBTAINED NEW ROTAMETER
	1:15	NO	↓	↓	77	69	67	OK	—	
	2:45	NO	↓	↓	77	67	59	OK	—	
	4:40	NO	↓	↓	78	67	56	OK	—	FINISH

TOTAL VOLUME SAMPLED: 420 LITERS
TOTAL ELAPSED TIME: 485 MIN (AS PROGRAMMED)
DATE SHIPPED TO LAB: 6/28/84

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING
FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 01424288 B-7
SAMPLER: AS/MER
LAB No.:
LOCATION: 1 UPWIND

DATE: 6/27/84
START TIME: 8:35 AM
FINISH TIME: 5:00 PUMP NO. 1
SET FLOW RATE: 1LPM ROTAMETER 1.2
TUBE SIZE AND TYPE: TENAX HPIT HPT

DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY *	FLOW RATE	BAROMETRIC PRESSURE *	NOTES
6/27	8:35	NO	SAME	AS	73	64	61	OK	29.71↓	INITIAL READINGS
	9:54	NO	LOCATION 2		75	64	54	↓	—	*LG WEATHER BUREAU
	11:10	↓	↓	↓	81	69	54	OK	—	CUTTING LAWN IN VICINITY OF PUMP
	12:00	YES	↓	↓	—	—	—	OK	—	HEAVY SHOWER; TEMP COULD NOT BE TAKEN
	1:05	NO	↓	↓	74	65	61	OK	—	LAWN MOWING CONTINUED
	2:05	YES	↓	↓	74	67	69	OK	—	DRIZZLE
	3:25	NO	↓	↓	66	66	90	OK	—	
	4:20	NO	↓	↓	74	68	74	OK	—	
	5:00	NO	↓	↓	75.5	68.5	72	OK	—	FINISH

TOTAL VOLUME SAMPLED: 420 liters
TOTAL ELAPSED TIME: 450 min (as programmed)
DATE SHIPPED TO LAB: 6/28/84

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 0142-028 B-7
SAMPLER: AS/MFR
LAB No.:
LOCATION: 2 (ON-SITE)

DATE: 6/27/84
START TIME: 8:10 AM
FINISH TIME: 4:30 PM PUMP No. 2
SET FLOW RATE: 1LPM ROTAMETER 1.2
TUBE SIZE AND TYPE: TENAX HP 2T

DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY %	FLOW RATE	BAROMETRIC PRESSURE	NOTES
										AREA 1
6/27	8:15 AM	NO	S	0-5	70°	61°	59	OK	29.71	* INITIAL READINGS
	9:40	↓	N-SW	0-5	75	65	58	↓	—	* US WEATHER BUREAU
	10:35	↓	S-W	5+	77	64	48	↓	—	GUSTS TO 15-20 MPH
	12:05	NO	SW	5	70	66	81	↓	—	[illegible]
	1:45	NO	W-SW	10	74	66	65	↓	—	GUSTS TO 15 MPH
	2:45	YES	S-SW	0-5	—	—	—	↓	—	LIGHT RAIN
	3:35	NO	SW	5-10	70	66	81	↓	—	
	4:30	NO	SW	0-5	73	68	78	↓	—	FINISH

TOTAL VOLUME SAMPLED: 480 liters
TOTAL ELAPSED TIME: 480 MIN (AS PROGRAMMED)
DATE SHIPPED TO LAB: 6/28/84

WEHRAN ENGINEERING
CONSULTING ENGINEERS

AIR QUALITY SAMPLING
FIELD DATA SHEET

PROJECT: HOLIDAY PARK
CLIENT: NYSDEC
JOB No.: 01424288 B-7
SAMPLER: AS/MFR
LAB No.:
LOCATION: 3 ON-SITE / DOWNWIND

DATE: 6/27/84
START TIME: 9:00 AM
FINISH TIME: 5:10 PM PUMP NO. 3
SET FLOW RATE: 1 LPM ROTAMETER 1.2
TUBE SIZE AND TYPE: TENAX HP3T

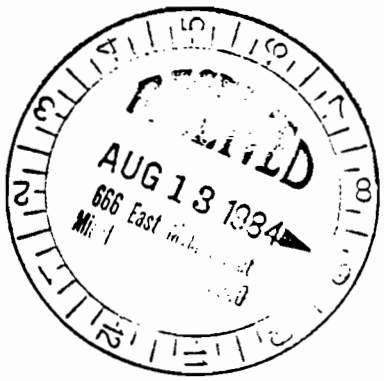
DATE	TIME	PRECIPITATION	WIND DIRECTION	WIND SPEED	DRY BULBT	WET BULBT	RELATIVE HUMIDITY *	FLOW RATE	BAROMETRIC * PRESSURE	NOTES
										AREA 2
6/27	9:00	NO	SAME	N	73	63	57	OK	29.71↓	INITIAL READINGS
	10:10	↓	SAME	2	78	66	60	OK	-	* US WEATHER BUREAU
	10:55	↓	↓	↓	79	66	49	OK	-	
	12:20	NO	↓	↓	71	68	86	OK	-	HEAVY SHOWER BEGINNING
	1:25	NO	↓	↓	74	67	69	OK	-	
	2:25	YES	↓	↓	72	67	77	OK	-	DRIZZLE
	3:05	YES	↓	↓	70	65	77	OK	-	INTERMITTENT SHOWER
	4:05	NO	↓	↓	71	67	81	OK	-	
	5:10	NO	↓	↓	74	66.5	67	OK	-	FINISH

TOTAL VOLUME SAMPLED: 457 liters
TOTAL ELAPSED TIME: 460 MIN (AS PRE-PROGRAMMED)
DATE SHIPPED TO LAB: 6/28/84

APPENDIX B

NIAGARA COUNTY

HEALTH DEPARTMENT
HUMAN RESOURCES BUILDING
MAIN POST OFFICE BOX 428
10th AND EAST FALLS STREET
NIAGARA FALLS, NEW YORK 14302



August 10, 1984

Mr. Michael Richter
Wehran Engineering, Inc.
666 East Main Street
Middletown, NY 10940

Dear Mr. Richter:

As discussed in our telephone conversation of August 9, 1984, I have attached various items from our files regarding Holiday Park and Gratwick Park in North Tonawanda.

With respect to Gratwick Park, I have attached the following documents:

1. A profile report entitled "Gratwick Riverside Park" prepared by this department in May 1984. This report is a revision of a similar report prepared in 1981. If you have a copy of the 1981 report, please discard it and replace it with the 1984 report.

2. A copy of a memo from me to Steven Bates, New York State Department of Health which expresses our comments regarding the assessment report prepared by Weston in 1983.

3. A copy of a memo to Peter Buechi, DEC Region 9, expressing comments on the Phase I report prepared by Engineering - Science, Inc. for DEC in June 1983.

4. Copies of various inspection reports, permit applications, etc., dated 1964 to 1969.

If additional information is needed please refer to the references listed in the profile report or contact me with specific questions.

With respect to the Holiday Park site, the following are attached:

1. A copy of a memo to Peter Buechi expressing comments on the Phase I report prepared for DEC. Please note especially Point No. 1 which should answer your question regarding the specific locations where waste burial occurred.

2. Various inspection reports, summary reports, newspaper clippings and permit applications from 1964 to 1977.

3. Descriptive information regarding the experimental refuse disposal machine used at this site during the 1960's.

I understand that you already have copies of our profile reports for Holiday Park and the Botanical Gardens. If not,a copy will be provided upon request. Please note that these reports were prepared in 1981 prior to the USGS investigation in 1982. We have very little historical or file data regarding the Botanical Garden site.

If you have specific questions regarding the history or status of any of these sites, I urge you to direct them to me. If you intend to perform additional field work, I would be happy to meet you on site. I can be contacted at (716) 284-3126.

Sincerely,

Michael E. Hopkins
Assistant Public Health Engineer

MEH:cs

cc: Mr. Peter Buechi/DEC-9
Mr. M. N. Vaughan

WEHRAN ENGINEERING
Consulting Engineers

August 9, 1984

Mr. Michael Hopkins
Assistant Public Health Engineer
Niagara County Health Department
10th Street and East Falls Street
Niagara Fall, NY 14302

Re: (WE Project No. 01424288)

Dear Mr. Hopkins:

Pursuant to our conversation earlier today, I would like to request from your office any additional recent information regarding waste disposal at the Botanical Gardens, Holiday Park, or Gratwick Park Sites. As you know, we are in possession of data and information available as late as mid 1983 (from NYSDEC Phase I Reports). Any updated information you may have for inclusion with the Phase II reports for these three sites would be gratefully received.

Very truly yours,

WEHRAN ENGINEERING, P. C.

Michael F. Richter
Environmental Scientist

MFR/mef

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

NIAGARA COUNTY HEALTH DEPARTMENT

MEMORANDUM

DATE: January 5, 1984

TO: Peter Buechi

FROM: Mike Hopkins

SUBJECT: PHASE I STATE SUPERFUND REPORT ~~- HOLIDAY PARK~~

The Phase I report for Holiday Park has been reviewed. The information contained in this report and the interpretation of this information is generally considered to be accurate and acceptable to this department with the exceptions noted below. There is no information contained in this report which was not previously available to this department.

We have several specific comments on the report:

1. The report states that three disposal areas are known. Apparently, this statement was an interpretation of a statement contained in the 1981 profile report written by this department. To clarify our original statement it should be emphasized that the majority of the area of Deerwood Golf Course and areas to the north and east are suspected to have been used for disposal; however, the three areas referred to are specifically noted as being used for disposal in this department's files. We feel that all non-residential areas between Old Falls Boulevard, Walck Road, Erie Avenue and Zimmerman Street should be considered potential disposal areas, not just the three areas shown. The locations of industrial disposal are unknown.

2. Phenols and benzene were selected as the contaminants for scoring purposes in the groundwater route evaluation section. Benzene has not specifically been identified during any previous sampling program (Recra - 1979, NCHD - 1981 and USGS - 1982). Phenolics were found in small quantities by Recra in 1979 (less than 0.01 to 0.06 mg/l as Total Phenolics) and by NCHD in 1981 (0.008 to 0.01 mg/l as Total Phenolics). ~~The 1979 Recra study was unable to identify any specific phenolic compounds.~~ By my interpretation, ~~the only confirmed identification of a specific contaminant in groundwater was the detection and confirmation of chlorobenzene in Recra Well No. 4 (off Zimmerman Street) in 1979. The concentration was not quantified but was given as "low level".~~

3. Copper and iron are listed as contaminants in groundwater. Although the 1982 USGS Draft Report states that high concentrations of these substances are present, it is not clear whether these substances are contaminants or are naturally occurring.

4. Experience with other sites indicates that using an OVA to measure contaminants in the ambient air is not likely to detect any organic air contamination. Such contamination is not expected to be a problem considering the fact the cover appears to be reasonably good at this site and that the types of waste suspected to be present here (phenolics and municipal refuse) are not generally volatile. Due to the presence of large quantities of raw garbage buried here, there is a potential for methane generation.

5. The proposed Phase II work plan states that additional target data is needed. It is not clear what type of data is needed and why it was not obtained during Phase I.

6. We feel that follow-up investigation should further attempt to verify and document the types and quantities of hazardous waste present. Although the Interagency Task Force Report and the 1980 Registry state that 625 tons of phenolic wastes from Hooker Durez were disposed of here, this department has never seen documentation of the volume, type or source of any industrial wastes buried here. In addition, inquiries should be made to determine whether or not other industries may have used this site.

7. The repeated references to USGS being the author of An Investigation of Selected Inactive Toxic Landfills in Conjunction with the Niagara River Study are incorrect. This report was written by the Niagara County Health Department.

Since the preparation of the profile report for this site in 1981, considerable additional data has become available. We intend to update our profile report during 1984.

Please feel free to contact me with any questions.

MEH:cs

cc: M. N. Vaughan

NIAGARA COUNTY
DEPARTMENT OF HEALTH

Code Location ....

Service Request No. ....

Date Received Complaint [illegible]

ce Request [illegible]

nator of Complaint [illegible] Address [illegible]

er [illegible] Address

pant [illegible] Address

Hours	REPORT OF INVESTIGATION
[illegible]	[illegible]
	[illegible] pits – called Mr. [illegible] – [illegible]
	[illegible] Mr. [illegible] explained that [illegible] all
	[illegible] was [illegible] – all that I
	could see was freshly bulldozed dirt in that area – I told
	Mr. [illegible] he had been told by [illegible]
	materials at this or any other location without permission
	or permit to operate from [illegible]. Mr. [illegible] asked if
	he should remove material buried. I told him to wait for
	further instructions what he should do, and [illegible]
	until I [illegible] further instructions.
11:45	Spoke to Mr. [illegible] – he said he [illegible] trucks
	loaded with demolition material passing by [illegible]
	[illegible] road cut into [illegible] golf course
	garage. He investigated [illegible]
	and saw Building Debris in excavated hole on side of
	road leading to [illegible] garage. He [illegible]
	garage – material was [illegible]
[illegible]	[illegible] Mr. [illegible] by [illegible] that material must be
	removed to an acceptable permit site – He stated that
	it would be removed on Monday March 14 1977 starting
	at [illegible] and taken to [illegible] Recycling. I advised him
	[illegible] have a member of this Department [illegible]
	[illegible] removal and disposal of
	debris.
	Mr. [illegible] sent letter to [illegible] and Common Council

Advising them of the City of [illegible] violation of [illegible] [illegible]

Date Abated .... By ....

[illegible] 11, 1977 [illegible]

NIAGARA COUNTY HEALTH DEPARTMENT
5467 Upper Mountain Road
LOCKPORT, NEW YORK 14094

March 11, 1977

Mayor and Common Council
City of North Tonawanda
City Hall
North Tonawanda, New York 14120

Re: Violation of New York State
Department of Environmental
Conservation Order on Consent
File #74-23

Gentlemen:

Please be advised that on March 8 and 9, 1977, building debris was buried on City of North Tonawanda property known as Holiday Park. This action was in violation of New York State Department of Environmental Conservation Order on Consent File #74-23.

Mr. Victor Fulmines has been directed by telephone on March 11, 1977 to remove these buried materials from their present location and dispose of them at an approved landfill site.

A member of this department will be present on site to confirm removal of buried wastes to an approved site.

It is requested that the Common Council issue necessary instructions to prevent a recurrence of this violation of your Order on Consent.

Yours very truly,

Ernest R. Gedeon
Associate Public
Health Sanitarian

ERG:ms

cc: Mr. William Friedman, P.E.-R9O
Mr. John McMahon, P.E. - R9O
Mr. Victor Fulmines, N. Tonawanda

Attachment "D"

Trash Fine to Hit Lumber City

Courier-Express Staff Reporter

NORTH TONAWANDA — City officials Tuesday agreed to sign a consent order fining the city $3,000 for burying refuse at unauthorized dump sites.

The dumping was a violation of a State Dept. of Environmental Conservation (DEC) consent order which the city had signed three years ago.

John McMahon, DEC regional engineer, said that the new consent order requires the continued restraints provided for in the 1974 order, and includes the $3,000 penalty.

Agrees to Order

He added that city officials agreed to the order, and will sign it sometime this week, after the paperwork has been completed.

The violation involved the burial of scrap building materials by the Dept. of Public Works in Holiday Park, a city park off Zimmerman St., earlier this month, McMahon said.

In January, the city signed a consent order containing a $1,000 fine for the dumping of raw sewage into the Niagara River.

Also discussed at Tuesday's hearing was the city's alleged burial of boathouse debris at the former Gratwick Slip, where the new sewage treatment plant is under construction, McMahon said. He added that the matter still had to be discussed by the city's Common Council before a determination could be made.

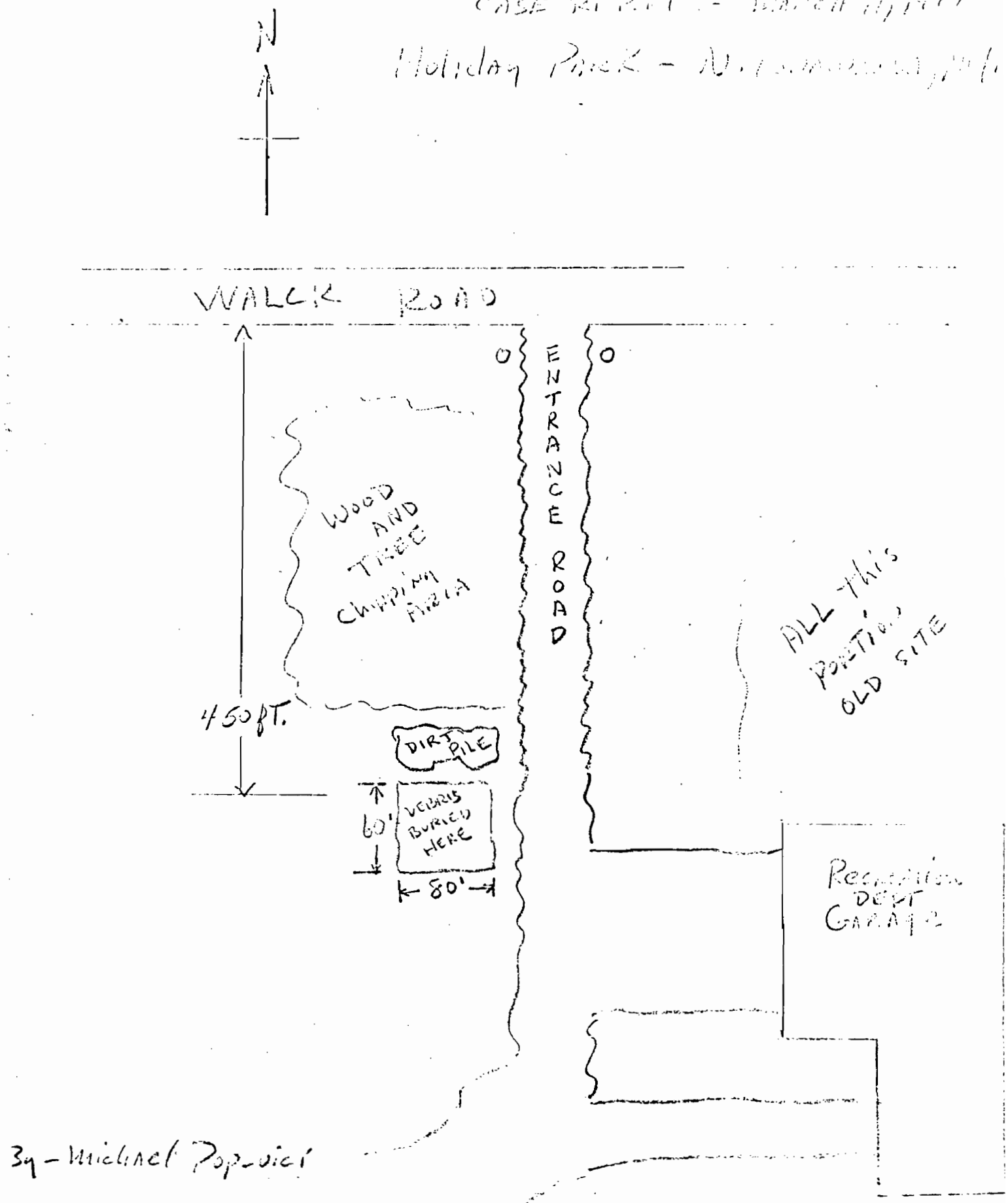
Tuesday's hearing was held in the DEC offices, 584 Delaware Ave., Buffalo.

Courier Express
4/6/77

ATTACHMENT "B"

CASE REPORT - [illegible]

Holiday Park - [illegible]



By - Michael Popovich

file

November 1, 1973

Mr. Edward Wiater
Mayor and Common Council
City of North Tonawanda City Hall
Payne Avenue
North Tonawanda, New York 14120

Re: Illegal Refuse Disposal Site

Dear Sirs:

On November 1, 1973 an inspection was made of property bounded between Walck Road, Old Falls Blvd., and Zimmerman Street (known as Holiday Park) by personnel from the Niagara County Health Department. It was found that at the northerly portion of this development this property is presently being used as a refuse disposal site.

I am sure you realize this is in violation of the New York State Department of Environmental Conservation Law since no application for a permit has been received by this office for the creation of such refuse site.

Several months ago, the Superintendent of Public Works for the City of North Tonawanda had requested that all necessary forms to apply for such a permit be forwarded to him. The necessary forms and rules were mailed, but no application was ever filed.

It is therefore requested that the City of North Tonawanda:

1. Cease the disposal of any further refuse at this site upon receipt of this letter.

2. Compact and cover all presently exposed refuse with 6" of non-permeable acceptable material upon receipt of this letter.

3. Cover all presently buried refuse with 24" of non-permeable acceptable material within fifteen (15) days of receipt of this letter.

A reinspection will be conducted to assure that the schedule above is adhered to.

Yours very truly,

Michael Popovici
Acting Chief of Air
Pollution Control

MP:ms

ATTACHMENT "G"

SUMMARY OF THE FACTS

The City of North Tonawanda refuse disposal area, Holiday Park (south of Walck Road and west of Old Falls Blvd.) contravenes the standards of being an established permitted or approved site in that an application to operate a refuse site has not been applied for nor an approval to establish a refuse area been properly granted. The unpermitted site in question, was found not maintained and operated in conformance with the requirements of Title 6, Chapter IV, Part 360 of the New York State Department of Environmental Conservation.

On July 19, 1973, application forms for the creation of a refuse disposal site in Holiday Park, North Tonawanda were sent by Mr. Mike Popovici, Chief of Air Pollution, Niagara County Health Department to Mr. Victor Fulmines, Superintendent of Public Works for the City of North Tonawanda. The above forms have not been returned to the Niagara County Health Department.

On November 1, 1973, exposed refuse was found deposited in various locations in the Holiday Park area. A letter to the Mayor and Common Council was sent on November 1, 1973 by Mr. Popovici requesting the depositing of refuse to cease and correction to deposited refuse be made.

A. Pasqualichio
Case Report - 74-23 (1974)

On March 9, 1977, Mr. Stanley Yurek Jr. of 1007 Walck Road, North Tonawanda, New York contacted Mr. J. Beecher of the New York State Department of Environmental Conservation to report that the City of North Tonawanda was once again operating the aforementioned property as a disposal site.

An investigation of this matter by Mr. Mike Popovici of the Niagara County Health Department noted that there was freshly worked soil in the alleged area.

Mr. Popovici, with Mr. Victor Fulmine, Director of Department of Public Works, City of North Tonawanda, who in his presence stated that building material had been burried under freshly bulldozed area as described by Mr. Mike Popovici in said case report.

A search of this Department's records revealed that a similar occurrence of violations of Part 360, New York State Department of Environmental Conservation Law had previously occurred and resulted in the issuance of an Order on Consent, File # 74-23 dated 1974.

John Malinchock
March 11, 1977

ATTACHMENT "H"

June 17, 1974

Mayor and Common Council
City of North Tonawanda
City Hall
Paine Avenue
N. Tonawanda, New York 14120

Re: Our File No. 74-23

Gentlemen:

The matter of the improper condition of the City's refuse disposal area located south of Walck Road and west of Old Falls Boulevard in the City of North Tonawanda has been referred to this office for immediate legal action.

Accordingly, I enclose a proposed Consent Order regarding this matter. A prehearing conference will be convened in this office, 584 Delaware Avenue (2d floor), Buffalo, New York, on ~~June 21,~~ 1974 at 10 o'clock a.m. July 1, 10:00 AM Please insure that the City's representatives are fully familiar with the facts of this matter and are authorized by the City to execute a Consent Order with this Department on that date. Please confirm your attendance by June 20, 1974.

Very truly yours,

G. David Van Epps
Regional Attorney
(716) 842-5828

GDVE:jc
Enclosure
cc: Mr. Friedman
Attn. Mr. Tygert
Mr. Godeon
Mr. Goddard

Tony

~~NIAGARA~~ NIAGARA COUNTY
DEPARTMENT OF HEALTH

Code ~~Activity~~ File

Code Location

Service Request No.

Date Received Complaint [illegible]

Service Request: Check refuse reported Holiday Park NF

Originator of Complaint: NCFD Address: NF Office

Owner: City of NF Address:

Occupant: Holiday Park Address: off Walck Rd NT

Date	Hours	REPORT OF INVESTIGATION
[illegible]3	230	areas of deposited refuse remain as reported in former report of 11/1/73
[illegible]28	11:00	Please check site, if not cleaned then secure deed and submit case report to me as soon as possible J. Mahnichorle [illegible]
[illegible]/3		[illegible] remains as [illegible] of [illegible] 11/1/73
2/74		as requested site was checked and was found to be as reported in the past upon above date and upon completion case report. It is my exception would be nature has handled the household type refuse. ART.

Date Abated 11/13/73 By [illegible] Pagnatti[illegible]

November 1, 1973

Mr. Edward Wiater
Mayor and Common Council
City of North Tonawanda City Hall
Payne Avenue
North Tonawanda, New York 14120

Re: Illegal Refuse Disposal Site

Dear Sirs:

On November 1, 1973 an inspection was made of property bounded between Walck Road, Old Falls Blvd., and Zimmerman Street (known as Holiday Park) by personnel from the Niagara County Health Department. It was found that at the northerly portion of this development this property is presently being used as a refuse disposal site.

I am sure you realize this is in violation of the New York State Department of Environmental Conservation Law since no application for a permit has been received by this office for the creation of such refuse site.

Several months ago, the Superintendent of Public Works for the City of North Tonawanda had requested that all necessary forms to apply for such a permit be forwarded to him. The necessary forms and rules were mailed, but no application was ever filed.

It is therefore requested that the City of North Tonawanda:

1. Cease the disposal of any further refuse at this site upon receipt of this letter.

2. Compact and cover all presently exposed refuse with 6" of non-permeable acceptable material upon receipt of this letter.

3. Cover all presently buried refuse with 24" of non-permeable acceptable material within fifteen (15) days of receipt of this letter.

A reinspection will be conducted to assure that the schedule above is adhered to.

Yours very truly,

Michael Popovici
Acting Chief of Air
Pollution Control

MP:ms

N. Tonawanda DPW dumping trash illegally

(Related story on 6A)

By ED BARON
and MARK FRANCIS
Gazette Staff Writers

NORTH TONAWANDA — Illegal trash dumping the city Department of Public Works, carried on under cover of darkness, has exposed the two possible fines, possible forfeiture of a $10,000 bd, and may have indirectly resulted in the death one youth and critical injury of another.

Public Works Director Victor Fulmines, apently operating without the express horization of the city government, has adinistered unlicensed landfills in Holiday Park and River Road for a period of years, state officials l city employes said. The River Road site was l being used as of Friday.

was there, at the foot of Washington Street, that heatfield youth driving a motorcycle two weeks slammed into the rear of a DPW truck which just completed its assignment of dumping a d of trash and was pulling into River Road, a n thoroughfare.

teven Allision, 19, was killed in the accident. His senger, 20-year-old David Maziarz of North awanda, was critically injured and is still pitalized in serious condition.

ews with witnesses, police, city, state and nty officials, family members, and DPW emes established the accident on the night of April capped years of illegal dumping by Mr. nines' department.

umors that the dump truck had no tail or brake ts have been circulating in the city since the dent, and Chief of Police Frank P. Malone said lamps in both lights were not operable after the dent, although the light assemblies and lenses e intact.

hief Malone said he believed the lamp filaments ie apart as a result of the impact, but nowledged it was possible they were burned out re the accident. After holding the lamps and the k, and in the absence of eyewitnesses, they were ased to Mr. Fulmines and the investigation has closed, Chief Malone said.

One police source indicated a laboratory analysis could have determined whether the rear lights were working at the time of the accident.

"Fulmines has his crews out picking up brush and trash at night. Why, I don't know," Mr. Malone said. A witness, not interviewed by police investigating the accident, said the dump truck was hit by the motorcycle just after it had pulled out of the dumpsite. There was no street lamp in the area.

The dumping alone may place the city in financial jeopardy, since the state forced the signing of a consent order last year and the city posted a $10,000 performance bond to cover its promise never to illegally dump again.

State officials said Friday they would begin looking into the situation anew, to determine if state laws have been violated and if the city may be held in violation of the consent order, forfeiting the bond and opening up the possibility of legal action.

Mr. Fulmines denied that his work crews ever engaged in illegal dumping at any location.

But Mayor Edward Wiater confirmed that the Holiday Park dumping had in fact taken place, and City Attorney John Papsidero called Mr. Fulmines' denial "balderdash."

"He may disclaim any knowledge of it, but there is no question it happened or else all of what happened afterwards would never have taken place," Mr. Papsidero said.

Mr. Fulmines said the Department of Public Works had never dumped any material at Holiday Park or anywhere else, other than a recent stockpiling of soil taken from a road grading project and the piling of tree trimmings near River Road so that citizens could use the material for firewood.

He said his crews are kept busy cleaning the parks out after residents drop off old refrigerators and other bulk items, and that all refuse collected by the city is taken to the county landfill.

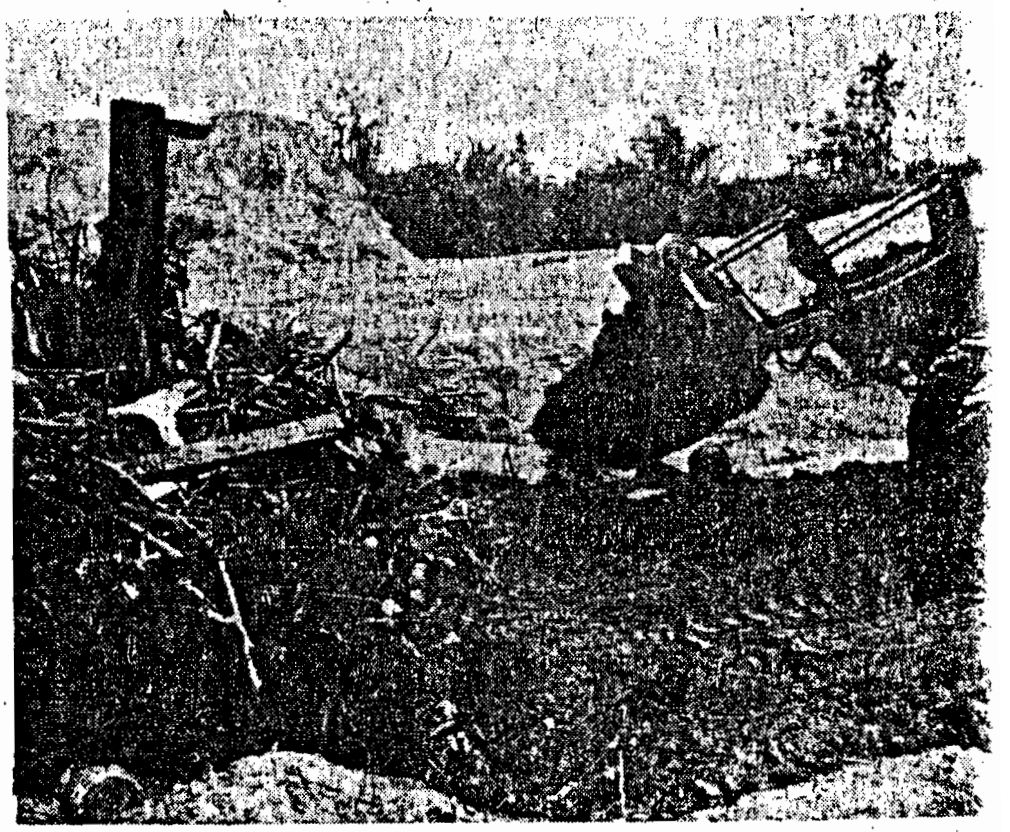
But the Niagara Gazette found that all but Mr. Fulmines remembered the situation differently. Mayor Wiater said dumping in Holiday Park started before he took office in 1972 and continued unabated until the state forced the city to stop. He did not know of any refuse burial along River Road, a former city landfill now converted into a park and, according to DPW employes, still secretly used as a dump on Mr. Fulmines' orders.

State law requires detailed engineering reports and reclamation plans for landfill areas, and requires the issuance of permits for such operations.

State and county records show that inspectors first discovered the illegal dumping in Holiday Park in November, 1973, when they found a city cre surrounded by piles of trash and 10-foot deep hol in the ground ready to receive it.

A certified letter to Mayor Wiater ordering th operation ceased was never answered, but count Health Department records show that M Fulmines told inspectors a month later that th matter had been corrected.

(Continued on 4B)



ILLEGAL DUMPING? — North Tonawanda DPW equipment, at right, begins burying a load of appliances, brush, and other bulky trash in secluded spot inside the city's Holida Park last summer.

State ordered N.T. to end dumping

File Holiday Park Dumping Site

Continued from Page 1A

In March of 1974, inspectors hecked the area and found the ituation unchanged, with ounds of refrigerators, tree immings, old tires, and other ir sent, and evidence that u .l buried earlier was rotruding through the soil.

"The inspection shows no orrective action has been aken," the department's larch 25 memo states, "even fter verbal confirmation by lr. Fulmines in December hat work was completed at the te."

The next day, the county ked the state Department of nvironmental Conservation's gal staff to intervene with r. Fulmines and Mayor iater.

"It is requested that these rsons be called before you as on as practicable inasmuch they both have completely ored any requests to e the necessary and required corrections," the memo to state officials says.

By June of last year the dumping was still going on, when a health inspector found DPW heavy equipment operator Bruce Harms hard at work on his excavator, surrounded by piles of trash 15 feet high and 30 by 40 feet at their base.

Mr. Harms confirmed he was present at that time and at other times during 1973 and 1974, at Holiday Park, on River Road, and elsewhere, burying garbage on Mr. Fulmines' orders.

By July 1, city officials were summoned to the conservation department's offices in Buffalo (Mr. Fulmines denied being present) and within two weeks the mayor's signature appeared at the bottom of a consent agreement in which the city pledged to cease all illegal dumping, cover all old areas with 24 inches of soil, and post a $10,000 bond in exchange for the state's agreement not to prosecute.

Thomas Klemann, another equipment operator, said he, too, operated city machinery in 1973 and 1974 in the trash dumping operation, describing it as "digging little holes and dumping stuff all over the place." He said some of the work was carried on under cover of darkness.

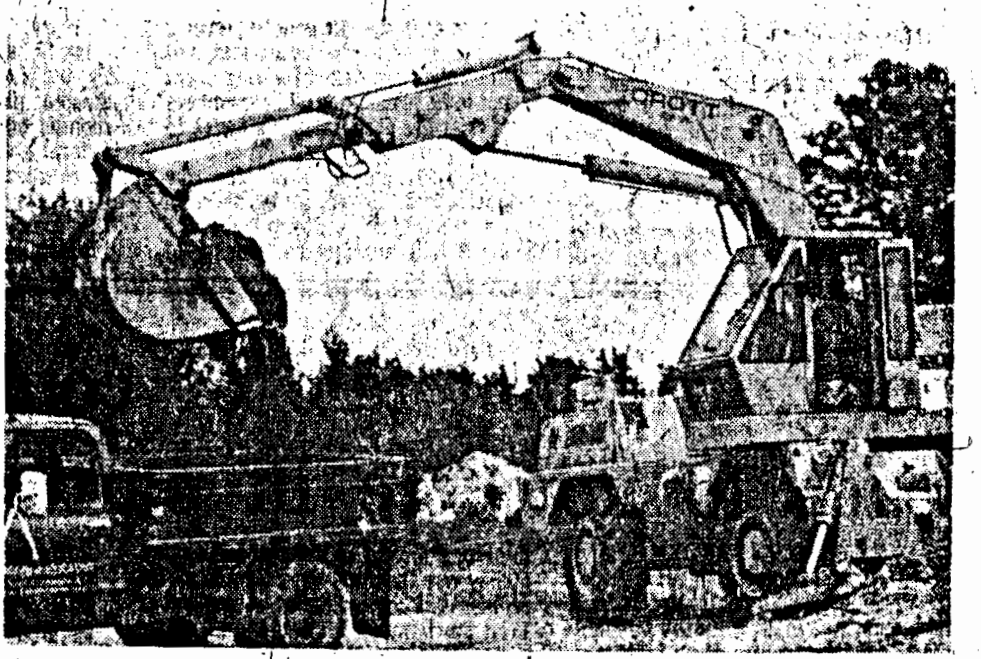
Mr. Klemann said he was operating the city's bulldozer off River Road only two weeks ago, burying "refrigerators, stoves, rubbish, and brush" on Mr. Fulmines' orders. Others observed dumping late last week.

Mr. Klemann, a DPW employe nearly 20 years, said various city departments received soil removed from the parks to make room for the trash, and said his understanding was the dumping was undertaken to avoid the payment of fees at the county landfill.

Mayor Wiater offered the same explanation of Mr. Fulmines' actions, saying the city had "400 acres in the middle of town and people wanted the taxes cut. We had material which was not vermin-producing so we dug and buried there to save the taxpayers' money."

He said the city had not formally given its approval to the operation, although the alderman in the ward in which Holiday Park is located may have done so on his own. "Every alderman has his own piece of the pie, so to speak," the mayor said.

Mr. Papsidero, who was brought into the case to defend the city against prosecution at the last minute, said he understood the dumping to have been carried on at Mr. Fulmines' direction "with the city having no notice of it and without any formal approval." He acknowledged that the city, and not Mr. Fulmines, would later be held financially responsible.



AT WORK — A North Tonawanda excavating machine, driven by Bruce Harms, dumps a load of soil into a Board of Education truck last summer. The soil was removed to make room for the burial of tons of old refrigerators, tires and other trash

NIAGARA COUNTY
DEPARTMENT OF HEALTH

Code Activity .....

Code Location .....

Service Request No. 11/1/73

Date Received Complaint .....

Service Request Check area for disposal of refuse, N. Tonawanda land, Walck Road, Old Falls Blvd.

Originator of Complaint N. C. H. D. Address Niagara Falls Office

Owner City of North Tonawanda Address .....

Occupant same Address .....

ate	Hours	REPORT OF INVESTIGATION
1/73	9:30a	m. It was found that an access road 1000 ft. west of the intersection of
		Walck Road and Old Falls Blvd. off the south side of Walck Road has been
		built into property owned by the City of North Tonawanda. The dug out
		areas 80' x 50' x 10' deep and 40' x 30' x 10' deep was present approx-
		imately 300' in from Walck Road just off the east side of access road.
		The 40' x 30' area showed protruding refuse along its west bank. The
		80' x 50' area showed a dump face 50' wide x 10' deep along its west
		bank. The above area in its entirety was approximately 150' x 200'.
		The 150' x 200' area showed construction equipment track marks with no
		vegetation at all growing with surrounding areas having heavy growth of
		vegetation. Moving approximately another 300' further down access road
		was another dug out area 40' x 100' that was covered over with wood chips
		and limbs and rubbish material with 2 hot water tanks and a refrigerator
		protruding through.
		It appears that of the 150' x 200' area, portion may be past covered over
		area of rubbish. The 40' x 100' area appears to be exposed material with
		no attempt toward earth coverage given.
		Along sides of access road in various locations deposited tires, mattresses
		and appliances were found.
		See sketch for details

Date Abated 11/1/73 By .....

March 29, 1972

Mayor and Common Council
City Hall
Payne Avenue
North Tonawanda, New York 14120

Dear Sir:

Mr. Chester Janik, Solid Waste Engineer, State of New York Department of Environmental Conservation from the Buffalo Regional Office has informed this department that by alleged complaints the City of North Tonawanda has used an area across from 31 Old Falls Blvd. to dispose of refuse. Please be advised that we have no record which indicates that approval to operate a sanitary landfill, state or local, has been issued to the City of North Tonawanda to operate or maintain this disposal area.

Should the City of North Tonawanda choose to operate and maintain this disposal area, they are required to complete and submit the following forms; "New York State Department of Health Application for Approval to Operate and Maintain a Refuse Disposal Area" and the Niagara County "Refuse Disposal Application". With the health officer empowered to sanction the opening of this site, you will be given form; "Approval to Establish a new Refuse Disposal Area." With this approval you are subject to the condition that the site will be operated in conformance with the requirements of Part 19, Refuse Disposal, Chapter I of the New York State Sanitary Code and any and all state, local, municipal ordinances, codes, laws, rules and regulations that may be applicable. In the event that this site was inadvertently used, and no site is to be established, the refuse now present shall be compacted and covered with a final grade of two feet of suitable cover material and closed.

Enclosed please find the "New York State Department of Health Application for Approval to Operate and Maintain a Refuse Disposal Area, Refuse Disposal Application" form and a copy of Part 19.

Kindly inform this office of such action which the City of North Tonawanda will take in regards to said matter.

I am,

Yours truly,

A. Rediger Pasqualichio
Sr. Environmental Health Technician

ARP/ajk
cc: Mr. Victor Pulmines
Superintendent of Public Works

/

NIAGARA COUNTY
DEPARTMENT OF HEALTH

Code Activity ....

Code Location ....

Service Request No. ....

Date Received Complaint ....

[S]ervice Request: City of North Tonawanda Disposal Area [illegible] Fall Blvd.

[O]riginator of Complaint: NCHD Address ....

[O]wner: [illegible] Address ....

[O]ccupant: Port disposal area Address: [illegible] Fall Blvd

[Da]te	Hours	REPORT OF INVESTIGATION
[illegible]/26/72		Equipment - D6B (bulldozer)
		Operator - Tom Kleinman
		Pond (standing water) in black, septic condition.
		Operator has been given instructions to drag a pit by his supervisor, which he was in process of doing while we were at site.
		Also present on site -
		[illegible] plate # 178958 suitable for hauling bulldozer
		Tractor - City North Tonawanda #70
		plate # 31165
		In my opinion, pit is being dug for double box refuse pickups over the holiday Memorial day holidays.
[illegible]	2 [illegible]	Returned to site to meet Mr. Pullmines, Super. of Department of Public Works. Discussed final coverage in immediate area of shelter. Operator was in process of covering septic material shown on slide. I informed Mr. Pullmines of what is needed for final coverage. Discussed possibilities for future operation of the site. Upon questioning Mr. Pullmines regarding 30' x 50' pit being dug, Mr. Pullmines assured us that the pit would not be used for double load refuse pickups over the Memorial Day Holidays.

Date Abated 5/26/72 By [illegible]
C. [illegible]

NIAGARA COUNTY
DEPARTMENT OF HEALTH

Code Activity .....

Code Location .....

Service Request No. .....

Date Received Complaint .....

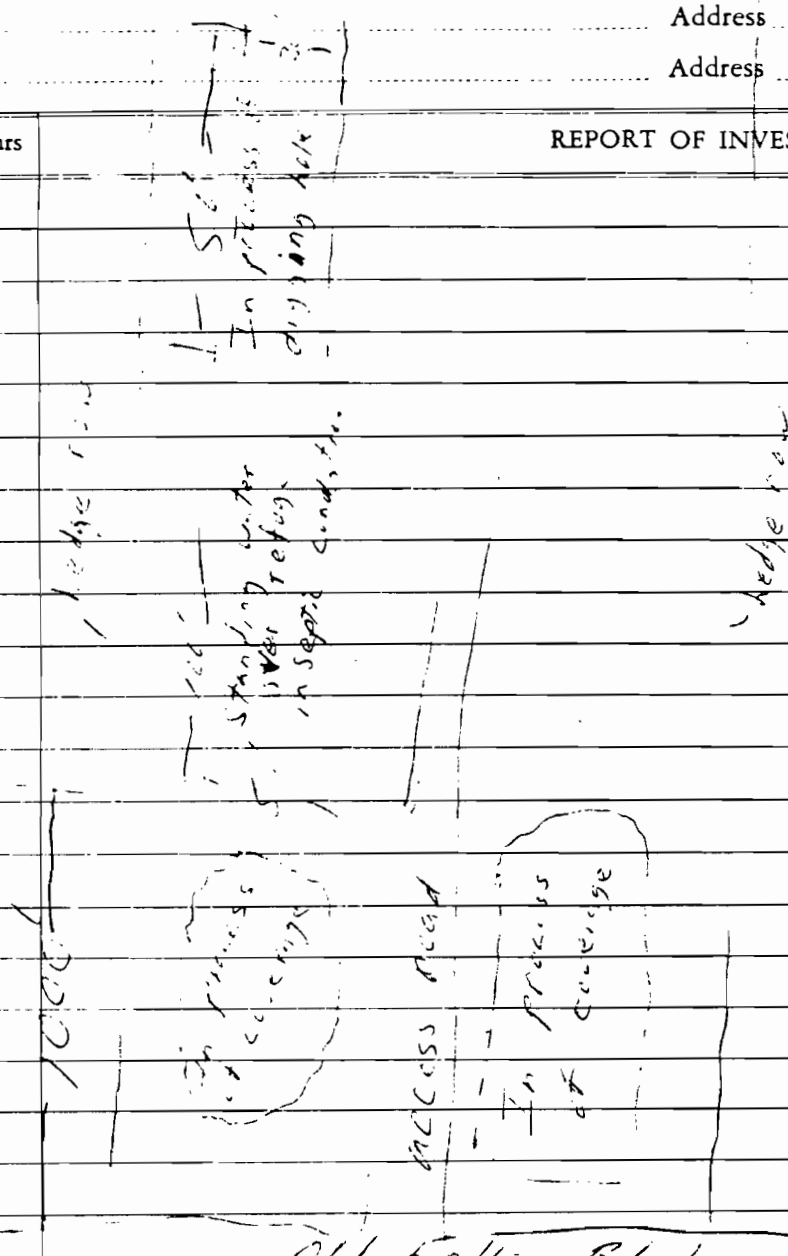
Service Request 266

Originator of Complaint ..... Address .....

Owner ..... Address .....

Occupant ..... Address .....

ate	Hours	REPORT OF INVESTIGATION
26/72		



Issued to contact Mr. Fullmer on Tuesday May 30th 1972 in regards to Permit to Operate.

Date Abated 5/26/72 By

November 14, 1967

Mr. Friedman

Mr. Popovici

Report on Solid Waste Disposal Machine
Old Falls Boulevard Refuse Disposal Site
City of North Tonawanda

A meeting was held on the site at 2:30 P.M., November 10, 1967, with Mr. Louis Grasso, Superintendent of Public Works, North Tonawanda, and Mr. Fonzi, Assistant Superintendent of Public Works. Mr. Grasso had a grade-all at the site for the purpose of exhuming solid waste which had been compacted and buried at the first trench area in May of 1967. It was noted that the compaction on ground surface was tight and the grade-all had difficulty in scraping this surface. I asked Mr. Grasso why the compaction appeared to be so tight. He noted that in the operation, the bulldozer blade is left to drag on its own weight, and so creating a more solid and smooth surface after tamping. The grade-all then proceeded to dig down to a depth of eight feet. When the grade-all had reached the compressed material, it was noted that ground water was visible at this depth, and upon its exposure to the air, a septic sour odor was omitted. The only way it was possible at this time to obtain any material from the compressed buried refuse, now exposed, was for the grade-all blade to pull at the bales of compressed refuse. It was noticed that extreme difficulty was encountered by the grade-all blade to rip or tear pieces of material from the compressed mass. A variety of material that had been pulled loose was brought to ground surface by the grade-all and pieces of various types of compressed refuse, now loose, were packed in a container for analysis. Please note that this area, or the waste disposal unit, has not been in use for four weeks. Mr. Grasso's explanation for this was, that approach roads to the machine for use of refuse trucks were muddy and soft, making dumping of refuse impossible. Furthermore, he stated that the city apparently did not desire to spend any money for creation of a stone or approach road. (He explained that this would cost about $1,000.)

From May until September, an area of 400 feet by 800 feet has been used for the burying of compacted refuse. As explained to me by Mr. Summers, the Chief Refuse Machine Operator for the City of North Tonawanda, the unit has excavated and buried refuse as close as scraping an already compacted and buried bale of refuse.

Incinerator residue which used to be disposed of at the refuse machine is now being disposed of at the River Road site. Large trees and stumps of one foot diameter are being dumped or placed neatly in piles along the Sawyer Creek Bank, to create a retaining wall which will be backfilled with earth. Trees or stumps under one foot in diameter are taken to the International Paper Company chipping machine and chipped to be used in making paper.

2 Gratwick Park

The River Road Dump Site in North Tonawanda presently has a life expectancy of a year to a year and a half, at the most. All refuse which is not incinerated in the City of North Tonawanda is now being dumped here. Mr. Grasso stated that they do not intend to go any closer than five feet to the river's edge. Approximately ten to twenty loads of city refuse are dumped here daily. There are ten outside concerns, such as local industry, local contractors, and local private citizens, which are allowed to dump if they have first obtained a permit from the Public Works Garage, which is issued by the Dispatcher, or Mr. Fonzi, or Mr. Grasso.

MP/cs

NIAGARA COUNTY HEALTH DEPARTMENT
525 BEWLEY BUILDING
LOCKPORT, NEW YORK 14094

DUDLEY A. HILL, M. D.
COMMISSIONER

NEIL S. GORDON, M. D.
DEPUTY COMMISSIONER

DIVISION OF
EVIRONMENTAL HEALTH SERVICES

W. M. FRIEDMAN, P. E.
ASSISTANT COMMISSIONER

APPROVAL

TO ESTABLISH A NEW REFUSE DISPOSAL AREA

Department of Public Works, City of North Tonawanda

the operator of a refuse disposal area known as

Northwest Plot, Old Falls Blvd., and East Robinson Street

located in the City of North Tonawanda

in Niagara County is granted approval to establish the above-named refuse disposal area, described in the application for approval dated June 8, 1967, as provided by Section 6, Chapter VI of the Niagara County Sanitary Code, subject to the condition that the refuse disposal area is operated in conformance with the requirements of said Sanitary Code.

This approval is granted subject to any and all State, Local, and Municipal laws, ordinances, codes, rules, and regulations. It is not transferrable.

Our June 6, 1967, letter and the condition imposed therein as to development of a nuisance situation, are a part of this approval.

Signature of Issuing Officer [signature]

Title Commissioner of Health

Department Niagara County Health Dept.

Address 525 Bewley Building, Lockport

Date June 13, 1967

APPLICATION FOR PERMIT TO ~~Remove~~ ~~Transport~~ ~~Offensive~~ ~~Material~~ Dispose of

(Cross out term not applicable)

To the Niagara County Commissioner of Health:

Sir: Under the provisions of Section 6, Chapter IV of the Sanitary Code of Niagara County, New York

Application is hereby made to ~~remove~~ ~~transport~~ dispose of offensive material concerning which the following is submitted.

Name of Applicant: Department of Public Works, City of North Tonawanda

Address: City Hall, North Tonawanda, New York

Description of Material: Solid Waste

Storage: None
(If stored prior to disposal, indicate in what manner)

Location of Storage: None
(Address)

Transport Vehicle or Vehicles: 16 yard Packers & 8 yard open Trucks
(List by Identification No., type, and capacity)

Vehicles, Equipment, etc. stored at: Public Works Garage, No. Ton.
(When not in use)

Method of Disposal of Material: Compressed and Buried.
(Describe in detail, giving location)

Area in which Applicant operates or proposes to operate: Northwest Plot, Old Falls Blvd. ~~Sweeney Street~~ and East Robinson Street, North Tonawanda, New York .
(Cities, Townships, Villages)

Date: 6/8/67 Signature: [signature] SUPT. OF PUBLIC WORKS
(Owner or Responsible head of organization)

NOTE: An application for permit or renewal of permit must be sent each year to the Niagara County Commissioner of Health by the person or firm proposing to operate this business. Applications should reach the Commissioner's Office not later than December 15th for a permit for operation during the subsequent year.

June 6, 1967

Mr. Louis Grasso
Commissioner of Public Works
City of North Tonawanda
City Hall
Payne Avenue
North Tonawanda, New York

Gentlemen:

Subject: Solid Waste Disposal - Northwest Plot, Sweeney Street and East Robinson Road, City of North Tonawanda

Enclosed are sufficient copies of application for a permit for the disposal of waste on the above subject site. We understand that the neighbors of the site have been advised of the disposal program and have given their verbal approval to the same.

Upon receipt of the application forms by this office, you can be assured that a permit will be favorably considered for this location. The possibility of complaints of neighbors in the area, should a nuisance condition occur at any time, would be a condition of any such approval for obvious reasons.

Sincerely yours,

Robert G. Speed
Assistant Sanitary Engineer

RGS/eg

Lumber City Awaits Action On Refuse Machine Request

Gazette Washington Bureau

WASHINGTON (GNS)—The City of North Tonawanda is asking the federal government's new Office of Solid Wastes for a record $295,000 grant to subsidize a giant 70-ton monster which purportedly crushes and buries rubbish.

The machine, a huge vehicle with tires eight feet high, cost the city $258,285, when it purchased it from D & J Press Co., a home town firm. The city would have to put up $148,000 to qualify for the two-thirds federal aid it is seeking.

Review Is Slated

A spokesman for the Office of Solid Wastes said the city's application is on file and that the solid wastes review board would consider it next month. The agency has about $5-million to spend on such "demonstration projects" this fiscal year.

In its 15 months' operation the biggest grants the office has given any communities so far have been $250,000 each, which it spent to aid a Stamford, Conn., "multipurpose incinerator" project and also for Madison, Wis., Gainesville, Fla., and Seattle, Wash., projects involving the conversion of wastes into landfill and compost.

The controversial North Tonawanda machine, requiring two men and two diesel engines to operate, was designed to scoop up rubbish and garbage, compress it and cut it into cubes, dig a trench, bury the wastes, and fill up the hole with dirt.

Mayor Opposes It

The City Council favors using the machine, but Mayor Frederick B. Durkee has fought it all the way. Rep. Henry P. Smith III, former mayor of the city, privately thinks the machine is not a bad idea, but publicly is taking no position on it.

He is keeping an eye on the Office of Solid Wastes to make sure it does not pigeon hole the project, and he said he was "very happy to lend these good offices on behalf of the City Council to see to it that every consideration is given to the application submitted by North Tonawanda."

NEW YORK STATE DEPARTMENT OF HEALTH
APPLICATION FOR APPROVAL TO OPERATE A NEW REFUSE DISPOSAL AREA

Hold for start of operation

Operator: City No. Tonawanda NY	Address: City Hall-No. Tonawanda	Days and hours attendant on duty: 8hrs 5 days
Owner: City of No. Tonawanda, NY	Address: No. Tonawanda, NY	Total usable area: 9 acres
Attendant: Louis Grasso	Address: City Garage	Type of soil: Sandy Loam

Municipalities to be served: City No. Tonawanda, N.Y. only

Detailed site location and distance to centers of communities served: Zimmerman St. near Cramer in City of No. Tonawanda, N.Y.

Total population 35000 per cent served 100

Depth to rock	Depth to water	Will a gate and sign (showing rules) be provided at entrance*	Will area be locked when closed
25ft. plus	0 to 5 ft.	Yes [Y] No [ ]	Yes [ ] No [x]

Days and hours site to be open: 8 hrs 5 days wk

What precautions will be taken to prevent burning and to extinguish fires*: Refuse to be buried immediately. Department has portable pumps, also City Fire Dept. available

Describe method to be used for confining dumping to a narrow face and for compacting and covering all refuse daily.* Include source of cover material, type and number of equipment and times of operation. Permit requested on this site for use of refuse machine, material buried at once, no exposed matter. Machine is designed for continuous operation.

What measures will be taken to control insects and rodents? Since material will be completely buried immediately this should not be a problem. If necessary adequate rodent control will be done.

What means will be used to confine paper and refuse to site? No paper will be delivered here.

Will salvaging be permitted: Yes [ ] ** No [x]

What measures will be taken to keep approach road passable to vehicular traffic during all seasons of the year? Only City vehicles normally involved. Equipment is available to maintain necessary paths and roadways.

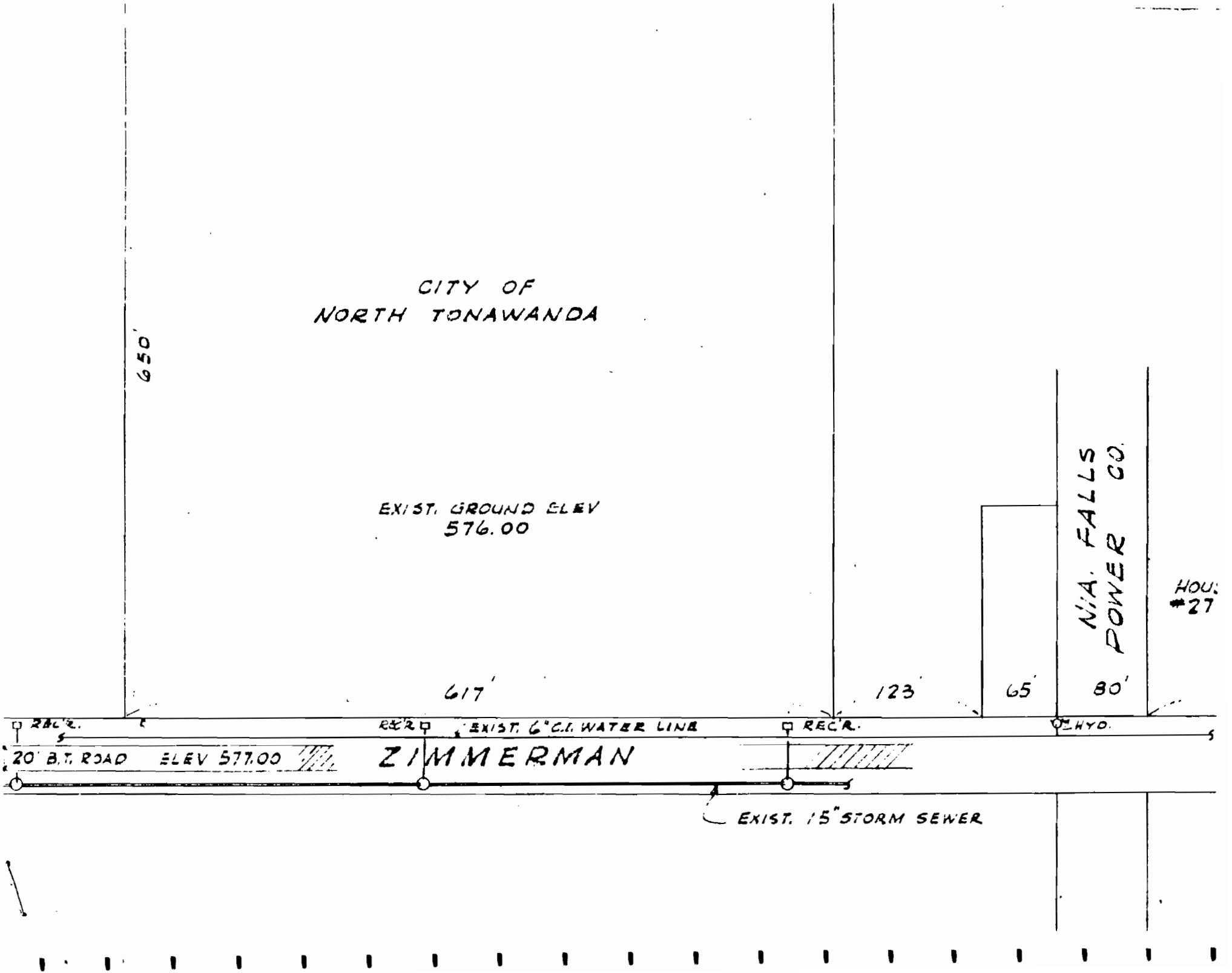
Attach a plot plan of the refuse disposal area sufficient to locate area with certainty, and include the following information: boundaries, habitation within 1500 ft., prevailing wind, access road, nearest public highway, sequence of dumping areas to be used, distance to nearest public water supply source, watercourses, direction of surface slope and rock slope, natural drainage channels, swamps, areas subject to flooding, fences and gates, topography (include contours at 2-5 ft. intervals or spot elevations, road elevations, final elevation of fill, flood level), portable shed for tools and maintance equipment, movable snow fences for paper and snow control, future use, final grade slope (1/2% to 1%), proposed seeding.

Signature of Operator	Date	Signature of CITY OF NORTH TONAWANDA, N.Y.	Date
Louis Grasso	2/7/66	City Engineer	2/7/66

* If an exemption to this requirement is requested, it must be accompanied by adequate justification to show that a public health nuisance will not be created thereby.
**Explain on reverse side what means will be taken to prevent a nuisance.

THE HEALTH OFFICER MAY REQUIRE SUCH PLANS, REPORTS, SPECIFICATIONS AND OTHER DATA AS IS NECESSARY FOR HIM TO DETERMINE WHETHER THE SITE IS SUITABLE AND THE PROPOSED METHOD OF OPERATION FEASIBLE.

San 241 (4/63)


CITY OF
NORTH TONAWANDA
650'
EXIST. GROUND ELEV
576.00
617'
123'
65'
80'
NIA. FALLS
POWER CO.
HOU:
#27
REC'R.
REC'R.
EXIST. 6" C.I. WATER LINE
REC'R.
HYD.
20' B.T. ROAD ELEV 577.00
ZIMMERMAN
EXIST. 15" STORM SEWER

NEW YORK STATE DEPARTMENT OF HEALTH
APPLICATION FOR APPROVAL TO OPERATE A NEW REFUSE DISPOSAL AREA

Operator	Address	Days and hours attendant on duty
City of North Tonawanda	No. Tonawanda, N.Y.	8:00 to 4:00 pm
Owner City of North Tonawanda,	**Address** City Hall	**Total usable area** 1.8 acres
Attendant various	**Address**	**Type of soil** loam-clay

Municipalities to be served: Cityof North Tonawanda only

Total population 35000 per cent served 100

Detailed site location and distance to centers of communities served: East of Sweeney St. 111 ft. north of E. Robinson St. 1.7 miles to center of City

Depth to rock	Depth to water	Will a gate and sign (showing rules) be provided at entrance*	Will area be locked when closed
unknown	8 ft approx	Yes [X] No [ ]	Yes [ ] No [X]

Days and hours site to be open 8;00 to4:00 5 days week

What precautions will be taken to prevent burning and to extinguish fires* covered each day. Operation conducted by Dept. Public Works

Describe method to be used for confining dumping to a narrow face and for compacting and coverning all refuse daily.* Include source of cover material, type and number of equipment and times of operation. Bull dozer on hand material for cover hauled in fly ash, dirt, street sweepings

What measures will be taken to control insects and rodents? DDT spray as needed, rat poison as needed

What means will be used to confine paper and refuse to site? separate pickup for refuse deposited

Will salvaging be permitted Yes [ ]** No [X]

What measures will be taken to keep approach road passable to vehicular traffic during all seasons of the year? site adjacent to paved road

Attach a plot plan of the refuse disposal area sufficient to locate area with certainty, and include the following information: boundaries, habitation within 1500 ft., prevailing wind, access road, nearest public highway, sequence of dumping areas to be used, distance to nearest public water supply source, watercourses, direction of surface slope and rock slope, natural drainage channels, swamps, areas subject to flooding, fences and gates, topography (include contours at 2-5 ft. intervals or spot elevations, road elevations, final elevation of fill, flood level), portable shed for tools and maintance equipment, movable snow fences for paper and snow control, future use, final grade slope (1/2% to 1%), proposed seeding.

Signature of Operator	Date	Signature of Owner	Date
Department of Public Works		City of North Tonawanda, NY By Wilson [signature]	

* If an exemption to this requirement is requested, it must be accompanied by adequate justification to show that a public health nuisance will not be created thereby.
**Explain on reverse side what means will be taken to prevent a nuisance.

THE HEALTH OFFICER MAY REQUIRE SUCH PLANS, REPORTS, SPECIFICATIONS AND OTHER DATA AS IS NECESSARY FOR HIM TO DETERMINE WHETHER THE SITE IS SUITABLE AND THE PROPOSED METHOD OF OPERATION FEASIBLE.

San 241 (4/63)

APPROVAL

TO ESTABLISH A NEW REFUSE DISPOSAL AREA

CITY OF NORTH TONAWANDA

the operator of a refuse disposal area known as

CITY OF NORTH TONAWANDA

located in the

City of North Tonawanda in Niagara County

is granted approval to establish the above-named refuse disposal area, described in the application for approval dated September 11, 1964 as provided by Part 19 of the State Sanitary Code, established by the Public Health Council of the State of New York subject to the condition that the refuse disposal area is operated in conformance with the requirements of Part 19 of the State Sanitary Code.

This approval is granted subject to any and all State, local and municipal laws, ordinances, codes, rules, and regulations. It is not transferrable.

Signature of Issuing Officer . . . . . .

Dudley A. Hill, M.D.

Title District Health Officer

Department New York State Department of Health
Lockport District Office

Address 5 Pine Street
Lockport, New York

Date September 25, 1964

San 240 (4/63) NYSDH

May 29, 1964

Mayor and City Council
City Hall - Payne Avenue
North Tonawanda, New York

Subject: Refuse Disposal Area
Robinson & Sweeney Streets
North Tonawanda, New York

Gentlemen:

Please be advised that this office has been in touch with your Superintendent of Public Works with respect to the operation of the new refuse disposal area in the City of North Tonawanda, located on Sweeney Street near East Robinson Street in the City.

At the first instance, we were advised by the Division of Canals of the New York State Department of Public Works that they were requested to permit dumping of refuse not garbage at this site with the ultimate intention of filling in a low lying area. The Department of Public Works officials advised us that they had no objection to this operation insofar as it did not constitute a nuisance and insofar as the New York State Department of Health would maintain surveillance under permit of the area.

An inspection on May 25, 1964, revealed that the refuse disposal area was not being maintained properly and that there was being deposited at the site, in addition to refuse materials, a quantity of garbage and putrescible materials. These were being deposited in such a way that they constituted a potential public health hazard. Mr. Grasso, Superintendent of Public Works was contacted and advised that within 48 hours he was to, insofar as possible, confine the area of the landfill in the initial dumping area to be no greater than 50 foot in width and to cause this to be covered daily instead of depositing the material over a several hundred foot width, covering of which was virtually impossible with the amount of fill at hand.

A reinspection was made on May 27, 1964 and it was noted that Mr. Grasso had caused the reorganization of the landfill into a confined area and had effectuated covering of this particular area.

There still remains the covering of the remainder of the improperly operated landfill and also it is anticipated that the city will continue to maintain the proper operation of this site with a continual covering operation, and compaction operation needing a bulldozer type of operation at least eight hours a day during the collection and depositing period.

In the event that the city fails to adequately maintain this particular area, it will be necessary for this department to so advise the Division of Canals so that they may restrict the use of this area for this particular purpose. We shall be pleased to cooperate with the city in any way we may be in a position to do so, however, we would advise you to complete the enclosed application for permit to operate a new refuse disposal area and to forward same to this office at the earliest opportunity so that we may bring the landfill site into compliance with the requirements of operation under permit contained in Part 19 of the New York State Sanitary Code, of copy of which is herewith forwarded.

Very truly yours,

Eugene F. Seebald, P.E.
District Sanitary Engineer

Enc.

CC: Mr. Grasso, Supt. of Public Works
Mr. Hardleben, City Engineer
Mr. Bernhardt, BRO
Dr. Thompson

Mr. I. Stalker
North Tonawanda Dept. of Health

May 14, 1964

Honorable Frederick B. Durkee
City Hall - Payne Avenue
North Tonawanda, New York

Subject: Garbage and Refuse Disposal
North Tonawanda, New York

Dear Sir:

On two occasions in the past, we have forwarded information to the City of North Tonawanda covering the responsibilities of the New York State Department of Health in controlling the disposal of garbage and refuse as provided for under the provisions of Part 19 of the New York State Sanitary Code. We have forwarded copies of the appropriate part of the Code and also generalized information, applications for approval of new disposal sites, and an inspection sheet for your information. These were forwarded to the City, as well as to other municipalities in the district, and to date we have not received a reply from the City with respect to their intentions in the matter of garbage and refuse disposal.

We have recently noted in the newspaper that the City plans to initiate a new refuse disposal area and to abandon the existing disposal area on the River Road site. This new area must be construed to come within the purview of Part 19 of the New York State Sanitary Code and as such, it will be required that the City file for and receive approval to operate the new disposal site.

In addition to this particular matter, we have also been apprised through the newspapers of the intentions of the City to purchase a refuse disposal machine which is in effect, a mobile landfill machine. We are particularly interested in the capabilities of this equipment and will be pleased to review its operation in its most minute details so as to insure that the operation of this machine in any site will not cause a nuisance or a contravention of Part 19 of the New York State Sanitary Code. We were pleased to note that you propose some very significant though minor changes to the contract with the machine manufacturers and again, we would indicate that we will be pleased to review with you the operating characteristics of the machine, and to indicate to you whether or not the machine in operation fulfills the requirements imposed upon the municipality with respect to the proper operation of a garbage and/or refuse disposal area.

We are enclosing herewith a copy of Part 19 of the New York State Sanitary Code, an application for the approval of a new refuse disposal site, an inspection check sheet for your evaluation of any new operation you may have, and generalized information with respect to the proper operation of a sanitary landfill.

May 14, 1964

Subject: Garbage and Refuse Disposal
North Tonawanda, New York

We are forwarding this material through certified mail so that we may be sure that you personally receive this information and will take whatever action is indicated in the light of the plans of North Tonawanda in this instance.

Very truly yours,

Eugene F. Seebald, P.E.
District Sanitary Engineer

enc.

EFS:ds

CC: Mr. Bernhardt
Mr. Thompson

April 7, 1964

Dr. Thompson - Attention: Mr. Warner

Mr. Eugene F. Seebald - Lockport District Office

Refuse Disposal Machine - North Tonawanda

With respect to the matter of the exact method of controlling the operation of the proposed refuse compaction and deposition machine in which the people of North Tonawanda are currently interested, the matter revolves around the fact that it may be proposed that any open area in the City, irrespective of location, may be used for a site in which this machine would operate and, therefore, the effectiveness of performance is essential to avoid nuisance conditions in those areas where adjacent residences might be effected by improper operation.

At the moment, I am planning a wait-and-see game and I know that the people interested in the development in this machinery have already been in contact with the Regional Office and they have in mind the proper operation of their equipment.

EV

ds

cc: Mr. Bernhardt

Here's the answer
TO REFUSE DISPOSAL PROBLEMS!

DJ
The Big Squeeze

REFUSE DISPOSAL MACHINE

ELIMINATES...

Unsatisfactory Landfill Operations
Open Dumps
Rats, Flies and Bugs
Dump Fires
Offensive Odors

The Big Squeeze

REFUSE DISPOSAL MACHINE, MODEL 222,

creates an entirely new concept in the age-old problem of trash and refuse disposal to meet the health and sanitary requirements of every metropolitan and suburban community. Here is a machine that eliminates offensive and unhealthy open dumps, landfill operations, and the rodents, odors, and fires that accompany these unsatisfactory disposal methods.

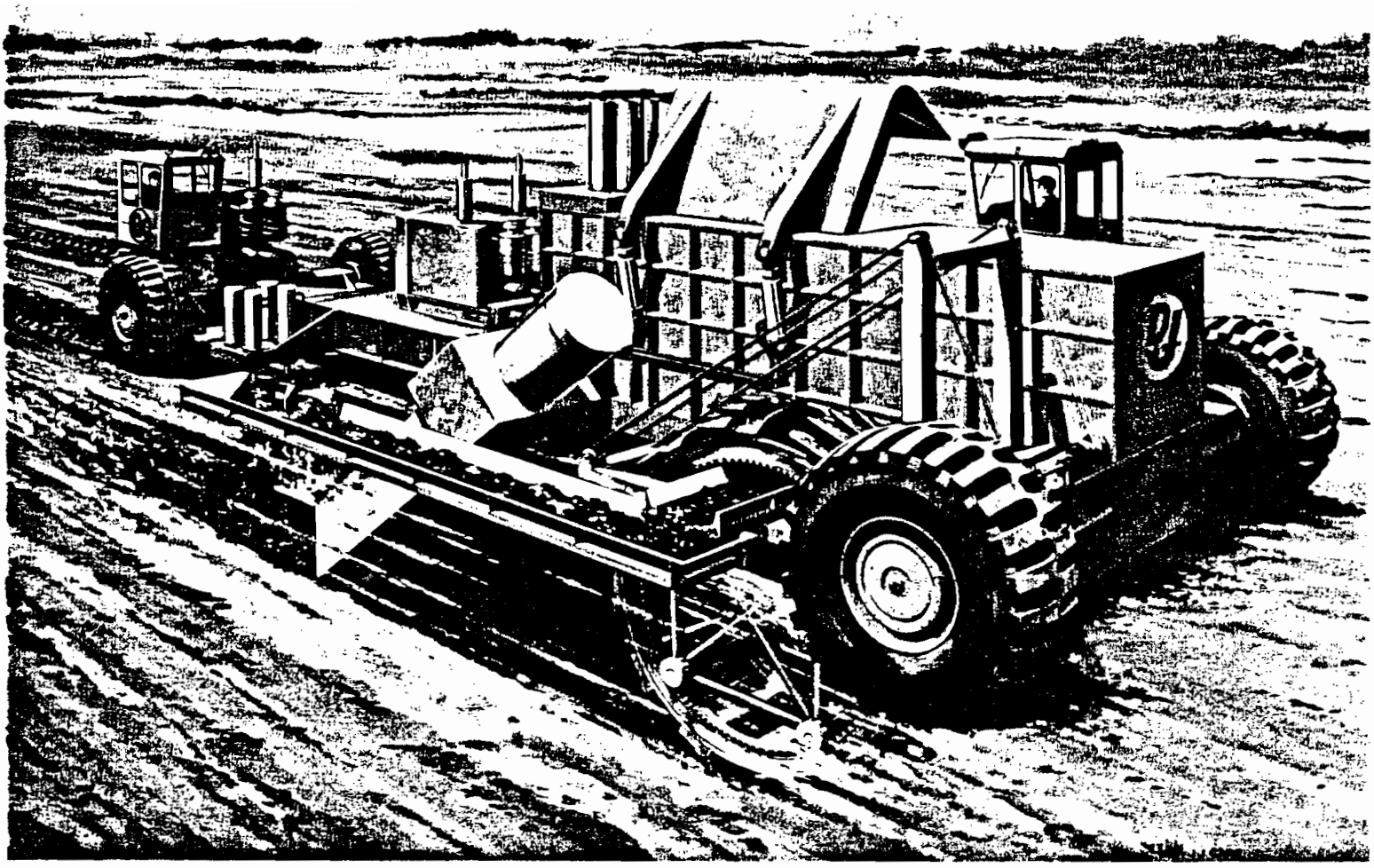
THE BIG SQUEEZE Refuse Disposal Machine performs trenching, compacting, shearing, extrusion, back-filling, and earth compaction as a continuous operation, leaving the ground level and similar in appearance to the surrounding land.

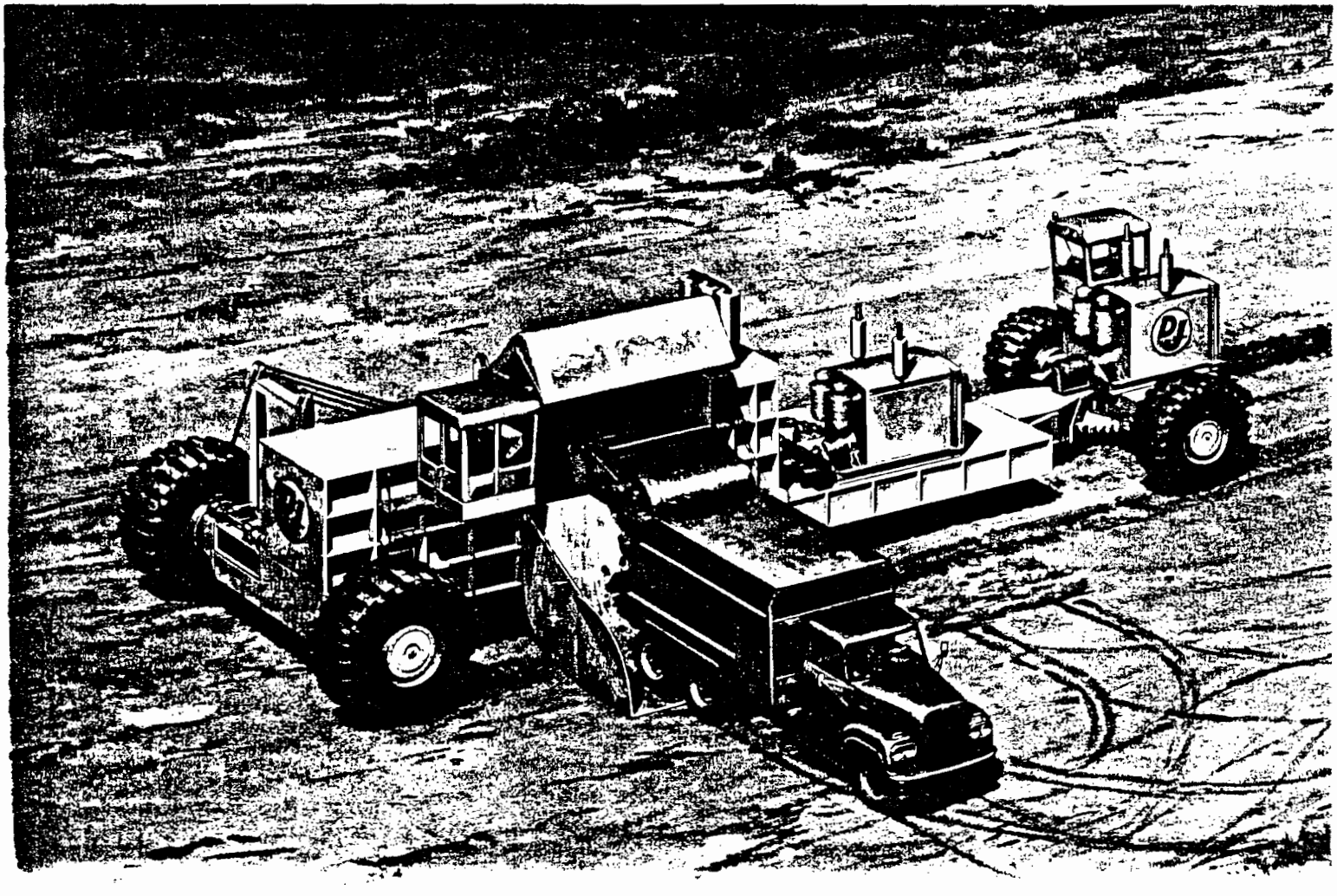
The machine will process up to 10 cubic yards of material in three minutes or less. The completely self-contained and self-powered machine is operated by two men working in all-weather cabs.

All refuse is emptied into the large hopper on the side of THE BIG SQUEEZE. The hopper is lifted and the refuse is placed in the compacting area where it is compressed by hydraulic rams into approximately 15% of its original bulk. At the same time the trenching portion of THE BIG SQUEEZE excavates a trench up to eight feet six inches deep by forty-two inches wide. The compressed refuse is extruded into the bottom three feet of the trench. As the earth is returned to cover the refuse and fill the trench, it is also compacted so that it leaves the ground level with the adjacent land.

If total use of the land is desired, a second pass can be made with a five foot deep trenching operation plus another three feet of refuse extruded into the trench. This will still provide two feet of compacted cover earth over all refuse.

You can dispose with ease
*with **THE BIG SQUEEZE!***





DISPOSE WITH EASE WITH *THE BIG SQUEEZE!*

The land you use today is productive land tomorrow!

Refuse disposal has long been a major irritant to metropolitan and suburban governments. No matter what disposal methods are used—incineration, open dumps, landfill, etc.—there are always the additional accompanying problems and complaints resulting from lack of suitable landfill and dump sites, increased population, and urban expansion. Now THE BIG SQUEEZE is the answer to most of these problems.

THE BIRTH OF *THE BIG SQUEEZE* REFUSE DISPOSAL MACHINE

For many years the D and J Press Company has been a leader in the field of scrap metal hydraulics. The famous BIG SQUEEZE Scrap Metal Baling Press can take a full-size automobile and compress it into a rectangular bale ready for the steel mill smelting furnace. It was logical, therefore, for sanitary engineers to turn to D and J for assistance. If tons of scrap metal can be compressed into easy-to-handle bales, why couldn't the same principles be used for compression and handling of refuse? Actually, the compression of this material presented no problem, but the nature of the refuse material is such that it will not interlock on compression and retain the shape of a bale like scrap metal will. The engineers at D and J overcame this problem by carrying the assignment to its ultimate completion—the design of a machine that would not only compress refuse to approximately 15% of its original bulk, but would extrude it into the ground, cover it, and leave the land in a similar appearance to its original condition.

DISPOSAL SITES ARE EASIER TO FIND

Whenever new landfill or dump sites are required there is so much public resistance that it is becoming virtually impossible to find suitable locations.

THE BIG SQUEEZE Refuse Disposal Machine eliminates the majority of the objections to refuse disposal. No more rodents, flies, odors, dump fires, etc. Nearby farmland or pastureland can be used for refuse disposal with THE BIG SQUEEZE. With a single pass operation, after extrusion of refuse, there will be five feet of cover earth. The land can then be returned to its original use. Or perhaps a community has need for a new recreational area. After refuse disposal with THE BIG SQUEEZE, the land is in perfect condition for playgrounds, tennis courts, Little League ball parks, etc. Unlike normal landfill and open dump operations, *the land you use today with THE BIG SQUEEZE is productive land tomorrow!*

GENERAL SPECIFICATIONS

THE BIG SQUEEZE Refuse Disposal Machine, Model 222,* is 59 feet, 1 inch long by 22 feet wide, and is 16 feet, 8 inches high. It is powered by two 450-horsepower V-12 diesel engines. One engine operates electric generators used for propulsion and control, the other operates the compacting and extruding equipment.

THE BIG SQUEEZE will process a maximum of 10 cubic yards of material in three minutes or less. Under normal operating conditions, five acres of land will accommodate a 50,000-population area for approximately one year.

A trench up to 8 feet, 6 inches deep is excavated and refuse compacted to approximately 15% of its original bulk is extruded into the bottom three feet of the trench. The excavated dirt is compacted and returned to the trench covering the refuse bale, and the used land is left in a level condition. If total use of the land is desired, a second pass can be made with a five-foot trench. An additional three feet of compacted refuse is extruded into the trench, leaving two feet of compacted cover earth.

The machine is operated by two men working in all-weather cabs. It is self powered and runs on large pneumatic tires, with a speed on the open road of approximately ten miles per hour.

ADDITIONAL INFORMATION

Requests for additional information concerning **THE BIG SQUEEZE Refuse Disposal Machine, Model 222,** should be addressed to:

D and J Press Co., Inc.
Refuse Disposal Division
605 Main Street, Box 517
North Tonawanda, New York

**Patents Applied For*

D and J PRESS CO., INC.
605 MAIN STREET, BOX 517
NORTH TONAWANDA, NEW YORK
Phone: NX 2-7062 (Area Code 716)

NEW YORK STATE DEPARTMENT OF HEALTH
INSPECTION REPORT FOR REFUSE DISPOSAL AREAS

T,V,C	County	Owner	Address	Phone
NNorth Tonawanda	Niagara	City of North Tonawanda	City Hall-N.Ton.	NX33200
Type of refuse: mixed ____ garbage ____ rubbish X other ____ *		Operator: City of North Tonawanda	Address: City Hall-N.Tonawanda	Phone
Municipalities served: North Tonawanda only		Refuse collectors (names): North Tonawanda		
Total population 35000 per cent served 100				

Business (average collections per week)	Summer	Winter	Total amount of refuse
Residential (average collections per week)	100	80	416 Tons per week

Total area (acres)	Suitable cover material available	Type of soil and topography	Depth to rock	Depth to ground water
9	Yes X No ____	Sandy Loam	25 ft. plus	0-5 ft.

Gate and lock provided at entrance	Adequate equipment available for maintaining refuse disposal area	Describe type and numbers
Yes XX No ____	Yes XX No ____	Permit requested on this site for use of refuse machine

Fire protection available	Describe	Drainage interfere with operation
Yes XX No ____	N.Ton. City Fire Department	Yes ____ *No X

Days and hours refuse disposal site open.	Attendant on duty when refuse site open	Site locked when closed		Burning practiced	Type of material burned?
		Yes	No		
8 hrs.-5 days	Yes X No ____	XX	____	Yes ____ No X	None

Burned in a special area away from dump	How often and what time of day?	How controlled?	What precautions are taken to prevent fires?
Yes ____ No X	--	--	

How often is refuse compacted?	Covered	Type of cover	Source of cover	Depth of cover?
Continuously	Yes X No ____	same ground material	same ground material	61/2

Cover graded and maintained so no nuisance is caused as the result of pooling of water, cracking, settling, etc. Yes X No ____

Dumping controlled by: Signs X Fencing ____ Supervision ____

List any of the above that have been exempted by the full-time health officer ____

Dumping confined to a narrow strip	Width	Signs of leachings to a watercourse	Signs of floating solids in a watercourse	Measures taken to control flies, rodents and other insects
Yes XX No ____	650 x 617	Yes ____ * No X	Yes ____ * No X	Yes ____ No X

Papers confined to refuse site	Scavenger wastes permitted	Nuisance created	Hazard created by the disposal of hazardous industrial wastes
Yes ____ No X *	Yes ____ No X	Yes ____ No X	Yes ____ *No ____ ?

Methods of disposal of large items (furniture, tanks, appliances, stumps, etc.)
These are crushed-compacted and burned and covered by machine

Salvaging permitted	Nuisance created	Do swine feed on dump	Is approach road passable to vehicular traffic during all seasons of year
Yes ____ No X	Yes ____ * No X	Yes ____ No X	Yes X No ____

Have there been any complaints (smoke, odor, rodent, insects, water pollution) from people in the area Yes ____ * No X

Remarks:

*State details under Remarks.

San 240 (1/63)

Sketch: (Include location fr. . a known point, access road, pr ling wind, refuse site boundaries, dumping face location, water courses, areas subject to flooding, natural drainage channels or gulleys, general land slope and slope of fill, distance to nearest public water supply source, fences and gates, and habitation within 1500 ft.)

Recommendations:

Person Interviewed	Title	Date
Mr. L. Grasso	Superintendent	2/25/66

Inspected By (signature)	Date Inspected	Time Inspected	Report rec'd by (sign)	Date rec'd
[signature]	2/25/66	From 9:30 A.M. To 11:30 A.M.		

APPENDIX C

EXHIBIT 1

FILE DATA

APPENDIX A

Bibliography

Holiday Park

Calkin, P.E. (1966) NYSGA 38th Annual Meeting Guidebook, p. 58-68, April 29, 1966.

Calkin, P.E. (1982) NYSGA 54th Annual Meeting Guidebook, p. 121-148, October 8, 1982.

Niagara County Dept. of Health (1981) Preliminary Report an Investigation of Selected Inactive Toxic Landfills in Conjunction with the Niagara River Study.

NYS Museum and Science Service (1970) Map and Chart Series No. 15.

Recra Research (1979). Groundwater Investigation, City of North Tonawanda.

USGS (1981), An Investigation of Selected Inactive Toxic Landfills in Conjunction with the Niagara River Study, Preliminary Report. August 1981.

USGS (1982) Draft Report of ongoing Research Project concerning toxic waste disposal sites in NYS Dept. of Environmental Conservation, Region 9.

USGS (1982-83), An Investigation of Selected Inactive Toxic Landfills in Conjunction with the Niagara River Study, Continuation of Report. 1982-1983.

NEW YORK STATE GEOLOGICAL ASSOCIATION

38th Annual Meeting

April 29 - May 1, 1966

GUIDEBOOK

Geology of Western New York

Edward J. Buehler, Editor

Department of Geological Sciences
State University of New York at Buffalo

Additional copies are available from the permanent secretary of the New York State Geological Association: Dr. Kurt E. Lowe, Department of Geology, City College of the City University of New York, 139th St. at Convent Ave., New York, N. Y.

NEW YORK STATE GEOLOGICAL ASSOCIATION

54th ANNUAL MEETING

October 8-10, 1982

Amherst, New York

GUIDEBOOK FOR FIELD TRIPS IN WESTERN NEW YORK, NORTHERN PENNSYLVANIA AND ADJACENT, SOUTHERN ONTARIO

Edward J. Buehler

and

Parker E. Calkin

Editors

Department of Geological Sciences
State University of New York at Buffalo

Held in Conjunction with
11th Annual Meeting Eastern
Section American Association
of Petroleum Geologists

Published by the New York State Geological Association. Guidebook available from the executive secretary: M.P. Wolf, Geology Department, Gittleson Hall, Hofstra University, Hempstead, New York 11550.

From: Preliminary Report
An Investigation of Selected Inactive
Toxic Landfills in Conjunction with the
Niagara River Study Aug 1981

NAME OF LANDFILL

HOLIDAY PARK (DEC # 932033)

LOCATION

North Tonawanda, New York

There are at least three distinct disposal areas referred to as Holiday Park. The first is a two-acre area 100 feet west of the intersection of Walck Road and Old Falls Boulevard. The second is an approximately nine-acre site, located east of Zimmerman Street. The third location is west of the Botanical Gardens on Old Falls Boulevard, under part of the area now occupied by Deerwood Golf Course. It was noted that the Botanical Gardens are listed as a separate disposal site (DEC # 932068). It is suspected that additional areas between Old Falls Boulevard and Zimmerman Street from East Robinson Street north to Walck Road have been landfilled.

The location of the known areas are shown on the attached drawing.

OWNERSHIP

These sites are owned by the City of North Tonawanda.

HISTORY

The City of North Tonawanda Department of Public Works operated the Holiday Park and Gratwick Park sites from the early 1960's until1974. The dates of operation of individual areas is not exactly known. The Zimmerman Street area appears to be the first, possibly opening about 1966. The Old Falls Boulevard site was opened in 1967. The Walck Road area was used from 1972 to 1974. These sites received municipal waste and are suspected of receiving industrial wastes including phenolic resins and molding compounds. The Old Falls and Zimmerman sites may have received ash from a municipal garbage incinerator. These areas were used to test a prototype solid waste disposal machine from 1966 and at least until 1967.

The areas are now used as part of Deerwood Golf Course or are currently overgrown and idle.

SOILS

According to the USDA Soil Conservatopm Service. Soil Survey for Niagara County, New York, the soils were Canandaigua and Rayham Series soils prior to landfilling. Since the majority of the landfilling occurred after the date of publication of the survey (1966), the current profile may be considerably different near the surface. Boring records from the sampling wells drilled by RECRA Research, Inc. in June, 1979, show a general profile of 1 1/2 feet of silt over various grades of sand to a depth of over 10 feet. In Well #8 on Deerwood Golf Course, clay was encountered at a depth of 18 feet. This clay is a lake-laid deposit, which should be relatively impermeable and 10 feet or more in thickness.

GEOLOGY - GROUNDWATER

A perched water table was reported by RECRA Research. The water table in Wells #4 and #8 rose to 6 feet and 6-1/2 feet respectively, below the surface at the conclusion of drilling on June 5, 1979. The water table is expected to be higher in the Spring.

Using information extracted from a hydrogeological report prepared by RECRA Research for Hooker-Durez, bedrock is likely to be Camillus Shale, to a depth of possibly 400 feet. The bedrock slopes gently to the south. Water in joints and dissolution passages, in the Camillus Shale, generally follows the slope of the surface. This water is generally very hard due to its dissolved gypsum content. The geological information obtained on the Durez site should transfer to the Holiday Park sites due to the proximity of the two sites.

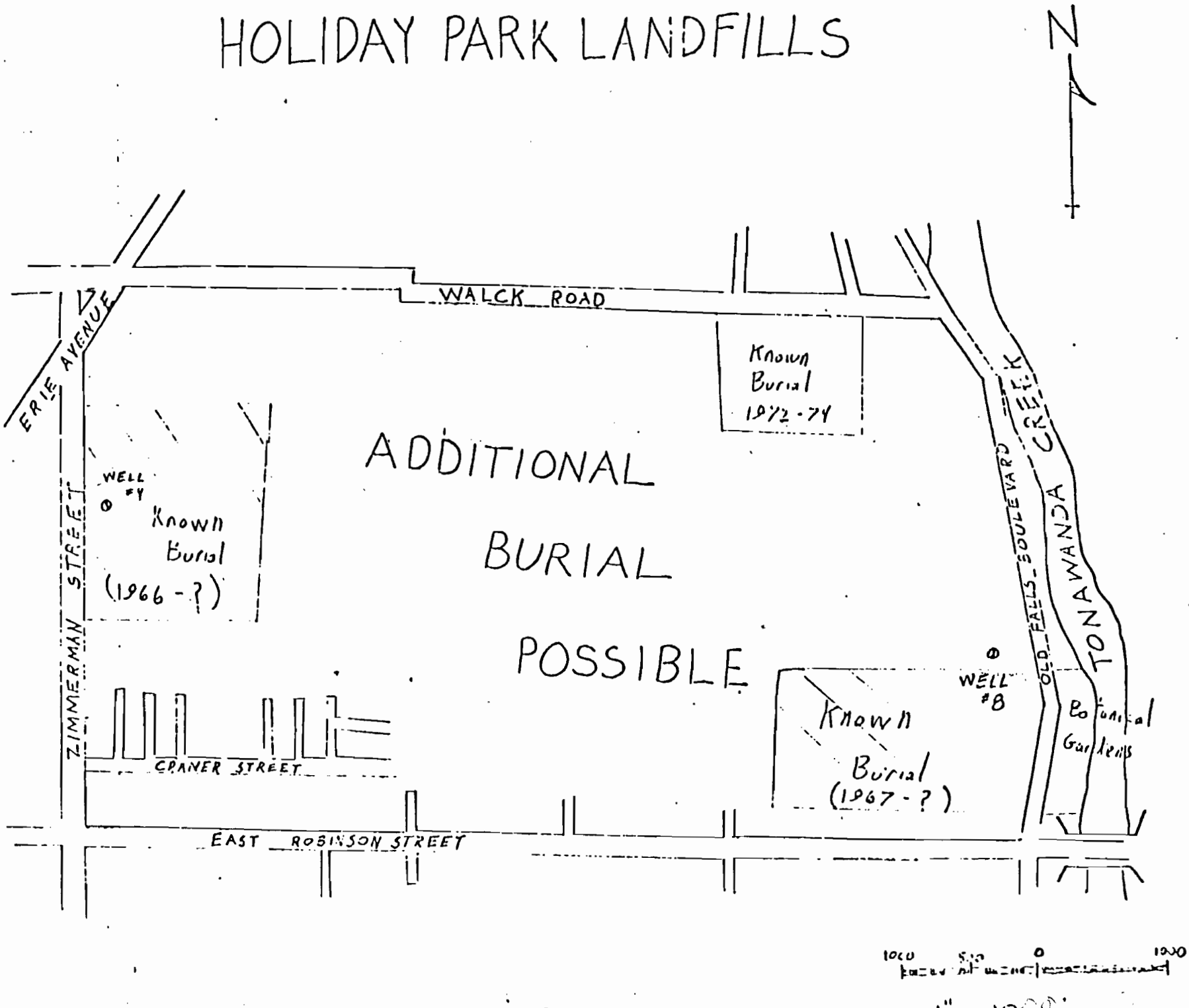
SAMPLING

Samples of soil and groundwater for phenol and THO have been taken as justified by the suspected presence of toxic materials, the proximity of the sites to residential areas and the public use of Deerwood Golf Course.

CONCLUSIONS/RECOMMENDATIONS

Conclusions and recommendations have been withheld pending results of sampling.

HOLIDAY PARK LANDFILLS



72. HOLIDAY PARK #932033

From USGS ongoing study 1982-83

The geology of the area consists of glacial lacustrine clay overlying a bedrock of Camillus Shale. Six test borings were drilled on the site and their locations are shown in figure 1. The geologic description of the borings is as follows:

Well No.	Depth (ft)	Description
1	0 - 1.5	Dark topsoil, clay.
	1.5 - 5.0	Clay, greenish-gray.
	5.0 - 11.0	No returns; hit all kinds of debris, mattress springs, etc. Depth to water = 5.15 ft below land surface at 1500 hours.
		WATER SAMPLE: 9.2 - 11.2 ft.
2	0 - 0.5	Topsoil with gravel fill.
	0.5 - 1.5	Clay, olive-drab, "modeling clay."
	1.5 - 3.0	Clay, sandy, yellowish, moist.
	3.0 - 3.5	Clay, brown/yellow, saturated, sandy.
	3.5 - 4.5	Clay, sandy, dry, yellow/buff.
	4.5 - 6.0	Clay, sandy, dry.
	6.0 - 7.5	Sand, very fine, rust stained.
	7.5 - 10.0	Clay, sandy, some gravel-size cherty material, may be fill.
	10.0 - 11.5	Clay, sandy.
	11.5 - 15.2	Clay, pinkish color.
		Water level 7.62 ft below land surface.
		WATER SAMPLE: 13.2 - 15.2 ft.

Well No.	Depth (ft)	Description
3	0 - 4.5	Topsoil, light to dark brown.
	4.5 - 6.0	Clay, sandy, greenish gray. Hit saturation at 6.0 ft.
	6.0 - 15.0	Clay, very sandy, gray, super saturated. Water level 7.62 ft below land surface. WATER SAMPLE: 12.4 - 14.4 ft.
4	0 - 2.0	Topsoil, dark brown to yellow tan.
	2 - 3.5	Topsoil, brown, wet at 3.5 ft.
	3.5 - 22.5	Clay, sandy, alternating brown and gray, wet. Hit hard layer at 22.5 ft. Bedrock? Camillus Shale? WATER SAMPLE: 20.5 - 22.5 ft.
6	0 - 1.5	Topsoil, black to brown.
	1.5 - 6.5	Clay, brown, wet.
	6.5 - 9.0	Same, water at 8.0 ft.
	9.0 - 11.5	Clay, pnikish, tight, "modeling clay."
	11.0 - 15.0	Same, extremely tight. Moved forward 3 ft and augered to clay.
7	0 - 1.0	Topsoil, black, organic.
	1.0 - 5.0	Clay, sandy, brown, saturated.
	5.0 - 6.5	Clay, tight, dry. SOIL SAMPLE: 3.5 ft.

Table 1.—Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York

	Sample Number			
	1	2	3	4
Date collected	062182	062182	061982	061982
Depth (ft)				
Sample Type[1]	gw	gw	gw	gw
pH	6.9	7.2	7.2	7.2
Conductivity (uMHOS)	2140	1160	760	470
Temperature (°C)	10.0	10.5	12.5	11.0
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	46	11[3]	8;9	25
Iron	90000	49000	4700;5200	19000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Organic Compounds[2]				
Ethyl benzene[6]	17	-	-;-	-
1,7,7-Trimethyl-bicyclo[2.2.1] heptan-2-one[4]	56	-	-;-	-
2-hexanone[5]	<5	-	-;-	-
3-methycyclopentanone[5]	<5	-	-;-	-
1,3,3-Trimethyl-bicyclo[2.2.1]-heptan-2-one[5]	<5	-	-;-	-
4-(1,1-Dimethylethyl)-phenol[5]	<5	-	-;-	-

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	1	2	3	4
Organic Compounds[2] (continued)				
1,3-Isobenzofurandione[5]	<5	-	-;-	-
1-Butoxy-2-propanol[5]	<5	-	-;-	-
2-Cyclohexen-1-one[4]	-	-	8.0;-	-
2-Cyclohexen-1-ol[5]	-	-	<5;-	-
4-Chloro-transcyclohexanol[5]	-	-	<5;-	-
Dibutylphthalate	-	-	-;-	31.8

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	5	6	7	8
Date collected	062182	062182	061782	062182
Depth (ft)			4.0;4.0	
Sample Type[1]	gw	gw	s	gw
pH	8.0	7.0		7.4
Conductivity (uMHOS)	618	1140		1050
Temperature (°C)	9.0	11.0		11.0
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	7;7	110[3]	6000[3];6000[3]	60
Iron	12000;14000	96000	2200000;2300000	37000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Molecular sulfur				<1
Organic Compounds[2]				
2-Cyclohexen-1-one[5]	<1;-	-	-;-	-
Ethanol, 2[2-(2-methoxyethoxy)]-acetate	<1;-	-	-;-	-
2,2-Dimethyldecane[5]	<1;-	-	-;-	-
2-Butoxyethyl-butylphthalate[4]	-;11.7	-	-;-	-
Dibutylphthalate	-;2.0	-	-;-	-
4-Chloro-transcyclohexanol[4]	<1;-	13	-;-	-
1-(2-butoxyethoyl) ethanol[4]	-	49	-;-	-

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

Table 1.--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number		
	5	6	7
Organic Compounds[2] (continued)			
3,3-dimethyl-2-butanone[5]	-	-	1000;-
2-butanone[5]	-	-	21000;-
2-methylheptane[5]	-	-	2500;-
4-methyl-3-penten-2-one[4]	-	-	4600;<300
acetic acid, 1-methyl ester[5]	-	-	3650;-
2,6-dimethyl heptane[4]	-	-	2850;-
2-methyl-2-propyl-1,3-dioxalane[5]	-	-	710;-
2,2'-oxybispropane[5]	-	-	4200;-
undecane[4]	-	-	2400;-
tridecane[4]	-	-	2200;-
2,7-dimethyl undecane[5]	-	-	710;-
2,6-dimethyl octane[5]	-	-	560;-
2,3,5-dimethyl decane[5]	-	-	220[8];-

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

Table 1 .--Analyses of ground-water and substrate samples from Holiday Park, N. Tonawanda, New York--continued

	Sample Number			
	9	10	11	12
Date collected	070982	070982	070982	070982
Depth (ft)				
Sample Type[1]	sw sediment	sw	sw sediment	sw sediment
pH		9.0		
Conductivity (uMHOS)		163		
Temperature (°C)		24.0		
Inorganic Constituents[2]				
Antimony				
Arsenic				
Cadmium				
Chromium				
Copper	8000	16;16	5000	14000
Iron	3600000	370;370	1800000	370000
Lead				
Mercury				
Nickel				
Selenium				
Zinc				
Flouride				
Sulfide				
Cyanide				
Molecular sulfur				
Organic Compounds[2]	(Mead)	(Mead)	(Mead)	(Mead)
1,3-Dimethylbenzene[4]		-;29		
Cyclohexanone[4]		-;29		
Di-n-butylphthalate		-;20		

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

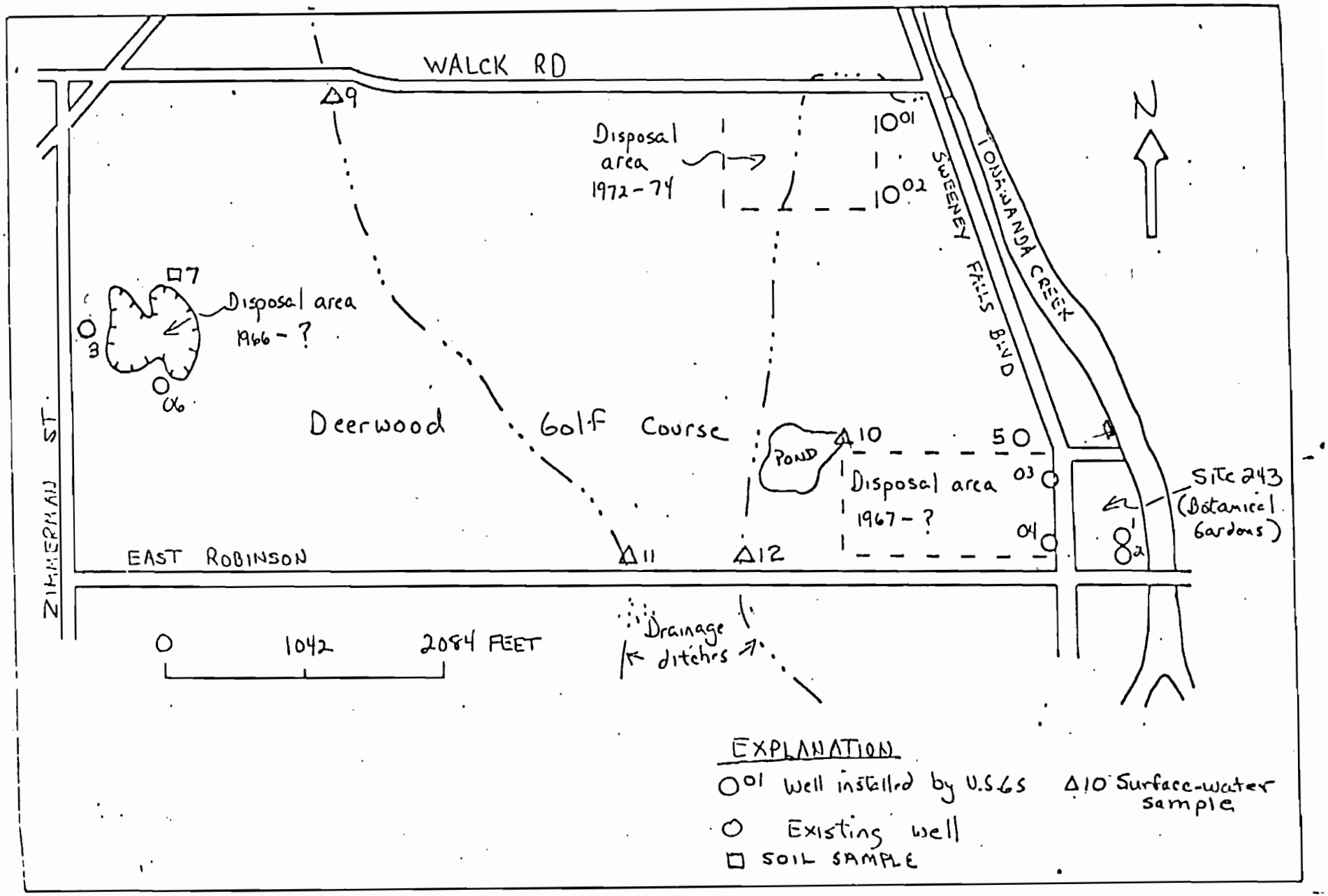


Figure 1. - Location of sampling sites on the Holiday Park property.

GEOLOGIC MAP OF NEW YORK

1970

Niagara Sheet

Scale 1:250,000

5 0 5 10 15 Statute Miles 20

5 0 5 10 15 20 25 Kilometers 30

CONTOUR INTERVAL 100 FEET

EXHIBIT 3

UPDATED NYSDEC REGISTRY FORM

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

Code: _____

Site Code: 932033

Name of Site: Holiday Park Region: 9

County: Niagara Town/City N. Tonawanda

Street Address Walck Rd. - Zimmerman - East Robinson Rds.

Status of Site Narrative:

Occupies a rectangular area bounded by: Walck Rd. (North), E. Robinson St. (South), Zimmerman St. (West) and Falls Blvd. (East).

Site used by Hooker Durez.

Analysis of groundwater sampled disclosed low levels of dichlorobenzene in addition to some aliphatic hydrocarbons and oxegenated hydrocarbons. Phenols detected.

Periodic surveillance is recommended.

Type of Site: Open Dump ☐ Treatment Pond(s) ☐ Number of Ponds ___
Landfill ☒ Lagoon(s) ☐ Number of Lagoons ___
Structure ☐

Estimated Size 12 total Acres

Hazardous Wastes Disposed? Confirmed ☒ Suspected ☐

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tor gallons)
phenolic resin	125 tons
phenolic molding cpd	500 tons
mixed refuse	500 tons

* Use additional sheets if more space is needed.

EXHIBIT 2
RESULTS OF SAMPLING AND ANALYSES