

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE 1 INVESTIGATION

Brookhaven Landfill - Horseblock Road

Site No. 152041

Town of Brookhaven, Suffolk County

Final - June 1987



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**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.

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

**BROOKHAVEN LANDFILL - HORSEBLOCK ROAD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY
NEW YORK I.D. NO. 152041**

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.

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1. EXECUTIVE SUMMARY

The Brookhaven Landfill, Horseblock Road site (New York I.D. No. 152041, EPA I.D. No. NY D789008975) is an active municipal landfill located approximately 0.6 mi northwest of the Village of Brookhaven, between Horseblock Road and Sunrise Highway in the Town of Brookhaven, Suffolk County, New York (Figures 1-1 and 1-2, and Photos 1-1 through 1-8). The New York State Environmental Facilities Corporation (EFC) opened the original landfill on a 116-acre parcel of vacant land in March 1974. The Town of Brookhaven assumed ownership and responsibility for the landfill in 1976. Today, the landfill covers 85 acres, and accepts approximately 485,000 tons of municipal solid waste per year. Seventy-six of the 85 acres of landfill have a synthetic underliner and 15 acres of the original landfill (highest elevation) have a synthetic cap. A leachate collection system under the landfill collects approximately 20,000 gal of liquid per day, which is hauled away to the South West Sewer District for treatment. Over the years, the EFC, the Town, and the USGS have installed a monitoring network of 68 wells at the site.

Early in the landfill's history, a Town employee discovered leachate overflowing the underliner. The leachate was sampled in 1975 and again in 1978, and was found to contain iron, manganese, and lead. In 1983, the USGS reported the possibility of ground-water contamination, which prompted the Town of Brookhaven to supply a clean source of public water to residences down-gradient of the ground water in the vicinity of the landfill. The Town has reported their results on a quarterly basis to the New York State Department of Environmental Conservation (NYSDEC), and results indicate there are elevated

levels of some metals, i.e., iron, manganese, and arsenic, in the ground water. The USGS has not yet released an official report on their findings. Their raw data indicate that volatile organics such as diethyl phthalate, benzene, chlorobenzene, ethylbenzene, methylene chloride, and 1,4-dichlorobenzene have shown up in the ground water, although USGS has not released their control (upgradient) data, which will be necessary to interpret their findings.

There is a confirmed release of contaminants to ground water. Furthermore, there are sufficient data available to prepare final HRS scores for this site. The HRS scores are as follows: Migration Score (S_M) = 37.93 (S_{gw} = 65.62, S_{sw} = 0, S_a = 0), Fire and Explosion Score (S_{FE} = N/A), and Direct Contact Score (S_{DC}) = 0. It is recommended that the next step involve an evaluation of the horizontal and vertical extent of ground-water contamination. This is beyond the scope of a Phase II program. Therefore, performance of a Phase II investigation is not recommended for this site. A thorough review of the extensive USGS ground-water monitoring program and data is highly recommended, when this information becomes available.

Coordinates:
Latitude: 40° 47' 46"
Longitude: 72° 55' 50"

BROOKHAVEN LANDFILL

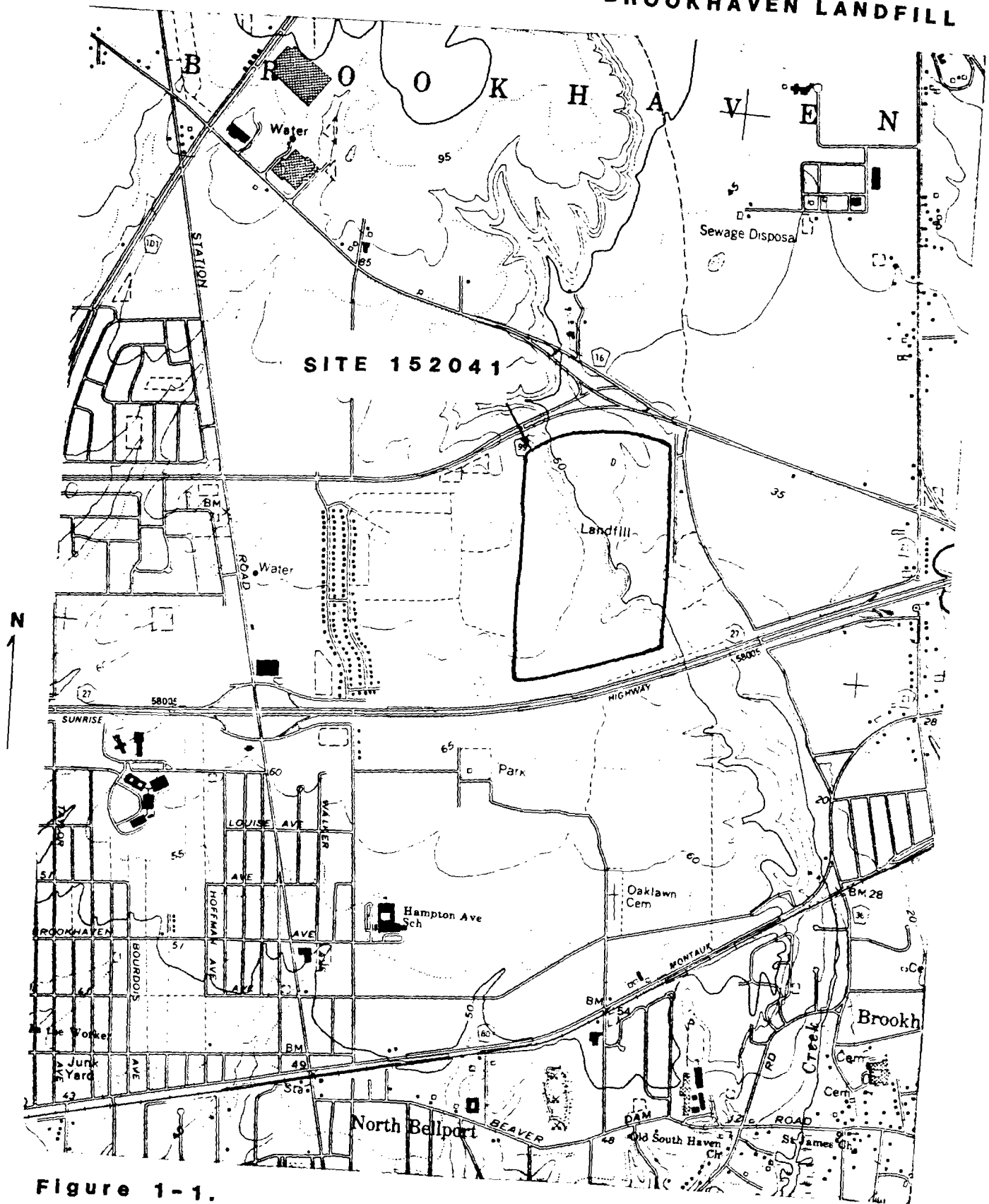


Figure 1-1.

Scale = 1:24,000

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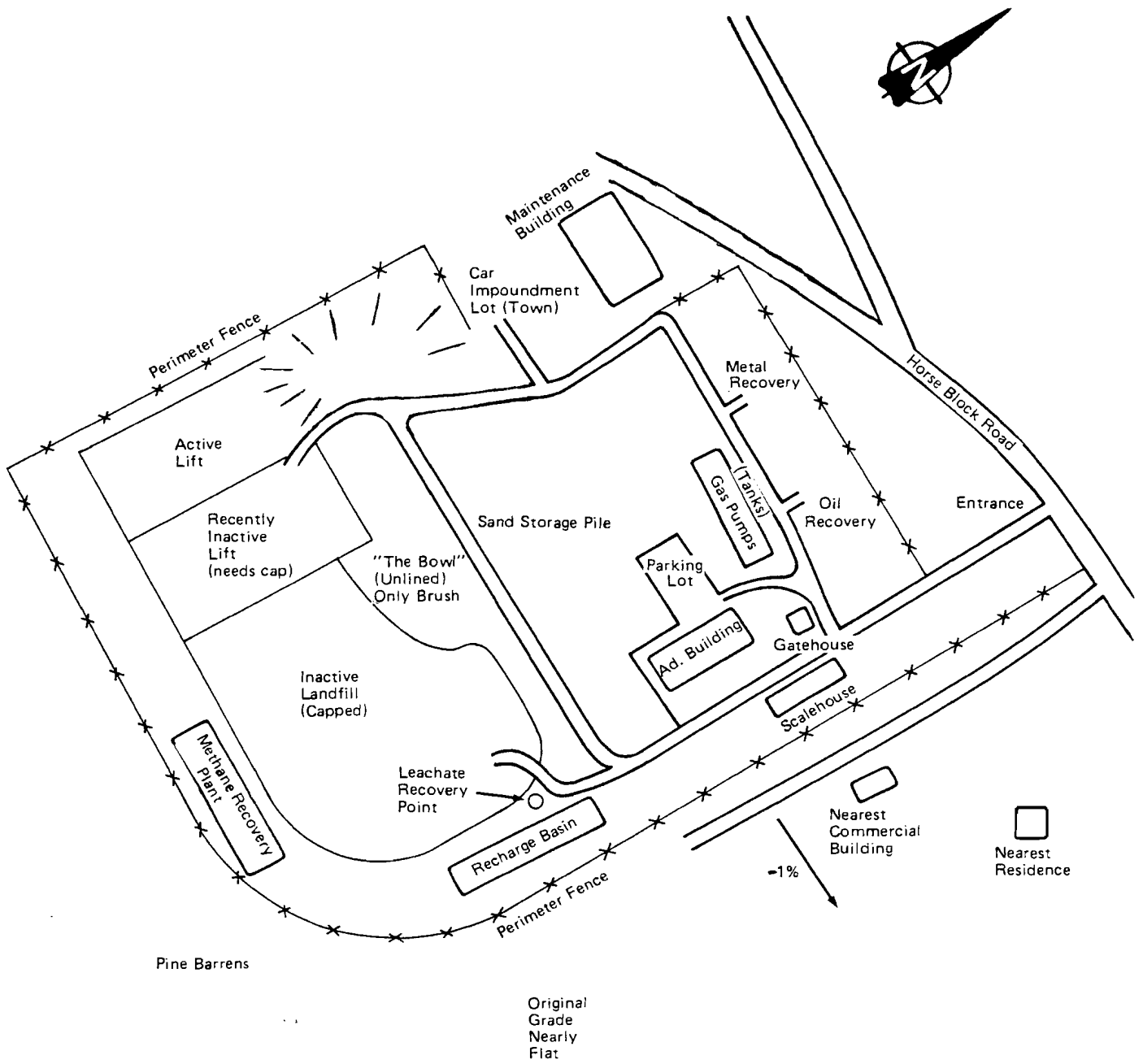


Figure 1-2. Site sketch. Brookhaven Landfill, 22 January 1986. (Not to scale.)



1-2



1-4



1-1



1-3

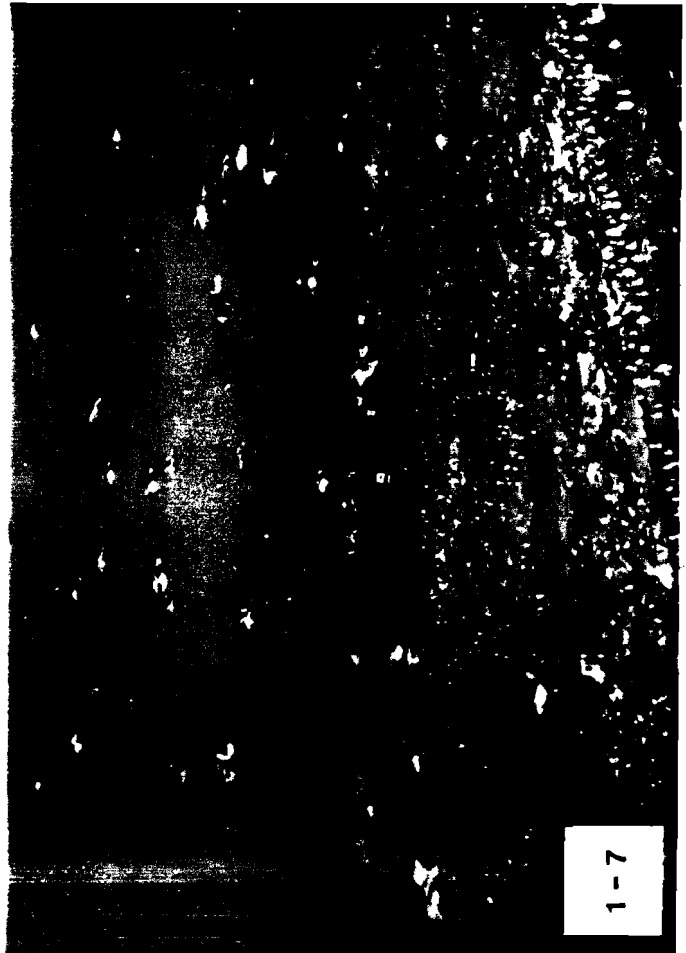
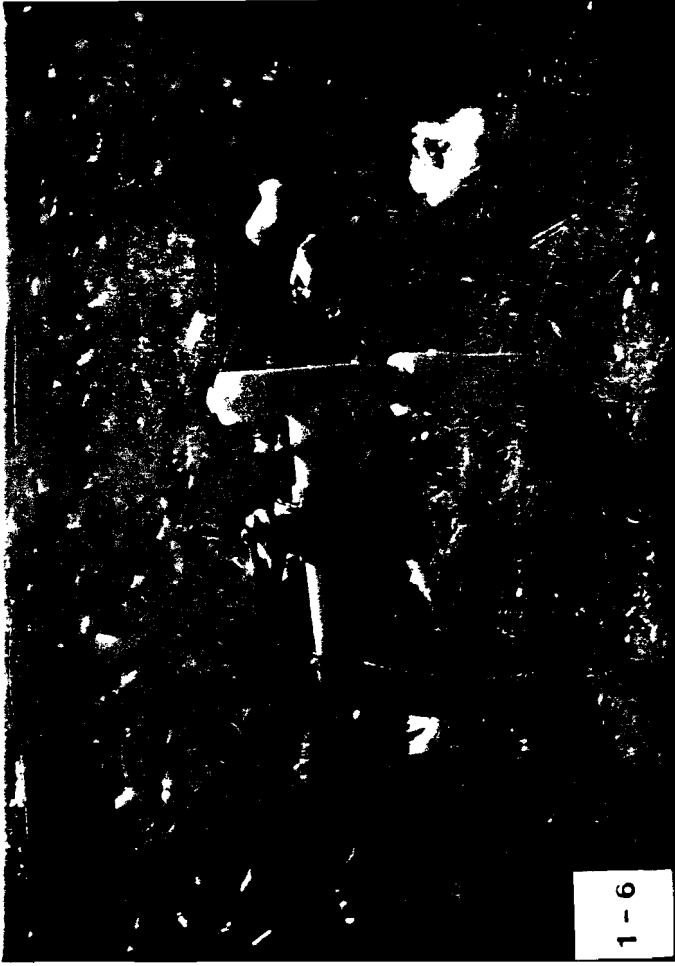


PHOTO LOG - BROOKHAVEN LANDFILL, HORSEBLOCK ROAD

<u>Photo</u>	<u>Description</u>
1-1	The entrance to the landfill is located on an access road off of Horseblock Road. The entire landfill is fenced and this gate is guarded during the day and locked at night.
1-2	Facing southwest, this is the northeast corner of the landfilled area. The edges of the lift uniformly slope 35-40 percent.
1-3	Standing on top of the landfill and facing east, this is part of the extensive leachate collection system. Approximately 20,000 gallons of leachate are removed daily.
1-4, 1-5	Starting with a view to the south, these two photos show the top of the closed portion of the landfill. In 1984, a 10 ml PVC vinyl liner was placed over this lift and covered with 2 ft of fill. Photo 1-5 is a view to the southwest and shows part of the methane collection system.
1-6	This is one of several methane wells installed by Wehran Engineering. Methane gas is burned by generators and the resulting energy is sold to LILCO.
1-7, 1-8	These two photos show the active disposal area in the west and northwest sectors of the landfill. In Photo 1-7, the view is from the top of the closed portion of the landfill, and looks down on vehicles depositing garbage on the active lift and piles of fill which will be used as cover. In Photo 1-8, the active lift is being extended into a new sector of the property by excavating-lining-landfilling.

2. PURPOSE

The Brookhaven Landfill, Horseblock Road site was listed in the New York State Registry of Inactive Hazardous Wastes Sites because it is an active municipal landfill with a history of leachate/ground-water problems, and is known to have temporarily stored 35 barrels of hazardous waste which had been abandoned along the Town's highways.

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 a Hazard Ranking Score (HRS) and an assessment of the available information.

3. SCOPE OF WORK

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

<u>Contact</u>	<u>Information Received</u>
Mr. Elias Kalogeras, P.E. Louis K. McLean Associates 437 South Country Road Brookhaven, New York 11719 (516) 286-8668	Site interview
Ms. Elaine McKibbin Director of Sanitation 20 Medford Avenue Patchogue, New York 11772 (516) 654-7954	Site interview
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
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

Contact

Information Received

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. 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

Site file

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

Contact

Information Received

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

No file/information

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

Mr. Rocky Paggione, Atty./
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

Site file

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

Contact

Information Received

Mr. Perry Katz
U.S. Environmental Protection Agency
Region II
Room 757
26 Federal Plaza
New York, New York 10278
(212) 264-4595

Site file

Mr. Joe Sauerwein
Chief Fire Inspector
Town of Brookhaven
20 Medford Avenue
Patchogue, New York 11772
(516) 654-7882

Information regarding
the threat of fire
and/or explosion at
the site

Mr. Charles Guthrie
Regional Fisheries Manager
New York State Department
of Environmental Conservation
SUNY Campus - Building 40
Stony Brook, New York 11794
(516) 751-7900

Recreational use of
surface water

Mr. Beck
Superintendent
Sun Hill/Swan Lake Water District
600 Old Country Road
Garden City, New York 11530
(516) 228-8830

Information regarding
municipal water supply

Mr. Michael P. Scorca
Hydrologist
United States Geological Survey
Water Resources Division
5 Aerial Way
Syosset, New York 11791
(516) 938-8830

Monitoring Well
Analytical Data

4. SITE ASSESSMENT - BROOKHAVEN LANDFILL, HORSEBLOCK ROAD

4.1 SITE HISTORY

The Brookhaven Landfill is an active municipal landfill located approximately 0.6 mi northwest of the Village of Brookhaven, between Horseblock Road and Sunrise Highway in the Town of Brookhaven, Suffolk County, New York (Appendix 1.1-1 and Figures 1-1 and 1-2). The landfill was originally opened by the New York State Environmental Facilities Corporation (EFC) in March 1974. It was built on a 116-acre parcel of vacant land, and parts of the original landfill site were excavated to depths of 15-45 ft (Appendixes 1.1-1 and 1.1-2). The Town of Brookhaven assumed ownership and responsibility for the landfill in 1976.

Today, the landfill covers 85 acres and accepts 485,000 tons of municipal solid waste per year. Refuse is weighed upon arrival and placed in daily cells (Appendixes 1.1-1 and 1.1-3). No liquid wastes are currently accepted, although the landfill receives treated sludge from the South West Sewer District, while the sewer district accepts leachate generated at the landfill. Oil-soaked soil can be accepted at the site, but this material is always accompanied by a New York State Department of Environmental Conservation (NYSDEC) letter of approval (Appendix 1.1-1). Seventy-six of the 85 landfilled acres are lined with 20 ml PVC. Eighteen of the 76 acres have a second liner and a leachate collection system between the liners, which was installed to alleviate problems associated with leachate generation. In 1984, a 10-ml PVC liner (cap) was placed over 15 acres of the original landfill in the southeast

corner of the facility. Subsequently, a 2-ft layer of fill was placed over this liner, and that portion of the landfill was closed. The Town is currently landfilling the southwestern portion of the site and working northward towards a lined pit which they are actively constructing (Appendix 1.1-1).

A methane collection system, designed by Wehran Engineering, has recently been installed at the landfill. Methane gas is burned by generators, and the resulting energy is sold to the Long Island Lighting Company (Appendix 1.1-1). A ground-water monitoring program was initiated by the EFC in 1972 (Appendix 1.1-4). In September of that year, the EFC had Diamond Well and Irrigation of Bellmore, New York, install 22 wells in various clusters around the landfill, which came to be monitored quarterly by the mid-1970s (Appendix 1.1-5).

Early in the landfill's history, a Town employee discovered leachate overflowing the (under) liner onto the ground surface (Appendix 1.1-6). Records indicate that the leachate was sampled in 1975 and again in 1978 and was found to contain iron, lead, and manganese (Appendix 1.1-7). It is not known why the leachate was only sampled twice and over such a long time span, however, this is apparently the only leachate data available (Appendix 1.1-6). In March 1979, the NYSDEC issued a Consent Order to the Town of Brookhaven to deal with the leachate problem by constructing a recycling system at the landfill liner or by initiating leachate treatability studies to determine the feasibility of onsite leachate treatment (Appendix 1.1-8). Progress to resolve the leachate problem was slow, but the NYSDEC granted several delays to the Town of Brookhaven because they felt they were aggressively pursuing a solution (Appendix 1.1-9). By 1981, a perforated transite pipe collection system was installed over the liner, and occasionally the leachate was pumped to an upper

deck where the liquid would pond and eventually evaporate or percolate (Appendixes 1.1-2 and 1.1-10). The Town also retained an engineering firm to develop treatment alternatives (Appendixes 1.1-2, 1.1-9 and 1.1-10). In June 1982, the NYSDEC received indications from the local press that the Town of Brookhaven did not intend to go forward with an engineering proposal to solve the leachate problem, so they fined the Town \$40,000 (Appendix 1.1-9). On 30 June, in response to the large fine, the Town began hauling leachate from the landfill to the Bergen Point Treatment facility (Appendix 1.1-11). By July 1982, the NYSDEC felt that the Town's actions to continuously remove leachate from the liner generally met the spirit of the Consent Order (Appendix 1.1-12). In 1983, the Town awarded an emergency contract to a local excavator to grade and cap the landfill in order to reduce the generation of leachate (Appendix 1.1-13). Currently 20,000 gallons of leachate are pumped daily from the collection system (Appendix 1.1-1).

The leachate problem prompted the Town of Brookhaven to contract the USGS to conduct an extensive ground-water monitoring study in the vicinity of the landfill (Appendix 1.1-6). In the early 1980s, a new monitoring network was developed which consisted of 46 new wells installed by USGS and 5 of the wells which had previously been installed by Diamond Well drillers (Appendixes 1.1-4, 1.1-14, and 1.1-15). In 1983, the USGS reported the possibility of ground-water contamination, which prompted the Town to supply public water to residences downgradient of the landfill (Appendix 1.1-6). In 1985, leachate sampled by the USGS was found to contain several volatile organics and high concentrations of total phenols and several metals (Appendix 1.1-15a).

During the same time period (March 1979), 64 private wells at distances of 0.5-1.0 mi south of the landfill were sampled by SCDHS in response to requests from homeowners. All ground-water samples were analyzed for chemical and bacteriological parameters. The SCDHS determined that these private wells were not affected by the leachate plume (Appendix 1.1-16). In 1980 and 1982, the SCDHS sampled other points south of the landfill. Tetrachloroethylene (23 ppb) was found in a fire department well on Montauk Highway on 22 November 1982 (Appendix 1.1-15, p. 5 of 6). It is not known if the SCDHS implicated the landfill, but the data indicates that there was ongoing monitoring by other agencies in the vicinity of the Horseblock Road facility.

There were three other incidents in the relatively short history of the landfill which received regulatory attention. In 1981, there was a fire at the site. Lawrence Aviation Inc. of Port Jefferson had brought in a truck load of titanium alloys. The landfill had accepted the material on a weekly basis, and it usually arrived wetted down. On 3 June 1981, it was dry and the load ignited causing a fire (Appendix 1.1-17). Later in 1981, there were allegations of illegal dumping at the Brookhaven Landfill. Neighbors and a Town employee observed trucks coming and going at night (Appendix 1.1-18). There is no information available today to indicate whether or not this ever became an issue or whether it was resolved.

Finally, during the period 1983-1984, two groups of discarded 55-gal steel drums were discovered by the Town of Brookhaven on highway rights-of-way (Appendix 1.1-19). The first group contained 22 drums and the second contained 13 drums, both of which were transported to the landfill for temporary storage. The liquid drum contents were sampled in 1984, and most of the wastes were

characterized as flammable, non-chlorinated organic liquids. In March 1985, the NYSDEC issued a request for proposals to analyze, package, transport, and dispose of the barrels and contaminated soil and debris. During the solicitation for clean-up firms, the Suffolk County District Attorney was approached by the Chem Star Corporation which pleaded guilty to the improper disposal of a portion of the drums. Soon thereafter the drums were removed by S&W Waste, Inc. to their disposal facility in New Jersey (Appendix 1.1-19). The Director of Sanitation for the Town of Brookhaven was not sure of the exact date of soil and drum removal, but did indicate it was prior to September 1985 (Appendix 1.1-20).

4.2 SITE TOPOGRAPHY

The landfill is located at an elevation of approximately 50 ft above MSL, between Horseblock Road and Sunrise Highway, in the Town of Brookhaven, Suffolk County, New York (Appendix 1.2-1). The property is located in an area of glacial influence on the south shore of Long Island. Regional slope is 3-8 percent toward the northeast. The landfill proper is a topographic high, rising nearly 100 ft at slopes of 35-40 percent. The top of the closed municipal lift is flat (EA Site Inspection).

The 85-acre facility is entirely fenced in and the entrance is locked and guarded (Appendix 1.1-1, EA Site Inspection). The original landfill in the southeast corner of the property is closed and capped. Current landfilling activity is within the southwestern portion of the site and working northward. There is an unlined depression in the center of the landfill used only for brush disposal. North of the brush pit is a sand storage pile. Just east of

the sand pile is the administration building and parking facilities. In the northernmost section of the property, there are recovery facilities for metal and oil, and gasoline pumps used to fuel the landfilling equipment (Appendix 1.1-1, Figure 1-2, Appendix 1.2-1, and EA Site Inspection).

The nearest surface water downgradient of the southwest corner of the landfill (point of contamination) is Beaverdam Creek, 3,000 ft to the southeast.

However, there is no viable overland route for surface water migration from the site. Intervening terrain includes a large recharge basin and the four-lane Sunrise Highway to the south and southeast (Appendix 1.2-1). The nearest residence is 0.9 mi to the east of the southeast corner of the landfill. The nearest commercial establishment is 0.66 mi to the east (Appendix 1.2-1).

4.3 SITE HYDROGEOLOGY

The site is directly underlain by Pleistocene Age glacial outwash deposits. This deposit is then in turn underlain by Cretaceous Age Matawan Group-Magothy Formation (undifferentiated), the Clay Member and Lloyd Sand Member of the Raritan Formation and finally by Precambrian Age gneiss and schist bedrock (Appendix 1.3-1). In the vicinity of the site the Pleistocene deposits are estimated to be 150-200 ft in thickness (ground surface elevation and Appendix 1.3-1) and largely comprised of sand and gravel. The boring log of Well S-14710 (located approximately 2.5 mi south of the site) indicates the presence of only brown sand and gravel to a depth of 117 ft below grade (Appendix 1.3-2). Also, a portion of the area within 3 mi of the site is apparently underlain by the Gardners Clay (Appendix 1.3-1).

The Matawan Group-Magothy Formation (undifferentiated) is estimated to be 1,000 ft in thickness in the vicinity of the site (Appendix 1.3-1). The upper surface of this deposit is irregular because of considerable erosion during the Tertiary and Pleistocene times. Therefore, accurate prediction of formation thickness between control points (boreholes) is difficult. The most detailed description of this formation is provided by Soren (Appendix 1.3-3) and is as follows: generally composed of "beds and lenses of light gray fine to coarse sand and silt, intercalated with thin to thick beds and lenses of light- to dark-gray clay, silt, and clayey/silty sand." Thin beds of lignite are commonly found in the clay and silt beds, while disseminated lignite and pyrite are common in the sand beds. Gravelly coarse sand is commonly present in the basal portion of the Magothy Formation, along with abundant interstitial clay and silt and lenses of clay, silt, and clayey/silty sand. The clay and silt beds are often apparently discontinuous lenses and not possible to correlate over significant distances. The geological log of Well S-71785 (located approximately three miles west of the site) provides a description of the stratigraphy encountered to a depth of about 359 ft below grade (Appendix 1.3-1).

Jensen and Soren (Appendix 1.3-1) 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. The most detailed stratigraphy information is provided by Soren (Appendix 1.3-3) and summarized in the following sentences. The Clay Member of the Raritan Formation consists mostly of beds/lenses of light- to dark-gray clay, silt, and clayey/silty fine sand and occasional thin to thick sandy lenses of limited lateral extent. Thin beds and disseminated particles of lignite and pyrite are common in the clay portion of this unit.

The Lloyd Sand Member of the Raritan Formation "consists mostly of beds and lenses of light- to medium-gray sand and gravelly sand, commonly containing small to large amounts of interstitial clay and silt, that are intercalated with beds and lenses of light- to dark-gray clay, silt, and clayey/silty sand."

Water pumped from aquifers underlying Suffolk County is the sole source of water for public supply, agriculture, and industry (Appendix 1.3-1). The upper glacial and Magothy aquifers act as a single hydrological unit and are the only aquifers reportedly developed by wells for water supply within 3 mi of the site. Therefore, both the upper glacial and Magothy aquifers are designated as the aquifer of concern. The Lloyd aquifer, though moderately permeable (165 gpd per square ft estimated horizontal permeability at Brookhaven National Laboratory about 5 mi northeast of the site), has not been developed for water supply because more permeable aquifers are present at shallower depths, and water from the Lloyd commonly has undesirably high concentrations of iron. Additionally, the Lloyd Aquifer is overlain by the extensive, thick, low permeability (confining) Raritan Clay (Appendix 1.3-3). Therefore, the Lloyd Aquifer will not be considered further by this Phase I investigation.

The aquifers of Long Island are hydraulically interconnected and although beds and discontinuous layers of silt and clay within and between aquifers serve to confine water below them, they do not completely prevent the vertical movement of water through and around them. Soren (Appendix 1.3-3) presents data which reflect the high degree of hydraulic interconnection between the upper glacial and Magothy aquifers in the vicinity: (1) for wells completed in the upper glacial and Magothy aquifers in nearby Brentwood and Hauppauge, the head in these two aquifers decrease at a fairly uniform rate with increasing depth, and

(2) water-level fluctuation in the same well groups were very similar. Soren also reports that the estimated downward velocity of water through the Magothy aquifer in the vicinity of the ground-water divide in 1968 (along which the site is located) was 0.006 ft/day (approximately 2.2 ft/year).

Recharge to the upper glacial aquifer is derived entirely from precipitation. Recharge to the Magothy and Lloyd aquifers is derived entirely from the downward movement of water from each overlying aquifer (Appendix 1.3-4). In general, recharge to the lower aquifers occurs near the center of Long Island and discharge occurs along the edge of Long Island to the ocean and Long Island Sound. The average annual precipitation in the area is 46 inches, of which 24 inches is estimated to infiltrate to the water table (Appendix 1.3-5). The remainder of the precipitation is returned to the atmosphere by evaporation and transpiration, except for a small amount of runoff to streams.

The upper glacial aquifer is the most permeable aquifer on Long Island with an estimated horizontal permeability of 1,000-1,500 gpd per square ft (Appendix 1.3-3). In 1968, it was estimated in the region that water in the upper glacial aquifer was moving horizontally at rates less than 0.5 ft/day in areas distant from centers of pumping and to hundreds of ft/day near the screens of pumping wells (Appendix 1.3-3). The permeability of the underlying Magothy aquifer ranges widely depending upon the presence and amount of clay and silt. In 1968, it was estimated in the region that water in the Magothy aquifer was moving horizontally at rates less than 0.2 ft/day in areas distance from pumping, and to hundreds of ft/day near screens of pumping wells.

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 10-50 ft below ground surface, and the regional ground-water natural (unaffected by pumping) flow direction appears to be toward the southeast. Within 3 mi of the site, the upper glacial and Magothy aquifer of concern has been reportedly developed by four Suffolk County Water Authority well fields and numerous private wells. Appendix 1.3-6 provides a list of municipal wells and well fields located within 3 mi of the site. The developed area within 3 mi of the site is served by the Suffolk County Water Authority, Swan Lake Water District, and numerous private wells.

4.4 SITE CONTAMINATION

Waste Types and Quantities

The Brookhaven Landfill has been in operation since 1974 and accepts approximately 485,000 tons of solid municipal waste per year. The landfill also receives treated sludge from a local sewer district. The landfill can accept oil-soaked soil if it is accompanied by a letter of approval from the NYSDEC (Appendix 1.1-1). The landfill also served as a temporary holding facility for 35 barrels of flammable, non-chlorinated organic liquids which had been abandoned on local highways and, subsequently, ordered to the landfill by the Town and NYSDEC (Appendix 1.1-18).

In addition, in the early history of the landfill, leachate was discovered overflowing the (under) liner. On 8 April 1975, leachate samples contained cadmium (0.02 mg/liter), iron (460 mg/liter), lead (0.24 mg/liter), and manganese (39 mg/liter). Leachate was sampled again on 6 October 1978, and was found to contain iron (160 mg/liter) (Appendix 1.1-7). In 1985 the USGS again sampled the leachate and found benzene (14 ppb), 1,4-Dichlorobenzene (31 ppb), ethylbenzene (53 ppb), toluene (351 ppb), total phenols (362 ppb), and lead (234 ppb) (Appendix 1.1-15a).

Ground Water

Ground water in the vicinity of the Brookhaven Landfill has been sampled since 1972. An EFC monitoring network of 22 wells has produced analytical data during the period 1972-1980. Of particular import were those wells in cluster No. 5 and the well designated "maintenance building" because they are considered the control wells (Appendix 1.1-4). Over the years, sampling and analysis has been performed by several different laboratories (Appendixes 1.4-1 through 1.4-12). The quarterly samples of 5 March 1976, analyzed by Lauman Laboratories, Inc., contained 10.4 ppm iron above a background of 0.2 ppm (Appendix 1.4-3). The quarterly samples of 14 July 1977 analyzed by Volumetric Techniques Ltd. contained 0.06 ppm arsenic above a background of 0.002 ppm (Appendix 1.4-4). On 21 June 1978, ground-water samples analyzed by Ecotest Laboratories, Inc. contained 8.15 ppm manganese above a background of 0.47 ppm (Appendix 1.4-7).

According to a U.S. EPA report prepared by Federal Investigative Team (F.I.T) in 1983, there is contamination of the glacial aquifer downgradient of the Brookhaven landfill. According to this report, contamination was limited to iron, chlorides, and nitrates (Appendix 1.4-13).

In addition, 46 wells were installed by USGS and ground water has been sampled twice per year (Appendixes 1.1-1 and 1.1-14). In the 1980s, the USGS began monitoring volatile organic compounds in the ground water. Since 1983, diethyl phthalate, benzene, chlorobenzene, ethylbenzene, methylene chloride, and 1,4-dichlorobenzene have shown up in ground-water samples (Appendix 1.4-14). At this time, however, a release of these constituents cannot be confirmed because the USGS has not made control data available. Their final report on the monitoring program at the Brookhaven Landfill has not been published and the USGS does not want to release information prematurely (Appendix 1.1-14).

Surface Water

No data available.

Soil

No data available.

Air

No readings (volatile organics) above background level were detected during EA site inspection on 22 January 1986. No other data available (Chapter 3).

5. Preliminary HRS

5.1 Narrative Summary

BROOKHAVEN LANDFILL, HORSEBLOCK ROAD
TOWN OF BROOKHAVEN, SUFFOLK COUNTY

The Brookhaven Landfill, Horseblock Road site is an active municipal landfill located approximately 0.6 mi northwest of the Village of Brookhaven, between Horseblock Road and Sunrise Highway in the Town of Brookhaven, Suffolk County, New York. The New York State Environmental Facilities Corporation (EFC) opened the original landfill on a 116-acre parcel of vacant land in March 1974. The Town of Brookhaven assumed ownership and responsibility for the landfill in 1976. Today, the landfill covers 85 acres, and accepts approximately 485,000 tons of municipal solid waste per year. Over the years, the EFC, the Town, and the USGS have installed a monitoring network of 68 wells at the site.

Early in the landfill's history, a Town employee discovered leachate overflowing the underliner. The leachate was sampled in 1975 and again in 1978, and was found to contain iron, manganese, and lead. In 1983, the USGS reported the possibility of ground-water contamination, which prompted the Town of Brookhaven to supply a clean source of public water to residences downgradient of the ground water in the vicinity of the landfill. The Town has reported their results on a quarterly basis to the New York State Department of Environmental Conservation (NYSDEC), and results indicate there are elevated levels of some metals, i.e., iron, manganese, and arsenic, in the ground water. The USGS has not yet released an official report on their findings. Their raw data indicate that volatile organics such as diethyl phthalate, benzene, chlorobenzene, ethylbenzene, methylene chloride, and 1,4-dichlorobenzene have shown up in the ground water, although USGS has not released their control (upgradient) data, which will be necessary to interpret their findings.

5.2 Location

Coordinates:
Latitude: 40° 47' 46"
Longitude: 72° 55' 50"

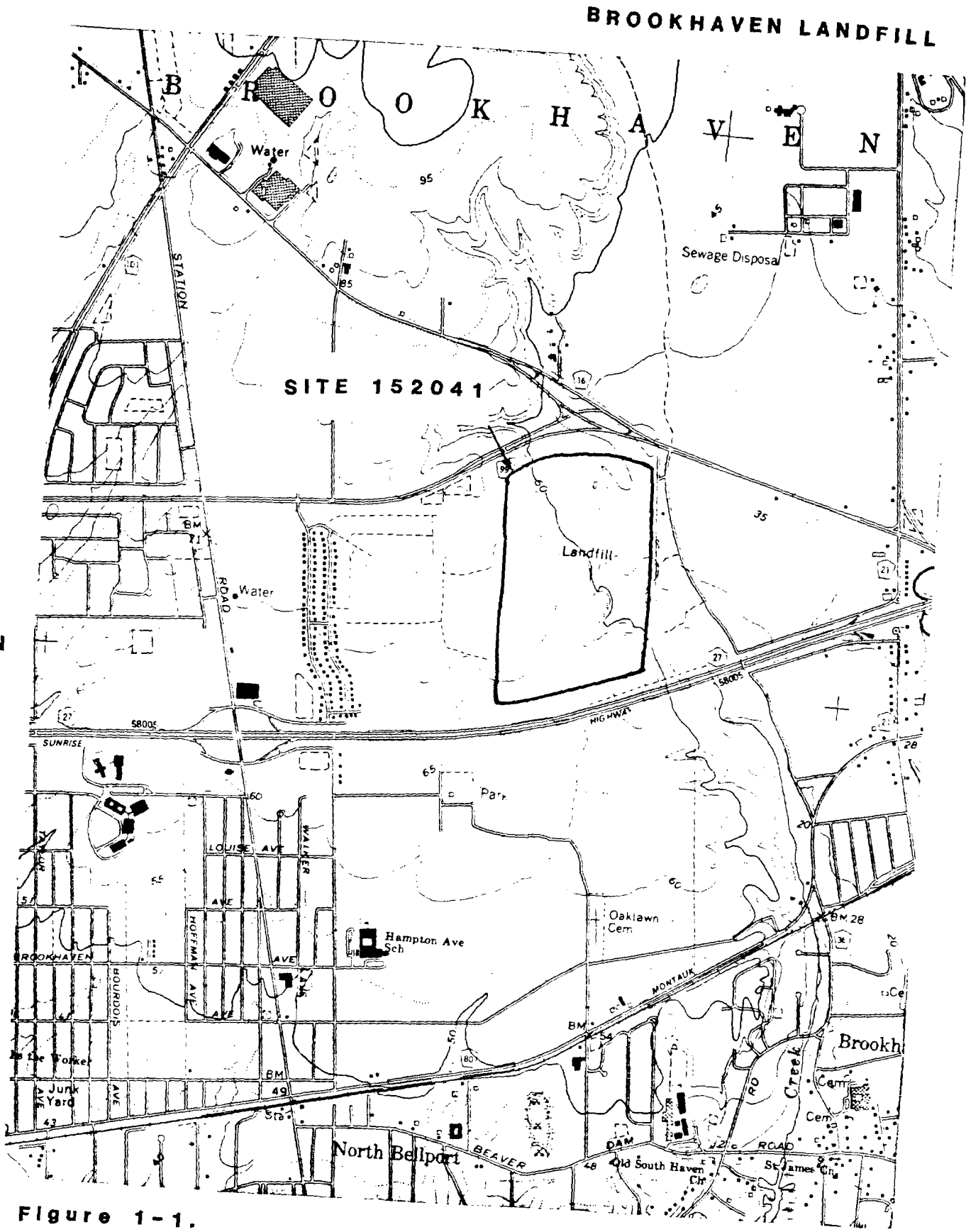


Figure 1-1.

Scale = 1:24,000

BELLPORT QUAD.

5.3 HRS Worksheets

Facility name: Brookhaven Landfill, Horseblock Road

Location: Town of Brookhaven, Suffolk County, New York

EPA Region: II

Person(s) in charge of the facility: Town of Brookhaven

Name of Reviewer: EA Science and Technology Date: 22 January 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 site is an active 85 acre landfill which accepts 485,000 tons of
garbage per year. The landfill has been open since 1974. Seventy-
six of the 85 acres of landfill have a synthetic underliner and the
original 15 acres (now closed) have a synthetic cap. The Town of
Brookhaven and the USGS have installed an extensive ground-water
monitoring network of 68 wells. Leachate was observed overflowing
the underliner and ground water samples have indicated a direct*

Scores: $S_M = 37.93$ $S_{gw} = 65.62$ $S_{sw} = 0$ $S_a = 0$

SFE = N/A

SDC = 0

FIGURE 1
HRS COVER SHEET

*release to ground water.

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max Score	Ref. (Section)	
1 Observed Release	0 45	1	45	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2		6		
Net Precipitation	0 1 2 3	1		3		
Permeability of the Unsaturated Zone	0 1 2 3	1		3		
Physical State	0 1 2 3	1		3		
Total Route Characteristics Score				15		
3 Containment	0 1 2 3	1		3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	1	8		
Total Waste Characteristics Score				19	26	
5 Targets					3.5	
Ground Water Use	0 1 2 3	3	9	9		
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	35	40		
Total Targets Score				44	49	
6 If line 1 is 45, multiply 1 x 4 x 5						
If line 1 is 0, multiply 2 x 3 x 4 x 5			37,620	57,330		
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = 65.62$			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet																	
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max Score	Ref. (Section)												
1 Observed Release	0	45	1	0	45	4.1											
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .																	
2 Route Characteristics						4.2											
Facility Slope and Intervening Terrain	0	1	2	3	1	1	3										
1-yr. 24-hr. Rainfall	0	1	2	3	1	2	3										
Distance to Nearest Surface Water	0	1	2	3	2	4	6										
Physical State	0	1	2	3	1	3	3										
Total Route Characteristics Score				10	15												
3 Containment	0	1	2	3	1	0	3	4.3									
4 Waste Characteristics								4.4									
Toxicity/Persistence	0	3	6	9	12	15	18	1	0	18							
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1	0	8					
Total Waste Characteristics Score				0	26												
5 Targets												4.5					
Surface Water Use	0	1	2	3	3	6	9										
Distance to a Sensitive Environment	0	1	2	3	2	2	6										
Population Served/Distance to Water Intake Downstream	0	4	6	8	10	12	16	18	20	24	30	32	35	40	1	0	40
Total Targets Score				8	55												
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				0	64,350												
7 Divide line 6 by 64,350 and multiply by 100				$S_{sw} = 0$													

**FIGURE 7
SURFACE WATER ROUTE WORK SHEET**

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max Score	Ref. Section	
1 Observed Release	0	45	1	0	45	5.1
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_a = 0$. Enter on line 5 .						
If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics						5.2
Reactivity and Incompatibility	0 1 2 3		1		3	
Toxicity	0 1 2 3		3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8		1		8	
Total Waste Characteristics Score					20	
3 Targets						5.3
Population Within 4-Mile Radius	} 0 9 12 15 18 } 21 24 27 30		1		30	
Distance to Sensitive Environment	0 1 2 3		2		6	
Land Use	0 1 2 3		1		3	
Total Targets Score					39	
4 Multiply 1 x 2 x 3					35.100	
5 Divide line 4 by 35.100 and multiply by 100			$S_a =$		0	

**FIGURE 9
AIR ROUTE WORK SHEET**

	s	s ²
Groundwater Route Score (S _{gw})	65.62	4,305.98
Surface Water Route Score (S _{sw})	0	0
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		4,305.98
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		65.62
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		37.93

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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

**FIGURE 11
FIRE AND EXPLOSION WORK SHEET**

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max Score	Ref. (Section)	
1 Observed Incident	<input checked="" type="radio"/> 0 45	1	0	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	<input checked="" type="radio"/> 0 1 2 3	1	0	3	8.2	
3 Containment	<input checked="" type="radio"/> 0 15	1	15	15	8.3	
4 Waste Characteristics Toxicity	<input checked="" type="radio"/> 0 1 2 3	5	0	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 <input checked="" type="radio"/> 4 5	4	16	20		
Distance to a Critical Habitat	<input checked="" type="radio"/> 0 1 2 3	4	0	12		
Total Targets Score			16	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 0			

**FIGURE 12
DIRECT CONTACT WORK SHEET**

5.4 HRS Documentation

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: Brookhaven Landfill, Horseblock Road

LOCATION: Town of Brookhaven, Suffolk County, New York

DATE SCORED: 12 August 1986

PERSON SCORING: EA Science and Technology

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

NYSDEC files
Suffolk County Department of Health Services
EA Site Inspection, 22 January 1986
Town of Brookhaven

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

No viable overland surface water route exists.

The local fire marshal does not consider the site to be an imminent fire or explosion threat.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Iron, arsenic, manganese.

Rationale for attributing the contaminants to the facility:

The contaminants were found in concentrations >10X concentrations in the background ground-water samples.

References: 30, 31, and 34.

Assigned value = 45.

Reference: 45.

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

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

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

Net Precipitation

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

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

Net precipitation (subtract the above figures):

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Permeability associated with soil type:

Physical State

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

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Iron, arsenic, manganese, cadmium, lead, benzene, 1,4-dichlorobenzene, ethylbenzene, toluene, and phenols.

References: 6, 30, 31, 34, and 61.

Compound with highest score:

Iron, arsenic, cadmium, lead, manganese, 1,4-dichlorobenzene, and phenols all have a value of 18.

Assigned value = 18.

References: 45 and 50.

Hazardous Waste Quantity

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

Total quantity unknown.

References: 1, 19, and Section 3.0.

Basis of estimating and/or computing waste quantity:

Hazardous substances were found in leachate and in ground-water samples. From 1983 to 1984, thirty-five 55-gal drums containing flammable, non-chlorinated organic liquids were temporarily stored at the site.

Assigned value = 1.

Reference: 45.

5 TARGETS

Ground Water Use

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

Drinking water; no alternate supply available.

References: 47, 48, 49, and 51.

Assigned value = 3.

Reference: 45.

Distance to Nearest Well

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

A well onsite serving the maintenance building. The well is monitored and considered to be upgradient of the leachate plume.

References: 1 and 5.

Distance to above well or building:

Approximately 3,200 ft (measured from leachate sampling point, the location of documented contamination).

References: 4 and 6.

Assigned value = 3.

Reference: 45.

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Community supplies (Appendix 1.3-6):	<u>Population</u>
Suffolk County Water Authority	18,939
Westhampton Water District (9 wells)	
Swan Lake Water District	<u>2,405</u>
	21,344

The number of private wells within a 3-mi radius is unknown.

References: 46, 47, 48, 49, 51, and 59.

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

Approximately 807 acres of land are used for agriculture purposes within a 3-mi radius of the site. However, irrigation wells on agricultural land in Suffolk County are not registered by any regulatory agency, so there are no lists or descriptions of the locations of these wells.

References: 52 through 56.

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

21,344. Assigned value = 5. Combined assigned value = 35.

Reference: 45.

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

No data available. Assigned value = 0.

Reference: 45.

Rationale for attributing the contaminants to the facility:

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Location of documented contamination is the leachate sampling point. Average slope = 0.

Reference: 60.

Name/description of nearest downslope surface water:

Beaverdam Creek is approximately 3,000 ft southeast.

Reference: 21.

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

3-5 percent.

References: 1 and 21.

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

No.

Reference: 1.

Is the facility completely surrounded by areas of higher elevation?

No.

Reference: 1.

Assigned value = 1.

Reference: 45.

1-Year, 24-Hour Rainfall in Inches

2.5 in. Assigned value = 2.

Reference: 45.

Distance to Nearest Downslope Surface Water

Approximately 3,000 ft. However, surface runoff is expected to enter a large recharge basin along the southeastern border of the landfill. In addition, intervening terrain includes an elevated highway.

Reference: 1 and 21.

Assigned value = 2.

Reference: 45.

Physical State of Waste

Drums containing liquid flammable non-chlorinated organic waste were temporarily stored at the site.

Reference: 19.

Assigned value = 3.

Reference: 45.

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No viable overland route for runoff from the site reaching surface water. Intervening terrain includes an elevated four-lane highway and a recharge basin to the south-southeast.

Reference: 1.

Method with highest score:

Intervening terrain precludes runoff to surface water. Assigned value = 0.

Reference: 45.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Containment = 0, thus waste characteristics are not evaluated.

Assigned value = 0.

Reference: 45.

Compound with highest score:

Hazardous Waste Quantity

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

Basis of estimating and/or computing waste quantity:

5 TARGETS

Surface Water Use

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

Recreational.

Reference: 43.

Assigned value = 2.

Reference: 45.

Is there tidal influence?

No.

Reference: 21.

Distance to a Sensitive Environment

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

1.3 mi.

Reference: 21.

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

None.

Reference: 21.

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

None.

Reference: 57.

Assigned value = 1.

Reference: 45.

Population Served by Surface Water

Location(s) of water supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static waterbodies) downstream of the hazardous substance and population served by each intake:

None.

References: 47 and 54.

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

None. The major source of irrigation water in Suffolk County is ground water from wells. Generally, surface water is not utilized for this purpose.

References: 53 and 54.

Total population served:

Zero.

References: 47, 53, and 54.

Assigned value = 0.

Reference: 45.

Name/description of nearest of above waterbodies:

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

AIR ROUTE

No data available in any of the agency files examined (Chapter 3). During EA's site inspection on 22 January 1986, total volatile organics were measured using a photoionization detector (Photovac TIP). No readings above background were obtained.

Assigned value = 0.

Reference: 45.

1 OBSERVED RELEASE

Contaminants detected:

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

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

Distance to a Sensitive Environment

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

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

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

Land Use

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

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

Distance to residential area, if 2 miles or less:

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

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

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

FIRE AND EXPLOSION

The local fire marshal has certified that the site does not present a significant fire or explosion threat (Reference: 44). There are no analytical data available in any of the agency files examined (Chapter 3).

1 CONTAINMENT

Hazardous substances present:

Type of containment, if applicable:

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Ignitability

Compound used:

Reactivity

Most reactive compound:

Incompatibility

Most incompatible pair of compounds:

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Basis of estimating and/or computing waste quantity:

3 TARGETS

Distance to Nearest Population

Distance to Nearest Building

Distance to Sensitive Environment

Distance to wetlands:

Distance to critical habitat:

Land Use

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

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

Distance to residential area, if 2 miles or less:

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

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

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

Population Within 2-Mile Radius

Buildings Within 2-Mile Radius

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

None reported.

References: 1 and Section 3.0.

2 ACCESSIBILITY

Describe type of barrier(s):

There is a fence entirely surrounding the landfill. The entrance to the facility is locked and guarded.

Reference: 1.

Assigned value = 0.

Reference: 45.

3 CONTAINMENT

Type of containment, if applicable:

The landfill is lined and has a leachate collection system which contains leachate until it can be pumped into a tank truck and hauled to the South West Sewer District wastewater treatment plant for treatment.

Reference: 1.

Assigned value = 0.

Reference: 45.

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Containment score = 0. Therefore, waste characteristics are not evaluated.

Reference: 45.

Compound with highest score:

5 TARGETS

Population Within 1-Mile Radius

3,480. Estimated 35 percent of North Bellport (7,686), 10 percent of Yaphank (3,446), and 15 percent of Brookhaven (2,968).

Reference: 58.

Assigned value = 4.

Reference: 45.

Distance to Critical Habitat (of Endangered Species)

None within 1 mi.

Reference: 57.

Assigned value = 0.

Reference: 45.

DOCUMENTATION RECORDS REFERENCES

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2. New York State Department of Environmental Conservation (NYSDEC). 1979. Application for Approval to Operate a Solid Waste Management Facility. 28 February 1979. (Appendix 1.1-3.)
3. McKibbin, Elaine. 1986. Director of Sanitation, Town of Brookhaven. Personal Communication. 5 September. (Appendix 1.1-6.)
4. New York State Department of Environmental Conservation (NYSDEC) Bureau of Landfills. Monitoring Wells Program, Brookhaven Landfill. Map and description of wells. (Appendix 1.1-4.)
5. New York State Environmental Facilities Corporation. 1975. Quarterly Sampling Report. 19 November 1975. (Appendix 1.1-5.)
6. New York State Department of Health Division of Laboratories and Research Environmental Health Center. 1975. Analytical data for Leachate Samples. 8 April 1975 and 6 October 1978. (Appendix 1.1-7.)
7. NYSDEC. 1979. Consent Order and Compliance Schedule. 22 March 1979. (Appendix 1.1-8.)
8. Suffolk County Legislature. 1982. Letter to SCDHS Concerning the Town of Brookhaven's Lack of Compliance to Solve Leachate Problem. 1 June 1982. (Appendix 1.1-9.)
9. Town of Brookhaven Department of Public Safety. 1981. Letter to NYSDEC Describing Work Completed on Leachate Collection System. 21 May 1981. (Appendix 1.1-2.)
10. Dvirka and Bartilucci, Inc. 1981. Draft Leachate Section of Engineering Report on Leachate Treatment Alternatives. (Appendix 1.1-10.)
11. Town of Brookhaven. 1982. Letter to SCDHS on Status of Leachate Removal. 16 August 1982. (Appendix 1.1-11.)
12. NYSDEC. 1982. Letter from the NYSDEC to the Town of Brookhaven Accepting the Town's Action to Fulfill the Compliance Order. 19 July 1982. (Appendix 1.1-12.)
13. Long Island Newsday. 1983. Article on Town of Brookhaven's Emergency Contract to Grade and Cap the Landfill. 12 April 1983. (Appendix 1.1-13.)
14. U.S. Geological Survey. Letter Codes for Well Clusters and Location Map for Monitoring Program at Brookhaven Landfill. (Appendix 1.1-14.)

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16. SCDHS. 1980-1982. Landfill Survey. (Appendix 1.1-15).
17. Town of Brookhaven Department of Public Safety. 1981. Letter to NYSDEC Asking Qualification of Titanium Alloys. 10 June. (Appendix 1.1-17.)
18. SCDHS. 1980. Letter Regarding Survey of Private Wells in the Hamlet of Brookhaven. 24 October. (Appendix 1.1-16.)
19. NYSDEC. 1984-1985. Correspondence Concerning the Disposal of Hazardous Waste Drums and Contaminated Soil at the Brookhaven Town Landfill. (Appendix 1.1-19.)
20. McKibbin, E. 1986. Director of Sanitation, Town of Brookhaven. Personal Communication. 29 July 1986. (Appendix 1.1-20.)
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34. Town of Brookhaven Sanitation Department. 1978. Quarterly Sampling Report. 19 July 1978. (Appendix 1.4-7.)
35. Town of Brookhaven Sanitation Department. 1978. Quarterly Sampling Report. 20 October 1978. (Appendix 1.4-8.)
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37. Town of Brookhaven Sanitation Department. 1979. Quarterly Sampling Report. 29 October 1979. (Appendix 1.4-10.)
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59. SCWA. 1986. Active Service Estimates and Service Area Map. (Appendix 1.5-10.)
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61. United States Geological Survey. 1985. Results of Analysis of Leachate Sampling. (Appendix 1.1-15a.)

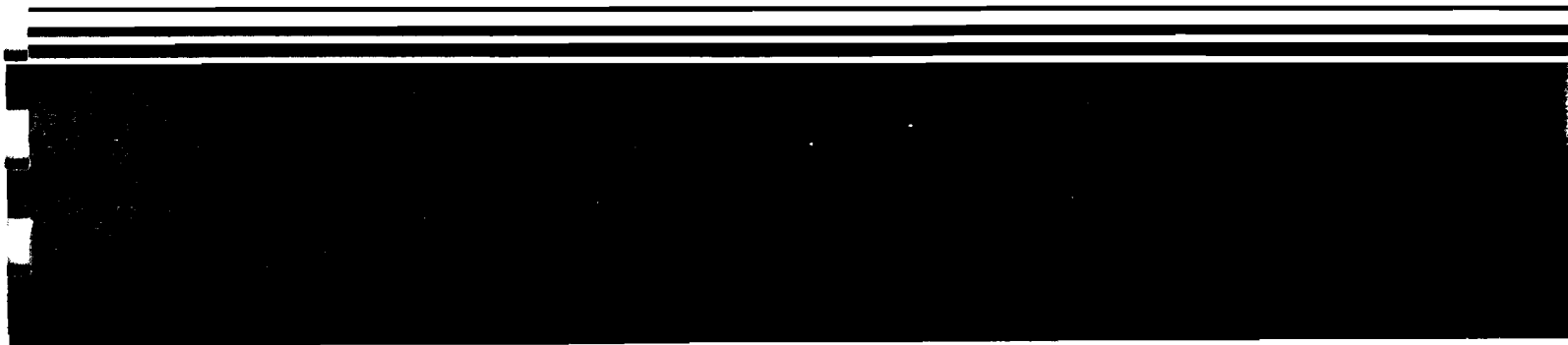
5.5 EPA 2070-12

Brookhaven Landfill, Horseblock Road



Potential Hazardous Waste Site

Preliminary Assessment





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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D789008975

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Brookhaven Landfill, Horseblock Road		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Horseblock Road			
03 CITY Town of Brookhaven		04 STATE NY	05 ZIP CODE	06 COUNTY Suffolk	07 COUNTY CODE
09 COORDINATES		08 CONG DIST.			
LATITUDE 40° 47' 46"	LONGITUDE 72° 55' 50"				

10 DIRECTIONS TO SITE (Starting from nearest public road):
Horseblock Road just north of Sunrise Highway in the Town of Brookhaven, New York.

III. RESPONSIBLE PARTIES

01 OWNER (if known) Town of Brookhaven		02 STREET (Business, mailing, residential) 20 Medford Avenue			
03 CITY Patchogue		04 STATE NY	05 ZIP CODE 11772	06 TELEPHONE NUMBER 516,654-7954	
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ()	
13 TYPE OF OWNERSHIP (Check one)					
<input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input checked="" type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER _____ (Specify) <input type="checkbox"/> G. UNKNOWN					

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

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		BY (Check all that apply)			
<input checked="" type="checkbox"/> YES DATE 1, 22, 86 <input type="checkbox"/> NO MONTH DAY YEAR		<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input checked="" type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER _____ (Specify)			
CONTRACTOR NAME(S): EA Science and Technology					
02 SITE STATUS (Check one)		03 YEARS OF OPERATION			
<input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		1974 present <input type="checkbox"/> UNKNOWN BEGINNING YEAR ENDING YEAR			
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED					
Mixed municipal solid waste, commercial and industrial wastes including waste oil, metal and septic sludge,					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION					
Potential for ground-water contamination.					

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 Rebecca Ligotino		02 OF (Agency Organization) EA Science and Technology		03 TELEPHONE NUMBER (914) 692-6706	
04 PERSON RESPONSIBLE FOR ASSESSMENT William Going		05 AGENCY	06 ORGANIZATION EA	07 TELEPHONE NUMBER (914) 692-6706	08 DATE 3, 24, 86 MONTH DAY YEAR



**POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION**

I. IDENTIFICATION	
01 STATE NY	02 SITE NUMBER D789008975

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES <i>(Check all that apply)</i> <input checked="" type="checkbox"/> A SOLID <input type="checkbox"/> B POWDER FINES <input checked="" type="checkbox"/> C SLUDGE <input type="checkbox"/> D OTHER _____ <i>(Specify)</i>	02 WASTE QUANTITY AT SITE <i>(Measures of waste quantities must be independent)</i> TONS <u>485,000/year</u> CUBIC YARDS _____ NO OF DRUMS _____	03 WASTE CHARACTERISTICS <i>(Check all that apply)</i> <input type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input type="checkbox"/> D PERSISTENT <input type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE <input type="checkbox"/> I HIGHLY VOLATILE <input type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> K REACTIVE <input type="checkbox"/> L INCOMPATIBLE <input type="checkbox"/> M NOT APPLICABLE
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III. WASTE TYPE Mixed municipal solid waste

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		from Southwest Sewer Dist.
OLW	OILY WASTE	Unknown		for recycling
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, 22 January 1986.
 New York State Department of Environmental Conservation Bureau of Landfills file.
 Town of Brookhaven, Department of Sanitation files.

5.6 EPA 2070-13

Brookhaven Landfill, Horseblock Road



Potential Hazardous Waste Site

Site Inspection Report





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

I. IDENTIFICATION	
01 STATE NY	02 SITE NUMBER D789008975

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Brookhaven Landfill, Horseblock Road		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Horseblock Road			
03 CITY Town of Brookhaven		04 STATE NY	05 ZIP CODE 11772	06 COUNTY Suffolk	
09 COORDINATES LATITUDE 40° 47' 46" -		LONGITUDE - 72° 55' 50" -		10 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input checked="" type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN	

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 01/22/86 MONTH DAY YEAR	02 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1974 present UNKNOWN BEGINNING YEAR ENDING YEAR	
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04 AGENCY PERFORMING INSPECTION (Check all that apply.)

A. EPA B. EPA CONTRACTOR _____ C. MUNICIPAL D. MUNICIPAL CONTRACTOR _____
 E. STATE F. STATE CONTRACTOR EA Science & Tech. _____ G. OTHER _____
(Name of firm) (Name of firm) (Specify)

05 CHIEF INSPECTOR William Going	06 TITLE Environmental Scientist	07 ORGANIZATION EA	08 TELEPHONE NO. (914) 692-6706
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09 OTHER INSPECTORS Ellen Bidwell	10 TITLE Geologist	11 ORGANIZATION EA	12 TELEPHONE NO. (914)-692-6706
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			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED Ms. Elaine McKibbin	14 TITLE Director of Sanitation	15 ADDRESS Town of Brookhaven 20 Medford Avenue Patchogue, New York 11772	16 TELEPHONE NO. (516) 654-7954
--	------------------------------------	--	------------------------------------

Mr. Bruce D'Abramo	Environmental Facilities	Town of Brookhaven 20 Medford Avenue Patchogue, New York 11772	(516) 654-7954
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Mr. Elias Kalogeras	Engineering Consultant	Louis K. McLean Associates 437 South Country Road Brookhaven, New York 11719	(516) 286-8668
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			()
			()
			()

17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 1100 hours	19 WEATHER CONDITIONS Sunny and cool approximately 55°
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IV. INFORMATION AVAILABLE FROM

01 CONTACT Rebecca Ligotino	02 OF (Agency/Organization) EA Science and Technology		03 TELEPHONE NO. (914) 692-6706
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04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Ellen Bidwell	05 AGENCY	06 ORGANIZATION EA	07 TELEPHONE NO. (914) 692-6706	08 DATE 08 12 86 MONTH DAY YEAR
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**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION**

I. IDENTIFICATION	
01 STATE NY	02 SITE NUMBER D789008975

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply) <input checked="" type="checkbox"/> A SOLID <input type="checkbox"/> B POWDER FINES <input type="checkbox"/> C SLUDGE <input type="checkbox"/> D OTHER _____ (Specify)	02 WASTE QUANTITY AT SITE <small>(Measure of waste quantities must be appropriate)</small> TONS <u>485,000</u> CUBIC YARDS _____ NO OF DRUMS _____	03 WASTE CHARACTERISTICS (Check all that apply) <input type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input type="checkbox"/> D PERSISTENT <input type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE <input type="checkbox"/> I HIGHLY VOLATILE <input type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> K REACTIVE <input type="checkbox"/> L INCOMPATIBLE <input checked="" type="checkbox"/> M NOT APPLICABLE
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III. WASTE TYPE mixed municipal solid waste

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) Leachate

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/ DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
Mes	Arsenic	7440-38-2	LF	0.06	ppm
Mes	Cadmium	7440-43-9	LF	0.02	mg/l
Mes	Lead	7439-91-1	LF	0.24	mg/l
Mes	Iron	7439-89-6	LF	460	mg/l
Mes	Manganese	7439-96-5	LF	39	mg/l
Sol	1,4-dichlorobenzene	106-46-7	LF	31	ppb
	Phenols		LF	362	ppb
Sol	Benzene	71-43-2	LF	14	ppb
Sol	Ethylbenzene	100-41-4	LF	53	ppb
Sol	Toluene	108-88-3	LF	351	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

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)

References 1, 6, 31, and 61.



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

I. IDENTIFICATION
G1 STATE NY G2 SITE NUMBER D0789008975

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE 14 July 1977 and 21 June 1978) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 21,344 04 NARRATIVE DESCRIPTION
Approximately 21,344 people are served by groundwater pumped from within 3 mi of the landfill.

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION
There is no surface water contamination route from the facility.

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
No data available.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE 1981) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
Titanium alloys ignited on 3 June 1981. Material had been disposed of on a weekly basis but on this occasion it was left dry and soon thereafter ignited. Nobody was injured. The site is not now considered an imminent threat from fire or explosion.

01 E. DIRECT CONTACT 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
The site is completely fenced and secured and security is good therefore, wastes are not accessible.

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED _____ (Acres) 04 NARRATIVE DESCRIPTION
None known.

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED 21,344 04 NARRATIVE DESCRIPTION
Limited to population served by ground water in the aquifer of concern.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
None known.

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
None known.



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY D0789008975

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

None known.

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

None known.

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

None known.

01 M. UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (DATE April 1975) POTENTIAL ALLEGED
(Spills, Runoff, Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

Leachate observed overflowing the landfill underliner.

01 N. DAMAGE TO OFF-SITE PROPERTY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

None known.

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

None known.

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

In 1981 there were allegations by neighbors and a Town employee of illegal dumping at the landfill during the night (unsubstantiated).

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
None known.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 21,344

IV. COMMENTS

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

References 1, 17, 18, 22, 44, 45, 46, 47, 48, 49, 51, and 57.



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

I. IDENTIFICATION	
01 STATE NY	02 SITE NUMBER D789008975

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED <i>(Check all that apply)</i>	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input checked="" type="checkbox"/> G. STATE <i>(Specify)</i>				G.N.Y.C.R.R. Part 360
<input type="checkbox"/> H. LOCAL <i>(Specify)</i>				
<input type="checkbox"/> I. OTHER <i>(Specify)</i>				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE DISPOSAL <i>(Check all that apply)</i>	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT <i>(Check all that apply)</i>	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCENERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	06 AREA OF SITE <u>85</u> (Acres)
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input checked="" type="checkbox"/> F. LANDFILL	485,000	ton/year	<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER <i>(Specify)</i>	
<input type="checkbox"/> I. OTHER <i>(Specify)</i>				

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES *(Check one)*
 A. ADEQUATE, SECURE B. MODERATE C. INADEQUATE, POOR D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
 The landfill accepts mixed municipal solid waste, and is quite secure at present i.e., liner, cap, cover, leachate collection system, methane collection system, perimeter fence/gate, security.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE YES NO
 02 COMMENTS
 Site is entirely fenced; with gate and security,

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

References 1 and 42
 EA Site Inspection



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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D789008975

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY
(Check as applicable)

	SURFACE	WELL
COMMUNITY	A. <input type="checkbox"/>	B. <input checked="" type="checkbox"/>
NON-COMMUNITY	C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>

02 STATUS Unknown

ENDANGERED	AFFECTED	MONITORED
A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input checked="" type="checkbox"/>

03 DISTANCE TO SITE

A. 1 (mi)
B. ~0.606 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY *(Check one)*

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

02 POPULATION SERVED BY GROUND WATER 21,344

03 DISTANCE TO NEAREST DRINKING WATER WELL ~0.606 (mi)

04 DEPTH TO GROUNDWATER
10-50 (ft)

05 DIRECTION OF GROUNDWATER FLOW
SE

06 DEPTH TO AQUIFER OF CONCERN
10-50 (ft)

07 POTENTIAL YIELD OF AQUIFER
unknown (gpd)

08 SOLE SOURCE AQUIFER
 YES NO

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

Within a 3-mi radius, both the Upper Galcial and Magothy aquifers have been extensively developed. There are 9 Suffolk County Water Authority Wells and 2 Swan Lake Water district wells serving a total population of 21,344 located northwest, west, and southwest of the landfill. An undetermined number of domestic wells exist.

10 RECHARGE AREA

YES NO
COMMENTS: The landfill proper rises above the surrounding topography.

11 DISCHARGE AREA

YES NO
COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE *(Check one)*

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

02 AFFECTED, POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
<u>Beaverdam Creek</u>	<input type="checkbox"/>	<u>0.568</u> (mi)
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE A. <u>3,480</u> NO. OF PERSONS	TWO (2) MILES OF SITE B. <u>7,580</u> NO. OF PERSONS	THREE (3) MILES OF SITE C. <u>29,381</u> NO. OF PERSONS
---	--	---

02 DISTANCE TO NEAREST POPULATION

0.9 (mi)

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

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.66 (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 Brookhaven Landfill, Horseblock Road is located in a rural section of the Town of Brookhaven. More densely populated urban areas lie within 2 mi of the site in all directions.



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

I. IDENTIFICATION

01 STATE NY	02 SITE NUMBER D789008975
----------------	------------------------------

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

approx. 1700 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (ft)

05 SOIL PH

06 NET PRECIPITATION

24 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.5 (in)

08 SLOPE
SITE SLOPE

0 %

DIRECTION OF SITE SLOPE

SE

TERRAIN AVERAGE SLOPE

3-5 %

09 FLOOD POTENTIAL N/A

SITE IS IN _____ YEAR FLOODPLAIN

10

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

11 DISTANCE TO WETLANDS (.5 acre minimum)

ESTUARINE

A 1.5 (mi)

OTHER

B _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A 0.66 (mi)

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B 0.9 (mi)

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

C 0.66 (mi) D 0.66 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The Brookhaven Landfill, Horseblock Road, lies amidst a gently sloping terrain on the south shore of Long Island. The landfill proper rises approximately 100 ft above the surrounding topography.

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

References 1, 5, 6, 14, 16, 21, 23, 28, 31, 33, 37, 41, 45, 46, 47, 49, and 58



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

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY D789008975

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
Volatile Organics	Measured with Photovac tip. No levels above background.
Photographs	ground
slope	Suunto clinometer

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input checked="" type="checkbox"/> AERIAL	02 IN CUSTODY OF EA Science and Technology <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> 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)

Reference 1



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D789008975

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME Town of Brookhaven		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 20 Medford Avenue			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY Town of Brookhaven		06 STATE NY	07 ZIP CODE 11772	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 New York State Environmental Facilities Corp.		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 50 Wolf Road			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY Albany		06 STATE NY	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 (See specific references 4 G, State files, bottom analysis reports)							
Appendix 1.1-1.							



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

L IDENTIFICATION

01 STATE NY 02 SITE NUMBER D789008975

II. CURRENT OPERATOR <i>(Provide if different from owner)</i>				OPERATOR'S PARENT COMPANY <i>(if applicable)</i>			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			04 SIC CODE	12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			13 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) <i>(List most recent first, provide only if different from owner)</i>				PREVIOUS OPERATORS' PARENT COMPANIES <i>(if applicable)</i>			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			04 SIC CODE	12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			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 <i>(P.O. Box, RFD #, etc.)</i>			04 SIC CODE	12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			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 <i>(P.O. Box, RFD #, etc.)</i>			04 SIC CODE	12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>			13 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
IV. SOURCES OF INFORMATION <i>(Cite specific references e.g., state files, sensor analysis reports)</i>							
Appendix 1.1-1.							



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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY 0789008975

II. ON-SITE GENERATOR None

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 (Give specific references e.g. state files, sample analysis reports)

Section 3



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

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER D789008975

II. PAST RESPONSE ACTIVITIES

01 <input type="checkbox"/> A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input checked="" type="checkbox"/> C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION Town of Brookhaven supplied community water to residents downstream of an identified leachate plume.	02 DATE 1983	03 AGENCY Town of Brookhaven
01 <input type="checkbox"/> D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input checked="" type="checkbox"/> G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION The Town of Brookhaven temporarily stored drums containing hazardous wastes found abandoned along the Town Right-of-way. The NYSDEC had them removed.	02 DATE 1985	03 AGENCY NYSDEC
01 <input type="checkbox"/> H. ON SITE BURIAL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> L. ENCAPSULATION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> N. CUTOFF WALLS 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____



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

L IDENTIFICATION	
01 STATE NY	02 SITE NUMBER D789008975

II PAST RESPONSE ACTIVITIES *(Continued)*

01 <input type="checkbox"/> R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> S. CAPPING/COVERING 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> T. BULK TANKAGE REPAIRED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> V. BOTTOM SEALED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> W. GAS CONTROL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> X. FIRE CONTROL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Y. LEACHATE TREATMENT 04 DESCRIPTION	02 DATE <u>June 1982</u>	03 AGENCY _____
Sent leachate to South West Sewer District for treatment.		
01 <input type="checkbox"/> Z. AREA EVACUATED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 2. POPULATION RELOCATED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION	02 DATE _____	03 AGENCY _____

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

References 1, 10, 11, and 12



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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D789008975

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION YES NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY ENFORCEMENT ACTION

Early in the landfill's history, a Town employee discovered leachate overflowing the (under) liner. The leachate was found to contain iron, lead, and manganese. In March 1979, the NYSDEC issued a consent order to the Town of Brookhaven to correct the leachate problem. After hearing from local press that the Town did not intend to go ahead with its engineering consultant proposal in 1982, the NYSDEC fined the Town \$40,000. Soon thereafter, the Town began hauling the leachate from the landfill to a treatment facility.

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

References: 3, 4, 6, 7, and 8.

6. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 ADEQUACY OF EXISTING DATA

The existing data are adequate to confirm a release of contaminants from the Brookhaven landfill to the ground water, and to prepare an HRS score.

6.2 RECOMMENDATIONS

Because a release of contaminants from the site to the ground water has been confirmed, a Phase II investigation of this site is not recommended.

Additionally the site has a 68-well ground-water monitoring network, and the Town of Brookhaven responded in 1983 to the USGS reporting of the possibility of ground-water contamination by providing municipal water to the residences located downgradient of the landfill. A thorough review of the extensive USGS ground-water monitoring program and data is recommended, when that study is completed and the information becomes available.

RECEIVED FEB 25 1986

Appendix 1.1-1

p1 of 2

INTERVIEW ACKNOWLEDGEMENT FORM

Site Name: Brookhaven Landfill

I.D. Number: 152041

Person Contacted: Elaine McKibbin

Date: 22 January 1986

Title: Director of Sanitation

Affiliation: Town of Brookhaven

Phone No.: (516) 654-7954

Address: 20 Medford Avenue
Patchogue, New York 11772

Persons Making Contact:
EA Representatives:

Type of Contact: In person

Ellen Bidwell
William Going

Interview Summary:

The Brookhaven Landfill opened under the New York State Environmental Facilities Corporation in March 1974. The Town of Brookhaven eventually took over the facility by the end of 1974. Built on 180 acres of vacant land, the landfill accepts 485,000 tons of municipal solid waste per year. In order to accept any potentially toxic waste, the Town of Brookhaven must receive a letter of approval from the department of Environmental Conservation. No liquid wastes are accepted, however the landfill takes treated sludge from the South West Sewer District, and the sewer district accepts leachate generated at the site.

Initially, the landfill was fully lined but lacked a leachate collection system. Landfill operators had to be concerned with a generation of 100,000 gallons of leachate per day. Today, 76 acres out of a total of 85 are lined with 20 ml PVC vinyl. Eighteen of the seventy six acres have a double liner with a leachate collection system between. In 1984 a 10 ml PVC vinyl liner was placed over 15 acres at the top of the landfill. The liner covered with fill results in a cap with a total thickness of 2 feet. Side slopes are seeded and a drainage system collects the runoff. As a result, leachate generation has been reduced to 20,000 gallons per day.

A methane collection system, designed by Wehran Engineering, has recently been installed at the site. Methane gas is burned by generators and the resulting energy sold to LILCO.

At one time leachate was discovered overflowing the (under) liner. The U.S.G.S conducted an extensive ground water monitoring program and identified a leachate plume. As a result, the Town of Brookhaven supplied community water to residents downstream of the plume. Other local residents depend on private wells. The U.S.G.S wells are sampled twice a year.

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):

The Town of Brookhaven took over facilities at end of 1976. Actual acres obtained was 216. D.C.C. litter is obtained for oil soaked soil and no other potentially toxic waste is allowed in. 20,000 gal of leachate is pumping volume, not generation necessarily. No private resident spill ever or has been reported by the leachate from the landfill to date. 20 mil PVC liner is used at site.

Signature: *Edwin McKelvin*
Director of Sanitation

Date: 7/20/86

Re:
NYSDEC Bureau of Landfills



File # 652502
Brookhaven
Appendix 1.1-2

Received from
NYSDEC Bureau of Landfills

TOWN OF BROOKHAVEN

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF SANITATION
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

RECEIVED
MAY 26
BUREAU OF MANAGEMENT
PROGRAMS

654-7954-55-56

May 21, 1981

Mr. Dennis Walterding
Bureau of Waste Disposal
Room 209, NYSDEC
50 Wolf Road
Albany, New York

Dear Dennis:

Thank you for discussing our Leachate/Scavenger Waste Treatment Feasibility Study with me at the NYSASWM meeting.

The Town currently operates a lined, 1150 TPD landfill in the hamlet of Brookhaven. The end use is a ski hill with an 85 acre base. The below grade excavation has a depth varying from 15' to 45'. Approximately 45 acres are lined with 20 mil PVC. A perforated transite pipe collection system is installed over the in-place liner. Refuse is in-place to elevation 150 over 80% of the liner.

Occasionally the leachate is pumped to an upper deck where the liquid ponds. Eventually the leachate disappears via evaporation and percolation.

We have retained the firm of Dvirka & Bartilucci to develop treatment alternatives for landfill leachate and for scavenger waste (septage and treatment plant sludge). They were to estimate leachate flow.

Enclosed is a copy of their draft leachate section. Your comments would be appreciated.

Very truly yours,

James H. Heil
James H. Heil,
Acting Director

JH/dk

Ecn1.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
**APPLICATION FOR APPROVAL TO OPERATE
 A SOLID WASTE MANAGEMENT FACILITY**

FOR STA Appendix 1.1-3
 PROJECT NO. 52-5-02 DATE 3/1/79
 DEPARTMENT ACTION Approved Disapproved

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

Received from
 NYS Department of Landfills

1. OWNER'S NAME <u>Town of Brookhaven</u>	4. ADDRESS (Street, City, State, Zip Code) <u>201 S. Ocean Avenue, Patchogue, N.Y. 11772</u>	3. Telephone No. <u>516-475-5500</u>
OPERATOR'S NAME <u>Department of Sanitation</u>	5. ADDRESS (Street, City, State, Zip Code) <u>201 S. Ocean Avenue, Patchogue, N.Y. 11772</u>	6. Telephone No. <u>516-475-5500</u>
7. ENGINEER'S NAME <u>James H. Heil, P.E.</u>	8. ADDRESS (Street, City, State, Zip Code) <u>201 S. Ocean Avenue, Patchogue, N.Y. 11772</u>	9. Telephone No. <u>516-475-5500</u>
10. ON-SITE SUPERVISOR <u>Joseph Lapienski</u>	11. ADDRESS (Street, City, State, Zip Code) <u>Brookhaven Landfill Site, Brookhaven, N.Y. 11719</u>	12. Telephone No. <u>516-286-2828</u>

3. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?
 Yes Date 5/77 Course Title Sanitary Landfill Operations Location Hofstra University No

14. PROJECT/FACILITY NAME Brookhaven Landfill 15. COUNTY IN WHICH FACILITY IS LOCATED Suffolk 16. ENVIRONMENTAL CONSERVATION REGION I

17. TYPE OF PROJECT FACILITIES: Composting Transfer Shredding Baling Sanitary Landfill Incineration Pyrolysis
 Resource Recovery-Energy Resource Recovery-Materials Other

8. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? Yes Date July 1973 No

19. LIST WASTES NOT ACCEPTED
Sewage Treatment Plant Sludge (wet), scavenger waste, liquid industrial wastes, hazardous wastes

20. BRIEFLY DESCRIBE OPERATION

The fill comprises 85 acres of a 200 acre site. The site was preengineered for the end use as a ski hill. Excavation is performed by Town equipment with material either stockpiled or used for daily cover. The completed excavation is lined with one layer of 20 mil PVC liner. A leachate collection is installed over new liner and a two foot layer of sand is placed over the liner. Refuse is placed in daily cells. A passive gas venting system is installed prior to filling. Once the fill is above grade, plans are followed to obtain the configuration of the ski hill. Associated with the filling operations on site are a truck scale, employee lunchroom, cashiers facilities, office trailer, machine maintenance building, a private vehicle dumping station, storage of materials for recycling, a car impoundment area, and groundwater monitoring wells. Job titles and equipment presented in report.

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:

a. Total useable area: (Acres) Initially <u>85</u> Currently <u>45</u>	b. Distance to nearest offsite, downgradient, water supply well <u>7000</u> Feet	c. No. of groundwater monitoring wells Upgradient <u>1</u> Downgradient <u>15</u>
---	--	--

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:
 Form 47-19-2 or SW-7 Operations Plan & Report USGS Topographic Map Record Forms Other Engineers Report
 Construction Certificate Boring Logs Water Sample Analysis None

23. 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 2045 of the Penal Law.

February 28, 1979 Date John E. Randolph, Supervisor Signature and Title

Received from
NYDEC Bureau of Landfills

Appendix 1-1-4
p. 1/18

BROOKHAVEN LANDFILL

Radio Towers

Groundwater monitoring clusters
(M.C.) installed 9/25/72
Cluster = 3 wells, A, B, & C
@ various depths.

U.S.G.S. Well
SB 529
39

X Well # S-55150
(Maintenance Bldg)
Installed Summer 1975

BLOCK

TOWN

Began placing refuse
March 1974

X M.C. # 5

X M.C. # 4

M.C. # 3
X O Detection Well

M.C. # 2
X 2

Monitoring Cluster # 1
27 X

HIGHWAY

SUNRISE

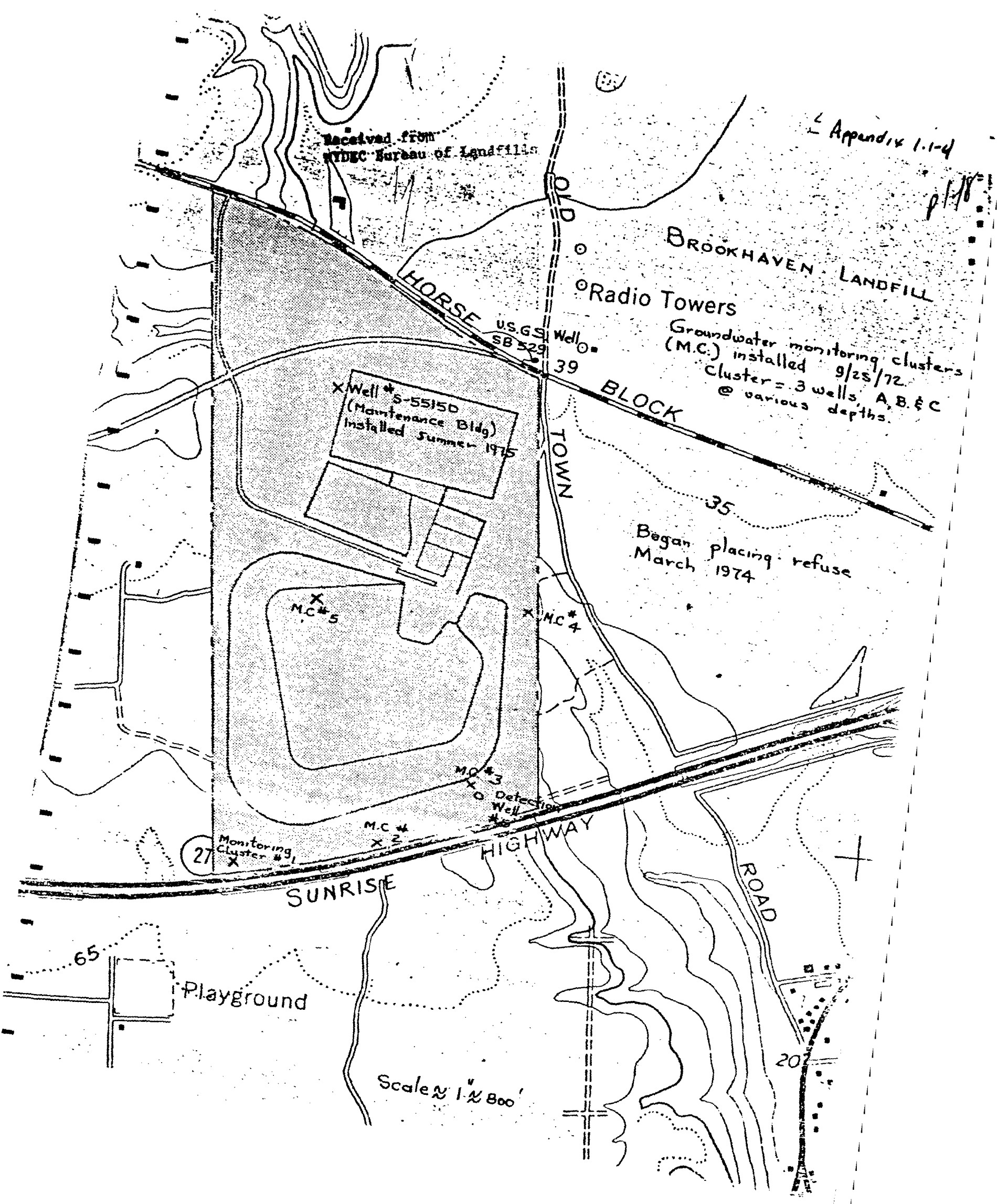
ROAD

Playground

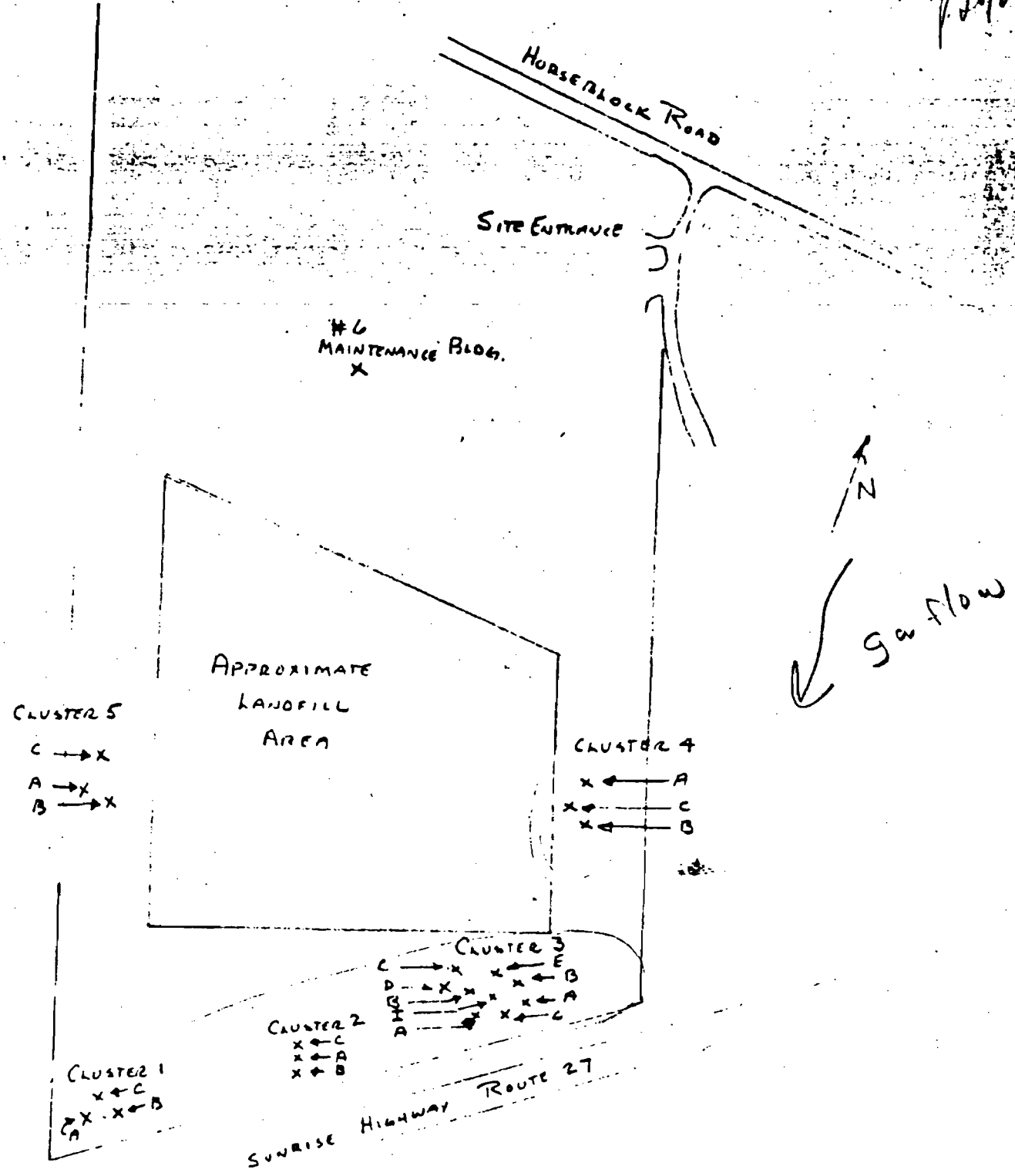
Scale 1" = 800'

20

65



12/18

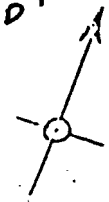


MONITORING WELL PROGRAM
 BROOKHAVEN LANDFILL
 WELL CLUSTER LOCATION
 N.B. SCALE 10-79

Received from
HYDEC Bureau of Landfills

CNG
What site
52802
BROOKHAVEN
LAND FILL.

HORSE BLOCK
RECEIVED

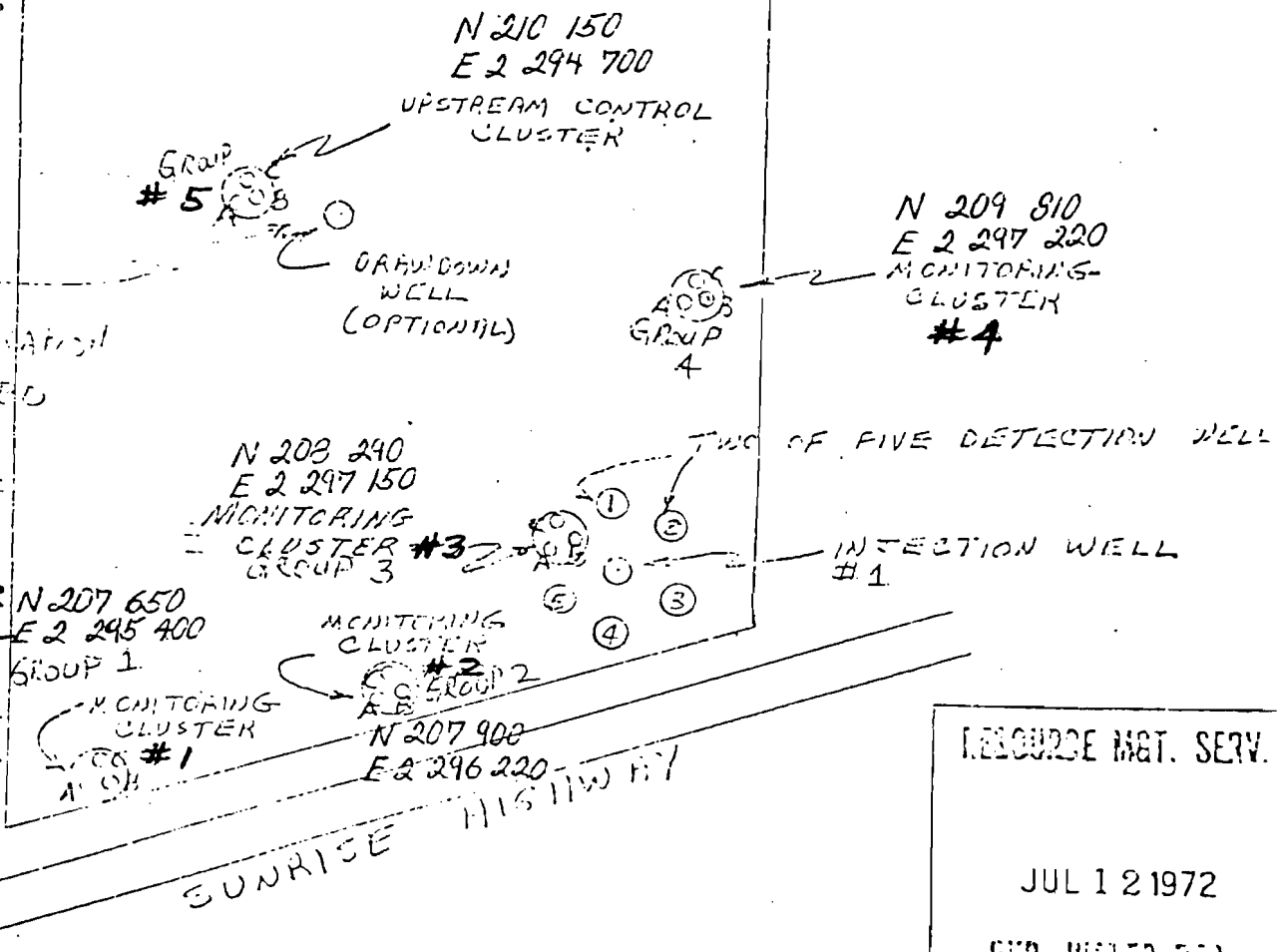


NOTE: EXACT LOCATION
OF WELLS AND CLUSTERS TO
BE SPECIFIED BY
COORDINATES.
NOV 1975
BUREAU OF FACILITY
DESIGN AND OPERATION

- Cluster #1
A 544577
B 544578
C 544579
- Cluster #2
A 544577
B 544578
C 544579
- Cluster #3
A 544577
B 544578
C 544579

THIS WELL
MAY NOT BE
DONE
IF THIS
SEPARATE INFORMATION
WILL BE FILED

- Cluster #4
A 544580
B 544581
C 544582
- Cluster #5
A 544583
B 544584
C 544585



RESOURCE MGT. SERV.
JUL 12 1972
BUR. WATER RES.
REC'D.

REVISED
SKETCH NO. 2
(Not to Scale)

DIAMOND WELL & IRRIGATION
1325 Baltimore Rd.
Baltimore, N.Y.

Depth of Wells (Below Land Surface)

Group 1 (Monitoring Wells)

Well A Water = 46'-6"

Casing 48'-1" }
Point 4'-0" } 52'-1"

Well B Water = 47'-0"

Casing 55'-9 1/2" }
Pt. 2'-0" } 57'-9 1/2"

Well C Water = 46'-6"

Casing 69'-1 1/2" }
Pt. 2'-0" } 71'-1 1/2"

Group 2 (Monitoring Wells)

Well A Water = 46'-11"

Casing 47'-9" }
Pt. 4'-0" } 51'-9"

Well B Water = 47'-3"

Casing 57'-3" }
Pt. 2'-0" } 59'-3"

Group 2 (cont'd)

Well C

Water = 47'-3"

Casing 70'-0" }
Pt. 2'-0" } 72'-0"

Group 3 (Monitoring Wells)

Well A

Water = 45'-1"

Casing 46'-0" }
Pt. 4'-0" } 50'-0"

Well B

Water = 44'-8"

Casing 53'-1 1/2" }
Pt. 2'-0" } 55'-1 1/2"

Well C

Water = 45'-1"

Casing 62'-2" }
Pt. 2'-0" } 64'-2"

Group 3 (Detection Wells)

#1

Water = 42'-11"

Casing 43'-2" }
Pt. 40'-0" } 83'-2"

#2

Water = 42'-11"

Casing 43'-8" }
Pt. 40'-0" } 83'-8"

Group 3 (cont'd) (Detection Well)

#3 Water = 42'-11"
 Casing 45'-8" } 85'-8"
 Pt. 40'-0" }

#4 Water = 42'-11"
 Casing 43'-0" } 85'-0"
 Pt. 40'-0" }

#5 Water = 42'-11"
 Casing 44'-5" } 84'-5"
 Pt. 40'-0" }

Group 3 (Injection Well)

Water = 42'-11" Casing 44'-2" } 84'-2"
 Pt. 40'-0" }

Group 4 (Monitoring Well)

Well A Water = 12'-9"
 Casing 12'-8" } ~~22'-1 1/2"~~ 16'-8"
 Pt. 4'-0" }

Well B Water = 12'-8"
 Casing 20'-1 1/2" } 22'-1 1/2"
 Pt. 2'-0" }

1/2/18

Well C

	Water =	12'-10"	
Casing	33'-5"	}	35'-5"
Pt.	2'-0"		

Group 5 (Monitoring Well)

Well A

	Water =	52'-4"	
Casing	55'-2 $\frac{1}{2}$ "	}	59'-2 $\frac{1}{2}$ "
Pt.	4'-0"		

Well B

	Water =	51'-9"	
Casing	58'-4"	}	60'-4"
Pt.	2'-0"		

Well C

	Water =	52'-0"	
Casing	72'-0"	}	74'-0"
Pt.	2'-0"		

MONITORING Well Program
BROOKHAVEN LANDFILL

CLUSTER	WELL	S-NUMBER	CLUSTER COORDINATE	WELL DEPTH	TOWN DESIGNATION	CONDITION
1	A	44571	N207650	50'	1	BLOCKED BY DECAYING ANIMAL
	B	44572	E2295400	55'7"	2	BLOCKED BY DECAYING ANIMAL
	C	44573		69'	3	SATISFACTORY
2	A	44574	N207900	50'4"	2	SATISFACTORY
	B	44575	E2295220	57'5"	1	SATISFACTORY
	C	44576		70'2"	3	SATISFACTORY
3	A	44577	N208290	43'2"	4	SATISFACTORY
	B	44578	E2297150	53'2"	8	SATISFACTORY
	C	44579		62'1"	1	SATISFACTORY
4	A	44580	N209810	14'-10"	2	BLOCKED BY DECAYING ANIMAL
	B	44581	E2297220	20'7"	1	SATISFACTORY
	C	44582		33'11"	3	BLOCKED BY DECAYING ANIMAL
5	A	44583	N210150	57'	1	BLOCKED
	B	44584	E2294700	58'8"	2	SATISFACTORY
	C	44585		74'	3	SATISFACTORY
3(1)	A	544566		63'2"	7	UNQUALIFIED
	B	544567		83'8"	2	SATISFACTORY
	C	544568	N208290	85'3"	6	SATISFACTORY
	D	544569	E2297150	83'0"	9	SATISFACTORY
	E	544570		84'5"	5	SATISFACTORY
	I	44565		84'2"	3	SATISFACTORY
6		55150		60'		SUPPLY WELL - MAINTENANCE BUILDING

NOTES:

DATA FOR COLUMNS 1 2 3 4 & 5 FROM OBSERVATION WELL PROGRAM, DIAMOND WELL DRILLERS

CLUSTER 3(1) ARE DETECTION WELLS SURROUNDING AN INJECTION WELL (WELL 1)

28

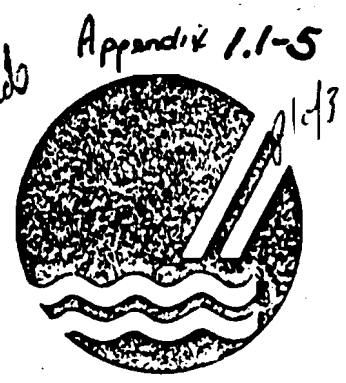
Received from
NYDEC Bureau of Landfills

New York State Environmental Facilities Corporation
Sanitary Landfill. ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
Horseblock Road, Brookhaven, N.Y., 11719
516-286-2828

Henry L. Diamond, Chairman

Arthur Handley, P.E. -- Executive Director

*GDK
CNG
lets review all results
then cut down and decide
minimum reqts.
H/ps*



December 1, 1975

Mr. Albert Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

Re: Brookhaven Landfill Site

Dear Mr. Machlin:

Herewith submitted are the results of the quarterly
sampling of the monitoring wells at the referenced site.

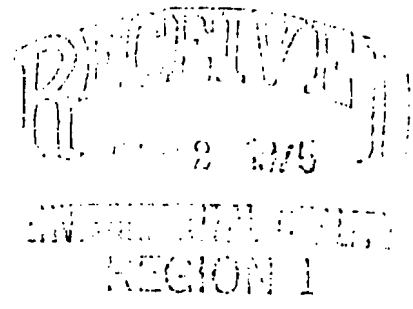
Since this completes a one year cycle of sampling I
request a meeting with you and the Solid Waste Unit staff to
review the program and formulate a schedule for next year.

Thank you.

Very truly yours,
James H. Heil
James H. Heil, P.E.
Project Supervisor

JH/dlc
Encl.

CC: Raymond ✓
Kim mcl, (U.S.G.S) —
D. [unclear] —
D. [unclear] —
J. Maloney —



LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305



REPORT OF CHEMICAL ANALYSES

ENVIRONMENTAL ANALYSIS

DATE Nov. 26, 1975

TO New York State Environmental Fac. Corp.

SOURCE OF SAMPLE

Horseblock Road

Brookhaven, New York 11719

COLLECTED 11/19/75 RECEIVED 11/19/75

REPORTED 11/24/75

SAMPLING POINT (UPSTREAM WELLS)

TIME

1 Group #5, well #3

2 S-55150 (MAINTENANCE P.D.P.)

3

4

		1	2	3	4
TURBIDITY	UNITS	60	1		
HYDROGEN ION CONCENTRATION	pH	6.6	6.1		
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	60	6		
HARDNESS, TOTAL AS CaCO ₃	mg/l	28	14		
CHLORIDES, AS Cl	mg/l	16	14		
IRON, AS Fe	mg/l	UD	0.33		
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Color	mg/l	60	65		
Specific Conductivity	micro mho	120	60		
Total Solids	mg/l	600	37		

REMARKS

LAB. NO. C-13726

COLLECTED BY client

ANALYZED BY CT

LAUMAN LABORATORIES, INC.

James R. Smith
DIRECTOR

LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305



REPORT OF CHEMICAL ANALYSES

ENVIRONMENTAL ANALYSIS

DATE Nov. 26, 1975

TO New York State Environmental Facilities Corp.

SOURCE OF SAMPLE

Horseblock Road

Brookhaven, New York 11719

COLLECTED 11/19/75

RECEIVED 11/19/75

REPORTED 11/24/75

	SAMPLING POINT (DOWNSTREAM WELLS)				TIME
1	Group #1, Well #2				
2	Group #2, Well #2				
3	Group #3, Well #5				
4	Group #4, Well #2				

		1	2	3	4
TURBIDITY	UNITS	90	15	70	70
HYDROGEN ION CONCENTRATION	pH	(6.0)	6.0	6.0	6.9
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	6	6	6	16
HARDNESS, TOTAL AS CaCO ₃	mg/l	22	20	20	30
CHLORIDES, AS Cl	mg/l	10	10	9	10
IRON, AS Fe	mg/l	7.6	2.8	19	21
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Color	mg/l	20	15	30	20
Specific Conductivity	micro mho	45	40	40	55
Total Solids	mg/l	400	130	630	590

REMARKS

LAB. NO. C-13726

COLLECTED BY client

ANALYZED BY CT

LAUMAN LABORATORIES, INC.

James R. D'Amico
DIRECTOR



COMMUNICATIONS RECORD FORM

Distribution: () _____, () _____
() _____, () _____
() Author

Person Contacted: Elaine McKibbin Date: 5 Sep 86
Phone Number: (516) 654-7954 Title: Director of Sanitation
Affiliation: Town of Brookhaven Type of Contact: Phone
Address: _____ Person Making Contact: E Bidwell

Communications Summary: I called Elaine regarding the leachate plume. She said that the leachate problem was discovered by Tim Heil, director of sanitation, or one of his crew members. She was unsure of the exact details of the discovery, except that it was visible from ground surface. The two sample analyses of the leachate that we have may be the only data there is. She was not aware of anymore in the file. This data however prompted the Town to contract the USGS to conduct an extensive monitoring program. Elaine said that the USGS findings prompted the Town to supply public water downstream of the contamination. The USGS has yet however to publish their findings, so she could not be more specific. The data that the USGS sent us did not include the any control data, so the site will have to be scored with other analyses.

(see over for additional space)

Signature: Ellen Bidwell

Appendix 1.1-7

P. 1.1-7

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

Received from
NYDEC Bureau of Landfills

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 01834 YR/MO/DAY/HR SAMPLE REC'D: 75/04/14/11

REPORTING LAB: 10 GRIFFIN LAB
PROGRAM: 520 INDUSTRIAL WASTES
STATION (SOURCE) NO:
DRAINAGE BASIN: 17 NY GAZETTEER NO: 5151 COUNTY: SUFFOLK
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBWISHED: BROOKHAVEN HAMLET SANITARY LAND FILL

EXACT SAMPLING POINT: SIDE OF LAND FILL AT SEAM OF LINER NEAR SOUTH CORN
TYPE OF SAMPLE: 24 LEACHATE
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 04/08/12
REPORT SENT TO: CO (1) RO (2) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER	UNIT	RESULT	NOTATION
009701 CADMIUM	MG/L	0.02	
009801 TOTAL CHROMIUM	MG/L	0.1	
009901 COPPER	MG/L	0.05	LT
010001 IRON	MG/L	460.	
010101 LEAD	MG/L	0.24	
010201 MANGANESE	MG/L	39.	
010301 MERCURY	MG/L	0.0004	
010901 ZINC	MG/L	0.58	
012801 NICKEL	MG/L	0.15	

DATE COMPLETED: 6/30/75

N.Y.S. DEPT. OF ENV. CONSERVATION
REGION 1 HEADQUARTERS
BUILDING 40, STATE UNIVERSITY OF N.Y.
STONY BROOK, N.Y. 11790

ATTENTION OF: YERMAN

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

Received from:
Suffolk Co. Dept. of
Health

p. 2 of 2

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 05819 YR/MO/DAY/HR SAMPLE REC'D: 78/10/13/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 530 MUNICIPAL WASTES
STATION (SOURCE) NO:
DRAINAGE BASIN: 17 NY GAZETTEER NO: 5151 COUNTY: SUFFOLK
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBMITTED: BROOKHAVEN LANDFILL

EXACT SAMPLING POINT: WEST LINER EDGE 450FT NORTH OF SOUTH RIM SAMP. 01
TYPE OF SAMPLE: 24 LEACHATE
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 10/06/10
REPORT SENT TO: CO (1) RD (2) LPHE (1) LHO (0) FED (0) CHEM (1)

PARAMETER	UNIT	RESULT	NOTATION
010001 IRON	MG/L	160.	
010901 ZINC	MG/L	0.10	
010701 SODIUM	MG/L	71.	
012801 NICKEL	MG/L	0.05	LT
009901 COPPER	MG/L	0.05	

DATE COMPLETED: 11/16/78

DIR, ENV. HLTH, SUFFOLK COUNTY HEALTH DEPT
SUFFOLK COUNTY HEALTH DEPT, DENNISON BDG
VETERANS MEMORIAL HIGHWAY
HAUPPAUGE, N.Y. 11787

FILE#52502

Appendix 1.1-8

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FILE COPY

TRANSMITTAL SLIP

TO: Solid Wastes
FROM: Bob Cronin, Compliance Section
RE:

DATE: 7-9-79

Received from
NYDEC Bureau of Landfills

RECEIVED

JUL 11 1979

BUREAU OF MANAGEMENT
PROGRAMS

To ~~SP~~ FYA Jun 19/79

RECEIVED

FOR ACTION AS INDICATED:

JUL 10 1979

- Please Handle
- Prepare Reply
- Prepare Reply for _____
Signature
- Information
- Approval
- Prepare final/draft in _____ copies

- Comments
- Signature
- File
- Return to me
- _____
- _____

DIRECTOR, DIVISION OF
SOLID WASTE MANAGEMENT

*also copy
send to
to Allied Waste*

1525.02
124
RECEIVED

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the Alleged Violation of
Articles 17 and 71 of the Environmental Con-
servation Law of the State of New York,
by

TOWN OF BROOKHAVEN
HORSEBLOCK ROAD LANDFILL

(Suffolk County) Respondent . X

RECEIVED 352
JUN 11 1979
BUREAU OF MANAGEMENT PROGRAMS
WATERS Compliance
ORDER ON CONSENT

WHEREAS, Articles 17-0501, 17-0505 and 17-0511 of the Environmental Conservation Law of the State of New York sets forth the requirements for a discharge into waters of the State; and

WHEREAS, the New York State Department of Environmental Conservation has documented instances of failure to comply with those requirements for discharge; and

WHEREAS, Respondents have affirmatively waived their right to a hearing in this matter in the manner provided by law, and having consented to the issuance and entering of this Order, pursuant to the provisions of Article 17 of the Environmental Conservation Law of the State of New York, and agrees to be bound by the terms and conditions contained herein;

NOW, having considered this matter and being duly advised, it is

ORDERED, that with respect to the aforesaid violation, there is hereby imposed upon Respondent, a penalty in the sum of Twenty Thousand (\$20,000) Dollars, said penalty to be suspended provided the Respondent abides by the terms and conditions set forth in the compliance schedule, designated as Schedule A and contained herein; and it is further

ORDERED, that any change in this Order shall not be made or become effective, except as specifically set forth by written order of the Commissioner, such written order being made either upon written application of the Respondent or upon the Commissioner's own findings; and it is further

ORDERED, that this Order shall be binding upon Respondent, its successors and assigns and all persons, firms and corporations acting under or for it, including, but not limited to those who may carry on any or all of the operations being conducted by Respondent, whether at the present location or at any other in New York State or who shall have any interest, financial or otherwise in the conduct of such operations.

Dated: Albany, New York

Robert Flacke
Commissioner of Environmental Conservation

RECEIVED

JUN 13 1979

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUREAU OF WATERS
AND COMPLIANCE
SECTION

By: *[Signature]*
DONALD J. MIDDLETON
Regional Director

Suffolk-1

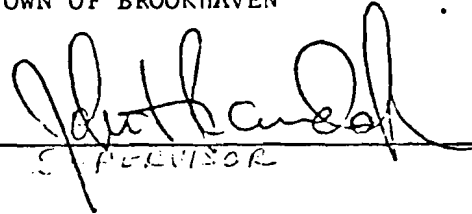
To: Town of Brookhaven
205 South Ocean Avenue
Patchogue, New York 11772

CONSENT BY RESPONDENT

Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

TOWN OF BROOKHAVEN

By



SUPERVISOR

STATE OF NEW YORK)

ss.:

COUNTY OF SUFFOLK)

On the 22 day of March 1978, before me personally came John F. Randolph to me known, who being duly sworn, deposed and said that he resides at 14 FOXROFT LANE, E. PATCHOGUE, N.Y. that he is the SUPERVISOR of Respondent Town, and that he signed his name on behalf of said Town with full authority so to do.


NOTARY PUBLIC

JUDITH B. GAIR
NOTARY PUBLIC, State of New York
No. 4064483, Suffolk County
Term Expires, March 30, 1980

8474

SCHEDULE A

COMPLIANCE SCHEDULE

Town of Brookhaven; Horseblock Road Landfill Leachate

- A. Complete construction of marsh-pond and/or landfill leachate recycling demonstration projects on a liner. 5/30/79

- B. Initiate Phase I of study to conduct leachate treatability studies and determine feasibility of on-site leachate treatment. 6/1/79

- C. If intent to provide on site leachate treatment:
 - 1. Initiate Phase II study to design leachate treatment facility (within 1 month of notification of intent). est. 11/30/79

 - 2. Submit leachate treatment facility engineering report (within 3 months after initiation of Phase II study). est. 2/28/80

 - 3. Submit leachate treatment facility plans and specifications (within 3 months after engineering report approval). est. 7/31/80

 - 4. Commence construction of leachate treatment facility (within 3 months after approval of plans and specifications). est. 10/30/80

 - 5. Complete construction of leachate treatment facility within (6 months after commencement of construction). est. 4/30/81

 - 6. Achieve leachate treatment facility operational level (within 1 month after completion of construction). est. 5/30/81

COUNTY OF SUFFOLK

Appendix 1.1-9
JJK
p. 141²



Received from:
Suffolk Co. Dept. of
Health

COUNTY LEGISLATURE

JOHN J. FOLEY
LEGISLATOR, 3RD DISTRICT

31 OAK STREET
PATCHOGUE, NEW YORK 11772
(516) 475-5800

June 1, 1982

Mr. Herb Davids
Environmental Health Division
Department of Health Services
225 Rabro Drive East
Hauppauge, New York 11788

Dear Herb:

I know you will find the enclosed letter to be of considerable interest because it pertains to an old problem of Brookhaven Town's. The problem of Scavenger Waste Treatment Facilities and leachate evidently have not been solved as yet.

I draw this matter to your attention not alone to keep you apprised, but also to determine where the County's responsibility lies in this matter. Should there be any role that the County should play in these matters, please don't hesitate to bring that information to me as quickly as possible.

Thank you for your cooperation in this matter.

Sincerely yours,

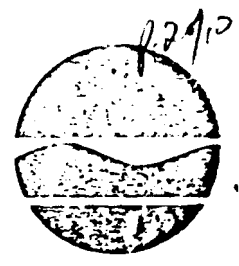
John J. Foley
John J. Foley
County Legislator

Enclosure
JJF:an
cc: Mr. Donald Middleton

RECEIVED

JUN 9 1982
Division of Public Health
Bureau of Environmental Health Services
Hauppauge, New York

Leg. J. Foley



New York State Department of Environmental Conservation
Building 40 SUNY
Stony Brook, NY 11794

Robert F. Flacke
Commissioner

May 5, 1982

Henrietta Acampora, Supervisor
Town of Brookhaven
Brookhaven Town Hall
205 South Ocean Avenue
Patchogue, New York 11772

Dear Supervisor Acampora:

This is to bring your attention to the compliance schedule contained in the attached March 22, 1979 Consent Orders with the Town of Brookhaven, relative to correction of the violations at the Manorville Scavenger Waste Treatment Facility and the leachate at the Horseblock Road Landfill.

As you may be aware, these are long-standing problems, the solutions to which have been delayed several times over a significant period of time. The delays were granted each time in order to enable the Town to explore several alternative solutions.

The most recent instances of non-compliance with the compliance schedule did not lead to initiation of an enforcement action against the Town because it appeared that the Town was making fairly reasonable progress toward a solution. Solutions were in fact proposed in an engineering report prepared by your consultants, Dvirka and Bartilucci; and presented at a public meeting held on March 12, 1982, in Bellport. We now note from the news media (Suffolk Life, April 14, 1982), that apparently the Town is not planning to go forward with the engineering report proposal. In view of the long-standing nature of the Town's violations, and the current non-compliance with the Consent Order schedules, we would appreciate your providing us with a statement of the Town's scheduled intentions regarding compliance with the consent order and cessation of violations, by May 31, 1982, for our review.

It is hoped that we will be able to quickly arrive at an agreed-upon scheduled course of action that will enable the Town to expedite correction of the violations and enable us to enter into an appropriate new Consent Order with the Town

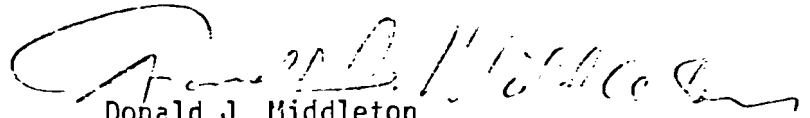
Henrietta Acampora, Supervisor
May 5, 1982
Page 2

83-110

to avoid the necessity of an enforcement action against the Town. I cannot emphasize enough the serious implications of further delay, and call to your attention that the Town has already stipulated through the Consent Orders that it will pay penalties amounting to \$40,000 for the current non-compliance with the compliance schedule.

I am looking forward to hearing from you by May 31, 1982. If you have any questions about this matter, please call Ms. Joan Scherb, our Regional Attorney, or Mr. Albert Machlin, our Regional Engineer, at 751-7900.

Sincerely yours,



Donald J. Middleton
Regional Director

DJM/al
enclosures (2)
cc: A. Machlin
J. Scherb

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

1/11/78

In the Matter of the Alleged Violation
of Articles 17 and 21 of the Environmental
Conservation Law of the State of New York,
by

ORDER ON CONSENT

TOWN OF BROCKHAVEN
MANORVILLE SCAVENGER WASTE TREATMENT PLANT

FILE NO. 1-0351

(Suffolk County) Respondent

WHEREAS, Articles 17-0501, 17-0807, 17-0813 and 17-0815 of the
Environmental Conservation Law of the State of New York sets forth the require-
ments to be included in the State Pollutant Discharge Elimination System (SPDES)
Permit; and

WHEREAS, the New York State Department of Environmental Conservation
has documented instances of failure to comply with the terms and conditions of
their SPDES Permit in that they have failed to meet the effluent limitations
set forth in said permit; and

WHEREAS, Respondents have affirmatively waived their right to a hear-
ing in this matter in the manner provided by law, and having consented to the
issuance and entering of this Order, pursuant to the provisions of Article 21
of the Environmental Conservation Law of the State of New York, and agree to
be bound by the terms and conditions contained herein;

NOW, having considered this matter and being duly advised, it is

ORDERED, that with respect to the aforesaid violation, there is
hereby imposed upon the Respondent, a penalty in the sum of Twenty Thousand
(\$20,000) Dollars, said penalty to be suspended provided the Respondent abides
by the terms and conditions set forth in the compliance schedule, designated
as Schedule A, herein; and it is further

ORDERED, that any change in this Order shall not be made or become
effective, except as specifically set forth by written order of the Commissioner,
such written order being made either upon written application of the Respondent,
or upon the Commissioner's own findings; and it is further

ORDERED, that this Order shall be binding upon Respondent, its suc-
cessors and assigns and all persons, firms and corporations acting under or
for it, including, but not limited to those who may carry on any or all of the
operations being conducted by Respondent, whether at the present location or at
any other in New York State or who shall have any interest, financial or other-
wise in the conduct of such operations.

Dated: Albany, New York
1978

Robert Flacko
Commissioner of Environmental Conservation

[Handwritten Signature]
TOMAS F. FILLERON
Regional Director

100-100000000
100 South Ocean Avenue
Patchogue, New York 11771

7.5/10

CONSENT BY RESPONDENT

Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

TOWN OF BROOKHAVEN

By

STATE OF NEW YORK)

SS.:

COUNTY OF SUFFOLK)

On the 27th day of March, 1978, before me personally appeared Robert R. ... to me known, who being duly sworn, deposed and said that he resides at ... and that he is the Respondent described in and which executed the foregoing instrument for and on behalf of said Town, with full authority so to do.

NOTARY PUBLIC

100 South Ocean Avenue
Patchogue, New York
11771

Schedule 2 - Compliance
Town of Brookhaven, Marietta Scavenger Plant

p. 6/10

2. If town funds only are to be used for construction of permanent scavenger waste treatment facility:

1. Submit engineering report (within 6 months after written notification to pursue this course of action).

est. 2/22/79 11/30/79

2. Submit plans and specifications (within 6 months after approval of engineering report).

est. 3/27/79 5/30/79

3. Commence construction (within 3 months after approval of plans and specifications).

est. 8/27/79 10/30/79

Complete construction (within 1 year after commencement of construction)

est. 8/27/81 10/30/81

4. Achieve operational level (within 1 month after completion of construction).

est. 4/22/81 11/30/81

COMPLIANCE SCHEDULE

Town of Brookhaven, Manville Scavenger Plant

p 1/10

A. Make request to Suffolk County to allow discharge of Town of Brookhaven scavenger wastes to Bergen Point Wastewater Treatment Facility

est. 2/27/78 2/27/78

B. Submit update of 1/78 Interim Report to include sludge disposal at Horseblock Road Landfill.

est. 2/27/78 4/13/78

C. Complete construction of upgraded Scavenger Plant facilities, per updated Interim Report

est. 4/30/78 5/30/78

D. If scavenger wastes are to be accepted at Bergen Point WTP:

1. Submit written indication of intent to utilize Bergen Point (within 1 month after notification by Suffolk County).

est. 2/27/78 4/30/78

2. Submit plans and specifications for construction of scavenger waste transfer facilities and abandonment of existing Scavenger Plant (within 6 months after written indication of intent to utilize Bergen Point WTP, or 2 months prior to acceptance of wastes at Bergen Point, whichever is earlier).

est. 2/27/78 10/30/78

3. Close Scavenger Plant (except for possible transfer station) upon first date of acceptance of wastes at Bergen Point (within approximately 8 months after operation commenced at Bergen Point WTP).

est. 2/27/78 4/1/79

E. If scavenger wastes are not to be accepted at Bergen Point WTP, submit written indication of intent to undertake construction of permanent scavenger waste treatment facility with Federal and State construction grant assistance or only with Town funds (within 65 month after notification by Suffolk County).

est. 2/27/78 9/1/79

F. If Federal and State construction grant assistance is to be sought for permanent scavenger waste treatment facility:

1. Submit Plan of Study to be conducted, in conjunction with Resource Recovery Project Study if applicable (within 1.5 months after written indication intent to pursue this course of action).

est. 2/27/78 8/1/79

2. Remainder of Compliance Schedule under this course of action to be determined according to approved Plan of Study.

est. 4/30/78 6/30/79

188/P

In the Matter of the Alleged Violation of
Articles 17 and 71 of the Environmental Con-
servation Law of the State of New York,
by

ORDER OF CONSENT

TOWN OF BROOKHAVEN
HORSEBLOCK ROAD LANDFILL

FILE NO. 1-c352

(Suffolk County), Respondent . . . X

WHEREAS, Articles 17-0501, 17-0505 and 17-0511 of the Environmental
Conservation Law of the State of New York set forth the requirements for
a discharge into waters of the State; and

WHEREAS, the New York State Department of Environmental Conservation
has documented instances of failure to comply with those requirements for
discharge; and

WHEREAS, Respondents have affirmatively waived their right to a hearing
in this matter in the manner provided by law, and having consented to the
issuance and entering of this Order, pursuant to the provisions of Article 17
of the Environmental Conservation Law of the State of New York, and agrees to
be bound by the terms and conditions contained herein;

NOW, Having considered this matter and being duly advised, it is

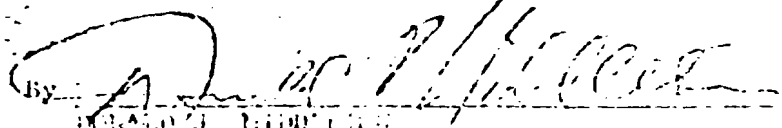
ORDERED, that with respect to the aforesaid violation, there is hereby
imposed upon Respondent, a penalty in the sum of Twenty Thousand (\$20,000)
Dollars, said penalty to be suspended provided the Respondent complies with the
terms and conditions set forth in the compliance schedule, as prescribed in
Schedule A and contained herein, and it is further

ORDERED, that any change in this Order shall not be made or become ef-
fective, except as specifically set forth by written order of the Commissioner,
such written order being made either upon written application of the Respondent
or upon the Commissioner's own findings; and it is further

ORDERED, that this Order shall be binding upon Respondent, its successors
and assigns and all persons, firms and corporations acting under or for it,
including, but not limited to those who may carry on any or all of the opera-
tions being conducted by Respondent, whether at the present location or at
any other in New York State or who shall have any interest, financial or other-
wise in the conduct of such operations.

Dated: Albany, New York

Robert Flacke
Commissioner of Environmental Conservation

By: 
ROBERT J. HOFFMAN
Regional Director

To: Town of Brookhaven
200 South Ocean Avenue
Patchogue, New York 11772

1978

CONSENT BY RESPONDENT

Respondent acknowledges the authority and jurisdiction of the Commission of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance hereof.

TOWN OF BROOKHAVEN

By [Signature]

STATE OF NEW YORK
SS.:
COUNTY OF SUFFOLK

On the 27th day of [Month] 1978, before me, Notary Public, [Name], to me known, and being duly sworn, [Name] and said that he resides at [Address], and that he is the [Title] of Respondent and that he signs his name on behalf of said Town with full authority so to do.

[Signature]
NOTARY PUBLIC

Notary Public
[Name]
[Address]
[City, State, Zip]

SCHEDULE A

CONSTRUCTION SCHEDULE

1.10/79

Town of Brookhaven: Horseshoe Road Landfill Leachate

- A. Complete construction of marsh-pond and/or landfill leachate recycling demonstration projects on a liner. 5/30/79
- B. Initiate Phase I of study to conduct leachate treatability studies and determine feasibility of on-site leachate treatment. 6/1/79
- C. If intent to provide on site leachate treatment:
 - 1. Initiate Phase II study to design leachate treatment facility (within 1 month of notification of intent). est. 11/30/79
 - 2. Submit leachate treatment facility engineering report (within 3 months after initiation of Phase II study). est. 2/28/80
 - 3. Submit leachate treatment facility plans and specifications (within 3 months after engineering report approval). est. 7/21/80
 - 4. Commence construction of leachate treatment facility (within 3 months after approval of plans and specifications). est. 10/20/80
 - 5. Complete construction of leachate treatment facility within (6 months after commencement of construction). est. 4/30/81
 - 6. Achieve leachate treatment facility operational level (within 1 month after completion of construction). est. 5/30/81

Received from
NYDEC Bureau of Landfills

John Cameron. Appendix 1.1-10
52502
8/10/10

Brookhaven

Quantity of Leachate

Leachate is liquid which has infiltrated through the surface of a landfill and percolated downward through the solid waste to the liner, or undisturbed soil below the landfill. Although a small quantity of liquid is deposited with the solid waste, the only significant and long-range source of leachate in a landfill above the water table is precipitation.

Of course, all of the precipitation falling on the surface of a landfill does not become leachate: some is intercepted on foliage or other exposed surfaces and evaporates; some flows overland beyond the perimeter of the landfill; and some infiltrates into the cover material, but is utilized by vegetation and returned to the atmosphere by the process of transpiration. It is clear, therefore, that the quantity of leachate can be reduced by: decreasing infiltration, increasing evaporation, increasing runoff, and increasing transpiration.

The United States Geological Survey Bulletin, 1156-C, entitled, "Hydrology of Brookhaven National Laboratory and Vicinity, Suffolk County, New York (1)," includes an estimate of average annual recharge: "During the 12 water years from October, 1941 to September, 1953, the precipitation averaged 43.64 inches, evapotranspiration averaged 21-22 inches, and the residual (mostly recharge to groundwater) averaged about 22 inches."

12-110

During the period of time that the Brookhaven Landfill is active and uncovered, runoff will be minimal, due to the rugged topography and high permeability of the sand and gravel soil. It is estimated that percolation will average 22 inches per year, or 1,636 gallons per acre per day, at the active landfill, but some of this will be retained as moisture in the fill. Assuming a field capacity of 3 inches of water per foot of depth, an average depth of 90 feet, and a percolation rate of 22 inches per year, the field capacity of the landfill will be reached by 1987. After the field capacity is reached, the rate of leachate generation will be equal to the percolation rate.

In an attempt to estimate the quantity of leachate at the active Brookhaven Landfill, the quantity of leachate pumped during the period from September 8, 1976 through November 16, 1979 was averaged and was found to be 1,109 gallons per day. Since this data was obtained from intermittent pumping over a long period of time, and the landfill had not yet reached field capacity, it is not considered representative of current or future conditions.

During the period from January 15, 1981 through January 30, 1981, an attempt was made to determine the rate of leachate generation by withdrawing leachate from the liner and pumping it to a high portion of the fill. Approximately 1,270,000 gallons were pumped during a 16-day period, for an average of 79,375 gpd. Based on a fill area of 45 acres, this represents a leachate generation rate of 23.7 inches per year, or 1,746 gallons per acre per day. However, since it was not practical to

23/10

dispose of the leachate off the landfill, it was pumped to a high point on the fill and permitted to percolate downward. In the afternoons, flow at the pumps was low, and the level in the wet well fell. It is believed that the leachate was flowing downward rapidly through established channels and the same volume of leachate was pumped and recirculated a number of times during the test. Therefore, the leachate rate indicated by these field tests is considered to be higher than the actual leachate rate.

Since attempts to utilize existing data and field tests at Brookhaven were inconclusive, the quantity of leachate pumped at a lined, active landfill in the Town of North Hempstead was analyzed. During 1980, the quantity of leachate pumped from the North Hempstead Landfill averaged 21,055 gallons per day, or 752 gallons per acre per day. Adjusted for average precipitation at Brookhaven, this would increase to 821 gpad.

At Brookhaven, approximately 9.7 million gallons of water are added to the fill over a four-month period, for dust control. On an annual basis, this amounts to 26,600 gpd or 590 gpad on 45 acres.

Based on data at the North Hempstead Landfill and including an allowance for dust-control water, it is estimated that leachate generation at Brookhaven will average 1,000 gallons per acre per day on the active, uncovered landfill as the lined portion increases from 45 acres to 85 acres.

When the Brookhaven Landfill is completed, runoff will be increased by: steep surface slopes averaging 37 percent on the west and south sides, and 18 percent on the east and north sides; 18 inches of selected soil cover and 6 inches of seeded loam over the entire area; and a well-

p. 11/17

designed surface drainage system which will minimize infiltration, and transport runoff to recharge basins beyond the perimeter of the fill.

The quantity of leachate which will be generated at the completed Brookhaven Landfill was estimated, using the monthly water balance method. (2, 3) Table 1 summarizes the calculation of leachate, assuming the cover material to be a gravel-sand mixture available at the site, and Table 2 summarizes the calculation of leachate, assuming the cover material to be a sand-clay mixture. In both cases, the average annual precipitation at the landfill was assumed to be 45 inches, in accordance with Geological Survey Professional Paper 627-A, (4); and the monthly distribution of precipitation was assumed to follow the pattern at Patchogue, based on records of the National Oceanic and Atmospheric Administration for the period 1941-1970. (5)

The annual runoff was estimated, using the Soil Conservation Curves (3), and a study of the percentage frequency of daily precipitation at Upton, New York by the Brookhaven National Laboratory (6). It was estimated that the runoff from the landfill will average 22 percent for a gravel-sand cover, and 47 percent for a sand-clay cover. This is in close agreement with values presented in the "Procedures Manual for Groundwater Monitoring at Solid Waste Disposal Facilities." (7)

It was assumed that one-half of the January and February precipitation would either sublimate or run off during the first thaw, and would not infiltrate into the final cover. Potential evapotranspiration was assumed to average 21.82 inches per year, and monthly values, based on

1-5 0/10

the Meyer method, were obtained from United States Geological Survey Bulletin 1156-C. (1)

As indicated in Table 1, the percolation (leachate) was estimated to average 13.35 inches per year, for a cover consisting of 18 inches of a gravel-sand mixture and 6 inches of seeded loam. In Table 2, it was estimated that leachate generation could be reduced to 5.05 inches per year, by using a cover consisting of 18 inches of a sand-clay mixture and 6 inches of seeded loam. A further reduction in leachate quantity could be achieved by utilizing an impermeable membrane, similar to the liner material. It is unlikely that zero leachate could be achieved, due to a small flow through the membrane material, and a larger, but unpredictable quantity, which may pass through breaks in the membrane.

Based on 1,000 gallons per acre per day on the active landfill, and 13.4 inches per year of leachate on the completed landfill with a gravel-sand cover, leachate quantities at the landfill are estimated to be as follows:

<u>Year</u>	<u>Acres Lined</u>	<u>Landfill Status</u>	<u>Leachate (gallons per day)</u>
1981	45.0	Active	45,000
1982	51.7	Active	51,700
1983	58.4	Active	58,400
1984	65.1	Active	65,100
1985	71.8	Active	71,800
1986	78.5	Active	78,500
1987	85.0	Active	85,000
1988	85.0	Covered	85,000
		Uncovered	102,000
1989	85.0	Covered	85,000
		Uncovered	119,000
1990	85.0	Covered	85,000
and beyond		Uncovered	136,000

TABLE 1

MONTHLY WATER BALANCE AT BROOKHAVEN LANDFILL

(With Final Cover - 18" Gravel-Sand Mixture + 6" Loam)

Parameter (inches)	<u>Month</u>												Annual	
	J	F	M	A	M	J	J	A	S	O	N	D		
*Average Precipitation	1.71	1.71												3.42
Average Precipitation (Rain)	1.71	1.71	4.37	3.65	3.78	3.05	3.75	4.46	2.98	3.44	4.40	4.28		41.58
Total Precipitation	3.42	3.42	4.37	3.65	3.78	3.05	3.75	4.46	2.98	3.44	4.40	4.28		45.00
Runoff (0.22 x Rain)	0.38	0.38	0.96	0.80	0.83	0.67	0.83	0.98	0.66	0.76	0.97	0.94		9.16
Moisture Available for Infiltration	3.04	1.33	3.41	2.85	2.95	2.38	2.92	3.48	2.32	2.68	3.43	3.34		34.13
Potential Evapotranspiration	0.82	0.77	1.00	1.62	2.39	2.84	3.41	3.24	2.41	1.72	0.95	0.65		21.82
Percolation	2.22	0.56	2.41	1.23	0.56	0.00	0.00	0.24	0.00	0.96	2.48	2.69		13.35

*Becomes runoff at thaw

8.4.10

TABLE 2

MONTHLY WATER BALANCE AT BROOKHAVEN LANDFILL
 (With Final Cover - 18" Sand-Clay Mixture + 6" Loam)

Parameter (Inches)	Month												Annual	
	J	F	M	A	M	J	J	A	S	O	N	D		
*Average Precipitation	1.71	1.71												3.42
Aver. Precipitation (Rain)	1.71	1.71	4.37	3.65	3.78	3.05	3.75	4.46	2.98	3.44	4.40	4.28	41.58	
Total Precipitation	3.42	3.42	4.37	3.65	3.78	3.05	3.75	4.46	2.98	3.44	4.40	2.14	45.00	
Runoff (0.47 x Rain)	0.80	0.80	2.05	1.72	1.78	1.43	1.76	2.10	1.40	1.62	2.07	2.01	19.54	
Moisture Available for Infiltration	2.62	0.91	2.32	1.93	2.00	1.62	1.99	2.36	1.58	1.82	2.33	0.13	21.61	
Potential Evapotrans- piration	0.82	0.77	1.00	1.62	2.39	2.84	3.41	3.24	2.41	1.72	0.95	0.65	21.82	
Percolation	1.80	0.14	1.32	0.31	0.00	0.00	0.00	0.00	0.00	0.10	1.38	0.00	5.05	

* Becomes runoff at thaw

1/26/61

18710

It is estimated that the average quantity of leachate at the active, uncovered landfill will increase from 45,000 gpd in 1981, to 85,000 gpd in 1987. The landfill will be close to field capacity at that time and, if left uncovered, there will be a gradual increase in leachate to approximately 136,000 gpd by 1990 and thereafter.

If the landfill is covered by 1988, and the planned surface drainage system is installed, the estimated rate of leachate generation in 1988 and thereafter will be 85,000 gpd with a gravel-sand cover and 6 inches of seeded loam.

If a sand-clay cover and 6 inches of seeded loam is used, it is estimated that the rate of leachate generation could be reduced to 31,700 gpd in 1988 and thereafter. An impermeable membrane, similar to the liner material would reduce the leachate rate further, as long as the integrity of the membrane is preserved.

1997

REFERENCES

1. Warren, M.A., Wallace DeLaguna and N.J. Lusczynski. Hydrology of Brookhaven National Laboratory and Vicinity, Suffolk County, New York. Geological Survey Bulletin 1156-C, 1968.
2. Fenn, D.G., Keith J. Hanley and Truett V. DeGeare. Use of the Water Balance Method for Predicting Leachate Generation from Solid Wastes Disposal Sites. EPA/530/SW-168, 1975.
3. Lutton, R.J., G.L. Regan and L.W. Jones. Design and Construction of Covers for Solid Waste Landfills. EPA-600/2-79-165, 1979.
4. Miller, J.F. and R.H. Frederick. The Precipitation Regime of Long Island, New York. Geological Survey Professional Paper 627-A, 1969.
5. Climatological Data - Annual Summary. National Oceanic and Atmospheric Administration. 1980.
6. Percentage Frequency of Daily Precipitation (1949-1964), Upton, New York. Brookhaven National Laboratory.
7. Fenn, Dennis and Eugene Coccozza. Procedures Manual for Groundwater Monitoring at Solid Waste Disposal Facilities. EPA/530/SW-611, 1977.

Fr. John Coulter

5/1/81

TABLE 1

SEPTAGE/SLUDGE FLOW DATA AND PROJECTIONS

Year	Population	Flow Data (Thousand Gallons) <i>- center</i>				Ratios		
		Total Yr.	Avg. Day	Max. Day	Max. Wk.	Max. Day Avg. Day	Max. Wk. Avg. Day	Gal. <i>- center</i> Cap. Day
1976	333,107	16,109	44	112	-	2.5	-	0.13
1977	344,112	20,417	56	155	533	2.8	9.5	0.16
1978	351,335	20,545	56	198	543	3.5	9.7	0.16
1979	355,258	20,422	56	164	577	2.9	10.3	0.16
1980	364,632	16,832	46	149	476	3.2	10.3	0.13
Average	-	-	-	-	-	3.0	10.0	0.15

Flow Projections (Thousand Gallons)

Year	Population Projections	Total Year @ 0.15 gpcd	Avg. Day	Max. Day 3 x Avg. Day	Max. Week 10 x Avg. Day
1985	425,000	23,300	63.8	191.4	638
1990	480,000	26,300	72.1	216.3	721
1995	532,000	29,100	79.7	239.1	797
2000	581,000	31,900	87.1	261.3	871

1/10/81



TOWN OF BROOKHAVEN

Appendix 1-11

DIVISION OF SANITATION
DEPARTMENT OF PUBLIC SAFETY

HERBERT W. DAVIS
Commissioner

Division Telephone
516 - 654-7954

August 16, 1982

RECEIVED

AUG 18 1982

Mr. Steven J. Kramer
Suffolk County Dept. of Health Services
15 Horseblock Place
Farmingville, New York 11738

SUFFOLK COUNTY
HEALTH SERVICES

Dear Steve:

The Town has a six (6) month contract with an additional six (6) month renewal option with RGM Liquid Waste Haulers to transport nine loads (7000 or 8000 gallon capacity trucks) of leachate from the landfill to Bergen Point. The hauling operation began June 30th.

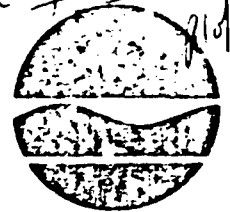
We intend to continue at this rate for the six (6) month period and then assess the status of the leachate volume. The frequency of loads will be increased or decreased accordingly.

Very truly yours,

James H. Heil,
Acting Division Director

JHH: gh

Appendix 1.1-12



Robert F. Flacke
Commissioner

New York State Department of Environmental Conservation

Building #40
State University of New York
Stony Brook, NY 11794

Received from:
Suffolk Co. Dept. of
Health

July 19, 1982

RECEIVED

JUL 22 1982

State University of New York
Division of Public Health
Bureau of Environmental Health Services
Albany, New York

Hon. Henrietta Acampora, Supervisor
Town of Brookhaven
Town Hall - 205 South Ocean Avenue
Patchogue, NY 11772

Dear Supervisor Acampora:

This is to acknowledge receipt of your June 14, 1982 letter, which indicated the Town's course of action regarding scavenger waste and land-fill leachate.

The actions you describe appear to generally meet the spirit of the Compliance Order discussed in my May 11, 1982 letter, with the following clarifications:

A. Scavenger Waste: Your letter indicated that "The treatment lagoons will be maintained in operational readiness". Since your letter indicated that the Manorville Facility will be closed in any event on August 1, 1982, we assume that such lagoon maintenance is to enable only short-term emergency storage, should the scheme for transportation to the Bergen Point or Kings Park Wastewater Treatment Facilities be temporarily disrupted. Since we would move to cancel the Manorville permit after August 1, 1982, use of the lagoons other than as described above would constitute a violation. If the lagoons are to be used as described, we should be given as much advanced notice as possible.

I would, however, like to express my concern about the fact that the arrangements for a transfer facility may not be in place by August 1, 1982. While we will try to increase surveillance with our limited staffing, illegal dumping may still occur. Coordination of surveillance between our agencies would be useful in this regard.

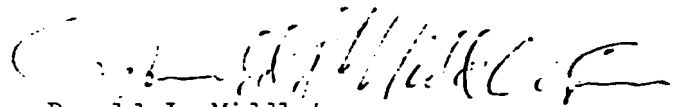
B. Leachate: After initial leachate removal, which had been estimated to take about six months, it is expected that the Town's leachate removal procedures will minimize the amount of leachate allowed to collect on the liner, in order to minimize the potential for groundwater contamination. In this latter regard, we would appreciate being informed of the findings of the groundwater monitoring project being performed for the Town by USGS.

St. Henriette Assnpora
page 2
July 19, 1952

1.74/2

If you feel that the foregoing clarifications require further discussion, please let me know as soon as possible. Also, please let me compliment you on your prompt attention to, and resolution of, this matter.

Sincerely yours,



Donald J. Middleton
Regional Director

DJM:mas

cc: H. Davids ✓
A. Machlin
J. Scherb
W. Brewer

ADIRONDACK DAILY ENTERPRISE
 ALBANY KNICKERBOCKER NEWS
 ALBANY TIMES UNION
 BINGHAMTON EVENING PRESS
 BUFFALO NEWS
 CHEMUNG FALLS POST STAR
 LAKE PLACID NEWS
 LONG ISLAND NEWSDAY
 MIDDLETOWN TIMES-HERALD RECORD

NEW YORK DAILY NEWS
 NEW YORK POST
 NEW YORK TIMES
 NIAGARA FALLS GAZETTE
 OSWEGO PALLADIUM TIMES
 PLATTSBURGH PRESS REPUBLICAN
 POUGHKEEPSIE JOURNAL
 ROCHESTER DEMOCRAT & CHRONICLE
 ROCHESTER TIMES UNION
 SARATOGIAN

SCHENECTADY
 STATEN ISLAND
 SYRACUSE HERALD AMERICAN
 SYRACUSE POST STANDARD
 TROY TIMES RECORD
 UTICA OBSERVER DISPATCH
 WALL STREET JOURNAL
 WATERTOWN TIMES
 WHITE PLAINS REPORTER DISPATCH

Appendix 1.1-13

Pg. 25

Date 4/12/83

Received from
 NIDEC Bureau of Landfills

Landfill Water Contaminated

Brookhaven Town officials said they must raise an extra \$1.3 million in capital funds for the Yaphank landfill and have awarded an emergency contract to a local excavator who has begun grading work to eliminate excessive contaminated water.

Planning Commissioner Vincent Donnelly said yesterday the town had planned to cap the landfill and install a new liner. But, he said, heavy March rains caused the landfill to produce excessive leachate — contaminated water. As a result, the town will float bonds to raise \$1.3 million more than the \$700,000 set aside in the 1983 capital budget so its program to cap, grade, and pump leachate from landfill can begin immediately.

Without seeking bids, the town board gave emergency authorization to Two Brothers Excavating Co. to grade the landfill and cap it with loam and gravel — at the rate of \$1,675 a day for 22 days. Donnelly said the town is seeking bids

for the rest of the work and material. "Two Brothers was authorized to get the capping operation under way because of the heavy rains in March," Donnelly said. "We are producing more leachate than we can satisfactorily handle."

In 1981, Two Brothers earned \$2,250 doing work for the town, and in that same year, Danny Tew Excavating, owned by Danny Tew of Two Brothers, earned \$20,477 doing town work.

Councilman Eugene Dooley said town officials did not realize the landfill leachate problem would become so severe. Donnelly, who estimated that 14 acres of the landfill are exposed to leachate, said he did not know why officials did not consider the need for immediate capping when the 1983 budget was prepared. Donnelly recently took over supervision of the landfill from James Heil, the town's former sanitation director, who resigned.

—Kathleen Kerr

OT 1006
~~*Beckwith*~~
~~*H*~~
~~*D*~~
 52502

RECEIVED

JUN 2 1983

Bureau of Municipal Waste
 Division of Solid Waste



COMMUNICATIONS RECORD FORM

Distribution: () File, () _____
() _____, () _____
() Author

Person Contacted: Michael Scorca Date: February 1986

Phone Number: (516) 938-8830 Title: Hydrologist

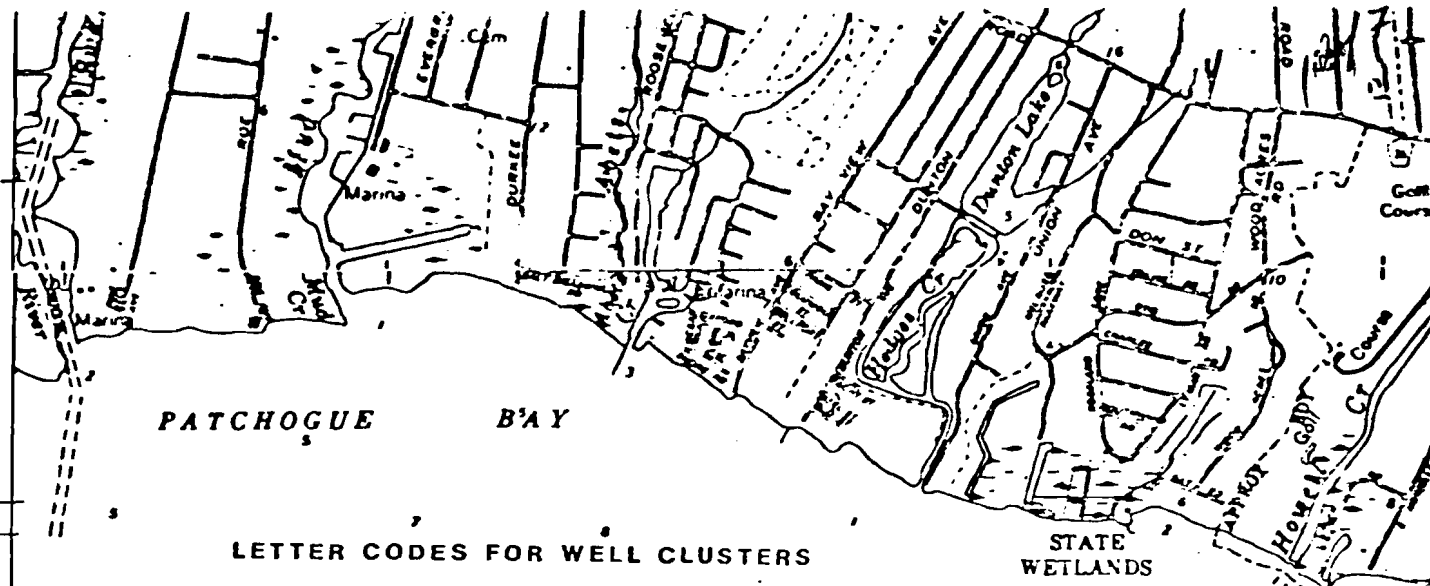
Affiliation: United States Geologic Survey Type of Contact: Telephone

Address: 5 Aerial Way Person Making Contact: E. Bidwell
Syosset, NY 11791

Communications Summary: Mr. Scorca indicated to me that their report on the Brookhaven Landfill was still in the preliminary stages. Therefore, he declined to send me anything but raw analytical data until the report is published (maps for orienting wells is also attached).

(see over for additional space)

Signature: E. Bidwell



LETTER CODES FOR WELL CLUSTERS

- | | |
|-----------------------------------|-----------------------|
| A - 73750 73751 73752 | R - 72827 72828 73955 |
| B - 73753 73754 73755 | S - 72835 |
| C - 73758 73757 73756 73759 | T - 73948 |
| D - 73760 73761 73762 73763 72813 | |
| E - 73764 73765 73766 | |
| F - 73767 73768 | |
| G - 72817 73943 73944 | |
| H - 72818 72819 72820 | |
| I - 73946 73947 | |
| J - 44574 44575 44576 | |
| K - 44577 44578 | |
| L - 72821 72822 72136 | |
| M - 72834 73945 | |
| N - 72836 72837 | |
| O - 73953 73954 | |
| P - 72825 72826 | |
| Q - 72823 72824 | |

4510000 = N.

SAYVILLE

Prepared and published in 1981 by the New York State Department of Transportation, in cooperation with the U.S. Department of Transportation, Federal Highway Administration.

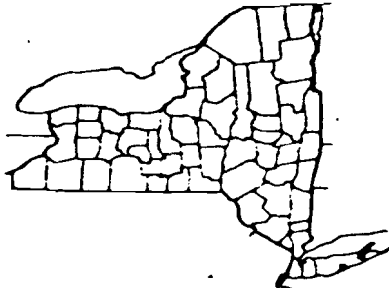
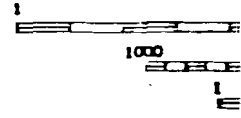
Map Base from 1967 U.S. Geological Survey 7.5-minute quadrangle.

Map revisions made using 1980 aerial photography, construction plans, official records and other sources. Features revised include: highways and other transportation facilities; civil boundaries; recreation sites; hydrography; and buildings. Grey tint indicates intensely developed areas in which only landmark buildings are shown.

Revisions may not comply with National Map Accuracy Standards.

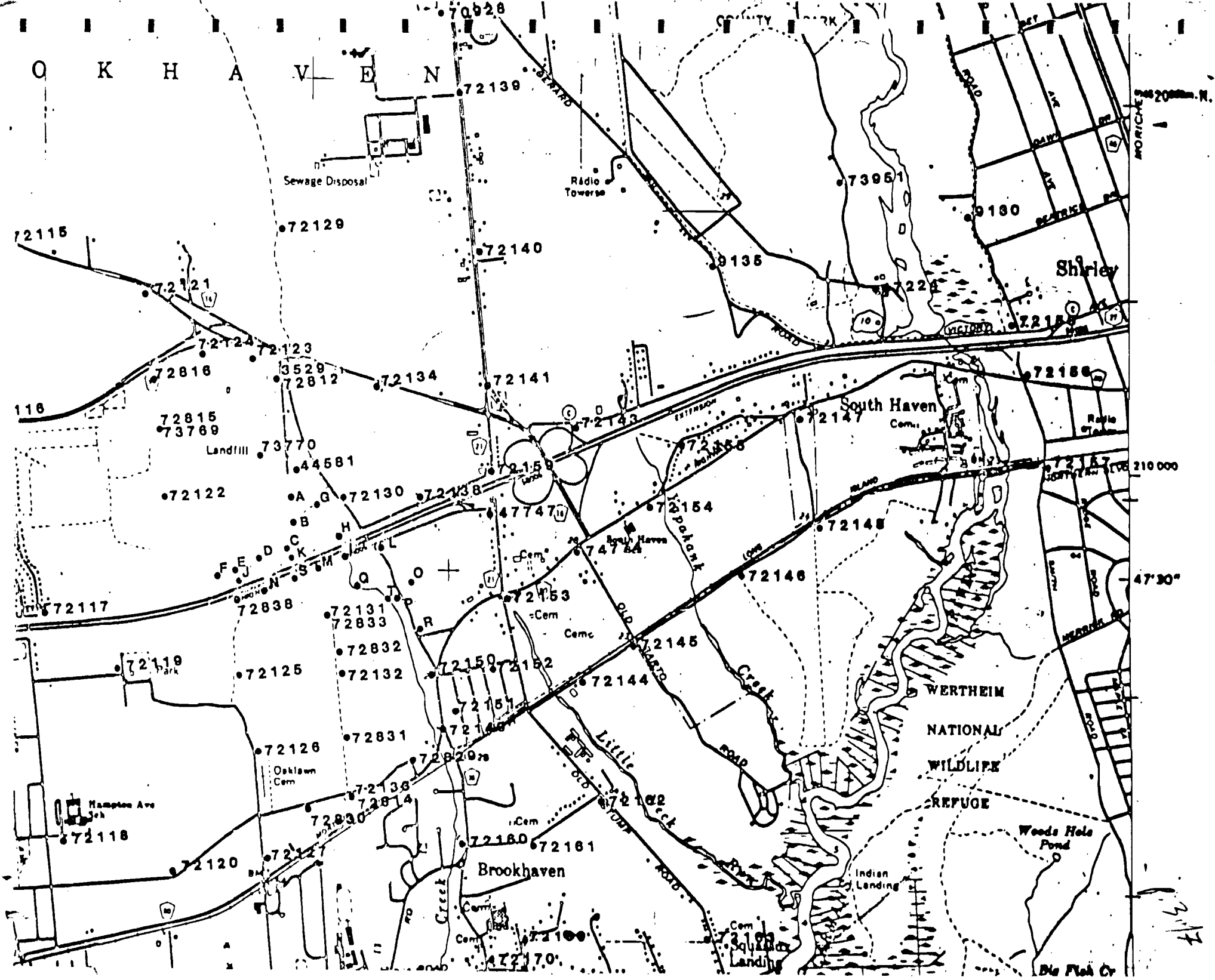
Correspondence concerning this and other maps of the Department of Transportation should be directed to: Map Information Unit, New York State Department of Transportation, State Campus, Albany, New York 12232.

1981 revisions by J. E. Farah



QUADRANGLE LOCATION

1000
100
Between 72° and
Mercator grid.
10,000-foot



WELL#	LAT	LONG	AQUIFER	Depth	...
S 73797	404949	724635	GLACIAL	68.94	57
S 76409	404949	724635	GLACIAL	-----	99
S 76410	404949	724635	GLACIAL	-----	123
S 73798	404953	724623	GLACIAL	75.31	66
S 79115	404936	724640	GLACIAL	-----	62
S 79116	404936	724640	GLACIAL	-----	82
S 79117	404936	724640	GLACIAL	-----	102
S 79118	404936	724640	GLACIAL	-----	124
S 79119	404936	724640	GLACIAL	-----	142
S 79120	404937	724636	GLACIAL	-----	62
S 76412	404937	724636	GLACIAL	-----	76
S 79121	404937	724636	GLACIAL	-----	102
S 76413	404937	724636	GLACIAL	-----	118
S 79122	404937	724636	GLACIAL	-----	142
S 79123	404929	724637	GLACIAL	-----	64
S 79124	404929	724637	GLACIAL	-----	84
S 79125	404929	724637	GLACIAL	-----	106
S 79126	404929	724637	GLACIAL	-----	121
S 79127	404929	724637	GLACIAL	-----	140
S 79128	404930	724633	GLACIAL	-----	66
S 79129	404930	724633	GLACIAL	-----	84
S 79130	404930	724633	GLACIAL	-----	102
S 79131	404930	724633	GLACIAL	-----	126
S 79132	404930	724633	GLACIAL	-----	145
S 73800	404929	724622	GLACIAL	65.24	50
S 77638	404928	724621	MAGOTHY	-----	240
S 79232	404915	724631	GLACIAL	-----	65
S 79233	404915	724631	GLACIAL	-----	85
S 79234	404915	724631	GLACIAL	-----	106
S 79235	404915	724631	GLACIAL	-----	126
S 79236	404915	724631	GLACIAL	-----	140

USGS?
D-269

✓
✓
✓

⊕

✓
✓
✓

u

	WELL #	LAT	LONG	ADDITION	W.P. EL	TOTAL DEPTH (FT)
A	S 73811	405014	724657	GLACIAL	83.47	85.
	S 73812	405014	724657	GLACIAL	83.03	65.
	S 77637	405014	724657	MAGOTHY	----	263.
B	S 73790	405007	724648	GLACIAL	75.31	61.
C	S 73791	404957	724655	GLACIAL	84.27	61.
D	✓ S 73792	404959	724651	GLACIAL	80.36	61.
E	✓ S 73793	405000	724643	GLACIAL	68.77	56.
F	✓ S 73816	404955	724652	GLACIAL	87.06	70.
	✓ S 73817	404955	724652	GLACIAL	87.35	90.
	S 73818	404955	724652	GLACIAL	87.02	110.
G	✓ S 79107	404955	724648	GLACIAL	----	64.
	✓ S 79108	404955	724648	GLACIAL	----	84.
	✓ S 79109	404955	724648	GLACIAL	----	104.
	✓ S 79110	404955	724648	GLACIAL	----	121.
	✓ S 79111	404955	724648	GLACIAL	----	142.
H	S 73813	404956	724645	GLACIAL	64.13	66.
	✓ S 73814	404956	724645	GLACIAL	64.16	66.
	S 73815	404956	724645	GLACIAL	64.17	53.
I	✓ S 31461	404956	724642	GLACIAL	68.23	68.
	✓ S 73799	404956	724642	GLACIAL	69.09	103.
J	S 73794	404945	724652	GLACIAL	85.58	73.
	S 79112	404945	724652	GLACIAL	----	103.
	S 79113	404945	724652	GLACIAL	----	126.
	S 79114	404945	724652	GLACIAL	----	144.
K	S 73795	404946	724644	GLACIAL	56.79	47.
	✓ S 76402	404946	724644	GLACIAL	----	66.
	S 76403	404946	724644	GLACIAL	----	86.
	S 76404	404946	724644	GLACIAL	----	108.
	S 76405	404946	724644	GLACIAL	----	137.
	S 79231-159	404946	724644	GLACIAL	----	159.
	✓ S 79231-183	404946	724644	GLACIAL	----	183.
✓ S 79231-256	404946	724644	MAGOTHY	----	256.	
L	S 73796	404947	724639	GLACIAL	67.85	55.
	S 76406	404947	724639	GLACIAL	----	78.
	✓ S 76407	404947	724639	GLACIAL	----	98.
	S 76408	404947	724639	GLACIAL	----	117.
	S 76411	404947	724639	GLACIAL	----	146.

p 6.4

DEPTH (FT)	DEPTH (FT)	SURFACE LENGTH (FT)	CLUSTER
88.	85.	3.	A
86.	65.	5.	A
258.	263.	5.	A
58.	61.	3.	B
56.	61.	3.	C
✓ 56.	61.	3.	D
✓ 53.	56.	3.	E
✓ 65.	70.	5.	F
✓ 85.	90.	5.	F
105.	110.	5.	F
68.	64.	4.	G
80.	84.	4.	G
108.	104.	4.	G
✓ 117.	121.	4.	G
✓ 138.	142.	4.	G
83.	88.	5.	H
✓ 63.	68.	5.	H
48.	53.	5.	H
✓ 67.	68.	6.	I
✓ 98.	101.	3.	I
70.	73.	3.	J
98.	103.	5.	J
118.	123.	5.	J
139.	144.	5.	J
44.	47.	3.	K
64.	68.	4.	K
84.	88.	4.	K
104.	106.	4.	K
123.	137.	4.	K
151.	156.	5.	K
✓ 175.	185.	5.	K
✓ 243.	246.	10.	K
52.	55.	3.	L
74.	78.	4.	L
✓ 94.	98.	4.	L
113.	117.	4.	L
142.	146.	4.	L

DEPTH
 TO SCREEN
 TOP BOT
 (FT) (FT)

SCREEN
 LENGTH
 (FT)

CLUSTER

54.	57.	3.	M
95.	99.	4.	M
115.	123.	4.	M
63.	66.	3.	N
58.	62.	4.	O
77.	82.	5.	O
98.	102.	4.	O
120.	124.	4.	O
138.	142.	4.	O
68.	62.	4.	P
74.	78.	4.	P
98.	102.	4.	P
114.	118.	4.	P
138.	142.	4.	P
60.	64.	4.	Q
80.	84.	4.	Q
101.	105.	4.	Q
117.	121.	4.	Q
136.	140.	4.	Q
62.	66.	4.	R
80.	84.	4.	R
101.	105.	4.	R
121.	125.	4.	R
141.	145.	4.	R
57.	50.	3.	S
231.	236.	5.	T
80.	85.	5.	U
100.	105.	5.	U
120.	125.	5.	U
140.	145.	5.	U

Received from: Suffolk Co. Dept. of

Brookhaven
10-15-80

10-4-82

Sen. Service Rd (SARISE HWAY)
Brookhaven
10-15-80

10-4-82

BELMONT AVE
BELLPORT
10-15-80

Vinyl Chloride (ppb)	<	Free Ammonia (mg/l)	<0.04
Methylene Chloride (ppb)	<	Nitrites + Nitrates (mg/l)	<0.4
1,1-Dichloroethylene (ppb)	<	MDAS (mg/l)	<0.1
1,1-Dichloroethane (ppb)	<	pH	6.6
trans-1,2-Dichloroethylene (ppb)	<	Spec. Cond. (umhos/cm)	47
cis-1,2-Dichloroethylene (ppb)	<	Chlorides (mg/l)	6
Chloroform (ppb)	1	Sulfates (mg/l)	4
1,1,2-Trichloro-1,1,2,2-tetrafluoroethane (ppb)	-	Iron (mg/l)	<0.1
1,2-Dichloroethane (ppb)	<	Manganese (mg/l)	<0.05
1,1,1-Trichloroethane (ppb)	<	Copper (mg/l)	<0.1
Carbon Tetrachloride (ppb)	<	Zinc (mg/l)	1.3
Bromodichloromethane (ppb)	<	Sodium (mg/l)	4.1
1,2-Dichloropropane (ppb)	<	T. Hardness (mg/l)	16
2,3-Dichloropropane (ppb)	<	T. Alkalinity (mg/l)	12
trans-1,3-Dichloropropene (ppb)	<	Arsenic (ppb)	<20
Tetrachloroethylene (ppb)	<	Selenium (ppb)	<5
1,1,2-Trichloroethylene (ppb)	<	Cadmium (ppb)	<2
Chlorodibromomethane (ppb)	<	Silver (ppb)	<10
cis-1,2-Dichloropropene (ppb)	<	Lead (ppb)	<10
Bromoform (ppb)	<	Chromium (ppb)	<10
1,1,1,2-Tetrachloroethane (ppb)	<	Mercury (mg/l)	-
Tetrachloroethylene (ppb)	1	Fluoride (mg/l)	-
1,1,2,2-Tetra-chloroethane (ppb)	-	Barium (mg/l)	-
		Phenol (mg/l)	-
		Methane (ppb)	-
		Free CO2 (mg/l)	-

Vinyl Chloride (ppb)	<	Free Ammonia (mg/l)	<0.04
Methylene Chloride (ppb)	<	Nitrites + Nitrates (mg/l)	<0.4
1,1-Dichloroethylene (ppb)	<	MDAS (mg/l)	<0.1
1,1-Dichloroethane (ppb)	<	pH	5.9
trans-1,2-Dichloroethylene (ppb)	<	Spec. Cond. (umhos/cm)	110
cis-1,2-Dichloroethylene (ppb)	<	Chlorides (mg/l)	23
Chloroform (ppb)	<	Sulfates (mg/l)	7
1,1,2-Trichloro-1,1,2,2-tetrafluoroethane (ppb)	<	Iron (mg/l)	0.25
1,2-Dichloroethane (ppb)	<	Manganese (mg/l)	<0.05
1,1,1-Trichloroethane (ppb)	<	Copper (mg/l)	<0.1
Carbon Tetrachloride (ppb)	<	Zinc (mg/l)	<0.04
Bromodichloromethane (ppb)	<	Sodium (mg/l)	16.4
1,2-Dichloropropane (ppb)	<	T. Hardness (mg/l)	12
2,3-Dichloropropane (ppb)	<	T. Alkalinity (mg/l)	9
trans-1,3-Dichloropropene (ppb)	<	Arsenic (ppb)	<20
Trichloroethylene (ppb)	<	Selenium (ppb)	<5
1,1,2-Trichloroethylene (ppb)	<	Cadmium (ppb)	<2
Chlorodibromomethane (ppb)	<	Silver (ppb)	<10
cis-1,2-Dichloropropene (ppb)	<	Lead (ppb)	<10
Bromoform (ppb)	<	Chromium (ppb)	<10
1,1,1,2-Tetrachloroethane (ppb)	<	Mercury (mg/l)	-
Tetrachloroethylene (ppb)	<	Fluoride (mg/l)	-
1,1,2,2-Tetra-chloroethane (ppb)	<	Barium (mg/l)	-
		Phenol (mg/l)	-
		Methane (ppb)	-
		Free CO2 (mg/l)	-

Vinyl Chloride (ppb)	<	Free Ammonia (mg/l)	<0.04
Methylene Chloride (ppb)	<	Nitrites + Nitrates (mg/l)	<0.6
1,1-Dichloroethylene (ppb)	<	MDAS (mg/l)	<0.1
1,1-Dichloroethane (ppb)	<	pH	6.3
trans-1,2-Dichloroethylene (ppb)	<	Spec. Cond. (umhos/cm)	60
cis-1,2-Dichloroethylene (ppb)	<	Chlorides (mg/l)	8
Chloroform (ppb)	<	Sulfates (mg/l)	<4
1,1,2-Trichloro-1,1,2,2-tetrafluoroethane (ppb)	<	Iron (mg/l)	0.52
1,2-Dichloroethane (ppb)	<	Manganese (mg/l)	<0.05
1,1,1-Trichloroethane (ppb)	<	Copper (mg/l)	<0.1
Carbon Tetrachloride (ppb)	<	Zinc (mg/l)	3.9
Bromodichloromethane (ppb)	<	Sodium (mg/l)	4.7
1,2-Dichloropropane (ppb)	<	T. Hardness (mg/l)	20
2,3-Dichloropropane (ppb)	<	T. Alkalinity (mg/l)	11
trans-1,3-Dichloropropene (ppb)	<	Arsenic (ppb)	<20
Trichloroethylene (ppb)	<	Selenium (ppb)	<5
1,1,2-Trichloroethylene (ppb)	<	Cadmium (ppb)	<2
Chlorodibromomethane (ppb)	<	Silver (ppb)	<10
cis-1,2-Dichloropropene (ppb)	<	Lead (ppb)	<10
Bromoform (ppb)	<	Chromium (ppb)	<10
1,1,1,2-Tetrachloroethane (ppb)	<	Mercury (mg/l)	-
Tetrachloroethylene (ppb)	<	Fluoride (mg/l)	-
1,1,2,2-Tetra-chloroethane (ppb)	<	Barium (mg/l)	-
		Phenol (mg/l)	-
		Methane (ppb)	-
		Free CO2 (mg/l)	-

Appendix 11-15
p14

LANDFILL SURVEY

LOCATION Horseblock Rd., Brookhaven

YAPHANK AVE.
Brookhaven
10-15-80

Vinyl Chloride (ppb) - <1	Free Ammonia (mg/l) - <0.04
Methylene Chloride (ppb) - <1	Nitrites + Nitrates (mg/l) - <0.4
1,1-Dichloroethylene (ppb) - <1	MGAS (mg/l) - <0.1
1,1-Dichloroethane (ppb) - <1	pH - 5.6
trans-1,2-Dichloroethylene (ppb) - <1	Spec. Cond. (umhos/cm) - 128.
cis-1,2-Dichloroethylene (ppb) - <1	Chlorides (mg/l) - 30.
Chloroform (ppb) - 2	Sulfates (mg/l) - 6.
1,1,2-Trichlorotrifluoroethane (ppb) -	Iron (mg/l) - <0.1
1,2-Dichloroethane (ppb) - <1	Manganese (mg/l) - <0.05
1,1,1-Trichloroethane (ppb) - <1	Copper (mg/l) - 0.32
Carbon Tetrachloride (ppb) - <1	Zinc (mg/l) - <0.4
Bromodichloromethane (ppb) - <1	Sodium (mg/l) - 19.3
1,2-Dichloropropane (ppb) - <1	T. Hardness (mg/l) - 20.
2,3-Dichloropropane (ppb) - <1	T. Alkalinity (mg/l) - 7.
Trans-1,3-Dichloropropene (ppb) - <1	Arsenic (ppb) - 120.
Trichloroethylene (ppb) - <1	Selenium (ppb) - 15.
1,1,2-Trichloroethane (ppb) - <1	Cadmium (ppb) - 12.
Chlorodibromomethane (ppb) - <1	Silver (ppb) - <10.
cis-1,3-Dichloropropene (ppb) - <1	Lead (ppb) - <10.
Bromoform (ppb) - <1	Chromium (ppb) - <10
1,1,1,2-Tetrachloroethane (ppb) - <1	Mercury (mg/l) -
Tetrachloroethylene (ppb) - <1	Fluoride (mg/l) -
1,1,2,2-Tetrachloroethane (ppb) - <1	Barium (mg/l) -
	Phenol (mg/l) -
	Methane (ppb) -
	Free CO ₂ (mg/l) -
	* PPD

Vinyl Chloride (ppb) -	Free Ammonia (mg/l) -
Methylene Chloride (ppb) -	Nitrites + Nitrates (mg/l) -
1,1-Dichloroethylene (ppb) -	MGAS (mg/l) -
1,1-Dichloroethane (ppb) -	pH -
trans-1,2-Dichloroethylene (ppb) -	Spec. Cond. (umhos/cm) -
cis-1,2-Dichloroethylene (ppb) -	Chlorides (mg/l) -
Chloroform (ppb) -	Sulfates (mg/l) -
1,1,2-Trichlorotrifluoroethane (ppb) -	Iron (mg/l) -
1,2-Dichloroethane (ppb) -	Manganese (mg/l) -
1,1,1-Trichloroethane (ppb) -	Copper (mg/l) -
Carbon Tetrachloride (ppb) -	Zinc (mg/l) -
Bromodichloromethane (ppb) -	Sodium (mg/l) -
1,2-Dichloropropane (ppb) -	T. Hardness (mg/l) -
2,3-Dichloropropane (ppb) -	T. Alkalinity (mg/l) -
Trans-1,3-Dichloropropene (ppb) -	Arsenic (mg/l) -
Trichloroethylene (ppb) -	Selenium (mg/l) -
1,1,2-Trichloroethane (ppb) -	Cadmium (mg/l) -
Chlorodibromomethane (ppb) -	Silver (mg/l) -
cis-1,3-Dichloropropene (ppb) -	Lead (mg/l) -
Bromoform (ppb) -	Chromium (mg/l) -
1,1,1,2-Tetrachloroethane (ppb) -	Mercury (mg/l) -
Tetrachloroethylene (ppb) -	Fluoride (mg/l) -
1,1,2,2-Tetrachloroethane (ppb) -	Barium (mg/l) -
	Phenol (mg/l) -
	Methane (ppb) -
	Free CO ₂ (mg/l) -

Vinyl Chloride (ppb) -	Free Ammonia (mg/l) -
Methylene Chloride (ppb) -	Nitrites + Nitrates (mg/l) -
1,1-Dichloroethylene (ppb) -	MGAS (mg/l) -
1,1-Dichloroethane (ppb) -	pH -
trans-1,2-Dichloroethylene (ppb) -	Spec. Cond. (umhos/cm) -
cis-1,2-Dichloroethylene (ppb) -	Chlorides (mg/l) -
Chloroform (ppb) -	Sulfates (mg/l) -
1,1,2-Trichlorotrifluoroethane (ppb) -	Iron (mg/l) -
1,2-Dichloroethane (ppb) -	Manganese (mg/l) -
1,1,1-Trichloroethane (ppb) -	Copper (mg/l) -
Carbon Tetrachloride (ppb) -	Zinc (mg/l) -
Bromodichloromethane (ppb) -	Sodium (mg/l) -
1,2-Dichloropropane (ppb) -	T. Hardness (mg/l) -
2,3-Dichloropropane (ppb) -	T. Alkalinity (mg/l) -
Trans-1,3-Dichloropropene (ppb) -	Arsenic (mg/l) -
Trichloroethylene (ppb) -	Selenium (mg/l) -
1,1,2-Trichloroethane (ppb) -	Cadmium (mg/l) -
Chlorodibromomethane (ppb) -	Silver (mg/l) -
cis-1,3-Dichloropropene (ppb) -	Lead (mg/l) -
Bromoform (ppb) -	Chromium (mg/l) -
1,1,1,2-Tetrachloroethane (ppb) -	Mercury (mg/l) -
Tetrachloroethylene (ppb) -	Fluoride (mg/l) -
1,1,2,2-Tetrachloroethane (ppb) -	Barium (mg/l) -
	Phenol (mg/l) -
	Methane (ppb) -
	Free CO ₂ (mg/l) -

n/pt

	Yup'ank Ave	Yup'ank Ave	Yup'ank Ave	Horse Creek
coliform /100 ml	<1	<1	<1	>11, 22.2
free ammonia mg/l	<0.04	<0.04	<0.04	<0.04
nitrates "	<0.4	<0.4	0.9	<0.4
MBAS "	<0.1	<0.1	<0.1	<0.1
pH	5.9	5.6	5.4	6.1
specific conductivity	47	133	115	53
chlorides mg/l	7.	34.	26.	6.
sulfates "	24.	6.	9.	5
iron "	0.16	0.85	0.23	<0.10
manganese "	<0.05	<0.05	<0.05	<0.05
copper "	0.10	0.26	0.28	<0.10
zinc "	<0.4	<0.4	<0.4	0.7
sodium "	4.7	20.9	18.9	4.2
vinyl chloride ug/l				
methylene chloride "				
bromochloromethane "				
1,1 dichloroethane "				
trans dichloroethylene				
chloroform ug/l	<5	ditto	ditto	ditto except
1,2 dichloroethane "				
1,1,1 trichloroethane	<2			2 ←
carbon tetrachloride	<1			
1 bromo 2 chloroethane				
1,2 dichloropropane				
1,1,2 trichloroethylene	<5			
chlorodibromomethane	<2			
1,2 dibromoethane ug/l				
2 bromo 1 chloropropane				
bromoform ug/l	<5			
tetrachloroethylene "	<2			
cis dichloroethylene				
freon 113 "	<4			
dibromomethane "	<3			
1,1 dichloroethylene				
bromodichloromethane				
1,3 dichloropropane				
cis dichloropropene				
trans dichloropropene				
benzene ug/l	<5			
toluene "	<5			
total xylenes "	<5			
chlorobenzene "	<6			
ethylbenzene "	<5			
bromobenzene "	<8			
total chlorotoluenes	<6			
1,3,5 trimethylbenzene	<5			
1,2,4 trimethylbenzene	<5			
m,p dichlorobenzene	<7			
o dichlorobenzene "	<7			
p diethylbenzene "	<5			
2,3 dichloropropene "				
1,1,2 trichloroethane				
1,1,1,2 tetrachl'ethane				
1,2,2,3 tetrachl'propane				

10/1/82

St. George's School

24/6

coliform /100 ml	conf. / 27	110, 27, 2
free ammonia mg/l	<0.04	<0.04
nitrates	<0.4	<0.4
MBAS	<0.1	<0.1
pH	5.7	6.3
specific conductivity	155	107
chlorides mg/l	39	6
sulfates	4	<4
iron	0.15	0.658
manganese	<0.05	0.18
copper	<0.10	0.68
zinc	<0.4	<0.4
sodium	23.0	7.8
vinyl chloride ug/l		
methylene chloride "		
bromochloromethane "		
1,1 dichloroethane "		
trans dichloroethylene		
chloroform ug/l	<5	ditto
1,2 dichloroethane "		
1,1,1 trichloroethane	<2	
carbon tetrachloride	<1	
1 bromo 2 chloroethane		
1,2 dichloropropane		
1,1,2 trichloroethylene	<5	
chlorodibromomethane	<2	
1,2 dibromoethane ug/l		
2 bromo 1 chloropropane		
bromoform ug/l	<5	
tetrachloroethylene "	<2	
cis dichloroethylene		
freon 113	<4	
dibromomethane		
1,1 dichloroethylene		
bromodichloromethane	<3	
1,3 dichloropropane		
cis dichloropropene		
trans dichloropropene		
benzene ug/l	<5	
toluene	<5	
total xylenes	<5	
chlorobenzene	<6	
ethylbenzene	<5	
bromobenzene	<8	
total chlorotoluenes	<6	
1,3,5 trimethylbenzene	<5	
1,2,4 trimethylbenzene	<5	
m,p dichlorobenzene	<7	
o dichlorobenzene	<7	
p diethylbenzene	<5	
2,3 dichloropropene		
1,1,2 trichloroethane		
1,1,1,2 tetrachl'ethane		
1,2,2,3 tetrachl'propane		

BEACH ST

FIRE DEPT
2500 MONTAUK HWY

PINE ST

PINE ST

12/16/82

12/8/82

441
12/22/82

12/8/82

12/8/82

coliform /100 ml	<1	<2.2	<1	<1
free ammonia mg/l	<0.04	<0.04	<0.04	<0.04
nitrates	4.2	<0.4	<0.4	0.7
MBAS	<0.1	<0.1	<0.1	<0.1
pH	5.9	5.6	5.9	6.2
specific conductivity	115.	110.	137.	190
chlorides mg/l	11.	16.	15.	15
sulfates	9.	9.	11.	32
iron	0.12	3.52	3.55	>6.4
manganese	<0.05	0.06	<0.05	<0.05
copper	<0.10	<0.1	<0.10	<0.10
zinc	0.6	<0.4	<0.4	3.4
sodium	10.9	17.0	15.4	30.4
vinyl chloride ug/l	<3	ditto	ditto	ditto
methylene chloride	<2	except	except	except
bromochloromethane	<2			
1,1 dichloroethane	<2	10	5	4
trans dichloroethylene	<2			
chloroform ug/l	<2			
1,2 dichloroethane	<2			
1,1,1 trichloroethane	<2	7	3	<2
carbon tetrachloride	<2			
1 bromo 2 chloroethane	<2			
1,2 dichloropropane	<2			
1,1,2 trichloroethylene	<2	4	4	<2
chlorodibromomethane	<2			
1,2 dibromoethane ug/l	<2			
2 bromo 1 chloropropane	<2			
bromoform ug/l	<2			
tetrachloroethylene	<2	23	5	4
cis dichloroethylene	<2	9	2	3
freon 113	<2			
dibromomethane	<2			
1,1 dichloroethylene	<2			3
bromodichloromethane	<2			
1,3 dichloropropane	<2			
cis dichloropropene	<2			
trans dichloropropene	<2			
benzene ug/l	<5			
toluene	<5			
total xylenes	<5			
chlorobenzene	<6			
ethylbenzene	<5			
bromobenzene	<8			
total chlorotoluenes	<6			
1,3,5 trimethylbenzene	<5			
1,2,4 trimethylbenzene	<5			
m,p dichlorobenzene	<7			
o dichlorobenzene	<7			
p diethylbenzene	<5			
2,3 dichloropropene	<2			
1,1,2 trichloroethane	<2			
1,1,1,2 tetrachl'ethane	<2			
1,2,2,3 tetrachl'propane	<2			

RESAMPLED
12/2 FOR
MASS SPEC

MASS SPEC
12/16

MASS SPEC
12/16/82

BEACH ST BROOKHAVEN

	12/2/82	12/8/82	12/8/82	12/8/82
coliform /100 ml	<1	<1	<1	<1
free ammonia mg/l	<0.04	<0.04	<0.04	<0.04
nitrates	<0.4	<0.4	3.5	4.9
MBAS	<0.1	<0.1	<0.1	<0.1
pH	6.2	6.2	6.4	6.3
specific conductivity	48.	55.	108.	129.
chlorides mg/l	6.	6.	10.	11.
sulfates	7.	7.	9.	9.
iron	0.81	<0.10	<0.10	<0.10
manganese	<0.05	<0.05	<0.05	<0.05
copper	<0.10	<0.10	<0.10	0.42
zinc	0.6	<0.4	0.4	0.7
sodium	5.9	5.6	9.3	10.7
vinyl chloride ug/l	<3	ditto	ditto	ditto
methylene chloride	<2			
bromochloromethane	<2			
1,1 dichloroethane	<2			
trans dichloroethylene	<2			
chloroform ug/l	<2			
1,2 dichloroethane	<2			
1,1,1 trichloroethane	<2			
carbon tetrachloride	<2			
1 bromo 2 chloroethane	<2			
1,2 dichloropropane	<2			
1,1,2 trichloroethylene	<2			
chlorodibromomethane	<2			
1,2 dibromoethane ug/l	<2			
2 bromo 1 chloropropane	<2			
bromoform ug/l	<2			
tetrachloroethylene	<2			
cis dichloroethylene	<2			
freon 113	<2			
dibromomethane	<2			
1,1 dichloroethylene	<2			
bromodichloromethane	<2			
1,3 dichloropropane	<2			
cis dichloropropene	<2			
trans dichloropropene	<2			
benzene ug/l	<5			
toluene	<5			
total xylenes	<5			
chlorobenzene	<5			
ethylbenzene	<5			
bromobenzene	<5			
total chlorotoluenes	<6			
1,3,5 trimethylbenzene	<5			
1,2,4 trimethylbenzene	<5			
m,p dichlorobenzene	<7			
o dichlorobenzene	<7			
p diethylbenzene	<5			
2,3 dichloropropene	<2			
1,1,2 trichloroethane	<2			
1,1,1,2 tetrachl'ethane	-			
1,2,2,3 tetrachl'propane	<2			

9/16/82

* NEW WELL 100' DEEP
PREVIOUSLY 56 PPS METHYLENE CHLORIDE 9/20/82

COMMUNICATIONS RECORD FORM

Distribution: () _____, () _____
() _____, () _____
() Author

Person Contacted: Anita Dukstas Date: 10 June 87

Phone Number: (518) 457-0639 Title: _____

Affiliation: Bureau of Haz. Site Control Type of Contact: Telephone

Address: NYSDEC Person Making Contact: E. Metzger
5th Wolf Road Albany NY
12233-0001

Communications Summary: Anita said the attached document
pertains to leachate sampling performed by the USGS
in 1985 at the Brookhaven landfill

(see over for additional space)

Signature: Ken B. Metzger

APPENDIX C
PRIORITY POLLUTANT RESULTS *on leachate*

SAMPLE 2

*Brookhaven Landfill
152041*

NEW YORK TESTING LABORATORIES, INC.

Page 11

Lab No 85-10138(A)

VOLATILE COMPOUNDS:

Sample Number: Z

Sample Size: 1 ml.

Internal Std. Concs. (total ngs.)	Bromochloromethane	<u> 57 </u>
	2-Bromo-1-chloropropane	<u> 26 </u>

Surrogate Std. Concs. (total ngs.)	Deuteriochloroform	<u> 44 </u>
	Deuterobenzene	<u> 28 </u>
	Deuterotoluene	<u> 28 </u>

<u>Parameter</u>	<u>Method No.</u>	<u>CAS No.</u>	<u>Method Detection Limit (ppb)*</u>	<u>Found (ppb)</u>
Acrolein	624	107-02-8	100	ND
Acrylonitrile	624	107-13-1	100	ND
Benzene	624	71-43-2	10	14
Bromodichloromethane	624	75-27-4	10	ND
Bromoform	624	75-25-2	10	ND
Bromomethane	624	74-83-9	10	ND
Carbon Tetrachloride	624	56-23-5	10	ND
Chlorobenzene	624	108-90-7	10	< 10
Chlorodibromomethane	624	124-48-1	10	ND
Chloroethane	624	75-00-3	10	ND
2-Chloroethyl vinyl ether	624	110-75-8	10	ND
Chloroform	624	67-66-3	10	ND
Chloromethane	624	74-87-3	10	ND
1,2-Dichlorobenzene	624	95-50-1	10	ND
1,3-Dichlorobenzene	624	541-73-1	10	ND
1,4-Dichlorobenzene	624	106-46-7	10	31

ND = None Detected

C-1

< = Less than

*EPA published method detection limit

4 of 10

NEW YORK TESTING LABORATORIES, INC.

Page 12

Lab No. 85-10138(A)

VOLATILE COMPOUNDS - cont'd.

Sample Number: Z

<u>Parameter</u>	<u>Method No.</u>	<u>CAS No.</u>	<u>Method Detection Limit (ppb)*</u>	<u>Found (ppb)</u>
Dichlorodifluoromethane	624	75-71-8	10	ND
1,1-Dichloroethane	624	75-34-3	10	ND
1,2-Dichloroethane	624	107-06-2	10	ND
1,1-Dichloroethylene	624	75-35-4	10	ND
Trans-1,2-Dichloroethylene	624	156-60-5	10	ND
1,2-Dichloropropane	624	78-87-5	10	ND
1,3-Dichloropropene	624	10061-02-6	10	ND
Ethylbenzene	624	100-41-4	10	53
Methylene Chloride	624	75-09-2	10	ND
1,1,2,2-Tetrachloroethane	624	79-34-5	10	ND
Tetrachloroethylene	624	127-18-4	10	ND
Toluene	624	108-88-3	10	351
1,1,1-Trichloroethane	624	71-55-6	10	ND
1,1,2-Trichloroethane	624	79-00-5	10	ND
Trichloroethylene	624	79-01-6	10	ND
Trichlorofluoromethane	624	75-69-4	10	ND
Vinyl Chloride	624	75-01-4	10	ND

ND = None Detected

C-2

* EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

Page 13

Lab No. 85-10138(A)

BASE/NEUTRAL COMPOUNDSSample Number: ZFinal Extract Volume 1 ml.Sample Size : 1000 mls.Volume Injected: 2 μ ls.

Internal Std. Concs.(total ngs.)

 d_{10} -Anthracene 50 ng/ μ ls.

Surrogate Std. Concs.(total ngs.)

 d_8 -Naphthalene 100 ng/ μ ls. d_5 -Nitrobenzene 120 ng/ μ ls.

<u>Parameter</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Method Detection Limit (ppb)*</u>	<u>Found (ppb)</u>
Acenaphthene	625	83-32-9	10	ND
Acenaphthylene	625	208-96-8	10	ND
Anthracene	625	120-12-7	10	ND
Benzo (a) anthracene	625	56-55-3	10	ND
Benzo (b) fluoroanthene	625	205-99-2	10	ND
Benzo (k) fluoroanthene	625	207-08-9	10	ND
Benzo (a) pyrene	625	50-32-8	10	ND
Benzo (g,h,i) perylene	625	191-24-2	25	ND
Benzidine	625	92-87-5	10	ND
Bis (2-chloroethyl) ether	625	111-44-4	25	ND
Bis (2-chloroethoxy) methane	625	111-91-1	10	ND
Bis (2-ethylhexyl) phthalate	625	117-81-7	10	ND
Bis (2-chloroisopropyl) ether	625	39638-32-9	10	ND
4-Bromophenyl phenyl ether	625	101-55-3	10	ND
Butylbenzylphthalate	625	85-68-7	10	ND
2-Chloronaphthalene	625	91-58-7	10	ND

ND = None Detected

C-3

*EPA published method detection limit

6 of 10

NEW YORK TESTING LABORATORIES, INC.

Page 14

Lab No.85-10138(A)

BASE/NEUTRAL COMPOUNDS - cont'd.

Sample Number: Z

<u>Parameter</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Method Detection Limit (ppb) *</u>	<u>Found (ppb)</u>
4-Chlorophenylphenylether	625	7005-72-3	10	ND
Chrysene	625	218-01-9	10	ND
Dibenzo (a,h) anthracene	625	53-70-3	25	ND
DiButyl phthalate	625	84-74-2	10	< 10
3,3' -Dichlorobenzidine	625	91-94-1	10	ND
Diethylphthalate	625	84-66-2	10	< 10
Dimethylphthalate	625	131-11-3	10	ND
2,4-Dinitrotoluene	625	121-14-2	10	ND
2,6-Dinitrotoluene	625	606-20-2	10	ND
Di-octyl-phthalate	625	117-84-0	10	ND
1,2-Diphenylhydrazine	625	112-66-7	10	ND
Fluoroanthene	625	206-44-0	10	ND
Fluorene	625	86-73-7	10	ND
Hexachlorobenzene	625	118-74-1	10	ND
Hexachlorobutadiene	625	87-68-3	10	ND
Hexachloroethane	625	67-72-2	10	ND
Hexachlorocyclopentadiene	625	77-47-4	10	ND
Indeno (1,2,3-cd) pyrene	625	193-39-5	10	ND
Isophorone	625	78-59-1	10	ND
Naphthalene	625	91-20-3	10	< 10
Nitrobenzene	625	98-95-3	10	ND

ND = None Detected

< = Less than

*EPA published method detection limit

NEW YORK TESTING LABORATORIES, INC.

Page 15

Lab No. 85-10138(A)

BASE/NEUTRAL COMPOUNDS - cont'd.

Sample Number: Z

<u>Parameter</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Method Detection Limit (ppb)*</u>	<u>Found (ppb)</u>
n-Nitrosodimethylamine	625	62-75-9	25	ND
n-Nitrosodi-N-propylamine	625	621-64-7	10	ND
n-Nitrosodiphenylamine	625	86-30-6	10	ND
Phenanthrene	625	85-01-8	10	ND
Pyrene	625	129-00-0	10	ND
1,2,4-Trichlorobenzene	625	120-82-1	10	ND
2,3,7,8-Tetrachlorodibenzo -p-dioxin	625	1746-01-6	--	ND

ND = None Detected

* EPA published method detection limit

8 8 10

NEW YORK TESTING LABORATORIES, INC.

Page 16

Lab No. 85-10138(A)

ACID COMPOUNDS:

Sample Number: Z

Final Extract Vol. 1 ml.

Sample Size: 570 mls.

Volume Injected: 2 μ ls.

Internal Std. Concs. (total ngs.)

d10 Anthracene 50

Surrogate Std. Concs. (total ngs.)

pentafluorophenol 250

<u>Parameter</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Method Detection Limit (ppb)*</u>	<u>Found (ppb)</u>
4-Chloro-3-methylphenol	625	59-50-7	25*	ND
2-Chlorophenol	625	95-57-8	25	ND
2,4-Dichlorophenol	625	120-83-2	25	ND
2,4-Dimethylphenol	625	105-67-9	25	ND
2,4-Dinitrophenol	625	51-28-5	25	ND
2-Methyl-4-6-dinitrophenol	625	534-52-1	25	ND
2-Nitrophenol	625	88-75-5	25	ND
4-Nitrophenol	625	100-02-7	25	ND
Pentachlorophenol	625	87-86-5	25	ND
Phenol	625	108-95-2	25	ND
2,4,6-Trichlorophenol	625	88-06-02	25	ND

ND = None Detected

*EPA published method detection limit

9810

NEW YORK TESTING LABORATORIES, INC.

Page 17

Lab No. 85-10138(A)

PESTICIDE COMPOUNDS:

Sample Number: Z

Sample Size: 500 mls.

Extract Volume 1.0 ml

Volume Inj. 5 μ l

<u>Parameter</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Limit (ppb)</u>	<u>Found (ppb)</u>
Aldrin	608, 625	309-00-2	10*	ND
α -BHC	608, 625	319-84-6	10	ND
β -BHC	608, 625	319-85-7	10	ND
δ -BHC	608, 625	319-86-8	10	ND
γ -BHC	608, 625	58-89-9	10	ND
Chlordane	608, 625	57-74-9	10	ND
Dieldrin	608, 625	60-57-1	10	ND
α -Endosulfan	608, 625	959-98-8	10	ND
β -Endosulfan	608, 625	33213-65-9	10	ND
Endosulfan sulfate	608, 625	1031-07-08	10	ND
Endrin	608, 625	72-20-8	10	ND
Endrin aldehyde	608, 625	7421-93-4	10	ND
Heptachlor	608, 625	76-44-8	10	ND
Heptachlor Epoxide	608, 625	1024-57-3	10	ND
4,4'-DDT	608, 625	50 29-3	10	ND
4,4'-DDE	608, 625	72-55-9	10	ND
4,4'-DDD	608, 625	72-54-8	10	ND
PCB 1016	608, 625	12674-11-2	10	ND
PCB 1221	608, 625	11104-28-2	10	ND
PCB 1232	608, 625	11141-16-5	10	ND
PCB 1242	608, 625	53469-21-9	10	ND
PCB 1248	608, 625	12672-29-6	10	ND
PCB 1254	608, 625	11097-69-7	10	ND
PCB 1260	608, 625	11096-82-5	10	ND
Toxaphene	608, 625	8001-35-2	10	ND

ND = None detected

C-7

*EPA published method detection limit

10 Q 10

NEW YORK TESTING LABORATORIES, INC.

Page 18

SAMPLE IDENTIFICATION NO. Z

Lab No. 85-10138(A)

METALS AND PHYSICAL CHEMISTRY

<u>Parameters (ug/l)</u>	<u>Method No.</u>	<u>CAS #</u>	<u>Method Detection Limit*</u>	<u>Found</u>
Cyanide, Total	335.2	57-12-5	20	20
Phenols, Total	420.1	--	5	362.
Antimony	204.1	7440-36-0	200	< 100
Arsenic	206.2	7440-38-2	1	16
Beryllium	210.1	7440-41-7	5	17
Cadmium	213.1	7440-43-9	5	7
Chromium	218.1	7440-47-3	50	25
Copper	220.1	7550-50-8	20	59
Lead	239.1	7439-92-1	100	234
Mercury	245.1	7439-97-6	0.2	1
Nickel	249.1	7440-02-0	40	105
Selenium	270.2	7782-49-2	2	8
Silver	272.1	7440-22-4	10	< 6
Thallium	279.1	7440-28-0	100	< 50
Zinc	289.1	7440-66-6	5	872.

< = Less than

*EPA published method detection limit

COUNTY OF SUFFOLK

Appendix 1.146

Received from:
Suffolk Co. Dept. of
Health



OCT 28 1980

pl/4

DEPARTMENT OF HEALTH SERVICES

October 24, 1980

SUFFOLK COUNTY
HEALTH SERVICES
DAVID HARRIS, M.D., M.P.H.
COMMISSIONER

Ms. Jennifer P. Clevidence
Member, Board of Directors
Brookhaven Village Association
Brookhaven, New York 11719

Dear Ms. Clevidence:

Thank you for bringing the problem of drinking water in the Hamlet of Brookhaven and the possibility of leachate leakage through the polyvinyl liner at the landfill in Yaphank to my attention. The Suffolk County Health Department does not have any data to substantiate that the liner has failed. We have contacted a few units in this department and outside agencies and have not been able to find the source of the statement made.

As for the quality of water in Brookhaven Hamlet, your organization had requested a survey of private wells in the Hamlet of Brookhaven in 1979. The survey revealed that at that time, no indication of leachate contamination was detected. It should be pointed out that the report did indicate elevated sodium and chloride concentrations which were caused by the proximity of wells tested to saline surface water bodies. I am attaching a copy of that report for your information.

I would like to assure you that the Suffolk County Department of Health Services will continue to monitor the groundwater in the vicinity of landfills, and we will keep your Organization informed of any future developments. Should you have any questions regarding this matter, please feel free to contact Dr. Zaki, Director of Disease Control and Environmental Health Services at 435-2758.

Sincerely,

David Harris, M.D., M.P.H.
Commissioner

DH:mb

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
SMITHTOWN, NEW YORK

170/6

TO: Dr. Zaki
FROM: Dennis Moran - Water Quality Unit DM
DATE: October 16, 1980
SUBJECT: Brookhaven Village Association
Letter of September 25, 1980

I have investigated the matter concerning the Brookhaven Landfill site at Yaphank. In the letter from the Brookhaven Village Association, reference is made to the County Executive's annual environmental report which indicates that high concentrations of chlorides suggest that leachate is penetrating the polyvinyl chloride liner at the landfill site. I have been unable to find the source of this contention. The Water Quality Unit does not have any data to substantiate this claim, and checking with Joe Baier, he indicated that he has no data or test wells in this area either. I also checked with Jim Heil, who is the manager of the landfill site, and he indicated that when the report was written he checked with the Planning Department, who apparently wrote the report for the County Executive. At that time, they were unable to specify where the contention originated that the landfill may be leaching into the groundwater. He also noted that he had received a letter from the Planning Department indicating that this statement may be in error.

Based on the above investigation, there is no way that we can send the Brookhaven Village Association information regarding monitoring wells since we do not have any in this area. It should, however, be noted that in early 1979 the Water Quality Unit did do a small survey in the Hamlet of Brookhaven at the request of the Brookhaven Village Association. At that time, we did not find any indication of landfill leachate. Elevated sodium and chloride concentrations were detected; however, they were considered to be due to the proximity of the homes tested to saline surface water bodies. A copy of that report is attached herewith.

As part of our continuing private well survey around landfills for vinyl chloride, we will attempt to find some homes near the Yaphank landfill for testing. At present, my understanding is that there are very few homes in close proximity of the landfill from which we will be able to obtain samples. However, we will do our best.

I am attaching herewith a draft response to the Brookhaven Village Association.

DM/jdm
Att.

SUFFOLK COUNTY DEPARTMENT OF HEALTH & SERVICES
HAUPPAUGE, NEW YORK

P. 3/16

WATER QUALITY SURVEY

PRIVATE WELLS, BROOKHAVEN HAMLET

In response to requests from homeowners in the Brookhaven Hamlet area since March 2, 1979 and a March 8, 1979 request of the Brookhaven Village Association, the Water Quality Unit collected 64 well samples from street locations listed in Appendix I. All samples were submitted for chemical and bacteriological analyses.

Of these, 51 sample analyses included synthetic organic constituents.

The results of these analyses indicated that all private wells sampled were within recommended limits for synthetic organic constituents. No synthetic organics were detected in 44 of the 51 wells sampled. Results of inorganic chemical analyses indicated concentrations of iron and/or manganese in many cases. Concentrations of nitrates exceeding standards were encountered in two homes. A detectable concentration of detergents was encountered in one home. Bacteriological quality was acceptable in all samples. The following is a summary of the results of the survey:

<u>Organics</u>	<u>No. of Wells</u>	<u>% of Wells</u>
Exceed N.Y.S. Guidelines	0	0
Detectable Traces	7	14%
No organics Detected	44	86%

<u>Organic Constituent Detected</u>	<u>Highest Concentration Encountered</u>
Trichloroethane	7 parts per billion
Chloroform	5 parts per billion

p. 1/10/76

Brookhaven Hamlet

Other Chemical Parameters

	<u>No. of Wells Exceeding Standards</u>	<u>% of Wells Exceeding Standards</u>	<u>Max. Concentration Encountered</u>
Nitrates	2	3%	22.2 mg/l
Detergents	0	0	0.1 "
Chlorides	0	0	200 "
Sulfates	0	0	50 "
Iron	29	45%	2.35 "
Manganese	6	9%	3.85 "
Copper	0	0	0.5 "
Zinc	2	3%	9.3 "

In addition to the listed chemical parameters, elevated concentrations of sodium were found in six wells.

The results indicate that the wells sampled show few effects of unnatural influences. While 29 wells did exhibit iron (or iron and manganese) which could cause staining of laundry and fixtures and certain off-tastes, these concentrations are quite representative of shallow wells on the south shore. The iron and manganese concentrations are naturally occurring, and are not considered to pose a hazard to health. The aesthetic effects of the iron and manganese can easily be dealt with by acceptable home water treatment methods.

The elevated concentrations of sodium and chloride encountered at six locations are considered to be due to the proximity of those wells to saline surface water bodies. Elevated sodium is normally considered to be significant to those individuals on low sodium diets.

All samples were collected between March 6 and July 25, 1979.

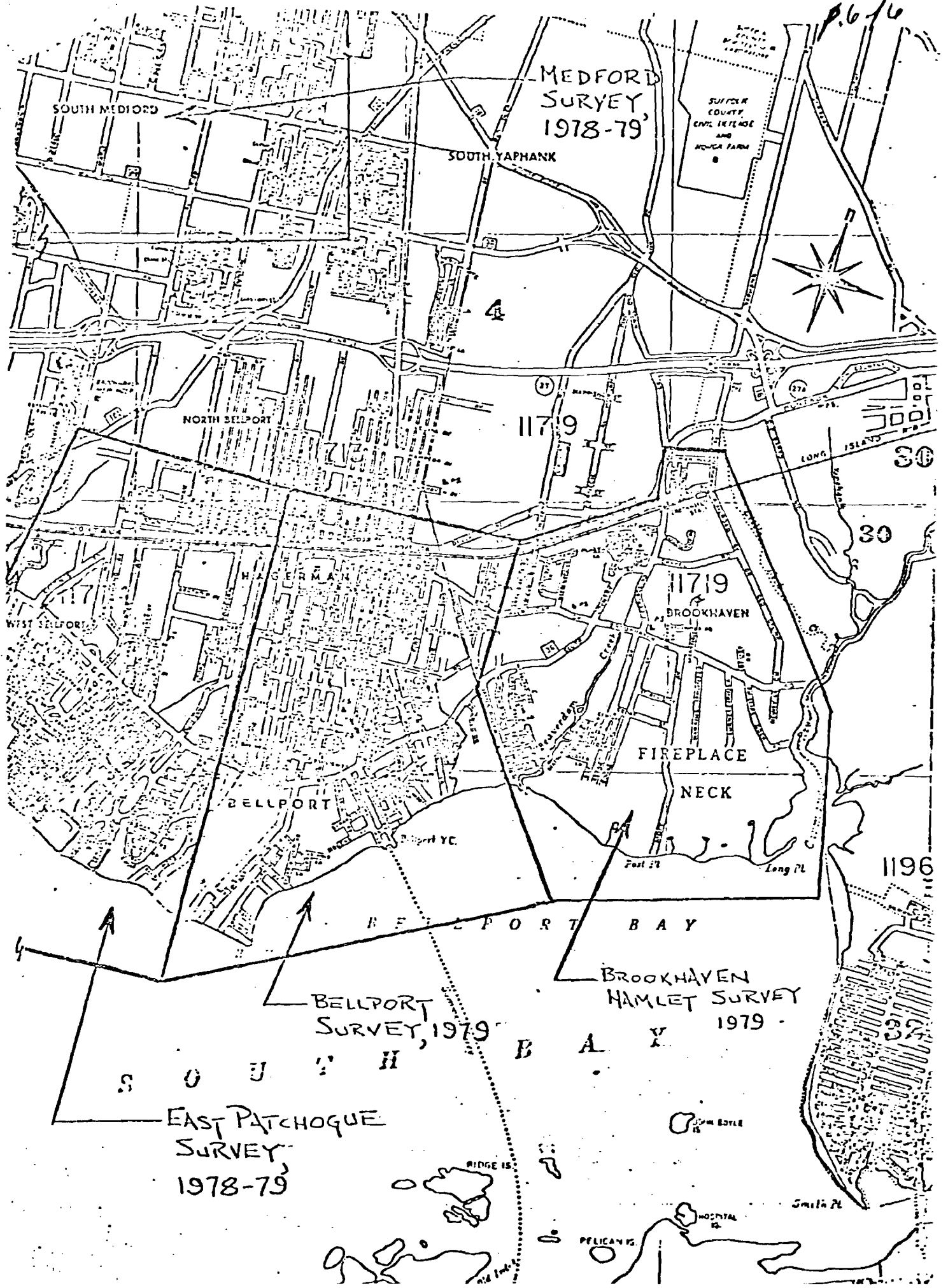
p. 5 of 6

Locations Sampled - Brookhaven Hamlet

- Arthur Ave.
- Astor Street
- Atlantic St.
- Bay Lane
- Bay Road
- Beaver Court
- Beaverbrook Dr.
- Beaver Dam Rd.
- Bond Lane
- Chapel Ave.
- Edgar Ave.
- Epson Course
- Fireplace Lane
- Hawkins Lane
- Highview Blvd.
- Lindner Court
- Locust Road
- Meadow Lane
- Montauk Highway
- Motts Lane
- Newey Lane
- South Country Rd.
- Old South Country Rd.
- Old Stump Road
- Pine Street

- Trouts Pond Court

P. 6 16



SOUTH MEDFORD

MEDFORD SURVEY, 1978-79

SUFFOLK COUNTY CIVIL DEFENSE AND RESCUE TEAM

SOUTH YAPHANK



4

NORTH BELLPORT

1179

LONG ISLAND

30

WEST BELLPORT

BELLPORT

FIREPLACE

NECK

1179

BROOKHAVEN

1196

BELLPORT BAY

BELLPORT SURVEY, 1979

BROOKHAVEN HAMLET SURVEY 1979

SOUTH BAY EAST PATCHOQUE SURVEY 1978-79

ST. JOHN'S CHURCH

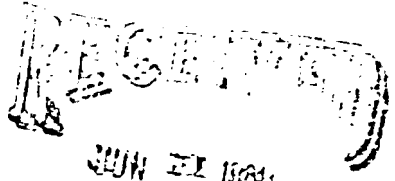
RIDGE IS.

PELICAN PT.

HOSPITAL IS.

SMITH PT.

Received from:
Suffolk Co. Dept. of
Health



JUN 11 1981

TOWN OF BROOKHAVEN

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF SANITATION
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

SUFFOLK CO. DEPT. OF HEALTH SERVICES

654-7954-55-56

June 10, 1981

Mr. Morris Bruckman, P.E.
NYS Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

Dear Mr. Bruckman:

On Wednesday, June 3, Lawrence Aviation Inc. of Port Jefferson brought a truck load of waste materials to the Horseblock Road site for disposal.

The load ignited and caused a fire.

In a subsequent conversation with Clyde Davis, the Plant Manager it was determined that the load contained grindings of titanium alloys. We have been taking the material on a weekly basis. It is usually wetted down. On this occurrence it was dry.

Is this material considered hazardous?

Very truly yours,

James H. Heil
James H. Heil,
Acting Director

Robert W. Davis, Commissioner
Maloney, S.C.D.H. ✓

you
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Brookhave
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sal o

COUNTY OF SUFFOLK

Received from:
Suffolk Co. Dept. of
Health



PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

MEMORANDUM

TO: WILLIAM C. ROBERTS, P.E.
FROM: JAMES C. MALONEY, P.E.
DATE: 8/27/81
RE: ILLEGAL DUMPING OF WASTE OIL AND OTHER MATERIALS
AT THE BROOKHAVEN TOWN LANDFILL

On Monday, August 24, 1981, I received a telephone call from Mr. Cary Kessler of Assemblyman Bianchi's office concerning alleged illegal dumping of waste oil and other materials during the night at the above named facility.

On 8/25/81 I contacted Mr. Heil of the Town of Brookhaven who indicated that he had allowed Mr. Sheridan of Sheridan Oil to discharge oil-contaminated waste at the Brookhaven Town facility. This permission was given by Mr. Heil with the knowledge that Mr. Sheridan was working on an engineering solution to this waste water problem and there would not be a need in the future for continued dumping.

Mr. Heil did not obtain the permission of the State or the County for such dumping. I provided this information to Mr. Kessler on 8/25/81. Mr. Kessler indicated that he would contact his sources to determine whether they had information that would warrant further investigation.

On 8/26/81 I received a telephone call from Mr. William Luck (telephone #654-1976). Mr. Luck indicated that neighbors had noted that trucks were leaving after hours and disposing of material, and that a worker at the Brookhaven Town landfill who will not identify himself publically, informed Mr. Luck that illegal dumping was going on at night. If this is true, I feel that this information should be provided to the District Attorney's office for investigation and possible criminal prosecution.

JCM:daf

cc: Roy Gilbert

Jim, P.E., P.E.



Received
NYDEC
BUREAU OF Remedial Action

FILE COPY

11/29

New York State Department of Environmental Conservation

MEMORANDUM

RECEIVED

NOV 23 1984

BUREAU OF REMEDIAL ACTION
DIVISION OF SOLID AND
HAZARDOUS WASTE

TO: Norman Nosenchuck, Director, Division of Solid/Hazardous Waste
FROM: Philip Barbato, RSWE, Region I PB
SUBJECT: Request for Drum Removal Program Assistance
DATE: November 15, 1984

Two groups of discarded fifty-five (55) gallon steel drums containing liquid wastes were discovered by the Town of Brookhaven and transported to their municipal landfill in Yaphank.

The first group of drums was comprised of twenty-two (22) drums and the second group was comprised of thirteen (13) drums. Both groups are suspected to have been discarded by a local paint shop, but this has not been formally determined. Therefore, we are requesting the assistance of the Drum Removal Program to finance the removal, transportation and disposal of the drums.

Samples from the drums were taken by this office and submitted to our division's Mobile Laboratory stationed at Jones Beach this year. Field and analytical testing results are attached and indicate that most of the wastes are flammable non-chlorinated organic liquids. Pictures and a sketch of the location of the drums are also attached.

We have spoke to Frank Ricotta regarding this matter. Frank has indicated that Drum Removal Program funds would be available for this work.

Please advise so that we may proceed with the information of a Request for Proposal to send to local hazardous waste cleanup contractors.

PB:dm
cc: R. White

To → Do Not

22724 w/Reg I.

Copy sent
on bottom
of page

ll
21/84

Copy to:
MUTSONE
D. KW G
P. BARBATO - Reg I



Received
 NYDEC
 New York State Department of Environmental Conservation

File
 12-129

MEMORANDUM

TO: Philip Barbato, Regional Solid Waste Engineer, Region 1
FROM: Frank T. Ricotta, Supervisor, Central Remedial Section, Bureau of Remedial Action
SUBJECT: Drum Removal - Town of Brookhaven *Frank Ricotta*
DATE: November 29, 1984

We will be moving ahead with the removal of the drums of hazardous wastes in the Town of Brookhaven.

In your memorandum of November 15, 1984 to Norman Nosenchuck, you mention that there were analytical testing results and site information attached. This information was not found with the memorandum. It is needed prior to contacting contractors qualified to clean up the site.

As per your telephone conversation of November 27, 1984 with Angelo Marcuccio of my staff, you will be sending this information to me. Angelo will be coordinating the cleanup effort from this office.

If you have any questions, please contact Angelo at 518/457-5677.

cc: N. Nosenchuck
 A. Marcuccio

Received
 NYDEC
 Dept. of Remedial Action

Do not
 copy
 or bottom
 of page



Received
NYDEC
REPT of Remedial Action

F. Biondo
3/29

New York State Department of Environmental Conservation

MEMORANDUM

TO: Commissioner Williams THRU: Darryl Banks, Deputy Commissioner
FROM: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
SUBJECT: Conceptual Approval for Expedited Procurement Procedures to Dispose of
DATE: Hazardous Waste Drums and Contaminated Soil at the Brookhaven Town Landfill,
Brookhaven (T), Suffolk County

FEB 04 1985

Summary: The Brookhaven Landfill, located in the Town of Brookhaven, Suffolk County, contains approximately 35 drums of various hazardous wastes. These drums are in varied states of deterioration and present an imminent hazard to the public health and environment. The Division of Solid and Hazardous Waste proposes to remove the surficial drums and any obviously contaminated soil to prevent further contamination to the groundwater under expedited procurement procedures. Funds for this action will come from the State Superfund. The estimated cost is \$8,750.00.

Background: Over the period of 1983-84, 35 barrels of hazardous waste were abandoned on Brookhaven Town Highway right-of-ways. As these abandoned barrels were found, the Town of Brookhaven temporarily stored the wastes at the Brookhaven Town Landfill. Samples of the barrel contents were analyzed by the Division of Solid and Hazardous Waste's mobile laboratory and found to be ignitable (i.e. solvents). The potable water supplies for local residents come solely from the groundwater aquifer.

Discussion: The primary threat to the environment at this site is leakage of hazardous materials from the deteriorated drums. The Division of Solid and Hazardous Waste proposes to remove this threat by the removal of all drums and obviously contaminated soil from the site as soon as possible.

A disposal contractor will be selected for the cleanup through an expedited competitive bidding process. The contract will be awarded to the lowest, responsive responsible bidder.

Cost: It is estimated that the total cost for the disposal services outlined above will be approximately \$8,750.00.

Funding Source: Funding will be provided through the State Superfund.

Due Date: In order to minimize any potential threat to the public and environment, the site should be cleaned up as soon as possible.

4/2/26

Affirmative

Action:

A good faith effort will be made to solicit bids from minority business enterprises (MBE) and women's business enterprises (WBE). The Department of Commerce listing of MBE/WBE firms has been examined to identify potential contractors. At this point in time, none are listed that also possess the required NYSDEC Part 364 waste transporter permit.

The size of the contract is too small to be broken into lesser units to subcontract. Work will consist of the pickup of drums in one vehicle and transportation of the wastes to an approved disposal facility. One day of work will be required. If any MBE/WBE firms can be identified prior to the solicitation of bids, they will be sent requests for bids.

Alternative:

None. Other than State Superfund, there are no funding sources for this cleanup and the drums will remain improperly stored at a facility not permitted for this purpose. Responsible parties are unknown and impossible to identify.

Action

Requested:

I request your conceptual approval of a contract for the ultimate disposal of hazardous waste barrels and contaminated soil at the Brookhaven Landfill Site in Brookhaven (T), Suffolk County.

cc: L. Marsh
R. Torkelson
R.D. Banks
R. Lynch
J. Marcy
W. Wilson
J. Portnoy

DJC/bhy

bcc: N. Nosenchuck (2)
M. O'Toole
W. Wilkie
D. King
✓ F. Ricotta
L. Tierney
D. Curtis
P. Barbato, Region 1

Received from
NYSDEC Region 1

REQUEST FOR PROPOSALS
CLEANUP OF HAZARDOUS WASTE

Brookhaven Town Barrel Sites
Brookhaven (T), Suffolk County

5/29
3/15/85
Dave Curtis
f.

The State of New York Department of Environmental Conservation is seeking the services of a qualified remedial action cleanup firm to: analyze, package, transport and dispose of barrels of hazardous waste and contaminated soil and debris at sites located in the Town of Brookhaven, Suffolk County. This will include the proper disposal of surface barrels and contaminated soil.

I. Site Information

Site Description

Barrels to be removed under this contract are barrels containing hazardous wastes that were abandoned by unknown disposers on Town of Brookhaven right-of-ways. As barrels were found, Town of Brookhaven Highway crews brought the wastes to three (3) sites within the Town for temporary storage. Two (2) sites are located at the Town Landfill while the third site is located at the Town Highway garage.

Site Location

The Brookhaven Town Barrel Sites are located at the Town of Brookhaven Highway Department and at the Town Landfill. Attached is a map referencing the site locations to be remediated.

Scope of Work

This Request for Proposals is being distributed in order to procure the services of qualified firms specializing in the removal and cleanup of drums of hazardous materials, contaminated soil and debris to a State approved treatment, storage and disposal facility. The work will include performing sampling and analyses for disposal and to determine compatibility. The contractor must provide all necessary personnel, equipment, materials and supplies. All equipment and materials utilized for removal operations must be either disposed or decontaminated to the satisfaction of the New York State Department of Environmental Conservation before removal from the site.

Samples have been collected on many of the hazardous wastes abandoned at these sites. Attached are the results of the analysis already obtained. This sampling may or may not be demonstrative of all analyses required by the Treatment, Storage and Disposal Firm to accept the wastes for proper disposal. It is the responsibility of the contractor to sample and obtain all analysis required to properly dispose of all wastes specified.

The contractor must demonstrate that he has experience in drum removal. The contractor is to identify the State and federally approved disposal facility to be utilized.

62125

II. Proposal Information

Authorized Representative

It is understood and agreed between the parties that the New York State Department of Environmental Conservation Authorized Representative for implementation of this Agreement, or for approval and direction called for therein, shall be Norman H. Nosenchuck, P.E., Director, Division of Solid and Hazardous Waste or his designated representative.

Issuing Office

This Request for Proposals is issued by the Division of Solid and Hazardous Waste of New York State Department of Environmental Conservation. That issuing office is the sole point of contact in the State for the purposes of this proposal. All correspondence should be directed to:

Norman H. Nosenchuck, P.E.
Director
Division of Solid and Hazardous Waste
New York State Department of Environmental Conservation
50 Wolf Road, Room 209
Albany, New York 12233-0001

Submittal Office

All proposals will be received and opened by:

Contract Unit
Division of Fiscal Management
New York State Department of Environmental Conservation
50 Wolf Road, Room 619
Albany, New York 12233-0001

On-Scene Coordinator

The New York State Department of Environmental Conservation will provide an on-scene coordinator at the work site as the designated representative of the Director of the Division of Solid and Hazardous Waste. The on-scene coordinator will have responsibility and authority for field surveillance duties.

Cost Liability

The State of New York assumes no responsibility and no liability for costs incurred by firms to issuance of an Agreement, Contract or Purchase Order.

Revisions to the Request for Proposals

In the event it becomes necessary to revise any part of the Request for Proposals, revisions will be provided to all firms who received the initial Request for Proposals. Any revisions to the Request for Proposals will be mailed by certified mail, return receipt requested at least ten (10) calendar days prior to the response date listed below.

Response Date

In order to be considered for selection, proposals must be received at the submittal office by 4:00 p.m., local time, March 22, 1985. Firms mailing proposals should allow for normal mail delivery time to ensure timely receipt of their proposals by the submittal office.

PROPOSALS NOT RECEIVED BY 4:00 P.M. LOCAL TIME ON THE ABOVE DATE WILL BE REJECTED.

Pre-Proposal Conference

All proposers will be required to attend a Pre-Proposal Conference to discuss special requirements for the contract, to be held on March 15, 1985 at 10:00 a.m., prevailing local time, at the Brookhaven Town Landfill, Horseblock Rd., Brookhaven, New York. Attendance is mandatory as a condition of this Request for Proposals. The New York State Department of Environmental Conservation will accept proposals from only those proposers who attend the conference.

Response to the Request for Proposal

In order to be considered for selection, firms must submit a complete response to this proposal. Five original signed copies of each proposal must be submitted to the submittal office. No other distribution of the proposal shall be made by the proposer.

Cost Proposal

The cost proposal must outline the various rates at which the contractor will bill the State of New York for services to be performed. This cost should be stated as unit prices for each of the categories listed. Unit prices are to include all costs for analysis, handling, disposal, transport, overhead, profit, etc. Unit prices are to be both numerical and written. In case of any discrepancy, the written price shall govern.

Measurement for Payment

The method of payment shall be unit pricing. The unit prices stated in the bid are to include all costs associated with the analysis, handling, packaging, transport and disposal of the hazardous wastes, containers, and contaminated soil. Measurement for repack and overpack drums will be made at the actual number of each type drum furnished as determined by the NYSDEC on-scene coordinator. The contractor shall at all times, as far as practical, utilize the full volume of each drum.

Subcontractors

The contractor shall advise the Director of the Division of Solid and Hazardous Waste or his representative and receive prior written authorization before subcontracting for any work, services, materials, supplies or equipment under this contract to any other person, company, corporation, firm, organization or agency.

At no time will a contractor be allowed to use, as a subcontractor, any cleanup firm which is itself under direct contract to New York State for the same type of work, without prior written permission by the Director or his representative.

Performances and/or Delivery of Service

The Director of the Division of Solid and Hazardous Waste may take into consideration, in recommending a contract award, any information obtained regarding the Contractor's ability to supply and/or render the service.

Price Changes

All prices shall be firm and not subject to increase during the contract period.

Ownership of Material

Ownership of all data, material, documentation originated and prepared for the New York State Department of Environmental Conservation pursuant to this contract shall belong exclusively to the Department. The Department shall not be deemed to be the owner of any hazardous wastes subjected to disposal pursuant to this agreement.

Accounting Records

The Contractor is required to maintain accounting records and other evidence pertaining to the labor, equipment, and materials utilized in providing services for the program and to make the records available to the New York State Department of Environmental Conservation and the State Comptroller at all reasonable times during the contract period and for three full years from the date of the final payment.

Regulatory Standards

Compliance with the following regulations as presently exists or as amended will be required, if applicable.

Federal Regulations

Title 40 CFR Parts 260-265, 267 and 761

State Regulations

6 NYCRR Part 360, 364-366

Manifest

The contractor shall prepare all necessary hazardous waste manifests. The New York State Department of Environmental Conservation will act as the generator and will provide an EPA Generator Identification Number. Completed manifest forms should be returned to the NYSDEC, Division of Solid and Hazardous Waste, Bureau of Remedial Action, Room 414, Albany, New York 12233.

Page

Award of Contract

The New York State Department of Environmental Conservation intends to award this contract within 45 days after the opening of the proposals. Proposals may be withdrawn any time prior to the scheduled time for the opening of the proposals.

Acceptance of the proposal will be made by a written Notice of Award from the New York State Department of Environmental Conservation to the successful proposer.

Award will be made to the qualified firm submitting the lowest responsive, responsible proposal.

The New York State Department of Environmental Conservation reserves the right to reject any and all proposals and to waive any informalities and to negotiate contract terms with the successful proposer.

Method of Payment

The State shall pay the Contractor the compensation set forth in his cost proposal by the following method:

1. Payment shall be made to the Contractor, in accordance with the rates set forth in his proposal, after receipt by the State of a correctly executed Contractor's Application for Payment.
2. The Contractor's invoice for work performed must be submitted in detail with the Contractor's Daily Work Report plus others as required by the New York State Department of Environmental Conservation. These daily reports will contain a brief explanation identifying services, material, work accomplished, and any conditions affecting these items.
3. An original and three (3) legible copies of the Contractor's Application for Payment together with all supporting documentation described above, must be submitted to the New York State Department of Environmental Conservation.
4. The New York State Department of Environmental Conservation shall notify the contractor, in writing, of satisfactory completion of work within 10 days after final completion of the site cleanup. No work will take place on site without written authorization from the Director of the Division of Solid and Hazardous Waste, or his designee.

Records

The Contractor shall maintain for a period of three years, complete, accurate and detailed records of all the personnel, equipment, materials and supplies devoted to the work performed under this agreement by it and others employed by it and others obliged to be employed by it. The New York State Department of Environmental Conservation may at all reasonable times audit such records.

CLEANUP OF HAZARDOUS WASTE AND CONTAMINATED SOIL AT THE
BROOKHAVEN TOWN BARREL SITE
BROOKHAVEN (T), SUFFOLK COUNTY

Waste Analysis, Handling, Transport and Disposal Costs

<u>Description</u>			<u>Estimated</u>	<u>Unit Price</u>	<u>Unit Price</u>	
<u>Item</u>	<u>Removal of Surface Drums (Landfill Site #1)</u>	<u>Unit</u>	<u>Quantity</u>	<u>Numerical</u>	<u>Written</u>	<u>Total</u>
I	Ia Organic liquids, low chlorine concentration <1% chlorine, <50ppm PCB, Flashpoint greater than 140°F	Per 55-gallon drum	6			
	Ib Organic liquids, low chlorine concentration <1% chlorine, <50 ppm PCB, Flashpoint less than 140°F	Per 55-gallon drum	8			
	Ic Organic liquids, high chlorine concentration >1% chlorine, <50ppm PCB, Flashpoint less than 140°F	Per 55-gallon drum	8			
	Id Contaminated Soil	Cubic Yards	5			
<u>Item</u>	<u>Removal of Surface Drums (Landfill Site #2)</u>	<u>Unit</u>	<u>Estimated</u>	<u>Unit Price</u>	<u>Unit Price</u>	<u>Total</u>
II	IIa Organic liquids, low chlorine concentration <1% chlorine, <50ppm PCB, Flashpoint greater than 140°F	Per 55-gallon drum	12			
	IIb Organic liquids, low chlorine concentration <1% chlorine, <50 ppm PCB, Flashpoint less than 140°F	Per 55-gallon drum	1			
	IIc Contaminated Soil	Cubic Yards	5			

10/1/20

Item	Removal of Surface Drums (Brookhaven Highway Garage)	Unit	Quantity	Numerical	Written
III	IIIa Organic liquids, low chlorine concentration <1% chlorine, 99% kerosene, <50ppm PCB	Per 55-gallon drum	1		
	IIIb Neutral aqueous liquid, <50ppm PCB, no cyanide, no sulfide, Hg 8.5ppm	Per 55-gallon drum	1		
	IIIc Neutral aqueous liquid, <50 ppm PCB, no cyanide, no sulfide, cd 3.1ppm, Pb 76.68ppm, Hg 3.0ppm, Se 1.16ppm	Per 55-gallon drum	2		
	IIId Organic liquids, high halogen concentration, >2% halides, <50ppm PCB	Per 5-gallon drum	2		
	IIIe 80% solids, 20% neutral aqueous liquid, Cr 72.83ppm Hg 36ppm Se 7.7ppm As 5.2ppm Ba 6.9ppm Low chlorine concentration <1%, 50ppm PCB	Per 55-gallon drum	1		

Total Cost _____

Firm Name

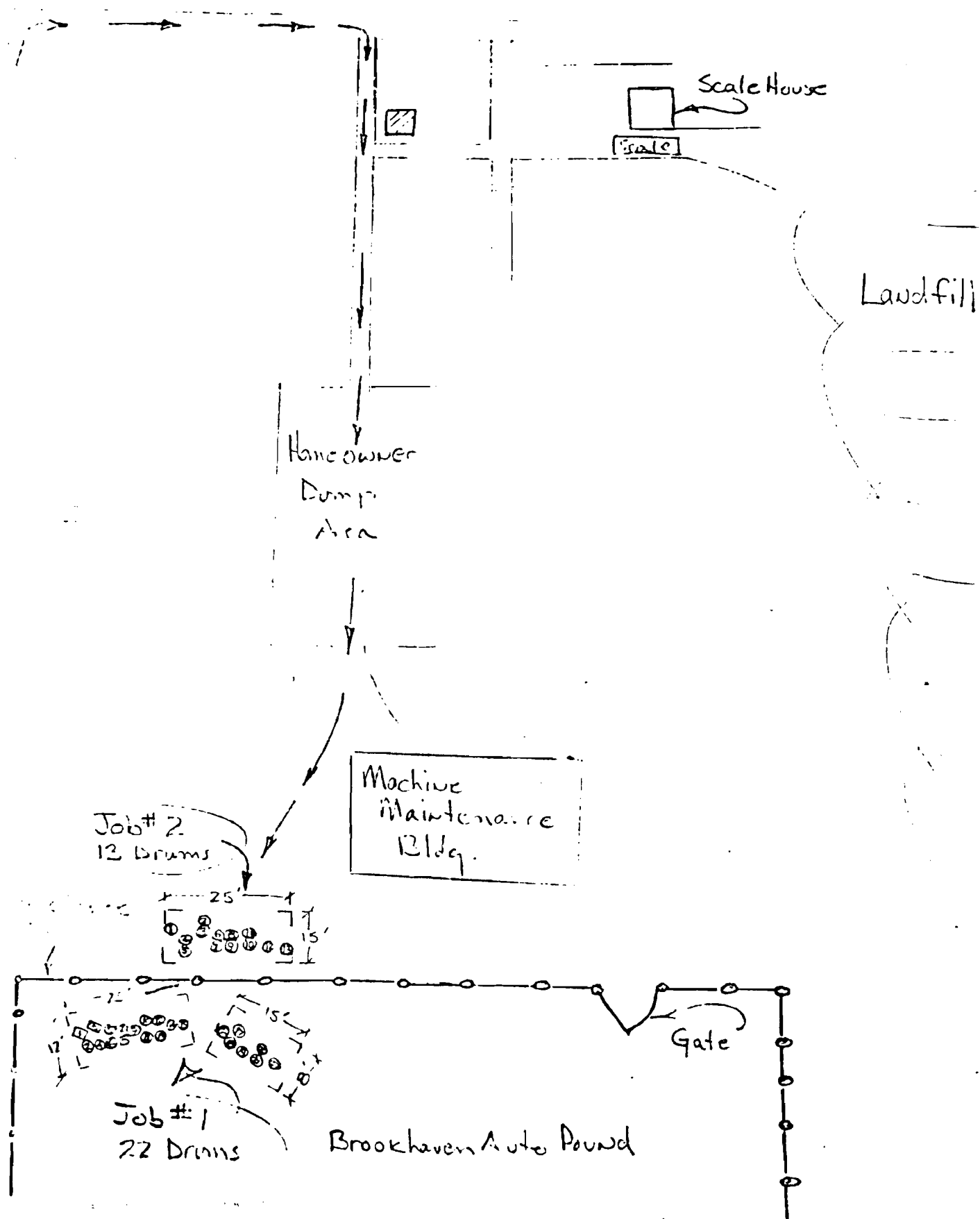
Written

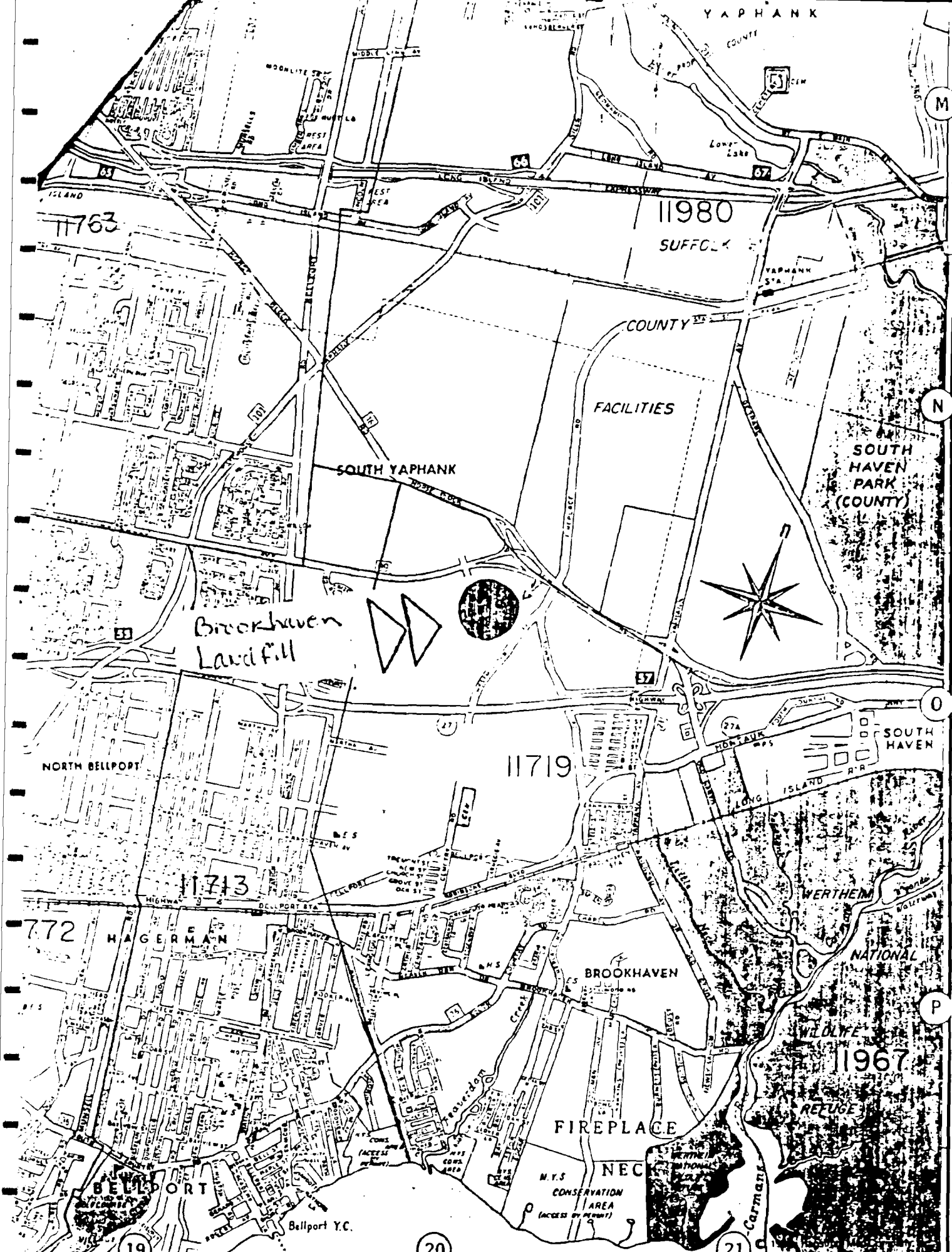
Address

Authorized Signature

10/25

Brookhaven Town Landfill





127
26

SEE MAP NO 18

FOR ADJOINING AREA SEE MAP NO 19

FOR ADJOINING AREA SEE MAP NO 16

VOLUMETRIC TECHNIQUES, LTD.
 317 BERNICE DRIVE
 BAYPORT, NEW YORK 11705
 516-472-4948

SANDER R. STERNIG
 DIRECTOR OF LABORATORIES

TO: Town of Brookhaven
 c/o Chemical Pollution Control
 120 South Fourth Street.
 Bay Shore, N.Y. 11706

SAMPLED BY CPC
 DATE: _____
 COLLECTED 6/4/84
 RECEIVED 6/4/84
 COMPLETED 6/25/84
 REPORTED BY [Signature]

III a

SAMPLE: #18 Flam-Liquid		Kerosene		SAMPLE No. 84060425	
PARAMETERS	RESULTS	PARAMETERS	RESULTS	PARAMETERS	RESULTS
pH	4.75	Total Dissolved Solids	kerosene		
	ppm (mg/l)*	Color	yellow		
Cadmium	0.02	Atmospheric Pressure	25		
Chromium, Total	0.07	Viscosity: SSU	28		
Chromium, Hexavalent	0.01	Organic	x		
Copper	0.31	Layered	None		
Iron	2.62	BTU/GAL.	170,000.0		
Nickel	0.05	Flash Point, °C	37		
Silver	0.06	Chloride Halogenated, %	None		
Zinc	1.34	Sulfur Halogenated, %	None		
Lead	2.8	Cyanide	None		
Mercury	<0.01	Ash %	None		
Selenium	0.5	Specific Gravity	0.810		
Arsenic	0.3	Make-Up %	Kerosene 99+		
Barium	0.01		Metal 0.01		

*Unless otherwise noted

TESTS ARE CONDUCTED IN ACCORDANCE WITH 40 CFR
 261 APPENDIX II, EPA TOXICITY TEST PROCEDURE.
 AND SW-846 "TEST METHODS FOR EVALUATING SOLID WASTE"

Comments:

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

SANDER R. STERNIG
 DIRECTOR OF LABORATORIES

TO: Town of Brookhaven
 c/o Chemical Pollution Control
 120 South Fourth Street
 Bay Shore, N.Y. 11706

SAMPLED BY CPC
 DATE _____
 COLLECTED 6/4/84
 RECEIVED 6/4/84
 COMPLETED 6/25/84
 REPORTED BY _____

III b

SAMPLE:

#19 Unknown PH 6-0

SAMPLE No.
 84060424

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	8.15	Total Dissolved Solids	24,780.0
	ppm (mg/l)*	Color	clear
Cadmium	0.09	Atmospheric Pressure	5
Chromium, Total	< 0.01	Viscosity: SSU	28
Chromium, Hexavalent	0.01	Organic	None
Copper	0.05	Layered	None
Iron	0.28	BTU/GAL.	None
Nickel	0.29	Flash Point, °C	None
Silver	5 ppm 0.02	Chloride Halogenated, %	None
Zinc	0.05	Sulfur Halogenated, %	None
Lead	5 ppm 0.33	Cyanide	None
Mercury	8.5	Ash %	None
Selenium	< 0.01	Specific Gravity	1.050
Arsenic	2.4	Make-Up %	Salts 2.5
Barium	0.01		Water 97+

*Unless otherwise noted

TESTS ARE CONDUCTED IN ACCORDANCE WITH 40 CFR
 261 APPENDIX II, EPA TOXICITY TEST PROCEDURE.
 AND SW-846 "TEST METHODS FOR EVALUATING SOLID WASTE"

Metal 0.01

Comments:

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

SANDER R. STERNIG
 DIRECTOR OF LABORATORIES

TO **Town of Brookhaven**
 c/o Chemical Pollution Control
 120 South Fourth Street
 Bay Shore, N.Y. 11706

SAMPLED BY CPC
 DATE _____
 COLLECTED 6/4/84
 RECEIVED 6/4/84
 COMPLETED 6/25/84
 REPORTED BY _____

III e

SAMPLE: #24 Unknown

SAMPLE No. 84060422

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.20	Total Dissolved Solids	824,760.0
	ppm (mg/l)*	Color	yellow
Cadmium	0.18	Atmospheric Pressure	<5
Chromium, Total	72.83	Viscosity: SSU	30
Chromium, Hexavalent 1	72.8	Organic	None
Copper	0.38	Layered	None
Iron	3.57	BTU/GAL.	None
Nickel	1.63	Flash Point, °C	None
Silver	0.05	Chloride Halogenated, %	None
Zinc	0.71	Sulfur Halogenated, %	None
Lead	1.00	Cyanide	None
Mercury 4	36.0	Ash %	None
Selenium 14	7.7	Specific Gravity	1.350
Arsenic 4	5.2	Make-Up %	Salts 80
Barium	6.9		Metals 0.02

*Unless otherwise noted

TESTS ARE CONDUCTED IN ACCORDANCE WITH 40 CFR
 261 APPENDIX II, EPA TOXICITY TEST PROCEDURE.
 AND SW-846 "TEST METHODS FOR EVALUATING SOLID WASTE"

Water 20

Comments:

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

SANDER R. STERNIG
 DIRECTOR OF LABORATORIES

TO: Town of Brookhaven
 c/o Chemical Pollution Control
 120 South Fourth Street
 Bay Shore, N.Y. 11706

SAMPLED BY CPC
 DATE 6/4/84
 COLLECTED 6/4/84
 RECEIVED 6/4/84
 COMPLETED 6/25/84
 REPORTED BY [Signature]

III c

SAMPLE: #25 Oil & H2O Vinyl Toluene #26

SAMPLE No. 84060423

PARAMETERS	RESULTS	PARAMETERS	RESULTS ppm (mg/l)*
pH	6.45	Total Dissolved Solids	0.1
	ppm (mg/l)*	Color	Brown
Cadmium	3.1	Atmospheric Pressure	< 5
Chromium, Total	4.89	Viscosity: SSU	55
Chromium, Hexavalent	4.5	Organic	x
Copper	21.48	Layered	None
Iron	51.44	BTU/GAL.	None
Nickel	1.19	Flash Point, °C	None
Silver	0.06	Chloride Halogenated, %	None
Zinc	52.0	Sulfur Halogenated, %	None
Lead ✓	76.68	Cyanide	None
Mercury ✓	3.0	Ash %	None
Selenium ✓	1.16	Specific Gravity	0.900
Arsenic	0.71	Make-Up % Oil & Vinyl Toluene	10
Barium	16	Water	89+

*Unless otherwise noted
 Comments: TESTS ARE CONDUCTED IN ACCORDANCE WITH 40 CFR 261 APPENDIX II, EPA TOXICITY TEST PROCEDURE AND SW-846 "TEST METHODS FOR EVALUATING SOLID WASTE"
 Metal 0.02



Received
NYDEC
DEPT OF Environmental Action
New York State Department of Environmental Conservation

3/14/85
F. Ricotta

MEMORANDUM

TO: Commissioner Williams THRU: Darryl Banks, Deputy Commissioner
FROM: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
SUBJECT: NEWSDAY article entitled: State Urged Illegal Toxic Storage
DATE: MAR 19 1985

Darryl D. Banks
Norman H. Nosenchuck

This is in response to your note of March 12, 1985 about the above-referenced NEWSDAY article.

On February 4, 1985, I sent you a conceptual approval memorandum for the Town of Brookhaven drum removal project. After your approval was received, potential cleanup contractors were sent a request for proposals.

A mandatory preproposal meeting was held on Friday, March 15, 1985 so that cleanup firms could inspect the drums prior to bidding. Bids are due on Friday, March 22, 1985. Review of bids will be completed the following week and a contract will be sent to the lowest responsive, responsible bidder for signature. Cleanup could get under way in April 1985 if Richard R. Lynch, Director, Division of Fiscal Management, will approve the use of expedited procurement procedures for this project. I had previously notified him of our intentions by copy of the conceptual approval memorandum.

cc: w/incoming - L. Marsh
R.D. Banks
R. Lynch
T. Sanford, Region 1

FTR/bhy
bcc: w/incoming - N. Nosenchuck (2)
M. O'Toole
W. Wilkie
L. Tierney
D. King
✓ F. Ricotta



New York State Department of Environmental Conservation

MEMORANDUM

TO: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
FROM: David H. King, Chief, Bureau of Eastern Remedial Action by: Frank T. Ricotta
SUBJECT: Commissioner's Note - Brookhaven Drums
DATE: March 18, 1985

Attached is a suggested response to the Commissioner's note on the hazardous waste drums in the Town of Brookhaven.

This project is out to bid and we anticipate that there will be enough money in the drum removal program cost center 671039 L1 83 to cover it.

We have been working with Region 1 directly on this. Much of the delay seems to be due to personnel changes in the Region 1 Office and the subsequent slow referral of pertinent information to Central Office. Sampling has been done and everything seems to be moving okay now.

Attachment

cc: M. O'Toole
D. King
F. Ricotta

*Not
for
file*

IDENTIFICATION NUMBER: 8502792

GOVERNOR'S NUMBER:

CORRESPONDENT

WILLIAMS, H. G.

DEC

1234/29

Addressed to: N. Nosenchuck Date: 03/12/85

Subject: NEWSDAY article entitled:
State Urged Illegal Toxic
Storage

ROUTE TO

DATE

N. Nosenchuck 03/13/85

F. R. 0255A 3/15/85

*NOT
FOR
FILE*

Reply for Commissioner's Signature

Reply Direct

Draft for Governor's Signature

OTHER: See HGW Note-What can be
done to resolve this
situation?

DUE DATE: 03/20/85

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
10-17-2

MEMORANDUM

TO: Barbara Barrell, Contract Unit, Division of Fiscal Management
FROM: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
SUBJECT: Brookhaven (T) Barrel Sites, Suffolk County, Region 1
DATE: APR 25 1985

The Division of Solid and Hazardous Waste has completed its evaluation of the cost proposals received by your office on April 17, 1985 for the remedial cleanup of the referenced site. We recommend award of a contract to the lowest, responsive, responsible bid of EnviroSURE Management Corporation (EMC), at a price of \$11,181.00.

The barrels to be removed are located at four sites within Suffolk County. The containers of hazardous wastes are in poor condition and must be removed as soon as possible.

Prompt remediation of this site is imperative to remove potential dangers. Expeditious award and execution of a contract with the successful proposer are requested.

cc: Commissioner Williams
L. Marsh
D. Banks
R. Lynch
J. Greenthal
M. Tone

Attachments

DJC/bhy
bcc: N. Nosenchuck (2) - w/o attach.
M. O'Toole "
W. Wilkie "
L. Tierney - w/attach.
✓ F. Ricotta - w/o attach.
D. Curtis - w/attach.
T. Sanford, Region 1 - w/o attach.



Received
NYDEC
DEPT. of Remedial Action

10/2/85

New York State Department of Environmental Conservation

MEMORANDUM

TO: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
FROM: Frank T. Ricotta, Central Remedial Section, Bureau of E. Remedial Action
SUBJECT: Application for EPA Waste Generator ID Number
DATE: JUN 07 1985

Attached is an EPA Notice of Hazardous Waste Activity form. I am submitting this form in order to obtain a waste generator identification number needed for the removal and disposal of the drums of hazardous wastes located at the Brookhaven (T), Barrel Site, Suffolk County, Region 1.

Barrels to be removed contain hazardous wastes that were abandoned on Town of Brookhaven highway right-of-ways. As barrels were found, Town of Brookhaven highway crews brought the drums to three (3) sites within the town for temporary storage. A fourth site containing one abandoned drum is located at the Regional office in Stonybrook.

The contract has been signed by the disposal firm and has been sent to the Department of Audit and Control for processing. Arrangements for the disposal will be made as soon as final clearance is received from the Contracts Unit and the Division of Fiscal Management. Please sign and date the form.

Attachment

DJC/bhy
bcc: Ricotta
D. Curtis



New York State Department of Environmental Conservation

MEMORANDUM

TO: Frank Ricotta, Supervisor, Central Remedial Projects Section
FROM: David Curtis, Sr. Sanitary Engineer
SUBJECT: Brookhaven Town Barrel Sites, Brookhaven (T), Suffolk County
DATE: June 24, 1985

The following generator identification number has been obtained from the United States Environmental Protection Agency (USEPA) for the above-referenced site.

NYD981082134 (Generator ID No.)

Received
NYDEC
RE: Remedial Action



1002

New York State Department of Environmental Conservation

MEMORANDUM

TO: Richard R. Lynch, Director, Division of Fiscal Management
FROM: Norman H. Nosenchuck, Director, Division of Solid and Hazardous Waste
SUBJECT: Brookhaven Town Barrel Sites, Brookhaven (T), Suffolk County
DATE: JUN 11 1985

Pursuant to the conceptual approval of February 25, 1985 relative to the removal of abandoned drums from the Town of Brookhaven barrel sites, the Division of Solid and Hazardous Waste, through the Department's Contract Unit, has solicited and obtained the lowest, responsive, responsible bid of \$11,181.00 from Envirosure Management Corporation, Niagara Falls, New York. The contract has been signed by the contractor and is attached for your approval and processing. This exceeds the original estimate of \$8,750.00. Sufficient funds are available from State Superfund cost center 672027 L1 84.

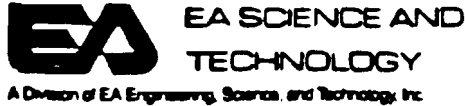
During the solicitation process, the Suffolk County District Attorney was approached by the Chem Star Corporation which pled guilty to the improper disposal of a portion of the drums to be removed under the contract. This portion entailed 32 drums abandoned on David Overton Road, Coram, New York. It was agreed that the Chem Star Corporation would remove these barrels at their own cost no later than May 30, 1985. An extension of time to June 7, 1985 was granted by the District Attorney without success. This accounts for the length of time that we have held the signed contract for review. Since a responsible party cleanup is not possible, the contract should now be processed as soon as possible.

If you have any questions, please call Frank Ricotta or David Curtis at 457-5677.

Attachment

cc: w/o attach. - B. Barrell
R. Paggione, DEE, Region 3

DJC/bhy
bcc: w/o attach. - N. Nosenchuck (2)
M. O'Toole
W. Wilkie
L. Tierney
D. King
✓ F. Ricotta
D. Curtis

COMMUNICATIONS RECORD FORM

Distribution: (x) File, () _____
 () _____, () _____
 () Author

Person Contacted: Elaine McKibbin Date: 29 July 1986

Phone Number: (516) 654-7954 Title: Director of Sanitation

Affiliation: Town of Brookhaven Type of Contact: Telephone

Address: 20 Medford Avenue Person Making Contact: Tim Bidwell
 Patchogue, New York 11772

Communications Summary: I called Mrs McKibbin in reference to
 the drum removal at the Brookhaven landfill. She
 indicated that the NYSDEC had the drums and
 surrounding soil removed in 1985. The exact date she
 did not recall but believed it was some time
 before September. The drums had been temporarily
 stored in the impoundment area, not the landfill
 itself.

(see over for additional space)

Signature: Tim Bidwell

BROOKHAVEN LANDFILL

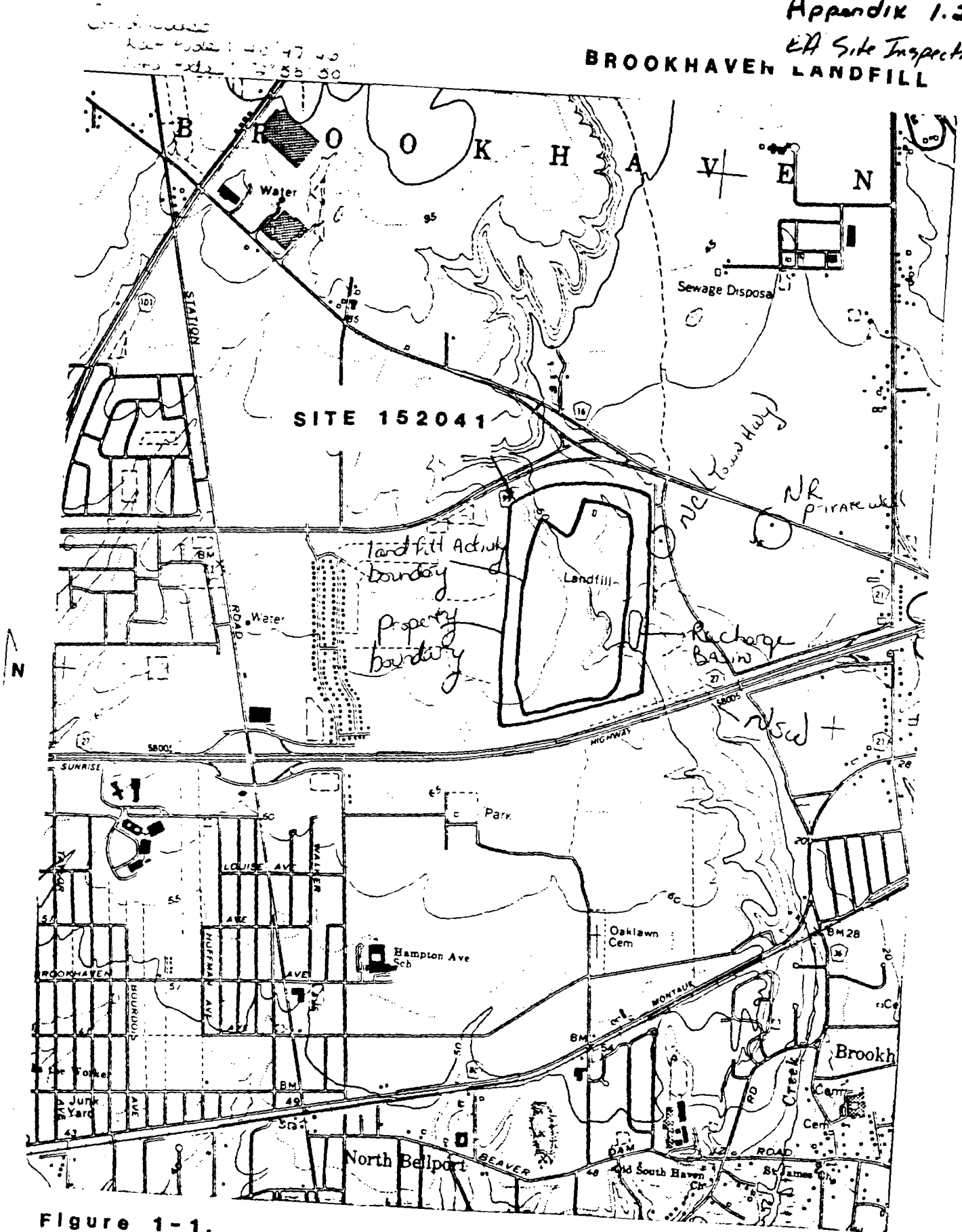
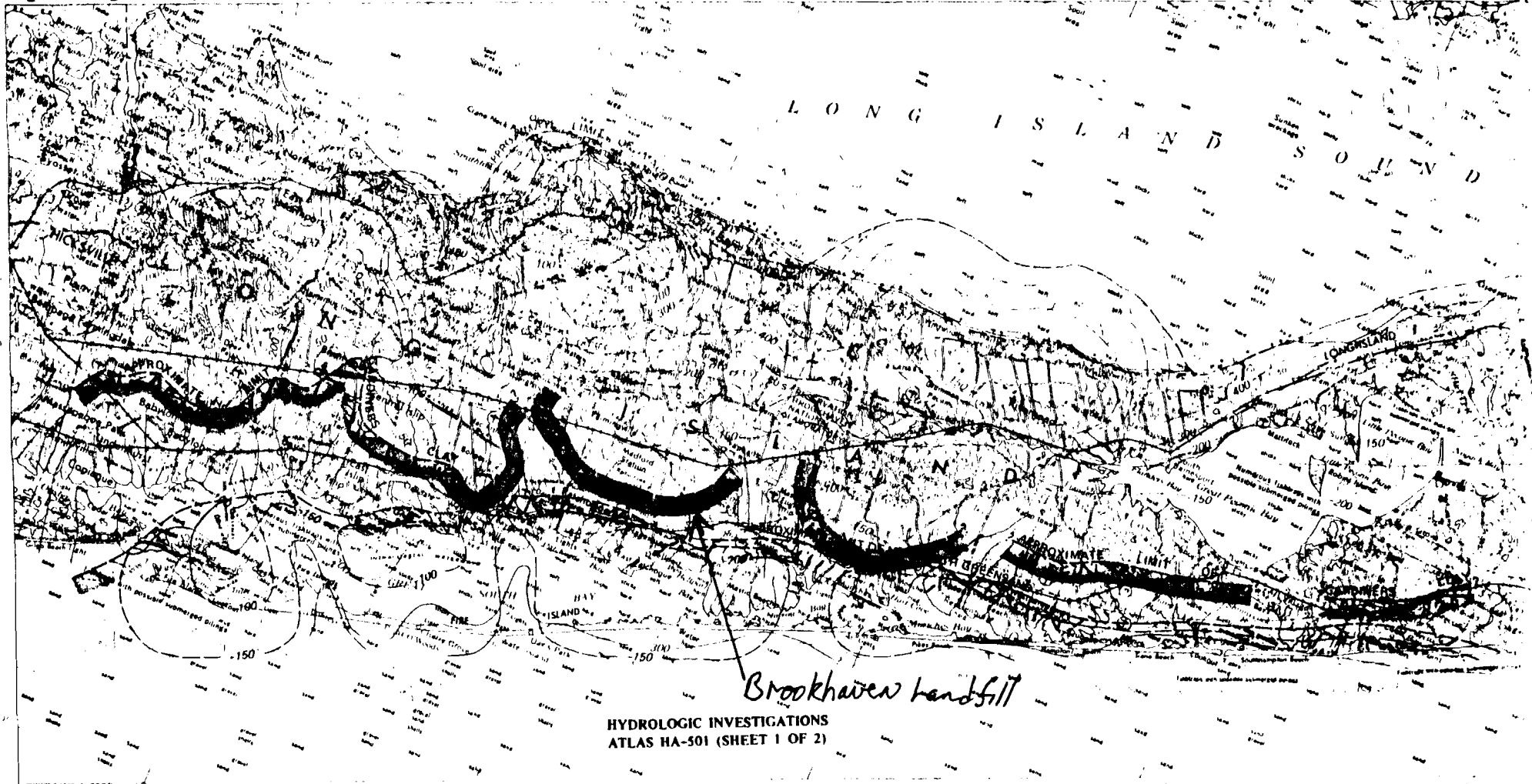


Figure 1-1.

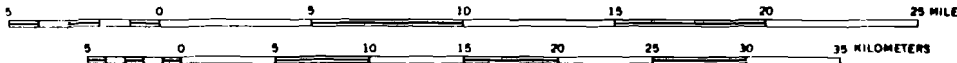
Scale = 1 : 24,000

BELLPORT QUAD.



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

SCALE 1:250,000



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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and

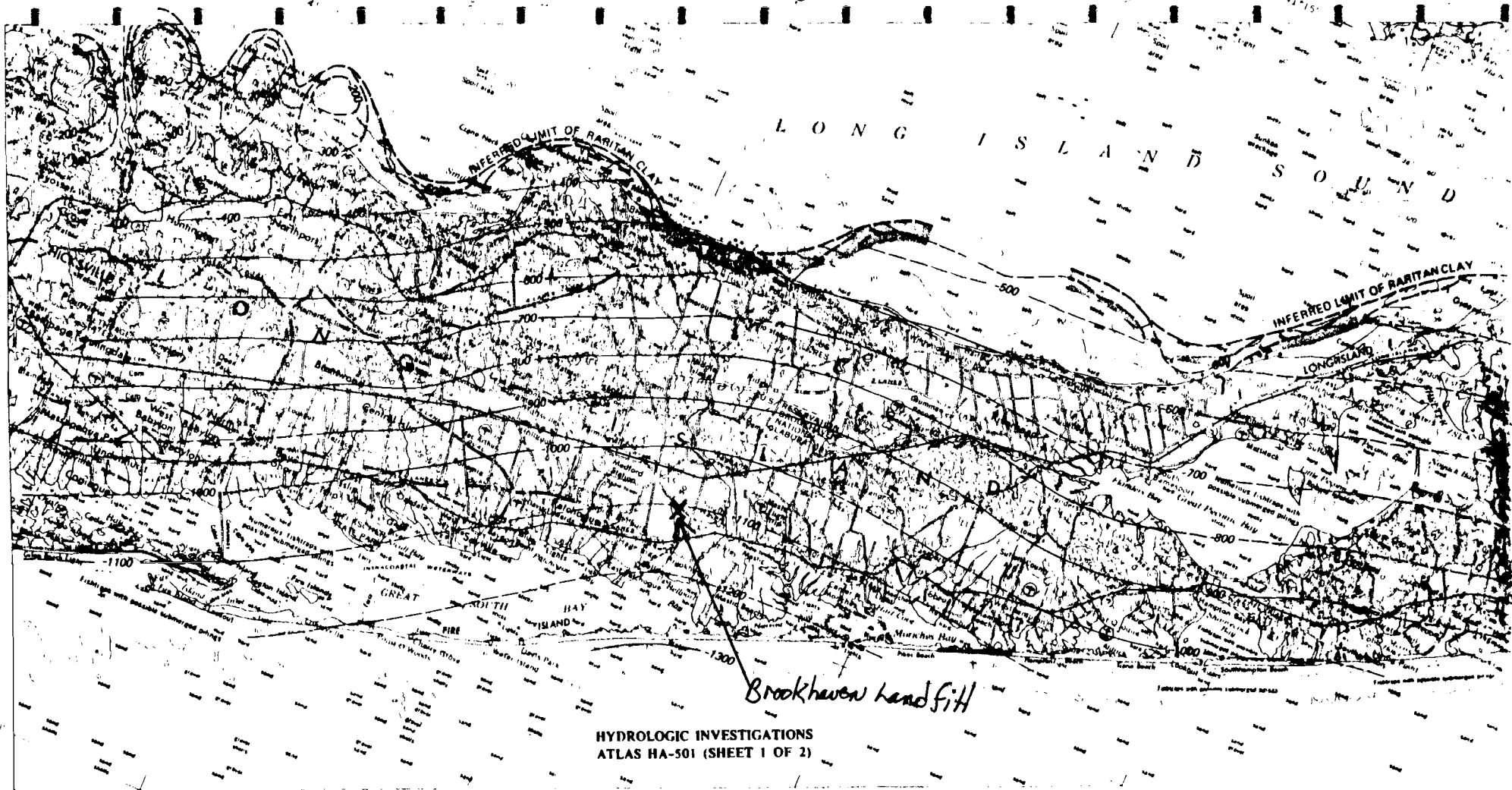
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren
1974

*Appendix 13-1
1975*

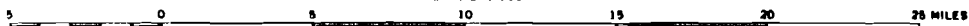


Brookhaven land fill

HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

MAP SHOWING ALTITUDE OF TOP OF RARITAN CLAY

SCALE 1:250,000



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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY

and

SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

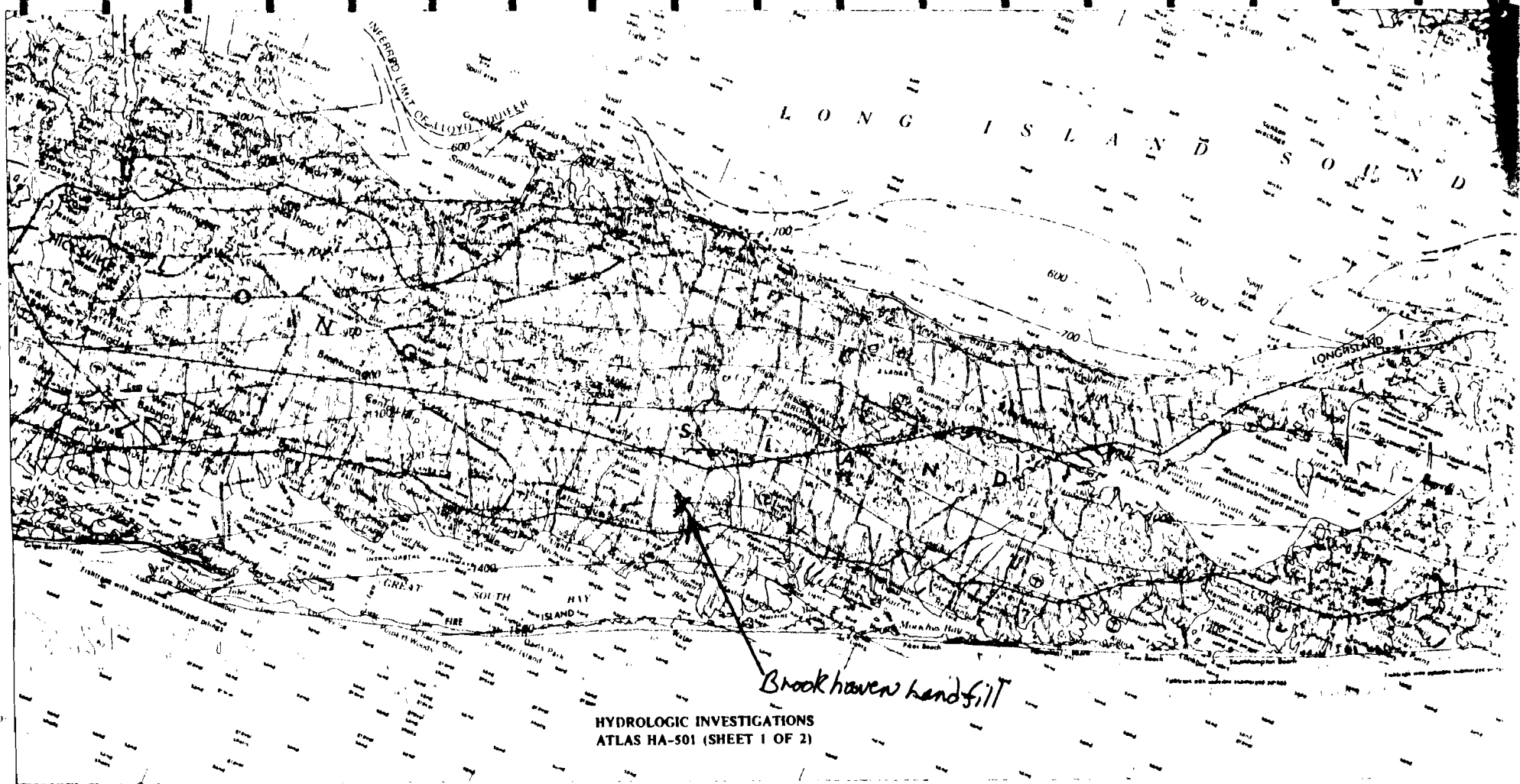
HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974

2 of 5

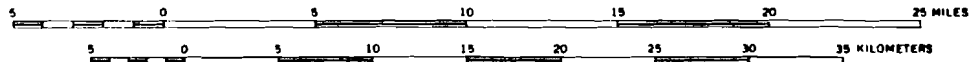


HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

Brookhaven landfill

MAP SHOWING ALTITUDE OF TOP OF LLOYD AQUIFER

SCALE 1:250,000



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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and

SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL



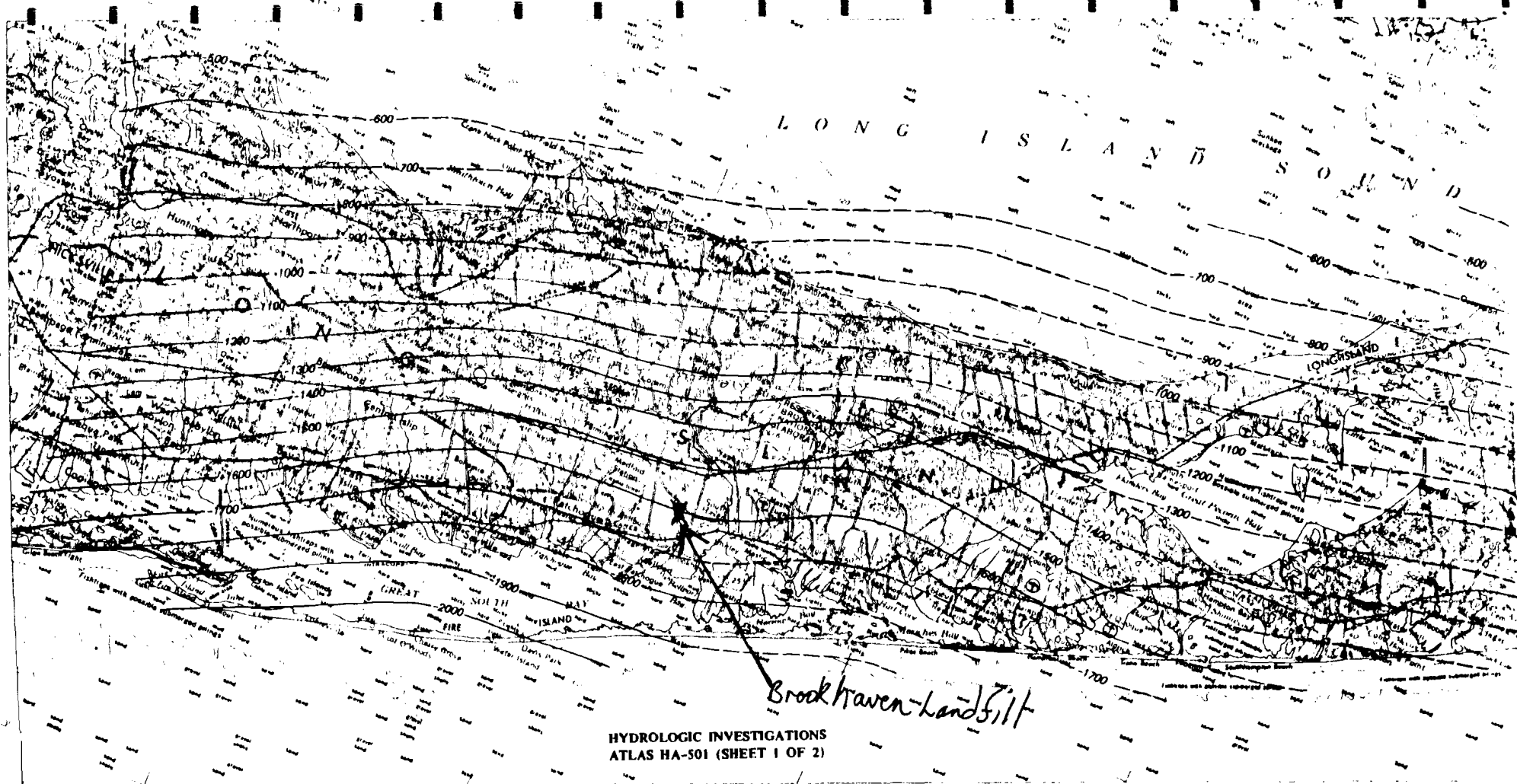
HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974

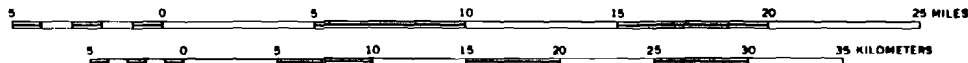
395



HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

MAP SHOWING CONFIGURATION OF THE BEDROCK SURFACE

SCALE 1:250 000



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

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY

and

SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974

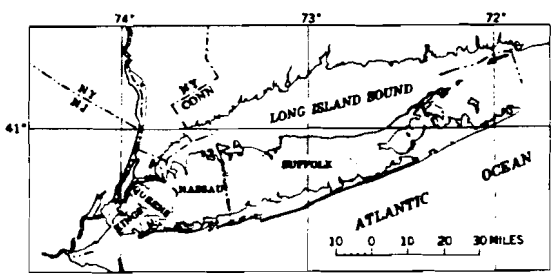


487

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.

County SUFFERN

WSA-2928

ORIGINAL-TO COMMISSION

State of New York
Department of Conservation
Division of Water Power and Control

Well No. S-14710
(on preliminary report)

LOG
Ground Surf., EL. ft. above sea

COMPLETION REPORT—LONG ISLAND WELL

.....ft.
Top of Well

Owner SUFFERN COUNTY WATER AUTHORITY

Address 12 WILSON AVE, BRIGHTWATERS, N.Y.

Location of well BELLPORT, N.Y.

Depth of well below surface 115' 6" feet

Depth to ground water from surface 22' 6" feet

CASINGS:

Diameter 16" in in in in

Length 81' 2" ft ft ft ft

Sealing PACKER

Casings removed

SCREENS: Make JOHNSON, EYE/DUE Opening # 20 S&OT

Diameter 1 1/2" in SUMP in in in

Length 35' 10" ft 2' 11" ft ft ft

Depth to top from top of casing 79' 8" ft

PUMPING TEST: Date 7-3-56 Test or permanent pump? TEST

Duration of Test days 8 hours

Maximum Discharge 1160 gallons per minute

Static level prior to test 22 ft 6 in below top of casing

Level during Max. Pumping 38 ft 6 in below top of casing

Maximum Drawdown 16' ft

Approx. time of return to normal level after cessation of pumping hours minutes

PUMP INSTALLED: INFORMATION BY OWNER

Type Make Model No.

Motive power Make H.P. 60

Capacity 750 g.p.m. against } ft. of discharge head

No. bowls or stages } ft. of total head

DROP LINE: SUCTION LINE: JUL 20 1956 ✓

Diameter in in

Length ft ft

Use of water PUBLIC SUPPLY

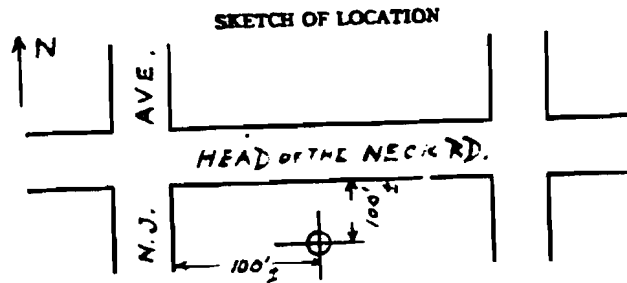
Work started 4-2-56 Completed 7-13-56

Date 1-21-57 Driller C.W. FAUMAN CO., INC.

License No. 13

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—pp. 5-7.

LOG
ON
REVERSE
SIDE



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

LOG:

- 0 - 2' - LOAM.
- 2' - 20' - FINE TO COARSE BROWN SAND, GRITS AND GRAVEL.
- 20' - 50' - FINE TO COARSE BROWN SAND, GRITS AND GRAVEL, WITH LARGE STONES.
- 50' - 70' - FINE TO COARSE BROWN SAND, GRITS.
- 70' - 94' - FINE TO MEDIUM SAND, MICA.
- 94' - 113' - FINE BROWN SAND, MICA.
- 113' - 117' - FINE TO COARSE BROWN SAND, GRITS AND GRAVEL.

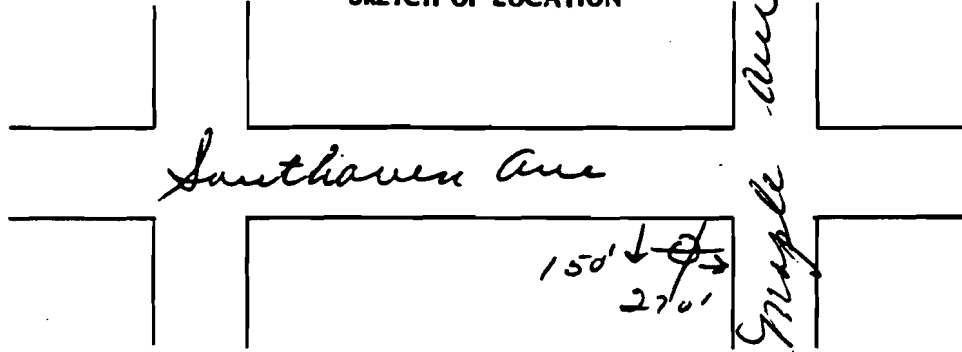
COMPLETION REPORT - LONG ISLAND WELL

OWNER Suffolk County Water Authority		* LOG Ground Surface El. _____ ft. above sea	
ADDRESS Sunrise Highway & Pond Rd. Oakdale		A _____ ft. V	
LOCATION OF WELL 150' S/South Haven Ave. 270' W/Maple Ave., Medford		TOP OF WELL SEE ATTACHED	
DEPTH OF WELL BELOW SURFACE 359 ft.	DEPTH TO GROUND WATER FROM SURFACE 39 ft.		
CASINGS			
DIAMETER 20 in.	in.	in.	in.
LENGTH 280 ft.	ft.	ft.	ft.
SEALING 50' of Neat Cement Grout	CASINGS REMOVED No		
SCREENS			
MAKE Johnson	OPENINGS 50		
DIAMETER 10 in.	in.	in.	in.
LENGTH 61 ft.	ft.	ft.	ft.
DEPTH TO TOP FROM TOP OF CASING 295' with 70' of 10" riser, Note: Screen has 3' sump at bottom			
PUMPING TEST			
DATE Nov. 31, 1981	TEST OR PERMANENT PUMP? Test		
DURATION OF TEST days 8 hours	MAXIMUM DISCHARGE 1500 gallons per min.		
STATIC LEVEL PRIOR TO TEST 39 ft.	in. below top of casing	LEVEL DURING MAXIMUM PUMPING 81 ft.	in. below top of casing
MAXIMUM DRAWDOWN 42 ft.	Approximate time of return to normal level after cessation of pumping hrs. min.		
PUMP INSTALLED NONE			
TYPE	MAKE	MODEL NO.	
MOTIVE POWER	MAKE	H.P.	
CAPACITY g.p.m. against	ft. of discharge head		
NUMBER BOWLS OR STAGES	ft. of total head		
DROP LINE NONE		SUCTION LINE	
DIAMETER in.	DIAMETER in.		
LENGTH ft.	LENGTH ft.		
METHOD OF DRILLING <input checked="" type="checkbox"/> rotary <input type="checkbox"/> cable tool <input type="checkbox"/> other _____	USE OF WATER Supply		
WORK STARTED 10/26/81	COMPLETED 6/10/82		
DATE 7/26/82	DRILLER Delta Well Co., Inc.	LICENSE NO. 1299	

*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.



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

Brookhaven

East Hampton

Huntington

Islip

Riverhead

Shelter Island

Smithtown

Southampton

Southold

Suffolk County Water Authority
WSA 7181 S-71785
Maple Avenue
Medford

RECEIVED
ENVIRONMENTAL QUALITY
DEPARTMENT

DRILLERS LOG

0-3'	Top soil and loam.
3-130'	Fine to coarse brown sand.
130-138'	Fine brown sand.
138-147'	Medium to coarse brown sand, sandy brown clay and gravel.
147-180'	Coarse sand, heavy gravel.
<u>180-215'</u>	<u>Heavy gravel and gray clay.</u>
215-250'	Fine gray sand, streaks of gray clay.
250-278'	Fine gray sand, streaks gray clay.
<u>278-290'</u>	<u>Solid gray clay, streaks fine clay, sand lignite and pyrite.</u>
290-320'	Fine gray sand, streaks gray clay, lignite and pyrite.
320-330'	Medium gray sand.
330-359'	Fine gray sand, streaks of gray clay.

Appendix 1.3-3
1069

LONG ISLAND WATER RESOURCES
BULLETIN NUMBER 1

RESULTS OF SUBSURFACE EXPLORATION
IN THE MID-ISLAND AREA OF WESTERN SUFFOLK COUNTY,
LONG ISLAND, NEW YORK

BY
JULIAN SOREN
U. S. GEOLOGICAL SURVEY

WITH A SECTION ON
POTENTIAL DEVELOPMENT OF GROUNDWATER
IN THE MID-ISLAND AREA

BY
PHILIP COHEN
U. S. GEOLOGICAL SURVEY

PREPARED BY
U. S. GEOLOGICAL SURVEY
IN COOPERATION WITH
SUFFOLK COUNTY LEGISLATURE
SUFFOLK COUNTY WATER AUTHORITY

PUBLISHED BY
SUFFOLK COUNTY WATER AUTHORITY

1971

209

GEOHYDROLOGY

GEOLOGY AND AQUIFERS

Unconsolidated deposits, ranging in age from Late Cretaceous to Pleistocene, underlie the mid-island area. These deposits contain several major aquifers and constitute the ground-water reservoir. Thin surficial Holocene deposits of soil and some swamp accumulations occur from place to place, but these are of little significance to the ground-water reservoir. The unconsolidated deposits rest unconformably on crystalline bedrock consisting of Precambrian (?) schist and gneiss which is considered to be the bottom of the ground-water reservoir on Long Island.

The unconsolidated deposits, from the bedrock upward, include the Lloyd Sand Member and clay member of the Raritan Formation of Late Cretaceous age, the Matawan Group-Magothy Formation, undifferentiated, also of Late Cretaceous age, and glacial deposits of Pleistocene age. The major aquifers in the area are the deposits of sand and gravel in the Pleistocene and the Matawan-Magothy strata. The test drilling described previously was carried out mostly to the depth of the upper part of the clay member. Therefore, the drilling served to determine the base of the Matawan-Magothy deposits. The drilling also served to obtain information on the configuration of the top of the Matawan-Magothy deposits, which were deeply eroded during Tertiary and, probably, Pleistocene time.

BEDROCK OF THE PRECAMBRIAN (?) SYSTEM

The Precambrian (?) gneiss and schist which underlies Long Island is hard and dense. Virtually all the water in these rocks is found in joints, faults, and foliation planes. Because these openings are usually tight and poorly connected, the bedrock is practically impermeable, especially by comparison with the overlying unconsolidated formations. No wells are known to tap bedrock in the mid-island area.

The bedrock was eroded to a peneplain prior to the deposition of the Cretaceous strata. In the mid-island area, the bedrock surface dips gently southeast at an average slope of about 65 feet per mile (about two-thirds of a degree), and its altitude ranges from about 800 feet below sea level in the northwestern corner of the area to about 1,600 feet below sea level in the southeastern part (pl. 2).

UPPER CRETACEOUS SERIES

Raritan Formation

Lloyd Sand Member

The Lloyd Sand Member of the Raritan Formation comprises the Lloyd aquifer on Long Island. This unit consists mostly of beds and lenses of light- to medium-gray sand and gravelly sand, commonly containing small to large amounts of interstitial clay and silt, that are intercalated with beds and lenses of light- to dark-gray clay, silt, and clayey and silty sand.

Only two drill holes are known to have penetrated the Lloyd in the mid-island area. One hole partly penetrated the unit at the Pilgrim State Hospital, in Brentwood. The second hole, which is in the village of Lake Ronkonkoma, and which was one of the test holes drilled as part of this study, fully penetrated the unit. A log of the test hole describing lithology of the Lloyd is shown in table 1, S33379.

The surface of the Lloyd is roughly parallel to the bedrock surface. The Lloyd surface dips from an altitude of about 550 feet below sea level in the northwestern part of the area, to an altitude of about 1,250 feet below sea level in the southeastern part (pl. 2), and the unit's thickness ranges from about 260 feet to 360 feet from northwest to southeast, respectively. Plate 2 shows contours on the Lloyd surface. Plate 2 also shows contours on the bedrock surface; therefore, the Lloyd's thickness, in any part of the area, can be estimated by computing the local difference between the altitudes of the bedrock and Lloyd surfaces.

The Lloyd aquifer is moderately permeable. Its average horizontal permeability has been estimated by Lusczynski and Swarzenski (1966, p. 19), Isbister (1966, p. 20), and Soren (in press) to range between 400 and 500 gpd per sq ft (gallons per day per square foot) in Queens and Nassau Counties, west of the mid-island area. Warren and others (1968, p. 102) estimated the Lloyd's horizontal permeability to be 165 gpd per sq ft at the Brookhaven National Laboratory, about 12 miles east of the mid-island area. The section of Lloyd penetrated by the test well near Lake Ronkonkoma was fairly sandy and gravelly (table 1, S33379), and at this site the average horizontal permeability of the Lloyd probably is considerably more than 500 gpd per sq ft. Wells tapping the Lloyd in other parts of Long Island have been pumped at rates of as much as 1,600 gpm (gallons per minute), and the specific capacities of these wells (pumpage, in gallons per minute, divided by drawdown, in feet) have been reported to range from 3 to 40 gpm per foot of drawdown.

At present, there is no pumpage from the Lloyd aquifer in the mid-island area, mainly because of the great depth of the aquifer, and because more permeable aquifers are found at shallower depths. In addition to being at a greater depth, the water from the Lloyd commonly has undesirably high concentrations of iron.

Clay Member

The clay member of the Raritan Formation (commonly referred to as the Raritan clay) completely covers the underlying Lloyd aquifer in the mid-island area, and confines water in that aquifer. The Raritan clay consists mostly of beds and lenses of light- to dark-gray clay, silt, and clayey and silty fine sand (table 1). Thin to thick sandy beds commonly occur in the unit from place to place, but these beds do not have great lateral extent. Laminae and thin beds of lignite and pyrite and disseminated particles of these substances are common in the clay beds of the unit. The thickness of the Raritan clay increases to the southeast, and ranges from about 150 feet in the northwestern part of the mid-island area to about 200 feet in the southeastern part.

The surface of the Raritan clay is roughly parallel to that of the underlying Lloyd Sand Member. The altitude of the surface of the Raritan clay ranges from about 300 feet below sea level in the northwestern part of the mid-island area, to about 1,050 feet below sea level in the southeastern part (pl. 3).

Matawan Group-Magothy Formation, Undifferentiated

The Matawan Group-Magothy Formation, undifferentiated, comprises the Magothy aquifer of Long Island. Deposits in this unit consist of beds and lenses of light-gray fine to coarse sand, containing traces to large amounts of interstitial clay and silt, intercalated with thin to thick beds and lenses of light- to dark-gray clay, silt, and clayey and silty sand (table 1). The clay and silt beds commonly contain laminae and thin beds of lignite. Disseminated lignite and pyrite also are common in the sand beds of the aquifer. Gravelly coarse sand is commonly found in the basal part of the aquifer. This coarse zone ranges in thickness from 100 to 150 feet west of the mid-island area to 150 to 200 feet in the mid-island area. The basal zone also commonly contains abundant interstitial clay and silt and many thin to thick beds and lenses of clay, silt, and clayey and silty sand.

The surface of the Magothy aquifer (pl. 4) is not planar as are the surfaces of the underlying units. The Magothy surface was deeply eroded during Tertiary time, and probably was considerably eroded in Pleistocene time. Consequently, the depth to the Magothy aquifer and the aquifer's thickness cannot be predicted as accurately as the depths and thicknesses of the underlying units. Many control points in addition to those already known are needed to accurately map the upper surface of the Magothy aquifer.

The highly irregular character of the surface of the Magothy aquifer is shown in plate 4. The upper surface of the aquifer ranges in altitude from as high as about 200 feet above sea level to as low as about 500 feet below sea level. The Magothy was completely removed by erosion in a buried valley near the South Huntington area, and in that area upper Pleistocene deposits lie directly on the Raritan clay. This buried valley was called the "Huntington buried valley" by Lubke (1964, pl. 3), and as mapped by Lubke, the valley extended about 2-1/2 miles south of the Northern State Parkway.

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source of the rock materials in the outwash deposits is manifold. As the glaciers moved southward to Long Island, they plucked the bedrock and soils of the surfaces they slid over. Rock materials were incorporated into the ice in contact zones and were also pushed along the glacial front. As the ice melted in late Pleistocene time, the various rock materials were carried away by broad coalescing streams and sheets of water. Consequently, the outwash deposits are stratified, and because of the varied materials carried by the glacier, these deposits consist of a heterogeneous suite of rock types. The great diversity of rock and mineral suites in the Pleistocene deposits, along with the chemically unstable (easily decomposed) rocks and minerals, commonly facilitates differentiation of glacial from the Cretaceous deposits on Long Island.

Outwash deposits underlie the plain in the mid-island area south of the Ronkonkoma terminal moraine, where the major source of glacial deposition was material from the Ronkonkoma ice advance. A readvance of the glacial front followed recession of the Ronkonkoma ice front and resulted in the formation of the Harbor Hill terminal moraine. Lakes were formed in depressions and valleys between the Ronkonkoma and Harbor Hill terminal moraines, and clayey materials were deposited in these lakes. The inter-morainal areas also contain recessional deposits of outwash and ground moraine (see the following section, "Ground-Moraine Deposits") from the Ronkonkoma and Harbor Hill deglaciations, and these materials buried the clayey lake deposits.

The outwash deposits are thickest in the buried valleys and thinnest where the Cretaceous surface is closest to land surface (pl. 5). These deposits generally extend below the water table, and are a major source of ground water. Outwash deposits comprise most of the so-called upper glacial aquifer of Long Island, and because these deposits of sand and gravel contain virtually no interstitial clay and silt, the upper glacial aquifer is the most permeable aquifer on Long Island. The estimated average horizontal permeability of the outwash deposits is about 1,000 to 1,500 gpd per sq ft (Luszczynski and Swarzenski, 1966, p. 17; and Soren, in press). Warren and others (1968, p. 75) computed the horizontal permeability of outwash to be about 1,300 gpd per sq ft at the Brookhaven National Laboratory, east of the mid-island area. A horizontal permeability for outwash as high as about 2,500 gpd per sq ft has been reported in Nassau County, west of the project area (Isbister, 1966, p. 29).

Public-supply and other high-capacity wells screened in glacial outwash on Long Island have yielded as much as 1,700 gpm, and reported specific capacities of such wells range from less than 10 gpm per foot of drawdown to as much as about 200 gpm per foot of drawdown; however, the specific capacities range mostly from 50 to 100 gpm per foot of drawdown. (See section "Yields of Individual Wells.")

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the shorelines, the direction of flow is reversed, and ground-water movement is upward from the deeper aquifers toward the surface. Thus, because of the character of the flow system, under natural conditions virtually all the recharge to the Magothy and Lloyd aquifers in western Suffolk County originated in the mid-island area, and all of that recharge ultimately discharged from the ground-water system near the shorelines.

The movement of ground water through Long Island's aquifers in the horizontal direction is generally more rapid than movement in the vertical direction because of the occurrence of interbedded fine- and coarse-grained layers, and because the largest dimensions of unevenly shaped particles in the individual layers tend to be oriented horizontally. Approximate rates of ground-water movement can be computed from hydraulic gradients and estimated coefficients of permeability and porosities of the aquifers. In 1968, water in the upper glacial aquifers in the project area was moving horizontally at rates from less than 0.5 foot per day at points distant from centers of pumping, to hundreds of feet per day near the screens of pumping wells. At the same time, water in the Magothy aquifer was moving horizontally at rates from less than 0.2 foot per day at points distant from pumping, to hundreds of feet per day near the screens of pumping wells.

HYDRAULIC INTERCONNECTION OF AQUIFERS

The aquifers of Long Island are hydraulically interconnected. Layers of clay and silt within an aquifer or between aquifers serve to confine water below them, but they do not completely prevent the vertical movement of water through them. Ground water moves downward readily through coarse outwash deposits in the upper glacial aquifer. Vertical movement of water through the Magothy aquifer is impeded by beds and lenses of clay and silt. Because the clay and silt strata in the Magothy are not continuous, some water may move around lenses of this material in addition to moving slowly through the fine-grained strata.

The contact between the upper glacial and Magothy aquifers is not regular either in attitude or in composition of the contact surfaces. Glacial deposits in buried valleys are in lateral contact with truncated sandy beds in the Magothy. In the buried valleys water can laterally enter the Magothy at great depth directly from the glacial deposits, rather than the water having to move vertically to the same depth through less permeable Magothy beds. In the Huntington buried valley, glacial deposits extend completely through the Magothy aquifer to the underlying Raritan clay. (See plate 4.) In addition to the good hydraulic continuity between the upper glacial and Magothy aquifers in the buried valleys, good hydraulic continuity occurs between the aquifers outside the buried valleys where glacial sand and gravel deposits lie directly on Magothy sand beds. Thus, a fairly good hydraulic connection exists between the upper glacial and Magothy aquifers over large parts of the mid-island area, and the configuration of the piezometric surface of the Magothy aquifer is generally similar to that of the water table. However, in the mid-island area hydraulic heads in the Magothy are lower than those in the upper glacial aquifer because of the downward component of ground-water movement in the area.

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The thick areally persistent Raritan clay that lies between the Magothy and Lloyd aquifers impedes but does not prevent downward movement of ground water into the Lloyd aquifer, and water in the Lloyd is tightly confined between the Raritan clay and bedrock. Downward leakage into the bedrock is negligible.

Figures 2 and 3 show hydrographs of wells screened in the upper glacial aquifer and the Magothy aquifer at the test-drilling sites in Brentwood and Hauppauge. At both sites, the heads in the deepest wells in the Magothy aquifer are about 2.5 to 3 feet lower than the heads in the shallowest wells in the upper glacial aquifer. The loss of head downward reflects the downward movement of ground water in the mid-island area. The hydrographs in figures 2 and 3 show that the heads in these two aquifers in the project area decrease at a fairly uniform rate with increasing depth. In addition, water-level fluctuations in the two groups of wells were very similar. Both of these facts, the uniform decrease in head and the similar water-level fluctuations, reflect the high degree of hydraulic interconnection between the upper glacial and Magothy aquifers.

The average vertical permeability of the Magothy aquifer is only poorly known. Estimates range from less than 1 to about 30 gpd per sq ft. Assuming that it averages about 5 gpd per sq ft in the mid-island area, the computed amount of downward ground-water movement through the Magothy aquifer in the vicinity of the ground-water divide in 1968 was about 0.4 mgd (million gallons per day) per square mile, and the estimated velocity of the downward movement was about 0.006 foot per day.

Because of the low permeability of the Raritan clay, the hydraulic-head loss across this unit is very much larger than the head loss across a comparable thickness of the Magothy and upper glacial aquifers. At the easternmost test site in the village of Lake Ronkonkoma, wells were screened near the base of the Magothy and near the top of the Lloyd aquifers (pl. 5, section A-A', S33379-80). In 1968, the head near the base of the Magothy aquifer (about 45.5 feet above sea level) was about 11.5 feet higher than the head in the Lloyd aquifer (about 34 feet above sea level). Head losses across the Raritan clay at localities east and west of the Lake Ronkonkoma area differ considerably. At Upton, about 12 miles east of the mid-island area, the head loss across the clay was about 6 feet in 1968; and at Plainview (in Nassau County), about 3 miles southwest of Melville, the head loss across the clay was about 42 feet. The differences in head loss from place to place are largely a result of differences in the vertical permeability and thickness of the Raritan clay.

The head in the Lloyd aquifer at Lake Ronkonkoma in 1968 (about 34 feet above sea level) was higher than either of the heads in the Lloyd at Upton (about 30.5 feet above sea level) and at the Suffolk-Nassau boundary (about 27.5 feet above sea level). The head in the Lloyd at Terryville, about 7 miles northeast of the Ronkonkoma area was about 21 feet above sea level in 1968, and it was 19 feet above sea level at Fire Island State Park in 1968, about 13 miles to the southwest. These data suggest that water in the Lloyd aquifer is moving radially from the Lake Ronkonkoma area. The estimated rate of horizontal movement of water in the Lloyd aquifer in the project area in 1968, was on the order of 0.1 foot per day.

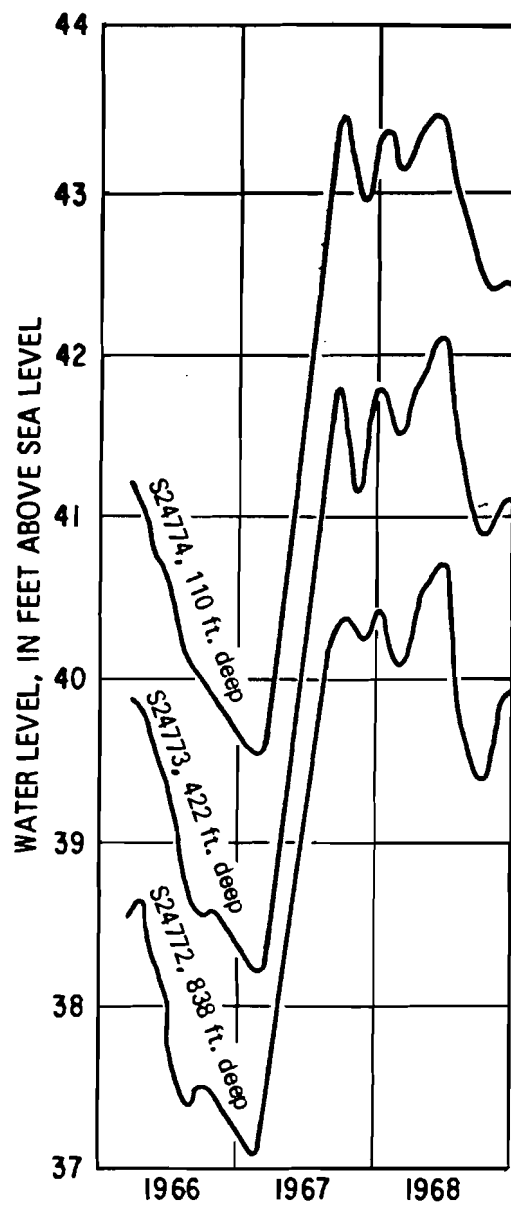


Figure 2.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Brentwood, N. Y.

FLUCTUATIONS OF GROUND-WATER LEVELS

Fluctuations of water levels in the wells of the mid-island area reflect local variations in recharge to and discharge from the aquifers tapped by the wells. Therefore, changes in ground-water levels afford an insight into many aspects of the ground-water system. Furthermore, the information on water-level fluctuations can be used to help assess the impact of urbanization on the natural hydrologic system.

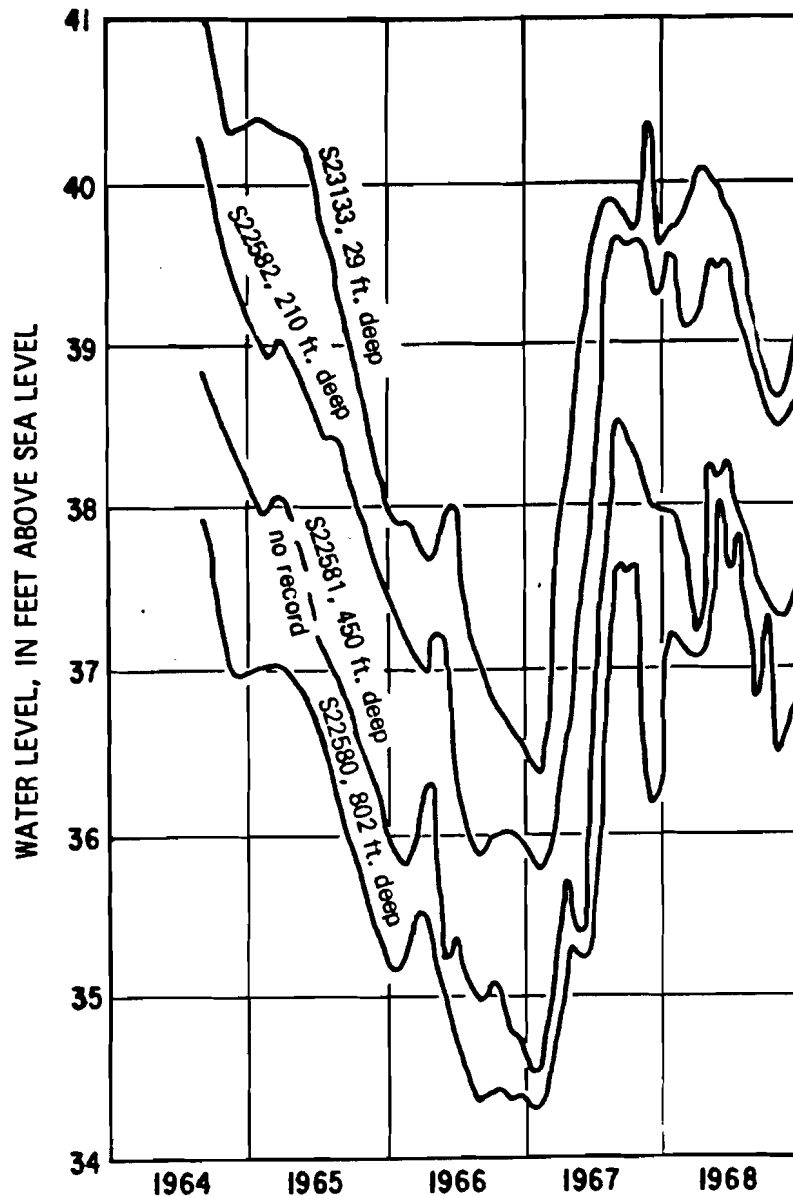


Figure 3.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Hauppauge, N. Y.

Under natural conditions and in relatively undeveloped areas of Long Island, the water table fluctuates over a range of several feet during the year. Under such conditions, the water table has a rhythmic seasonal pattern; the lowest levels are in late autumn and highest levels are in early spring. This pattern of decline and recovery of the water table reflects the greatest losses of water through evapotranspiration during the growing season and the least such losses between growing seasons. The hydrologic systems in such undeveloped areas are in equilibrium, with inflow balancing outflow. However, if large amounts of water are continually pumped out of a ground-water system, the water table declines until equilibrium is reestablished at a lower level, reflecting a loss of ground water from storage and decreased subsurface and stream outflow from the system.

Appendix 13-4
1972

Hydrogeology of the Huntington-Smithtown area Suffolk County, New York

By E. R. LUBKE

CONTRIBUTIONS TO THE HYDROLOGY OF THE UNITED STATES

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1669-D

*Prepared in cooperation with the Suffolk
County Board of Supervisors, the Suffolk
County Water Authority, and the New
York Water Resources Commission*



foot, and are commonly masked by fluctuations of larger amplitude. Cyclical fluctuations in pressure also result from ocean tides, particularly in wells screened in the intermediate and deep aquifers near Long Island Sound. For example, at well S2020 located on a promontory between Duck Island Harbor and Northport Bay and screened in the deep aquifer, water-level fluctuations caused by tidal loading have a daily amplitude of as much as 3 feet between high and low tide. Tidal changes in Lloyd and Cold Spring Harbors also influence the water levels of wells S9 and S4466, both of which are screened in the deep aquifer.

RECHARGE

All the fresh water in the ground-water reservoir of the project area, as well as the rest of Long Island, is derived from precipitation. However, only a part of the total precipitation that falls reaches the water table. The amount which percolates down to the water table and recharges the reservoir is the residual of the total precipitation not returned to the atmosphere by evapotranspiration or lost to the sea by overland runoff. Owing to the highly pervious nature of the soil and the substrata and to the gentle slopes of the land surface, infiltration is relatively high. Of an average annual precipitation on the project area of 49 inches, 21 inches, or about 43 percent, is estimated to reach the water table.

The catchment surface on which recharge presumably takes place includes most of the land area of the project, or about 146 square miles. This catchment includes Lloyd and Eatons Necks but does not include an additional 7 square miles of high water table and tidal marshes which fringe the northern shoreline. A considerable part of the catchment area, however, is made impervious by buildings and pavements, but much of the runoff from such covered areas is recovered in storm water disposal (recharge) basins or large-diameter diffusion wells. The natural recharge from precipitation on the project area, exclusive of the high water-table areas, the tidal marshes and of Lloyd and Eatons Necks, is estimated to average about 140 mgd (million gallons per day). In addition, the recharge on Lloyd Neck is estimated to average about 5 mgd and on Eatons Neck about 2 mgd. The total for the project area then would be about 147 mgd. The rate of natural recharge varies greatly from season to season and from year to year depending on such factors as evapotranspiration, air and soil temperatures, soil-moisture conditions, and the nature and seasonal distribution of precipitation. During dry years, recharge is substantially less than average, and conversely in wet years it is more.

Natural replenishment of the intermediate and deep aquifers takes place entirely by downward movement of water from the shallow aquifer through discontinuities in clayey and silty beds and probably directly by slow movement through these aquicludes. Recharge of the intermediate aquifer probably occurs chiefly in the areas where the water table lies above an altitude of about 60 feet (pl. 5). The deep aquifer, in turn, receives recharge by downward leakage from the intermediate aquifer through an extensive aquiclude formed chiefly by the clay member of the Raritan formation. This recharge, which probably proceeds at a very slow rate, occurs chiefly where the piezometric surface of the intermediate aquifer lies above an altitude of about 60 feet (fig. 6).

Artificial recharge of the ground-water reservoir is effected by means of cesspools and septic tanks, which ultimately receive most of the water pumped from public-supply and domestic wells. For example, during 1957 an estimated average of about 9.8 mgd was returned to the ground by this means in the project area, and at the same time about 2.5 mgd was discharged directly into Long Island Sound through sewage disposal systems at the villages of Huntington and Northport and at Kings Park State Hospital. Also, as required by law, an average of about 0.7 mgd of water pumped from privately owned wells for industrial and cooling purposes during 1957 was returned to the ground through sumps and diffusion wells.

MOVEMENT

In the ground-water reservoir, water moves vertically and laterally from points of high head to points of low head along flow lines whose direction is normal to the contour lines shown for the water table (pl. 5) and the piezometric surfaces (figs. 6 and 9). Water in the shallow aquifer flows away from the two major highs on the main watertable divide of Long Island, represented by areas above the 70-foot watertable contour in south-central Huntington and eastern Smithtown (pl. 5). The general directions of ground-water flow are north toward the Long Island Sound, south toward the Atlantic Ocean, and also a pronounced lateral movement toward the trough in the valley of the Nissequogue River. Local directions of flow, which may deviate substantially from these general directions, are indicated by arrows on the water-table contours (pl. 5). Also, the peninsulas of Lloyd, Eatons, and Little Necks each contain a ground-water mound in the shallow aquifer and from the crests of these mounds the shallow ground water moves laterally outward to bounding salt-water bodies. Within the area circumscribed by the 60-foot water-table contour (pl. 5), a downward head differential generally exists between the shallow and intermediate aquifers. Conse-

Appendix 1.3-5
1972

Hydrology of the Babylon-Islip Area Suffolk County Long Island, New York

By E. J. PLUHOWSKI and I. H. KANTROWITZ

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1768

*Prepared in cooperation with the Suffolk
County Board of Supervisors, Suffolk
County Water Authority, and the New
York State Water Resources Commission*



(Brice, Whitaker, and Sawyer, 1956, p. 32). Infiltration rates apparently depend chiefly on the interval between successive floodings, depth of water, and permeability of the basin surface. There are now more than 80 storm-water recharge basins in the Babylon-Islip area, and the number may be expected to increase as urbanization continues. The effectiveness of the basins as a means of recharging storm water to the ground-water reservoir from a suburban area is probably comparable to that of natural surface conditions prior to urbanization (Brice, Whitaker, and Sawyer, 1956, p. 2).

Public sanitary-sewer systems on Long Island discharge their effluent directly into tidewater. Because there are no such systems in the Babylon-Islip area (1961), theoretically all water withdrawn from the ground-water reservoir is returned to the ground. Two large sewage-leaching beds serve Pilgrim and Central Islip State Hospitals, and several smaller ones are at other institutions. The balance of domestic sewage is returned to the ground through cesspools. Water pumped for industrial purposes is usually returned through diffusion wells and cesspools. A small amount of industrial pumpage containing contaminants is discharged into tidewater to avoid pollution of ground-water supplies.

Artificial recharge in the Babylon-Islip area counters the effect of urbanization by restoring the natural rate of infiltration of precipitation through the use of recharge basins and by returning most of the water pumped.

Because it is not practical to measure directly the rate of recharge to the ground-water reservoir, recharge must be determined by indirect methods. An approximate value for recharge is obtained by subtracting evapotranspiration losses and direct runoff from precipitation. The recharge to the ground-water reservoir in the Babylon Islip area as determined by this method is:

	<i>Approximate annual rate (inches)</i>
Precipitation.....	46
Evapotranspiration.....	21
Direct runoff.....	1
	—
Total water loss.....	22
	—
Recharge to ground-water reservoir.....	24

A recharge rate of 24 inches per year is equivalent to 1.1 mgd (million gallons per day) per sq mi or an annual total of about 215 mgd for the Babylon-Islip area. The bulk of this recharge occurs during late fall, winter, and early spring, when evapotranspiration is at a minimum.

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

<u>Community Water Supply</u>	<u>Water District</u>	<u>Well Field</u>	<u>Well</u>	<u>Depth (ft)</u>	<u>Aquifer</u>
SCWA	Pachogue	Patchogue-Upprank Rd.	1S-52944	203	Glacial
			2S-52945	175	Glacial
			1S-71725	359	Magotly
			1S-01331	60	Glacial
			2S-14710	118	Glacial
			3S-69364	529	Magotly
			1S-33826	163	Glacial
			2S-42199	179	Glacial
			3S-49016	518	Magotly
			SWAN LAKE	"	"
2S-20705	100	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.

Mr. Beck. 1986. District Supervisor Swan Lake Water District. 14 April.



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF GEOLOGICAL SURVEY
NATIONAL LABORATORY

Sheet 2 of 2

Suffolk County

Landfill Perrine

Perrine Well

Leachate Samples

Contaminated Wells

BELLPORT BAY

SUFFOLK HAVEN



Suffolk County Water Authority
Distribution of System Plates
11G, 12G, 10G, 10F, 9F, 12F, 11H,
12H, 10H, 10L, 11E, 12E
Refs 35 and 37

Scale 1" = 1 mi



COMMUNICATIONS RECORD FORM

Distribution: (x) File, () , () , () Author

Person Contacted: Mr. Beck Date: 14 March & 14 April 1986

Phone Number: (516) 228-8830 Title: Superintendent

Affiliation: Sun Hill/Swan Lake Water District Type of Contact: Telephone

Address: 600 Old Country Road Person Making Contact: E. Bidwell Garden City, New York 11530

Communications Summary: Wells are developed in the Glacial aquifer.

Mr. Beck's secretary Barbara sent out well construction details. She dictated populations served:

Sun Hill - 3,570 Swan Lake - 2,405

Due to the small size and relative newness of the districts they could not provide us with distribution maps. She dictated Sun Hill's boundaries:

- South - Middle Country Road
North - Hawkins Road
West - Ronkonkoma Boulevard
East - New Town Avenue

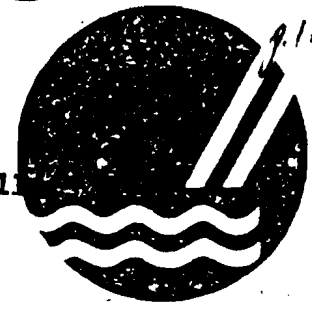
For Swan Lake distribution see attached map.

(see over for additional space)

Signature: E. Bidwell

*At 3/19
Finally rec'd data!
Ted Snyder*

Appendix 1.4-1



New York State Environmental Facilities Corporation
Sanitary Landfill, Blue Point Road, Hotsville, N.Y. 11742
Horseblock Road, Brookhaven, N.Y., 11719

Received from
NYDEC Bureau of Landfill

Henry L. Diamond, Chairman

Arthur Handley, P.E. — Executive Director

March 6, 1975

Mr. A. Macklin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Control
Eldg. 40 - State Campus
Stony Brook, New York, 11790

RECEIVED
MAR 10 1975
ENVIRONMENTAL QUALITY
REGION 1

Re: Monitoring Wells
Brookhaven Sanitary Landfill

Dear Mr. Macklin:

Enclosed are the laboratory analyses results of water samples taken from the monitoring wells at the Brookhaven site.

Also enclosed is a tabulation of past data from the wells which we recently received from Pope Evans and Robbins.

Copies of all data will be given to Mrs. Hudis from the hamlet of Brookhaven.

Very truly yours,

James H. Hoff, P.E.
Project Supervisor

JH/GR

cc: Mr. Charles Miles, P.E.

RECEIVED

MAR 10 1975

BUREAU OF FACILITY
DESIGN AND OPERATION

Brookhaven Landfill Site

Constituent	Well #1 12/21/72	Well #2 12/21/72	Well #3 12/21/72	Well #4 12/21/72	Well #5 12/21/72
Dissolved solids	57	22	34	30	30
Total hardness	15	50	15	50	25
Total alkalinity	30	60	15	50	15
Chloride	30	15	12.5	30	15
Nitrite	0.025	0	0	0	0
Nitrate	0.30	0.50	0.75	0.06	0.63
Orthophosphate	1.1	0.13	0.02	1.1	0.02
Sulfate	16	4	7	7	13
Cadmium	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.05	<0.05	<0.05	<0.05	<0.02
Iron	0.05	0.06	0.05	1.6	0.05
Lead	0.05	<0.1	<0.1	0.6	<0.1
Manganese	0.1	0.5	<0.5	<0.05	<0.05
Nickel	<0.05	<0.05	<0.05	<0.05	<0.05
Silica	2.1	0.25	0.66	1.2	1.2
pH (units)	6.6	6.7	6.9	6.9	6.9
Conductivity (micro)	77	54	53	77	46

RECEIVED
MAR 10 1975

ENVIRONMENTAL QUALITY
REGION I

as per Jim Heil 12/23/75

No one knows how to relate these wells to the Groups & Well numbers that are being sampled on a quarterly basis

p. 20/13

1) All values in ug/l unless noted.

2) Data from Environmental Consulting

Brookhaven Landfill Site

Brookhaven Landfill Site

Environmental Consultants, Inc.

p. 3 of 13



H2M CORP. / Environmental Engineers & Scientists

HOLZMACHER, McLENDON & MURRELL

500 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11746 (516) NY 4-3043

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AQUATIC & MARINE ECOLOGY • MODEL STUDIES • PILOT PLANT STUDIES
WATER/WASTE WATER LABORATORY AND ANALYTICAL SERVICES

LABORATORY REPORT

Lab. No. 500794 & 551226B	Date Collected 2/10/75	Date Received 2/11/75
Premises of Sample Brookhaven Landfill Site	Client N.Y.S. Environmental Facilities Corp.	
Address Horseblock Rd. Brookhaven NY		
Point of Collection Monitoring Well (Group 1) #3 - #2 (Errata Ltr. dated 5/14/75) 55'		
Type Wastewater:	Raw Well	
<input type="checkbox"/> Sewage (raw)	<input type="checkbox"/> Mixed Liquor	<input type="checkbox"/> Industrial
<input type="checkbox"/> (treated)	<input type="checkbox"/> Sludge	

BACTERIOLOGICAL Total: <2.0
Fecal <2.0

pH	<u>5.8</u>	
Alk	16	mg/l
Hardness	22	mg/l
Cl	12.0	mg/l
NH ₃	.3	"
TKN	1.1	"
BOD	>14	"
COD	160	mg/l
T.Phos.	3.05	mg/l
SO ₄	16	"
MBAS	<.08	"
Phenol	5.7	ug/l
NO ₂	<.1	mg/l
NO ₃	.40	"
As	<.02	"
Be	<0.1	"
Cu	.18	"
Zn	5.9	"
Cr ⁺⁶	<.01	"
Cr (total)	.03	"
K	4.7	"
Na	5.4	"
Hg	<.3	ug/l
Pb	0.2	mg/l
Ca	5.2	"
Mg	2.32	"
Fe	<u>12.7</u>	"

RECEIVED
 MAR 10 1975
 ENVIRONMENTAL QUALITY
 REGION 1

Samples collected by: client

REMARKS:

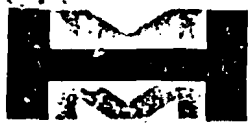
ANALYST: [Signature]
 DATE: [Signature]

[Signature]
 S. C. McLENDON, P.E., Director
 Sanitary Engineer

2/28/75

Date Reported

p. 4 of 13



H2M CORP. / Environmental Engineers & Scientists

HOLZMACHER, McLENDON & MURRELL

500 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11746 (516) MY 4 3043

WATER RESOURCES • WATER SUPPLY & TREATMENT • SEWERAGE & TREATMENT
AQUATIC & MARINE ECOLOGY • MODEL STUDIES • PILOT PLANT STUDIES
WATER/WASTE WATER LABORATORY AND ANALYTICAL SERVICES

LABORATORY REPORT

Lab. No. 500795 & 551227B	Date Collected 2/10/75	Date Received 2/11/75
Premises of Sample Point Brookhaven Landfill Site	Client N.Y.S. Environmental Facilities Corp	
Address Horseblock Rd. Brookhaven		
Point of Collection Monitoring Well (Group 2) #2		
Type Wastewater:	Raw Well	
<input type="checkbox"/> Sewage (raw)	<input type="checkbox"/> Mixed Liquor	<input type="checkbox"/> Industrial
<input type="checkbox"/> (treated)	<input type="checkbox"/> Sludge	

BACTERIOLOGICAL Total: <2.0
Fecal: <2.0

pH	5.4
Alk	2.4 mg/l
Hardness	15 mg/l
Cl ⁻	6.0 "
NH ₃	<.1
TKN	<.15"
BOD	>14 "
COD	70
T. Phos.	1.75 "
SO ₄	10 mg/l
MBAS	<.08 "
Phenol	6.5 ug/l
NO ₂	<.1 mg/l
NO ₃	.40 mg/l
As	<.02 "
Be	<0.1 "
Cu	.04 "
Zn	2.6
Cr ⁺⁶	<.01
Cr (total)	<.02 "
K	1.1 "
Na	3.0 "
Hg	.8 ug/l
Pb	<0.2 mg/l
Ca	4.4 "
Mg	1.01 "
Fe	2.8 "

RECEIVED
MAR 10 1975
ENVIRONMENTAL QUALITY
REGION 1

Samples collected by: **client**

REMARKS:

S. C. McLENDON, P.E., Director
Sanitary Engineer

2/28/75

Date Reported



H2M CORP. / Environmental Engineers & Scientists

HOLZMACHER, McLENDON & MURRELL

500 BROAD HOLLOW ROAD MELVILLE, NEW YORK 11746 (516) NY 4-3043

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AQUATIC & MARINE ECOLOGY • MODEL STUDIES • PILOT PLANT STUDIES
WATER/WASTE WATER LABORATORY AND ANALYTICAL SERVICES

LABORATORY REPORT

7.5/13

Lab. No. 500796 & 551228B	Date Collected 2/10/75	Date Received 2/11/75
Premises of Sampling Point Brookhaven Landfill Site	Client E.Y.S. Environmental Facilities Corp.	
Address Horseblock Rd. Brookhaven		
Point of Collection Monitoring Well (Group 3) #5 84		
Type Wastewater:	Raw Well	
<input type="checkbox"/> Sewage (raw) <input type="checkbox"/> Mixed Liquor		
<input type="checkbox"/> (treated) <input type="checkbox"/> Sludge <input type="checkbox"/> Industrial		

BACTERIOLOGICAL Total: > 240
Fecal: <2.0

pH	5.5
Alk	4.8 mg/l
Hardness	28 "
Cl	6.0 "
NH ₃	<.1 "
TKN	<.15 "
BOD	2
COD	6
T.Phos.	0.15 mg/l
SO ₄	11 "
MBAS	<.08 "
Phenol	2.1 ug/l
NO ₂	<.1 mg/l
NO ₃	<.1 "
As	<.02 "
Be	<0.1 "
Cu	.10 "
Zn	2.9 "
Cr ⁺⁶	<.01 "
Cr (total)	.03 "
K	3.7 "
Na	4.7 "
Hg	<.3 ug/l
Pb	0.2 mg/l
Ca	3.6 "
Mg	4.54 "
Fe	24.0 "

RECEIVED
MAR 10 1975
ENVIRONMENTAL QUALITY
REGION 1



Samples collected by: **client**

REMARKS:

S. C. McLendon
S. C. McLENDON, P.E., Director
Sanitary Engineer

2/28/75
Date Reported

6-713



H2M CORP. / Environmental Engineers & Scientists

HOLZMACHER, McLENDON & MURRELL

500 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11746 (516) MY 4-3043

WATER RESOURCES • WATER SUPPLY & TREATMENT • SEWERAGE & TREATMENT
AQUATIC & MARINE ECOLOGY • MODEL STUDIES • PILOT PLANT STUDIES
WATER/WASTE WATER LABORATORY AND ANALYTICAL SERVICES

LABORATORY REPORT

Lab. No. 500797 & 551229B	Date Collected 2/10/75	Date Received 2/11/75
Premises of Sample Brookhaven Landfill Site	Client N.Y.S. Environmental Facilities Corp.	
Address Horseblock Rd. Brookhaven		
Point of Collection Monitoring Well (Group 4) #2 14		
Type Wastewater:	<input type="checkbox"/> Sewage (raw)	<input type="checkbox"/> Mixed Liquor
	<input type="checkbox"/> (treated)	<input type="checkbox"/> Sludge
		<input type="checkbox"/> Industrial Raw well

Bacteriological Total: 38
Fecal: <2.0

pH ✓	4.4
Alk ✓	0
Hardness	19 mg/l
Ca ✓	7.5 "
NH ₃ ✓	<.1 "
TKN ✓	<.15 mg/l
BOD ✓	2
COD ✓	<5
T. Phos.	0.10 mg/l
SO ₄	16 mg/l
MBAS	<.08 "
Phenol ✓	<1 ug/l
NO ₂ ✓	<.1 mg/l
NO ₃ ✓	<.1 mg/l
As	<.02 "
Be	<0.1 "
Cu ✓	.14 "
Zn ✓	0.73 "
Cr ⁺⁶ ✓	<.01 "
Cr (total)	<.02 "
K	3.5 "
Na	5.0 "
Hg ✓	<.3 ug/l
Pb ✓	0.35 mg/l
Ca	4 "
Mg ✓	3.72 "
Fe ✓	63.0 "

RECEIVED
MAR 10 1975
ENVIRONMENTAL QUALITY
REGION 1



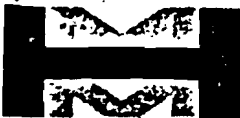
Samples collected by: **client**

REMARKS:

S. C. McLendon
S. C. McLENDON, P.E., Director
Sanitary Engineer

2/28/75

Date Reported



H2M CORP. / Environmental Engineers & Scientists

HOLZMACHER, McLENDON & MURRELL

500 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11746 (516) MY 4-3043

WATER RESOURCES • WATER SUPPLY & TREATMENT • SEWERAGE & TREATMENT
AQUATIC & MARINE ECOLOGY • MODEL STUDIES • FIELD PLANT STUDIES
WATER/WASTE WATER LABORATORY AND ANALYTICAL SERVICES

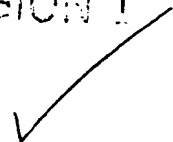
7/13

LABORATORY REPORT

Lab. No. 500798 & 551230B	Date Collected 2/10/75	Date Received 2/11/75
Premises of Sample Point Brookhaven Landfill Site	Client N.Y.S. Environmental Facilities Corp.	
Address Horseblock Rd., Brookhaven		
Point of Collection Monitoring Well (Group 5) #3 74'		
Type Wastewater:	<input type="checkbox"/> Sewage (raw) <input type="checkbox"/> Sewage (treated)	<input type="checkbox"/> Mixed Liquor <input type="checkbox"/> Sludge
	<input type="checkbox"/> Industrial	Raw Well Water

Bacteriological	Total 38
	Fecal <2.0
pH	7.0
Alk	95 mg/ℓ
Hardness	19 "
Cl ⁻	33.5 mg/l
NH ₃	34 "
TKN	35 "
BOD	>12 "
COD	550
T. Phos.	0.56 "
SO ₄	19 "
MBAS	<.08 "
Phenol	175 ug/l
NO ₂	<.1 mg/l
NO ₃	<.1 "
As	<.02 "
Be	<0.1 "
Cu	.15 "
Zn	3.6 "
Cr ⁺⁶	<.01 "
Cr (total)	.02 "
K	11 "
Na	30.0 "
Hg	<.3 ug/l
Pb	<u>0.3</u> mg/l
Ca	4.4 "
Mg	1.87 "
Fe	<u>6.3</u> "

RECEIVED
 MAR 10 1975
 ENVIRONMENTAL QUALITY
 REGION 1



Samples collected by: **client**

REMARKS:

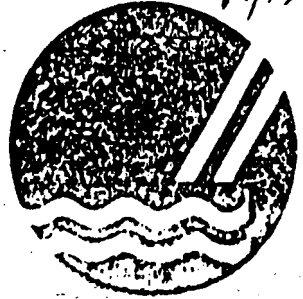
[Signature]
 S. C. McLENDON, P.E., Director
 Sanitary Engineer

2/28/75
 Date Reported

New York State Environmental Facilities Corporation
Sanitary Landfill, HORSEBLOCK ROAD, BROOKHAVEN, N.Y., 11719
Horseblock Road, Brookhaven, N.Y., 11719

Henry L. Diamond, Chairman

T. Dmytryk
8/13
AP/20
GDK



Arthur Handley, P.E. — Executive Director

RECEIVED
MAY 19 1975

May 14, 1975

ENVIRONMENTAL QUALITY
REGION 1

Mr. A. Macklin, P.E.
Regional Engineer
New York State Department of
Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

RECEIVED

JUN 27 1975

Re: BUREAU OF FACILITY
DESIGN AND OPERATION
Monitoring Program
Brookhaven Landfill

Dear Mr. Macklin:

Herewith submitted are the quarterly analyses reports of samples taken from the monitoring wells at the Brookhaven Sanitary Landfill.

In reference to the analyses performed on February 10, 1975, the well sampled in group 1 should read well #2 instead of #3.

Very truly yours,

James H. Heil
James H. Heil, P.E.
Project Supervisor

JH/dk

Encl.

CC: Mr. Charles Miles, P.E.

Raymond O
USGS ?
SAND ?
SCDFC

9-113



LAUMAN LABORATORIES, INC.

100 LAUMAN LANE BETHPAGE, N.Y. 11714 • (516) 931-2305

REPORT OF CHEMICAL ANALYSES

ENVIRONMENTAL ANALYSIS

DATE May 9, 1975

Brookhaven Landfill Site SOURCE OF SAMPLE

Old Town Road & Horseblock Road Landfill Site

Brookhaven, N.Y. 11719 Observation Wells

Att: Mr. James H. Heil, P.E., Project Supervisor
COLLECTED 5/6/75 RECEIVED 5/6/75 REPORTED 5/8/75

	SAMPLING POINT	TIME
1	Group 1 Well #2	
2	Group 2 Well #2	
3	Group 3 Well #5	
4	Group 4 Well #2	

		1	2	3	4
TURBIDITY	UNITS	70	60	120	190
HYDROGEN ION CONCENTRATION	pH	5.8	6.2	5.7	5.2
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	6.	4.	4.	4.
HARDNESS, TOTAL AS CaCO ₃	mg/l	22.	24.	14.	24.
CHLORIDES, AS Cl	mg/l	9.	10.	9.	16.
IRON, AS Fe	mg/l	3.4	4.5	20.	40.
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Color	units	50	25	75	300
Specific Conductance	micro mho	45	45	40	80
Total Solids	mg/l	142.	130.	438.	381.

REMARKS

RECEIVED
MAY 10 1975

ENVIRONMENTAL QUALITY
REGION 1

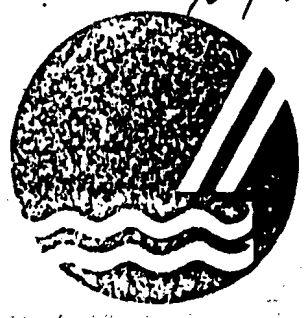
LAB. NO. C-13178
COLLECTED BY Client
ANALYZED BY CT

LAUMAN LABORATORIES, INC.

Thomas R. Scitelli
DIRECTOR

CDK
Do we know location?
Anything significant?
fe seems high
CWC

T. J. Snyder
10/13
JL
TS



New York State Environmental Facilities Corporation
Sanitary Landfill, ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
Horseblock Road, Brookhaven, N.Y., 11719

Henry L. Diamond, Chairman

Arthur Handley, P.E. -- Executive Director

RECEIVED

SEP 2 1975

BUREAU OF FACILITY
DESIGN AND OPERATION August 21, 1975

Mr. A. Macklin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

Re: Brookhaven Sanitary Landfill Site
Monitoring Wells

Dear Mr. Macklin:

Enclosed are the quarterly analyses results of samples taken from the monitoring wells at the Brookhaven site.

A new well was installed at our maintenance building on the northerly section of our site. The well number is S-55150.

The well is a good "upstream" well and thus will be included in our monitoring system.

Very truly yours,
James H. Heil
James H. Heil, P.E.
Project Supervisor

JH/dk

CC: Mr. Charles Miles, P.E.

Enc.

- cc *D. Lorkin* —
- A. Yerman* —
- J. Maloney* —
- D. Wiercius* —
- G. Kimmel* —
- A. Raymond* ✓

RECEIVED
AUG 23 1975
ENVIRONMENTAL QUALITY
REGION 1

LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305

ENVIRONMENTAL ANALYSIS

REPORT OF CHEMICAL ANALYSES

Att: Mr. James Heil, Project Super.

DATE Aug. 12, 1975

TO New York State Environmental Facilities Corp.

SOURCE OF SAMPLE

Brookhaven Landfill Site

Brookhaven, N.Y. 11719

COLLECTED 8/6/75

RECEIVED 8/6/75

REPORTED 8/11/75

SAMPLING POINT

TIME

1 Group 1-2

2 Group 2-2

3 Group 3-5

4 Group 4-2

		✓ 1	✓ 2	✓ 3	✓ 4
TURBIDITY	UNITS	100	60	170	180
HYDROGEN ION CONCENTRATION	pH	5.9	5.8	5.7	5.1
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	6	8	6	8
HARDNESS, TOTAL AS CaCO ₃	mg/l	14	18	16	30
CHLORIDES, AS Cl	mg/l	14	11	11	12
IRON, AS Fe	mg/l	16	5.8	25	45
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Color		20	5	5	< 5
Specific Conductivity	micro mho	50	45	45	80
Total Solids		410	170	780	520

REMARKS

AUG 23 1975

ENVIRONMENTAL QUALITY REGION 1

LAB NO. C-13437

LAUMAN LABORATORIES, INC.

COLLECTED BY client

ANALYZED BY TT

James R. Jankle
DIRECTOR

12713



LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305

ENVIRONMENTAL ANALYSIS

REPORT OF CHEMICAL ANALYSES

DATE Aug. 12, 1975

to N.Y. State Environmental Facilities Corp.

SOURCE OF SAMPLE

Brookhaven Landfill Site

Brookhaven, N.Y. 11719

COLLECTED 8/6/75

RECEIVED 8/6/75

REPORTED 8/11/75

SAMPLING POINT

TIME

1 Group 5-2

2 Group 5-3

3 Maintenance Bldg.

4

		1	2	3	4
TURBIDITY	UNITS	280	40	3	
HYDROGEN ION CONCENTRATION	pH	6.2	6.5	6.2	
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	10	12	12	
HARDNESS, TOTAL AS CaCO ₃	mg/l	30	24	24	
CHLORIDES, AS Cl	mg/l	10	23	12	
IRON, AS Fe	mg/l	50.	5.0	0.64	
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Color		20	60	≤ 5	
Specific Conductivity	micro mho	45	150	50	
Total Solius		1080	310	50	

REMARKS

ANALYZED BY
AUG 23 1975

ENVIRONMENTAL QUALITY
REGION 1

LAB. NO. C-13437

COLLECTED BY client

ANALYZED BY TT

LAUMAN LABORATORIES, INC.

[Signature]
DIRECTOR

GA-30.1



J. Licata

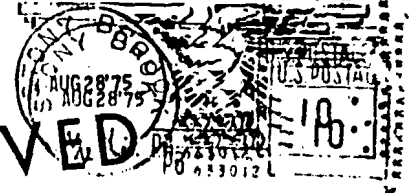
New York State Department of Environmental Conservation

BUILDING 40

STATE UNIVERSITY OF NEW YORK

STONY BROOK, NEW YORK 11794

RECEIVED



SEP 2 1975

*Mr. A. Raymond
N.Y.S. Dept. of
Solid Wastes
50 Wolf Road
Albany, New York 12233*

*Environmental
BUREAU OF FACILITY
DESIGN AND OPERATION
Conservation*

13-713

E.F.C.

Solid Waste Disposal Area BROOKHAVEN LANDFILL

Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.

Exact Sampling Point WELL #2 (GROUP 1)

(Common Name)

County SUFFOLK

Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	NO ₃	As	Be	Cu	Zn	Cr ⁺⁶	TOTAL CR	K	Na	Hg	Pb	Ca	Fe
Date 2/19/75 HZM CCR	0.40	<0.02	<0.1	0.18	5.9	<0.01	0.03	4.7	5.	<0.3	0.2	5.2	12.7
5/6/75 LAUNDRY	—	—	—	—	—	—	—	—	—	—	—	—	9.4
12/21/72	0.30	—	—	WELL #2 (No GROUP No.) <0.05	3.1	—	—	—	—	—	0.6	—	3.5
4/3/73	0.50	—	—	WELL #2 (No. GROUP No.) —	—	—	—	—	—	—	—	—	0.06
8/6/75	—	—	—	—	—	—	—	—	—	—	—	—	16.
11/19/75	—	—	—	—	—	—	—	—	—	—	—	—	7.6
3/5/76	—	—	—	—	—	—	—	—	—	—	—	—	8.4
verage													

11/19/75

(Water Analysis Summary Report)

E.F.C.

Solid Waste Disposal Area BROOKHAVEN LANDFILL

Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
(Common Name)

Exact Sampling Point WELL #2 (GROUP 1)

County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	Mg	TURBIDITY J.T.U.	COLOR	SPECIFIC CONDUCTANCE	TOTAL SOLIDS								
Date													
2/19/75 H2H COOP	2.32	—	—	—	—								
5/6/75 LAUMAN LABOR.	—	70	50	45	142.								
12/21/72	20.05	—	—	91.	59.								
4/3/73	0.5	—	—	53.	—								
8/6/75	—	100.	20.	50.	410.								
Lauman 11/19/75	—	90.	20.	45.	400.								
3/6/76	—	55.	—	35	346								
Average													

2/24/76

(Water Analysis Summary Report)

52502

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
 (Common Name)

Exact Sampling Point Well #2 Group 2 County SUFFOLK Gazetteer Number 5151

Below Land surface B-Well #2 - Casing 51'-3" Pt. 2'-0" = 59'-3" TOTAL. H₂O @ 47'-3"

Type of Sample: Leachate Groundwater Surface Water Other

Parameter / Date	pH	ALKALINITY	HARDNESS	CL ⁻	NH ₃	TKN	B.O.D.	C.O.D.	TOTAL PHOSPHATE	SO ₄	MBAS	PHENOL mg/l	NO ₂
2/19/75	5.7	2.4	15.	6.0	<.10	<.15	>14.	70.	1.75	10.	20.08	6.5	<.1
5/6/75 LAUMAN LAB	6.2	4.	24.	10.	—	—	—	—	—	—	—	—	—
8/6/75 Lauman	5.8	8.	18.	11.	—	—	—	—	—	—	—	—	—
11/19/75 Lauman.	6.0	6.	20.	10.	—	—	—	—	—	—	—	—	—
Lauman 3/6/76	5.9	8.	14.	10.	—	—	—	—	—	—	—	—	—
Average													

Received from NYDEC Bureau of Landfills

4/21/76

Division of Solid Waste Management
(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
 Exact Sampling Point WELL #2 GROUP 2 (Common Name)
 County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter / Date	NO ₃	As	Be	Cu	Zn	Cr ⁺⁶	TOTAL CR.	K.	Na	Hg M/L	Pb.	Ca	Mg
2/10/75	0.40	4.02	4.01	0.04	2.6	4.01	4.02	1.1	3.0	0.8	40.2	4.4	1.01
8/6/75 Lauman	—	—	—	—	—	—	—	—	—	—	—	—	—
11/19/75 Lauman	—	—	—	—	—	—	—	—	—	—	—	—	—
Average													

9/1/73

Solid Waste Disposal Area E. F. C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD BROOKHAVEN
 Exact Sampling Point WELL # 2 GROUP 2 (Common Name)
 County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	Fe.	TURBIDITY J.T.U.	COLOR.	SPECIFIC CONDUCTANCE	TOTAL SOLIDS								
2/10/75	(2.8)	60.	-	-	-								
5/6/75	(4.5)	-	25	45.	130.								
8/6/75 Lauman	(5.8)	60.	5.	45.	170.								
11/19/75 Lauman	(2.8)	15.	15.	40.	130.								
3/6/76	(4.3)	35.	-	30.	169.								
Average													

12/9/76

STATE OF NEW YORK
(Water Analysis Summary Report)

S2S02

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.

Exact Sampling Point GROUP 3 WELL #5 (Common Name)
County SUFFOLK Gazetteer Number 5151

Detection Well. Casing - 44'-5" Pt. 40'-0" - 84'-5" total. Water 42'-11"

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	pH	Alkalinity	Hardness	Cl ⁻	NH ₃	TKN	B.O.D.	C.O.D.	Total Phosphate	SO ₄	MBAS	Phenol	NO ₂
2/10/75 H.M.	5.5	4.8	28.	6.0	<.10	<.15	2.	6.	0.15	11.	<0.08	49/l 2.1	<.10
5/6/75 Lauman	5.7	4.	14.	9.0	-	-	-	-	-	-	-	-	-
8/6/75 Lauman	5.7	6.	16.	11.0	-	-	-	-	-	-	-	-	-
11/19/75 Lauman	6.0	6.	20.	9.	-	-	-	-	-	-	-	-	-
3/6/76 Lauman	5.9	6.	16.	11.	-	-	-	-	-	-	-	-	-
Average													

Received from
NYDEC Bureau of Landfills

2/2/76

Division of Environmental Conservation
(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. Brookhaven
Exact Sampling Point GROUP # 3 WELL # 5

Location Horseblock Road, Brookhaven, N.Y.
(Common Name)
County Suffolk Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	NO ₃	As	Be	Cu	Zn	Cr ⁺⁶	Total Cr	K	Na	Hg	Pb	Ca	Mg
Date													
2/10/75													
H ₂ M	4.1	4.02	40.1	.10	2.9	40.01	.03	3.7	4.7	40.3	0.2	3.6	4.54
Average													

2/1/78

(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. Brookhaven Landfill Location Horseblock Road Brookhaven N.Y.
Exact Sampling Point Group 3 Well # 5 (Common Name) County Suffolk Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	Fe	Turbidity J.T.U.	Color	Specific Conductance	Total Solids								
Date													
2/10/75 H ₂ M	24.0	-	-	-	-								
5/6/75 Lauman	20.0	120.0	75.	40.	438.								
8/6/75 Lauman	25.0	170.0	5.	45.	780.								
11/19/75 Lauman	19.0	70.0	30.	40.	630.								
3/6/76	10.4	75.0	-	35.	383.								
Average													

9/1/76

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD BROOKHAVEN N.Y.

Exact Sampling Point MONITORING WELL GROUP 4 WELL #2 (Common Name)
 County SUFFOLK Gazetteer Number 5151

Below land surface B=2 Casing=20'-1 1/2" Pt.=2'-0" = 22'-1 1/2" Total H₂O @ 12' 8"

Type of Sample: Leachate Groundwater Surface Water Other

Parameter Date	pH	ALK	Hardness	Cl ⁻	NH ₃	TKN	B.O.D.	C.O.D.	Total Phosphates	SO ₄	MBAS	Phenol	NO ₂
2/10/75 Lauman	4.4	0	19.	7.5	2.1	2.15	2.	25.	0.10	16.	20.08	49/c 21	<.1
5/6/75 Lauman	5.2	4.	24.	16.	—	—	—	—	—	—	—	—	—
8/6/75 Lauman	5.1	8.	30.	12.	—	—	—	—	—	—	—	—	—
11/19/75 Lauman	6.9	16.	30.	10.	—	—	—	—	—	—	—	—	—
3/6/76 Lauman	6.7	16.	24.	11.	—	—	—	—	—	—	—	—	—
Average													

Received from
 NYDEC Bureau of Landfills

10-7-76

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 (Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN N.Y.
 (Common Name)
 Exact Sampling Point MONITORING WELL GROUP 4 WELL # 2 County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	NO_3	As	Be	Cu	Zn	Cr^{+6}	Cr_{total}	K	Na	Hg	Pb	Ca	Mg
Date													
2/10/75 H ₂ M	<.1	<.02	<0.1	.14	0.73	4.01	<.02	3.5	5.0	4.3	0.35	4.	3.72
Average													

11 of 16

Division of Solid Waste Management
(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
 (Common Name)
 Exact Sampling Point MONITORING WELL GROUP 4 WELL #2 County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Date	Parameter	Turbidity J.T.U.	Color	Specific Conductance	Total Solids									
H ₂ M 2/19/75	Fe (63.0)	—	—	—	—									
5/6/75 Lauman.	(40.0)	190.	300.	80.	381.									
8/6/75 Lauman.	(45.0)	180.	45.	80.	520.									
11/19/75 Lauman	(21.0)	70.	20.	55.	590.									
3/6/75 Lauman.	(6.3)	50.	—	45.	212.									
Average														

12/1/76

UPGRAD^{ed} Well

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HOISEBLOCK ROAD, BROOKHAVEN, N.Y.
 (Common Name)

Exact Sampling Point MONITORING WELL GROUP 5 WELL #3 County SUFFOLK Gazetteer Number 5151

C=3 Below Land surface. Casing 72'-0" PL 2'-0" = 74'-0" TOTAL H₂O @ 52'-0"

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	pH	Alkalinity	Hardness	Cl ⁻	NH ₂	T.K.N	B.O.D.	C.O.D.	Total Phosphates	SO ₄	MBAS	PH ₂ /C Phenol	NO ₂
2/10/75 H2M	7.0	95.	19.	33.5	34.	35.	>12	550.	0.56	19.	<.08	175.	<.1
5/6/75 Lauman	6.7	118.	12.	27.	—	—	—	—	—	—	—	—	—
8/6/75 Lauman	6.5	12.	24.	23.	—	—	—	—	—	—	—	—	—
11/19/75 Lauman	6.6	60.	28.	16.	—	—	—	—	—	—	—	—	—
3/6/76 Lauman	6.4	34.	16.	17.	—	—	—	—	—	—	—	—	—
Average													

Received from
 NYDEC Bureau of Landfills

13/1/76

Division of Solid Waste Management
(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL

Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
(Common Name)

Exact Sampling Point MONITORING WELL GROUP 5 WELL #3

County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	NO ₃	As	Be	Cu	Zn	Cr ⁺⁶	Cr ^{total}	K	Na	Hg	Pb	Ca	Mg
Date <u>2/10/95</u>													
HzM.	2.1	2.02	<0.1	.15	3.6	<.01	.02	11.	30.	2.3	0.3	4.4	1.87
Average													

149/16

Division of Solid Waste Management
(Water Analysis Summary Report)

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HORSEBLOCK ROAD, BROOKHAVEN, N.Y.
Exact Sampling Point MONITORING WELL GROUP 5 WELL #3 (Common Name) County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Date	Parameter	Turbidity J.T.U.	Color	Specific Conductance	Total Solids									
2/19/75	Fe 6.3	—	—	—	—									
5/6/75	Lauman 4.1	90.	100.	250.	239.									
8/6/75	Lauman 5.2	40.	60.	150.	310.									
11/19/75	Lauman 11	60.	60.	120.	600.									
3/6/76	10.	35.		90.	214.									
Average														

15/1/16

Solid Waste Disposal Area E.F.C. BROOKHAVEN LANDFILL Location HOESEBLOCK ROAD, BROOKHAVEN, N.Y.
 (Common Name)
 Exact Sampling Point MAINT. BLDG. WELL - S55150 County SUFFOLK Gazetteer Number 5151

Type of Sample: Leachate Groundwater Surface Water Other

Parameter	pH	Turbidity J.T.U.	Total Alkalinity	Total Hardness	Cl ⁻	Fe	Color	Specific Conductivity	Total Solids				
Date 9/6/75 Location Lauman	6.2	3.	12.	24.	12.	0.64	45.	50.	50.				
Date 11/19/75 Location Lauman	6.1	1.	6.	14.	14.	0.33	45.	60.	37.				
Date 3/6/76	6.9	41.0	10.	16.	16.	0.20	-	50.	46.				
Average													

Received from
 NYDEC Bureau of Landfills

10/1/76

Received from
NYDEC Bureau of Landfills

New York State Environmental Facilities Corporation
Sanitary Landfill, ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
Horseblock Road, Brookhaven, N.Y., 11719
(516-286-2828)

Henry L. Diamond, Chairman

Arthur Handley, P.E. — Executive Director

Handwritten initials:
AHH
~~CH~~
GDR



March 16, 1976

Mr. A. Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

Re: Brookhaven Landfill Site

Dear Mr. Machlin:

Enclosed are the quarterly laboratory analyses results of water samples taken from the monitoring wells at the referenced site.

Very truly yours,
James H. Heil
James H. Heil, P.E.
Project Supervisor

RECEIVED
APR 6 1976
BUREAU OF FACILITY DESIGN AND OPERATION

JH/dk

CC: Mr. Charles Miles, P.E.

CC: *Raymond
Kimmel
D. Finkis
D. Wierwille
J. Maloney*

RECEIVED
MAR 18 1976
ENVIRONMENTAL QUALITY
REGION 1

For your info. + files.

John Licata



LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305

REPORT OF CHEMICAL ANALYSES

ENVIRONMENTAL ANALYSIS

DATE March 11, 1976

TO N.Y.S. Environmental Facilities Corp.

SOURCE OF SAMPLE

Horseblock Road

Brookhaven Landfills

Brookhaven, N.Y. 11719

COLLECTED 3/5/76

RECEIVED 3/5/76

REPORTED 3/11/76

SAMPLING POINT

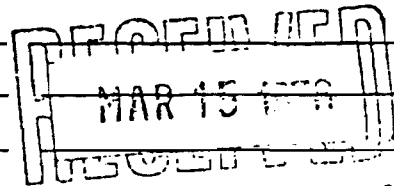
TIME

1 Group 1 #2

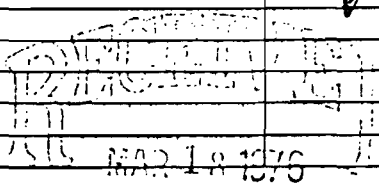
2 Group 2 Well #2

3 Group 3 Well #5

4 Group 4 Well #2



		1	2	3	4
TURBIDITY	UNITS	55 ✓	35 ✓	75 ✓	50
HYDROGEN ION CONCENTRATION	pH	6.3 ✓	5.9 ✓	5.9	6.7
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	6 ✓	8 ✓	6	16
HARDNESS, TOTAL AS CaCO ₃	mg/l	10 ✓	14	16	24 ✓
CHLORIDES, AS Cl	mg/l	25 ✓	10 ✓	11	11
IRON, AS Fe	mg/l	8.4 ✓	4.3 ✓	10.4	6.3 ✓
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Specific Conduct.	micro mho	35	30	35	45
Total Solids	mg/l	346	169	383	212
		✓	✓		
				✓	



REMARKS

ENVIRONMENTAL QUALITY REGION 1

LAB. NO. C-13978

LAUMAN LABORATORIES, INC.

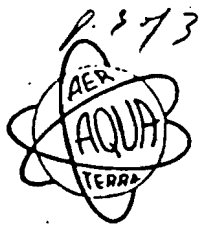
COLLECTED BY Client

ANALYZED BY CT, TT, TP

Thomas R. Neill
DIRECTOR

LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305



REPORT OF CHEMICAL ANALYSES

ENVIRONMENTAL ANALYSIS

DATE March 11, 1976

TO N.Y.S. Environmental Facilities Corp.

SOURCE OF SAMPLE

Horseblock Road

Brookhaven Landfills

Brookhaven, N.Y. 11719

COLLECTED 3/5/76

RECEIVED 3/5/76

REPORTED 3/11/76

	SAMPLING POINT	TIME
1	Group 5 <i>Well # 3</i>	
2	S 55150	
3		
4		

	UNITS	1	2	3	4
TURBIDITY		35	1		
HYDROGEN ION CONCENTRATION	pH	6.4	6.0		
FREE CARBON DIOXIDE, AS CO ₂	mg/l				
ALKALINITY P, AS CaCO ₃	mg/l				
TOTAL ALKALINITY, AS CaCO ₃	mg/l	34	10 ✓		
HARDNESS, TOTAL AS CaCO ₃	mg/l	16	16 ✓		
CHLORIDES, AS Cl	mg/l	17	16		
IRON, AS Fe	mg/l	10.0	0.20		
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Specific Conduct.	micro mho	90	50		
Total Solids	mg/l	214	46		

ENVIRONMENTAL QUALITY REGION I
MAR 18 1976

RECEIVED
MAR 15 1976
LAUMAN LABORATORIES, INC.

REMARKS

LAB. NO. C-13978

COLLECTED BY Client

ANALYZED BY CT, TT, TP

Thomas R. Feulle
DIRECTOR

LAUMAN LABORATORIES, INC.

52502 *at* Appendix 1.4-4
There is a letter that he was going to do? *1/1/74*
now doing it. *t*

Received from
HYDEC Bureau of Land

TOWN OF BROOKHAVEN



LANDFILL OPERATIONS

TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK, 11772
516 - 286-2828

file landfill leachate

August 5, 1977

Mr. Albert Machlin, P.E.
Regional Engineer
N.Y.S. D.E.C.
Bldg. 40 - State Campus
Stony Brook, New York, 11790

*To: CHB
JM
DW
F.Y.I.
8/14
am*

Re: Brookhaven Landfill Site

Dear Mr. Machlin:

Enclosed are the quarterly analytical results of samples taken from the monitoring wells at the Brookhaven Landfill site.

Very truly yours,

James H. Heil
James H. Heil, P.E.
Director

JH/dk
Encls.

RECEIVED
AUG - / (1977)
BUREAU OF MANAGEMENT PROGRAMS

Volumetric Techniques Ltd.
 1598 Lakeland Avenue
 Bohemia, New York 11716
 516-589-0404

Laboratory Number 7707140

Sander R. Sternig
 Lab Director

Date:
 Collected 7/14/77
 Received 7/14/77
 Completed 7/30/77
 Report ASL

To: Town of Brookhaven
 Yaphank land Fill
 Yaphank, NY 11980

Parameters

Point of Collection	Merl ppm	Bacteria								
		Fec	Tot							
		mpn	mpn							
Group 1 Well # 2 77071403	0.001	<	<	2.2	2.2					
Group 2 Well # 2 77071404	0.001	<	<	2.2	2.2					
Group 3 Well # 5 77071405	0.001	<	<	2.2	2.2					
Group 4 Well # 2 77071406	0.001	<	<	2.2	2.2					
Group 5 Well # 3 77071407	0.001	<	<	2.2	2.2					
Maintenance Building S 55150 77071408	0.001	<	<	2.2	2.2					

ANALYZED
 AUG 9 1977
 REGION 1

All tests are run under the guidance of "Standard Methods, For the Examination of Water and Wastewater."
 Volumetric Techniques, Ltd. assumes the responsibility only for the accuracy of the test run, if not taken by
 lab personnel, upon being received at the lab. Sander R. Sternig, Director of Laboratories

P. 304

Volumetric Techniques Ltd.
 1598 Lakeland Avenue
 Bohemia, New York 11716
 516-589-0404

Laboratory Number 770714

Sander R. Sternig
 Lab Director

Date:
 Collected 7/14/77
 Received 7/14/77
 Completed 7/30/77
 Report S.R.S.

To: Town of Brookhaven
 Yaphank Land Fill
 Horse Block Rd.
 Yaphank, NY 11980

Parameters

Point of Collection	BOD ppm	COD ppm	pH	Sp. Cond uohm ppm	As ppm	ABS ppm	Cl ppm	Cd ppm	Cr ⁶ ppm	tot Cr ppm	Cu ppm	Fe ppm	T. F ppm
Group 1 Well # 2 77071403	9.5	7.6	6	138560	0.030	0.05	39	0.01	0.010	0.010	0.01	3.30	0.26
Group 2 Well # 2 77071404	5.4	19.85	6.5	132500	0.060	0.05	14.20	0.010	0.010	0.010	0.01	1.35	0.15
Group 3 Well # 5 77071405	0.7	15.3	5	216320	0.001	0.05	10.60	0.01	0.010	0.010	0.01	1.05	0.14
Group 4 Well # 2 77071406	2.1	21.4	6	1,325	0.020	0.057	7.1	0.010	0.010	0.010	0.01	1.0	0.13
Group 5 Well # 3 77071407	35.1	111	6.6	1157400	0.010	0.05	17.70	0.010	0.010	0.010	0.01	7.1	1.0
Maintenance Building S 55150 77071408	2.52	2.0	5.95	19,2720	0.0020	0.05	21.30	0.010	0.010	0.010	0.010	0.08	0.1
	<1.0												

All tests are run under the guidance of "Standard Methods for the Examination of Water and Wastewater".
 Volumetric Techniques, Ltd. assumes the responsibility for the accuracy of the tests run, if not taken by
 Sander R. Sternig, Director of Laboratories

404

Volumetric Techniques Ltd.
 1598 Lakeland Avenue
 Bohemia, New York 11716
 516-589-0404

Laboratory Number 77071403

Sander R. Sternig
 Lab Director

Date:
 Collected 7/14/77
 Received 7/14/77
 Completed 7/30/77
 Report [Signature]

To: Town of Brookhaven
 Yaphank Land Fill
 Horseblock Rd.
 Yaphank, NY 11980

Parameters

Point of Collection	NO ₃ ppm	NH ₃ ppm	TKN ppm	Zn ppm	Ca ppm	Mn ppm	Mg ppm	Na ppm	K ppm	Pb ppm	Hg ppm	SO ₄ ppm
Group 1 Well # 2 77071403	2.70	0.010	<	0.050	0.750	<	1.3	5.0	0.10	<	<	<
Group 2 Well #2 77071404	4.20	0.010	<	0.01	1.20	<	1.4	4.5	0.09	<	<	<
Group 3 Well # 5 77071405	2.20	0.010	<	0.03	3.00	<	1.7	5.7	0.15	<	<	<
Group 4 Well # 2 77071406	1.96	0.010	<	0.04	1.4	1.4	1.1	5.0	0.010	<	<	<
Group 5 Well # 3 77071407	2.2	56.4	57.5	1.1	5.90	0.03	1.6	11	6.7	0.010	<	<
Maintenance Building S 55150 77071408	2.60	0.170	0.59	1.6	1.60	0.01	1.4	12	0.010	<	<	<

AUG 9 1977
 REGION 1

All tests are run under the guidance of "Standard Methods. For the Examination of Water and Wastewater."
 Volumetric Techniques, Ltd. assumes the responsibility only for the accuracy of the tests run, if not taken by
 lab personnel, upon being received at the lab. Sander R. Sternig, Director of Laboratories



LANDFILL OPERATIONS

TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK, 11772

516-286-2828

21-72

Received from
NYDEC Bureau of Landfills

November 21, 1977

Mr. A. Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, New York, 11790

*LEHO
JM
DW
FYI
for
8/4*

Re: Brookhaven Landfill

Dear Al:

Enclosed are the quarterly sampling results from the monitoring wells at the Horseblock Road site.

As per a recent discussion, we have sampled all three wells at Group #2. On subsequent sampling we will sample all the wells in each group.

Very truly yours,

James H. Heil, P.E.
Head of Operations

JH/dk

Encl.

RECEIVED
NOV 23 1977

VOLUMETRIC TECHNIQUES LTD.
 1598 LAKE LAND AVENUE
 BOHEMIA, NEW YORK 11716
 516-589-0404

SANDER R. STERNIG
 Director of Laboratories

LABORATORY NUMBER 77111101

SAMPLED BY Town of Brookhav
 DATE:

COLLECTED 11/11/77

RECEIVED 11/11/77

COMPLETED 11/18/77

REPORTED BY [Signature]

TO: **Town of Brookhaven**
Sanitary Landfill at Yaphank
Horseblock Rd.
Brookhaven, NY 11719

PARAMETERS

POINT OF COLLECTION	BOD ppm	COD ppm	pH	Sp. Cond ohms	TDS ppm	TSS ppm	Cl ppm	Fe ppm	Coliform Fecal mpn	Coliform Total mpn
<i>Group</i> Well 4 #3 77111101		1.0	5.6	38.92			10.84	< 0.01		
<i>Group</i> Well 3 #5 77111105		101.9	4.7	19.26			13.3	< 0.01		
<i>Group</i> Well 2 #1 77111106		109.8	4.9	40.61			2.0	< 0.01		
<i>Group</i> Well 2 #2 77111107		62.72	4.5	33.14			8.38	< 0.01		
<i>Group</i> Well 2 #3 77111108		7.84	5.7	26.0			10.84	< 0.01		

All tests are run under the guidance of "Standard Methods, For the Examination of Water and Wastewater."
 Volumetric Techniques, Ltd. assumes the responsibility only for the accuracy of the tests run, if not taken by
 lab personnel, upon being received at the lab. [Signature]
 Sander R. Sternig, Director of Laboratories

Appendix 1.4-6

Brookhaven

10/3



TOWN OF BROOKHAVEN

Received from
NYDEC Bureau of Landfills
SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

VINCENT C. FELICE
COMMISSIONER OF SANITATION
GROVER 5-5500

MAR 30 1978

March 28, 1978

Mr. A. Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Building 40 - State Campus
Stony Brook, New York

Re: Brookhaven Landfill

Dear Mr. Machlin:

Enclosed is a copy of the analytical results of the water samples taken from the monitoring wells at the Brookhaven landfill.

Very truly yours,

James H. Heil
James H. Heil
Head of Operations

JHH:ae
Enc.

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

120/3

DATE: March 6, 1978

TO: Town of Brookhaven
Town Hall
Patchogue, N.Y.

SOURCE OF SAMPLE
Brookhaven Landfill
Monitoring Well S55150

COLLECTED 2/26/78 RECEIVED 2/28/78 REPORTED 3/4/78

ANALYTICAL PARAMETERS

- 1 Chlorides as Cl, mg/L
- 2 Iron as Fe, mg/L
- 3 Specific Conductance, micro mho
- 4 pH units
- 5 COD, mg/L

LOCATION	1	2	3	4	5
Monitoring Well S55150	15	0.39	88	6.2	<1

REMARKS:

LAB NO: C780062

COLLECTED BY: _____

ANALYZED BY: TRT TUP

ECOTEST LABORATORIES, INC.

Thomas R. Steille
director

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: March 21, 1978

TO: Town of Brookhaven

Town Hall

Patchogue, N.Y.

SOURCE OF SAMPLE

Brookhaven Landfill
Horseblock Rd.
Brookhaven N.Y.
Monitoring Wells

COLLECTED 3/17/78 RECEIVED 3/17/78 REPORTED 3/21/78

ANALYTICAL PARAMETERS

1 Chlorides as Cl, mg/L

2 Iron as Fe, mg/L

3 Specific Conductance, micro mho

4 pH, units

5 COD, mg/L

LOCATION	1	2	3	4	5
Group 1, well #3	6.	2.6	54	6.1	50
Group 2, well #2	5.	2.2	51	5.9	31
Group 3, well #5	7.	1.6	66	5.5	27
Group 4, well #3	6.	0.60	48	5.3	31
Group 5, well #2	5.	8.5	47	5.7	35

REMARKS:

LAB NO: C780082

COLLECTED BY: Client

ANALYZED BY: TUP, TRT

ECOTEST LABORATORIES, INC.


 director

S. Appendix 1.4.7

P 143



TOWN OF BROOKHAVEN

Cruisy

Received from
NIDEC Bureau of Landfills

SANITATION DEPARTMENT

TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772

OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

COMMISSIONER OF SANITATION

GROVER 5-5500

July 19, 1978

Mr. A. Machlin, P.E.
Regional Engineer
NYS Department of Environmental Conservation
Building 40 - State Campus
Stony Brook, NY 11794

RE: Brookhaven Landfill

Dear Mr. Machlin:

Enclosed please find the analytical results of samples taken from the ground water monitoring well at the referenced location.

Very truly yours,

James H. Heil

James H. Heil, P.E.,
Head of Operations

JHH: med
Enc.

cc: Yerman ✓

RECEIVED
JUL 21 1978
ENVIRONMENTAL QUALITY
REGION I

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: July 15, 1978TO: Town of Brookhaven

SOURCE OF SAMPLE

Town Hall

See below

Patchogue, N.Y.COLLECTED 6/21/78RECEIVED 6/21/78

REPORTED

7/10/78

LOCATION

1 Group 1 Well 22 Group 2 Well 23 Group 3 Well 54 Group 4 Well 25 Group 5 Well 3

ANALYTICAL PARAMETERS

	1	2	3	4	5
Iron as Fe, mg/L	6.80	1.19	1.89	0.70	4.25
Manganese as Mn, mg/L	0.72	0.21	8.15	0.48	0.47
Copper as Cu, mg/L	0.09	0.35	0.60	0.17	0.40
Zinc as Zn, mg/L	2.65	0.19	0.37	0.16	0.44
Chromium as Cr, mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Sodium as Na, mg/L	5.	4.	5.	5.	6.
Potassium as K, mg/L	1.8	1.0	2.0	<1.0	5.0
Calcium as Ca, mg/L	21.	3.4	6.0	3.0	7.5
Magnesium as Mg, mg/L	2.5	2.1	2.8	1.4	1.9
Chlorides as Cl, mg/L	7	6	12	8	11
Turbidity, units	90	13	28	10	19
Specific Conductance, micro mho	190	61	94	58	800
MBAS as LAS	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel as Ni, mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium as Cd, mg/L	0.0028	0.0023	0.0046	<0.0010	0.0015

REMARKS:

LAB NO: C780213COLLECTED BY: ClientANALYZED BY: TRT TUP



director

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: July 15, 1978

TO: Town of Brookhaven

SOURCE OF SAMPLE

Town Hall

See below

Patchogue, N.Y.

COLLECTED 6/21/78 RECEIVED 6/21/78 REPORTED 7/10/78

LOCATION

1 Group 1 Well 2

2 Group 2 Well 2

3 Group 3 Well 5

4 Group 4 Well 2

5 Group 5 Well 3

ANALYTICAL PARAMETERS

	1	2	3	4	5
Fluoride as F, mg/l	0.44	<0.10	<0.10	<0.10	<0.10
Alkalinity as CaCO ₃ , mg/L	61	12	26	10	110
Hardness total as CaCO ₃ , mg/L	28	16	30	18	26
Sulfate as SO ₄ , mg/l	6	6	12	6	<5
Phenols as phenol, mg/l	0.019	0.008	0.002	<0.001	0.068
Lead as Pb, mg/l	0.078	0.083	0.066	0.026	0.098
Arsenic as As, mg/L	<0.004	<0.004	<0.004	0.004	<0.004
Chromium hexavalent as Cr, mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Mercury as Hg, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

REMARKS:

LAB NO: C780213

COLLECTED BY: Client

ANALYZED BY: TRT TUP

ECOTEST LABORATORIES, INC.

Thomas R. Gentle
director



Appendix 1.4-8
02002

Brookhaven
1/72

TOWN OF BROOKHAVEN

Received from
NYDEC Bureau of Landfills

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

COMMISSIONER OF SANITATION

GRover 5-5500

October 20, 1978

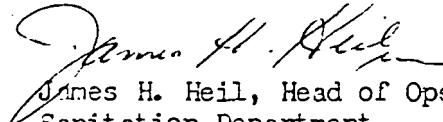
Mr. A. Machlin, P.E.
NY's Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, NY 11790

Re: Brookhaven Landfill

Dear Mr. Machlin:

Enclosed are the analytical results of the quarterly sampling of the monitoring wells at the Brookhaven Landfill.

Very truly yours,


James H. Heil, Head of Operations
Sanitation Department

JHH:med

cc: Yeman

ECOTEST LABORATORIES, INC.

8202

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: October 17, 1978

TO: Town of Brookhaven
Town Hall - 205 S. Ocean Ave
Patchogue, NY 11722

SOURCE OF SAMPLE
Brookhaven Landfill

COLLECTED 9/29/78 RECEIVED 9/29/78 REPORTED 10/13/78

LOCATION

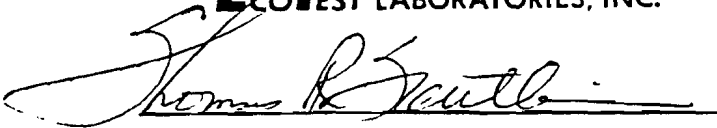
- 1 Group 2 - Mon. Well
- 2 Group 3 - Mon. Well
- 3 Group 4 - Mon. Well
- 4 _____
- 5 _____

ANALYTICAL PARAMETERS

	1	2	3	4	5
Chlorides as Cl, mg/l	6	9	5		
Iron as Fe, mg/L	2.3	2.5	0.56		
Specific Conductance, micro mho	57	98	54		
pH, units	5.8	5.4	5.9		
COD, mg/l	17	<4	11		

REMARKS:

LAB NO: C780394
COLLECTED BY: Client
ANALYZED BY: TRT TUP

ECOTEST LABORATORIES, INC.

director

M. Erickson

Appendix 1.4-9
52502

P143



TOWN OF BROOKHAVEN

Received from
HYDEC Bureau of Landfills

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

Arthur J. Muccio
COMMISSIONER OF SANITATION

GRover 5-5500

February 27, 1979

Mr. A. Machlin, PE
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bld. 40 - State Campus
Stony Brook, NY 11754

Dear Mr. Machlin:

Enclosed are the quarterly water analytical results of samples taken from the monitoring wells at the Brookhaven Landfill.

Very truly yours,

James H. Heil
James H. Heil
Head of Operations

eo

Enclosure

RECEIVED
MAR - 1 1979
ENVIRONMENTAL QUALITY
REGION 1

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: 2/5/79

TO: Town of Brookhaven

SOURCE OF SAMPLE

Town 205 S. Ocean Av.

Brookhaven Landfill

Patchogue, NY 11722

COLLECTED 1/25/79

RECEIVED 1/25/79

REPORTED 2/1/79

LOCATION

1 Group 1 - monitoring well 2

2 Group 2 - monitoring well 2

3 Group 3 - monitoring well 5

4 Monitoring well S55150

5

ANALYTICAL PARAMETERS

	1	2	3	4	5
Chlorides as Cl, mg/L	5	3	3	29	
Iron as Fe, mg/L	1.3	0.42	0.75	0.45	
Specific conductance, micro mho	51	35	47	123	
COD, mg/L	30	<4	5	<4	
pH, units	5.8	5.6	5.3	6.3	

REMARKS:

C790051

LAB NO: _____

COLLECTED BY: Client

ANALYZED BY: TUP TRT

ECOTEST LABORATORIES, INC.



director

P. 343

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: February 22, 1979

TO: Town of Brookhaven
Town Hall, 205 S. Ocean Ave
Patchogue, NY 11722

SOURCE OF SAMPLE
Brookhaven Landfill

COLLECTED 2/2/79 RECEIVED 2/2/79 REPORTED 2/9/79

LOCATION

1	Group 4 - Monitoring Well #2	Lab No. G790066/2
2	Group 5 - Monitoring Well #3	" " C790066/3
3		
4		
5		

ANALYTICAL PARAMETERS

	1	2	3	4	5
Chlorides as Cl, mg/L	7	7			
Iron as Fe, mg/L	0.60	9.2			
Specific Conductance, micro mho	51	130			
pH, units	6.0	6.1			
COD, mg/L	<4	38			

REMARKS:

LAB NO: C790066/2,3

COLLECTED BY: Client

ANALYZED BY: TRT TUP

ECOTEST LABORATORIES, INC.


director



52502

Appendix 1.4-10

RECEIVED

OCT 31 1979

ENVIRONMENTAL QUALITY
REGION 1

TOWN OF BROOKHAVEN

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

Received from
NYDEC Bureau of Landfill

ARTHUR J. MUCCIO
COMMISSIONER OF SANITATION
Grover 5-5500

52-5-02
October 29, 1979

Mr. A. Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, NY 11790

Re: Brookhaven Landfill

Dear Mr. Machlin:

Enclosed are the analytical results of samples taken from the groundwater monitoring wells at the Brookhaven Landfill.

Very truly yours,

James H. Heil
James H. Heil, Head of Operations
Sanitation Department

JHH:med
Enc.

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. - UNIT 1 - FARMINGDALE, N.Y. 11735 - (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: October 16, 1979

TOWN OF Brookhaven

SOURCE OF SAMPLE

205 S Ocean Ave

Patchogue NY 11772

COLLECTED _____ RECEIVED 9/14/79 REPORTED _____

LOCATION

1 Brookhaven Landfill Monitoring Well Group 1, Well 2

2 Brookhaven Landfill Monitoring Well Group 2, Well 2

3 Brookhaven Landfill Monitoring Well Group 3, Well 3

4 Brookhaven Landfill Monitoring Well Group 4, Well 2

5 Brookhaven Landfill Monitoring Well Group 5, Well 3

ANALYTICAL PARAMETERS

	1	2	3	4	5
Alkalinity as CaCO ₃ , mg/l	14.	8.	22.	18.	150.
Hardness as CaCO ₃ , mg/l	16	14	30	20	40
Sulfate as SO ₄ , mg/l	9	9	11	8	5
Phenols as Phenol, mg/L	<0.001	<0.001	0.002	<0.001	0.30
Lead as Pb, mg/l	0.09	0.11	0.14	0.09	0.19
Arsenic as As, mg/L	<0.002	0.004	<0.002	<0.002	0.002
Chromium, hexavalent as Cr, mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Mercury as Hg, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silver as Ag, mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Coliform Bact. MPN/100ml	>16	>16	>16	>16	>16

REMARKS:

LAB NO: C790678-1-5

COLLECTED BY: Client

ANALYZED BY: DTM, TUP, TRT

ECOTEST LABORATORIES, INC.

Thomas R. Fucile
director

ECOTEST LABORATORIES, INC.

P. 345

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: October 16, 1979

10 Town of Brookhaven

SOURCE OF SAMPLE

205 S Ocean Ave.

Patchogue NY 11772

COLLECTED

RECEIVED

9/14/79

REPORTED

10/12/79

LOCATION

1 Brookhaven Landfill Monitoring Well Group 1, Well #2

2 Brookhaven Landfill Monitoring Well Group 2, Well 2

3 Brookhaven Landfill Monitoring Well Group 3, Well 3

4 Brookhaven Landfill Monitoring Well Group 4, Well 2

5 Brookhaven Landfill Monitoring Well Group 5, Well 3

ANALYTICAL PARAMETERS

	1	2	3	4	5
Iron as Fe, mg/L	3.0	6.0	5.5	2.0	27
Manganese as Mn, mg/L	<0.16	0.53	4.2	0.84	0.49
Copper as Cu, mg/L	0.49	0.68	0.51	0.55	1.05
Zinc as Zn, mg/L	1.5	0.29	0.21	0.24	0.42
Chromium as Cr, mg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Sodium as Na, mg/L	4.	3.	5.	5.	6.
Potassium as K, mg/L	<1.	<1.	1.	<1.	5.7
Calcium as Ca, mg/L	4.7	3.6	3.1	3.7	9.4
Magnesium as Mg, mg/L	1.5	2.0	2.9	2.8	2.0
Chloride as Cl, mg/L	7.	3.	8.	8.	8.
Turbidity, units	20	50	20	8	50
Specific Conductivity, μ mho	73	70	100	63	400
Synthetic Detergents (MBAS) as LASmg/L	0.38	0.16	0.10	0.18	0.52
Nickel as Ni, mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium as Cd, mg/L	0.003	0.004	0.003	0.002	0.010
Fluoride as F, mg/L	<0.20	<0.20	<0.20	<0.20	<0.20

REMARKS:

LAR NO C750678-1-5

COLLECTED BY: Client

ANALYZED BY: DTM, TUP, TRT

ECOTEST LABORATORIES, INC.

[Signature]
director

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

74075

DATE: October 16, 1979

TO Town of Brookhaven

SOURCE OF SAMPLE

205 S Ocean Ave.

Patchogue, NY 11772

COLLECTED

RECEIVED

9/14/79

REPORTED

10/12/79

LOCATION

1 Brookhaven Landfill Monitoring Well S55150

2

3

4

5

ANALYTICAL PARAMETERS

	1	2	3	4	5
Alkalinity as CaCO ₃ , mg/L	8				
Hardness as CaCO ₃ , mg/l	22				
Sulfate as SO ₄ , mg/L	5				
Phenols as Phenol, mg/L	<0.001				
Lead as Pb, mg/L	0.007				
Arsenic as As, mg/l	<0.002				
Chromium hexavalent as Cr, mg/l	<0.02				
Mercury as Hg, mg/L	<0.0005				
Silver as Ag, mg/L	<0.001				
Coliform Bact. MPN/100ml	<2.2				

REMARKS:

LAB NO. C79678-6

COLLECTED BY: Client

ANALYZED BY: DTM, TUP, TRT

ECOTEST LABORATORIES, INC.

Thomas R. Gaudin

director

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

DATE: October 16, 1979

SOURCE OF SAMPLE

To Town of Brookhaven

205 S Ocean Ave

Patchogue NY 11772

COLLECTED _____

RECEIVED 9/14/79

REPORTED _____

LOCATION

1 Brookhaven Landfill Monitoring Well S-55150

2 _____

3 _____

4 _____

5 _____

ANALYTICAL PARAMETERS

	1	2	3	4	5
Iron as Fe, mg/l	0.29				
Manganese as Mn, mg/l	0.02				
Copper as Cu, mg/l	0.14				
Zinc as Zn, mg/l	0.54				
Chromium as Cr, mg/L	<0.02				
Sodium as Na, mg/L	20				
Potassium as K, mg/L	1.2				
Calcium as Ca, mg/L	3.3				
Magnesium as Mg, mg/L	3.3				
Chloride as Cl, mg/L	45				
Turbidity, units	0.4				
Specific Conductivity, μ mho	190				
Syn. Detergents (MBAS) as LAS, mg/L	0.06				
Nickel as Ni mg/L	<0.1				
Cadmium as Cd, mg/L	<0.001				
Fluoride as F, mg/L	<0.20				

REMARKS:

LAR NO: C79067-6

COLLECTED BY: Client

ANALYZED BY: DTM, TUP, TRT

ECOTEST LABORATORIES, INC.


director

Copy given to A. German

M. Appendix 1.4-11
K. M. German

RECEIVED

1-23-5 1980



52502

1172

ENVIRONMENTAL QUALITY
REGION 1

TOWN OF BROOKHAVEN

Received from
NYDEC Bureau of Landfills

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

ARTHUR J. MUCCIO
COMMISSIONER OF SANITATION
GRover 5-5500

January 31, 1980

Mr. A. Machlin, P.E.
Regional Engineer
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, NY 11790

Re: Brookhaven Landfill

Dear Mr. Machlin:

Enclosed are the sampling results for the groundwater monitoring wells
at the Brookhaven landfill.

Very truly yours,

James H. Heil
James H. Heil, Head of Operations
Sanitation Department

JHH:med
Enc.

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. • UNIT 1 • FARMINGDALE, N.Y. 11735 • (516) 752-9055

REPORT OF CHEMICAL ANALYSES

0212

DATE: January 25, 1980

TO: Town of Brookhaven
205 South Ocean Avenue
Patchogue, New York 11772

SOURCE OF SAMPLE

COLLECTED 12/26/79 RECEIVED 12/26/79 REPORTED _____

LOCATION

- 1 Brookhaven Landfill - Monitoring Well - Group 3 C790921/3
- 2 Brookhaven Landfill - Monitoring Well - Well 4-3 C790921/4
- 3 _____
- 4 _____
- 5 _____

ANALYTICAL PARAMETERS

	1	2	3	4	5
Chlorides as Cl, mg/L	9.	8.			
Iron as Fe, mg/L	1.05	0.32			
Specific Conductance, micro mho	82	88			
pH, units	5.9	6.9			
COD, mg/L	<20.	<20.			

REMARKS:

LAB NO: C790921

COLLECTED BY: Client

ANALYZED BY: TRT, TUP, DTM

ECOTEST LABORATORIES, INC.


director

Appendix 1.4-12
52002
P.102

ECOTEST LABORATORIES, INC.

170 CENTRAL AVE. · UNIT 1 · FARMINGDALE, N.Y. 11735 · (516) 752-9055

Received From
NYDEC Bureau of Landfills

REPORT OF CHEMICAL ANALYSES

DATE: May 19, 1980

TO: Town of Brookhaven

SOURCE OF SAMPLE

205 South Ocean Avenue

Patchogue, New York 11772

COLLECTED 4/25/80 RECEIVED 4/25/80 REPORTED _____

ANALYTICAL PARAMETERS

- 1 pH, units
- 2 Chlorides as Cl, mg/L
- 3 Iron as Fe, mg/L
- 4 Specific Conductance, micro mho
- 5 COD, mg/L

LOCATION	1	2	3	4	5
Brookhaven Landfill Maint. Bldg.	6.8	25	0.22	130	<10
Brook. Land. Monitoring Well Grp. 1	6.1	6	0.98	63	16
Brook. Land. Monitoring Well Grp. 2	5.7	5	1.5	49	25
Brook. Land. Monitoring Well Grp. 3	5.7	11	1.1	160	36
Brook. Land. Monitoring Well Grp. 4	6.4	11	5.4	120	<10
Brook. Land. Monitoring Well Grp. 5	5.8	8	4.3	62	36

REMARKS:

LAB NO: C800344/1-344/6

COLLECTED BY: Client

ANALYZED BY: TRT, TUP, DTM

ECOTEST LABORATORIES, INC.

Thomas R. ...
director



P. 2 of 2

TOWN OF BROOKHAVEN

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

ARTHUR J. MUCCIO
COMMISSIONER OF SANITATION
GRover 5-5500

October 17, 1979

Mr. Paul Lappano
Solid Waste Section
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, NY 11790

Re: Part 360 Application Brookhaven Landfill

Dear Mr. Lappano:

Richard Markel, of Suffolk County Health, requested additional information on the monitoring well program at the landfill.

The enclosed two sheets were forwarded to him. Kindly include this addendum in our application.

Very truly yours,

James H. Heil, Head of Operations
Sanitation Department

JHH:med
Enc.

NYDEC

Bun. Hwy Site Control

Appendix 14-13

NYDEC Bureau of Hazardous Site Control

8/10/83



POTENTIAL HAZARDOUS WASTE SITE

EXECUTIVE SUMMARY

Brookhaven Landfill
Site Name

NY D038150264
EPA Site ID Number

Yaphank, New York
Address

02-8303-08
TDD Number

Date of Site Visit: 5/19/83

SITE DESCRIPTION

The site is a 200 acre municipal landfill located in south central Brookhaven. The landfill accepts municipal refuse and sludges from WWTP's. First opened in 1974 the entire site is lined and leachate is collected for treatment. There is an extensive groundwater monitoring system associated with the site and contamination seems to be limited to the upper aquifer. Passive methane vents were installed in 1979 and a methane generation system is being installed.

PRIORITY FOR FURTHER ACTION: High ___ Medium ___ Low X

RECOMMENDATIONS

No further action recommended.

Prepared by: Edward F. McTier
of NUS Corporation

Date: 5/24/83

82-13



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D038150264

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Brookhaven Landfill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Horse Block Road				
03 CITY Yaphank		04 STATE NY	05 ZIP CODE 11772	06 COUNTY Suffolk	07 COUNTY CODE 103	08 CONG DIST 01
09 COORDINATES LATITUDE 09° 48' 15.0" N		LONGITUDE 073° 55' 00.0" W				

10 DIRECTIONS TO SITE (Starting from nearest public road)
Sunrise Highway (Route 27) to Horse Block Road exit. Site is on south side of road.

III. RESPONSIBLE PARTIES

01 OWNER (if known) Town of Brookhaven		02 STREET (Business, mailing, residential) 475 E. Main Street			
03 CITY Patchogue		04 STATE NY	05 ZIP CODE 11772	06 TELEPHONE NUMBER ' 516 654-7800	
07 OPERATOR (if known and different from owner) As above		08 STREET (Business, mailing, residential)			
09 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ()	

13 TYPE OF OWNERSHIP (Check one)
 A. PRIVATE B. FEDERAL: _____ (Agency name) C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER: _____ (Specify) G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) **none on file**
 A. RCRA 3001 DATE RECEIVED: ____/____/____ B. UNCONTROLLED WASTE SITE (RCRA 103(e)) DATE RECEIVED: ____/____/____ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY (Check all that apply)
 YES DATE 5, 19 83 A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR
 NO MONTH DAY YEAR E. LOCAL HEALTH OFFICIAL F. OTHER: _____ (Specify)
 CONTRACTOR NAME(S): NUS Corporation

02 SITE STATUS (Check one) 03 YEARS OF OPERATION
 A. ACTIVE B. INACTIVE C. UNKNOWN 1974 | active UNKNOWN
 BEGINNING YEAR ENDING YEAR

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Municipal refuse from residential, commercial, and industrial sources and wastewater sludges.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Potential for groundwater contamination in a sole source aquifer region.

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 site available basis) D. NONE (No further action needed, complete current disposal form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Mark Haulenbeek		02 OF (Agency Organization) U.S. EPA Region II Edison, NJ		03 TELEPHONE NUMBER ' 201 321-6685	
04 PERSON RESPONSIBLE FOR ASSESSMENT Edward F. McTiernan		05 AGENCY EPA	06 ORGANIZATION NUS FIT II	07 TELEPHONE NUMBER ' 201 225-6160	08 DATE <u>5, 23, 83</u> MONTH DAY YEAR

23-13



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D038150264

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: 1980) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 25,000± 04 NARRATIVE DESCRIPTION
Monitoring by the USGS has confirmed contamination of the upper aquifer with iron, chlorides and nitrites. This plume of groundwater contamination appears to be moving southeast. To date the deep aquifer has not been impacted.

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 25,000± 04 NARRATIVE DESCRIPTION
Discharge of contaminated groundwater may result in surface water contamination.

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
Methane generation within the landfill may result in contamination of air.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE: 1981) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 5 04 NARRATIVE DESCRIPTION
Improper disposal of titanium wastes by Lawrence Aviation resulted in a fire and explosion during 1980 or 1981.

01 E. DIRECT CONTACT 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION
No potential exists for direct contact with hazardous material.

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE: 5/83) POTENTIAL ALLEGED

03 AREA POTENTIALLY AFFECTED: 200 (ACRES) 04 NARRATIVE DESCRIPTION
The entire site is devoted to waste disposal activities.

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 25,000± 04 NARRATIVE DESCRIPTION
Should contaminants reach the deep aquifer the sole source of drinking water may be contaminated.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 WORKERS POTENTIALLY AFFECTED: 5 04 NARRATIVE DESCRIPTION
There is a potential for worker injury due to fire/explosive conditions.

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 25,000± 04 NARRATIVE DESCRIPTION
Should contaminants enter the drinking water aquifer local populations may be exposed.

S 7201r. 1

Sampled on 07-06-63 at 0925 (25 parameters)

Aquifer: 112GLCLU
7.5' Quad: Bellport

Well Depth: 22 ft

Land Surface: 29.0 ft MSL

Lat-Long: 4047400725530

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1025	34030	BENZENE, TOTAL	1.00 <	34515	1,1,2,2-TETRACHLORO,T	1.00 <
00028	ANALYZING AGENCY	50010	34301	CHLORO ₂ BENZENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	1.00 <
32101	DICHLOROBROMOMETHA,T	1.00 <	34371	ETHYLBENZENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34423	METHYLENE CHLORIDE,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	1.00 <
32103	1,2-DICHLOROETHANE,T	1.00 <	34475	TETRACHLOROETHYLEN,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34496	1,1-DICHLOROETHANE,T	1.00 <	34180	TRICHLOROETHYLENE,T	1.00 <
32105	CHLORODIBROMO., TOT.	1.00 <	34501	1,1-DICHLOROETHYLEN,T	1.00 <	99998	CENTRAL LAB-ID-#	3188000
32106	CHLOROFORM, TOTAL	1.00 <	34505	1,1,1-TRICHLOROETH,T	1.00 <			
34010	TOLUENE, TOTAL	1.00 <	34511	1,1,2-TRICHLOROETH,T	1.00 <			

P 1 f 39
Appendix 1.4-14

5 72817.1

Sampled on 07-06-83 at U915 (60 parameters) *Brookhaven (G) Man*

Acquifer: 11250CL9
2.5' Layer: Gallport

Well Depth:

22 ft

Land Surface:

27.0 ft MSL

Lat-Long: 4047400725530

Location: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1024	34408	ISOPHORONE, TOTAL	1.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00028	ANALYZING AGENCY	10010	34428	N-NITROSODI-N-PROP,T	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34433	N-NITROSODIPHENYL,T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34438	NITROSODIMETHYLAMI,T	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
34230	BENZO(B)FLUORANTHE,T	1.00 <	34452	CHLORO-METHYLPHENO,T	1.00 <	34631	3,3-DICHLORO BENZID,T	1.00 <
34242	BENZO(K)FLUORANTHE,T	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
34247	BENZO(G)PYRENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34273	2-CHLORETHYL ETHER,T	1.00 <	34521	BENZO(GHI)PERYLENE,T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34278	2-CHLORETHYL METHANE,T	1.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
34283	2-CHLORISOPROP ETHER,T	1.00 <	34536	1,2-DICHLOROBENZEN,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
34292	BUTYL BENZYL PHTHA,T	1.00 <	34551	1,2,4-TRICHLOROBEN,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34335	DIETHYL PHTHALATE, T	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34341	DIMETHYL PHTHALATE,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <	39100	2-ETHYLHEXYL PHTHA,T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
34381	FLUORENE, TOTAL	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34386	HEXACHLOROCCYCLOPEN,T	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34396	HEXACHLOROETHANE, T.	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <	39702	HEXACHLORO BUTADIEN,T	1.00 <
34403	INDENO(1,2,3)PYREN,T	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <	99098	CENTRAL LAB-ID-#	3188000

S-73750.1

Aquifer: 112GLCLU
7.3' Thick: Pelinort

Well Depth: 34 ft
Town:
Sampled on (07-05-83) at 1000 (60 parameters)
Land Surface: 36.0 ft MSL
Community:
Lat-Long: 4047420725535

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1008	34409	ISOPHORONE, TOTAL	1.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00028	ANALYZING AGENCY	30010	34423	N-NITROSODI-N-PROP,T	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
34200	ACENAPHTHYLENE, TCT.	1.00 <	34433	N-NITROSODIPHENYL,T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34438	NITROSODIMETHYLAMI,T	5.00	34621	2,4,6-TRICHLOROPHE,T	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
34230	BENZO(B)FLUORANTHE,T	1.00 <	34452	CHLORO-METHYLPHENC,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
34242	BENZO(K)FLUORANTHE,T	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
34247	BENZO(A)PYRENE, TCT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34273	2-CHLORETHYL ETHER,T	1.00 <	34521	BENZO(GHI)PERYLENE,T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE,T	1.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
34283	2-CHLORISOPR ETHER,T	1.00 <	34536	1,2-DICHLOROBENZEN,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
34292	BUTYL BENZYL PHTHA,T	1.00 <	34551	1,2,4-TRICHLOROBEN,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	34696	NAPHTHALENE, TOTAL	5.00
34336	DIMETHYL PHTHALATE, T	10.0	34566	1,3-DICHLOROBENZEN,T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34341	DIMETHYL PHTHALATE,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <	39100	2-ETHYLHEXYL PHTHA,T	20.0
34376	FLUORANTHENE, TOTAL	1.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <	39110	DI-N-BUTYL PHTHALA,T	7.00
34361	FLUORENE, TOTAL	1.00 <	34586	2-CHLOROPHENOL, TCT.	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34336	HEXACHLOROCYCLOPEN,T	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34396	HEXACHLOROETHANE, T.	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <	39702	HEXACHLOROBTADIEN,T	1.00 <
34403	INDENO(1,2,3)PYREN,T	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <	99998	CENTRAL LAB-ID-#	3188000

S 73750.1

Sampled on 07-06-83 at 1010 (30 parameters)

Acquifer: 11-GLCLU
7.5' Layer: Bellmont

Well Depth:

34 ft

Land Surface:

36.0 ft MSL

Lat-Long: 4047420725535

Town:

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1078	34301	CHLOROBEZENE, TOTAL	21.0	34511	1,1,2-TRICHLOROETH,T	1.00 <
00028	ANALYZING AGENCY	0010	34311	CHLOROETHANE, TOTAL	1.00 <	34516	1,1,2,2-TETRCHLORO,T	1.00 <
32101	DICHLOROFUOROMETH,T	1.00 <	34371	ETHYLBENZENE, TOTAL	27.0	34541	1,2-DICHLOROPROPAN,T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34546	1,2-TRANSICL-ETHYLENE	1.00 <
32103	1,2-DICHLOROETHANE,T	1.00 <	34423	METHYLENE CHLORIDE,T	2.00 <	34561	1,3-DICHLOROPROPAN,T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <
32105	CHLOROBROMO., TOT.	1.00 <	34452	TRICHLOROFLUOROMET,T	1.00 <	34668	DICHLORODIFLUOROME,T	1.00 <
32106	CHLOROFORM, TOTAL	1.00	34446	1,1-DICHLOROETHANE,T	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34010	TOLUENE, TOTAL	3.00	34501	1,1-DICHLOROPETHYLEN,T	1.00 <	39180	TRICHLOROETHYLENE,T	1.00 <
34030	BENZENE, TOTAL	2.00	34506	1,1,1-TRICHLOROETH,T	1.00 <	99998	CENTRAL LAB-ID-#	3188000

94/839

S 73750. 1

Sampled on 03-24-87 at 0930 (88 parameters) *D. J. ... (A)*

Analyzer: 1103LCLU
7.5' Lead: Wellport

Well Depth:
Town:

34 ft Land Surface: 36.0 ft MSL
Community:

Lat-Long: 4047420725535

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	10.0	34396	HEXACHLOROETHANE, T.	1.00 <	34521	2-CHLORONAPHTHALEN, T	1.00 <
00029	ANALYZING AGENCY	10.0	34403	INDENO(1,2,3)PYRENE, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00661	CARBON, ORGANIC, DIS	1.00	34409	ISOPHJDONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLORODIFLUOROMETHA, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34423	METHYLENE CHLORIDE, T	28.0	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34429	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOPICRIN, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROETHANOL, TOT.	1.00 <	34438	NITROSODIMETHYLAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	13.0	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34489	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(B)FLUORANTHE, T	1.00 <	34494	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUORANTHE, T	1.00 <	34501	1,1-DICHLOROETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(G)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLOROETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLOROETH METHAN, T	1.00 <	34516	1,1,2,2-TETRCHLOR, T	1.00 <	34696	NAPHTHALENE, TOTAL	8.00
34283	2-CHLOROISOPR ETHER, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL HEPTYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROFORM, TOTAL	13.0	34536	1,2-DICHLOROBENZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHLORFNT, TOTAL	1.00 <	34546	1,2-TRANS-DICL-FETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIBETHYL PHTHALAT, T	4.00	34551	1,2,4-TRICHLORUREN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIFENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBENZENE, T	1.00 <
34371	ETHYLENEDENT, TOTAL	34.0	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBENZEN, T	5.00			
34386	HEXACHLOROCLORUREN, T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <			

P 5/139

S 73759.1

Sampled on 07-06-83 at 1045 (60 parameters) *P. 6 of 39*Well ID: 1121000
Well Name: Ballant

Well Depth:

128 ft

Land Surface: 55.0 ft MSL

Lat-Long: 4047340725537

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION EFFICIENCY	1.00	34400	ISOPHORONE, TOTAL	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
00028	ANALYZING EFFICIENCY	0.010	34427	N-NITROSODI-N-PROP, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34433	N-NITROSODIPHENYL, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
34205	ACENAPHTHYLENE, TOTAL	1.00 <	34439	NITROSODIMETHYLAMI, T	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34230	BENZO(C)FLUORANTHENE, T	1.00 <	34457	CHLORO-METHYLPHENO, T	1.00 <	34631	3,3-DICHLOROBENZIO, T	1.00 <
34242	BENZO(K)FLUORANTHENE, T	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34273	2-CHLOROPHTHALATE, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34278	2-CHLOROPHTHALATE, T	1.00 <	34524	BENZO(A)ANTHRACENE, T	1.00 <	34657	DINITROCMETHYLPHENO, T	1.00 <
34283	2-CHLORISOPHTHALATE, T	1.00 <	34536	1,2-DICHLOROBENZEN, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34551	1,2,4-TRICHLOROBEN, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34571	1,4-DICHLOROBENZEN, T	1.00 <	39100	2-ETHYLHEXYL PHTHA, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34381	FLUORENE, TOTAL	1.00 <	34584	2-CHLOROPHTHENOL, TGT.	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34386	HEXACHLOROCYCLOPENT, T	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <	39700	HEXACHLOROBENZENE, T	1.00 <
34396	HEXACHLOROETHANE, T.	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34403	INDENO(1,2,3)PYRENE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <	99998	CENTRAL LAB-ID-#	3188000

S 73755. 1

Sampled on 07-06-83 at 1055 (25 parameters)

Acquifer: 1106LCLU
7.5' Unit: Wellport

Well Depth: 128 ft

Land Surface: 55.0 ft MSL

Lat-Long: 4047340725537

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00007	COLLECTION AGENCY	1028	34030	BENZENE, TOTAL	1.00 <	34516	1,1,2,2-TETRACHLORO,T	1.00 <
00028	ANALYZING AGENCY	0010	34301	CHLOROBENZENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	1.00 <
32101	DICHLOROPROPANE,T	1.00 <	34371	ETHYLBENZENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34423	METHYLENE CHLORIDE,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	1.00 <
32103	1,2-DICHLOROETHANE,T	1.00 <	34475	TETRACHLOROETHYLEN,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34496	1,1-DICHLOROETHANE,T	1.00 <	39130	TRICHLOROETHYLENE,T	1.00 <
32105	CHLOROFORM, TOT.	1.00 <	34501	1,1-DICHLOROETHYLEN,T	1.00 <	99998	CENTRAL LAB-ID-#	3188000
32106	CHLOROFORM, TOTAL	1.00 <	34506	1,1,1-TRICHLOROETH,T	1.00 <			
34010	TOLUENE, TOTAL	1.00 <	34511	1,1,2-TRICHLOROETH,T	1.00 <			

P 7 f 39

Aquifer: 112GLLU
7.5' Quad: Bellport

Well Depth:

S 73759. 1
Sampled on OR-24-83 at 1100 (88 parameters) *thru solvent (C)*
Land Surface: 55.0 ft MSL Lat-Long: 4047340725537
Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
J0027	COLLECTION AGENCY	1028	34396	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	90010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00681	CARBON, ORGANIC, DIS	13.0	34408	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLOROBROMOMETHA, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA, TOT.	1.00 <	34427	METHYLENE CHLORIDE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROETHANOL, TOT.	1.00 <	34439	NITROSODIMETHYLAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34488	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(B)FLUORANTHE, T	1.00 <	34496	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUOPANTHE, T	1.00 <	34501	1,1-DICHLOROPETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLORETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE, T	1.00 <	34516	1,1,2,2-TETRCHLORC, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLORISOPR ETHER, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROENZENE, TOTAL	1.00 <	34536	1,2-DICHLOROBENZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANSOICL-ETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	10.0	34551	1,2,4-TRICHLOROBEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBENZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	1.00 <	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBENZEN, T	1.00 <			
34386	HEXACHLOROCYCLOPEN, T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <			

S 72826. 1

Sampled on 08-24-83 at 1330 (88 parameters) D. M. ... (P)

Aquifer: 112GLCLU
7.5' Quad: BellportWell Depth: 43 ft
Town: BrookhavenLand Surface: 21.0 ft MSL
Community:

Lat-Long: 4047260725512

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1028	34396	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	80010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00661	CARBON, ORGANIC, DIS	5.20	34408	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLOROBROMOMETHA, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34423	METHYLENE CHLORIDE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLORODIBROMO., TOT.	1.00 <	34438	NITROSODIMETHYAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	4.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TCT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34488	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(G)FLUORANTHE, T	1.00 <	34496	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUORANTHE, T	1.00 <	34501	1,1-DICHLORETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLORETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE, T	1.00 <	34516	1,1,2,2-TETRCHLORO, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLORISUPR ETHER, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34524	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROBENZENE, TOTAL	1.00 <	34536	1,2-DICHLOROBENZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANSOICL-ETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34551	1,2,4-TRICHLOROBEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBENZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	1.00 <	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBENZEN, T	1.00 <			
34386	HEXACHLOROCYCLOPEN, T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <			

S 72834. 1

Sampled on 08-24-83 at 0830 (88 parameters) *Independent (M)*

Aquifer: 1126LCU
7.5' Quad: Bellport

Well Depth: 34 ft Land Surface: 39.0 ft MSL
Town: Community:

Lat-Long: 4047300725530

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1028	34396	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	80010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00681	CARBON, ORGANIC, DIS	21.0	34408	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLOROBROMOMETHA, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34423	METHYLENE CHLORIDE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROBIBROMO., TOT.	1.00 <	34438	NITROSODIMETHYLAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	3.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34488	TRICHLOROFLUOPOMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(D)FLUORANTHE, T	1.00 <	34496	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUORANTHE, T	1.00 <	34501	1,1-DICHLORETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLORETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE, T	1.00 <	34516	1,1,2,2-TETRCHLORO, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLORISOPR ETHER, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	8.00 <
34301	CHLOROBEZENE, TOTAL	1.00 <	34536	1,2-DICHLOROBEZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANSOICL-ETHYLENE	1.00 <	39175	VINYL CHLORIOE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34551	1,2,4-TRICHLOROEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIRENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBEZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	5.00 <	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBEZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBEZEN, T	2.00			
34386	HEXACHLOROCCYLOREN, T	1.00 <	34576	2-CL-PHTHLYVINYLETHER	1.00 <			

P 10-1-89

S 73753. 1

Sampled on 08-24-83 at 1010 (38 parameters) *Overgradient (B)*

Aquifer: 112GLCLU
7.5' Quad: Bellport

Well Depth:
Town:

Land Surface: 34 ft
Community:

37.0 ft MSL Lat-Long: 4047380725535

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1026	34396	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	30010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00681	CARBON, ORGANIC, CIS	53.0	34407	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLORODIFLUOROMETHA, T	1.00 <	34417	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA, TOT.	1.00 <	34423	METHYLENE CHLORIDE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROLISOBOM, TOT.	1.00 <	34438	NITROSODIMETHLYAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	5.00	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34438	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(P)FLUORANTHE, T	1.00 <	34496	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUOPANTHE, T	1.00 <	34501	1,1-DICHLORETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLURETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLOROTH METHANE, T	1.00 <	34516	1,1,2,2-TETRACHLOR, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLORISOPR ETHER, T	1.00 <	34521	BENZO(GHI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROETHENE, TOTAL	7.00	34536	1,2-DICHLOROBENZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANSDICL-ETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34551	1,2,4-TRICHLOROBEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	39700	HEXACHLOROENZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	7.00	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBENZEN, T	2.00			
34386	HEXACHLOROCYCLOPEN, T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <			

P. 11 of 39

Aquifer: 1126LCLU
7.5' Quad: Bellport

Well Depth: 44 ft

S 73954. 1
Sampled on 08-24-83 at 1230 (33 parameters) *Amalgam(0)*
Land Surface: 22.0 ft MSL
Town: Community:
Lat-Long: 4047280725509

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1.00 <	34396	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	00010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00681	CARBON, ORGANIC, DIS	7.40	34408	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	DICHLOROBROMOPHTHA, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON T-14A., TOT.	1.00 <	34423	METHYLENE CHLORIDE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYLA, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROCEPROMU., TOT.	1.00 <	34438	NITROSODIMETHYLAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	5.00	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	1.00 <	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, STM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34488	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(B)FLUORANTHE, T	1.00 <	34494	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUORANTHE, T	1.00 <	34501	1,1-DICHLORETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLORETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE, T	1.00 <	34516	1,1,2,2-TETRCHLORO, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLOPISOPR ETHER, T	1.00 <	34521	BENZO(G-HI)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROBEZENE, TOTAL	1.00 <	34536	1,2-DICHLOROBEZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANSOICL-ETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34551	1,2,4-TRICHLOROBEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	1.00 <
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBEZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	1.00 <	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBEZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238000
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBEZEN, T	1.00 <			
34386	HEXACHLOROCCYCLOREN, T	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <			

P 124 39

S 73757. 1

Aquifer: 1126LCLU
7.5' Quad: Bellport

Well Depth:

73. ft
Town:Sampled on 08-25-83 at 1000 (77 parameters) Downgradient (C)
Land Surface: 55.0 ft MSL
Community:

Lat-Long: 4047349725537

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1022	34371	ETHYLBENZENE, TOTAL	1.00 <	34546	12TRANS-DICL-ETHYLENE	1.00 <
00028	ANALYZING AGENCY	80010	34376	FLUORANTHENE, TOTAL	1.00 <	34551	1,2,4-TRICHLOROBEN,T	1.00 <
00681	CARBON, ORGANIC, DIS	35.0	34381	FLUORENE, TOTAL	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <
32101	DICHLORODIMETHA,T	1.00 <	34386	HEXACHLOROCYCLOPEN,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34396	HEXACHLOROETHANE, T.	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <
32103	1,2-DICHLOROETHANE,T	1.00 <	34403	INDENO(1,2,3)PYREN,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34409	ISOPHORONE, TOTAL	1.00 <	34576	2-CL-ETHYLVINYLETHER	1.00 <
32105	CHLORODIBROMO., TOT.	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34423	METHYLENE CHLORIDE,T	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34428	N-NITROSODI-N-PROP,T	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
34030	BENZENE, TOTAL	4.00 J	34437	N-NITROSODIPHENYL,T	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34438	NITROSODIMETHYLAMI,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34451	PHENANTHENE, TOTAL	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34230	BENZO(C)FLUORANTHE,T	1.00 <	34459	PYRENE, TOTAL	1.00 <	34668	DICHLORODIFLUOROME,T	1.00 <
34242	BENZO(K)FLUORANTHE,T	1.00 <	34475	TETRACHLOROETHYLEN,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34489	TRICHLOROFLUOROMET,T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34273	2-CHLOROETHYL ETHER,T	1.00 <	34496	1,1-DICHLOROETHANE,T	1.00 <	39100	2-ETHLYHEXYL PHTHA,T	1.00 <
34278	2-CHLOROETH METHANE,T	1.00 <	34501	1,1-DICHLOROETHYLEN,T	1.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
34283	2-CHLORISOPR. ETHER,T	1.00 <	34504	1,1,1-TRICHLOROETH,T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34292	BUTYL BENZYL PHTHA,T	1.00 <	34511	1,1,2-TRICHLOROETH,T	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34301	CHLOROBENZENE, TOTAL	1.00 <	34516	1,1,2,2-TETRACHLOR,T	1.00 <	39180	TRICHLOROETHYLENE,T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34521	BENZO(GHI)PERYLENE,T	1.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34330	DIETHYL PHTHALATE, T	5.00	34536	1,2-DICHLOROBENZEN,T	1.00 <	99998	CENTRAL LAB-10-#	3238900
34341	DIMETHYL PHTHALATE,T	1.00 <	34541	1,2-DICHLOROPROPAN,T	1.00 <			

S 73758. 1

Sampled on 08-25-83 at 0845 (32 parameters) *Doubtful (e)*
 Well Depth: 53 ft Land Surface: 55.0 ft MSL Lat-Long: 4047340725537
 Town: Community:

Aquifer: 112GLCLU
 7.5' Quad: Belleport

Code	Name	Value	Code	Name	Value	Code	Name	Value
00027	COLLECTION AGENCY	1025	34394	HEXACHLOROETHANE, T.	1.00 <	34581	2-CHLORONAPHTHALEN, T	1.00 <
00028	ANALYZING AGENCY	20010	34403	INDENO(1,2,3)PYREN, T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00681	CARBON, ORGANIC, DIS	31.0	34408	ISOPHORONE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
32101	1,1-DICHLOROETHANE, T	1.00 <	34413	METHYLBROMIDE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT, T	1.00 <
32102	CARBON TETRA., TOT.	1.00 <	34421	METHYLENE CHLORIDE, T	17.0	34601	2,4-DICHLOROPHENOL, T	1.00 <
32103	1,2-DICHLOROETHANE, T	1.00 <	34428	N-NITROSODI-N-PROP, T	1.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
32104	BROMOFORM, TOTAL	1.00 <	34433	N-NITROSODIPHENYL, T	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
32105	CHLOROPICFORM., TOT.	1.00 <	34439	NITROSODIMETHYLAMI, T	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
32106	CHLOROFORM, TOTAL	1.00 <	34447	NITROBENZENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE, T	1.00 <
34010	TOLUENE, TOTAL	1.00 <	34452	CHLORO-METHYLPHENO, T	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
34030	BENZENE, TOTAL	9.00	34461	PHENANTHRENE, TOTAL	1.00 <	34631	3,3-DICHLOROBENZID, T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34469	PYRENE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN, T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34475	TETRACHLOROETHYLEN, T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34488	TRICHLOROFLUOROMET, T	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
34230	BENZO(B)FLUORANTHE, T	1.00 <	34496	1,1-DICHLOROETHANE, T	1.00 <	34657	DINITROMETHYLPHENO, T	1.00 <
34242	BENZO(K)FLUORANTHE, T	1.00 <	34501	1,1-DICHLOROPETHYLEN, T	1.00 <	34668	DICHLORODIFLUOROME, T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34506	1,1,1-TRICHLOROETH, T	1.00 <	34675	2,3,7,8-TETRACHLOR, T	1.00 <
34273	2-CHLOROETHYL ETHER, T	1.00 <	34511	1,1,2-TRICHLOROETH, T	1.00 <	34694	PHENOL, TOTAL	1.00 <
34278	2-CHLORETH METHANE, T	1.00 <	34516	1,1,2,2-TETPCHLORC, T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
34283	2-CHLORISONS THER, T	1.00 <	34521	BENZO(GH)PERYLENE, T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
34292	BUTYL BENZYL PHTHA, T	1.00 <	34526	BENZO(A)ANTHRACENE, T	1.00 <	39100	2-ETHLYHEXYL PHTHA, T	1.00 <
34301	CHLOROBENZENE, TOTAL	3.00	34536	1,2-DICHLOROBENZEN, T	1.00 <	39110	DI-N-BUTYL PHTHALA, T	1.00 <
34311	CHLOROETHANE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN, T	1.00 <	39120	BENZIDINE, TOTAL	1.00 <
34320	CHRYSENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	1.00 <	39175	VINYL CHLORIDE, TOTA	1.00 <
34336	DIETHYL PHTHALATE, T	1.00 <	34551	1,2,4-TRICHLOROBEN, T	1.00 <	39180	TRICHLOROETHYLENE, T	11.0
34341	DIMETHYL PHTHALATE, T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	39700	HEXACHLOROBENZENE, T	1.00 <
34371	ETHYLBENZENE, TOTAL	22.0	34561	1,3-DICHLOROPROPAN, T	1.00 <	39702	HEXACHLOROBUTADIEN, T	1.00 <
34376	FLUORANTHENE, TOTAL	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	3238900
34381	FLUORENE, TOTAL	1.00 <	34571	1,4-DICHLOROBENZEN, T	7.00			
34336	HEXACHLOROCYCLOPEN, T	1.00 <	34576	2-CL-ETHYLVINYLETER	1.00 <			

P M 5/39

S 73792.1

Sampled on 06-25-85 at 1335 (117 parameters)

Aquifer: 1124LCLU
7.5' Quad: Maniches

Well Depth: 61 ft

Land Surface: ----- ft MSL

Lat-Long: 4049590724651

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	13.4	34292	PUTYL BENZYL PHTHA,T	1.00 <	34576	2-CL-ETHYL VINYLETHER	3.00 <
00025	BAROMETRIC PR. MM HG	765	34301	CHLOROBENZENE, TOTAL	45.0	34581	2-CHLORONAPHTHALEN,T	1.00 <
00027	COLLECTION AGENCY	1025	34311	CHLOROETHANE, TOTAL	3.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00028	ANALYZING AGENCY	00010	34320	CHRYSENE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
00095	SP. CONDUCTANCE FLD	334	34336	DIETHYL PHTHALATE, T	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00300	OXYGEN, DISSOLVED	1.80	34341	DIMETHYL PHTHALATE,T	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <
00400	PH FIELD	6.40	34371	ETHYLBENZENE, TOTAL	3.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00403	PH (LABORATORY)	6.30	34376	FLUORANTHENE, TOTAL	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
00610	NH4, AS N, TOTAL	48.0	34381	FLUORENE, TOTAL	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00615	NO2, AS N, TOTAL	0.010 <	34386	HEXACHLOROCCYCLOPEN,T	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00625	NH4+ORGN, TOTAL	47.0	34396	HEXACHLOROETHANE, T.	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	34407	INDENO(1,2,3)PYREN,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
00915	CALCIUM, DISSOLVED	61.0	34408	ISOPHORONE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00925	MAGNESIUM, DISSOLVED	13.0	34417	METHYLBROMIDE, TOTAL	3.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
00930	SODIUM, DISSOLVED	19.0	34423	METHYLENE CHLORIDE,T	3.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00935	POTASSIUM, DISSOLVED	11.0	34428	N-NITROSODI-N-PROP,T	1.00 <	34657	OINITROMETHYLPHENO,T	1.00 <
00940	CHLORIDE, DISSOLVED	21.0	34433	N-NITROSODIPHENYL,T	1.00 <	34668	DICHLOROOFUOROME,T	3.00 <
00945	SULFATE, DISSOLVED	120	34437	NITROSODIMETHYLAMI,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00950	FLUORIDE, DISSOLVED	0.100 <	34447	NITROBENZENE, TOTAL	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00955	SILICA, DISSOLVED	31.0	34452	CHLORO-METHYLPHENC,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
01046	IRON, DISSOLVED	40000	34461	PHENANTHRENE, TOTAL	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
01056	MANGANESE, DISSOLVED	740	34467	PYRENE, TOTAL	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
32101	DICHLORODIFLOROETHA,T	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39100	2-ETHYLHEXYL PHTHA,T	1.00 <
32102	CARBON TETRA., TOT.	3.00 <	34489	TRICHLOROFLUOROMET,T	3.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34496	1,1-DICHLOROETHANE,T	3.00 <	39120	BENZIDINE, TOTAL	1.00 <
32104	BROMOFORM, TOTAL	3.00 <	34501	1,1-DICHLORETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32105	CHLOROCHLORFORM., TOT.	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32106	CHLOROFORM, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39488	AROCHLOR 1221, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34516	1,1,2,2-TETRACHLORO,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
34030	BENZENE, TOTAL	3.00 <	34521	BENZO(GHI)PERYLENE,T	1.00 <	39496	AROCHLOR 1242, TOT	0.100 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	39500	AROCHLOR 1248, TOT	0.100 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34536	1,2-DICHLOROBENZEN,T	1.00 <	39504	AROCHLOR 1254, TOT	0.100 <
34220	ANTHRACENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39508	AROCHLOR 1260, TOT	0.100 <
34230	BENZO(C)FLUORANTHE,T	1.00 <	34546	1,2-DICHLOROPROPAN,T	3.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34242	BENZO(K)FLUORANTHE,T	1.00 <	34551	1,2,4-TRICHLOROPREN,T	1.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	70300	ROE, DISS. AT 180 C	428
34273	2-CHLOROETHYL ETHER,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <	90095	SP. CONDUCTANCE LAB	795
34278	2-CHLOROETH METHANE,T	1.00 <	34566	1,3-DICHLOROBENZEN,T	3.00 <	90410	ALKALINITY, TOTAL	237
34283	2-CHLORISOPR ETHER,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	9.00	99998	CENTRAL LAB-ID-#	5179800

S 73811. 1

Sampled on 06-25-85 at 1215 (53 parameters) *Anal by mg*
 Well Depth: 55 ft Land Surface: ----- ft MSL Lat-Long: 4050140724657
 Town: Brookhaven Community:

Aquifer: 112GLCLU
 7.5' Quad: Mariches

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	10.4	00950	FLOURIDE, DISSOLVED	0.100 <	34488	TRICHLOROFLUOROMET,T	3.00 <
00025	BAROMETRIC PR. MM HG	755	00955	SILICA, DISSOLVED	7.60	34496	1,1-DICHLOROETHANE,T	3.00 <
00027	COLLECTION AGENCY	1028	01046	IRON, DISSOLVED	340	34501	1,1-DICHLORETHYLEN,T	3.00 <
00028	ANALYZING AGENCY	20010	01056	MANGANESE, DISSOLVED	52.0	34506	1,1,1-TRICHLOROETH,T	3.00 <
00095	SP. CONDUCTANCE FLD	57.0	32101	DICHLOROPROPOMETHA,T	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00300	OXYGEN, DISSOLVED	10.9	32102	CARBON TETRA., TOT.	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00400	PH FIELD	6.40	32103	1,2-DICHLOROETHANE,T	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00403	PH (LABORATORY)	6.90	32104	BROMOFORM, TOTAL	3.00 <	34546	1,2-TRANS-DICHL-ETHYLENE	3.00 <
00610	NH4, AS N, TOTAL	0.070	32105	CHLORODIBROMO., TOT.	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00615	NO2, AS N, TOTAL	0.010 <	32106	CHLOROFORM, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETER	3.00 <
00625	NH4+ORG-N, TOTAL	0.300	34010	TOLUENE, TOTAL	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	34030	BENZENE, TOTAL	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00915	CALCIUM, DISSOLVED	1.90	34301	CHLOROBENZENE, TOTAL	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
00925	MAGNESIUM, DISSOLVED	1.40	34311	CHLOROETHANE, TOTAL	3.00 <	70300	ROE, DISS. AT 180 C	32.0
00930	SODIUM, DISSOLVED	4.00	34371	ETHYLBENZENE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	49.0
00935	POTASSIUM, DISSOLVED	0.300	34413	METHYLBROMIDE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	5.00
00940	CHLORIDE, DISSOLVED	7.10	34423	METHYLENE CHLORIDE,T	3.00 <	99998	CENTRAL LAB-ID-#	5179000
00945	SULFATE, DISSOLVED	5.50	34475	TETRACHLOROETHYLEN,T	3.00 <			

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S 76402. 1

Sampled on 06-17-85 at 1330 (35 parameters)

Aquifer: 1126LCLU
7.5' Quad: Maniches

Well Depth:

68 ft Land Surface:
Town: Brookhaven

----- ft MSL
Community:

Lat-Long: 4049460724644 (11)

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	11.7	32106	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PR. MM HG	760	34010	TOLUENE, TOTAL	15.0	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1026	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	40010	34301	CHLOROBENZENE, TOTAL	18.0	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE FLD	494	34311	CHLOROFTHANE, TOTAL	3.00 <	34546	1,2-TRANSOICL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	1.40	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	6.40	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
32101	DICHLOROPROPANE,T	3.00 <	34423	METHYLENE CHLORIDE,T	3.00 <	34658	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34488	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34496	1,1-DICHLOROETHANE,T	3.00 <	99998	CENTRAL LAB-ID-#	5171000
32105	CHLOROBRIBROMO., TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

S 76403. 1

Aquifer: 1121410
7.5' Aqu: Mottis

Well Depth: 28 ft

Sampled on 06-17-85 at 1255 (117 parameters) (Dir)
Land Surface: ----- ft MSL
Town: Brookhaven Community: Lat-Long: 4049460724644

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.0	34292	BUTYL BENZYL PHTHA,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00025	BAROMETRIC PR. MH HG	760	34301	CHLOROBENZENE, TOTAL	3.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <
00027	COLLECTION AGENCY	1020	34311	CHLOROETHANE, TOTAL	3.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00028	ANALYZING AGENCY	20010	34320	CHRYSENE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
00095	SP. CONDUCTANCE FLD	466	34336	DIETHYL PHTHALATE, T	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00300	OXYGEN, DISSOLVED	1.50	34341	DIMETHYL PHTHALATE,T	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <
00400	PH FIELD	6.60	34371	ETHYLENENE, TOTAL	3.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00403	PH (LABORATORY)	6.60	34376	FLUORANTHENE, TOTAL	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
00610	NH4, AS N, TOTAL	30.0	34381	FLUORENE, TOTAL	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00615	NO2, AS N, TOTAL	0.010 <	34386	HEXACHLOROCCYCLOPEN,T	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00625	NH4+ORG-N, TOTAL	30.0	34396	HEXACHLOROETHANE, T.	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	34403	INDENO(1,2,3)PYREN,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
00915	CALCIUM, DISSOLVED	11.0	34408	ISOPHORONE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00925	MAGNESIUM, DISSOLVED	7.50	34413	METHYLBROMIDE, TOTAL	3.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
00930	SODIUM, DISSOLVED	19.0	34423	METHYLENE CHLORIDE,T	3.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00935	POTASSIUM, DISSOLVED	12.0	34428	N-NITROSODI-N-PROP,T	1.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
00940	CHLORIDE, DISSOLVED	20.0	34433	N-NITROSODIPHENYLA,T	1.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00945	SULFATE, DISSOLVED	9.90	34438	NITROSODIMETHYLAMI,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00950	FLUORIDE, DISSOLVED	0.100 <	34447	NITROBENZENE, TOTAL	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00955	SILICA, DISSOLVED	2.90	34452	CHLORO-METHYLPHENO,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
01046	IRON, DISSOLVED	20.0	34461	PHENANTHRENE, TOTAL	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
01056	MANGANESE, DISSOLVED	61.0	34469	PYRENE, TOTAL	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
32101	DICHLOROBROMOPHTHA,T	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39100	2-ETHYLHEXYL PHTHA,T	1.00 <
32102	CARBON TETRA., TOT.	3.00 <	34489	TRICHLOROFLUOROMET,T	3.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34496	1,1-DICHLOROETHANE,T	3.00 <	39120	BENZIDINE, TOTAL	1.00 <
32104	BROMOFORM, TOTAL	3.00 <	34501	1,1-DICHLORETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32105	CHLOROICBOMO., TOT.	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32106	CHLOROFORM, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39488	AROCHLOR 1221, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
34030	BENZENE, TOTAL	3.00 <	34521	BENZO(GH)PERYLENE,T	1.00 <	39496	AROCHLOR 1242, TOT	0.100 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	39500	AROCHLOR 1248, TOT	0.100 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34536	1,2-DICHLOROBENZEN,T	1.00 <	39504	AROCHLOR 1254, TOT	0.100 <
34220	ANTHRACENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39508	AROCHLOR 1260, TOT	0.100 <
34230	BENZO(P)FLUORANTHE,T	1.00 <	34546	1,2-DICHLOROPROPAN,T	3.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34242	BENZO(Q)FLUORANTHE,T	1.00 <	34551	1,2,4-TRICHLOROBE,N,T	1.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	70300	ROE, DISS. AT 180 C	122
34273	2-CHLORETHYL ETHER,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <	90095	SP. CONDUCTANCE LAB	446
34278	2-CHLORETH METHANE,T	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <	90410	ALKALINITY, TOTAL	168
34283	2-CHLORISOPR ETHER,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <	99998	CENTRAL LAB-ID-#	5171000

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S 76404. 1

Sampled on 06-17-85 at 1205 (58 parameters)

Aquifer: 117-CLLU
7.5' Quad: Monches

Well Depth: 104 ft Land Surface: ----- ft MSL Lat-Long: 4049460724644

Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.2	00945	SULFATE, DISSOLVED	9.50	34496	1,1-DICHLOROETHANE,T	3.00 <
00025	BAROMETRIC PR. MM HG	760	00950	FLOURIDE, DISSOLVED	0.100 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <
00027	COLLECTION AGENCY	1022	00955	SILICA, DISSOLVED	6.40	34506	1,1,1-TRICHLOROETH,T	3.00 <
00028	ANALYZING AGENCY	80010	01046	IRON, DISSOLVED	21.0	34511	1,1,2-TRICHLOROETH,T	3.00 <
00095	SP. CONDUCTANCE FLD	379	01056	MANGANESE, DISSOLVED	250	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00300	OXYGEN, DISSOLVED	1.20	32101	DICHLOROBROMOMETHA,T	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	6.60	32102	CARBON TETRA., TOT.	3.00 <	34546	1,2-TRANS-DICHLOROETHYLENE	3.00 <
00403	PH (LABORATORY)	6.70	32107	1,2-DICHLOROETHANE,T	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00610	NH4, AS N, TOTAL	24.0	32104	BROMOFORM, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00615	NO2, AS N, TOTAL	0.010 <	32105	CHLORODIBROMO., TCT.	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00625	NH4+ORG-N, TOTAL	25.0	32106	CHLOROFORM, TOTAL	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	34010	TOLUENE, TOTAL	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
00900	HARDNESS TOTAL	35.0	34030	BENZENE, TOTAL	3.00 <	70300	ROE, DISS. AT 180 C	121
00915	CALCIUM, DISSOLVED	7.90	34301	CHLOROBENZENE, TOTAL	3.10	70301	RESIDUE DIS CALC SUM	159
00925	MAGNESIUM, DISSOLVED	3.70	34311	CHLOROETHANE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	380
00930	SODIUM, DISSOLVED	15.0	34371	ETHYLBENZENE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	139
00931	SODIUM, ABSORP RATIO	1.20	34413	METHYLBROMIDE, TOTAL	3.00 <	95902	HARDNESS N.CARB L-EP	0.000
00932	SODIUM, PERCENT	38.0	34423	METHYLENE CHLORIDE,T	3.00 <	99998	CENTRAL LAB-ID-#	5171000
00933	POTASSIUM, DISSOLVED	14.0	34475	TETRACHLOROETHYLEN,T	3.00 <			
00940	CHLORIDE, DISSOLVED	12.0	34488	TRICHLOROFUOROMET,T	3.00 <			

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S 76405. 1

Aquifer: 1126LCLU
7.5' Quad: Meriches

Well Depth: 137 ft Land Surface: ----- ft MSL Lat-Long: 4049460724644
Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.1	32106	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PR. MM HG	760	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1028	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	00010	34301	CHLOROBENZENE, TOTAL	5.70	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE FLD	353	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICHL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	1.50	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	6.00	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYL VINYLETHER	3.00 <
32101	DICHLORODIFLUOROMETHANE,T	3.00 <	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34487	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34496	1,1-DICHLOROETHANE,T	5.10	99998	CENTRAL LAB-ID-#	5171000
32105	CHLOROFORM, TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

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S 79107. 1

Sampled on 06-24-85 at 1350 (35 parameters)

Aquifer: 1126GLCU
 Well Name: Manichas

Well Depth: ----- ft

Land Surface: ----- ft MSL

Lat-Long: 4049550724648

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.3	32106	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PR. MM HG	662	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1028	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	80010	34301	CHLOROBENZENE, TOTAL	9.80	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE FLO	569	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICHL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	1.50	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	5.90	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETER	3.00 <
32101	DICHLOROBROMOMETHA,T	3.00 <	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34488	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34496	1,1-DICHLOROETHANE,T	3.90	99998	CENTRAL LAB-ID-#	5177100
32105	CHLOROBROMO., TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

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S 79108. 1

Sampled on 06-24-85 at 1310 (57 parameters)

Aquifer: 112BLCLU
7.5' Aquid: MedicinesWell Depth: ---- ft Land Surface: ---- ft MSL Lat-Long: 4049550724648
Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	13.5	00945	SULFATE, DISSOLVED	170	34438	TRICHLOROFLUOROMET,T	3.00 <
00025	BAROMETRIC PR. MM HG	662	00950	FLUORIDE, DISSOLVED	0.100 <	34496	1,1-DICHLOROETHANE,T	3.00 <
00027	COLLECTION AGENCY	1028	00955	SILICA, DISSOLVED	17.0	34501	1,1-DICHLOROETHYLEN,T	3.00 <
00028	ANALYZING AGENCY	80010	01044	IRON, DISSOLVED	34.0	34506	1,1,1-TRICHLOROETH,T	3.00 <
00095	SP. CONDUCTANCE FLD	1260	01056	MANGANESE, DISSOLVED	4700	34511	1,1,2-TRICHLOROETH,T	3.00 <
00300	OXYGEN, DISSOLVED	1.20	32101	DICHLOROBROMOMETHA,T	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00400	PH FIELD	6.70	32102	CARBON TETRA., TOT.	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00403	PH (LABORATORY)	6.40	32103	1,2-DICHLOROETHANE,T	3.00 <	34546	1,2TRANSDICL-ETHYLENE	3.00 <
00610	NH4, AS N, TOTAL	0.410	32104	FORMFORM, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00615	NO2, AS N, TOTAL	0.010	32105	CHLORODIBROMO., TOT.	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	32106	CHLORFORM, TOTAL	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00900	HARDNESS TOTAL	220	34010	TOLUENE, TOTAL	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00915	CALCIUM, DISSOLVED	62.0	34030	BENZENE, TOTAL	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
00925	MAGNESIUM, DISSOLVED	16.0	34301	CHLOROBENZENE, TOTAL	6.20	70300	ROE, DISS. AT 150 C	680
00930	SODIUM, DISSOLVED	51.0	34311	CHLOROETHANE, TOTAL	3.00 <	70301	RESIDUE U/S CALC SUM	577
00931	SODIUM, ABSORP RATIO	1.60	34371	ETHYLBENZENE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	1300
00932	SODIUM, PERCENT	29.0	34413	METHYLBROMIDE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	234
00935	POTASSIUM, DISSOLVED	49.0	34423	METHYLENE CHLORIDE,T	3.00 <	95902	HARDNESS N.CARB L-EP	0.000
00940	CHLORIDE, DISSOLVED	67.0	34425	TETRACHLOROETHYLEN,T	3.00 <	99998	CENTRAL LAB-ID-#	5177100

65 yee d

S 79109.1

Sampled on 06-24-85 at 1220 (1c2 parameters)

Appiter: 1126L0LU
7. of 8:00: MerichesWell Depth: ---- ft Land Surface: ---- ft MSL Lat-Long: 4049550724649
Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	13.3	34283	2-CHLORISOPR ETHER,T	1.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <
00025	BAROMETRIC PR. MM HG	662	34292	BUTYL BENZYL PHTHA,T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00027	COLLECTION AGENCY	1023	34301	CHLOROBENZENE, TOTAL	9.10	34591	2-NITROPHENOL, TOTAL	1.00 <
00028	ANALYZING AGENCY	50010	34311	CHLOROETHANE, TOTAL	3.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00095	SP. CONDUCTANCE FLD	1190	34320	CHRYSENE, TOTAL	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <
00300	OXYGEN, DISSOLVED	1.20	34336	DIETHYL PHTHALATE, T	1.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00400	PH FI-L	6.30	34341	DIMETHYL PHTHALATE,T	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
00403	PH (LABORATORY)	6.40	34371	ETHYLBENZENE, TOTAL	3.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00610	NH4, AS N, TOTAL	61.0	34376	FLUORANTHENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00615	NO2, AS N, TOTAL	0.020	34381	FLUORENE, TOTAL	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
00625	NH4+NO3-N, TOTAL	74.0	34386	HEXACHLOROCYCLOPEN,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
00630	NO2+NO3, AS N, TOTAL	1.40	34396	HEXACHLOROETHANE, T.	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00900	HARDNESS TOTAL	190	34403	INDENO(1,2,3)PYREN,T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
00915	CALCIUM, DISSOLVED	46.0	34409	ISOPHORONE, TOTAL	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00925	MAGNESIUM, DISSOLVED	17.0	34413	METHYLBROMIDE, TOTAL	3.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
00930	SODIUM, DISSOLVED	70.0	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLOROIFLUOROME,T	3.00 <
00931	SODIUM, ABSORB RATIO	2.40	34428	N-NITROSODI-N-PROP,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00932	SODIUM, PERCENT	41.0	34433	N-NITROSODIPHENYLA,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00935	POTASSIUM, DISSOLVED	27.0	34438	NITROSODIMETHYLAMI,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
00940	CHLORIDE, DISSOLVED	86.0	34447	NITROBENZENE, TOTAL	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
00945	SULFATE, DISSOLVED	210	34452	CHLORO-METHYLPHENC,T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
00950	FLOURIDE, DISSOLVED	0.100 <	34461	PHENANTHRENE, TOTAL	1.00 <	39100	2-ETHLYHEXYL PHTHA,T	1.00 <
00955	SILICA, DISSOLVED	11.0	34469	PYRENE, TOTAL	1.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
01046	IRON, DISSOLVED	67.0	34475	TETRACHLOROETHYLEN,T	3.00 <	39120	BENZIDINE, TOTAL	1.00 <
01056	MANGANESE, DISSOLVED	10000	34485	TRICHLOROFLUOROMET,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32101	DICHLORODIMETHA,T	3.00 <	34496	1,1-DICHLOROETHANE,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32102	CARBON TETRA, TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <	39488	AROCHLOR 1221, TOT	0.100 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
32104	BROMOFORM, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39496	AROCHLOR 1242, TOT	0.100 <
32105	CHLOROFORM, TOT.	3.00 <	34516	1,1,2,2-TETRACHLORO,T	3.00 <	39500	AROCHLOR 1248, TOT	0.100 <
32106	CHLOROFORM, TOTAL	1.00 <	34521	BENZO(GH)PERYLENE,T	1.00 <	39504	AROCHLOR 1254, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34526	BENZO(A)ANTHRACENE,T	1.00 <	39508	AROCHLOR 1260, TOT	0.100 <
34030	BENZENE, TOTAL	3.00 <	34536	1,2-DICHLOROBENZEN,T	2.00	39700	HEXACHLOROBENZENE,T	1.00 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	3.00 <	70300	RCE, DISS. AT 180 C	581
34220	ANTHRACENE, TOTAL	1.00 <	34551	1,2,4-TRICHLOROBEN,T	1.00 <	70301	RESIDUE DIS CALC SUM	602
34230	BENZO(E)FLUORANTHE,T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	90095	SP. CONDUCTANCE LAB	1100
34242	BENZO(K)FLUORANTHE,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <	90410	ALKALINITY, TOTAL	208
34247	BENZO(A)PYRENE, TOT.	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <	95902	HARDNESS N,CARB L-EP	0.000
34273	2-CHLOROETHYL ETHER,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	2.00	99998	CENTRAL LAB-ID-#	5177100
34278	2-CHLOROETH METHANE,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <			

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S 79110. 1

Sampled on 06-24-85 at 1130 (35 parameters)

Well ID: 1126LCLU
7.5' Depth: Maricopa

Well Depth:

----- ft Land Surface:
Town: Brookhaven

----- ft MSL
Community:

Lat-Long: 4049550724648

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.2	32106	CHLOROFORM, TOTAL	19.0	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BARIOMETRIC PRESSURE	662	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1028	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	10010	34301	CHLOROBENZENE, TOTAL	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE (EC)	945	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	1.50	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH. FIELD	6.70	34417	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
32101	DICHLOROPROPENE,1,1,1,T	3.00 <	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34480	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34496	1,1-DICHLOROETHANE,T	6.30	99999	CENTRAL LAB-ID-#	5177100
32105	CHLORODIBROMO., TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

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S 79111. 1

Sampled on 06-24-85 at 1035 (35 parameters)

Aquifer: 112GLCLU
7.5' Sand: Monches

Well Depth: ---- ft

Land Surface: ---- ft MSL

Lat-Long: 4049550724648

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	12.7	32104	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PR. MM HG	668	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1023	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	0010	34301	CHLOROBENZENE, TOTAL	21.0	34541	1,2-DICHLOROPROPAN,T	3.00 <
00035	SP. CONDUCTANCE FLU	1120	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	0.900	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	6.70	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
32101	DICHLOROFLUOROMETH,T	3.00 <	34403	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34497	1,1-DICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34494	1,1-DICHLOROETHANE,T	27.0	99998	CENTRAL LAB-ID-#	5177100
32105	CHLORODIBROMO., TOT.	3.00 <	34501	1,1-DICHLOROFTHYLEN,T	3.00 <			

P 25 of 35

S 79117. 1

Sampled on 06-19-85 at 1315 (53 parameters)

Equip: 110 LCLU Well Depth: ---- ft Land Surface: ---- ft MSL Lat-Long: 4049360724640
 7. 110 LCLU Monochas Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMP. PATTERNS	11.1	00250	FLOUPIDF, DISSOLVED	0.100 <	34488	TRICHLOROFLUOROMET,T	3.00 <
00025	BAROMETRIC P., MM HG	756	00455	SILICA, DISSOLVED	6.40	34496	1,1-DICHLOROETHANE,T	8.80
00027	COLLECTION AGENCY	1028	01048	IRON, DISSOLVED	45.0	34501	1,1-DICHLOROETHYLEN,T	3.00 <
00028	ANALYZING AGENCY	0010	01058	MANGANESE, DISSOLVED	23.0	34506	1,1,1-TRICHLOROETH,T	3.00 <
00095	SP. CONDUCTANCE FLD	371	32101	DICHLOROBROMOMETHA,T	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00300	OXYGEN, DISSOLVED	2.50	32102	CARBON TETRA., TOT.	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00400	PH FIELD	5.70	32103	1,2-DICHLOROETHANE,T	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00403	PH (LABORATORY)	6.30	32104	BROMOFORM, TOTAL	3.00 <	34546	1,2-TRANS-DICL-ETHYLENE	3.00 <
00610	NH4, AS N, TOTAL	0.230	32105	CHLORODIBROMO., TOT.	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00615	NO2, AS N, TOTAL	0.010 <	32106	CHLOROFORM, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00625	NH4+ORG-N, TOTAL	0.900	34010	TOLUENE, TOTAL	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00630	NO2+NO3, AS N, TOTAL	0.100 <	34030	BENZENE, TOTAL	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00915	CALCIUM, DISSOLVED	11.0	34301	CHLOROBENZENE, TOTAL	70.0	39180	TRICHLOROETHYLENE,T	3.00 <
00925	MAGNESIUM, DISSOLVED	7.40	34311	CHLOROETHANE, TOTAL	3.00 <	70300	ROE, DISS. AT 180 C	175
00930	SODIUM, DISSOLVED	34.0	34371	ETHYLBENZENE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	297
00935	POTASSIUM, DISSOLVED	1.60	34413	METHYLBROMIDE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	88.0
00940	CHLORIDE, DISSOLVED	30.0	34423	METHYLENE CHLORIDE,T	3.00 <	99998	CENTRAL LAB-ID-#	5175000
00945	SULFATE, DISSOLVED	12.0	34475	TETRACHLOROETHYLEN,T	3.00 <			

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S 79118. 1

Sampled on 06-19-85 at 1210 (117 parameters)

Station: 1123LUU
 Well Depth: 217 ft
 Depth: Maricbas

Well Depth: ---- ft Land Surface: ---- ft MSL Lat-Long: 4049360724640
 Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	11.1	34299	BUTYL BENZYL PHTHA,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00025	BAROMETER PRESSURE	756	34301	CHLOROBENZENE, TOTAL	3.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <
00027	COLLECTION VOLUME	1000	34311	CHLOROTHANE, TOTAL	3.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00028	ANALYZING VOLUME	1000	34320	CHRYSENE, TOTAL	1.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
00045	SP. CONDUCTANCE FIELD	388	34336	DIMETHYL PHTHALATE, T	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00300	DISSOLV. OXYGEN	1.20	34341	DIMETHYL PHTHALATE, T	1.00 <	34601	2,4-DICHLOROPHENOL, T	1.00 <
00400	PH FIELD	7.80	34371	ETHYLPHENENE, TOTAL	3.00 <	34606	2,4-DIMETHYLPHENOL, T	1.00 <
00403	PH (EAP METHOD)	8.20	34376	FLUORANTHENE, TOTAL	1.00 <	34611	2,4-DINITROTOLUENE, T	1.00 <
00610	NO ₂ (A) TOTAL	0.010 <	34381	FLUORENE, TOTAL	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00615	NO ₂ (A) TOTAL	0.010 <	34376	HEXACHLOROCYCLOPEN,T	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00623	NH ₄ +ORGEN, TOTAL	2.400	34394	HEXACHLOROETHANE, T.	1.00 <	34626	2,6-DINITROTOLUENE, T	1.00 <
00630	NO ₃ -NITR, AS N, TOTAL	0.400	34403	INDENO(1,2,3)PYREN,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
00915	CALCIUM, DISSOLVED	20.0	34409	ISOPHORONE, TOTAL	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00925	MAGNESIUM, DISSOLVED	10.0	34413	METHYLBROMIDE, TOTAL	3.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
00930	SODIUM, DISSOLVED	50.0	34423	METHYLENE CHLORIDE, T	3.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00935	POTASSIUM, DISSOLVED	1.20	34429	N-NITROSODI-N-PROP,T	1.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
00940	CHLORIDE, DISSOLVED	41.0	34433	N-NITROSODIPHENYL,T	1.00 <	34668	DICHLOROFLUOROME,T	3.00 <
00945	SULFATE, DISSOLVED	24.0	34439	NITROSODIMETHYLAMI,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00950	FLUORIDE, DISSOLVED	0.100 <	34447	NITROBENZENE, TOTAL	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00955	SILICA, DISSOLVED	15.0	34450	CHLORO-METHYLPHENC,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
01046	IRON, DISSOLVED	27.0	34461	PHENANTHRENE, TOTAL	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
01056	MANGANESE, DISSOLVED	19.0	34469	PYRENE, TOTAL	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
32101	DICHLORODIBROMOETHA,T	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39100	2-ETHYLHEXYL PHTHA,T	1.00 <
32102	CARBON TETRA, TOT.	3.00 <	34477	TRICHLOROFLUOROMET,T	3.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34496	1,1-DICHLOROETHANE,T	27.0	39120	BENZIDINE, TOTAL	1.00 <
32104	BROMOFORM, TOTAL	3.00 <	34501	1,1-DICHLORETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32105	CHLOROFORM, TOT.	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <	39180	TRICHLOROETHYLENE, T	4.50
32106	CHLOROFORM, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39488	AROCHLOR 1221, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34516	1,1,2,2-TETPCHLORO,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
34030	BENZENE, TOTAL	3.00 <	34521	PERZO(GH)PERPYLENE,T	1.00 <	39496	AROCHLOR 1242, TOT	0.100 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34526	BENZO(4)ANTHRACENE, T	1.00 <	39500	AROCHLOR 1248, TOT	0.100 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34536	1,2-DICHLOROBENZEN,T	3.00	39504	AROCHLOR 1254, TOT	0.100 <
34220	ANTHRACENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39508	AROCHLOR 1260, TOT	0.100 <
34230	BENZO(B)FLUORANTH,T	1.00 <	34546	1,2-TRANS-DI-ETHYLENE	13.0	39700	HEXACHLOROBENZENE, T	1.00 <
34242	BENZO(K)FLUORANTH,T	1.00 <	34551	1,2,4-TRICHLOROBEN,T	1.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34247	BENZO(A)PYRENE, TOT.	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	70300	RCE, DISS. AT 180 C	213
34273	2-CHLOROETHYL ETHER, T	1.00 <	34561	1,3-DICHLOROPROPAN, T	3.00 <	90095	SP. CONDUCTANCE LAB	347
34278	2-CHLOROETH METHANE, T	1.00 <	34566	1,3-DICHLOROBENZEN, T	1.00 <	90410	ALKALINITY, TOTAL	80.0
34283	2-CHLOROPROPYL ETHER, T	1.00 <	34571	1,4-DICHLOROBENZEN, T	1.00 <	99998	CENTRAL LAB-ID-#	5175000

12/2/89

5 79119. 1

Sampled on 06-19-85 at 1050 (35 parameters)

Aquifer: 112-ECLH
7.5' from: Manholes

Well Depth: ---- ft Land Surface: ---- ft MSL
Town: Brookhaven

Community: Lat-Long: 4049360724640

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	10.9	32115	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	SAPONITATY TA. (MIL) HG	756	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTING AGENCY	1026	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	50010	34301	CHLOROBENZENE, TOTAL	18.0	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE (FC)	531	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICHL-ETHYLENE	4.70
00300	OXYGEN, DISSOLVED	2.40	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH FIELD	5.70	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYL VINYLEETHER	3.00 <
32101	DICHLORODIFLUOROMETH,T	3.00 <	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHYLEN,T	3.00 <	34488	TRICHLOROPFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34495	1,1-DICHLOROETHANE,T	25.0	99998	CENTRAL LAB-ID-#	5175000
32105	CHLOROETHANE, 1,2 TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

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S 72125.1

Sampled on 06-13-85 at 1050 (35 parameters)

Aquifer: 1126LCLU
7.5' Quad: Moriches

Well Depth: ---- ft

Land Surface: ---- ft MSL

Lat-Long: 4049290724637

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	11.0	32106	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PRESSURE	756	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTING AGENCY	1023	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	80010	34201	CHLOROBENZENE, TOTAL	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00029	SP. LOCATION/FACILITY	250	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2-TRANS-DICHLOROETHYLENE	6.60
00300	OXYGEN, DISSOLVED	1.40	34271	ETHYLENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	PH	8.60	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYL VINYLETHER	3.00 <
32101	1,1-DICHLOROETHANE,T	3.00 <	34423	METHYLENE CHLORIDE,T	5.30	34668	DICHLORODIFLUOROME,T	3.00 <
32102	1,1,1-TRICHLOROETHANE,T	3.00 <	34425	TETRACHLOROETHYLENE,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,1,2-DICHLOROETHANE,T	3.00 <	34427	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34428	1,1-DICHLOROETHANE,T	12.0	99998	CENTRAL LAB-ID-#	5168000
32105	CHLORODIFLUOROMETHANE,T	3.00 <	34431	1,1-DICHLOROETHYLENE,T	3.00 <			

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S 79126. 1

Sampled on 06-11-85 at 1500 (118 parameters)

Location: 1126LLU Well Depth: ---- ft Land Surface: ---- ft MSL Lat-Long: 4549290724637
 Proj. Code: Maricopa Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	18.1	34311	CHLOROBENZENE, TOTAL	3.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00027	COLLECTION METHOD	1001	34312	CHLOROETHANE, TOTAL	3.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
00028	ANALYZING METHOD	0010	34320	CHRYSENE, TOTAL	1.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00095	SP. CONDUCTANCE FLD	356	34322	DICHTYL PHTHALATE, T	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <
00400	PH FIELD	6.00	34341	DIMETHYL PHTHALATE,T	1.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00403	PH (LAB-FATORY)	5.20	34371	ETHYLBENZENE, TOTAL	3.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
00600	NITROGEN, TOTAL	0.40	34374	FLUORANTHENE, TOTAL	1.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00605	NITR., TOTAL ORGANIC	0.399	34381	FLUORINE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00610	NH4+ AS N, TOTAL	0.710	34384	HEXACHLOROCYCLOPEN,T	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
00615	NO2- AS N, TOTAL	0.010 <	34394	HEXACHLOROETHANE, T.	1.00 <	34631	3,3-DICHLOROENZID,T	1.00 <
00625	NH4NH2-2, TOTAL	0.000	34403	INDENO(1,2,3)PYREN,T	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00630	NO2NH2- AS N, TOTAL	1.40	34407	ISOPHROPE, TOTAL	1.00 <	34641	CHLORPHENPHEN, ATM	1.00 <
00915	CALCIUM, DISSOLVED	22.0	34413	METHYLBROMIDE, TOTAL	3.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00925	MAGNESIUM, DISSOLVED	13.0	34423	METHYLENE CHLORIDE,T	13.0	34657	DINITROMETHYLPHENO,T	1.00 <
00930	SODIUM, DISSOLVED	75.0	34428	N-NITROSODI-N-PROP,T	1.00 <	34662	DICHLORODIFLUOROME,T	3.00 <
00935	POTASSIUM, DISSOLVED	1.50	34433	N-NITROSODIPHENYL,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00940	CHLORIDE, DISSOLVED	33.0	34438	NITROSODIMETHYLAMI,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00945	SULFATE, DISSOLVED	17.0	34447	NITROBENZENE, TOTAL	1.00 <	34694	PHENOL, TOTAL	1.00 <
00950	FLUORIDE, DISSOLVED	0.100 <	34450	CHLORO-METHYLPHENO,T	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
00955	SILICA, DISSOLVED	8.70	34461	PHENANTHRENE, TOTAL	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
01046	IRON, DISSOLVED	64.0	34469	PYRENE, TOTAL	1.00 <	39100	2-ETHYLHEXYL PHTHA,T	1.00 <
01056	MANGANESE, DISSOLVED	13.0	34475	TETRACHLOROETHYLEN,T	3.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
32101	DICHLOROETHYLENE,T	3.00 <	34482	TRICHLOROFLUOROMET,T	3.00 <	39120	BENZIDINE, TOTAL	1.00 <
32102	CARBON TETRA., T.T.	3.00 <	34494	1,1-DICHLOROETHANE,T	19.0	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	4.90	39482	AROCHLOR 1221, TOT	0.100 <
32105	CHLOROFORM, TOT.	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
32106	CHLOROFORM, TOTAL	3.00 <	34516	1,1,2,2-TETRACHLORO,T	3.00 <	39496	AROCHLOR 1242, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34521	BENZO(GH)PERYLENE,T	1.00 <	39500	AROCHLOR 1248, TOT	0.100 <
34030	XENON, TOTAL	3.00 <	34526	BENZO(G)ANTHRACENE,T	1.00 <	39504	AROCHLOR 1254, TOT	0.100 <
34200	ACENAPHTHYLENE, TOT.	1.00 <	34536	1,2-DICHLOROBENZEN,T	2.00	39508	AROCHLOR 1260, TOT	0.100 <
34205	ACENAPHTHYLENE, TOTAL	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34220	ANTHRACENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	11.0	39702	HEXACHLOROBUTADIEN,T	1.00 <
34230	BENZO(G)FLUORANTH,T	1.00 <	34551	1,2,4-TRICHLOROPEN,T	1.00 <	70300	RCE, DISS. AT 130 C	186
34242	BENZO(K)FLUORANTH,T	1.00 <	34556	DIBENZANTHRACENE, T	1.00 <	71927	NITR. TOTAL AS NO3	12.0
34247	BENZO(G)PYRENE, TOT.	1.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <	90095	SP. CONDUCTANCE LAB	356
34273	2-CHLOROETHYL THIA,T	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <	90410	ALKALINITY, TOTAL	106
34278	2-CHLOROPHTHALATE,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <	99998	CENTRAL LAB-ID-#	5165800
34283	2-CHLORISOPROP.ETHA,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <			
34292	BUTYL BENZYL PHTHA,T	1.00 <	34591	2-CHLORONAPHTHALEN,T	1.00 <			

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S 79127. 1

Sampled on 06-11-85 at 1300 (61 parameters)

Aquifer: 1106LCLU
7.3' LUCH: Monches

Well Depth: ---- ft

Land Surface: ---- ft MSL

Lat-Long: 4049290724637

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	11.9	00940	CHLORIDE, DISSOLVED	27.0	34496	1,1-DICHLOROETHANE,T	17.0
00025	BAROMETRIC PR. IN. Hg.	761	00945	SULFATE, DISSOLVED	35.0	34501	1,1-DICHLOROETHYLEN,T	3.00 <
00027	COLLECTION AGENCY	1028	00950	FLUORIDE, DISSOLVED	0.100 <	34506	1,1,1-TRICHLOROETH,T	6.70
00028	ANALYZING AGENCY	0010	00955	SILICA, DISSOLVED	16.0	34511	1,1,2-TRICHLOROETH,T	3.00 <
00095	SP. CONDUCTANCE FEU	317	01044	LEAD, DISSOLVED	38.0	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00300	OXYGEN, DISSOLVED	1.30	01056	MANGANESE, DISSOLVED	19.0	34541	1,2-DICHLOROPROPAN,T	3.00 <
00400	PH (FIELD)	6.60	32101	DICHLOROBROMOMETHA,T	3.00 <	34546	1,2-TRANS-DICL-ETHYLENE	15.0
00403	PH (LABORATORY)	6.20	32102	CARBON TETRA., TOT.	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00600	NITROGEN, TOTAL	1.20	32103	1,2-DICHLOROETHANE,T	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00605	NITR., TOTAL ORGANIC	0.580	32104	BROMOFORM, TOTAL	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00610	NH4, AS N, TOTAL	0.020	32105	CHLORO Dibromo., TOT.	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00615	NO2, AS N, TOTAL	0.010 <	32106	CHLOROFORM, TOTAL	3.00 <	39180	TRICHLOROETHYLENE,T	6.90
00625	NH4+ORG-N, TOTAL	0.600	34010	TOLUENE, TOTAL	3.00 <	70300	ROE, DISS. AT 180 C	170
00630	NO2+NO3, AS N, TOTAL	2.60	34030	BENZENE, TOTAL	3.00 <	70301	RESIDUE DIS CALC SUM	167
00900	HARDNESS TOTAL	77.0	34301	CHLOROBENZENE, TOTAL	3.00 <	71387	NITR. TOTAL AS NO3	14.0
00915	CALCIUM, DISSOLVED	17.0	34311	CHLOROETHANE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	301
00925	MAGNESIUM, DISSOLVED	3.40	34371	ETHYLENE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	58.0
00930	SODIUM, DISSOLVED	75.0	34413	METHYLBROMIDE, TOTAL	3.00 <	95902	HARDNESS N.CARB L-EP	19.0
00931	SODIUM, AS SPPR. RATIO	1.50	34423	METHYLENE CHLORIDE,T	5.00	99998	CENTRAL LAB-ID-#	5165800
00932	SODIUM, PERCENT	44.0	34475	TETRACHLOROETHYLEN,T	3.00 <			
00935	POTASSIUM, DISSOLVED	1.00	34488	TRICHLOROFLUOROMET,T	3.00 <			

S 79234. 1

Sampled on 06-13-85 at 1420 (35 parameters)

Aquifer: 1123LULU
7.01 Surf: Maricopa

Well Depth: 106 ft Land Surface: ----- ft MSL Lat-Long: 4049150724631

Town: Brookhaven

Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	10.7	32104	CHLOROFORM, TOTAL	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <
00025	BAROMETRIC PR. MM HG	736	34010	TOLUENE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00027	COLLECTION AGENCY	1078	34030	BENZENE, TOTAL	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00028	ANALYZING AGENCY	0010	34301	CHLOROBFNZONE, TOTAL	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00095	SP. CONDUCTANCE - EC	52.0	34311	CHLOROETHANE, TOTAL	3.00 <	34546	1,2TRANS-DICL-ETHYLENE	3.00 <
00300	OXYGEN, DISSOLVED	11.0	34371	ETHYLBENZENE, TOTAL	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00400	RH FIELD	5.70	34413	METHYLBROMIDE, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
32101	DICHLOROBROMOETHANE,T	3.00 <	34423	METHYLENE CHLORIDE,T	6.30	34668	DICHLORODIFLUOROME,T	3.00 <
32102	CARBON TETRA., TOT.	3.00 <	34475	TETRACHLOROETHYLEN,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32103	1,2-DICHLOROETHANE,T	3.00 <	34493	TRICHLOROFLUOROMET,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32104	BROMOFORM, TOTAL	3.00 <	34494	1,1-DICHLOROETHANE,T	3.00 <	99998	CENTRAL LAB-ID-#	5168000
32105	CHLOROETHANE, TOT.	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <			

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5 79235. 1

Sampled on 06-13-85 at 1325 (121 parameters)

Location: 1126 LCU
7.51 curd: florishes

Well Depth: 125 ft Land Surface: ----- ft MSL Lat-Long: 4049150724631
Town: Brookhaven Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	10.9	34283	2-CHLORISOPR ETHER,T	1.00 <	34581	2-CHLORONAPHTHALEN,T	1.00 <
00025	BAROMETRIC PR. MH HG	756	34292	BUTYL BENZYL PHTHA,T	1.00 <	34586	2-CHLOROPHENOL, TOT.	1.00 <
00027	COLLECTION AGENCY	1023	34301	CHLOROBENZENE, TOTAL	3.00 <	34591	2-NITROPHENOL, TOTAL	1.00 <
00028	ANALYZING AGENCY	40010	34311	CHLOROETHANE, TOTAL	3.00 <	34596	DI-N-OCTYLPHTHALAT,T	1.00 <
00095	SP. CONDUCTANCE FLU	62.0	34320	CHRYSENE, TOTAL	1.00 <	34601	2,4-DICHLOROPHENOL,T	1.00 <
00300	OXYGEN, DISSOLVED	11.0	34335	DIETHYL PHTHALATE, T	1.00 <	34606	2,4-DIMETHYLPHENOL,T	1.00 <
00400	PH FIELD	6.00	34341	DIMETHYL PHTHALATE,T	1.00 <	34611	2,4-DINITROTOLUENE,T	1.00 <
00405	PH (LABORATORY)	7.20	34371	ETHYLBENZENE, TOTAL	3.00 <	34616	2,4-DINITROPHENOL, T	1.00 <
00600	NITROGEN, TOTAL	0.000	34376	FLUORANTHENE, TOTAL	1.00 <	34621	2,4,6-TRICHLOROPHE,T	1.00 <
00605	NITR, TOTAL ORGANIC	0.250	34381	FLUORENE, TOTAL	1.00 <	34626	2,6-DINITROTOLUENE,T	1.00 <
00610	NH4+ AS N, TOTAL	0.050	34386	HEXACHLOROCYCLOPEN,T	1.00 <	34631	3,3-DICHLOROBENZID,T	1.00 <
00615	NO2- AS N, TOTAL	0.010	34396	HEXACHLOROETHANE, T.	1.00 <	34636	4-BROMOPHENYL PHEN,T	1.00 <
00620	NO3- AS N, TOTAL	0.490	34403	INDENO(1,2,3)PYRENE,T	1.00 <	34641	CHLORPHENPHEN, BTM	1.00 <
00625	NH4+ BR-EN, TOTAL	0.300	34407	ISOPHORONE, TOTAL	1.00 <	34646	4-NITROPHENOL, TOTAL	1.00 <
00630	NO2+NO3- AS N, TOTAL	0.500	34413	METHYLBROMIDE, TOTAL	3.00 <	34657	DINITROMETHYLPHENO,T	1.00 <
00915	CALCIUM, DISSOLVED	0.50	34423	METHYLENE CHLORIDE,T	3.00 <	34668	DICHLORODIFLUOROME,T	3.00 <
00925	MAGNESIUM, DISSOLVED	1.50	34428	N-NITROSDI-N-PROP,T	1.00 <	34671	AROCHLOR 1016, TOT	0.100 <
00930	SODIUM, DISSOLVED	5.90	34433	N-NITROSDIPHENYL,T	1.00 <	34675	2,3,7,8-TETRACHLOR,T	1.00 <
00935	POTASSIUM, DISSOLVED	0.400	34438	NITROSDIMETHYLAMI,T	1.00 <	34694	PHENOL, TOTAL	1.00 <
00940	CHLORIDE, DISSOLVED	9.60	34447	NITROBENZENE, TOTAL	1.00 <	34696	NAPHTHALENE, TOTAL	1.00 <
00945	SULFATE, DISSOLVED	4.60	34450	CHLORO-METHYLPHENO,T	1.00 <	39032	PENTACHLOROPHENOL, T	1.00 <
00950	FLOUORIDE, DISSOLVED	0.100 <	34461	PHENANTHRENE, TOTAL	1.00 <	39100	2-ETHLYHEXYL PHTHA,T	1.00 <
00955	SILICA, DISSOLVED	9.10	34469	PYRENE, TOTAL	1.00 <	39110	DI-N-BUTYL PHTHALA,T	1.00 <
01046	IRON, DISSOLVED	6.00	34475	TETRACHLOROETHYLEN,T	3.00 <	39120	BENZOICINE, TOTAL	1.00 <
01056	MANGANESE, DISSOLVED	10.0	34488	TRICHLOROFLUOROMET,T	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
32101	DICHLORODIFLUOROMETH,T	3.00 <	34496	1,1-DICHLOROETHANE,T	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
32102	CARBON TETRACHLORIDE,T	3.00 <	34501	1,1-DICHLOROETHYLEN,T	3.00 <	39488	AROCHLOR 1221, TOT	0.100 <
32103	1,2-DICHLOROETHAN,T	3.00 <	34506	1,1,1-TRICHLOROETH,T	3.00 <	39492	AROCHLOR 1232, TOT	0.100 <
32104	BROMOCHLORIDE, TOTAL	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <	39496	AROCHLOR 1242, TOT	0.100 <
32105	CHLOROTRIFLUOROMETH,T	1.00 <	34516	1,1,2,2-TETRACHLOR,T	3.00 <	39500	AROCHLOR 1248, TOT	0.100 <
32106	CHLOROPHENE, TOTAL	3.00 <	34521	1,2,4-TRICHLOROBE,N,T	1.00 <	39504	AROCHLOR 1254, TOT	0.100 <
34010	TOLUENE, TOTAL	3.00 <	34526	1,2,4,6-TETRACHLOROBE,N,T	1.00 <	39508	AROCHLOR 1260, TOT	0.100 <
34030	BENZENE, TOTAL	3.00 <	34536	1,2-DICHLOROBENZEN,T	1.00 <	39700	HEXACHLOROBENZENE,T	1.00 <
34200	ACENAPHTYLENE, TOT.	1.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <	39702	HEXACHLOROBUTADIEN,T	1.00 <
34205	ACENAPHTHENE, TOTAL	1.00 <	34546	1,2-TRANS-DICL-ETHYLENE	3.00 <	70300	RCE, DISS. AT 180 C	45.0
34220	ANTHRACENE, TOTAL	1.00 <	34551	1,2,4-TRICHLOROBE,N,T	1.00 <	71887	NITR. TOTAL AS NO3	3.50
34230	BENZO(a)FLUORANTHRE,T	1.00 <	34556	DIPHENYLANTHRACENE, T	1.00 <	90095	SP. CONDUCTANCE LAB	60.0
34242	BENZO(b)FLUORANTHRE,T	1.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <	90410	ALKALINITY, TOTAL	9.00
34247	BENZO(k)FLUORANTHRE,T	1.00 <	34566	1,3-DICHLOROBENZEN,T	1.00 <	99998	CENTRAL LAB-ID-#	5168000
34275	2-CHLOROTHYL ETHER,T	1.00 <	34571	1,4-DICHLOROBENZEN,T	1.00 <			
34276	2-CHLOROTHYLMETHANE,T	1.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <			

S 79236.1

Sampled on 06-13-85 at 1229 (54 parameters)

Location: 117-0000
 Well Name: Manholes

Well Depth: 145 ft Land Surface:
 Town: Brookhaven

----- ft MSL Lat-Long: 4049150724631
 Community:

Code	Name	Value	Code	Name	Value	Code	Name	Value
00010	WATER TEMPERATURE	10.7	00945	SULFATE, DISSOLVED	2.80	34475	TETRACHLOROETHYLEN,T	3.00 <
00025	BAROMETRIC PRESSURE	756	00950	FLUORIDE, DISSOLVED	0.100 <	34488	TRICHLOROFLUOROMET,T	3.00 <
00027	CHEMICAL ANALYSIS	1023	00955	SILICA, DISSOLVED	12.0	34496	1,1-DICHLOROETHANE,T	3.00 <
00028	ANALYZING AGENCY	00010	01044	IRON, DISSOLVED	44.0	34501	1,1-DICHLOROETHYLEN,T	3.00 <
00095	SP. CONDUCTANCE LAB	114	01054	MANGANESE, DISSOLVED	6.00	34506	1,1,1-TRICHLOROETH,T	3.00 <
00300	OXYGEN, DISSOLVED	2.20	32101	DICHLOROBROMOMETHA,T	3.00 <	34511	1,1,2-TRICHLOROETH,T	3.00 <
00400	PH FIELD	5.96	32102	CARBON TETRA., TOT.	3.00 <	34516	1,1,2,2-TETRCHLORO,T	3.00 <
00403	PH (LABORATORY)	6.10	32103	1,2-DICHLOROETHANE,T	3.00 <	34541	1,2-DICHLOROPROPAN,T	3.00 <
00610	NH4 AS N, TOTAL	0.050	32104	BROMOFORM, TOTAL	3.00 <	34546	1,2-TRANS-DICHLOROETHYLENE	3.00 <
00615	NO2 AS N, TOTAL	0.010	32105	CHLORODIBROMO., TCT.	3.00 <	34561	1,3-DICHLOROPROPAN,T	3.00 <
00620	NO3 AS N, TOTAL	4.90	32106	CHLOROFORM, TOTAL	3.00 <	34576	2-CL-ETHYLVINYLETHER	3.00 <
00625	NH4+NO2+NO3, TOTAL	0.100 <	34010	TOLUENE, TOTAL	3.00 <	34662	DICHLORODIFLUOROME,T	3.00 <
00630	NO2+NO3 AS N, TOTAL	4.90	34030	BENZENE, TOTAL	3.00 <	39175	VINYL CHLORIDE, TOTA	3.00 <
00910	CALCIUM, DISSOLVED	4.40	34301	CHLOROBENZENE, TOTAL	3.00 <	39180	TRICHLOROETHYLENE,T	3.00 <
00925	MANGANESE, DISSOLVED	3.60	34311	CHLOROETHANE, TOTAL	3.00 <	70300	RCE, DISS. AT 180 C	76.0
00930	SODIUM, DISSOLVED	10.0	34371	ETHYLBENZENE, TOTAL	3.00 <	90095	SP. CONDUCTANCE LAB	117
00935	POTASSIUM, DISSOLVED	0.600	34413	METHYLBROMIDE, TOTAL	3.00 <	90410	ALKALINITY, TOTAL	20.0
00940	CHLORIDE, DISSOLVED	3.00	34423	METHYLENE CHLORIDE,T	3.00 <	99998	CENTRAL LAB-ID-#	5168000

P 34 of 39

Table 3. Laboratory analysis of samples from the vicinity of the Brookhaven Landfill Site, October-December, 1982. (Well locations shown in pl. 1; analyses by New York Testing, Inc., Westbury, N.Y.)

35739

Local identifier	Latitude/Longitude	Seq. no. ¹	Date of sample	Temperature (°C)	Specific conductance (µS/cm at 25°C)	pH field value (units)	pH lab. value (units)	Total ammonium as N (mg/L)	Total nitrite as N (mg/L)	Total nitrate as N (mg/L)	Total Kjeldahl nitrogen as N (mg/L)
S 3529	404801 0725538	01	82-11-02	13.0	290	4.6	5.2	< 0.04	0.01	0.26	0.34
S44574	404728 0725548	01	82-11-03	13.0	400	5.3	5.6	0.61	< 0.01	< 0.04	3.14
S44575	404728 0725548	02	82-11-03	13.0	370	5.4	5.6	0.17	< 0.01	< 0.04	2.02
S44576	404728 0725548	03	82-11-03	12.0	233	5.9	5.7	0.32	< 0.01	0.15	3.75
S44577	404731 0725535	01	82-11-03	15.0	440	5.5	5.8	0.27	< 0.01	0.06	7.73
S44578	404731 0725535	02	82-11-03	14.0	460	5.9	6.3	7.47	< 0.01	0.04	7.78
S44581	404747 0725535	01	82-11-03	15.0	740	5.9	6.3	6.42	< 0.01	< 0.04	7.67
S66943	404745 0725535	01	82-11-08	11.0	165	6.5	6.0	0.12	0.04	1.20	0.90
S72121	404816 0725605	01	82-10-26	12.0	50	5.3	5.8	0.08	< 0.01	0.04	0.84
S72122	404742 0725605	01	82-11-02	12.0	118	6.0	5.4	< 0.04	< 0.01	0.38	0.29
S72123	404805 0725545	01	82-12-09	--	362 ²	--	5.6	0.30	< 0.01	0.01	1.29
S72124	404805 0725555	01	82-11-02	12.0	60	5.5	5.9	0.32	< 0.01	0.78	0.95
S72125	404713 0725546	01	82-11-02	12.0	150	5.6	5.8	0.21	0.01	0.42	0.26
S72130	404742 0725525	01	82-10-27	12.0	223	5.3	4.9	0.27	< 0.01	< 0.04	1.29
S72131	404722 0725525	01	82-11-04	--	230	5.2	5.9	0.46	< 0.01	< 0.04	0.78
S72132	404713 0725525	01	82-11-04	--	110	5.3	5.4	0.23	< 0.01	0.72	1.12
S72136	404734 0725515	03	82-10-27	10.0	300	5.2	5.5	0.14	< 0.01	0.04	0.28
S72138	404740 0725505	01	82-11-03	13.0	42	5.5	6.1	0.16	0.01	0.04	0.56
S72149	404704 0725515	01	82-11-05	--	55	6.6	6.0	0.13	< 0.01	0.24	1.23

Local identifier	Date of sample	Alkalinity as HCO ₃ (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)	Dissolved sodium (Na) (mg/L)	Dissolved potassium (K) (mg/L)	Dissolved chloride (Cl) (mg/L)	Dissolved sulfate (SO ₄) (mg/L)	Dissolved iron (Fe) (µg/L)	Dissolved manganese (Mn) (µg/L)	Total dissolved solids (mg/L)
S 3529	82-11-02	2	3.90	1.60	43.00	1.80	66	19	23	510	110
S44574	82-11-03	200	2.80	3.70	6.10	1.70	15	37	1,200	87,800	157
S44575	82-11-03	150	5.00	4.50	14.00	3.50	24	41	94	49,860	130
S44576	82-11-03	77	4.80	4.00	14.00	3.20	16	20	75	16,980	68
S44577	82-11-03	140	5.50	4.10	18.00	8.60	27	29	2,000	38,000	140
S44578	82-11-03	130	9.60	5.30	18.00	12.00	31	6	35,460	8,100	180
S44581	82-11-03	640	21.00	12.00	22.00	24.00	36	21	85,000	5,200	201
S66943	82-11-08	12	5.90	5.00	11.00	1.00	21	21	430	1,600	76
S72121	82-10-26	4	0.60	1.40	3.30	0.40	6	10	770	< 6	50
S72122	82-11-02	4	0.90	1.50	16.00	1.00	23	7	49	25	52
S72123	82-12-09	< 1	5.10	1.40	73.00	1.20	260	16	210	470	180
S72124	82-11-02	< 1	1.30	1.70	6.60	0.40	9	7	420	41	35
S72125	82-11-02	2	2.90	1.50	21.00	1.30	32	10	75	170	58
S72130	82-10-27	6	1.20	2.00	22.00	2.00	30	38	590	10,170	114
S72131	82-11-04	110	6.00	3.60	11.00	1.80	17	4	90	28,670	81
S72132	82-11-04	27	4.10	2.40	8.00	1.10	11	9	30	150	39
S72136	82-10-27	43	11.00	9.60	23.00	1.60	55	8	210	18	174
S72138	82-11-03	4	1.20	1.00	3.40	0.60	6	6	260	120	19
S72149	82-11-05	11	2.10	1.40	4.80	0.20	7	4	89	160	20

1 Sequence number is used to distinguish between wells having same latitude and longitude
 2 Laboratory measurement of specific conductance at 20°C.

Table 4. Laboratory analyses of samples from the vicinity of the Rasmussen landfill site, October December, 1982. (Continued)

Local identifier	Latitude/Longitude	Seq. no.	Date of sample	Temperature (°C)	Specific conductance (µS/cm at 25°C)	pH field value (units)	pH lab. value (units)	Total ammonium as N (mg/L)	Total nitrite as N (mg/L)	Total nitrate as N (mg/L)	Total Kjeldahl nitrogen as N (mg/L)	
S72150	404713	0725503	01	82-11-04	--	165	6.9	5.3	0.11	< 0.01	0.04	1.01
S72151	404708	0725458	01	82-11-05	--	75	6.6	5.7	0.11	< 0.01	0.10	0.81
S72152	404714	0725451	01	82-10-26	11.0	77	5.5	5.4	0.14	< 0.01	0.47	1.96
S72612	404802	0725538	01	82-11-08	11.0	59	5.2	6.6	0.16	0.04	1.35	0.22
S72813	404732	0725544	05	82-11-08	13.0	71	6.2	6.9	0.75	0.04	0.05	0.79
S72815	404753	0725606	01	82-11-02	12.0	245	5.4	5.3	< 0.04	< 0.01	0.54	0.32
S72816	404801	0725607	01	82-10-28	11.0	55	4.9	5.7	0.06	< 0.01	< 0.04	0.20
S72817	404740	0725530	01	82-10-27	13.0	2,650	6.8	7.0	181.00	< 0.01	1.56	184.00
S72818	404736	0725525	01	82-10-28	12.0	131	5.2	5.2	0.48	< 0.01	< 0.04	1.46
S72819	404736	0725525	02	82-10-28	11.0	317	5.5	5.8	0.45	< 0.01	< 0.04	0.52
S72820	404736	0725525	03	82-10-28	11.0	160	5.9	6.3	0.39	< 0.01	< 0.04	1.01
S72821	404734	0725516	01	82-10-27	13.0	135	4.3	4.8	0.23	< 0.01	0.47	0.45
S72822	404734	0725516	02	82-10-27	11.0	214	5.1	5.2	0.32	< 0.01	0.28	2.13
S72824	404727	0725521	02	82-11-04	--	750	6.4	6.2	23.10	< 0.01	< 0.04	23.70
S72825	404726	0725512	01	82-10-27	12.0	172	4.8	5.0	0.23	< 0.01	1.52	0.67
S72826	404726	0725512	02	82-10-27	11.0	142	5.2	5.4	0.14	< 0.01	0.17	0.22
S72827	404720	0725506	01	82-10-28	13.0	95	4.5	5.6	0.34	< 0.01	< 0.04	0.39
S72828	404720	0725506	02	82-10-28	12.0	131	4.8	5.4	0.20	< 0.01	0.10	0.24
S72829	404659	0725509	01	82-11-05	--	70	--	5.6	0.13	< 0.01	0.23	1.29
S72831	404703	0725524	01	82-11-04	--	51	5.4	5.6	0.11	< 0.01	0.05	2.74

Local identifier	Date of sample	Alkalinity as HCO ₃ (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)	Dissolved sodium (Na) (mg/L)	Dissolved potassium (K) (mg/L)	Dissolved chloride (Cl) (mg/L)	Dissolved sulfate (SO ₄) (mg/L)	Dissolved iron (Fe) (µg/L)	Dissolved manganese (Mn) (µg/L)	Total dissolved solids (mg/L)
S72150	82-11-04	54	5.00	7.10	8.50	1.20	18	4	4,800	370	57
S72151	82-11-05	18	2.90	2.30	6.40	0.40	9	4	130	200	31
S72152	82-10-26	9	1.70	1.90	4.90	0.60	10	4	160	<6	60
S72612	82-11-08	18	3.30	2.10	4.60	0.40	7	3	180	36	22
S72813	82-11-08	26	3.70	1.50	4.60	0.50	6	3	1,300	180	28
S72815	82-11-02	2	4.80	1.20	36.00	0.90	62	4	65	30	111
S72816	82-10-28	< 1	0.80	1.50	4.10	0.50	7	5	260	14	16
S72817	82-10-27	940	31.00	48.00	300.00	220.00	400	10	14,210	400	1,460
S72818	82-10-28	4	1.10	3.50	5.90	1.20	9	38	2,000	8,600	114
S72819	82-10-28	78	9.30	14.00	26.00	1.50	44	13	320	4,000	148
S72820	82-10-28	44	4.70	7.80	11.00	0.80	19	7	300	31	99
S72821	82-10-27	7	3.50	3.20	7.70	1.40	18	17	160	1,700	94
S72822	82-10-27	16	4.00	4.80	20.00	1.40	40	14	140	4,100	146
S72824	82-11-04	280	17.00	7.90	57.00	21.00	71	3	310	26,530	300
S72825	82-10-27	7	3.20	3.40	15.00	1.40	21	24	180	2,100	106
S72826	82-10-27	31	4.20	5.50	8.50	0.80	16	9	200	13	108
S72827	82-10-28	< 1	1.20	2.60	10.00	1.30	11	14	2,400	150	99
S72828	82-10-28	9	3.40	4.20	9.10	1.50	14	17	380	140	108
S72829	82-11-05	5	1.20	1.70	5.80	0.40	9	7	66	150	26
S72831	82-11-04	10	1.00	1.50	4.20	0.40	7	6	37	190	23

Table 5.--Laboratory analyses of samples from the vicinity of the Brookhaven Landfill site, October-December 1982.
(Continued)

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Local identifier	Latitude/Longitude	Seq. no.	Date of sample	Temperature (°C)	Specific conductance (µS/cm at 25°C)	pH field value (units)	pH lab. value (units)	Total ammonium as N (mg/L)	Total nitrite as N (mg/L)	Total nitrate as N (mg/L)	Total Kjeldahl nitrogen as N (mg/L)	
S72832	404717	0725526	01	82-11-04	—	108	5.0	5.3	0.11	< 0.01	0.17	0.56
S72833	404722	0725526	02	82-11-04	—	290	5.0	5.9	0.13	< 0.01	< 0.04	0.61
S72834	404730	0725530	01	82-10-28	14.0	595	5.7	6.8	29.40	< 0.01	< 0.04	30.70
S72835	404728	0725536	01	82-11-03	13.0	670	6.3	6.5	10.60	< 0.01	< 0.04	22.50
S72836	404726	0725543	01	82-11-02	12.0	232	5.6	6.3	4.33	< 0.01	< 0.04	5.82
S72837	404726	0725543	02	82-11-02	12.0	480	6.1	6.0	7.99	0.01	0.04	8.46
S72838	404724	0725548	01	82-11-02	12.0	63	4.9	5.7	0.23	0.01	0.30	0.78
S73750	404742	0725535	01	82-10-29	14.0	2,300	6.7	7.0	151.00	< 0.01	< 0.04	168.00
S73751	404742	0725535	02	82-10-29	12.0	100	7.0	6.7	0.63	< 0.01	0.10	0.65
S73752	404742	0725535	03	82-10-29	13.0	225	7.0	7.3	1.07	0.06	3.18	1.12
S73753	404738	0725535	01	82-10-29	15.0	1,850	6.1	6.7	110.00	< 0.01	< 0.04	114.00
S73754	404738	0725535	02	82-10-29	16.0	2,150	6.3	7.4	140.00	< 0.01	< 0.04	145.00
S73755	404738	0725535	03	82-10-29	16.0	1,370	6.4	7.1	79.90	< 0.01	< 0.04	81.70
S73756	404734	0725537	03	82-11-08	14.0	1,300	6.4	6.7	44.60	< 0.01	0.10	69.20
S73757	404734	0725537	02	82-10-29	16.0	1,050	7.2	6.8	43.70	< 0.01	< 0.04	44.30
S73758	404734	0725537	01	82-11-08	14.0	1,020	6.1	6.4	20.20	0.04	0.10	27.30
S73759	404734	0725537	04	82-11-08	14.0	1,480	6.4	6.7	10.50	0.04	0.08	12.70
S73760	404732	0725544	01	82-11-08	14.0	235	6.4	6.5	0.75	< 0.01	0.14	1.57
S73761	404732	0725544	02	82-10-29	15.0	260	7.0	6.9	2.07	< 0.01	< 0.04	4.93
S73762	404732	0725544	03	82-11-08	12.0	1,000	6.1	6.5	4.09	< 0.01	0.32	5.75

Local identifier	Date of sample	Alkalinity as HCO ₃ (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)	Dissolved sodium (Na) (mg/L)	Dissolved potassium (K) (mg/L)	Dissolved chloride (Cl) (mg/L)	Dissolved sulfate (SO ₄) (mg/L)	Dissolved iron (Fe) (µg/L)	Dissolved manganese (Mn) (µg/L)	Total dissolved solids (mg/L)
S72832	82-11-04	26	2.40	4.70	8.00	0.90	16	3	51	200	40
S72833	82-11-04	120	12.00	12.00	21.00	1.70	21	9	75	260	106
S72834	82-10-28	340	16.00	12.00	45.00	38.00	48	2	13,270	5,300	231
S72835	82-11-03	350	14.00	15.00	47.00	24.00	66	< 1	70,330	10,940	310
S72836	82-11-02	150	8.40	3.00	12.00	6.70	16	1	100	15,750	88
S72837	82-11-02	350	13.00	5.10	17.00	14.00	26	< 1	49,780	9,300	67
S72838	82-11-02	2	1.60	2.00	4.90	0.60	11	7	47	100	30
S73750	82-10-29	1,500	17.00	41.00	300.00	170.00	400	1	17,530	1,000	1,410
S73751	82-10-29	< 1	1.70	2.90	9.70	1.90	19	4	1,100	130	65
S73752	82-10-29	26	12.00	9.80	11.00	1.20	11	36	420	47	146
S73753	82-10-29	970	31.00	32.00	170.00	130.00	230	2	33,600	2,300	833
S73754	82-10-29	1,060	23.00	34.00	230.00	160.00	270	4	19,390	3,700	994
S73755	82-10-29	270	6.30	17.00	120.00	78.00	160	8	18,580	5,600	543
S73756	82-11-08	810	110.00	31.00	100.00	52.00	140	3	3,100	34,460	600
S73757	82-10-29	480	29.00	26.00	100.00	54.00	98	1	32,560	6,900	505
S73758	82-11-08	640	19.00	16.00	46.00	35.00	77	< 1	155,700	13,200	500
S73759	82-11-08	1,080	210.00	58.00	110.00	24.00	140	1	23,670	36,530	509
S73760	82-11-08	77	7.40	7.90	7.40	3.00	29	7	11,020	5,300	78
S73761	82-10-29	200	4.50	4.80	18.00	4.40	11	9	11,080	8,900	130
S73762	82-11-08	410	73.00	22.00	32.00	6.70	86	1	34,200	22,070	300

Table 5.--Laboratory analyses of samples from the vicinity of the Brookhaven Landfill Site, October-December 1982.
(Continued)

Local identifier	Latitude/Longitude	Seq. no.	Date of sample	Temperature (°C)	Specific conductance (µS/cm at 25°C)	pH field value (units)	pH lab. value (units)	Total ammonium as N (mg/L)	Total nitrite as N (mg/L)	Total nitrate as N (mg/L)	Total Kjeldahl nitrogen as N (mg/L)	
S73763	404732	0725544	04	82-11-08	13.0	585	6.3	6.8	22.20	0.04	0.08	24.10
S73764	404730	0725549	01	82-11-08	11.5	425	6.7	6.3	9.35	< 0.01	0.37	10.20
S73765	404730	0725549	02	82-11-08	12.0	270	6.5	6.8	13.90	< 0.01	< 0.04	16.00
S73767	404729	0725553	01	82-11-08	12.0	61	6.5	6.5	< 0.04	< 0.01	2.08	< 0.04
S73768	404729	0725553	02	82-11-08	11.0	59	6.7	5.9	< 0.04	< 0.01	< 0.04	< 0.04
S73769	404753	0725606	02	82-10-29	12.0	107	6.3	6.3	0.80	< 0.01	< 0.04	0.83
S73770	404749	0725543	01	82-11-05	--	128	--	5.2	0.11	< 0.01	0.17	1.23
S73943	404740	0725530	02	82-11-03	13.0	625	6.3	6.5	15.10	0.01	0.04	18.30
S73944	404740	0725530	03	82-11-03	12.0	275	6.1	6.8	1.72	< 0.01	< 0.04	6.50
S73945	404730	0725530	02	82-10-28	14.0	950	6.5	6.9	48.20	< 0.01	< 0.04	48.20
S73946	404733	0725524	01	82-11-03	13.5	268	5.5	6.2	5.38	0.02	0.89	7.39
S73947	404733	0725524	02	82-11-03	13.0	205	5.5	6.1	< 0.04	0.13	0.62	0.39
S73948	404726	0725514	01	82-11-03	11.5	160	5.4	5.9	0.23	0.01	0.29	1.68
S73954	404728	0725509	02	82-12-22	--	78 ¹	--	6.1	3.64	< 0.01	2.10	4.48
S73955	404720	0725506	03	82-12-22	--	101 ¹	--	6.3	< 0.04	< 0.01	3.09	0.62
BD CRK ²	404701	0725503	01	82-10-28	13.0	80	5.1	5.4	0.04	< 0.01	< 0.04	4.25

Local identifier	Date of sample	Alkalinity as HCO ₃ (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)	Dissolved sodium (Na) (mg/L)	Dissolved potassium (K) (mg/L)	Dissolved chloride (Cl) (mg/L)	Dissolved sulfate (SO ₄) (mg/L)	Dissolved iron (Fe) (µg/L)	Dissolved manganese (Mn) (µg/L)	Total dissolved solids (mg/L)
S73763	82-11-08	500	40.00	22.00	46.00	11.00	82	2	30,590	8,200	380
S73764	82-11-08	150	4.70	6.40	17.00	14.00	34	8	24,000	4,400	130
S73765	82-11-08	110	2.30	1.90	8.10	16.00	22	6	4,700	530	81
S73767	82-11-08	4	2.60	2.50	3.60	0.70	14	4	95	34	28
S73768	82-11-08	9	2.10	2.30	4.30	0.80	10	6	1,100	94	28
S73769	82-10-29	5	1.40	1.10	14.00	1.20	20	8	2,300	230	77
S73770	82-11-05	26	3.80	3.30	5.10	1.70	10	9	3,600	3,300	46
S73943	82-11-03	310	16.00	10.00	40.00	14.00	66	< 1	25,330	9,200	189
S73944	82-11-03	150	8.50	2.90	15.00	3.30	27	1	7,000	20,430	100
S73945	82-10-28	510	21.00	18.00	78.00	56.00	100	1	28,960	3,300	453
S73946	82-11-03	95	3.90	2.80	18.00	6.30	30	18	520	8,300	110
S73947	82-11-03	79	5.70	7.10	22.00	1.40	25	10	530	320	110
S73948	82-11-03	46	6.00	4.80	9.30	1.00	20	7	1,000	270	61
S73954	82-12-22	10	3.00	2.30	6.60	0.60	10	6	280	44	52
S73955	82-12-22	17	6.40	3.20	8.40	0.70	11	7	240	48	88
BD CRK ²	82-10-28	< 1	1.50	1.80	7.00	1.40	10	8	600	150	128

¹ Laboratory measurement of specific conductance at 20°C.

² Beaverdam Creek at Montauk Highway.

Table 6. Laboratory analysis of samples from the vicinity of the Brookhaven landfill site, April 1983.

39 of 39

[Well locations shown in pl. 1; analyses by New York Testing, Inc., Westbury, N.Y.]

Local identifier	Latitude/Longitude	Seq. no. ¹	Date of sample	Temperature (°C)	Specific conductance (µS/cm at 25°C)	pH field value (units)	pH lab. value (units)	Total ammonium as N (mg/L)	Total nitrite as N (mg/L)	Total nitrate as N (mg/L)	Total Kjeldahl nitrogen as N (mg/L)	
S72136	404734	0725516	03	83-04-27	13.0	340	--	5.4	0.98	< 0.01	0.22	1.23
S72817	404740	0725530	01	83-04-27	10.0	2,200	--	6.8	89.30	< 0.01	0.07	97.00
S72822	404734	0725516	02	83-04-27	12.0	236	--	5.1	0.95	< 0.01	0.65	0.98
S72826	404726	0725512	02	83-04-27	9.5	115	--	5.5	0.59	< 0.01	0.20	1.06
S72828	404720	0725506	02	83-04-27	14.0	160	--	4.9	0.67	< 0.01	0.07	0.70
S72834	404730	0725530	01	83-04-27	13.5	1,030	--	6.5	49.50	< 0.01	< 0.04	52.00
S72835	404728	0725536	01	83-04-27	12.0	775	--	6.5	16.90	< 0.01	< 0.04	20.10
S72836	404726	0725543	01	83-04-27	12.0	430	--	7.0	7.34	< 0.01	< 0.04	9.35
S73750	404742	0725535	01	83-04-26	11.5	5,500	6.9	7.0	291.00	< 0.01	0.04	308.00
S73754	404738	0725535	02	83-04-26	12.0	675	7.5	7.1	0.59	< 0.01	0.04	2.24
S73757	404734	0725537	02	83-04-26	14.0	750	--	6.8	47.90	< 0.01	0.04	56.50
S73759	404734	0725537	04	83-04-26	13.0	1,100	--	6.9	12.90	< 0.01	0.04	14.60
S73761	404732	0725544	02	83-04-26	12.0	750	--	6.7	17.10	< 0.01	0.04	18.50
S73763	404732	0725544	04	83-04-27	13.5	1,600	--	7.1	37.10	< 0.01	< 0.04	41.20
S73765	404730	0725549	02	83-04-27	12.0	1,100	--	6.4	43.60	< 0.01	0.36	51.70
S73953	404728	0725509	01	83-04-27	10.0	80	--	5.9	0.45	< 0.01	< 0.04	1.46

Local identifier	Date of sample	Alkalinity as HCO ₃ (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)	Dissolved sodium (Na) (mg/L)	Dissolved potassium (K) (mg/L)	Dissolved chloride (Cl) (mg/L)	Dissolved sulfate (SO ₄) (mg/L)	Dissolved iron (Fe) (µg/L)	Dissolved manganese (Mn) (µg/L)	Total dissolved solids (mg/L)
S72136	83-04-27	89	18.00	8.30	38.00	2.50	50	6	770	150	139
S72817	83-04-27	980	41.00	46.00	180.00	140.00	240	11	16,210	600	950
S72822	83-04-27	43	5.50	6.00	25.00	2.30	41	4	50	9,500	106
S72826	83-04-27	68	4.80	4.20	9.40	1.40	18	2	75	20	53
S72828	83-04-27	35	5.40	4.60	14.00	1.40	30	4	71	190	73
S72834	83-04-27	490	15.00	18.00	71.00	60.00	90	5	7,900	10,280	307
S72835	83-04-27	270	15.00	11.00	40.00	28.00	60	<1	85,400	9,900	230
S72836	83-04-27	85	18.00	4.60	14.00	11.00	19	<1	59,900	9,100	74
S73750	83-04-26	2,540	52.00	83.00	500.00	330.00	650	3	26,040	530	2,284
S73754	83-04-26	390	4.80	5.10	51.00	41.00	63	5	4,800	930	224
S73757	83-04-26	460	20.00	12.00	70.00	56.00	90	2	29,650	4,100	342
S73759	83-04-26	950	140.00	57.00	110.00	27.00	140	2	890	16,130	794
S73761	83-04-26	330	18.00	19.00	44.00	12.00	70	3	41,010	21,810	262
S73763	83-04-27	480	47.00	26.00	110.00	37.00	130	<1	30,060	5,100	425
S73765	83-04-27	460	20.00	19.00	70.00	43.00	93	2	51,500	11,550	340
S73953	83-04-27	42	2.90	2.60	7.10	1.10	17	3	94	26	36

¹ Sequence number is used to distinguish between wells having same latitude and longitude



Appendix 1.5-1
3200a

Received from
Solid Waste Dept. of Landfills

TOWN OF BROOKHAVEN

SANITATION DEPARTMENT
TOWN HALL - PATCHOGUE, LONG ISLAND, NEW YORK 11772
OFFICE AT 475 E. MAIN STREET, PATCHOGUE, N.Y.

Arthur J. Muccio
COMMISSIONER OF SANITATION

CRover 5-5500

February 28, 1979

Mr. Morris Bruckman, P.E.
Solid Waste Management Unit
N.Y.S. Department of Environmental Conservation
Bldg. 40 - State Campus
Stony Brook, NY 11754

Dear Mr. Bruckman:

Under the requirements of G.N.Y.C.R.R. Part 360, the Town of Brookhaven is to submit an application to operate the Horseblock Road Landfill.

Herewith submitted are the following completed items:

- a) Application for Approval to Construct a Solid Waste Management Facility.
- b) Application for Approval to Operate a Solid Waste Management Facility.
- c) Project Permit Requirement Questionnaire.

An engineers report and plans are in preparation, we request an extension of thirty (30) days for submission of these items.

Very truly yours,

Arthur J. Muccio, Commissioner
Sanitation Department

AJM:med

COMMUNICATIONS RECORD FORM

Distribution: () File _____, () _____
() _____, () _____
() Author

Person Contacted: Mr. Charles Guenier Date: 5 Sept 86

Phone Number: (516) 751-7900 Title: Region 7 Fisheries Manager

Affiliation: NYSDEC Type of Contact: Phone

Address: _____ Person Making Contact: E Bidwell

Communications Summary: Mr. Guenier indicated that the Beaversdam
Creek is stocked with trout and therefore a recreational
surface water body.

(see over for additional space)

Signature: E Bidwell

COMMUNICATIONS RECORD FORM

Distribution: () Brookhaven LF Harsblook Rd
() _____ () _____
() Author

Person Contacted: Mr. Joe Sauerwein Date: 4/17/86
Phone Number: 516654 7882 Title: Chief Fire ~~Inspector~~ Inspector
Affiliation: Town of Brookhaven Type of Contact: Phone
Address: Patchogue NY Person Making Contact: Goig

Communications Summary: I explained the Phase T program
to Mr. Sauerwein and asked if the
Brookhaven LF Harsblook Rd was an
imminent threat from fire or explosion.
He said it was not.

(see over for additional space)

Signature: William Goig

LAND USE

p. 1 of 3

~ 1981

Quantification and Analysis of Land Use for Nassau and Suffolk Counties

AREAWIDE
WASTE TREATMENT
MANAGEMENT

December 1982

Long Island Regional Planning Board



Scale: 1 in. = 4,650 ft

LEGEND

p. 3 of 3

RESIDENTIAL



1 D.U. & Less/Acre (low density)



2-4 D.U./Acre



5-10 D.U./Acre



11 D.U. & Over/Acre (high density)



Commercial



Commercial Recreation



Industrial



Institutional



Open Space & Recreational



Agricultural



Transportation & Utilities



Vacant

SUFFOLK COUNTY WATER AUTHORITY
Oakdale, New York

ACTIVE SERVICESDecember 1985

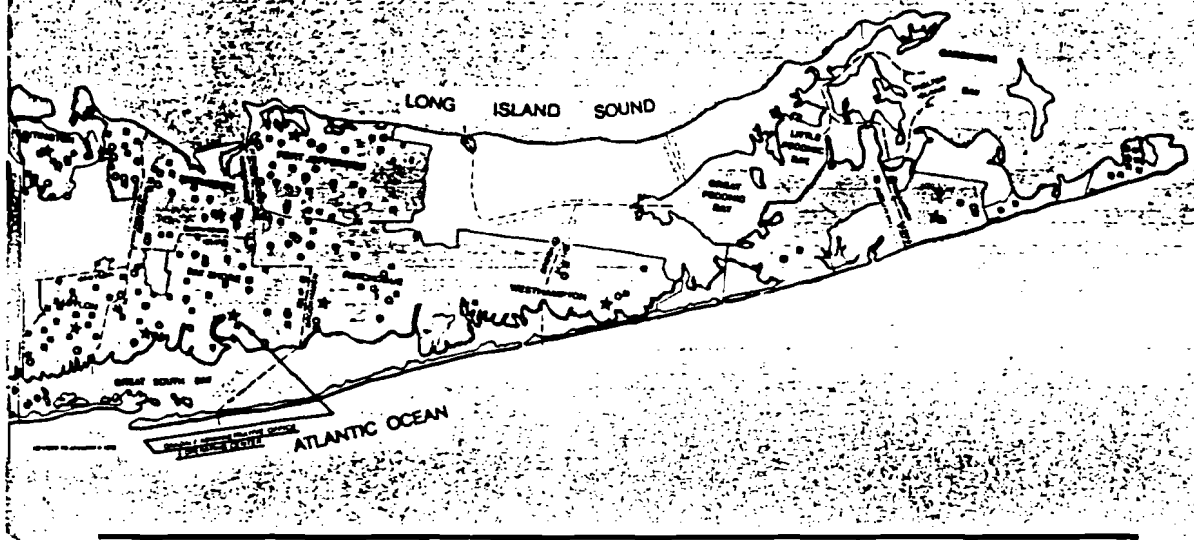
<u>DISTRICT OFFICES</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>Increase or Decrease 1985/84</u>
BABYLON	53 647	53 995	54 655	660
BAY SHORE	46 846	47 269	47 830	561
PAJCHOGUE	49 408	51 412	55 104*	3692
HUNTINGTON	28 303	28 530	28 794	264
PORT JEFFERSON	32 881	33 524	34 440	916
SMITHTOWN	22 832	23 257	23 641	384
WESTHAMPTON	4 089	4 451	4 984	533
EAST HAMPTON	<u>10 245</u>	<u>10 523</u>	<u>10 841</u>	<u>318</u>
TOTAL FOR AUTHORITY	248 251	252 961	260 289	7328

*Includes 970 Active Services Acquired from
Shirley Water Works Co. 3/29/85

cc: Messrs. Hazlitt, Hanrahan, Sidoti, Schickler, Koehler, Dugan, Daly and Cannon
jh - 2/4/86

5/3/86

Communities Served:



□ SCWA SERVICE AREAS ■ WELL FIELD & PUMP STATIONS ★ COMMERCIAL OFFICES ○ STORAGE FACILITY

BABYLON DISTRICT

- Amity Harbor
- Amityville
- Babylon
- Copiapue
- Deer Park
- Dix Hills
- Lindenhurst
- North Amityville
- North Babylon
- North Lindenhurst
- Pinelawn
- West Babylon
- Wheatley Heights
- Wyandanch

BAY SHORE DISTRICT

- Bay Shore
- Brentwood
- Brightwaters
- Central Islip
- East Islip
- Edgewood
- Great River
- Islip
- Islip Terrace
- North Bay Shore
- North Great River
- Oakdale
- West Bay Shore
- West Islip

HUNTINGTON DISTRICT

- Asharoken
- Centerport
- Cold Spring Harbor
- Commack
- Crab Meadow
- East Huntington
- East Neck
- East Northport
- Eatons Neck
- Fort Salonga
- Halesite
- Huntington
- Huntington Bay
- Huntington Station
- Lloyd Harbor
- Northport

EAST HAMPTON DISTRICT

- Amagansett
- East Hampton
- Freetown
- Montauk
- North Sea
- Sag Harbor
- Southampton

PATCHOGUE DISTRICT

- Bayport
- Bellport
- Blue Point
- Bohemia
- Brookhaven
- Coram
- East Holbrook
- East Patchogue
- Farmingville
- Gordon Heights
- Holbrook
- Holtsville
- Lakeland
- Lake Ronkonkoma
- Mastic

- Mastic Beach
- Medford
- North Bellport
- North Patchogue
- Patchogue
- Ronkonkoma
- Sayville
- Selden
- Shirley
- South Centereach
- South Holbrook
- South Yaphank
- West Bellport
- West Ronkonkoma
- West Sayville
- Yaphank

PORT JEFFERSON DISTRICT

- Belle Terre
- Centereach
- Coram
- East Setauket
- Lake Grove
- Middle Island
- Miller Place
- Mount Sinai
- North Centereach
- North Selden
- Poquott
- Port Jefferson
- Port Jefferson Station
- Ridge
- Rocky Point
- Setauket
- South Setauket
- Sound Beach
- South Stony Brook
- Stony Brook*
- Strongs Neck
- Terryville

SMITHTOWN DISTRICT

- East Commack
- Flowerfield*
- Hauppauge
- Kings Park
- Nesconset
- Saint James*
- San Remo*
- Smithtown
- South Hauppauge
- West St. James
- West Smithtown*
- Village of Head of The Harbor
- Village of The Branch

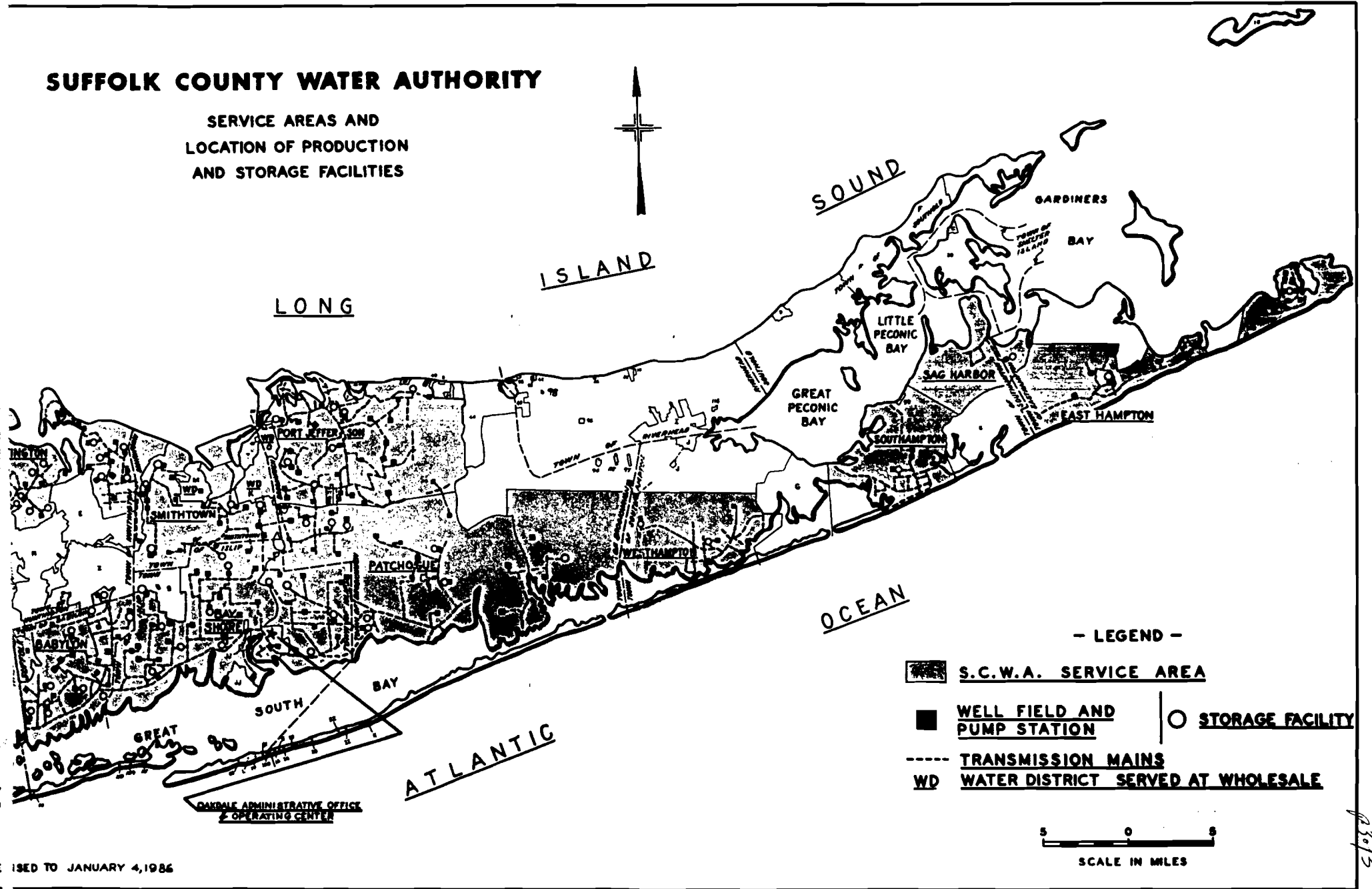
WESTHAMPTON DISTRICT

- Center Moriches
- East Moriches
- Eastport
- East Quogue
- Moriches
- South Manor
- Quogue
- Quogue
- Westhampton
- Westhampton Beach






* Included in Wholesale Water District

SUFFOLK COUNTY WATER AUTHORITY

SERVICE AREAS AND
LOCATION OF PRODUCTION
AND STORAGE FACILITIES



- LEGEND -

-  S.C.W.A. SERVICE AREA
-  WELL FIELD AND PUMP STATION
-  STORAGE FACILITY
-  TRANSMISSION MAINS
-  WATER DISTRICT SERVED AT WHOLESALE



OAKDALE ADMINISTRATIVE OFFICE
& OPERATING CENTER

93093

Appendix B

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

PRIORITY CODE: _____ SITE CODE: 152041

NAME OF SITE: Brookhaven Landfill, Horseblock Road REGION: I

STREET ADDRESS: Horseblock Road

TOWN/CITY: Brookhaven COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Town of Brookhaven

ADDRESS OF CURRENT OWNER OF SITE: Patchogue, Long Island, New York 11772

TYPE OF SITE: OPEN DUMP STRUCTURE LAGOON
LANDFILL TREATMENT POND

ESTIMATED SIZE: 85 ACRES

SITE DESCRIPTION:

The site is an active 85 acre landfill which accepts 485,000 tons of garbage per year. The landfill has been open since 1974. Seventy-six of the 85 acres of landfill have a synthetic underliner and the original 15 acres (now closed) have a synthetic cap. The Town of Brookhaven and the USGS have installed an extensive ground-water monitoring network of 68 wells. Leachate was observed overflowing the underliner and ground water samples have indicated a direct release to ground water

HAZARDOUS WASTE DISPOSED: CONFIRMED SUSPECTED

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Unknown (mixed municipal solid waste)	Unknown
_____	_____
_____	_____
_____	_____
_____	_____

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Unknown	Unknown
_____	_____
_____	_____
_____	_____
_____	_____

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 ____ TO _____, 19 ____

OWNER(S) DURING PERIOD OF USE: NYS Environmental Facilities Corp. and Town of Brookhaven

SITE OPERATOR DURING PERIOD OF USE: NYS Environmental Facilities Corp. and Town of Brookhaven

ADDRESS OF SITE OPERATOR: 20 Medford Avenue, Patchogue, New York 11772

ANALYTICAL DATA AVAILABLE: AIR SURFACE WATER GROUNDWATER
SOIL SEDIMENT NONE

CONTRAVENTION OF STANDARDS: GROUNDWATER DRINKING WATER
SURFACE WATER AIR

SOIL TYPE: Sand and gravel

DEPTH TO GROUNDWATER TABLE: 10-50 ft

LEGAL ACTION: TYPE: _____ STATE FEDERAL
STATUS: IN PROGRESS COMPLETED
REMEDIAL ACTION: PROPOSED UNDER DESIGN
IN PROGRESS COMPLETED

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Ground water contamination documented.

ASSESSMENT OF HEALTH PROBLEMS:

None reported or known.

PERSON(S) COMPLETING THIS FORM:

FOR NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NEW YORK STATE DEPARTMENT OF HEALTH

NAME EA Science and Technology
TITLE _____
NAME _____
TITLE _____
DATE: 13 August 1985

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____