ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

7

PHASE 1 INVESTIGATION

Bull Path Landfill

Site No. 152059

Town of East Hampton, Suffolk County

Final - June 1987

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

Prepared by:

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

EA REPORT DEC63A

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

BULL PATH LANDFILL
TOWN OF EAST HAMPTON, SUFFOLK COUNTY
NEW YORK I.D. NO. 152059

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

EA Science and Technology
R.D. 2, Goshen Turnpike
Middletown, New York 10940

A Division of EA Engineering, Science, and Technology, Inc.

June 1987

CONTENTS

1. EXECUTIVE SUMMARY

The Bull Path Landfill (New York I.D. No. 152059, EPA I.D. No. New) is an inactive disposal site located between Old Northwest Road, Stephen Hands Path, and Bull Path, approximately 1.3-mi northwest of East Hampton, Suffolk County, New York (Figures 1-1 and 1-2, and Photos 1-1 through 1-8). The landfill is owned by the Town of East Hampton. The Town operated the 10-acre site as a municipal landfill from 1973 until 1982, and reportedly accepted only brush and construction debris from residents of the Town. Personal communication with the Suffolk County Department of Health Services (SCDHS) indicates that the Bull Path Landfill probably did not receive hazardous wastes while in operation.

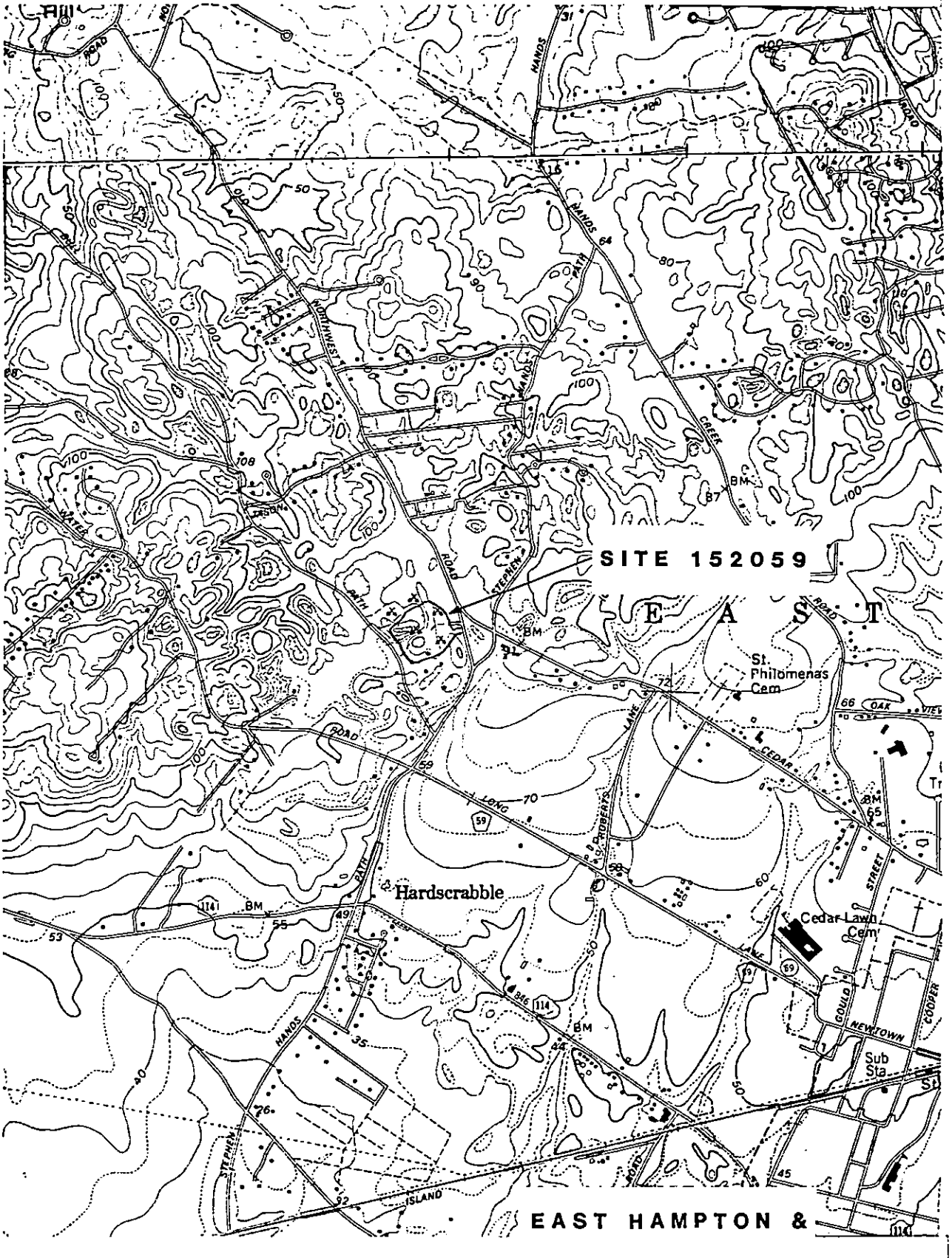
EA has researched all pertinent agency files, interviewed the site owner, conducted a site inspection, and has found no documented hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

In order to prepare a final HRS score for this site, analytical data regarding the HSL quality of the ground water, leachate, and sediment will be necessary, thus requiring performance of a Phase II investigation. The proposed Phase II

study would include the installation of four test borings/observations wells, and the collection and analysis of ground-water, leachate, and sediment samples. The estimated total cost to complete a Phase II investigation of the Bull Path Landfill site is $106,500.

Site Coordinates:
Latitude: 40° 58' 53"
Longitude: 72° 13' 07"

BULL PATH LANDFILL



EAST HAMPTON &

Figure 1-1. **GARDINERS ISLAND WEST QUADS.**

Scale 1:24,000

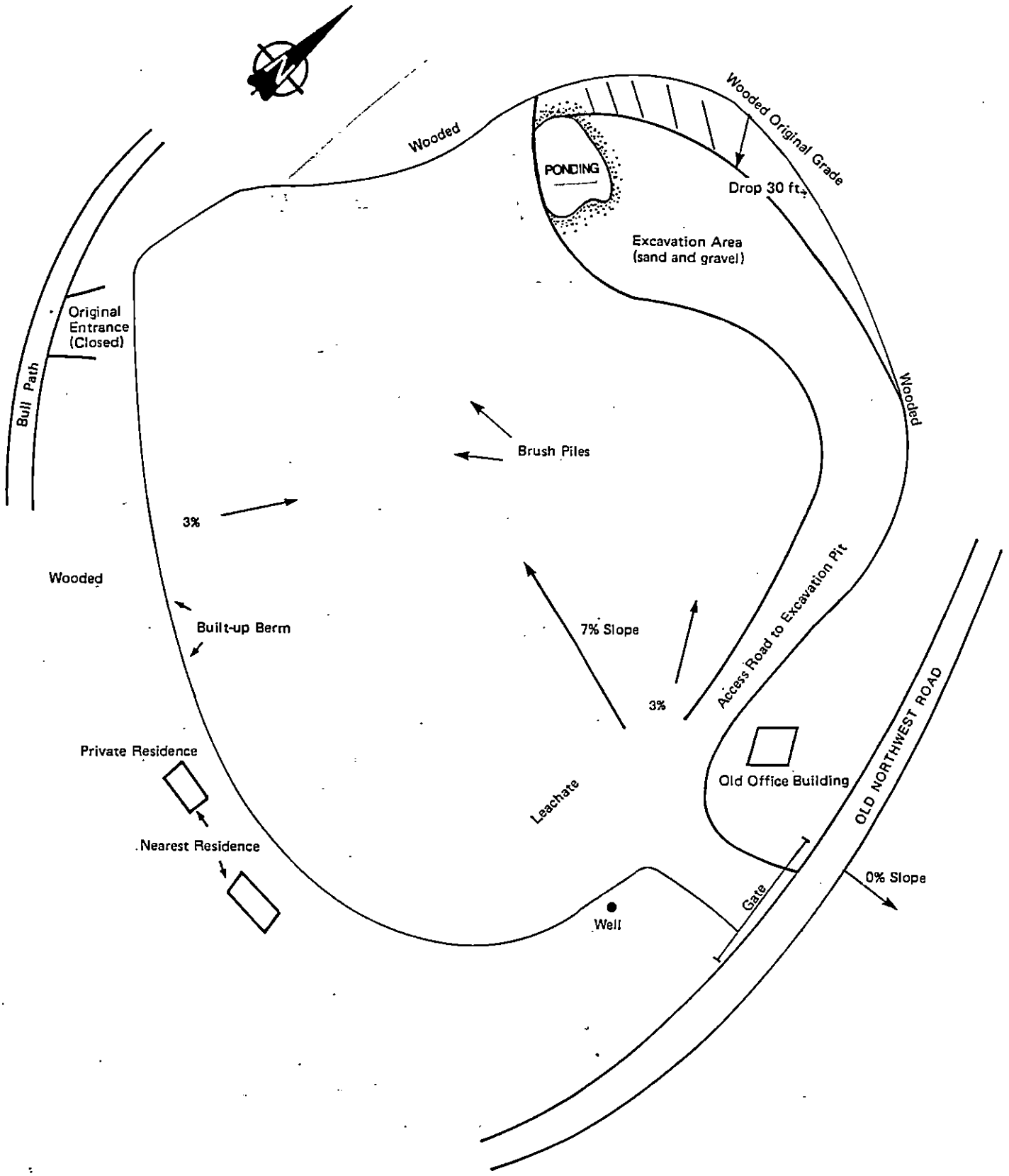


Figure 1-2. Site sketch. Bull Path Landfill, 21 January 1986. (Not to scale.)

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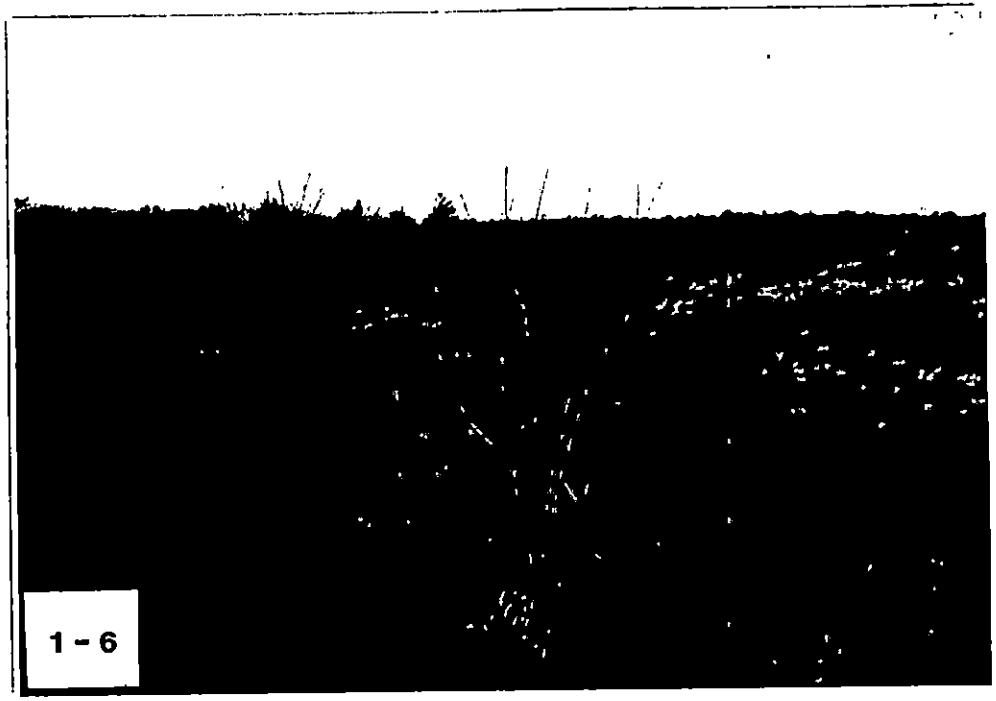

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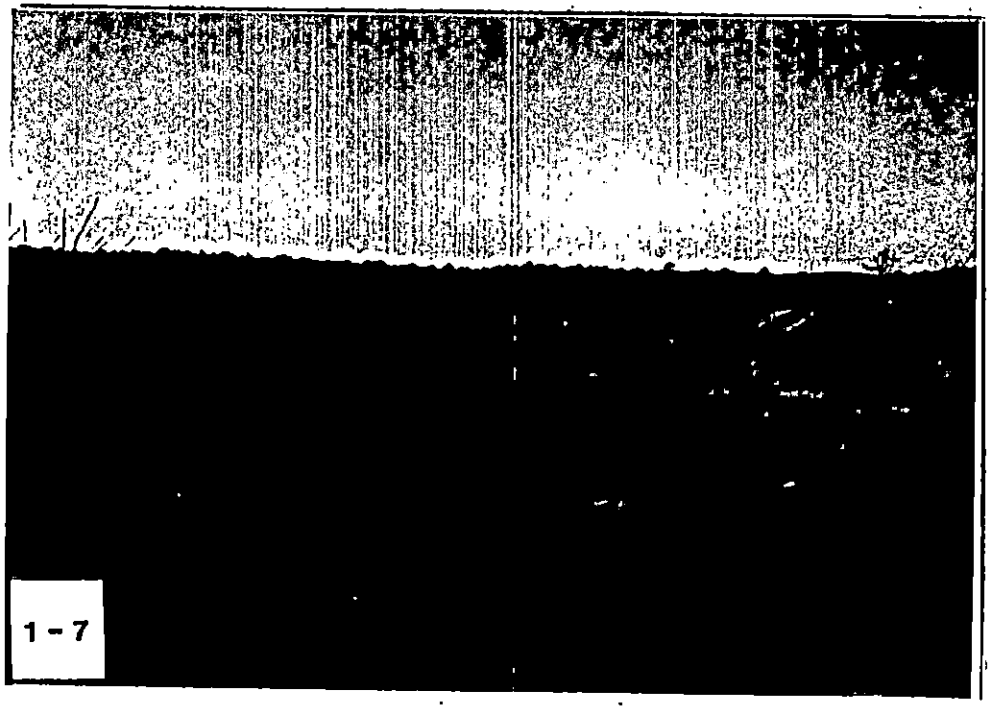

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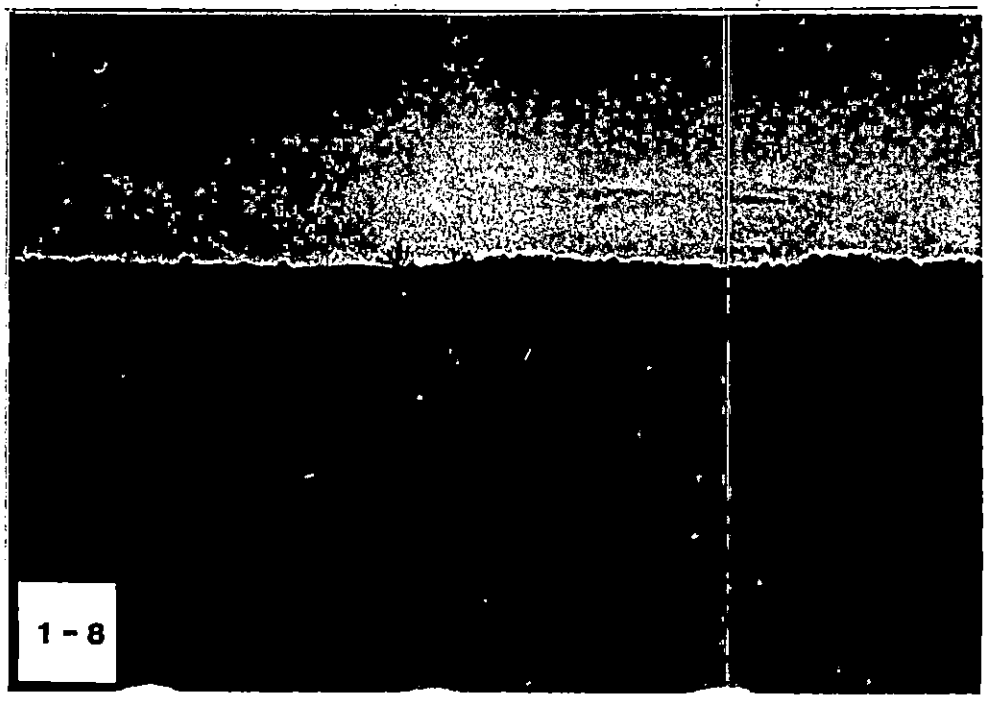


1 - 8

PHOTO LOG - BULL PATH LANDFILL

Photo	Description
1-1	Facing west, this is the view of the landfill from the entrance off Old Northwest Road. The entrance to the property is locked at all times, but the site is not entirely fenced in. There were substantial brush piles seen on top of the landfill due to the excessive tree damage during Hurricane Gloria of September 1985.
1-2	Facing southwest, this is the southwestern edge of the landfill. In the center of the photo is the beginning of the berm surrounding much of the landfill.
1-3	Facing northwest, this is another close-up of the berm on the western edge of the landfill. The individuals in the photo are standing on top of the berm while the photographer is standing on the landfill proper. It is evident in the photo that the landfill is heavily vegetated by tall grass and trees.
1-4	This is a sand pit on the northern edge of the landfill. There is ponding at the base of the pit, seen in the back of the photo. The photo shows a good soil profile.
1-5	Facing west, leachate is seen bubbling through the sandy driveway near the entrance gate. The water was only slightly discolored, and there had been extensive rains the day before. The water eventually flowed down to the base of the sand pit in Photo 1-4. There was no other evidence of leachate on site.
1-6 thru 1-8	From a vantage point along the northern perimeter of the landfill looking towards the southwest, these next photos depict the extent of the landfill. The landfill has been covered with a sandy material and seeded. The brush piles are a result of storm damage from a recent hurricane.

2. PURPOSE

The Bull Path Landfill site was listed in the New York State Registry of Inactive Hazardous Wastes Sites because it is an inactive landfill.

The goal of the Phase I investigation of this site was to: (1) obtain available records on the site history from state, federal, county, and local agencies; (2) obtain information on site topography, geology, local surface water and ground-water use, previous contamination assessments, and local demographics; (3) interview site owners, operators, and other groups or individuals knowledgeable of site operations; (4) conduct a site inspection to observe current conditions; and (5) prepare a Phase I report. The Phase I report includes an assessment of the available information and a recommended work plan for Phase II studies.

3. SCOPE OF WORK

The Phase I investigation of the Bull Path Landfill site involved a site inspection by EA Science and Technology, as well as record searches and interviews. The following agencies or individuals were contacted:

Contact	Information Received
Mr. Gene Garypie Assistant Foreman Town of East Hampton Town of East Hampton Landfill 159 Pantigo Road East Hampton, New York 11937 (516) 324-2199	Site Interview
Mr. Larry Penny Director of Natural Resources Town of East Hampton 159 Pantigo Road East Hampton, New York 11937 (516) 267-8462	Site History
Mr. Anthony Candela, P.E. Senior Sanitary Engineer New York State Department of Environmental Conservation Division of Solid Waste SUNY Campus - Building 40 Stony Brook, New York 11794 (516) 751-7900	Site File
Mr. James H. Pim, P.E. Suffolk County Department of Health Services Hazardous Materials Management 15 Horseblock Place Farmingville, New York 11738 (516) 451-4634	Interview and site file

Contact	Information Received
Mr. Steve Carey/Mr. Dennis Moran Suffolk County Department of Health Services Bureau of Water Resources 225 Rabro Drive East Hauppauge, New York 11788 (516) 348-2893	Ground-water use; public water supplies and ground-water monitoring information
Mr. Dan Fricke Suffolk County Cooperative Extension Association 264 Griffing Avenue Riverhead, New York 11901 (516) 727-7850	Ground-water and surface water use for irrigation
Mr. William Schickler/Mr. Robert Bowen Suffolk County Water Authority Sunrise Highway and Pond Road Oakdale, New York 11769 (516) 589-5200	Public water supply and distribution
Mr. Doug Pica New York State Department of Environmental Conservation Division of Water SUNY Campus - Building 40 Stony Brook, New York 11794 (516) 751-7900	Ground-water use for irrigation
Mr. Allan S. Connell District Conservationist U.S. Department of Agriculture Soil Conservation Survey 127 East Main Street Riverhead, New York 11901	Ground-water use for irrigation
Mr. David DiSunno Chief Fire Inspector Town of East Hampton 159 Pantigo Road East Hampton, New York 11937 (516) 267-8585	Information regarding the threat of fire and/or explosion at the site

Contact	Information Received
Mr. Kevin Walter, P.E. New York State Department of Environmental Conservation Division of Hazardous Waste Enforcement 50 Wolf Road Albany, New York 12233-0001 (518) 457-4346	No file/information
Mr. John Iannotti, P.E. New York State Department of Environmental Conservation Bureau of Remedial Action 50 Wolf Road Albany, New York 12233-0001 (518) 457-5637	No file/information
Mr. Earl Barcomb, P.E. New York State Department of Environmental Conservation Bureau of Municipal Wastes Section of Landfill Operations Vatrano Road Albany, New York 12205 (518) 457-2051	Site File
Mr. Peter Skinner, P.E. New York State Attorney General's Office Room 221 Justice Building Albany, New York 12224 (518) 474-2432	No file/information
Mr. Ron Tramontano/Mr. Charlie Hudson New York State Department of Health Bureau of Toxic Substances Assessment Nelson A. Rockefeller Empire State Plaza Corning Tower Building, Room 342 Albany, New York 12237 (518) 473-8427	Site File
Mr. James Covey, P.E. New York State Department of Health Nelson A. Rockefeller Empire State Plaza Corning Tower Building Albany, New York 12237 (518) 473-4637	Community Water Supply Atlas

Contact	Information Received
Mr. Rocky Paggione, P.E./ Mr. Louis A. Evans, Atty. New York State Department of Environmental Conservation Division of Environmental Enforcement 202 Mamaroneck Avenue White Plains, New York 10601-5381 (914) 761-6660	No file/information
Mr. Marsden Chen, P.E. New York State Department of Environmental Conservation Bureau of Site Control 50 Wolf Road Albany, New York 12233-0001 (518) 457-0639	Registry form
Mr. John W. Ozard Senior Wildlife Biologist New York State Department of Environmental Conservation Wildlife Resources Center Significant Habitat Unit Delmar, New York 12054 (518) 439-7486	Significant habitats
Mr. Perry Katz U.S. Environmental Protection Agency Region II Room 757 26 Federal Plaza New York, New York 10278 (212) 264-4595	No file/information

4. SITE ASSESSMENT - BULL PATH LANDFILL

4.1 SITE HISTORY

The Bull Path Landfill is an inactive disposal site located between Old Northwest Road, Stephen Hands Path, and Bull Path, approximately 1.3 mi northwest of East Hampton, Suffolk County, New York. The landfill is owned by the Town of East Hampton. The Town operated the 10-acre site as a municipal landfill from 1973 until 1982, and reportedly accepted only brush and construction debris from residents of the Town. Household garbarge was not accepted at the landfill (Appendixes 1.1-1, 1.1-2, and 1.1-3). Personal communication with the Suffolk County Department of Health Services (SCDHS) indicates that the Bull Path Landfill probably did not receive hazardous wastes while in operation (Appendix 1.1-4).

Originally, the Town excavated a large pit to a depth of approximately 50 ft off Bull Path (Appendix 1.1-1). Subsequently, brush and construction debris were compacted into the pit in 8- to 10-ft lifts. The lifts were then covered with 1 ft of clean fill (Appendix 1.1-5). In 9 years of operation, the pile of waste material grew to a height of 20 ft above original grade (Appendix 1.1-1). When the landfill was closed, a berm was built around the south and southwestern perimeter. The final cover consisted of 2 ft of a clean sandy fill and 6-in. of topsoil. The entire landfill was seeded with wildflower and tree seeds (Appendix 1.1-5). There is one monitoring well onsite, inside and to the left of the entrance gate (EA Site Inspection). The well was installed for the Town of East Hampton apparently in early 1983.

4.2 SITE TOPOGRAPHY

The Bull Path Landfill is located between Old Northwest Road, Stephen Hands Path, and Bull Path in the Town of East Hampton, at an elevation of approximately 90 ft above MSL (Appendix 1.2-1). The 10-acre site is in an area of glacial influence with slopes ranging from 3-8 percent. The landfill proper is turtlebacked with slopes ranging 3-7 percent to the top of the mound.

Although the entrance gate off Old Northwest Road is locked, the area is not entirely fenced in, and the landfill is easily accessible. There are two privately owned sand pits adjacent to the northern border of the landfill. There are several homes with private wells located around the landfill, the closest being approximately 100 ft to the southwest. The nearest commercial establishment is approximately 1.5 mi southeast of the site (Appendix 1.2-1, and EA Site Inspection, 21 January 1986).

The closest surface water downgradient of the site is Georgia Pond, approximately 1.1 mi south of the landfill. However, the surface water migration route from the site to this surface waterbody is transected by the Long Island Railroad and several highways (Appendix 1.2-1).

4.3 SITE HYDROGEOLOGY

The site is directly underlain by Pleistocene Age glacial deposits. This deposit is then in turn underlain by Cretaceous Age Magothy Formation, the Clay Member and Lloyd Sand Member of the Raritan Formation and finally by

Precambrian Age gneiss and schist bedrock (Appendix 1.3-1). The ground surface elevation at the site averages approximately 90 ft above MSL. In the vicinity of the site, the Pleistocene deposits are estimated to be 350 ft in thickness (ground surface elevation and Appendix 1.3-2) and largely comprised of till (poorly sorted deposits of boulders, gravel, sand, silt, and clay) and possibly stratifed drift (well graded glacial outwash ranging in texture from gravel to clay-size material). The description of the glacial deposits is based upon a report by Perlmutter and Deluca for the Montauk Point area, the closest area to the site with published geological information (Appendix 1.3-1). Appendix 1.3-3 provides the logs of two wells located near the site and indicates the stratigraphy penetrated to depths of approximately 250 ft below grade: Well S-49422 (148-ft total borehole depth) located approximately 2.4 mi southeast of the site, and Well S-66733 (243-ft total borehole depth) located approximately 2.8 mi east of the site. Although there is a monitoring well located on the site, there is no stratigraphic information available.

The Magothy Formation is estimated to be 500 ft in thickness in the vicinity of the site (Appendix 1.3-2). The upper surface of this deposit is dissected by channels as deep as 300-500 ft below sea level in western Long Island. Similar channels may exist beneath eastern Long Island. Therefore, accurate prediction of formation thickness between control points (boreholes) is difficult. The Magothy, and probably other younger Cretaceous Age deposits present, contain permeable zones partly separated by lenticular beds of silt, sandy clay, and clay (Appendix 1.3-1).

Jensen and Soren (Appendix 1.3-2) estimate that in the vicinity of the site the Clay Member of the Raritan Formation is 200 ft in thickness and the Lloyd Sand Member is 300 ft in thickness. Because the existing wells are completed in the overlying deposits, no detailed descriptions of the Raritan Formation were found in the literature for the site vicinity.

Water pumped from aquifers underlying Suffolk County is the sole source of water for public supply, agriculture, and industry (Appendix 1.3-2). The glacial and Magothy aquifers act as a single hydrologic unit, and are the only aquifers reportedly developed within 3 mi of the site. Therefore, both the glacial and Magothy aquifers are designated as the aquifer of concern.

Recharge to the upper glacial aquifer is derived entirely from precipitation. The average annual precipitation in the area is 48 in. of which 12 in. is estimated to infiltrate to the water table (Appendix 1.3-1). The remainder of the precipitation is returned to the atmosphere by evaporation and transpiration, except for a small amount of runoff to stream. Recharge to the Magothy aquifer is derived entirely from the downward movement of water from the overlying glacial aquifer.

Based upon the March 1985 ground-water table contour map (Suffolk County Department of Health Services), the depth to ground water is estimated to be approximately 80 ft below ground surface. The site appears to be located on a ground-water divide and therefore, the regional ground-water natural (unaffected by pumping) flow direction may be toward the north, east, or south. Within 3 mi of the site, the aquifer of concern has been reportedly developed by three Suffolk County Water Authority well fields and numerous private wells.

Appendix 1.3-4 provides a list of the municipal wells located within 3 mi of the site. The developed area within 3 mi of the site is served by the Suffolk County Water Authority and numerous private wells.

4.4 SITE CONTAMINATION

Waste Types and Quantities

The Bull Path Landfill operated from 1973 to 1982. The site was used exclusively for the disposal of brush and construction debris. The Town of East Hampton did not knowingly accept household garbage, hazardous wastes, scavenger wastes, or recyclable materials (Appendixes 1.1-1 and 1.1-2).

Ground Water

Analytical data from the monitoring well onsite are available for a total of 6 days out of the period from 23 May 1983 through 23 April 1986. The data indicate that phenol (0.2 mg/liter) and iron (1.73 mg/liter) have occasionally exceeded NYS Class GA ground-water standards; however, there are no "ambient" data available for comparison (Appendix 1.4-1).

Surface Water

No data available.

Soil

No data available.

Air

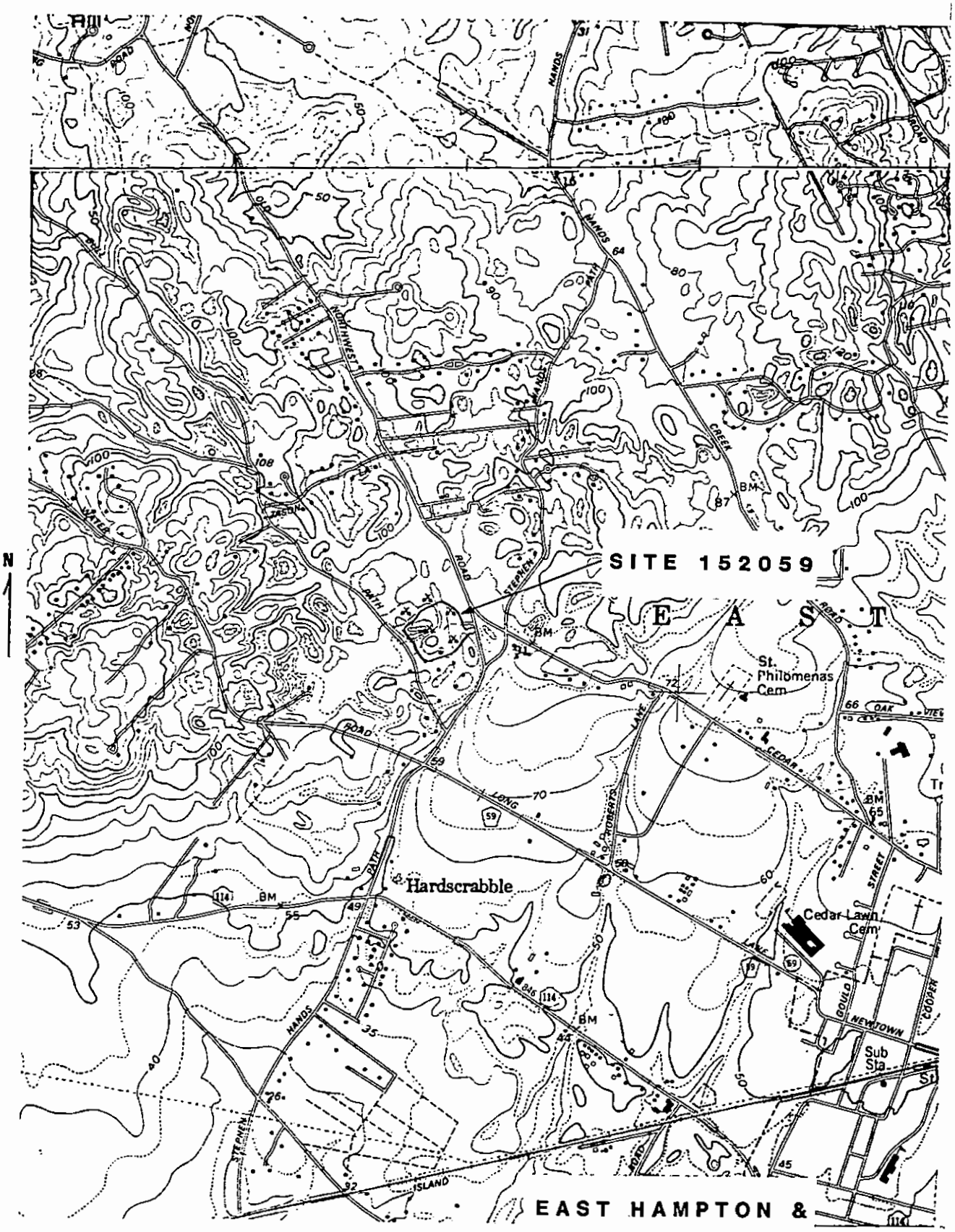
No data available.

BULL PATH LANDFILL
TOWN OF EAST HAMPTON, SUFFOLK COUNTY

The Bull Path Landfill is an inactive disposal site located between Old Northwest Road, Stephen Hands Path and Bull Path, approximately 1.3-mi northwest of East Hampton, Suffolk County, New York. The landfill is owned by the Town of East Hampton. The Town operated the 10-acre site as a municipal landfill from 1973 until 1982, and reportedly accepted only brush and construction debris from residents of the Town. Personal communication with the Suffolk County Department of Health Services (SCDHS) indicates that the Bull Path Landfill probably did not receive hazardous wastes while in operation. EA has researched all pertinent agency files, interviewed the site owner, conducted a site inspection, and has found no documented hazardous waste or contamination at this site.

Site Coordinates:
Latitude: 40° 58' 53"
Longitude: 72° 13' 07"

BULL PATH LANDFILL



EAST HAMPTON &

GARDINERS ISLAND WEST QUADS.

Scale 1:24,000

Facility name: Bull Path Landfill

Location: Town of East Hampton, Suffolk County

EPA Region: II

Person(s) in charge of the facility: Town of East Hampton
159 Pantigo Road
East Hampton, NY 11937

Name of Reviewer: EA Science and Technology Date: 3 July 1986

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

The Bull Path landfill is an inactive disposal site located between Old Northwest Road, Stephen Hands Path, and Bull Path, approximately 1.3 mi northwest of East Hampton, Suffolk County, New York. The landfill is owned by the Town of East Hampton. The Town operated the 10-acre site as a municipal landfill from 1973 until 1982, and reportedly accepted only brush and construction debris from residents of the Town. Personal communications with the Suffolk County

Scores: S_M = (S_{gw} = S_{sw} = S_a =)
S_{FE} =
S_{DC} =

FIGURE 1
HRS COVER SHEET

Department of Health Services (SCDHS) indicates that the Bull Path Landfill probably did not receive hazardous wastes while in operation.

EA has researched all pertinent agency files, interviewed the site owner, conducted a site inspection, and has found no documented hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: 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. Include the location of the document.

FACILITY NAME: Bull Path Landfill

LOCATION: Town of East Hampton

DATE SCORED: 3 July 1986

PERSON SCORING: EA Science and Technology

PRIMARY SOURCES(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.)

Suffolk County Department of Health Services
Town of East Hampton Department of Natural Resources

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

EA has researched all pertinent agency files, interviewed the site owner, conducted a site inspection, and has found no documented or alleged hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

EPA Form 2070-12
July, 1981

Bull Path Landfill

EPA

Potential Hazardous Waste Site

Preliminary Assessment

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Bull Path Landfill	Stephen Hands Path

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
East Hampton	NY	11937	Suffolk	103	

09 COORDINATES LATITUDE	LONGITUDE
40° 58' 53"	72° 13' 07"

10 DIRECTIONS TO SITE (Starting from nearest public road)

Site is ¼ of a mile north of the intersection of Stephen Hands Path and Bull Path in the Town of East Hampton.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Town of East Hampton	159 Pantigo Road

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
East Hampton	NY	11937	(516) 324-2199

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Same as above	

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)

☐ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES ☐ NO DATE 1 / 21 / 86 (MONTH DAY YEAR)

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☒ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): EA Science and Technology

02 SITE STATUS (Check one)

☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

1973 (BEGINNING YEAR) | 1982 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Site reportedly received mixed municipal refuse and brush (quantity unknown).

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

None known. Based on site inspection, interview with owner/operator and review of agency files, there is no indication hazardous wastes were ever deposited in the landfill.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Rebecca Ligotino	EA Science and Technology	(914) 692-6706

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Stephen Barry		EA	(914) 692-6706	3 / 26 / 86 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

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 Brush (Specify)

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

TONS _____
CUBIC YARDS Unknown
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 Mixed municipal refuse, brush

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

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers) Not applicable

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

V. FEEDSTOCKS (See Appendix for CAS Numbers) Not applicable

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

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

EA site inspection and interview, 21 January 1986.
New York State Department of Environmental Conservation Bureau of Hazardous Site Control files.
Suffolk County Department of Health Services files.

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

EPA Form 2070-13
July, 1981

Bull Path Landfill

EPA

Potential Hazardous Waste Site

Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NEW

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Bull Path Landfill	Stephen Hands Path and Old Northwest Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
East Hampton	NY	11937	Suffolk	103	

09 COORDINATES — LATITUDE: 40° 58' 53".__ LONGITUDE: __72° 13' 07".__

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: 01 / 21 / 86 (MONTH DAY YEAR)

02 SITE STATUS: ☐ ACTIVE ☒ INACTIVE

03 YEARS OF OPERATION: 1973 (BEGINNING YEAR) | 1982 (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 EA Science and Tech (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
William Going	Environmental Scientist	EA	(914) 692-6706

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Ellen Bidwell	Geologist	EA	(914) 692-6706
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Gene Garypie	Assistant	159 Pantigo Road	(516) 324-2199
	Foreman	East Hampton, NY 11937	( )
Larry Penny	Director,	159 Pantigo Road	( )
	Natural	East Hampton, NY 11937	(516) 267-8462
	Resources		( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1330 hours	Sunny, approximately 45°

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Rebecca Ligotino	EA Science and Technology	(914) 692-6706

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Ellen Bidwell		EA	692-6706	7 / 3 / 86 (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	NEW

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS unknown

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ 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 Brush, stumps, and construction debris

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

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

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

V. FEEDSTOCKS (See Appendix for CAS Numbers) Not applicable

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

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

EA Site Inspection
Appendixes 1.1-1 and 1.1-2
Suffolk County Department of Health Services Files

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. HAZARDOUS CONDITIONS AND INCIDENTS None

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued) None

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

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

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

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

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

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

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

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: Not applicable

IV. COMMENTS

No documented or alleged hazardous wastes or contamination at the site.

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

EA Site Inspection
Appendixes 1.1-1, 1.1-2, and 1.1-4
SCDHS files.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

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				
☐ 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	unknown	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☐ A. BUILDINGS ON SITE

06 AREA OF SITE

10 (Acres)

07 COMMENTS

No known or alleged hazardous waste or contamination.

IV. CONTAINMENT No known or alleged hazardous waste

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.

V. ACCESSIBILITY No known or alleged hazardous waste

01 WASTE EASILY ACCESSIBLE: ☐ YES ☐ NO

02 COMMENTS

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

EA Site Inspection
Appendixes 1.1-1, 1.1-2, and .1.-4
SCDHS Files

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NEW

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☒
NON-COMMUNITY	C. ☐	D. ☒

02 STATUS Unknown

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☐
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE
A. 1.25 (mi)
B. 100 ft. (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 34,814

03 DISTANCE TO NEAREST DRINKING WATER WELL 100 ft. (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
approximately (ft) 80 ft.	N, E, S	approx. 80 (ft)	unknown (gpd)	☒ YES ☐ NO

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

There are eight wells located within a 3-mile radius of the site, which serve the East Hampton water district. Eight of these wells are developed in the Glacial Aquifer and one well also in the Magothy. Depths range from 86 to 406 feet.

10 RECHARGE AREA
☒ YES ☐ NO
COMMENTS

11 DISCHARGE AREA
☐ YES ☒ NO
COMMENTS

IV. SURFACE WATER Not applicable - no viable overland route.

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
	☐	(mi)
	☐	(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. 557 NO. OF PERSONS	B. 2310 NO. OF PERSONS	C. 5324 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 100 ft (mi)

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

04 DISTANCE TO NEAREST OFF-SITE BUILDING 100 ft. (mi)

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

The site is located on the outskirts of a rural resort community. A few homes surround the site, but generally the area is sparsely populated.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

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) Unknown

☐ 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
1,300-1,400 (ft)	Unknown (ft)	Unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
12 (in)	2.5-3.0 (in)	3-7 %	SW	3-8 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. _____ (mi)

OTHER: B. 2.25 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: None

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. 1.5 (mi)	B. 100 ft (mi)	C. 0.17 (mi)	D. 0.17 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site generally slopes to the southwest. There is a berm along this border of the landfill. The regional topography is gently sloping 3-8 percent to the southwest.

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

EA Site Inspection; Section 4.2 and 4.3; Appendixes 1.2-1 and 1.5-1
NYSDOT 1981. 7.5-minute Planimetric Series. East Hampton and Gardiners Is. West Quads.
LIRPB 1982. Quantification and Analysis of Land Use for Nassau and Suffolk Counties.
LIRPB 1985. Population Survey. 1985: Current Population Estimates for Nassau and Suffolk Counties. Hauppauge, NY.

EPA FORM 2070-13 (7-81)

U.S. Department of Interior Geological Survey. 1967. Map of Flood-Prone Areas. 7.5-minute series. East Hampton and Gardiners Is. West Quads.
Ozard, J. 1986. NYSDEC. Personal Communication. 6 March

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. SAMPLES TAKEN None

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Organic Volatiles	Measured with a photoionization detection device; no levels above background were detected
Slope	Estimated with Suunto Clinometer

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☒ AERIAL

02 IN CUSTODY OF EA Science and Technology (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS EA Science and Technology

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

EA Site Inspection

EPA

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

I. IDENTIFICATION

01 STATE NY	02 SITE NUMBER NEW

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

01 NAME Town of East Hampton		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS *(P.O. Box, RFD #, etc.)* 159 Pantigo Road		04 SIC CODE	10 STREET ADDRESS *(P.O. Box, RFD #, etc.)*		11 SIC CODE
05 CITY East Hampton	06 STATE NY	07 ZIP CODE 11937	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)*

Appendixes 1.1-1 and 1.1-2

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. ON-SITE GENERATOR N/A

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

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. PAST RESPONSE ACTIVITIES None

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

Section 3.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NEW

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

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

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

Section 3.

6. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 ADEQUACY OF EXISTING DATA

The available data are considered insufficient to prepare a final HRS score for this site. There is no documentation of hazardous waste disposal and no records available related to specific waste types or quantities. Also, soil and leachate quality, and complete HSL analysis of ground water are lacking.

6.2 RECOMMENDATIONS

In order to prepare a final HRS score for this site, analytical data regarding the HSL quality of the ground water, leachate, and sediment will be necessary, thus requiring performance of a Phase II investigation. The proposed Phase II study would include the installation of four test borings/observation wells, and the collection and analysis of ground-water, leachate, and sediment samples.

6.3 PHASE II WORK PLAN

6.3.1 Task 1 - Mobilization and Site Reconnaissance

Project mobilization includes review of the Phase I report and updating the site data base with any new information made available since completion of the Phase I report. Based on that review, a draft scope of work for this site will

be agreed to and a project schedule developed. At this time, a draft Quality Assurance/Quality Control (QA/QC) document will be prepared in accordance with the most up-to-date NYSDEC guidelines.

Site reconnaissance will be performed to examine current general site access for Phase II studies. Site reconnaissance will familiarize key project personnel with the site, enable the project geologists to evaluate potential boring/well locations, and enable the project Health and Safety Officer to develop specific health and safety requirements for the field activities. Emergency, fire, and hospital services will be identified. Standard practice during site reconnaissance is an air survey with a photoionization detector (HNU or similar instrument). The air survey would be performed around the site perimeter and throughout the site for safety purposes. Detection of releases to air during site reconnaissance may warrant further confirmation studies. Based on the Phase I study, it is expected that field activities will require only Level D health and safety protective measures.

6.3.2 Task 2 - Geophysics

Multidepth EM and earth resistivity surveying will be performed around the site area perimeter to evaluate the potential presence of ground-water contaminant plumes and stratigraphic conditions. The number of stations and value of depth settings will be determined on the basis of field conditions. Results of the geophysics will be used to refine the specifications for locations, depths, and number of observation wells to be installed.

6.3.3 Task 3 - Preparation of Final Sampling Plan

All data collected during Tasks 1 and 2 will be evaluated to finalize sampling and boring/well locations. The final sampling plan will be developed and submitted to NYSDEC for approval. The plan will include final sampling locations, boring and well specifications, and reference pertinent portions of the QA/QC Plan. A final budget will be developed to complete the drilling and sampling program.

6.3.4 Task 4 - Test Borings and Observation Wells

Because there are hundreds of feet of unconsolidated sediment underlying the site, EA recommends that the subsurface investigation be confined, at this time, to the shallow glacial aquifer to confirm if ground-water contamination is present. If ground-water contamination resulting from the site is detected, then the investigations could be expanded to include the installation and sampling of monitoring wells completed to greater depths. Although there is a monitoring well located onsite, well construction details and stratigraphy encountered are unknown. Therefore, based upon currently available information, EA recommends the installation of four test borings/ observation wells. This work would be performed under the fulltime supervision of a geologist. It is anticipated that the hollow-stem auger drilling method will be used. Prior to the drilling of each boring/well, and at the completion of the last boring/well, the drilling equipment which comes in contact with subsurface materials will be steam-cleaned, as well as the split-spoon sampler after obtaining each sample. Soil sampling will be performed using a split-spoon sampler at approximately 5-ft intervals and at detected major stratigraphic changes. An

HNU, or similar instrument, would be used to monitor the potential organic vapors emitted during drilling operations and from each soil sample. Samples of major soil/unconsolidated sediments will be collected for grain-size and/or Atterburg Limits analysis.

It is anticipated that the wells to be installed at this site will be completed in the unconsolidated sediment, approximately 10-20 ft below the ground-water table. Standard construction of such a well would include 10-20 ft of 2-in. diameter threaded-joint PVC screen and an appropriate length of PVC riser with a bottom plug cap, sand pack, bentonite seal, and protective surficial steel casing with a locking cap.

Upon completion and development of the wells by air surging/pumping, the vertical elevation of the upper rim of each well casing and the horizontal location will be surveyed in order to aid in evaluation of the ground-water flow direction. Depending upon the yield of each Phase II well, a short-term, low-yield pumping test will be performed in each well.

For cost estimating purposes, it is assumed that:

a. The depth of each of the four monitoring wells will be 100 ft below ground surface.

b. The four wells will require 20 days to install, develop, and test.

c. All drill sites are accessible by truck-mounted drilling rigs as determined by the driller.

d. There are no excessive amounts of cobbles/boulders which would increase drilling time.

e. Steam-cleaning of drilling/sampling equipment will be performed at each boring/well location. The fluids will be discharged to ground surface.

f. All drill cuttings, fluids, and development water will be left on, or discharged to, the ground surface in the immediate area of the activity.

g. That permission from appropriate land owners to drill borings/wells on their property will be a simple process (expedited by the NYSDEC, if necessary) so that delays during field operations are not incurred.

6.3.5 Task 5 - Sampling

Analyses of ground-water samples performed to date have included only standard water quality parameters and metals. Because the construction details and integrity of the onsite monitoring well are unknown, sampling of that well during the Phase II study is not recommended.

All Phase II sampling and analysis will be conducted in accordance with the project QA/QC Plan. The analytical program for every water and sediment sample will include the 130 organic and 25 inorganic parameters listed in Statement of Work No. 784, New York State Department of Environmental Conservation Superfund and Contract Laboratory Protocol, January 1985. Also, all additional

nonpriority pollutant GC/MS major peaks will be identified and quantified. Major peaks will be considered as those whose area is 10 percent or greater than the calibrating standard(s). Based upon the currently available information, collection and analysis of the following numbers and types of samples is recommended:

4 Ground-water samples (one from each Phase II well)

1 Leachate sample

1 Sediment sample to be collected at the leachate sample location.

6.3.6 Task 6 - Contamination Assessment

EA will evaluate the data obtained during the records search and field investigation: prepare final HRS scores and documentation forms; complete EPA Form 2070-13; summarize site history, site characteristics, available sampling and analysis data; and determine the adequacy of the existing data to confirm release, and if there is a population at risk.

6.3.7 Task 7 - Remedial Cost Estimate

EA will evaluate remedial alternatives for the site and develop a list of potential options given the information available on the nature and extent of contamination. Approximate cost estimates for the selected potential remedial options will be computed. This work is not intended to be, or a substitute for, a formal cost effectiveness analysis of potential remedial actions.

6.3.8 Task 8 - Final Phase II Report

In accordance with current (January 1985) NYSDEC guidelines, the Phase II report will include:

a. The results of the Phase II investigation, complete with boring logs, photos, and sketches developed as part of the Phase II field work.

b. Final HRS scores with detailed documentation.

c. Selected potential remedial alternatives and associated cost estimates.

In addition to the final Phase II report, the following raw data and resulting reduction would be provided to NYSDEC:

a. geophysical
b. well logs
c. all sampling forms and data
d. all analytical data
e. chain-of-custody forms
f. other pertinent collected information.

6.3.9 Task 9 - Project Management/Quality Assurance

A Project Manager will be responsible for the supervision, direction, and review of the project activities on a day-to-day basis. A Quality Assurance Officer will ensure that the QA/QC Program protocols are maintained and that the resultant analytical data are accurate.

6.4 PHASE II COST ESTIMATE

Based on the scope of work and assumptions described above, the estimated costs to complete the Phase II investigation of the Bull Path Landfill site are as follows:

Consultant Costs (including labor, direct costs, fee)	$ 41,500
Drilling Contractor	53,300
Laboratory	11,700
Total	$106,500

Appendix 1.1-1

RECEIVED FEB 2 1 1986

INTERVIEW ACKNOWLEDGEMENT FORM

Site Name: Bull Path Landfill

I.D. Number: 152059

Person Contacted: Gene Garypie

Date: 21 January 1986

Title: Assistant Foreman

Affiliation: Town of East Hampton

Phone No.: (516) 324-2199

Address: Town of East Hampton Landfill
Panpigo Road
East Hampton, New York 11937

Type of Contact: In person

Persons Making Contact:
EA Representatives:

William Going
Ellen Bidwell

Interview Summary:

The Bull Path Landfill, built on land owned by the Town of East Hampton, operated from 1973 to 1982. The landfill received only brush from residents of the Town of East Hampton.

Originally the Town excavated a 50 foot pit off the entrance on Bull Path Road. In 9 years of operation, the brush pile grew to a level of 20 feet above original grade. When the landfill closed, a sand cover was placed on top. A berm was built up and seeded around the south-southwestern border of the landfill. This was installed to mask any unsightly views from adjacent residences. There are two privately owned sand pits adjacent to the northern border of the landfill.

There are several boring holes on site and one monitoring well. Mr. Garypie did not know the whereabouts of any analytical data or boring logs.

Acknowledgement:

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to EA Science and Technology interviewers, or as I have revised below, is an accurate account.

Revisions (please write in corrections to above transcript):

Signature: Eugene W. Garypie

Date: Feb 19, 1985

Appendix 1.1-2

·19-2 (5/77)
formerly SW-7

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR APPROVAL TO ~~CONSTRUCT~~ operate A SOLID WASTE MANAGEMENT FACILITY

Received from NYDEC Bureau of Landfills

FOR STATE USE ONLY	
PROJECT NO. 52-5-03	DATE RECEIVED 3/16/79
DEPARTMENT ACTION ☐ Approved ☐ Disapproved	DATE

EF APPLICATION INSTRUCTIONS ON REVERSE SIDE

. WNER'S NAME own of East Hampton	2. ADDRESS (Street, City, State, Zip Code) 159 Pantigo Road, East Hampton, NY 11937	3. Telephone No. (516) 324-2620
. OPERATOR'S NAME homas Bennett, Foreman	5. ADDRESS (Street, City, State, Zip Code) 159 Pantigo Road, East Hampton, NY 11937	6. Telephone No. (516) 324-2620
NGINEER'S NAME Greenman-Pedersen, Associates PC	8. ADDRESS (Street, City, State, Zip Code) 100 West Main Street, Babylon, NY 11702	9. Telephone No. (516) 587-5060

NGINEER'S N.Y.S. LICENSE NO.
30488

10. TYPE OF PROJECT FACILITIES:
☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration
☐ Pyrolysis ☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☒ Other Brush and Construction Materia

11. Briefly describe the project including the basic process and major components: The Bull Path Landfill is used exclusively for th i posal of brush, stumps and construction debris. This site does not accept household garbage, hazardous wastes or recyclable materials. Scavenger wastes are not accepted at this site.

1 Describe location of facility. (Attach a USGS Topographic Map showing the exact location of the facility) The site is located at the inter- s tion of Stephen Hands Path and North-West Road approximately 2.1 miles west of the Village of East Hampton.

1 County in which facility is located: S folk

14. Environmental Conservation Region in which facility is located: 1

15. Municipalities Served by Facility	County	No. of Municipalities
T n of East Hampton Village of East Hampton	Suffolk	2

Logged in 3/7/79

16. Describe briefly how the proposed facility relates to the Comprehensive Solid Waste Management Plan for the Municipality. Explain any deviation from that Plan.
The Bull Path Landfill was an abandoned Village facility that was reactivated for brush and stump d sposal. The site is nearing capacity and will be closed in approximately 1 year.

If the facility is other than a sanitary landfill, describe the residues in terms of quantities and types. Also indicate the methods and locations of residue disposal or, if recyclable, indicate markets:

N A

If the facility is a sanitary landfill, provide the following information:

a. Total useable area – 10.0 Acres
b. Distance to nearest surface water – 11,000 Feet
c. Depth to nearest ground water – 60 Feet
d. Depth to nearest rock – N/A Feet
e. Distance to nearest airport – 2.5 miles
f. Expected life of site – 1 years
g. Is site on a flood plain? ☐ Yes _____ Year Flood ☒ No
h. Predominant type of soil on site: MnB, CpE (Use Unified Soil Classification System)

. Anticipated construction starting and completion dates		20. Estimated Population Served	
From	To	Current	Design
N/A		13,000	16,000
. Estimated Cost		22. Estimated Daily Tonnages of Solid Waste	
Initial	Annual	Current	Design
N/A		20	30

23. Operating Hours per Day
– 8:00 AM – 4:30 PM

24. Are attached plans and specifications in substantial conformance with "Content Guidelines for Plans and Specifications"? ☐ Yes ☐ No

. CERTIFICATION:
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

8/23/78
Date

Terry Sutwell Councilman
Signature and Title

Appendix 1.1-3

47-15-1(5/78)

1 Trans. Type
1 ☐ Delete
2 ☒ Add
3 ☐ Change

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
FACILITY INSPECTION

2 Facility No. 7: 5,2,5,0,3,

Facility Name: EASTHAMPTON (ANDF

Location (Town, etc.): Bulls Path EASTHAMPTON

Received from NYDEC Bureau of Landfills

Persons Interviewed & Titles: T. BENNETT

10 Date 15	16 Time 21	22 Inspector 36	37	38 Remarks 72
9/11/78	0230 PM	STEVEN KRAMERLY	I	

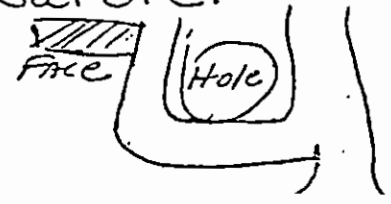
Instructions: At each question, use a soft pencil to blacken either the YES or NO box.

	(BAD) YES	(GOOD) NO	
I. LEACHATE			
1. Is leachate visible on, or near the site? 22		X	
2. Is leachate entering surface water? 23		X	
*3. Is leachate known to be contravening groundwater standards? 24		X	22
4. Is refuse being placed into water? 25		X	20
II. BURNING			
*5. Is refuse burning without permit, or not under permit conditions? 26		X	24
6. Is there evidence of unapproved previous burning? 27		X	11
III. COVER			
7. Is previous day's refuse not covered? 28		X	
8. Is refuse protruding through daily, intermediate or final cover? 29		X	
9. Is intermediate or final cover not in place, or improperly applied? 30		X	26
10. Is wrong cover material used? 31		X	15
IV. GRADING			
11. Are there depressions, ponding, cracked cover, too steep slopes? 32		X	
12. On completed areas, is the vegetative cover missing or inadequate? 33		X	28
13. Are there soil erosion or other drainage problems? 34		X	06
V. SEPARATION DISTANCES			
14. Is refuse closer than 50 feet to site boundaries? 35		X	
*15. Is refuse known to be less than 5 feet above groundwater? 36		X	30
*16. Is refuse known to be less than __ feet from surface water? 37		X	06
VI. NUISANCE CONDITIONS			
17. Are odors detectable off-site? 38		X	
18. Is blowing dust or dirt excessive or a nuisance? 39		X	
19. Are papers uncontrolled, or blowing off-site? 40		X	
*20. Is methane gas known to be leaving the site? 41		X	32
21. Is noise excessive off-site? 42		X	10
VII. OPERATION CONTROL			
*22. Are Operation Permit conditions being violated? 43		X	
23. Is refuse being deposited in a too large area? 44		X	
24. Is refuse spread in layers thicker than 2 feet? 45		X	
25. Is refuse being compacted poorly? 46		X	
26. Is the working face height greater than 10 feet? 47		X	
27. Is the working face steeper than a 3 to 1 slope? 48		X	34
28. Is the equipment on site not adequate for proper operation? 49		X	18
VIII. SAFETY AND HEALTH			
29. Are scavengers present? 50		X	
30. Is salvaging uncontrolled or creating a nuisance? 51		X	
31. Are rodents and insects not controlled? 52		X	36
32. Do unsafe conditions or equipment exist? 53		X	07
IX. ACCESS CONTROL			
33. Is access to the site improperly or inadequately controlled? 54		X	
34. Is the site open without an attendant? 55		X	38
35. Is information about the site not posted? (hours of operation, etc.) 56		X	07
36. Is access to the operating area poor or unsafe? 57		X	

*NOTE: For these questions, see the "Background Information Sheet" for this facility.

Site Sketch/Comments

Refuse continues to be of demolition + vegitative nature. Site looks good.



Appendix 1.1-4

182

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

COMMUNICATIONS RECORD FORM

Distribution: (✓) Bull Path LF, ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Jim Pum, P.E. Date: 12/10/85

Phone Number: 516-451-4634 Title: Public Health Engineer

Affiliation: SCDHS - Haz. Mat. Mgt Type of Contact: In person

Address: 15 Horseblock Rd Person Making Contact: Lightwood/Going/Wilson
Farmingville NY 11738

Communications Summary: Re: Bullpath LF 152049

- Site probably did not receive hazardous waste.
- Site probably should not be on the Superfund list per attached list...

(see over for additional space)

Signature: William L. Going

LANDFILL LOCATION MAP NOS. 1 & 2

INFORMATIONAL STATUS SHEET

A - Active
C - Closed
T - Transfer
B - Brush

S - Scavenger
L - Compost
W - Waste Oil
R - Resource Recovery

NO.	LOCATION	STATUS
	Babylon - Gleam St., W. Babylon	A S
	Huntington - Old Deposit Rd., E. Northport	A, R, W
	Smithtown - Baler & Landfill, Old Northport Rd., Kings Park	A, R, W, B
	Smithtown Landfill - Old Northport Rd., Kings Park	C
	Islip - Sonja Rd., Deer Park	C S
	Saltaire Incineration - Fire Island, NY	A
	Fire Island Pines - Utilizing Barges	C
	Montclair Avenue, Smithtown	C
	S. Montclair Avenue, Rear Highway Dept.	C
	Islip Landfill, Blydenburgh Rd., Hauppauge	A S
	Islip Landfill, Lincoln Avenue, Sayville	A, B, W, R S
	Brookhaven Landfill, Holtsville	C
	Pine Road Ecology, Coram	A, L
	Brookhaven Landfill, Horseblock Rd., Yaphank	A, B, R, W
	Brookhaven National Laboratory	A
	Brookhaven Landfill, Paper Mill Rd., Manorville	A, T, L S
	Brookhaven Landfill, Yaphank Rd., Center Moriches	C
	Riverhead Landfill, N/S Youngs Rd., Riverhead	C S
	Riverhead Landfill, S/S Youngs Rd., Riverhead	A, R, N S
	Eastport Landfill, Rte. 27, Eastport	C
	Westhampton, Old Country Rd., Westhampton Beach	A, C, T, S
	Westhampton Landfill, S. Country Road, Quogue	C S
	Old Quogue Landfill, S. Country Road, Quogue	C
24	Hampton Bays, Jackson Ave., Hampton Bays	A, T, B, C
	Southold Landfill, Sound Ave., Cutchogue	A, S, R, W
	Old North Sea Landfill	C S
	North Sea Landfill, Major Path	A, S
28	Shelter Island Landfill	A, R, S
	Sag Harbor Landfill, Sag Harbor Tpke., Bridgehampton	A, B, T S
30	Bulls Path Landfill	A, B C
31	East Hampton Landfill, Springs, East Hampton	A, R, S
	Hither Hills Landfill, Main Rd., Montauk	A, R, S
	Fishers Island Landfill	A S

Landfills which may have received hazardous wastes

Appendix 1.1-5

Received from:
Suffolk Co. Dept. of
Health

Bull Path Brush and Construction Debris Site

The deposited materials are compacted on a continuous basis into 8-10 foot lifts and covered with 1 foot of clean fill. The final cover consists of 2 feet of clean fill topped with 6 inches of topsoil. The completed parts of this site were hydro seeded with wildflower and tree seeds in 1976 and there has been a successful propogation of several tree species by this method. This procedure will be continued as the site is closed out.

Appendix 1.3-1
1 of 7

Availability of Fresh Ground Water Montauk Point Area Suffolk County Long Island, New York

By NATHANIEL M. PERLMUTTER *and* FRANK A. DELUCA

RELATION OF SALT WATER TO FRESH GROUND WATER

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1613-B

Prepared in cooperation with the U.S. Air Force

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1963

Thirteen observation wells, 2 inches in diameter and ranging in depth from about 70 to 150 feet, were installed at nine sites (test well symbols, pl. 1). At four of these sites, pairs of shallow and deep wells were installed to observe heads at different depths in fresh and salt water. The wells were developed and pumped by compressed air with a gasoline-driven jet pump.

Water from four of the observation wells was analyzed for chemical content. About 100 analyses were made of the chloride content of water from the observation wells and pumping wells in the report area. A water-level measurement program, begun immediately after the construction of the observation wells, was continued through September 1961. Water-stage recorders were installed on several wells for periods ranging from a few days to several weeks. The altitude of measuring points on observation wells were related to mean sea level by spirit leveling, and a water-level contour map (pl. 1) was prepared.

Thirty-four active and abandoned wells were inventoried (table 3), and a brief examination was made of the surficial geology, particularly of the exposures in cliffs along the south shore.

PREVIOUS INVESTIGATIONS

The surficial geology of the Montauk Point area has been described briefly by Fuller (1914) in a report, which contains a geologic map of Long Island and a few sketches of outcrops at Montauk Point. As part of another island-wide study of the ground-water resources, Suter, deLaguna, and Perlmutter (1949) prepared contour maps showing the depth to the Cretaceous deposits and bedrock beneath Long Island, including the Montauk area. A report by Perlmutter and Crandell (1959, p. 1064) presents generalized sections of the southshore beaches of Long Island, which suggest the presence of salt water in the deep aquifers beneath Montauk Point. However, no detailed study of the water resources of the area had been made prior to the present investigation.

ACKNOWLEDGMENTS

The writers acknowledge the cooperation of the U.S. Army Corps of Engineers, who supplied large-scale maps and other engineering data on former Camp Hero; the New York State Water Resources Commission, which provided records of existing wells; land owners who gave permission to enter their property to measure and install observation wells; and several well drilling firms which provided advice in planning the construction of the observation wells. The close cooperation of military and civilian personnel at both the Suffolk County Air Force Base, Westhampton, N.Y., and the Montauk Air Force Station expedited the drilling of the test wells and the collection of hydrologic data.

GEOLOGY

The Montauk Point area is underlain by crystalline bedrock of Precambrian age upon which rest, in succession, unconsolidated deposits of Cretaceus, Pleistocene, and Recent age. As the bedrock and the Cretaceous formations are believed to contain salt water and are not penetrated by any wells in or near the project area, only a brief description of them, condensed from Suter, deLaguna, and Perlmutter (1949, p. 13–46 and pls. 10, 13), is given.

PRECAMBRIAN BEDROCK

The bedrock probably consists of gneiss and schist. Its surface is about 1,000 to 1,300 feet below sea level and slopes southeastward about 80 feet per mile. Very salty water is probably contained in openings along joints and other fractures in the rock. Because the bedrock has low permeability and contains only salty water, it is not considered an aquifer.

CRETACEOUS FORMATIONS

Immediately above the bedrock is the Raritan formation, which is about 300 to 400 feet thick. The Raritan is divided into a lower unit called the Lloyd Sand Member and an upper unit called the clay member. The Lloyd Sand Member is an artesian aquifer that contains fresh water in the western part of Long Island, but at Montauk Point it probably contains salty water only. The overlying clay member confines the water in the Lloyd.

The Raritan Formation is overlain by undifferentiated deposits of Cretaceous age that include the Magothy and probably several younger Cretaceous formations (Perlmutter and Crandall, 1959). These deposits contain permeable zones partly separated by lenticular beds of silt, sandy clay, and clay. The permeable zones probably could yield as much as 1,000 gpm to individual large wells, but the water is believed to be nearly as salty as the ocean. The Cretaceous surface in western Long Island is dissected by channels as deep as 300 to 500 feet below sea level. Similar deep channels probably exist beneath parts of the Montauk Point area, but the data are scanty as the deepest test well in the report area is terminated in glacial deposits at a depth of 130 feet below sea level.

PLEISTOCENE DEPOSITS

GENERAL CHARACTER AND STRATIGRAPHY

The Pleistocene deposits of Long Island are end products of the advance and melting of several ice sheets during the Pleistocene Epoch. Because of the complex geologic history of these deposits, which are important sources of ground water, a summary of the general character of glacial deposits and of the sequence of glacial units in Long Island is given below, followed by a description of the strata in the Montauk Point area.

Glacial deposits may be divided into two principal types: (1) till and (2) stratified drift. Till is predominantly composed of unsorted or poorly sorted deposits of boulders, gravel, sand, silt, and clay, dropped directly from melting ice. Till deposited as an irregular surficial mantle is called ground moraine. A ridge composed chiefly of till and marking the former front of an ice sheet is called an end moraine. Stratified drift is deposited by meltwater streams as outwash deposits, in lakes as glaciolacustrine deposits, and in the sea as glaciomarine deposits. Stratified drift is generally distinctly bedded and well graded, owing to the sorting action of the water from which it is deposited. The beds may range in texture from gravel to clay size, depending on the velocity of the water and the size of the source material. A detailed account of the origin and nature of glacial deposits is given in Flint (1957).

The lowermost formation of Pleistocene age on Long Island is the Jameco Gravel, a coarse-grained outwash deposit. Above the Jameco is the Gardiners Clay, a fossiliferous marine interglacial formation composed chiefly of beds of silt and clay. The beds above the Gardiners Clay consist of several sequences of outwash and till. Fuller (1914, p. 114–157) divided these units into the Jacob Sand and the Manhasset Formation. He subdivided the Manhasset Formation into two outwash members separated by a till member called the Montauk Till, after the type area at Montauk Point. According to Fuller, erosion of the Manhasset Formation was followed by deposition of more outwash and till during the last, or Wisconsin Stage of glaciation. The uppermost deposits of till were laid down as part of the Ronkonkoma end moraine, which forms the surface of most of the Montauk Point area.

Because of the difficulty in recognizing discrete units of till and outwash in many well logs and outcrops, the Geological Survey generally uses the informal name upper Pleistocene deposits for glacial deposits of post-Gardiners age. Although Fuller believed that the post-Gardiners deposits were partly Illinoian and partly Wisconsin in age, later workers, including Wells (1934, p. 121–122), and Mac-

Clintock and Richards (1936, p. 332), have suggested that they were laid down entirely during the Wisconsin Stage.

PLEISTOCENE STRATIGRAPHY OF THE MONTAUK POINT AREA

Because the evidence from generalized well logs and well samples was scanty and because not enough time was available to make a detailed examination of the lithology and structural features of the outcrops along the south shore, the glacial deposits in the report area were not correlated specifically with known Pleistocene formations but have been broadly divided into (1) a lower unit of stratified drift and (2) an upper unit consisting of undifferentiated deposits of till and stratified drift (pl. 2).

LOWER UNIT OF STRATIFIED DRIFT

The lower unit of stratified drift is composed chiefly of nonmarine grayish-brown medium to coarse sand and gravel and some thin lenses of clay and silt. It does not crop out, hence is known entirely from well logs and a few samples. A sample from a depth of 120–126 feet below land surface at well S17231 (pl. 1) consists chiefly of angular to subangular clear and iron-stained quartz (about 80 percent) and miscellaneous grains (about 20 percent), which include granite, gneiss, schist, and the minerals garnet, biotite, chlorite, and hornblende, and other dark minerals. Because of their high permeability, thickness, and extensive distribution, the beds of the lower unit comprise the principal aquifer in the report area (see "Ground Water").

UNDIFFERENTIATED DEPOSITS OF TILL AND STRATIFIED DRIFT

Immediately above the lower unit of stratified drift is an undifferentiated unit of varied lithology composed of interbedded deposits of till and stratified drift about 30 to 100 feet thick (see diagonally ruled area on pl. 2). Although not clearly discernible in plate 2, a study of the well logs and outcrops suggests that, in general, the lower 20 to 40 feet of the undifferentiated deposits consists of interbedded gray and brown clay, laminated green and gray silt and clay, and some thin lenses of fine brown sand (figs. 2, 3, pl. 2). Samples of micaceous silt from depths of 55–75 feet below land surface, near S19849, consisted chiefly of quartz, biotite, and muscovite. No forams or diatoms were found in the material. The middle part of the undifferentiated deposits is probably composed largely of gray and brown compact clayey and gravelly till, which grades laterally into fine-grained stratified drift in some places. Immediately above the compact till is generally stratified drift, which ranges in thickness from a featheredge to about 30 feet and is composed chiefly of beds and lenses of brown and gray silt, fine to medium sand, and clayey

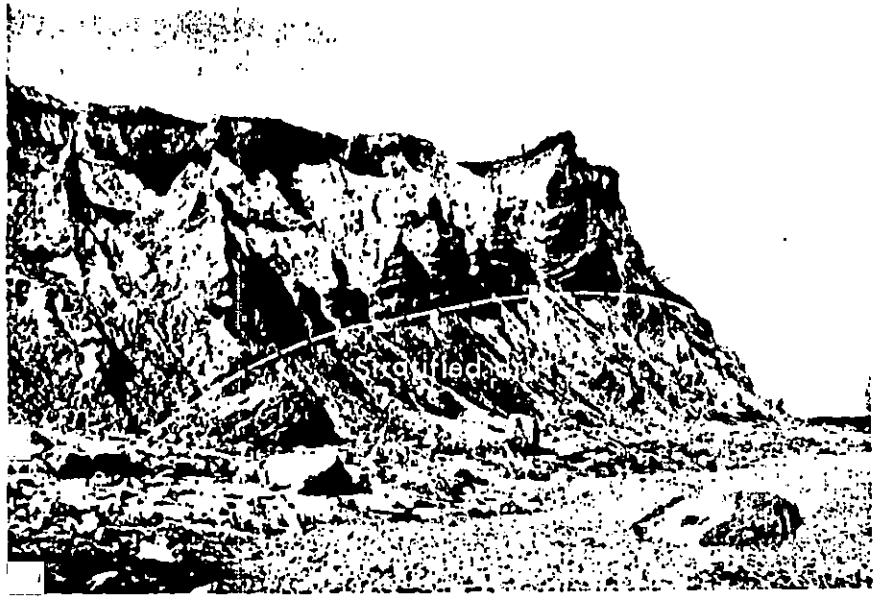


FIGURE 2.—Outcrop showing till above stratified drift composed chiefly of interbedded silt and clay, south side of Montauk Air Force Station. (Photograph by U.S. Geological Survey.)

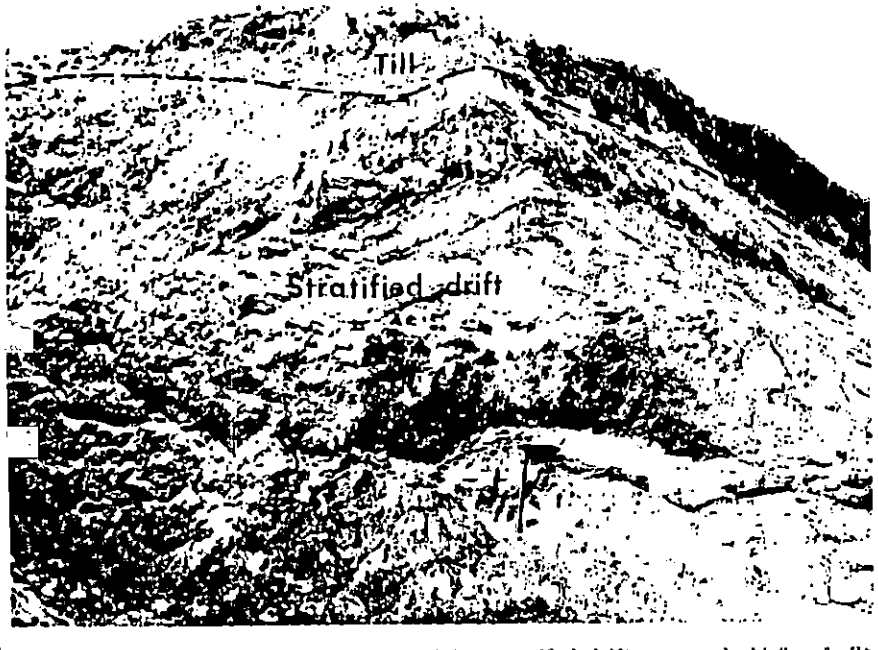


FIGURE 3.—Close-up view of till and underlying stratified drift composed chiefly of silt and clay, south side of Montauk Air Force Station. The trencher is lying against a lens

sand (fig. 4 and pl. 2). The uppermost part of the undifferentiated unit is generally a loose brown clayey till, about 5 to 20 feet thick, which contains some boulders. In some outcrops the intervening stratified drift is missing, and the upper till apparently rests directly on the lower till.

The till sheets and stratified drift, which crop out and are penetrated by wells in the report area, are probably correlative mostly with the upper Pleistocene deposits of western Long Island, but conceivably older Pleistocene units such as the Gardiners Clay and Jameco Gravel also may be present. Lohman (1939, p. 231–232) reports an assemblage of marine, brackish-water and fresh-water species of Pleistocene diatoms in a greenish-gray clay, reported to be the Gardiners, collected at an outcrop about half to three-quarters of a mile west of Montauk Lighthouse (pl. 1). The assemblage represents climatic conditions similar to or warmer than those of the present, which suggests an interglacial stage. As most of the species are living at present in the same region, Lohman concluded that the stage could not be named with the data on hand. It is not certain whether the clay examined by Lohman is correlative with the Gardiners Clay or "20-foot" clay found in western Long Island or neither. Additional field examination of the outcrops and more detailed laboratory study of samples are required before more specific correlations of the beds can be made.

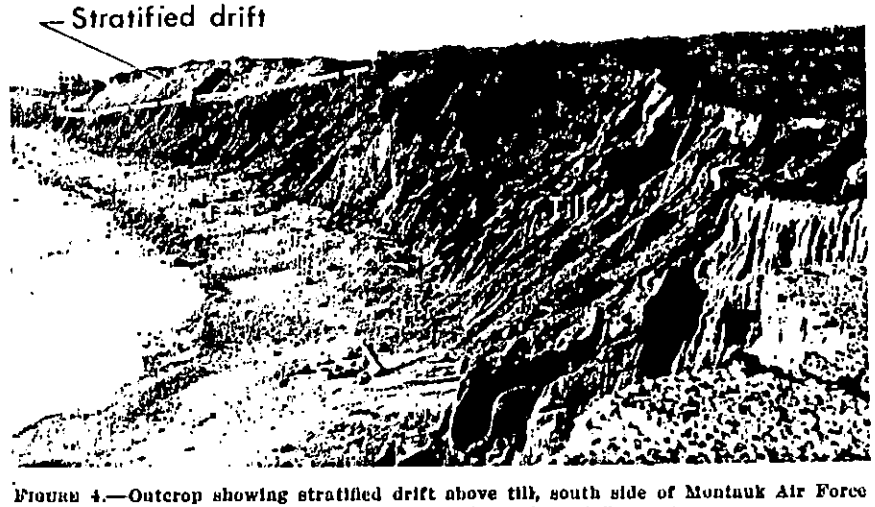


FIGURE 4.—Outcrop showing stratified drift above till, south side of Montauk Air Force Station. (Photograph by U.S. Geological Survey.)

RECENT DEPOSITS

Thin deposits of sand, gravel, and boulders deposited in Recent time are distributed along the narrow beaches of Montauk Point. Large boulders and cobbles are most common on the southern and eastern shores (figs. 2 and 3). Sand and swamp deposits are more common along the low-lying north shore. Reddish lenses of garnet and ilmenite-rich sand can be seen in many places in beach deposits bordering the bluffs. The Recent deposits are unimportant as aquifers because of their thinness, small intake area, and proximity to sea water.

GROUND WATER

SOURCE AND OCCURRENCE

The source of all fresh ground water in the report area is precipitation on the land surface, which averages about 48 inches annually. If all the precipitation were available for ground-water recharge, it would be equivalent to 2.3 million gallons per day per square mile. However, part is lost by direct evaporation from the soil and plants and from ponds and swamps that occupy numerous kettle holes; part is transpired by numerous trees and other forms of vegetation; part runs off to the sea in several small streams (pl. 1) whose discharge reaches a peak during and immediately after heavy precipitation; part is lost by seepage from cliffs along the south shore; and part percolates downward to replenish the ground-water reservoir.

Although no detailed studies have been made, general comparison of conditions at Montauk Point with those in western Long Island suggests that about 25 percent of the precipitation (12 inches, or about 570,000 gpd per sq mi) reaches the water table during a year of average precipitation. During years of above- or below-average precipitation, ground-water recharge is proportionately greater or lesser than average.

After seeping through the soil zone the water percolates downward through the pore spaces in the sand, gravel, silt, and clay to the main zone of saturation in the lower part of the undifferentiated deposits of till and stratified drift (pl. 2). The upper surface of the zone of saturation is called the water table. Scattered perched water bodies are found above the main water table, owing to lenses and beds of silt and clay, which retard downward movement of water. Some water in the upper part of the main zone of saturation moves to discharge areas at the shoreline, and some percolates slowly downward through confining beds of till, silt, and clay to the underlying principal aquifer. Water in the principal aquifer is under artesian pressure owing to the relatively low permeability of the overlying beds. The imaginary surface to which water in wells tapping the principal aquifier rises is

called the piezometric surface (pl. 1). Except for withdrawals through wells, most water in the principal aquifer discharges to the sea by upward seepage at and near the shoreline.

WATER IN THE UNDIFFERENTIATED DEPOSITS OF TILL AND STRATIFIED DRIFT

Undifferentiated deposits of till and stratified drift form the upper unit shown on plate 2. Owing to the poor sorting and clay content of the till and to the predominance of silt and sandy clay in the stratified part of the unit, the undifferentiated deposits probably cannot yield substantial amounts of water to individual wells in most parts of the area. Some water occurs in the undifferentiated deposits as perched water bodies above the main water table, and some is contained in minor permeable zones below the water table. The lower part of the undifferentiated unit consists chiefly of saturated deposits of till, silt, and clay, which serve mainly as confining beds for the underlying principal aquifer.

PERCHED WATER BODIES

Perched water bodies are generally small isolated bodies of water temporarily stored above the main water table in scattered lenses of permeable material underlain by clay and silt. During the drilling of most of the observation wells and during the foundation test borings for several structures at the Montauk Air Force Station, water was reported at depths ranging from about 5 to 25 feet below land surface, or about 35 to 100 feet above sea level. These altitudes, which are as much as 40 to 95 feet above the water level in the principal aquifer (pl. 1), are a strong indication of the existence of perched water bodies as they are too high to represent the main water table.

The fact that perched water is common was verified further by the history of test well S19486 in the northeast corner of the U.S. Military Reservation (pl. 1). Land surface at the well is about 70 feet above sea level. During the drilling of the auger hole for the well, the material from 0–8 feet was reported as dry; 8–16 feet as moist; and at 16 feet as a perched water zone of unknown thickness. A well driven in the auger hole to a depth of 65 feet below land surface remained dry for several months. To determine whether the well was plugged, it was filled with water, which seeped out through the screen in a few days. In March 1961 the well was driven about 12 feet deeper and penetrated the main zone of saturation between about 68 and 70 feet below land surface.

Perched water bodies may yield sufficient water for intermittent domestic use, but they generally are not dependable if large amounts are required for long periods. During months of low precipitation, wells tapping perched water-bearing zones may go dry, owing to the

large declines in water level in short periods of time, which are characteristic of these zones. An example of the large fluctuations which may be expected in perched water tables is given by the record of a test boring for a building near well S19495 in the center of the Montauk Air Force Station. When the boring was completed at a depth of 30 feet on November 22, 1955, the water level was 10 feet below land surface (about 50 feet above sea level). The water level declined during the next several days and by November 26 it was 23 feet below the land surface, a decline of 13 feet.

MINOR WATER-BEARING ZONES

Scattered minor water-bearing zones occur below the main water table in lenses of sand and gravel in the undifferentiated deposits of till and stratified drift. The location, thickness, extent, and continuity of these zones in most of the area is not apparent from present data. The upper limit of these zones is the main water table; the lower limit is unknown. As nearly all the wells terminate in the underlying principal aquifer, the altitude and configuration of the water table can only be estimated. Scanty data from test holes, drilled with a power auger, suggest that it may be as high as 10 to 17 feet above sea level in the central part of the area, about 16 feet above sea level in the southwestern part (S19500, table 3), and about at sea level at the shoreline. The water table is mainly in beds of silt, clay, and till, which are not suitable for development of large supplies.

In some shallow minor water-bearing zones, the water is under watertable, or unconfined, conditions; but at greater depths where these zones are overlain by thick beds of silt and clay, the water may be confined. Indirect evidence of the low yield of the minor water-bearing zones is the fact that all the active wells, including those constructed for domestic use, were drilled through these zones and completed in the principal aquifer. Two wells, S19500 and S1202, originally completed in the shallow beds were abandoned and replaced by wells screened in the principal aquifer. However, as the data are scanty and to make the maximum use of all available supplies, all future wells should be logged carefully and samples should be taken at 5-foot intervals to evaluate further the possible existence of productive zones at shallow depths.

CONFINING BEDS

The data shown on plate 2, and records of other wells not on the line of these sections, indicate that the lower part of the undifferentiated deposits consists chiefly of beds of silt, clay, sandy clay, and possibly some deposits of till. At several wells (for example, S17231, pl. 2) the confining beds are at least 20 to 30 feet thick, and at one

place they are about 65 feet thick (S1245, pl. 2). The effectiveness of these confining beds is confirmed hydraulically by the differences in head between the water table and the piezometric surface of the principal aquifer, which are estimated to be as much as 8 to 12 feet in the central part of the area. At well S19500 (26 feet deep) in the southwestern part of the area, the water table is about 16 feet above sea level, or about 13 feet above the piezometric surface (pl. 1). The barometric effects and the distinct tidal effects shown by the hydrographs (figs. 5 and 6) of wells which are as much as 0.4 mile from the shore and screened in the principal aquifer, is additional evidence of the wide extent and low permeability of the confining beds.

WATER IN THE LOWER UNIT OF STRATIFIED DRIFT

PRINCIPAL AQUIFER

The principal aquifer is in the lower unit of stratified drift shown in plate 2. The upper limit of the aquifer, which is the bottom of the overlying confining beds, ranges in altitude from about sea level to 40 feet below sea level. The lower limit, for purposes of this report, is set at the top of the zone of diffusion between fresh and salty water, which ranges in altitude from about sea level to 130 feet below sea level. The principal aquifer consists chiefly of beds of medium to very coarse sand and gravel, about 10 to 80 feet thick. Scattered thin lenses of silt and silty clay are interbedded in some places with the more permeable beds.

Water in the principal aquifer is replenished by slow downward leakage from the overlying confining beds. The amount and rate of leakage per unit area of confining beds probably is small owing to their low permeability; however, the leakage over a large area may be substantial. Water in the principal aquifer is under artesian pressure, but the head is not sufficient to cause wells to flow. The depth to the static water level in existing wells ranges from about 13 to 70 feet below land surface (table 3). The depth to water is greatest in the center of the area where the altitude of the land surface is highest, and is least at the shoreline.

The principal aquifer is the only source of fresh water tapped by active wells. Wells 8 to 10 inches in diameter and finished with screens 10 to 20 feet long yield as much as 150 gpm. Reported specific capacities of wells range from 4 to 11 gpm per foot of drawdown. The history of pumping at Montauk Air Force Station suggests that sustained pumping at rates of 50 gpm or more will probably induce salt-water encroachment laterally or from below in most of the area.

PIEZOMETRIC SURFACE

The imaginary surface to which water in wells tapping the principal aquifer will rise is called the piezometric surface. The piezometric surface responds to changes in pressure in the aquifer caused by tidal and barometric fluctuations and by variations in natural recharge and discharge, and pumping. Plate 1 shows contours on the piezometric surface for April 12, 1961. The surface generally mirrors the shape and, in a very subdued manner, the topographic profile of the Montauk peninsula, except for the cone of depression formed around the pumping wells at the Montauk Air Force Station. The cone was roughly circular and had a diameter of about 0.5 mile in 1961. Its diameter and depth varies with the duration and rate of pumping, as well as with changes in natural recharge and discharge. The maximum depth of the cone is unknown as no readings were obtained in the main supply well S17231.

The contours shown on plate 1 are based on the measurements of water levels made chiefly on April 12, 1961. The measurements were adjusted to a common tidal stage. A few, made on April 7 and 8, were adjusted by comparison of regional water-level trends, to conform with the April 12 measurements. The highest known points on the piezometric surface of April 12 were about 3.5 feet above sea level at well S19484 at the north side of the Montauk Air Force Station and at well S2150 in the western part of the project area. The lowest measured altitude was about 1.3 feet above sea level in well S3599 near Montauk Lighthouse. The altitude in the center of the cone of depression was not determined but probably was as low as several feet below sea level.

MOVEMENT OF FRESH WATER

The following description of movement of water applies chiefly to water in the principal aquifer as few or no data were collected on flow in the shallow minor water-bearing zones in the upper part of the main zone of saturation.

In general, ground water moves from points of high head to points of low head (that is, from areas of recharge to areas of discharge). Before the start of pumping at the Montauk Air Force Station, ground water in the principal aquifer probably moved radially away from a mound on the piezometric surface near the center of the Montauk Air Force Station. The mound may have been as much as 7 feet above sea level, according to estimates from drillers' records. As a result of relatively heavy intermittent pumping, a cone of depression has formed around supply well S17231 (pl. 1) at the Air Force Station. The arrows oriented perpendicular to the piezometric contours show the horizontal component of movement of the water

and indicate that a part of the flow which formerly discharged to the sea now moves inland toward the center of the cone of depression.

Plate 2 illustrates the pattern of movement in the vertical section. The arrows show that during pumping some fresh water and salt water move radially toward the screen of supply well S17231. The remainder of the fresh water moves toward discharge areas at and near the shoreline. Some mixes with salt water to form the zone of diffusion and ultimately discharges to the sea. (See "Salt-water encroachment.") The hydraulic gradient under which the fresh water is moving probably ranges from about 2 to 10 feet per mile in most of the area, but near pumping wells it is higher.

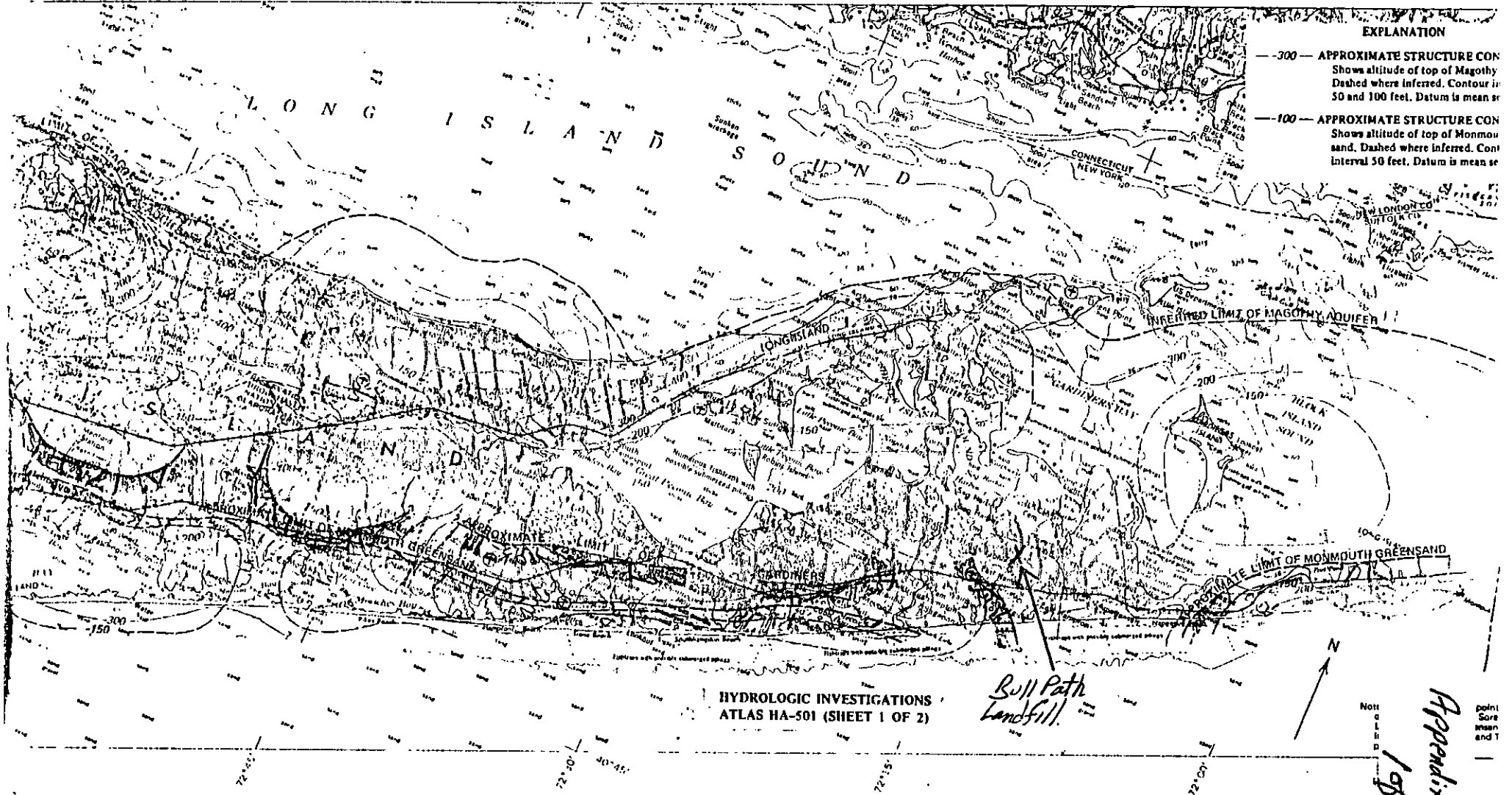
Measurements in the observation wells and continuous records from waterstage recorders show that the artesian heads in the principal aquifer are constantly changing, owing to tidal, barometric, and pumping effects. Although the altitude of the piezometric surface fluctuated a foot or two during the period of record, the shape remained about the same, and consequently the general pattern of movement of fresh water was approximately as shown on plates 1 and 2.

FLUCTUATIONS OF WATER LEVELS

Fluctuations of water levels in wells are the result of changes in the balance between recharge and discharge in aquifers. Analysis of both short- and long-term fluctuations provides important data on the hydraulic characteristics of an aquifer. For example, the altitude and character of the fluctuations of water levels in wells screened at different depths give evidence of hydraulic interconnection or of separation between aquifers and indicate whether the water in the aquifer is confined or unconfined.

SHORT-TERM FLUCTUATIONS

Minor and recurring fluctuations of water levels in the principal aquifer in the report area, are caused by transient influences such as changes in barometric pressure and oceanic tides. A rise in barometric pressure causes water levels in wells to decline; a decline in pressure causes water levels to rise. Tidal effects produced by the pull of the moon and the sun on the oceans cause pressure changes in both the fresh and salty ground-water bodies as illustrated by the water-level fluctuations shown on the hydrographs in figures 5 and 6. The magnitude of the fluctuations is due partly to the tidal efficiency and partly to the barometric efficiency of the well, which are related to the degree of confinement of the aquifer. Tidal effects diminish with increased distance from the shoreline. The hydrographs show typical pairs of high and low water levels in fresh-water wells produced chiefly by daily tidal changes in the Atlantic Ocean and Block Island



Appendix 1.3-2
1 of 5

MAP SHOWING ALTITUDE OF TOP OF MAGOTHY AQUIFER AND MONMOUTH GREENSAND AND APPROXIMATE LIMIT OF THE GARDINERS CLAY

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

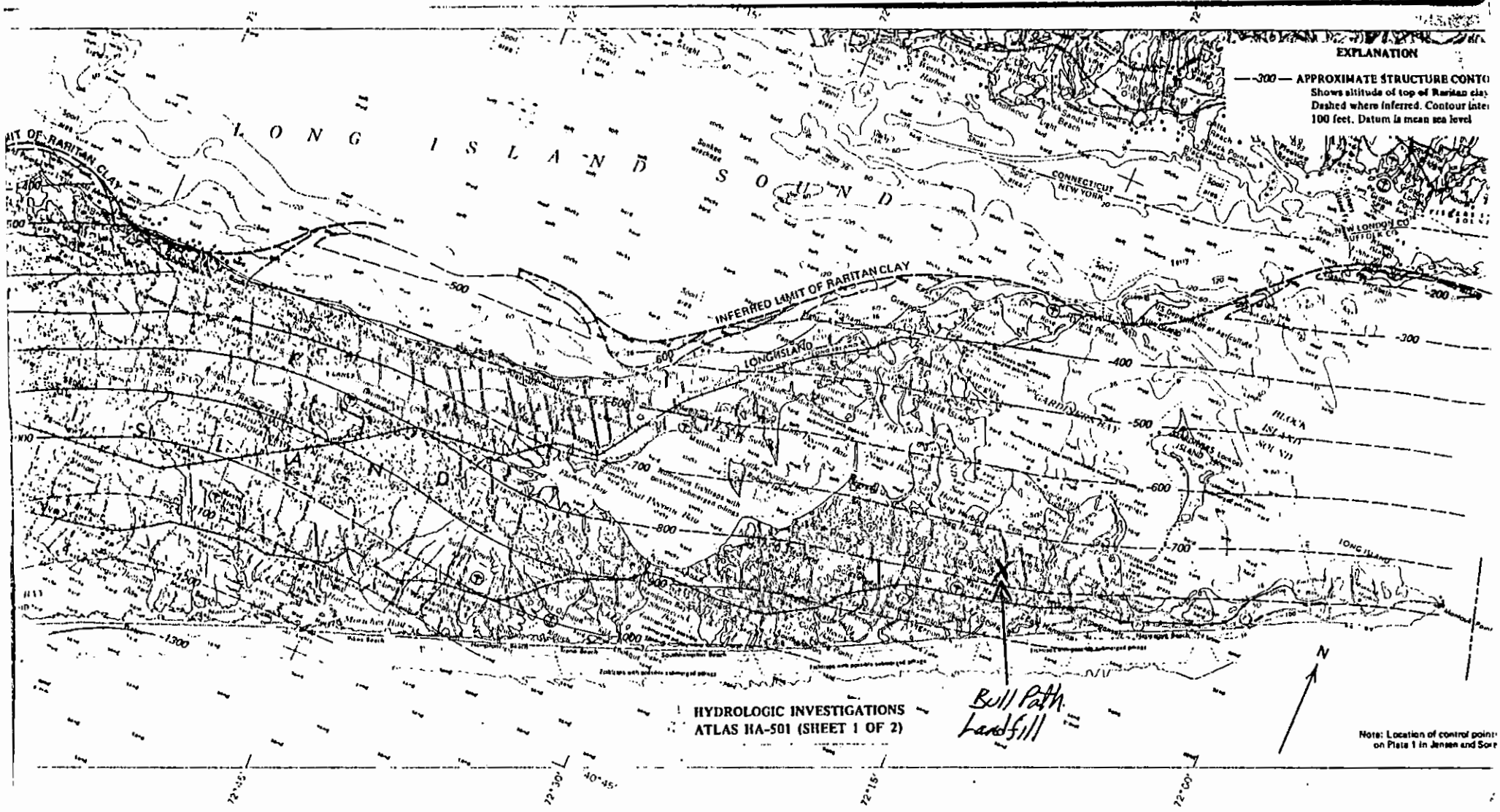
CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974



MAP SHOWING ALTITUDE OF TOP OF RARITAN CLAY

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
FOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

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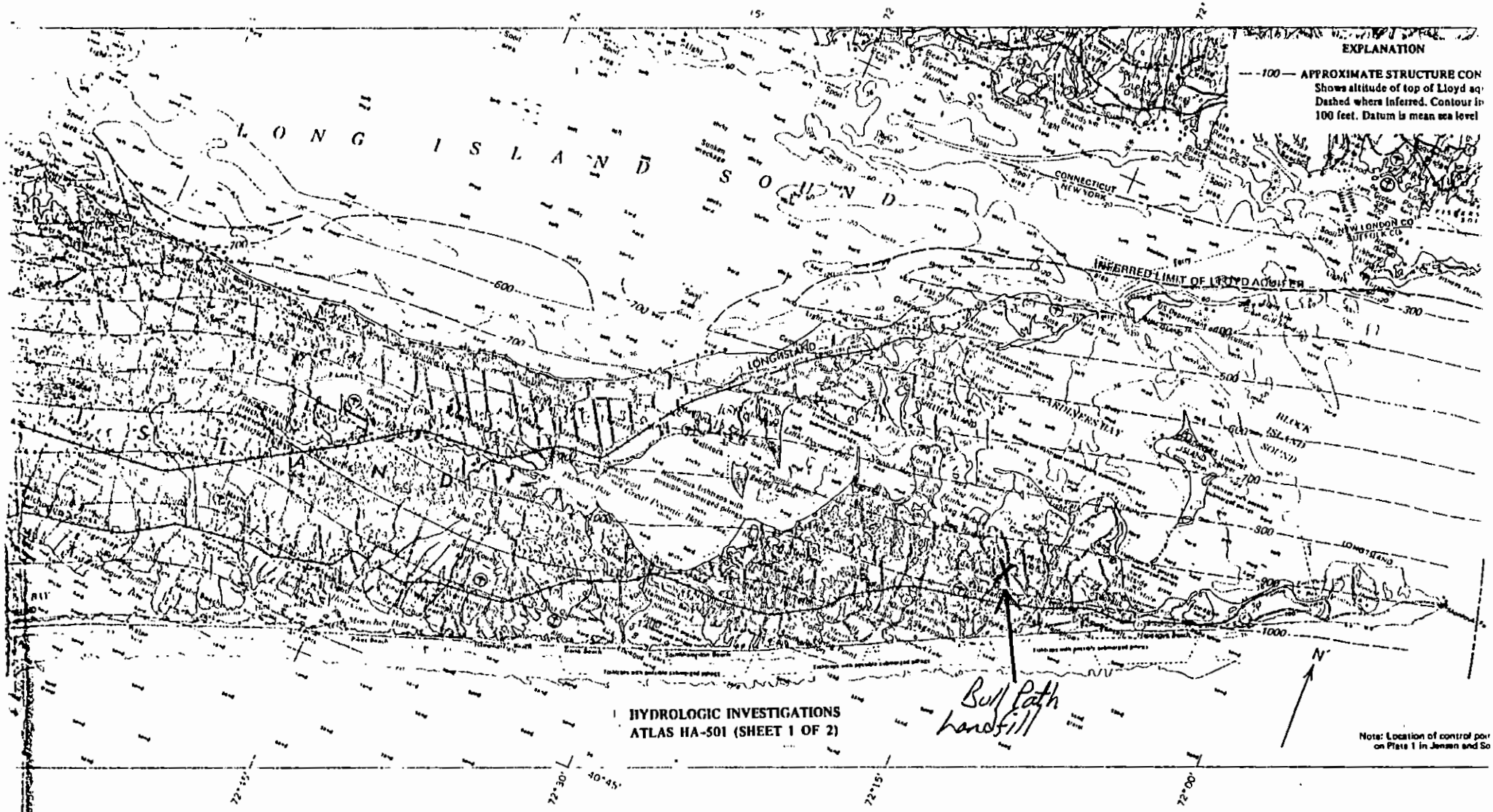
1974



MAP SHOWING ALTITUDE OF TOP OF LLOYD AQUIFER

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

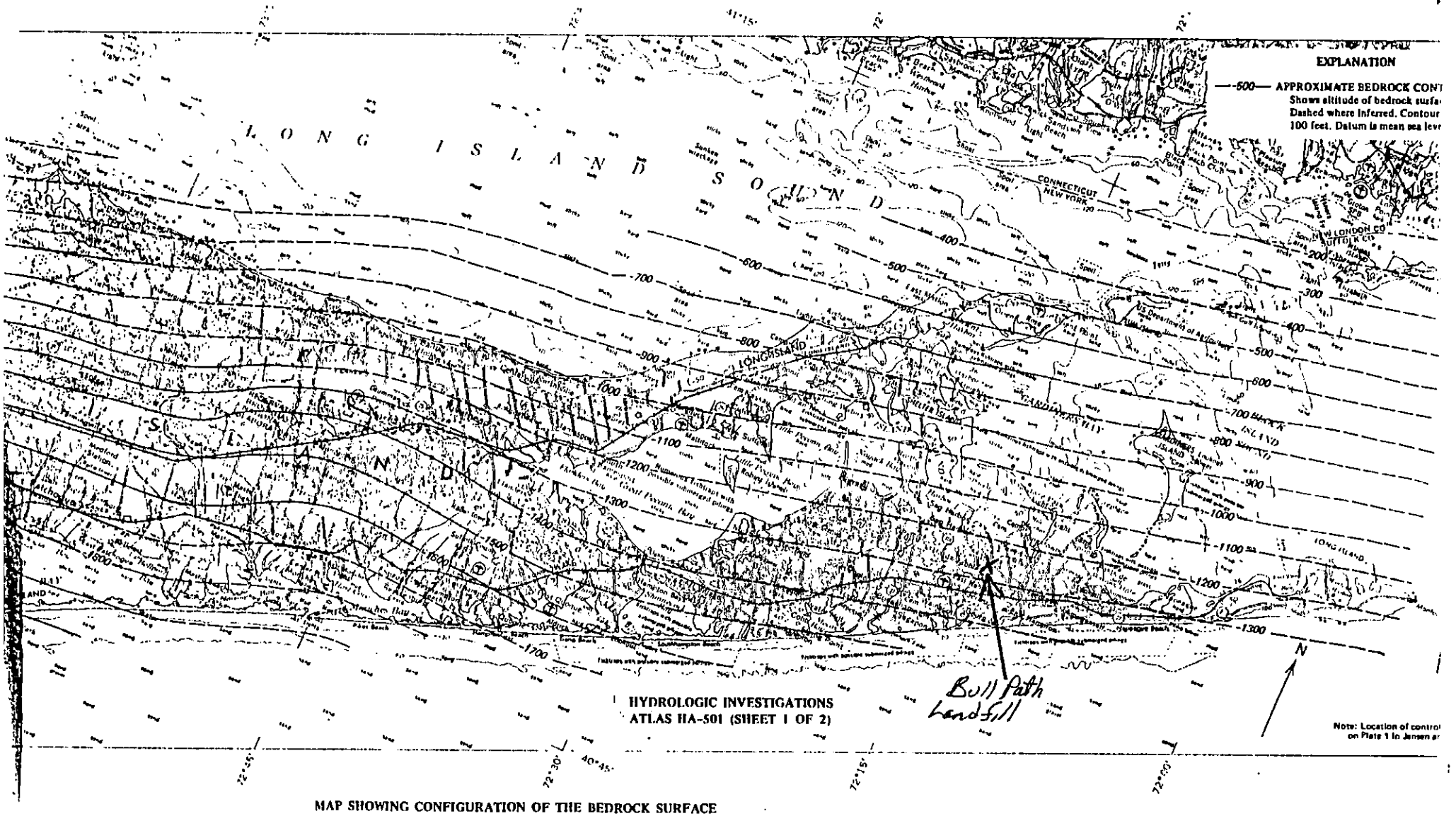
CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974



MAP SHOWING CONFIGURATION OF THE BEDROCK SURFACE

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

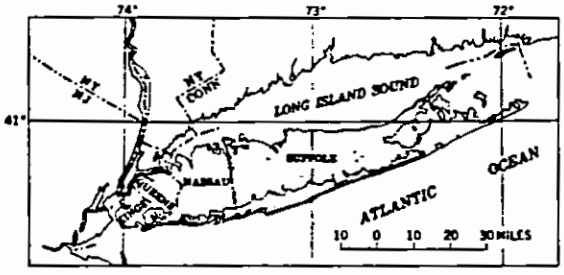
H. M. Jensen and Julian Soren

1974

INTRODUCTION

WATER NEEDS OF SUFFOLK COUNTY

Water pumped from aquifers underlying Suffolk County (index map) is the sole source of water used for public supply, agriculture, and industry. The county's population grew from less than 200,000 in 1940 to 1.1 million in 1970. Most of the growth occurred after 1950. Ground-water pumpage increased from 40 mgd (million gallons per day) in 1950 to 155 mgd in 1970 (New York State Department of Environmental Conservation, written commun., June 1, 1971). The projected ground-water use for an anticipated population of 2 million in the county by 1990 is 300 mgd (New York State Conservation Department, 1970, p. 26–27).



INDEX MAP SHOWING LOCATION (SHADED) OF SUFFOLK COUNTY

PURPOSE AND SCOPE

The large and growing demand for ground water in Suffolk County has created a need for a detailed knowledge of the geometry and the hydrologic characteristics of the ground-water reservoir. Mapping of subsurface geology and hydraulic heads in the aquifers are important prerequisites to obtaining this information. Maps of the subsurface geologic units of Long Island were first shown in a report by Suter and others (1949, pls. VIII to XXI). But those maps were highly generalized, because there were few data on deep borings and wells in the county when the report was prepared. Since 1949, additional data from many deep borings and wells in the county have been collected.

In 1968, as part of a continuing cooperative program of water-resources studies with the Suffolk County Water Authority and Suffolk County Department of Environmental Control, the U.S. Geological Survey began an updating of the hydrogeologic and hydrologic maps of all the county. The basic data in Jensen and Soren (1971), the first product of the program, are the basis for the hydrologic maps in this report.

ACKNOWLEDGMENTS

The authors appreciate the cooperation of well-drilling companies, their employees, and the many officials of public and private water companies who furnished geologic and hydrologic data for use in this report.

GEOLOGIC AND HYDROGEOLOGIC UNITS

Pleistocene glacial drift generally mantles the county's surface. Pleistocene deposits overlie unconsolidated deposits of Late Cretaceous age. The Cretaceous strata lie on a peneplain that was developed on Precambrian(?) crystalline rocks.

Major landforms include ridges, valleys, and plains. These landforms are roughly oriented in belts parallel to the county's length. The northern and the central parts are traversed by irregular sandy and gravelly ridges of terminal moraine. The crest of the northern ridge ranges in height from 100 to 300 feet above sea level and the crest of the central ridge from 150 to 400 feet. The highest altitudes in the inter-ridge area range from 100 to 200 feet. Irregular plains and rolling hills, formed from sandy and gravelly ground moraine and outwash deposits of sand and gravel lie in the area between the ridges. An outwash plain slopes at a near-uniform gradient from the southern base of the central ridge, which is about 100 feet above sea level, southward to Great South Bay and the ocean. Along the north shore, steep bluffs as high as 100 feet and generally narrow sandy and gravelly beaches face Long Island Sound. The barrier-bar system at the southernmost side of the county is composed of sandy beach and dune deposits. The highest altitudes of the barrier bars generally range from 10 to 45 feet.

The ground-water reservoir system of Suffolk County is composed of hydrogeologic units that include lenses and layers of clay, silt, clayey and silty sand, sand, and gravel. A hydrogeologic unit consists of a geologic unit or a group of contiguous geologic units classified by hydraulic characteristics. These units include aquifers, which are principal water sources, and confining layers, which separate the aquifers. The aquifers are, from the land surface downward, the upper glacial aquifer, the Magothy aquifer, and the Lloyd aquifer. The major areal confining layers are, in descending order, the Gardiners Clay, the Monmouth greensand, and the Raritan clay. The base of the ground-water reservoir is the crystalline bedrock. Characteristics of the geologic and the hydrogeologic units are summarized in the table, and the following data of hydrologic significance are shown on the maps: base of ground-water reservoir, altitudes of aquifers, altitudes and limits of confining layers, and distribution of surficial deposits. The hydrogeologic sections show the vertical relations of the units to each other.

The sharp angular shapes of some of the contours reflect the fact that in places the contours are drawn on stratigraphic tops of the hydrogeologic units and in places the contours are drawn on erosional surfaces. The sharp angles result from the juncture of a stratigraphic top and an eroded surface.

Appendix 1.3-3
105

ORIGINAL—TO COMMISSION

County Suffolk

Well No. S-49422
(no preliminary rep

WSP C259

State of New York
Department of Conservation
Division of Water Resources

LOG

Ground Surf., El.....ft. abov

Bridgehampton Rd

COMPLETION REPORT—LONG ISLAND WELL

D.E.C. ENVIRONMENTAL REGION 1

.....ft.
Top of Well

MAR 1 1974

RECEIVED

Owner Suffolk County Water Authority

Address Sunrise Highway Oakdale, N.Y.

Location of well Montauk Highway Buckskill Road Easthampton, N.Y.

Depth of well below surface 148 ft. 11 1/4" 125 feet

Depth to ground water from surface 35 ft. 2½" 29 6 3/4" feet

CASINGS:

Diameter 16 in. ..... in. ..... in. ..... in.
Length ..... ft. ..... ft. ..... ft. ..... ft.
Sealing Lead Packer
Casings removed .....

SCREENS: Make Johnson Openings .....

Diameter 10 in. ..... in. ..... in. ..... in.
Length 30 ft. ..... ft. ..... ft. ..... ft.
Depth to top from top of casing 111 ft. 5½" ft.

PUMPING TEST: Date ..... Test or permanent pump? .....

Duration of Test ..... days ..... hours
Maximum Discharge 700 gallons per minute
Static level prior to test 35 ft. 2½" in. below top of casing
Level during Max. Pumping 56 ft. in. below top of casing
Maximum Drawdown 21 ft.
Approx. time of return to normal level after cessation of pumping ..... hours ..... minutes

PUMP INSTALLED:

Type DWT Make none Layne Model No. RKAL
Motive power Elec Make U.S. H.P. 50
Capacity 700 g.p.m. against @ 222 TDH ft. of discharge head
No. bowls or stages 4 ..... ft. of total head

Pump data submitted 7/15/75 O.T.

DROP LINE:

Diameter 8 in.
Length 80 ft.

SUCTION LINE:

Diameter 10 in.
Length 9' 9 1/4" ft.

Method of Drilling (Rotary, cable tool, etc.) .....

Use of Water Public Water Supply

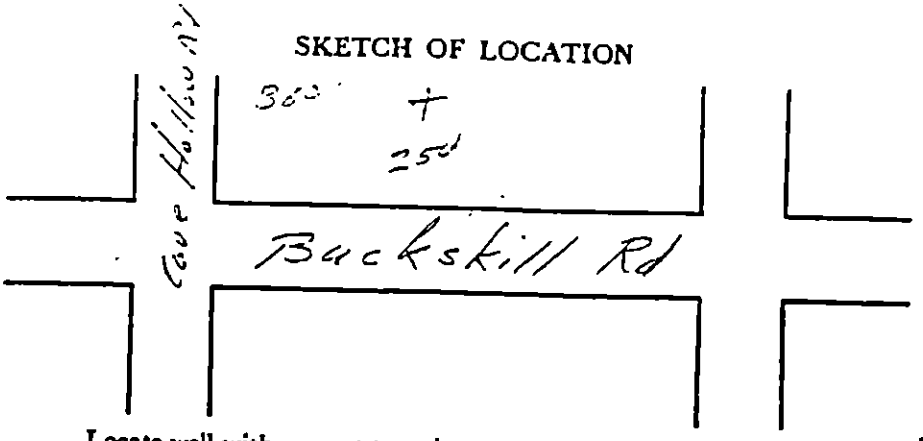
Work started 1/28/74 Completed 1/29/74

Date 2/1/74 7/15/75 Driller East Coast Well Drilling + Supply Co Layne N.Y.

License No. 52 5

NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, addi-

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

Bridgehampton Rd
Well Field
5-49422

2' - 3' Coarse to fine tan sand
3' - 10' brown clay
10' - 16' coarse to fine tan sand with brown clay
16' 26' coarse to fine tan sand with grits and gravel
26' - 36' " " " " " " " " "
36' - 46' " " " " " " " " "
46' 56' " " " " " " " " "
56' - 66' " " " " " " " " "
66' 76' " " " " " " " " "
76' - 86' " " " " " " " " "
86' - 96' " " " " sand
96' - 106' " " " " " " " " "
106' - 114' coarse to fine tan sand
114' - 124' " " " " "
124'-126' " " " " " with gravel
126' - 132' coarse to fine tan sand with grits
132' 136' fine brown sand
136' - 138' coarse to fine tan sand with grits & gravel
138' - 144½' fine brown sand with brown clay
144½ - 146' coarse to fine tan sand with grits & gravel
146' - 149' brown sand with brown clay
149' - 161' brown clay

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Suffolk County

WSA-6844

305 S-6733 Well No.

COMPLETION REPORT – LONG ISLAND WELL

OWNER: Suffolk County Water Authority

ADDRESS: Pond Road Lakeville, L.I.

LOCATION OF WELL: Spring Close Hwy E. Hampton, N.Y.

DEPTH OF WELL BELOW SURFACE: 245 1½" ft.

DEPTH TO GROUND WATER FROM SURFACE: 33 5'-3" ft.

CASINGS

DIAMETER	16" in.	10" in.	in.	in.
LENGTH	195' ft.	55' ft.	ft.	ft.

SEALING: 50' Cement Grout

CASINGS REMOVED: None

SCREENS

MAKE: Cook 316 SS

OPENINGS: #45 Slot

DIAMETER	10" in.	I.D. in.	in.	in.
LENGTH	40' ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING (Slot): 201'

PUMPING TEST

DATE: 6/29/79

TEST OR PERMANENT PUMP?: Test

DURATION OF TEST: days 8 hours

MAXIMUM DISCHARGE: 700 gallons per min.

STATIC LEVEL PRIOR TO TEST: 37' ft. in. below top of casing

LEVEL DURING MAXIMUM PUMPING: 50' ft. in. below top of casing

MAXIMUM DRAWDOWN: 13' ft.

Approximate time of return to normal level after cessation of pumping: hrs. 5 min.

PUMP INSTALLED

TYPE	MAKE	MODEL NO.
Deep	By Layne Others	3,4'C

MOTIVE POWER	MAKE	H.P.
Gas	[illegible]	50

CAPACITY: 700 g.p.m. against ft. of discharge head

NUMBER BOWLS OR STAGES: 4

210 ft. of total head

DROP LINE	SUCTION LINE
DIAMETER: 3 in.	DIAMETER: 3 in.
LENGTH: 39'-10" ft.	LENGTH: 9'-11" ft.

METHOD OF DRILLING: ☒ rotary ☐ cable tool ☐ other Reverse

USE OF WATER: Public Supply

WORK STARTED: 4/3/79 5/12 3'

COMPLETED: 7/9/79 5/14 3'

DATE: 8/2/79 5/20 3'

DRILLER: Layne-N.Y. Co. Inc. Strata Well Corp.

LICENSE NO.: 1000 5

* LOG

Ground Surface El. _____ ft. above

A/V _____ ft.

TOP OF WELL

SEE ATTACHED

RECEIVED

AUG

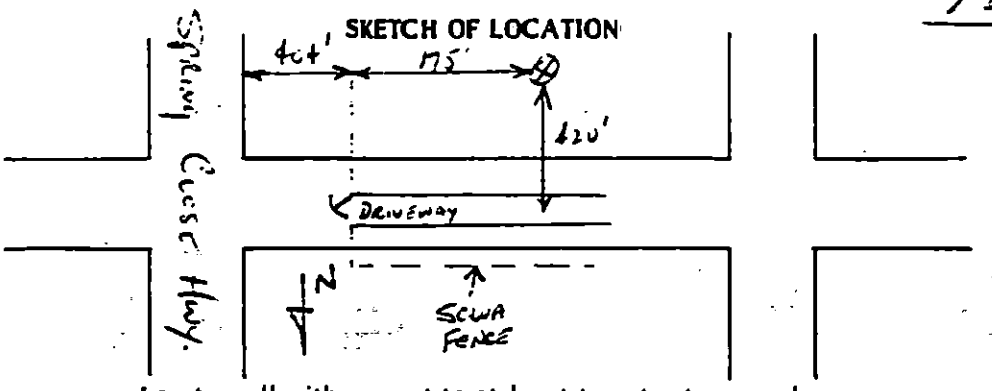
RECEIVED

Hydro data submitted by Driller 5/29/81

*NOTE: Show log of well - materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See Instructions as to Well Drillers' Licenses and Reports. Pages 5 - 7.

ORIGINAL – Environmental Conservation Comm.

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

Check the Town in which the project is located:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☐ Huntington
- ☐ Shelter Island
- ☐ Southold
- ☐ Brookhaven
- ☐ Islip
- ☐ Smithtown
- ☒ East Hampton
- ☐ Riverhead
- ☐ Southampton

STRATA WELL CORP.

555

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 581-7100

WELL LOG

WELL NAME SUFFOLK COUNTY WATER AUTHORITY

LOCATION Spring Close Highway - East Hampton W.R.C. WELL NO. S-66733

REFERENCE PT. Grade S. W. L. 37'

DATE STARTED April 3, 1979 COMPLETED July 9, 1979 DRILLER Butler/Rybak

SAMPLE or F	No.	Actual Depth	Lgth	Blows	Formation	Thickness	Depth	Remark
					Top Soil	1	1	
					Grey Clay, Loam	6	7	
					Coarse brown sand and stones	113	120	
					Fine brown sand, mica	10	130	
					Fine to coarse brown sand, and grits & hardpan	20	150	
					Fine to med. brown sand, mica & some grits	25	175	
					Silty sand	11	186	
					Fine to med. brown sand	6	192	
					Fine to med. sand and stones	38	230	
					Fine redish sand and lg. stones	10	240	
					Fine brown sand, mica & stones	1	241	
					Fine brown sand, mica, w/lyrs. of gr. cl. & some lig.	8	249	
					Fine to med. grey sand	2	251	
					Dark clay grey	75	326	
					Fine to coarse gr. sand, mica & grits	117	443	
					Fine to coarse gr. & brown sand, grits, gravel (up to 2") & stones	47	490	
					Fine to med. brown sand & mica	33	523	
					Fine to med. gr. sand	20	543	
					Med. to coarse gr. sand, stones	20	563	
					Fine to silty gr. sand, lignite, grey clay, pyrite	43	606	
					Very fine to coarse gr. sand, grits, mica lig. & bits of clay	9	615	
					Fine to coarse gr. sand, grits, mica & clay	18	633	
					Solid sandy grey clay	2	635	
					Very fine grey sand, grits, mica & thin lyrs. of clay	4	639	
					Solid grey sandy clay	40	679	
					Grey sand, gravel, small stones	11	690	
					Clay, lignite, gravel, grey sand	4	694	
					[illegible] stones	1	695	

WORKSHEET: COMMUNITY WATER SUPPLIES AND MONITORING WELLS WITHIN A 3-mi. RADIUS OF THE SITE Bull Path Landfill

Community Water Supply	Water District	Well Field	Well	Depth (ft)	Aquifer
SCWA	East Hampton	Oak View Hwy.	1S-07570	162	Glacial
			2S-31653	466	Magothy
		Spring Close Hwy.	1S-14921	125	Glacial
			2S-66733	243	Glacial
		Bridgehampton Rd.	2S-02405	86	Glacial
			3S-02415	121	Glacial
			4S-49422	148	Glacial
			5S-73332	184	Glacial

Sources:

SCDHS. Water Resources Division. Supply and Monitoring Well Location Maps.
SCWA. 1984. Well Descriptions.
SCWA. 1985. Distribution System Plates.
SCWA. 1986. Active Services Estimates and Service Area Map.

Appendix 1.4-1
Source: Town of East Hampton, Dpt. Nat. Res.

VOLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

SAMPLED BY Don Roberts
DATE:
COLLECTED 5/23/83
RECEIVED 5/23/83
COMPLETED 6/13/83
REPORTED BY

TO: Randall T. Parsons
Town of East Hampton
139 Pantigo Road
East Hampton, NY 11937

SAMPLE: East Hampton Bull Path Brush Dump

SAMPLE No. 83052309

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.2	Calcium	22.33
	ppm (mg/l)*	Chemical Oxygen Demand	<3.0
Specific Gravity	1.000	Nickel	0.02
Total Dissolved Solids	123.0	Silver	0.01
Chloride	22.91	Zinc	<0.05
Barium	<0.2	Lead	0.01
Color Units	30	Phenol	<0.001
Sodium	84.0	Total Coliform	<2.2 0/5
Selenium	<0.01	Hardness mg/l CaCO3	128.0
Arsenic	<0.01	Alkalinity mg/l CaCO3	70.0
Manganese	0.02	Acidity mg/l CaCO3	15.0
Cadmium	<0.01	Sulfate	0.75
Chromium Total	0.02	Detergent	0.47
Copper	<0.05	Aluminum	1.45
Iron	2.45	BOD	137.0

*Unless otherwise noted

Comments:

/OLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

1 of 6

SAMPLED BY Laboratory
DATE:
COLLECTED 9-26-83
RECEIVED 9-26-83
COMPLETED 10-12-83
REPORTED BY

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

TO: East Hampton Bull Path
Randall T. Parsons
Town of East Hampton
159 Pantigo Rd.
East Hampton, N.Y. 11937

SAMPLE:	SAMPLE No.
East Hampton Bull Path	83092605

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.2	Nickel	0.04
	ppm (mg/l)*	Silver	<0.01
Color Units	5	Zinc	0.09
Total Dissolved Solids	188.0	Lead	<0.01
Chloride	24.9	Manganese	0.02
Detergent	0.2	Sodium	27.29
Specific Gravity	0.990	BOD	100.93
Sulfate	23.0	Alkalinity	100.0mg/lCaC
Phenol	<0.001	Acidity	15.0mg/lCaC
Total Coliform	<2.2 0/5	Hardness	94.0mg/lCaC
Chemicla Oxygen Demand	<3.0	Barium	<0.2
Cadmium	<0.01	Calcium	18.1
Chromium Total	0.01	Aluminum	2.8
Copper	<0.05	Selenium	<0.01
Iron	0.89	Arsenic	0.01

*Unless otherwise noted

Comments:

p.316

VOLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

SAMPLED BY Dan Roberts ~~Laboratory~~
DATE:
COLLECTED 4/30/84
RECEIVED 4/30/84
COMPLETED 6/1/84
REPORTED BY

TO:
Town of East Hampton
159 Pantigo Road
East Hampton, N.Y. 11937

Att: Randall Parsons

SAMPLE: Bull Path

SAMPLE No. 84043009

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.79	Specific Gravity	1.000
	ppm (mg/l)*	Total Dissolved Solids	320.0
Cadmium	< 0.01	Manganese	0.03
Chromium Total	< 0.01	Sodium	45.4
Copper	< 0.05	Aluminum	< 0.2
Iron	0.11	Acidity	10.0 mg/l CaCo
Nickel	< 0.01	Alkalinity	40.0 mg/l CaCo
Silver	< 0.01	Hardness	76.0 mg/l CaCo
Zinc	< 0.05	Barium	< 0.2
Lead	< 0.01	Calcium	37.49
Sulfate	28.0	Arsenic	< 0.01
Color Units	10	Selinium	< 0.01
Phenol	0.05	BOD mg/l	6.015
Chloride	54.15	Mercury	< 0.001
Detergent	0.35		

*Unless otherwise noted

Comments:

NYDOH
Bur. Toxic Sub.

VOLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

RECEIVED
MAR 1 1 1985
TOXIC SUBSTANCE ASSESSMENT

Dept. of Health
of Toxic Substances

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

SAMPLED BY Don Roberts
DATE:
COLLECTED 9/26/84
RECEIVED 9/26/84
COMPLETED 10/29/84
REPORTED BY

TO:
Town of East Hampton
159 Pantigo Road
East Hampton, N.Y. 11937

Attn: Randal Parsons

SAMPLE:	SAMPLE No.
Bulls Path #5	84092625

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.4	Zinc	0.10
	ppm (mg/l)*	Lead	0.01
Total Coliform	<2.2mpn 0/5	Mercury	<0.001
Phenol	0.2	Aluminum	0.2
Sulfate	59.0	Specific Gravity	1.000
Chloride	52.94	Acidity	102 mg/l CaCo3
Detergent	0.19	Alkalinity	124 mg/l CaCo3
BOD	**	Hardness	184 mg/l CaCo3
Sodium	33.60	Cadmium	<0.01
Color	80 Units	Chromium Total	<0.01
Manganese	0.09	Copper	0.05
Calcium	42.80	Iron	1.73
Barium	<0.2	Nickel	0.01
Arsenic	<0.01	Silver	<0.01
Selenium	<0.01	Total Dissolved Solids	445.0

*Unless otherwise noted

Comments: **Due to delay in approval of Analysis, Sample could not be run for BOD.

VOLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

p.50/6

SAMPLED BY Don Roberts
DATE:
COLLECTED 3/27/85
RECEIVED 3/27/85
COMPLETED 4/30/85
REPORTED BY

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

TO:

Town of East Hampton
159 Pantiago Road
East Hampton, New York 11937

SAMPLE:	SAMPLE No.
Bulls Path	85032708

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.8	Silver	<0.01
	ppm (mg/l)*	Zinc	<0.05
BOD	3.0 mg/l	Manganese	<0.01
Total Dissolved Solids	209.0	Arsenic	<0.01
Total Coliform	<2.2mpn 0/5	Selenium	<0.01
Acidity	882.0 mg/l Ca Co_3	Mercury	<0.001
Barium	<0.2	Detergent	<0.01
Sulfate	23.0	Sodium	19.1
Aluminum	<0.2	Chloride	24.41
Cadmium	<0.01	Specific Gravity	1.00
Chromium Total	<0.01	Hardness	88 mg/l CaCc
Copper	<0.05	Phenol	0.05
Iron	0.07	Color	0 Units
Nickel	<0.01	Alkalinity	105.5 mg/l Ca Cc
Lead	<0.01	Calcium	7.23

*Unless otherwise noted

Comments:

P.6 of 6

VOLUMETRIC TECHNIQUES, LTD.
317 BERNICE DRIVE
BAYPORT, NEW YORK 11705
516-472-4848

SAMPLED BY Don Roberts
DATE:
COLLECTED 4/23/86
RECEIVED 4/23/86
COMPLETED 5/23/86
REPORTED BY

SANDER R. STERNIG
DIRECTOR OF LABORATORIES

TO:
Town of East Hampton
159 Pantiago Road
East Hampton, New York 11937

SAMPLE:	SAMPLE No.
Bull's Path	86042303

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.50	Zinc	0.03
	ppm (mg/l)*	Manganese	0.01
BOD	1.5 mg/l	Arsenic	<0.01
Total Dissolved Solids	635	Selenium	<0.01
Total Coliform	<2.2 mpn	Mercury	<0.001
Sodium	51.907	Detergent	<0.01
Barium	<0.01	Sulfate	42
Aluminum	<0.01	Chloride	74.45
Cadmium	<0.01	Phosphate	3.3
Chromium Total	<0.01	Specific Gravity	1.01
Copper	<0.05	Hardness	32.3 mg/l $CaCO_3$
Iron	0.04	Phenol	0.07
Nickel	<0.01	Color	<1 Unit
Lead	<0.01	Calcium	61.2
Silver	<0.01	Acidity	460.0 mg/l $CaCO_3$
		Alkalinity	360.25 mg/l $CaCO_3$

*Unless otherwise noted

Comments:

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

Appendix 1.5-1

COMMUNICATIONS RECORD FORM

Distribution: ( ) Bulk Path Landfill, ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Mrs. Cameron Date: 23 June 1986

Phone Number: (516) 324-0959 Title: Customer Service Representative

Affiliation: Suffolk County Water Auth. Type of Contact: Telephone

Address: _____ Person Making Contact: E. Bidwell

Communications Summary: Mrs. Cameron indicated that the East Hampton Water District actually consists of two distinct districts. The Montauk section has 1,690 services and uses water taken only from its portion of the district. The East Hampton section has 9,151 services and uses water taken only from its portion of the district.

(see over for additional space)

Signature: E. Bidwell

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: _____ SITE CODE: 152059

NAME OF SITE: Bull Path Landfill REGION: 1

STREET ADDRESS: Old Northwest Road and Stephen Hands Path

TOWN/CITY: East Hampton COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Town of East Hampton

ADDRESS OF CURRENT OWNER OF SITE: 159 Pantigo Road, East Hampton, NY 11937

TYPE OF SITE: OPEN DUMP [ ] STRUCTURE [ ] LAGOON [ ]
LANDFILL [x] TREATMENT POND [ ]

ESTIMATED SIZE: 10 ACRES

SITE DESCRIPTION:

The Bull Path Landfill is an inactive disposal site located between Old Northwest Road, Stephen Hands Path, and Bull Path, approximately 1.3 miles northeast of East Hampton, Suffolk County, New York. The landfill is owned by the Town of East Hampton. The Town operated the 10-acre site as a municipal landfill from 1973 until 1982, and reportedly accepted only brush and construction debris from residents of the Town. Household garbage was not accepted at the landfill.

Originally, the Town excavated a large pit to a depth of approximately 50-ft, off Bull Path Road. Subsequently, brush and construction debris were compacted into the pit in 8-10 foot lifts. The lifts were then covered with 1 ft of clean fill. In 9 years of operation, the pile of waste material grew to a height of 20 ft. above the original grade. When the landfill was closed, a berm was built around the south and southwestern perimeter. The final cover consisted of 2 feet of clean sandy fill and 6 inches of topsoil. The entire landfill was seeded with wildflower and tree seeds.

HAZARDOUS WASTE DISPOSED: CONFIRMED [ ] SUSPECTED [ ]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
None documented	None documented

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 ___ TO _____, 19 ___

OWNER(S) DURING PERIOD OF USE: Town of East Hampton

SITE OPERATOR DURING PERIOD OF USE: Same

ADDRESS OF SITE OPERATOR: 159 Pantigo Road, East Hampton, New York 11937

ANALYTICAL DATA AVAILABLE: AIR [ ] SURFACE WATER [ ] GROUNDWATER [x]
SOIL [ ] SEDIMENT [ ] NONE [ ]

CONTRAVENTION OF STANDARDS: GROUNDWATER [ ] DRINKING WATER [ ]
SURFACE WATER [ ] AIR [ ]

SOIL TYPE: Sand

DEPTH TO GROUNDWATER TABLE: Approximately 80 feet

LEGAL ACTION: TYPE: _____ STATE [ ] FEDERAL [ ]

STATUS: IN PROGRESS [ ] COMPLETED [ ]

REMEDIAL ACTION: PROPOSED [ ] UNDER DESIGN [ ]

IN PROGRESS [ ] COMPLETED [ ]

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

None known or documented

ASSESSMENT OF HEALTH PROBLEMS:

None known or documented

PERSON(S) COMPLETING THIS FORM:

FOR NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION	NEW YORK STATE DEPARTMENT OF HEALTH
NAME EA Science and Technology	NAME
TITLE	TITLE
NAME	NAME
TITLE	TITLE
DATE: 3 July 1986	DATE: