EPA WORK ASSIGNMENT NO: 076-2JZZ
EPA CONTRACT NO: 68-W8-0110
FOSTER WHEELER ENVIRONMENTAL CORPORATION
ARCS II PROGRAM

FORMAL
SITE INSPECTION PRIORITIZATION (SIP)
A.G.O. ASSOCIATES SITE
HICKSVILLE, NASSAU COUNTY, NEW YORK
CERCLIS NO. NYD986888899

MARCH 1996

VOLUME II OF II

NOTICE

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RECOMMENDATIONS

The overall site score for the A.G.O. Associates site is 50.01. The soil exposure pathway was evaluated on documentation of an area of observed contamination. The groundwater and air pathways were evaluated on a potential-to-release basis. The surface water pathway was not evaluated.

The groundwater score is 100.00, evaluated on a potential-to-release basis. Groundwater is the only source of potable water in the study area. Eleven water supply companies utilize 80 groundwater wells located within a 4-mile radius of the site to supply drinking water to approximately 218,956 people. A total population of 416 utilized private domestic wells, screened in the aquifer of concern, for their potable supply within a 4-mile radius of the site.

The surface water pathway was not evaluated. No surface water pathways were identified within a two-mile radius of the site. Surface water from the site would be directed through underground piping to a recharge basin (#413) located north of the site, across West John Street. Recharge basins are commonly used throughout Long Island to collect surface water and recharge groundwater.

The soil exposure pathway score is 0.68, evaluated on documentation of an area of observed contamination. After its closure in 1979, the landfill was covered with two feet of topsoil and graded to 120 feet above mean sea level with a 0 to 2% slope to the south. In 1987, samples were obtained by the NYSDEC from surface soils located on the Twin County Asphalt property, and pesticides, and benzene were reported greater than three times the background concentrations. All current property owners have paved their properties with asphalt, except for Twin County Asphalt, which is covered with a sand/dirt and gravel mixture. There are workers and buildings on-site for all of the current businesses. The present businesses located on top of the former landfill are secured by a chain-link fence on all sides but the southeast corner of the Twin County Asphalt property, which has been knocked down and is in a state of disrepair. There are no schools or day-care centers located within 200 feet of the site. The nearest residential area is located 1/4 mile south of the site.

The air pathway score is 1.62, evaluated on a potential-to-release basis. The majority of the site is presently paved. The only unpaved portion of the site is the asphalt recycling facility presently operating on a portion of the former landfill location.

Based on existing information, a finding of No Further Remedial Action Planned (NFRAP) is recommended for the site, even though the site scores above a 28.5. The site score is above a 28.5 based on the large groundwater target population in the study area and detectable concentrations of pesticides and semivolatiles in surface soils. The soil samples used to evaluate the site were surface soil samples collected on an active asphalt recycling plant presently located above the old landfill. There are no analytical results from samples obtained from the landfill when it was in operation. The landfill has been capped, the property divided up and sold, and there are various commercial businesses, most of which have paved properties, operating on the old landfill. The only way to obtain the necessary analysis to properly evaluate the former landfill would be to conduct an Expanded Site Inspection (ESI), which would include the collection of subsurface soil samples in the old landfill areas using soil borings, and the installation and

sampling of additional monitoring wells to attribute groundwater contamination, which is a regional problem, to the subject site. Soil samples would need to be obtained from the existing businesses presently located above the old landfill and from the landfill itself to determine attribution.

Record Information

1. Site Name: A.G.O. Associates Site
   (as entered in CERCLIS)

2. Site CERCLIS Number: NYD986888899

3. Site Reviewer: Janis Hottinger

4. Date: 2/1/96

5. Site Location: Hicksville, Nassau County, New York
   (City/County,State)

6. Congressional District: 00

7. Site Coordinates: Single

   Latitude: 40 45'53.0" Longitude: 073 32'36.0"

Site Description

1. Setting: Suburban

2. Current Owner: Private - Industrial

3. Current Site Status: Inactive

4. Years of Operation: Inactive Site,from and to dates: 1963 to 1979

5. How Initially Identified: State/Local Program

6. Entity Responsible for Waste Generation:

   - Landfill
     - Municipal

7. Site Activities/Waste Deposition:

   - Municipal Landfill

Waste Description

8. Wastes Deposited or Detected Onsite:

   - Pesticides/Herbicides

Response Actions

9. Response/Removal Actions:

RCRA Information

10. For All Active Facilities, RCRA Site Status:

    - Not Applicable

Demographic Information

11. Workers Present Onsite: Yes

12. Distance to Nearest Non-Worker Individual: > 10 Feet - 1/4 Mile

13. Residential Population Within 1 Mile: 14872.0

14. Residential Population Within 4 Miles: 219148.0

Water Use Information

15. Local Drinking Water Supply Source:

    - Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source: 221197.0

17. Drinking Water Supply System Type for Local Drinking Water Supply Sources:

    - Municipal (Services over 25 People)
    - Private

18. Surface Water Adjacent to/Draining Site:

- None

HRS DOCUMENTATION RECORD
A.G.O. Associates Site - 01/24/96

1. Site Name: A.G.O. Associates Site
   (as entered in CERCLIS)

2. Site CERCLIS Number: NYD986888899

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4. Date: 2/1/96

5. Site Location: Hicksville, Nassau County, New York
   (City/County,State)

6. Congressional District: 00

7. Site Coordinates: Single

   Latitude: 40 45'53.0" Longitude: 073 32'36.0"

	Score
Ground Water Migration Pathway Score (Sgw)	100.00
Surface Water Migration Pathway Score (Ssw)	0.00
Soil Exposure Pathway Score (Ss)	0.68
Air Migration Pathway Score (Sa)	1.62

Site Score	50.01

NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

GROUND WATER MIGRATION PATHWAY SCORESHEET
A.G.O. Associates Site - 01/24/96

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Glacial/Magothy		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	460
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+01
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	6
Targets		
7. Nearest Well	50	9.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	3.44E+03
8d. Population (lines 8a+8b+8c)	**	3.44E+03
9. Resources	5	5.00E+00
10. Wellhead Protection Area	20	5.00E+00
11. Targets (lines 7+8d+9+10)	**	3.46E+03
12. Targets (including overlaying aquifers)	**	3.46E+03
13. Aquifer Score	100	100.00
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	100.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
A.G.O. Associates Site - 01/24/96

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release by Overland Flow		
2a. Containment	10	0
2b. Runoff	25	0
2c. Distance to Surface Water	25	25
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	0
3. Potential to Release by Flood		
3a. Containment (Flood)	10	0
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0
4. Potential to Release (lines 2d+3c)	500	0
5. Likelihood of Release	550	0
Waste Characteristics		
6. Toxicity/Persistence	*	0.00E+00
7. Hazardous Waste Quantity	*	0
8. Waste Characteristics	100	0
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	0.00E+00
12. Targets (lines 9+10d+11)	**	0.00E+00
13. DRINKING WATER THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
A.G.O. Associates Site - 01/24/96

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	0
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	0.00E+00
16. Hazardous Waste Quantity	*	0
17. Waste Characteristics	1000	0
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	0.00E+00
19d. Population (lines 19a+19b+19c)	**	0.00E+00
20. Targets (lines 18+19d)	**	0.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
A.G.O. Associates Site - 01/24/96

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	0
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	0.00E+00
24. Hazardous Waste Quantity	*	0
25. Waste Characteristics	1000	0
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	0.00E+00
26d. Sensitive Environments (lines 26a+26b+26c)	**	0.00E+00
27. Targets (line 26d)	**	0.00E+00
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	0.00
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SOIL EXPOSURE PATHWAY SCORESHEET
A.G.O. Associates Site - 01/24/96

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	5.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	5.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	4.95E+04

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY SCORESHEET
A.G.O. Associates Site - 01/24/96

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	1.00E+01
13. Area of Contamination	100	6.00E+01
14. Likelihood of Exposure	500	2.50E+01
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	1.40E+01
20. Targets (lines 18+19)	**	1.50E+01
21. NEARBY POPULATION THREAT SCORE	**	6.75E+03
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	0.68

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

AIR PATHWAY SCORESHEET
A.G.O. Associates Site - 01/24/96

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	117
2b. Particulate Potential to Release	500	84
2c. Potential to Release	500	117
3. Likelihood of Release	550	117
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+02
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	10
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	9.40E+01
8d. Population (lines 8a+8b+8c)	**	9.40E+01
9. Resources	5	0.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	1.52E-01
10c. Sens. Environments(lines 10a+10b)	***	1.52E-01
11. Targets (lines 7+8d+9+10c)	**	1.14E+02
AIR MIGRATION PATHWAY SCORE (Sa)	100	1.62E+00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Landfill

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Landfill	
b. Source Type	Landfill	
c. Secondary Source Type	N.A.	
d. Source Vol.(yd3/gal)	0.00	Source Area (ft2) 435600.00
e. Source Volume/Area Value	1.28E+02	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00	
g. Data Complete?	NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)	0.00E+00	
i. Data Complete?	NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	1.28E+02	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
DDD	< 2	NO	8.5E-02	ppm
DDE	< 2	NO	1.1E-01	ppm
DDT	< 2	NO	4.3E-01	ppm
Heptachlor epoxide	< 2	NO	8.4E-03	ppm

Documentation for Source Type:

Demolition and construction debris were deposited in the former sand mine pit to an approximate depth of 35 to 45 feet below grade surface. During a November 1974 site inspection, the NCDOH observed approximately 100 55-gallon drums onsite. The NCDOH reported that the drums contained industrial solvents, lacquers, paints, and paint thinners. The drums were removed by January 1975; however, no manifests have been found to document the proper disposal of the drums and their contents. The drums were never sampled to determine the contents.

Reference: Ref.4, p.1 of 1; Ref.6, pp. 1 through 27 of 27; Ref.10, p.1 of1

Documentation for Source Hazardous Substances:

The landfill accepted construction and demolition types of waste. According to local residents, "everything" was accepted at the site, including 55-gallon drums of unknown content.

There is no documentation that soil samples were collected during the landfill's operation. Analytical data from soil samples collected from the Twin County Asphalt Company property, after the landfill had been closed and capped with 2 feet of top soil, were used to evaluate the source, even though the analytical results were not attributable to the landfill operation.

In September 1987, the NYSDEC collected four soil samples from the Twin County Asphalt property. Soil samples (all with the prefix: SH-87-132009-0) 1 and 2 (6-12 inches) were obtained from the bottom of two separate soil piles; soil sample 3 (1 foot) was collected from surface soils near 3 empty, rusted, above-ground storage tanks located on the southeast portion of the property, near the railroad tracks; soil sample 4 (6 inches) was collected from the center of a ponded area located in the middle of the property.

Because a background soil sample was not obtained during the sampling event, soil sample 4 was used to establish background concentrations.

Pesticides were the only contaminants detected in surface soil samples. Benzene was detected in two soil samples, but was not used to evaluate the site since above ground oil tanks are presently located on-site, and benzene, a petroleum product, is exempt under the Petroleum Exclusion Policy.

References: Ref. 4, p. 1 of 1; Ref. 7, p. 1 of 1; Ref. 13, p. 1 of 1; Ref. 15, pp. 1 through 17 of 17.

Reference:

Documentation for Source Volume:

Not Applicable

Reference: N/A

Documentation for Source Area:

The 10 acres of the 14.4 acre site used as a landfill was used to evaluate the site

$$10 \text{ acres} \times \frac{43{,}560 \text{ square feet}}{1 \text{ acre}} = 435{,}600 \text{ square feet}$$

Reference: Ref. 4, p. 1 of 1

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	Landfill	GW-SE-A	1.28E+02	0.00E+00	1.28E+02

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values		HWQVs*	WCVs**
Ground Water	Toxicity/Mobility	2.00E+01	100	6
SW: Overland Flow, DW	Tox./Persistence	0.00E+00	0	0
SW: Overland Flow, HFC	Tox./Persis./Bioacc.	0.00E+00	0	0
SW: Overland Flow, Env	Etox./Persis./Bioacc.	0.00E+00	0	0
SW: GW to SW, DW	Tox./Persistence	2.00E+01	100	6
SW: GW to SW, HFC	Tox./Persis./Bioacc.	1.00E+02	100	10
SW: GW to SW, Env	Etox./Persis./Bioacc.	1.00E+06	100	100
Soil Exposure:Resident	Toxicity	1.00E+04	10	18
Soil Exposure: Nearby	Toxicity	1.00E+04	10	18
Air	Toxicity/Mobility	2.00E+02	100	10

* Hazardous Waste Quantity Factor Values
** Waste Characteristics Factor Category Values

Note: SW = Surface Water
GW = Ground Water
DW = Drinking Water Threat
HFC = Human Food Chain Threat
Env = Environmental Threat

GROUND WATER PATHWAY AQUIFER SUMMARY
A.G.O. Associates Site - 01/24/96

No.	Aquifer ID	Type	Overlaying No.	Inter-Connected with	Likelihood of Release	Targets
1	Glacial/Magothy	Non K	0	0	460	3.46E+03
2	Lloyd Sand Member	Non K	0	0	100	4.40E+01

Containment

No.	Source ID	HWQ Value	Containment Value
1	Landfill	1.28E+02	10
	Containment Factor		10

Documentation for Ground Water Containment, Source Landfill :

The property was used as a sand mine before 1963. Demolition and construction debris were deposited in the unlined landfill to an approximate depth of 35 and 45 feet below grade surface. During the landfill's operation, it did not have maintained, engineered cover, a functioning and maintained run-on control system and run-off management system, or a functioning leachate collection and removal system in-place. Groundwater is found approximately 49 feet below grade surface.

References: Ref. 4, p. 1 of 1; Ref. 6, pp. 1 through 27 of 27; Ref. 10, p. 1 of 1; Ref. 11, p. 28 of 50.

Reference:

Net Precipitation

Net Precipitation (inches) N.A.

Documentation for Net Precipitation:

HRS Figure 3-2 used to determine this value.

Reference: Ref. 1, Figure 3-2, p. 51598.

Aquifer: Glacial/Magothy

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Glacial/Magothy Aquifer:

The Upper Glacial aquifer consists of late Pleistocene and Holocene age deposits. The upper deposits consist of stratified beds of gray, green, black, or brown, fine to coarse sand, sand and gravel, and thin beds of silt and clay interbedded with coarse-grained material. The majority of the Upper Glacial aquifer is made up of outwash deposits of yellow, brown, and sometimes gray unsorted clay, sand, and gravel. The deposits range from 0 to 200 feet in depth and are between 0 and 320 feet thick. The Upper Glacial aquifer serves as a recharge to underlying aquifers. Groundwater movement is controlled by regional and local divides. Lateral groundwater movement for the Upper Glacial aquifer beneath the site would be southward.

The Magothy aquifer consists of white, gray, yellow, pink, and multicolored beds and lenses of silt, sandy clay and sand, of fine to medium texture. The large amounts of clay in the upper half of the aquifer causes the water in the unit to become increasingly confined with depth. It may contain lenticular beds of coarse sand and gravel in the lower part of the unit. The Magothy aquifer generally has a high degree of hydraulic continuity with the overlying Upper Glacial aquifer, however, the degree of continuity varies with location. The upper surface of the unit ranges from 200 feet above mean sea level to to 200 feet below sea level, and ranges in thickness from 0 to 650 feet from northwest to southeast, respectively. The lateral and vertical movement of groundwater in the Magothy aquifer is controlled by the position of the regional and local potentiomentric divides and by the hydraulic gradients. The lateral movement is generally north and south.

Reference: Ref. 19, pp. 5, 6, 7, and 9 of 11; Ref. 20, pp. 2 and 3 of 3.

OBSERVED RELEASE

Distance

GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Glacial/Magothy AQUIFER
A.G.O. Associates Site - 01/24/96

No.	Well ID	Well Type	(miles)	Level of Contamination
- N/A and/or data not specified				

Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	45.00	feet

Documentation for Depth of Hazardous Substances:

According to one of the former landfill owners, wastes were deposited in a pre-existing sand mine pit that was between 35 and 45 feet deep.

Reference: Ref. 4, p. 1 of 1.

B. Depth to Aquifer from Surface	49.00	feet

Documentation for Depth to Aquifer from Surface :

The depth to water beneath the site is approximately 49 feet below grade.

Reference: Ref. 11, p. 45 of 50.

C. Depth to Aquifer (B - A)	4.00	feet

Depth to Aquifer Factor	5

Travel Time

Are All Layers Karst?	NO

Documentation for Karst Layers:

There are no karst layers within the Upper Glacial/Magothy aquifer system. Bedrock beneath the system is composed of early Paleozoic and/or Precambrian-age metamorphic and igneous cyrstalline rocks. It is very dense and has a low permeability.

Reference: Ref. 19, p. 4 of 11.

Thickness of Layer(s) with Lowest Conductivity	4.00	feet

Documentation for Thickness of Layers with Lowest Conductivity:

The thickness of the lowest conductivity layer was taken as the distance from 45 feet below grade surface to the top of the saturated zone. This layer is part of the Upper Glacial/Magothy aquifer system, which is composed of fine to medium sand, gravel, silt, and clay. From HRS Table 3-6, the hydraulic conductivity of the layer is 10 -4 cm/sec.

Reference: Ref. 1, p. 51601; Ref. 19, pp. 5, 7 and 9 of 11

Hydraulic Conductivity (cm/sec)	1.0E-04

Documentation for Hydraulic Conductivity:

This layer of the Upper Glacial/Magothy aquifer system is composed of fine to medium sand, gravel, silt, and clay. Table 3-6 of the HRS was used to determine the hydraulic conductivity of the unit to be 10 -4 cm/sec.

Reference: Ref. p. 51601; Ref. 19, pp. 5, 7 and 9 of 11

Travel Time Factor	35
Potential to Release Factor	460

Aquifer: Lloyd Sand Member

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Lloyd Sand Member Aquifer:

The Lloyd Sand aquifer consists of fine to coarse white, yellow, or gray sand and gravel commonly in a clayey matrix. It contains lenses and layers of solid or silty clay. The usually lenticular beds frequently display great lateral changes in composition. The unit ranges from approximately 200 feet below sea level to approximately 700 feet below sea level, and ranges in thickness from 0 to 250 feet. The Raritan clay member acts as a confining unit for the Lloyd Sand, making the Lloyd an artesian aquifer. The unit is recharged by a downward movement of water from the overlying Magothy and Upper Glacial aquifers through the Raritan Clay member.

Reference: Ref. 19, pp. 6 and 7 of 11.

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	45.00	feet

Documentation for Depth of Hazardous Substances:

According to one of the former owners of the landfill, wastes were deposited between 35 and 45 feet in the former sand and gravel mine.

Reference: 4, p. 1 of 1

B. Depth to Aquifer from Surface	200.00	feet

Documentation for Depth to Aquifer from Surface :

The Raritan Formation, of Late Cretaceous age, is composed of an upper clay member and a lower water-bearing sand member called the Lloyd Sand. The clay layer runs parellel to the Lloyd and acts as a confining layer between the Lloyd and the Glacial/Magothy Aquifer system. The Lloyd is an artesian aquifer. The top of the clay member ranges from 150-550 below sea level, and is between 0 and 200 feet thick. The top of the Lloyd aquifer ranges from 200-700 feet below sea level and is between 0 and 250 feet thick.

Reference: Ref. 19, pp. 4 and 7 of 11.

C. Depth to Aquifer (B - A)	155.00	feet
Depth to Aquifer Factor	3	

Travel Time

Are All Layers Karst?	NO

Documentation for Karst Layers:

Bedrock underlying the site consists of early Paleozoic and/or Precambrian age metamorphic and igneous crystalline rock.

Reference: Ref. 19, pp. 6 and 7 0f 11; Ref. 4, p. 1 of 1.

Thickness of Layer(s) with Lowest Conductivity	155.00	feet

Documentation for Thickness of Layers with Lowest Conductivity:

The thickness of the lowest hydraulic conductivity layer was taken as the distance from 45 feet below grade surface to the top of the confining layer for the Lloyd aquifer, which is the Raritan Clay. The Raritan clay member ranges between 0-200 feet in thickness and is encountered between 150 and 550 feet below sea level. An hydraulic conductivity of 10 -8 cm/sec is being assigned to the Raritan confining layer from Table 3-6 in the HRS manual.

Reference: Ref.1, Table 3-6, p. 51601; Ref. 19, pp. 5, 7, and 9 of 11.

Hydraulic Conductivity (cm/sec)	1.0E-08

Documentation for Hydraulic Conductivity:

The Raritan clay layer is composed of light to dark gray, red, white, or yellow clay laminated with silt, and clayey, silty, fine sand. Table 3-6 of the HRS was used to determine the hydraulic conductivity of the clay layer to be 10 -8 cm/sec.

Reference: Ref. 1, Table 3-6, p. 51601; Ref. 19, pp. 5, 7, and 9 of 11.

Travel Time Factor	1
Potential to Release Factor	100

Source: 1 Landfill

Source Hazardous Waste Quantity Value: 128.12

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
DDD	100	2.00E-07	2.00E-05
DDE	100	2.00E-07	2.00E-05
DDT	1000	2.00E-07	2.00E-04
Heptachlor epoxide	10000	2.00E-03	2.00E+01

Hazardous Substances Found in an Observed Release

Well No.	Observed Release Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value

- N/A and/or data not specified

Toxicity/Mobility Value from Source Hazardous Substances:	2.00E+01
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	2.00E+01
Sum of Source Hazardous Waste Quantity Values:	1.28E+02
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	6

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

GROUND WATER PATHWAY TARGETS FOR AQUIFER Glacial/Magothy
A.G.O. Associates Site - 01/24/96

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	13455.0	5.22E+02
> 1 to 2	60288.0	9.38E+02
> 2 to 3	37225.0	6.78E+02
> 3 to 4	108406.0	1.31E+03

Potential Contamination Factor: 3445.000

Documentation for Target Population > 0 to 1/4 mile Distance Category:

There are no drinking water supply wells located in this distance category.

Reference: 21, p. 6 of 9

Documentation for Target Population > 1/4 to 1/2 mile Distance Category:

There are no drinking water supply wells located in this distance category.

Reference: 21, p. 6 of 9

Documentation for Target Population > 1/2 to 1 mile Distance Category:

The Westbury Water District has two supply wells, screened in the Magothy Aquifer, in this distance category. Each well serves a population of 1,823*. Well #5655 (255') is located 0.8 miles west-southwest of the site. Well #6819 (265') is located 0.85 miles

west-southwest of the site.

The Hicksville Water district has three supply wells screened in the Magothy Aquifer in this distance category. Each well serves a population of 2,391*. Well #3953 (419') is located .75 miles north of the site. Well #3878 (428') is located .70 miles north of the site. Well #9463 (638') is located .75 miles east-northeast of the site.

The Jericho Water District has one well, screened in the Magothy Aquifer, in this distance category. Well #7030 (530'), is located 0.8 miles north-northwest of the site and serves a population of 2,636*.

* No one well supplies more than 40% of the water to the system, therefore, the total population was apportioned equally to all the wells in that water supply district.

There are no private wells located within a 0 to 1 mile radius of the site.

Reference: Ref.21, pp.1 through 9 of 9; Ref. 23, pp.24 and 25 of 25

Documentation for Target Population > 1 to 2 miles Distance Category:

The Old Westbury Village water supply company has one well, screened in the Magothy Aquifer, located within the distance category. Well #152 (478') is located 1.6 miles northwest of the site and serves a population of 640*.

The Westbury Water District has four wells, screened in the Magothy Aquifer, located within this distance category. Each well serves a population of 1,823*. Well #5007 (494') is located 1.6 miles west of the site. Well #7353 (390') is located 1.5 miles west of the site. Well #8497 (539') is located 1.7 miles west-southwest, and Well # 2602 is located 1.8 miles west-southwest of the site.

The Bowling Green Water District has two wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 6,000*. Well #8957 (584') is located 1.35 miles southwest of the site. Well # 8956 (530') is located 1.3 miles southwest of the site.

The Levittown Water District has one well, screened in the Magothy Aquifer, located within the distance category. Well #5301 (377') is

located 1.8 miles south-southeast of the site and serves a population of 4,167*.

The Jericho Water District has one well, screened in the Magothy Aquifer, located within the distance category. Well #4245 (565') is located 1.9 miles north of the site and serves a population of 2,636*.

The Hicksville Water District has 14 wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 2,391*. Wells #7561 (550') and # 9212 (604') are both located 1.15 miles south of the site. Well #8526 (601') is located 1.2 miles south of the site. Well #5336 (523') is located 1.4 miles south of the site. Well #8525 (503') is located 1.85 miles southeast of the site. Wells #6192 (626'), #9180 (630'), and 6193 (467') are all located 1.5 miles southeast of the site. Wells #10208 (649'), #8778 (590'), and #8779 (505') are all located 1.6 miles east of the site. Wells #9488 (575'), #8249 (495'), and #7562 (545') are all located 1.5 miles northeast of the site.

* No one well supplies more than 40% of the water to the system, therefore, the total population was apportioned equally to all the wells in that water supply district.

There are 79 people within a 1 - 2 mile radius of the site that utilize private wells for their water supply.

Reference: Ref.21, pp.1 through 9 of 9; Ref.23, pp.24 and 25 of 25

Documentation for Target Population > 2 to 3 miles Distance Category:

The Westbury Water District has four wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 1,823*. Well #8007 (564) is located 2.75 miles west of the site. Wells #101 (341') and # 7785 (400') are both located 2.7 miles west of the site. Well #5654 (538') is located 2.75 miles west-southwest of the site.

The Levittown Water District has two wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 4,167*. Well # 8321 (674') is located 2.35 mile south of the site. Well # 4451 (403') is located 2.2 miles east-southeast of the site.

The Hicksville Water District has three wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 2,391*. Well #10555 (700') is located 2.1 miles east of the site. Wells # 6190 (600') and #6191 (550') are both located 1.2 miles northeast of the site.

The Plainview Water District has two wells, screened in the Magothy Aquifer, located within the distance category. Wells #6580 (596') and #4097 (465') are both located 2.75 miles east-northeast of the site and serve a popualtion of 3,182* each.

The Jericho Water District has three wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 2,636*. Well #7781 (454') is located 2.4 miles north of the site. Well #8355 (590') is located 2.95 miles north of the site. Well #6651 (610') is located 2.5 miles north of the site.

* No one well supplies more than 40% of the water to the system, therefore, the total population was apportioned equally to all the wells in that water supply district.

There are 154 people within the 2 to 3 mile distance category that obtain their drinkling water from private wells.

References: Ref. 21, pp. 1 through 9 of 9; Ref. 23, pp. 24 and 25 of 25; Ref. 25, p. 1 of 1

Reference:

Documentation for Target Population > 3 to 4 miles Distance Category:

The Jericho Water District has four wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 2,636*. Well #7446 (493') is located 3.8 miles northwest of the site. Well #3474 (512') is located 3.7 miles northwest of the site. Wells #11107 (585') and 11295 (535') are both located 3.7 miles north of the site.

The Old Westbury Village water company has three wells, screened in the Magothy Aquifer, located in the distance category. Each well serves a population of 640*. Well #3475 (482') is located 3.7 miles northwest of the site. Well #8658 (610') is located 3.25 miles northwest of the site. Well #7549 (499') is located 3.3 miles northwest of the site.

The Westbury Water District has one well, screened in the Magothy Aquifer, located within the distance category. Well #10451 (512') is located 3.1 miles west of the site and serves a population of 1,823*.

The Carle Place Water District has four wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 2,000*. Well #6315 (348') is located 3.45 miles west of the site. Well #4206 (355') is located 3.5 miles west of the site. Well #8457 (435') is located 3.25 miles west of the site. Well #2748 (510') is located 3.9 miles west of the site.

The Roosevelt Field Water District has three wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 380*. Well #9521 (603') is located 3.7 miles west-southwest of the site. Well #7957 (519') is located 3.25 miles west-southwest of the site. Well #9846 (594') is located 3.1 miles west-southwest of the site.

The East Meadow Water District has five wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 4,545*. Well #4448 (550') is located 3.4 miles south of the site*. Well #7797 (545') is located 3.3 miles south of the site. Well #3465 (580') is located 3.45 miles south of the site. Wells #5322 (510') and #5321 (509') are both located 3.6 miles south of the site.

The Levittown Water District has seven well, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 4,167*. Well #5302 (484') is located 3.6 miles south of the site. Wells #2580 (357') and #4450 (466') are both located 3.1 miles south of the site. Wells #7523 (684') and #8279 are both located 3.6 mile southeast of the site. Well #7076 (674') is located 3.25 miles southeast of the site. Well #3618 (418') is located 3.1 miles southeast of the site.

The Bethpage Water District has six wells, screened in the Magothy Aquifer, located in the distance category. Each well serves a population of 3,666*. Wells #3876 (386') and #8941 are both located 3.7 miles southeast of the site. Well #9591 (682') is located 3.7 miles southeast of the site. Wells #8767 (640'), #8768 (678'), and #6078 (275') are all located 3.35 miles east of the site.

The Plainview Water District has four wells, screened in the Magothy Aquifer, located within the distance category. Each well serves a population of 3,182*. Wells #4095 (490') and #4096 (494') are both located 4 miles from the site. Wells #6076 (358') and #6077 (460') are both located 3.25 miles northeast of the site.

* No one well supplies more than 40% of the water to the system, therefore, the total population was apportioned equally to all the

wells in that water supply district.

There are 184 people located within the 3 to 4 mile distance category that obtain their water from private wells.

References: Ref. 21, pp. 1 through 9 of 9; Ref. 23, pp. 24 and 25 of 25; Ref. 25, p. 1 of 1

Reference:

Nearest Well

Level of Contamination: Potential
Distance in miles: 0.75

Nearest Well Factor: 9.00E+00

Documentation for Nearest Well:

The Hicksville Water District Supply Well #3878, screened in the Magothy Aquifer (428'), is located 0.75 miles north of the site and serves a population of 2,391.

Reference: Ref. 21, p. 3 of 9; Ref. 25, p. 1 of 1

Resources

Resource Use: YES

Resource Factor: 5.00E+00

Documentation for Resources:

Since groundwater is the only source of water within the study area, and the site is in a commercial/industrial area, it is assumed that water is used for commericial food preparation.

Reference: Ref. 21, pp. 1 through 9 of 9

Wellhead Protection Area

There is a designated wellhead protection area

Wellhead Protection Area Factor: 5.00E+00

Documentation for Wellhead Protection Area:

All of the public supply wells in Nassau County have designated wellhead protection programs designed and implemented by the county, NYSDEC, and EPA.

Reference: 24, p. 2 of 2.

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	1823.0	2.94E+01
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 29.000

Documentation for Target Population > 1 to 2 miles Distance Category:

All of the distances have been approximated in this section.

The Westbury Water District has one well, screened in the Lloyd Aquifer, located in the distance category. Well #2606 (800') is located 1.8 miles west-southwest of the site and serves a population of 1,823*.

* No one well supplies more than 40% of the water to the system, therefore the total population was approtioned equally to all the wells in the water supply district.

Reference: Ref. 21, pp. 1 through 9 of 9;Ref. 25, p. 1 of 1

Nearest Well

Level of Contamination: Potential
Distance in miles: 1.80

Nearest Well Factor: 5.00E+00

Documentation for Nearest Well:

The nearest well to the site that is screened in the Lloyd Aquifer is #2602. It is owned and operated by the Westbury Water District and located 1.8 miles west-southwest of the site.

Reference: Ref. 21, pp. 1 through 9 of 9.

Resources

Resource Use: YES

Resource Factor: 5.00E+00

Documentation for Resources:

Since groundwater is the only source of water within the study area, and the site is located in a commercial/industrial area, it is assumed that groundwater is used for commercial food preparation within the study area.

Reference: Ref. 21, pp. 1 through 9 of 9

Wellhead Protection Area

There is a designated wellhead protection area

Wellhead Protection Area Factor: 5.00E+00

Documentation for Wellhead Protection Area:

All of the public supply wells located in Nassau County have designated wellhead protection programs designed and implimented by the county, NYDEC, and EPA.

Reference: 24, p. 2 of 2.

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE
A.G.O. Associates Site - 01/24/96

Likelihood of Exposure

No.	Source ID	Level of Contamination
1	Landfill	Level II

Likelihood of Exposure Factor: 550

Documentation for Area of Contamination, Source Landfill :

The landfill encompassed approximately 10 acres of land. Wastes were deposited to a depth of approximately 45 feet below grade surface. Although no soil samples were collected from the landfill during its operation, soil samples were collected by the NYSDEC from surface soils located on the Twin County Asphalt property. The Twin County Asphalt company encompasses approximately 7 acres of land.

Reference: Ref. 3, pp. 5 and 11 of 32; Ref. 4, p. 1 of 1

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	DDD	< 2	8.5E-02	2.4E+00	0.0E+00	ppm
1	DDE	< 2	1.1E-01	1.7E+00	0.0E+00	ppm
1	DDT	< 2	4.3E-01	1.7E+00	2.9E+02	ppm
1	Heptachlor epoxide	< 2	8.4E-03	6.4E-02	7.6E+00	ppm

Documentation for Source Landfill , Contaminants:

The landfill accepted construction and demolition types of waste. According to local residents, "everything" was accepted at the site, including 55-gallon drums of unknown content.

There is no documentation that soil samples were collected during the landfill's operation. Analytical data from soil samples collected from the Twin County Asphalt Company property, after the landfill had been closed and capped with 2 feet of top soil, were used to evaluate the source, even though the analytical results

were not attributable to the landfill operation.

In September 1987, the NYSDEC collected four soil samples from the Twin County Asphalt property. Soil samples (all with the prefix: SH-87-132009-0) 1 and 2 (6-12 inches) were obtained from the bottom of two separate soil piles; soil sample 3 (1 foot) was collected from surface soils near 3 empty, rusted, above-ground storage tanks located on the southeast portion of the property, near the railroad tracks; soil sample 4 (6 inches) was collected from the center of a ponded area located in the middle of the property.

Because a background soil sample was not obtained during the sampling event, soil sample 4 was used to establish background concentrations.

Pesticides were the only contaminants detected in surface soil samples. Benzene was detected in two soil samples, but was not used to evaluate the site since above ground oil tanks are presently located on-site, and benzene, a petroleum product, is exempt under the Petroleum Exclusion Policy.

References: Ref. 4, p. 1 of 1; Ref. 7, p. 1 of 1; Ref. 13, p. 1 of 1; Ref. 15, pp. 1 through 17 of 17.

Reference:

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS
A.G.O. Associates Site - 01/24/96

Source: 1 Landfill

Source Hazardous Waste Quantity Value: 12.81

Hazardous Substance	Toxicity Value
DDD	100
DDE	100
DDT	1000
Heptachlor epoxide	10000

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS
A.G.O. Associates Site - 01/24/96

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	1.28E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

Targets

Level I Population: 0.0 Value: 0.00

Documentation for Level I Population:

There is no Level I population at the site.

Reference: Ref.7, p.1 of 1;Ref.13,p.1 of 1;Ref.15, pp. 1 through 17 of 17

Level II Population: 0.0 Value: 0.00

Documentation for Level II Population:

There is no Level II population at the site.

Reference: Ref.7, p.1 of 1;Ref.13, p.1 of 1; Ref.15, pp.1 through 17 of 17

Workers: 10.0 Value: 5.00

Documentation for Workers:

The number of workers employed at the current businesses is not available. For evaluation purposes, it is estimated that there are approximately 10 employees at the Twin County Co. The area occupied by this Co. is the only one unpaved.

Reference:

Resident Individual: Potentia Value: 0.00

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT TARGETS
A.G.O. Associates Site - 01/24/96

Resources: NO Value: 0.00

Documentation for Resources:

The majority of the site is paved with operating buisinesses. No agriculture/livestock is present at the site.

Reference: Ref. 28, pp. 1 through 5 of 5.

Terrestial Sensitive Environment	Value
- N/A and/or data not specified	

Terrestrial Sensitive Environments Factor: 0.00

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE
A.G.O. Associates Site - 01/24/96

Likelihood of Exposure

No.	Source ID	Level of Contamination	Attractiveness/ Accessibility	Area of Contam. (sq. feet)
1	Landfill	Level II	10	304920

Highest Attractiveness/Accessibility Value: 10
Sum of Eligible Areas Of Contamination (sq. feet): 304920
Area of Contamination Value: 60

Likelihood of Exposure Factor Category: 25

Documentation for Attractiveness/Accessibility, Source Landfill :

The landfill was capped with two feet of topsoil in 1979. All of the current property owners have paved their properties with asphalt, except for Twin County Asphalt, whose property is covered with a mixture of soil/sand and gravel. Three of the current property owners have secured their properties with a chain-link fence and gate. An approximate 20 foot section of the fence on the southeast corner of the Twin County property is knocked down and in a state of disrepair.

Reference: Ref. 3, pp. 10 and 25 of 32; Ref. 28, pp. 1 through 5 of 5.

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	DDD	< 2	8.5E-02	2.4E+00	0.0E+00	ppm
1	DDE	< 2	1.1E-01	1.7E+00	0.0E+00	ppm
1	DDT	< 2	4.3E-01	1.7E+00	2.9E+02	ppm
1	Heptachlor epoxide	< 2	8.4E-03	6.4E-02	7.6E+00	ppm

Documentation for Source Landfill , Contaminants:

The landfill accepted construction and demolition types of waste. According to local residents, "everything" was accepted at the site, including 55-gallon drums of unknown content.

There is no documentation that soil samples were collected during

the landfill's operation. Analytical data from soil samples collected from the Twin County Asphalt Company property, after the landfill had been closed and capped with 2 feet of top soil, were used to evaluate the source, even though the analytical results were not attributable to the landfill operation.

In September 1987, the NYSDEC collected four soil samples from the Twin County Asphalt property. Soil samples (all with the prefix: SH-87-132009-0) 1 and 2 (6-12 inches) were obtained from the bottom of two separate soil piles; soil sample 3 (1 foot) was collected from surface soils near 3 empty, rusted, above-ground storage tanks located on the southeast portion of the property, near the railroad tracks; soil sample 4 (6 inches) was collected from the center of a ponded area located in the middle of the property.

Because a background soil sample was not obtained during the sampling event, soil sample 4 was used to establish background concentrations.

Pesticides were the only contaminants detected in surface soil samples. Benzene was detected in two soil samples, but was not used to evaluate the site since above ground oil tanks are presently located on-site, and benzene, a petroleum product, is exempt under the Petroleum Exclusion Policy.

References: Ref. 4, p. 1 of 1; Ref. 7, p. 1 of 1; Ref. 13, p. 1 of 1; Ref. 15, pp. 1 through 17 of 17.

Reference:

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS
A.G.O. Associates Site - 01/24/96

Source: 1 Landfill

Source Hazardous Waste Quantity Value: 12.81

Hazardous Substance	Toxicity Value
DDD	100
DDE	100
DDT	1000
Heptachlor epoxide	10000

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS
A.G.O. Associates Site - 01/24/96

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	1.28E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS
A.G.O. Associates Site - 01/24/96

Nearby Individual

Population within 1/4 mile: 496.0

Nearby Individual Value: 1.0

Population Within 1 Mile

Travel Distance Category	Number of People	Value
> 0 to 1/4 mile	496.0	1.3
> 1/4 to 1/2 mile	2488.0	2.0
> 1/2 to 1 mile	11888.0	10.2

Population Within 1 Mile Factor: 14.0

Documentation for Population > 0 to 1/4 mile Distance Category:

According to 1990 census data, there are 496 people within 0 to 0.25 mile of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 1/4 to 1/2 mile Distance Category:

According to 1990 census data, there are 2,488 people within 0.25 to 0.5 miles of the site

Reference: Ref. 23, pp. 24 and 25 of 25.

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS
A.G.O. Associates Site - 01/24/96

Documentation for Population > 1/2 to 1 mile Distance Category:

According to 1990 census data, there are 11,888 people within 0.5 to 1 mile of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

OBSERVED RELEASE

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor: 0

Gas Migration Potential

GAS POTENTIAL TO RELEASE

Source ID	Source Type	Gas Contain. Value (A)	Gas Source Type Value (B)	Gas Migrtn. Potent. Value (C)	Sum (B+C)	Gas Potential to Rel. Value A(B+C)
Landfill	Landfill	3	33	6	39	117

Gas Potential to Release Factor: 117

Documentation for Gas Containment, Source Landfill :

The former landfill is currently covered with asphalt on what would have been its northern portion and by a mixture of soil/sand and gravel on what would have been its southern portion.

Reference: Ref. 28, pp. 1 through 5 of 5.

Documentation for Source Type, Source Landfill :

Demolition and construction debris were deposited in the former sand mine pit to an approximate depth of 35 to 45 feet below grade surface. During a November 1974 site inspection, the NCDOH observed approximately 100 55-gallon drums onsite. The NCDOH reported that the drums contained industrial solvents, lacquers, paints, and paint thinners. The drums were removed by January 1975; however, no manifests have been found to document the proper disposal of the drums and their contents. The drums were never sampled to determine the contents.

Reference: Ref.4, p.1 of 1; Ref.6, pp. 1 through 27 of 27; Ref.10, p.1 of1

AIR PATHWAY LIKELIHOOD OF RELEASE
A.G.O. Associates Site - 01/24/96

Source: Landfill

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
DDD	6
DDE	6
DDT	6
Heptachlor epoxide	11

Average of Gas Migration Potential Value for 3 Hazardous Substances: 7.667

Gas Migration Potential Value From Table 6-7: 6

Particulate Migration Potential

PARTICULATE POTENTIAL TO RELEASE

Source ID	Source Type	Partic. Contain. Value (A)	Partic. Source Type Value (B)	Partic. Migrtn. Potent. Value (C)	Sum (B+C)	Partic. Potential to Rel. Value A(B+C)
Landfill	Landfill	3	22	6	28	84

Particulate Potential to Release Factor: 84

Documentation for Particulate Containment, Source Landfill :

The former landfill, capped with 2 feet of topsoil, is currently paved with asphalt along what would have been its northern half and by a mixture of soil/sand and gravel along what would have been its southern half.

Reference: Ref. 28, pp. 1 through 5 of 5.

Documentation for Source Type, Source Landfill :

Demolition and construction debris were deposited in the former sand mine pit to an approximate depth of 35 to 45 feet below grade surface. During a November 1974 site inspection, the NCDOH observed approximately 100 55-gallon drums onsite. The NCDOH reported that the drums contained industrial solvents, lacquers, paints, and paint thinners. The drums were removed by January 1975; however, no manifests have been found to document the proper disposal of the drums and their contents. The drums were never sampled to determine the contents.

Reference: Ref.4, p.1 of 1; Ref.6, pp. 1 through 27 of 27; Ref.10, p.1 of1

Documentation for Particulate Migration Potential:

The particulate migration factor value was obtained from Figure 6.2 of the HRS Manual.

Reference: Ref. 1, Figure 6-2, p. 51654

Source: Landfill

Particulate Hazardous Substance
DDD
DDE
DDT
Heptachlor epoxide

Source: 1 Landfill

Source Hazardous Waste Quantity Value: 128.12

Hazardous Substance	Toxicity Value	Gas Mobility Value	Particulate Mobility Value	Toxicity/ Mobility Value
DDD	100	2.00E-03	2.00E-04	2.00E-01
DDE	100	2.00E-03	2.00E-04	2.00E-01
DDT	1000	2.00E-03	2.00E-04	2.00E+00
Heptachlor epoxide	10000	2.00E-02	2.00E-04	2.00E+02

Hazardous Substances Found in an Observed Release

Sample ID	Observed Release Hazardous Substance	Particulate Toxicity/ Mobility Value	Gas Toxicity/ Mobility Value

- N/A and/or data not specified

Documentation for Particulate Mobility:

The site is located in Hicksville, Nassau County, Long Island, New York. The particulate mobility factor value was obtained from Figure 6.3 of the HRS Manual.

Reference: Ref. 1, Figure 6-3, p. 51657; Ref. 25, p. 1 of 1.

Toxicity/Mobility Value from Source Hazardous Substances:	2.00E+02
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	2.00E+02
Sum of Source Hazardous Waste Quantity Values:	1.28E+02
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	10

Actual Contamination

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Potential Contamination

Distance Categories Subject to Potential Contamination	Population	Value
Onsite	10.0	0.4000
> 0 to 1/4 mile	496.0	13.1000
> 1/4 to 1/2 mile	2488.0	8.8000
> 1/2 to 1 mile	11888.0	26.1000
> 1 to 2 miles	55355.0	26.6000
> 2 to 3 miles	63444.0	12.0000
> 3 to 4 miles	85477.0	7.3000
	Potential Contaminantion Factor:	94.0000

Documentation for Population Onsite Distance Category:

The onsite worker population is not available. For evaluation purposes, it is assumed that there are 10 emplotees at the Twin County Co.

Reference:

Documentation for Population > 0 to 1/4 mile Distance Category:

According to 1990 census data, there are 496 people living within 0 and 0.25 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 1/4 to 1/2 mile Distance Category:

According to 1990 census data, there are 2,488 people living within 0.25 and 0.50 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 1/2 to 1 mile Distance Category:

According to 1990 census data, there are 11,888 people living within 1 and 2 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 1 to 2 miles Distance Category:

According to 1990 census data, there are 55,355 people living within 2 and 3 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 2 to 3 miles Distance Category:

According to 1990 census data, there are 63,444 people living within 2 and 3 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Documentation for Population > 3 to 4 miles Distance Category:

According to 1990 census data, there are 85,477 people living within 3 and 4 miles of the site.

Reference: Ref. 23, pp. 24 and 25 of 25.

Nearest Individual Factor

Level of Contamination: Potential
Distance in miles: 0 to 1/8

Nearest Individual Value: 20

Documentation for Nearest Individual:

There are residential homes located .25 miles south and northeast of the site. These were identified during the site drive-by and in the 1991 Roux Associate Phase II.

Reference: Ref. 11, p. 37 of 50; Ref. 28, pp. 1 through 5 of 5

Resources

Resource Use: NO

Resource Value: 0

Documentation for Resources:

The majority of the site is paved with buisinesses operating on the property. There are no livestock or agricultural activities at the site.

Reference: Ref. 28, pp. 1 through 5 of 5.

Actual Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Actual Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value
- N/A and/or data not specified		

Sensitive Environments Actual Contamination Factor: 0.000
(Sum of Sensitive Environments + Wetlands Values)

Potential Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value	Distance Weight	Weighted Value/10
Few Flower Nutrush	1.500	75	0.0051	0.038
Orange Fringed Orch	1.500	75	0.0051	0.038
Tiger Salamander	2.500	75	0.0023	0.017
Bushy Rockrose	2.500	75	0.0023	0.017
The Sandplain Gerad	2.500	75	0.0023	0.017
Little-Leaf Tick-Tr	3.500	75	0.0014	0.011
Sum of Sensitive Environments Weighted Values/10:				0.139

Potential Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value	Distance Weight	Weighted Value/10
> 1 to 2 miles	21.0	25.0	0.0051	0.013
Total Wetland Acreage:	21.0			
Sum of Wetland Weighted Acreage Values/10:				0.013

Sensitive Environment Potential Contamination Factor: 0.152

Documentation for Sensitive Environment Wetlands:

There are no wetlands located within 0 to 1 mile of the site. There are no sensitive environments located within the target distance limit.

Reference: Ref. 11, p. 34 of 50; Ref. 31, pp. 1 and 2 of 2

Documentation for Sensitive Environment Few Flower Nutrush:

The Few Flower Nutrush, a federally listed threatened species, is located 1 to two miles west of the site.

Reference: Ref. 25, p. 1 of 1, Ref. 36, pp. 4 and 7 of 7

Documentation for Sensitive Environment Orange Fringed Orch:

The Orange Fringed Orchis, a federally listed threatned plant, is located 1 to 2 miles northeast of the site.

Reference: Ref. 25, p. 1 of 1; Ref. 36, pp. 5 and 7 of 7

Documentation for Sensitive Environment Tiger Salamander:

The Tiger Salamander, a ferderally listed endangered species, is located 2 to 3 miles north of the site.

Reference: Ref. 25, p. 1 of 1; Ref. 36, pp. 4 and 7 of 7

Documentation for Sensitive Environment Bushy Rockrose:

The Bushy Rockrose, a federally listed threatened plant, is located 2 to 3 miles northeast of the site.

Reference: Ref. 25, p. 1 of 1; Ref. 36, pp. 4 and 7 of 7

Documentation for Sensitive Environment The Sandplain Gerad:

The Sandplain Geradia, a federally listed endanged plant, is located 2 to 3 miles northeast of the site.

Reference: Ref. 25, p. 1 of 1; Ref. 36, pp. 4 and 7 of 7

Documentation for Sensitive Environment Little-Leaf Tick-Tr:

The Little-Leaf Tick-Trifoil, a federally listed threatened plant, is located from 3 to 4 miles southwest of the site.

Reference: Ref. 25, p. 1 of 1; Ref. 36, pp. 4 and 7 of 7