



Holzmachner, McLendon & Murrell, P.C. ▴ H2M Associates, Inc.
H2M Labs, Inc. ▴ H2M Construction Management, Inc.

575 Broad Hollow Road, Melville, New York 11747
(631) 756-8000, Fax: (631) 694-4122

e-mail: h2m@h2m.com

web: www.h2m.com

January 30, 2003

Mr. Jaime Ascher
New York State Department of Environmental Conservation
Division of Environmental Remediation
Building 40-SUNY
Stony Brook, NY 11790-2356



Re: Cornell University Long Island Horticultural Research and Extension Center
3059 Sound Avenue, Riverhead, New York
Groundwater Investigation and Soil Remediation Summary Report
Voluntary Cleanup Agreement D1-0002-01-03

Dear Mr. Ascher:

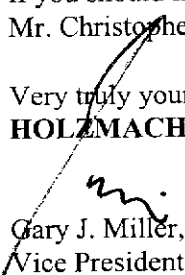
Enclosed are two copies of the Groundwater Investigation and Soil Remediation Summary Report for the Cornell University LIHREC. Also enclosed is one set (three volumes) of the full CLP laboratory data package. The work was conducted in accordance with the procedures outlined in our April 2002 Groundwater Investigation and Soil Remediation Work Plan, and is now complete.

On behalf of our client, Cornell University, we respectfully request that the NYSDEC consider the remedial actions at the Site complete. Further, we request that Cornell University be provided a Release and Covenant Not to Sue as prescribed in the Voluntary Cleanup Agreement, Index D1-0002-01-03.

If you should have any questions, please contact either Mr. Gary Miller at (631) 756-8000, Ext. 1620 or Mr. Christopher J. Flynn at Ext. 1484.

Very truly yours,

HOLZMACHER, McLENDON & MURRELL, P.C.


Gary J. Miller, P.E.
Vice President


Christopher J. Flynn
Project Manager

cc; Steven Beyers/Cornell University
Mark Bridgen/Cornell LIHREC
William E. Fry
Jacqueline Nealon/NYSDOH
Kevin Carpenter/NYSDEC
Sy Robbins/SCDHS

**GROUNDWATER INVESTIGATION AND SOIL REMEDIATION SUMMARY
REPORT**

**LONG ISLAND HORTICULTURAL RESEARCH AND EXTENSION CENTER
RIVERHEAD, NEW YORK**

JANUARY 2003

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GROUNDWATER INVESTIGATION AND SOIL REMEDIATION SUMMARY REPORT

LONG ISLAND HORTICULTURAL RESEARCH AND EXTENSION CENTER RIVERHEAD, NEW YORK

JANUARY 2003

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1. Engineering Stamp?
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GROUNDWATER INVESTIGATION AND SOIL REMEDIATION SUMMARY
REPORT
LONG ISLAND HORTICULTURAL RESEARCH AND EXTENSION CENTER
RIVERHEAD, NEW YORK

JANUARY 2003

1.0 INTRODUCTION

Cornell University entered into a Voluntary Cleanup Agreement (Agreement) with the New York State Department of Environmental Conservation (NYSDEC) to conduct additional investigation and remediation work at the Long Island Horticultural Research and Extension Center (LIHREC). Cornell requested to enter into the Agreement based upon the results of a November 1997 Preliminary Site Assessment (PSA) performed by Holzmacher, McLendon & Murrell, P.C. (H2M). In order to comply with the requirements of the Agreement, Cornell University retained H2M to conduct an additional groundwater investigation and soil remediation program at the LIHREC, located at 3059 Sound Avenue in Riverhead, New York (see Figure 1.1). The "Site", as defined in the Agreement, is limited to two previously identified areas of concern (i.e., rock drain area and evaporation pit overflow drywell). A survey map highlighting the Site boundaries as well as the locations of the rock drain area and overflow drywell are presented in Figure 1.2 (pocket). A metes and bounds description of the "Site" is presented in Appendix A. The "Contaminants of Concern", as defined in the Agreement, are limited to pesticides.

A Work Plan for implementing the additional groundwater investigation and soil remediation program was submitted by H2M to NYSDEC for final approval in April 2002. Specifically, the Work Plan presented a summary of the general approach and procedures for all investigation activities with respect to our November 1997 Preliminary Site Assessment (PSA). The Work Plan also included a Quality Assurance Project Plan and site-specific Health and Safety Plan. Based upon the scope of work, the project goals were to determine the extent, if any, of groundwater contamination resulting from pesticide impacted subsurface soils within the

“Site”, and effectively remediate pesticide impacted subsurface soils within the rock drain area and overflow drywell. NYSDEC issued final approval of the April 2002 Groundwater Investigation and Soil Remediation Work Plan on June 25, 2002.

In consideration of the above, this summary report provides a detailed discussion of the groundwater investigation and soil remediation work, and presents the results of our findings. The focus of the groundwater investigation was to determine if groundwater is significantly impacted due to elevated pesticide concentrations previously identified in subsurface soils associated with both the rock drain area and the evaporation pit overflow drywell. The investigation consisted of an exposure assessment to determine whether there are any potential environmental receptors within a one-mile radius of the Site. Further, one additional downgradient monitoring well (i.e. MW-4) was installed in order to better define the site specific groundwater flow direction. After allowing MW-4 to stabilize following development, a round of groundwater monitoring was conducted on July 17, 2002. Groundwater samples were collected for pesticide analyses from existing monitoring wells MW-1 through MW-4, and one of the LIHREC's irrigation wells (S-73265). A second round of groundwater monitoring was conducted at MW-1 through MW-4 on October 16, 2002. The LIHREC Irrigation Well S-73265 was sampled for the second time on October 29, 2002. Results of the groundwater investigation are presented in Section 4.0 (Groundwater Investigation Summary and Results).

The focus of the soil remediation program was to document the removal and disposal of impacted subsurface soils from both the rock drain area and the overflow drywell. The soil remediation program consisted of excavation and disposal of the impacted soils identified in both the rock drain area and overflow drywell during the November 1997 PSA. The soil remediation work was conducted during the period of July 8 through July 10, 2002. Upon completion of the soil removal work, both areas were backfilled with clean sand. Results of the soil remediation work are presented in Section 5.0 (Soil Remediation Summary and Results).

2.0 BACKGROUND

The LIHREC is a horticultural research center administered by Cornell University and the State University of New York. Horticultural research conducted at the facility includes the planting and care of diverse crops in small experimental land plots in open fields and containers in greenhouses. Various pesticides, including proprietary products, are mixed and applied to crops during experimental trials. Reportedly, the consistent prior practice had been to rinse pesticide containers emptied of product with water prior to disposal. In most cases, the rinse water was added to the pesticide application tanks. Upon completing a specific pesticide application, the application tank was rinsed clean. The rinsate water from the application tank was discharged into an evaporation pit/drywell system for disposal (See Figure 2.1). Prior to the construction of the evaporation pit/drywell system, rinse water was reportedly discharged to a rock drain area.

2.1 Previous Analytical Results

Results of previous NYSDEC laboratory analyses indicated that endosulfan I, endosulfan II, endosulfan sulfate, and chlordane were detected in an evaporation pit liquid sample at concentrations ranging from 80 to 320 micrograms per liter (ug/l). NYSDEC laboratory analyses of an evaporation pit bottom sample detected heptachlor, alpha chlordane, and gamma chlordane at concentrations of 720,000, 1,900,000, and 2,000,000 micrograms per kilogram (ug/kg) respectively. Other NYSDEC evaporation pit bottom sample analyses detected endosulfan I, endosulfan II, and chlordane at 7,900,000, 2,900,000, and 4,000,000 ug/kg respectively. Finally, NYSDEC analyses of overflow drywell bottom sediments indicated the presence of endosulfan I, endosulfan II and chlordane.

Analyses performed by a LIHREC-contracted laboratory indicated the presence of chlordane in an evaporation pit liquid sample (529 ug/l), evaporation bottom sediments (251,000 ug/kg), and overflow drywell bottom sediments (75,300 ug/kg).

In consideration of the above, Cornell submitted a work plan to NYSDEC for removal of all liquid and sludge from both the evaporation pit and overflow drywell in approximately January 1994. The remediation work plan was approved by Ms. Katy Murphy of NYSDEC on November 30, 1994. A copy of the approved work plan is presented in Appendix B.

The remediation work was conducted on December 7, 1994 by Laidlaw Environmental Services (LES). Present during the remediation work were Ms. Murphy and Mr. Robert Becherer of NYSDEC, Mr. Joseph Siezcka (Cornell LIHREC), and Mr. Bennett Orłowski (Cornell LIHREC). A copy of the NYSDEC field notes as compiled by Ms. Murphy are presented in Appendix B-1.

As per the NYSDEC field notes, approximately two feet of liquid and sludge were present in the evaporation pit prior to the start of the remediation work. The remediation work consisted of first removing the liquid phase of the waste material from the evaporation pit. There was no standing water present in the overflow drywell at the time of remediation. The liquids were removed utilizing an electric pump and placed in DOT approved 55 gallon drums for later disposal as hazardous waste. Upon completion of the liquid removal, all bottom sediment/sludge was manually removed from both the evaporation pit and drywell and placed in 55-gallon drums for later off site disposal. After all of the bottom sediment/sludge was removed, the evaporation pit and its overflow pipe were decontaminated utilizing a high-pressure water tri-sodium phosphate rinse to remove residual contamination within the drainage structures. The liquid material (i.e. rinse water) was again removed utilizing an electric pump and placed in 55-gallon drums for later off site disposal. All of the 55-gallon drums containing liquid and bottom sediment/sludge were temporarily staged in the on site pesticide storage building until waste disposal approvals were obtained by LES.

A total of twenty-one (21) drums of liquid waste and three (3) drums of bottom sediment/sludge were generated as a result of the 1994 remediation work. In addition, one (1) drum of contaminated personnel protective equipment (PPE) was generated and properly

disposed of off site. The hazardous waste manifest documenting the proper disposal of the contaminated media and PPE is included in Appendix B-2. As indicated on the manifest, all of the drums were properly disposed of at the Aptus facility (Lakeville, MA) on February 15, 1995. In summary, the removal and proper disposal of the impacted bottom sediments formerly present in the evaporation pit has been documented and therefore, no further action is either recommended or warranted with respect to this structure. Further, as the evaporation pit is of concrete construction (i.e. concrete bottom), it was not possible to collect confirmatory soil samples from the evaporation pit bottom.

2.2 November 1997 Preliminary Site Assessment

In 1997, Cornell retained H2M to conduct a Preliminary Site Assessment (PSA) to evaluate the nature and extent of the suspected pesticide contamination associated with both the evaporation pit/overflow drywell system and former rock drain area. A summary of the general approach and procedures of all investigation activities is presented in H2M's November 1997 PSA report. The report, which was presented to NYSDEC, formed the basis for the proposed additional groundwater investigation and soil remediation program.

The scope of work for the PSA included two soil borings in each of the two suspected source areas with the collection of discrete soil samples at fixed intervals as each boring was advanced. Each soil boring was advanced until groundwater was encountered. Temporary well points were used to obtain groundwater samples at each boring. Each soil and groundwater sample was analyzed for pesticides. Based on the results of the groundwater sample analysis, one upgradient and two downgradient monitoring wells were installed to further evaluate the nature and extent of the contamination, and to determine whether the "Site" was the source of the contamination.

As part of the PSA, a soil boring was also conducted beneath the concrete bottom of the evaporation pit. Prior to conducting the soil boring, a borehole was cored through the concrete bottom of the evaporation pit utilizing a core drill. Split spoon soil samples were then collected

at ten-foot intervals until the groundwater table was encountered. Soil samples were collected at 4 to 6 feet below ground surface (bgs), 30 to 32 feet bgs, and 60 to 62 feet bgs. The soil sample at the 4 to 6 foot interval was collected directly below the evaporation pit's concrete bottom. Upon reaching the water table, a groundwater sample was collected. Each of the three soil samples and groundwater sample were retained for pesticide analyses by H2M Labs, Inc. Results of our lab analyses indicate that in all three soil samples, pesticides were either non-detectable or present at concentrations below their respective NYSDEC Recommended Soil Cleanup Objectives (RSCOs), as presented in NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM): Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046, April 1995 (revised). Pesticides were non-detectable in the groundwater sample collected beneath the evaporation pit. In summary, based upon the analytical data, the subsurface soils beneath the evaporation pit bottom had not been significantly impacted by pesticides. Accordingly, no further action was either warranted or recommended with respect to additional soil sampling/analyses or soil remediation beneath the evaporation pit.

Soil samples from the boring completed through the center of the overflow drywell contained endosulfan I and endosulfan II at concentrations above their respective RSCOs throughout the soil boring. Overall, pesticide concentrations decreased significantly with depth. The highest pesticide concentrations were reported just below the bottom of the drywell (ten feet below ground surface). At this interval, chlordane was reported at a concentration of 580,000 ug/kg. Chlordane was the only pesticide (170 ug/l) detected in the groundwater sample at a concentration in excess of its respective NYSDEC Class GA Water Quality Standard.

Results of the soil borings completed through the rock drain area indicated pesticide concentrations in excess of their respective RSCOs to a total depth of ten feet below grade. P, P-DDT was the only pesticide (0.74 ug/l) detected in the groundwater sample at a concentration in excess of its respective NYSDEC Class GA Water Quality Standard. A site map depicting our 1997 PSA analytical results and groundwater investigation sample locations is presented in Figure 2.1.

3.0 GEOLOGY AND HYDROGEOLOGY

The geologic formations that underlie Suffolk County are composed of a series of thick deposits of unconsolidated water-bearing sediments of late Cretaceous and Pleistocene age. These unconsolidated deposits are underlain by crystalline bedrock of Precambrian age.

There are three primary water-yielding aquifers underlying Suffolk County. These aquifers, from shallow to deep are: (1) Upper Glacial; (2) Magothy; and (3) Lloyd aquifers. The Magothy aquifer has been reported to be semi-confined (confined in areas where the Gardiners clay unit is present). The underlying Lloyd aquifer is confined due to an overlying clay unit identified as the Raritan clay.

The Upper Glacial aquifer, consisting of highly permeable sand and gravel with occasional thin clay beds, has a glacial outwash origin. The saturated section of the Upper Glacial aquifer is approximately 310 feet thick in the LIHREC area of Long Island. Based upon the available data, groundwater occurs at approximately 80 to 90 feet bgs at the facility.

The Magothy aquifer is the principal water supply aquifer underlying Suffolk County. It consists primarily of lenticular beds of very fine to medium sand that are interbedded with clay, sandy clay, silt and some gravel and sand. Beds of coarse sand with gravel are common in the lower 100 to 150 feet of the aquifer. The Magothy aquifer reaches a thickness of approximately 400 feet beneath the LIHREC area.

Below the Magothy aquifer is the Raritan clay formation. This formation is a significant confining unit above the Lloyd aquifer that consists mainly of clay and silty clay and is approximately 100 feet thick in the LIHREC area. The clay has a very low hydraulic conductivity, but does not totally prevent movement of water between the Magothy aquifer and the underlying Lloyd aquifer.

The Lloyd aquifer is the oldest and deepest water-bearing unit. It rests unconformably on impermeable crystalline bedrock and consists of lenticular deposits of clay, silt, sandy clay, sand and gravel. The upper surface of the Lloyd occurs at approximately 900 feet bgs and is approximately 100 feet thick in the LIHREC area.

4.0 GROUNDWATER INVESTIGATION

To determine whether pesticide contamination previously identified in subsurface soils and groundwater beneath both the overflow drywell and rock drain area has the potential to impact environmental receptors within a one mile radius of the Site, H2M completed three (3) tasks in conjunction with the groundwater investigation phase of the project. All work performed in conjunction with the groundwater investigation was conducted in general accordance with the NYSDEC Quality Assurance Guidelines for Voluntary Cleanup Sites, as appropriate. Specifically, the tasks completed are identified as follows:

- Exposure Assessment
- Monitoring Well Installation
- Groundwater Sampling

4.1 Exposure Assessment

H2M performed an exposure assessment to identify potential environmental receptors, public and/or private potable water wells, production wells, and any human exposure scenarios that may exist within a one-mile radius of the Site. The objective of this task was to determine whether any potential pathways exist at the site that could pose potentially unacceptable human health risk.

A sensitive receptor study was conducted to identify the locations of public and private wells, schools, parks, beaches, churches, hospitals, water bodies, and wetlands within a one-mile radius of the subject property. Sources reviewed included a September 27, 2002 Well Report prepared by Toxics Targeting, Inc.-TTI (Ithaca, New York), available water supply information maintained by Riverhead Water District (RHWD), and Well Completion Reports maintained by the NYSDEC Region 1 Water Unit. A copy of the TTI Well Report is presented in Appendix C. A one mile radius map presenting the locations of both RHWD water mains and private wells not connected to RHWD service is presented in Figure 4.1 (One Mile Radius Map: Riverhead Water District Water Mains and Private Wells). Copies of the NYSDEC Well Completion Reports are presented in Appendix D.

Well locations and identification numbers presented in the TTI Well Report were obtained from the United States Geological Survey (USGS) and the New York State Department of Environmental Conservation (NYSDEC). Wells and other sensitive receptors located within a one-mile radius of the subject property are indicated on a One-Mile Well and Sensitive Receptor Map included in the TTI Well Report. Wells and other sensitive receptors identified in the Well Report include the following:

- Well S-2010.1: This well is identified in the Well Report as a USGS Groundwater Site Inventory (GWSI) well used for public water supply. According to the report, the well is located approximately 3,960 feet northeast of the Site and is 162 feet in depth. Based upon our review of the Well Completion Report compiled for the well, the well installation was completed on July 27, 1940. The owner is identified on the Well Report as Edward C. Griffin & Son, Inc., of Port Jefferson, New York. The well was constructed with 6-inch diameter brass riser pipe and screen, and is screened from 152 to 162 feet below grade. Based upon the results of our visual observations in conjunction with an October 11, 2002 site visit conducted by representatives of H2M and Cornell University-LIHREC, Well S-2010.1 apparently no longer exists. Based upon our discussions with Mr. Gary Penzick (RHWD District Superintendent), RHWD has no knowledge of any active public supply wells in the Reeves Beach area. As presented on Figure 4.1, the residential area in which the well was formerly located is currently serviced by the RHWD.
- Well S-12160.1: This well is identified in the Well Report as a USGS GWSI well used for public water supply. According to the report, the well is located approximately 3,300 feet northeast of the Site and is 168.2 feet in depth. Based upon our review of the Well Completion Report compiled for this well, the well installation was completed on September 29, 1954. The owner is identified as Reeves Park Beach Co., Inc. of

Greenlawn, New York. The well was constructed of 5.75-inch diameter brass riser pipe and screen, and is screened from 149.2 to 168.2 feet below grade. Based upon the results of our October 11, 2002 site visit, Well S-12160.1 apparently no longer exists. Based upon our discussions with RHWD, the District has no knowledge of any active public supply wells in the Reeves Beach area. As presented on Figure 4.1, the residential area in which the well was formerly located is currently serviced by the RHWD.

- Well S-16442.1: This well is identified in the Well Report as a USGS GWSI well used for public water supply. According to the report, the well is located approximately 3,300 feet northeast of the site and is 163 feet in depth. Based upon our review of the Well Completion Report compiled for this well, the well installation was completed on July 26, 1958. The owner is identified as the Reeves Park Beach Co., Inc. of Riverhead, New York. The well was constructed with 5.75-inch diameter brass riser pipe and screen, and was screened from 149.8 to 163.4 feet below grade. Based upon the results of our October 11, 2002 site visit, Well S-16442.1 apparently no longer exists. RHWD has no knowledge of any active public supply wells in the Reeves Beach area. As presented on Figure 4.1, the residential area in which the well was formerly located is currently serviced by the RHWD.
- Reeves Beach Water Supply: This well is identified in the Well Report as a USGS GWSI well used for public water supply located approximately 1,320 feet northeast of the Site. As presented in the TTI Well Report, there was no information regarding specific construction details (i.e. total well depth, screened interval, etc.) for this well. Based upon the results of our October 11, 2002 site visit, this supply well apparently no longer exists. In addition, RHWD has no knowledge of any active public supply wells in the Reeves Beach area. As presented on Figure 4.1, the residential area in which the well was formerly located is currently serviced by the RHWD.

- Well S-104550: As presented in the TTI Well Report, this is a private well used for domestic water supply. The well is owned by Aqua Long Fish Farm and is located directly northwest of the Site (i.e. across Sound Avenue). Based upon our review of the NYSDEC Well Completion Report compiled for Well S-104550, the well was installed on June 2, 1994. The well is constructed of 4-inch diameter PVC and was completed at a depth of 105 feet below site grade. The well is screened from 101 to 105 feet below grade. As presented on Figure 4.1, the residential property on which the well is located is serviced by RHWD.
- Well S-51336.1: This is a USGS GWSI test well used for irrigation. The well is located approximately 3,300 feet northeast of the Site and is 205 feet in depth.
- Well S-2654.1: This is a USGS GWSI well used for irrigation. The well is located approximately 1,320 feet northeast of the Site and is 140 feet in depth.
- Well S-8025.1: This is a USGS GWSI well used for irrigation. The well is located approximately 3,960 feet southeast of the Site and is 130 feet in depth.
- Well S-1838.1: This is a USGS GWSI well used for irrigation. The well is located approximately 1,320 feet southwest of the Site and is 133 feet in depth.
- Well S-1215.1: This is a USGS GWSI well used for irrigation. The well is located on the Site and is 114 feet in depth.
- Well S-4048.1: This is a USGS GWSI well used for irrigation. The well is located approximately 3,300 feet west of the Site.

- Well S-46348.1: This is a USGS GWSI test well located approximately 3,960 feet northwest of the Site. The well is 200 feet in depth.
- Well S-22429.1: This is a USGS GWSI test well located approximately 3,960 feet north of the Site. Based upon information presented in the TTI Well Report, the well is 197 feet in depth and is unused.
- Well S-73892.1: This is a USGS GWSI test well located 4,620 feet south of the Site. The well is 68 feet in depth.
- Well S-4271.1: This is a USGS GWSI observation well located on the Site. Based upon information presented in the TTI Well Report, the well is 105 feet in depth and is unused.
- Well WU S201: This is a USGS GWSI well used for withdrawal of water located approximately 3,360 feet northeast of the Site. As presented in the TTI Well Report, there is no information regarding either the specific water usage or total well depth.
- Well S-527.1: This is a USGS GWSI well used for withdrawal of water located just north of the Site and Well S-104550 described above. As presented in the TTI Well Report, there is no information regarding the specific water usage. The well is 133 feet in depth.
- Well WU S200: This is a USGS GWSI well used for withdrawal of water located approximately 3,300 feet northeast of the Site. As presented in the TTI Well Report, there is no information regarding either the specific water usage or total well depth.

Of the 18 wells described above, 11 are potentially hydraulically downgradient based upon their locations relative to the Site. These wells are S-22429.1, WU S-200, WU S-201.1, S-

527.1, S-2010.1, S-12160.1, S-16442.1, Reeves Beach Water Supply, S-104550, S-1215.1 and S-4271.1.

Of the 11 wells listed above, one well (i.e. S-22429.1) is identified in the TTI Well Report as an unused USGS test well and as such, does not represent a potential pathway with respect to human health risk.

Based upon information presented in the TTI Well Report, three wells (i.e. WU S-200, WU S-201, and S-527.1) are utilized for withdrawal of water, although no information is provided in the Well Report regarding the specific water usage at each of the three well locations. As discussed above, neither Well WU S-200 nor WU S-201 apparently exist any longer and RHWD has no knowledge of any active ~~public~~ supply wells in the Reeves Beach area. Well S-527.1 is located on private property just north of Sound Avenue and the Site. As shown on Figure 4.1, RHWD water mains are present on Park Road, which bisects the residential neighborhood surrounding both former well sites. Considering that the residential neighborhood adjacent to both former well sites is now serviced by RHWD, the former well sites do not represent potential pathways with respect to human health risk. As shown on Figure 4.1, a RHWD 12-inch diameter water main is located on Sound Avenue adjacent to the private property upon which S-527.1 is located. Results of site visit confirmed that the property is connected to the RHWD main. Therefore, Well S-527.1 does not apparently represent a potential pathway with respect to human health.

Based upon the TTI Well Report, four wells (i.e. S-2010, S-12160.1, S-16442.1, and Reeves Beach Water Supply) are utilized as public water supply wells. As stated above, results of our site visit indicate that the wells are no longer present. Further, RHWD has no knowledge of any active public supply wells in the Reeves Beach Area. As shown on Figure 4.1, RHWD water mains are present on both Eight Bells and Park Road. Both roads are located within a residential neighborhood adjacent to the former public supply wells. Considering that the

residential neighborhood is serviced by RHWD, none of the former supply wells represent apparent potential pathways with respect to human health risk.

Based upon the Well Report, one well (i.e. S-104550) is utilized as a domestic well. The well is located on private property directly across Sound Avenue from the Site and is owned by Aqua Long Fish Farm. Based upon the results of our October 11, 2002 site visit, this well is presumed to be located on the same property as Well 527.1 discussed above. As shown on Figure 4.1, the property is connected to the RHWD water service located on Sound Avenue. Therefore, Well S-104550 does not apparently represent a potential pathway with respect to human health risk.

Further, one irrigation well (S-1215.1) and one observation well (S-4271.1) are both located on the LIHREC property. The wells are located potentially hydraulically downgradient of the Site, although Well S-1215.1 is not used for potable water and Well S-4271.1 is not in use. Therefore, neither well represents a potential pathway with respect to human health risk.

As presented on the One Mile Well and Sensitive Receptor Map in the TTI Well Report, the remaining seven wells are hydraulically upgradient based upon their locations relative to the Site. Therefore, none of these wells represent potential pathways with respect to human health risk.

As shown on the One Mile Well and Sensitive Receptor Map, there are no other potential receptors (i.e. schools, parks, beaches, churches, hospitals, water bodies, and wetlands) within a one mile radius of the Site.

In summary, the results of our exposure assessment indicate that none of the wells described above represent potential pathways for human health risk. However, information provided by RHWD indicates that there are 52 residential properties, which are not connected to

RHWD within a one-mile radius of the Site. Presumably, water service is provided to these properties via private wells. Construction details for each well are unknown.

4.2 Monitoring Well Installation

H2M directed the installation of one additional groundwater monitoring well (i.e. MW-4) downgradient of the two source areas. As depicted in Figure 4.2 (Cornell University LIHREC Partial Site Plan), MW-4 was installed between existing monitoring well MW-2 and Horton Avenue. The well location was coordinated with LIHREC and approved by NYSDEC prior to installation. The well installation work was conducted by Land, Air, Water Environmental Services, Inc. (LAWES) of Center Moriches, New York on July 8, 2002.

Monitoring well MW-4 was constructed in general conformance with NYSDEC standard specifications as presented in NYSDEC TOGS 4.1.1 (1987). Both the drilling log as compiled by LAWES and the monitoring well construction log as compiled by H2M are presented in Appendix E. Well construction and installation procedures are described below.

MW-4 was installed using a hollow stem auger (HSA) drill rig under the direction of H2M and constructed in general accordance with NYSDEC specifications for monitoring well installations in unconsolidated formations. Continuous air monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) as required by the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) was conducted during all monitoring well installation work. Air monitoring for VOCs was conducted utilizing a photoionization detector (PID) equipped with a 10.2 electron volt lamp. Results of our air monitoring for VOCs indicated total concentrations ranging from 1.1 parts per million (ppm) to 3.0 ppm. At no time did our PID readings exceed the appropriate action levels for VOCs as presented in the NYSDOH CAMP. Air monitoring for particulates (i.e. dust) was conducted utilizing an MIE Miniram (MIE). Results of our particulate monitoring indicated total particulate concentrations ranging from 0.30 micrograms per cubic centimeter ($\mu\text{g}/\text{cm}^3$) to 0.43

ug/cm³. At no time did our MIE readings exceed the applicable action levels for particulates as presented in the NYSDOH CAMP.

Prior to installing the monitoring well, LIHREC personnel were contacted regarding potential subsurface utilities in the work area that would potentially impede the installation. As the work area is located in a state owned farm field that has been actively farmed for approximately 40 years, it was determined by LIHREC/H2M that there were no subsurface utilities present in the work zone. In addition, there were no overhead utilities present in the work area. Therefore, utility markouts prior to the start of the drilling work were not warranted.

All drilling equipment was steam cleaned prior to the start of work. The well screen and casing did not require decontamination as the well materials were cleaned and sealed at the factory. The monitoring well was constructed with four-inch I.D. PVC flush-joint risers with a fifteen-foot section of 0.010 inch (#10) slot-size PVC well screen. The well screen extends approximately five feet above and ten feet below the water table.

The annular space around the well screen was filled with a sand filter pack (i.e. Morie well gravel #2) extending from approximately six inches below the bottom of the screen to a height of approximately two feet above the top of the screen. A two-foot seal of bentonite pellets was placed above the filter pack. The bentonite pellets were continuously hydrated for approximately sixty minutes prior to installation of a cement/bentonite grout. The depth to the bottom and top of each seal was measured in the borehole to the nearest 0.1 foot using a weighted tape. The remaining annular space was grouted with a bentonite/cement slurry. A cement/bentonite surface seal was constructed by filling the annular space of the borehole and extended to approximately three feet below grade to ground surface, where a flush mounted well manhole was installed. A watertight locking cap was attached to the top of the PVC casing. Eight-inch diameter protective steel casing in a cement collar was installed over the well. A flush to grade steel cover assembly was then set around the well casing. The steel cover was set

into a sloped concrete pad, after the grout was allowed to set. A well construction diagram completed by H2M is presented in Appendix E.

The monitoring well development work was conducted by LAWES on July 9, 2002. All work was conducted under the direction of H2M. Periodic air monitoring for VOCs as required by the NYSDOH Generic CAMP was conducted by H2M during all well development work. Results of our air monitoring did not exceed a total concentration of 4.2 ppm for VOCs. Development water was containerized in two DOT-approved 55-gallon drums and staged on site. Liquid samples were collected from the drums for pesticide analyses to determine the proper disposal method for the material.

As requested by NYSDEC, depth to groundwater measurements were made both before and after well development. Based upon our field measurements, depth to groundwater was 79 feet below grade both before and after well development at MW-4.

H2M conducted a well survey at the Site on July 18, 2002. All survey work was performed under the direction of a New York State licensed surveyor. The survey included all wells utilized in the groundwater sampling program, with the exception of irrigation well S-73265. Specifically, the survey included the existing monitoring wells MW-1 through MW-3 and newly installed MW-4. The survey was conducted in order to more accurately define groundwater flow direction at the Site and confirm the local northerly groundwater flow direction.

The horizontal distance between each well was surveyed, and the elevation to the top of the well riser pipe was measured to the nearest 0.01 foot. In addition, the ground surface elevation was measured to the nearest 0.1 foot. The survey data, together with depth the water measurements, was utilized to develop a groundwater contour map and confirm the site specific

groundwater flow direction. A copy of our well survey is presented in Figure 1.2 (Survey Map of Study Area).

Based upon our survey data and as presented on Figure 1.2, the site-specific groundwater flow direction is toward the north-northeast. Therefore, our survey data confirms the local groundwater flow in a general northerly direction.

4.3 Groundwater Sampling

After allowing the new monitoring well to stabilize for a minimum of five (5) days following development, H2M conducted an initial round of groundwater sampling on July 17, 2002. Periodic air monitoring for VOCs was conducted during all groundwater sampling work, as required by the NYSDOH Generic CAMP. Prior to sampling, depth to groundwater was measured in each monitoring well. The data was used to develop a groundwater contour map and confirm local groundwater flow direction. The groundwater contours are presented on Figure 1.2.

Groundwater samples were collected from each of the three existing monitoring wells, the new monitoring well (MW-4) and LIHREC irrigation well S-73265. Locations of these wells are presented on Figure 4.2. As presented in the April 2002 Work Plan, Kreiger Well and Pump Corporation (Kreiger), installed irrigation well S-73265 in 1982. The well was installed to a total depth of 154 feet below site grade, with the screened interval from 134 feet to 154 feet. Static water was determined to be 82 feet below site grade. The well diameter is 10 inches and has a total capacity of 600 gallons per minute. Therefore, irrigation well S-73265 is not screened at the water table, and the groundwater samples collected from this well are representative of groundwater quality within a deeper portion of the aquifer.

Depth to groundwater measurements were also obtained at each of the monitoring wells after the completion of the groundwater sampling work. Depth to groundwater was not

measured with respect to the irrigation well because the well pump is a lineshaft turbine pump, rather than a submersible pump. The gear reducer is bolted to the wellhead and the shaft extends down into the well. Therefore, the well head is not accessible unless the gear reducer is unbolted from the pump and detached from the driver (i.e. diesel engine). The gear reducer, pump, and shaft must then be removed utilizing a crane.

As requested by the NYSDEC, an additional round of groundwater monitoring was to be conducted no less than 90 days after the initial sampling event. The second round of groundwater monitoring was conducted on October 16, 2002. Depth to water measurements both before and after sample collection were recorded, and periodic air monitoring for VOCs was conducted as required by the NYSDOH CAMP. It should be noted that the irrigation well was not in service during our October 16, 2002 sampling round. Therefore, H2M returned to the Site on October 29, 2002 to collect a groundwater sample from the irrigation well. As per NYSDEC, equipment (field) blank sample collection and analysis was not required in conjunction with the October 29, 2002 site visit.

Sample containers were provided by H2M Labs, Inc. Each sample container was thoroughly pre-cleaned at the laboratory prior to sample collection activities. Each container was provided with a label for sample identification purposes. In order to maintain and document sample possession, standard chain of custody (COC) procedures were followed and a COC form accompanied the sample containers. Copies of the COCs from both rounds of groundwater sampling are provided in Appendix F.

For quality assurance/quality control (QA/QC) purposes, a trip blank accompanied the samples and both an equipment (field) blank and a matrix spike/matrix spike duplicate (MS/MSD) sample were collected in conjunction with both the July 17 and October 16, 2002 groundwater sampling rounds.

The ten (10) groundwater samples and six (6) QA/QC samples were analyzed by H2M Labs, Inc. for Target Compound List (TCL) pesticides by SW 846, Method 8081. The analytes reported in Method 8081 are summarized below.

- Endosulfan I
- Endosulfan II
- Endosulfan sulfate
- Chlordane
- Heptachlor
- Alpha Chlordane
- Gamma Chlordane
- Aldrin
- P, P' DDE
- Methoxychlor
- Toxaphene
- O, P DDT
- P, P' DDD
- P, P' DDT

In assessing the laboratory data, the analytical results were compared to NYSDEC Water Quality Standards for Class GA groundwater, where applicable.

H2M Labs, Inc. is a NYSDOH-ELAP-CLP certified laboratory (NYSDOH Lab ID No. 10478). The H2M Laboratory Director has overall responsibility for all operational activities. The H2M Laboratory Quality Assurance Manager reviewed all data and was responsible for laboratory reports and quality control. In order to validate the data, a Data Usability Summary Report (DUSR) was prepared by the H2M Laboratory Quality Assurance Manager for both groundwater sampling rounds. The DUSR was prepared in general accordance with the NYSDEC Division of Environmental Remediation guidance document entitled "Guidance for the Development of Data Usability Summary Reports." All analytical laboratory deliverables conform to NYSDEC ASP Category B requirements.

Prior to groundwater sampling, plastic sheeting was placed at the foot of each well and utilized as the designated work zone for the sampling event. All sampling equipment was placed on the sheet to minimize the possibility of cross contamination from the surrounding soils. The following procedure was utilized for groundwater sampling at the Site:

- 1.) Prior to purging each monitoring well for sample collection, a static water level measurement to the nearest 0.01 foot was recorded. As discussed previously, the static water level was not measured in the irrigation well because the well pump is a lineshaft turbine pump.
- 2.) To ensure a representative groundwater, each well was purged prior to sample collection. A volume equal to three (3) or more times that of the well casing volume was purged from the well before collecting analytical samples. A decontaminated stainless steel submersible pump was used to remove the required well volume. The pump was decontaminated utilizing a scrub brush and alconox/distilled water. The pump was then rinsed utilizing distilled water prior to insertion into the monitoring well. All purge waters were containerized in DOT-approved 55-gallon drums and staged on site. Liquid samples were collected from the drums and analyzed for pesticide content to determine the proper disposal method for the material.
- 3.) Groundwater samples were collected each of the four monitoring wells utilizing a dedicated factory cleaned/sealed polyethylene disposable bailer. The bailer was attached to a dedicated polypropylene rope or nylon line. Field parameters (temperature, pH, turbidity, specific conductivity) were measured at each monitoring well after three (3) bailer volumes of groundwater were removed. The appropriate analytical sample bottles were then filled directly from the bailer as soon as it was removed from the well. Field measurements were recorded on a pre-printed field form. After all sample bottles were filled, they were appropriately labeled and put in ice-filled coolers for transportation to H2M Labs, Inc. for pesticide analyses. The well cap was secured and the above process

was repeated at the next monitoring well. Groundwater samples from the irrigation well were collected utilizing a valved sampling port.

- 4.) Upon completion of the groundwater sample collection work at each well, a static water level measurement to the nearest 0.01 foot was recorded.
- 5.) Periodic air monitoring for VOCs was performed in general accordance with the procedures outlined in the NYSDOH Generic CAMP.

QA/QC samples were collected in order to represent all groundwater sampling locations and assure quality control for the groundwater characterization of the Site. QA/QC sample sets include one (1) trip blank, one (1) equipment (field) blank, and one (1) MS/MSD for each of the two groundwater sampling rounds. As stated above, NYSDEC did not require the collection of an equipment (field blank) sample in conjunction with our October 29, 2002 site visit to collect groundwater samples from the irrigation well.

The blank samples were used to verify the quality of the field sampling results. The trip blank contained analyte-free water and was transported to and from the Site without opening the sample container. The trip blank served as a check for contamination originating from sample transport, shipping, and from field conditions. The field (equipment) blank was used to determine the effectiveness of the decontamination of the sampling equipment (i.e. dedicated bailers). Analyte-free water was poured into the bailer and then transferred to the appropriate sample containers to ensure proper decontamination procedures were followed by the supplier. All information relating to groundwater sampling activities were recorded in the field on pre-printed forms. Copies of the groundwater sampling record sheets are provided in Appendix G. Proper documentation of field activities included the following:

- Date and time of work events
- Purpose of work
- Description of methods
- Description of samples
- Number and size of samples
- Date and time of sample collection

- Name(s) of field personnel
- Field observations
- Field measurements
- Air monitoring results

4.4 Analytical Results Summary and Discussion

A summary of the analytical results from the two rounds of groundwater monitoring is provided in Table 4.1. Only those pesticides that were detected in one or more monitoring well during one or more of the two sampling events are included in Table 4.1. Also included in the summary table are the applicable NYSDEC Class GA Water Quality Standards and NYSDOH Drinking Water Standards. Laboratory data summary sheets are provided in Appendix H. Full CLP data summary packages are provided as separate documents. As indicated in Table 4.1, all pesticide compounds were non-detectable in the groundwater samples collected on July 17, 2002 with the following exceptions:

- 4,4'-DDT was detected at a concentration of 0.08 ug/l in the sample collected from downgradient well MW-2.
- 4,4'-DDT (0.39 ug/l) and 4,4'-DDE (0.08 ug/l) were detected in the sample collected from upgradient well MW-3.
- Endosulfan sulfate was detected at a concentration of 0.11 ug/l in the sample collected from downgradient well MW-4.
- Endosulfan sulfate was detected at a concentration of 0.49 micrograms per liter (ug/l) in the sample collected from the irrigation well.

With the following exceptions, pesticides were non-detectable in the second round of groundwater samples collected on October 16 and October 29, 2002:

- 4,4'-DDT was detected at a concentration of 0.06 ug/l in the sample collected from downgradient well MW-2.
- 4,4'-DDT (0.30 ug/l) and 4,4'-DDE (0.06 ug/l) were detected in the sample collected from upgradient well MW-3.

- Endosulfan sulfate was detected at a concentration of 0.11 ug/ in the sample collected from downgradient well MW-4.
- Endosulfan sulfate (0.92 ug/l) and endosulfan II (0.07 ug/l) were detected in the sample collected from the irrigation well.

Of particular significance, it should be noted that chlordane was not detected in any of the groundwater samples. Prior to the remedial actions taken at the LIHREC, chlordane was detected at a concentration in excess of its respective NYSDEC Class GA Water Quality Standard and was a principal cause for the remedial actions taken by Cornell/LIHREC.

In assessing the laboratory data, the analytical results were compared to the NYSDEC Class GA Water Quality Standards, as presented in 6 NYCRR Part 703.5 (Water Quality Standards: Surface Waters and Groundwater). The Class GA Water Quality Standard for both 4,4'-DDT and 4,4'-DDE is 0.2 ug/l. There are no Class GA Water Quality Standards for either endosulfan sulfate or endosulfan II. Both are classified as Unspecified Organic Compounds (UOCs) with a corresponding drinking water standard of 50.0 ug/l.

Based upon the site-specific groundwater flow direction, MW-3 is located hydraulically upgradient of the two source areas (i.e. rock drain and overflow drywell) and at the most upgradient point of the overall LIHREC property. Although both 4,4'-DDT and 4,4'-DDE were detected in MW-3 in both sampling rounds, the location of the well with respect to both source areas indicate that neither the rock drain nor the overflow drywell is the source of the pesticide contamination. Based upon the laboratory data obtained from MW-3 and the site specific groundwater flow direction, it is apparent that there is a source of pesticide contamination located hydraulically upgradient of the Site.

The presence of 4,4' DDT in downgradient well MW-2 during both sampling rounds at concentrations below its respective Class GA groundwater standard indicates that there has been

no significant impact to the groundwater from the former source areas. All other pesticides were non-detectable in MW-2.

Endosulfan sulfate was detected in both MW-4 and the irrigation well in both sampling rounds. However, the concentrations detected were all well below the 50 ug/l drinking water standard for UOCs, as prescribed by NYSDOH, indicating that the two source areas have not significantly impacted groundwater.

5.0 SOIL REMEDIATION

Based upon the soil quality data developed during the November 1997 PSA, H2M prepared a detailed bid specification for remediating the overflow drywell and rock drain area. Requests for Proposals (RFPs) were forwarded to three qualified environmental contractors on May 31, 2002. The selected contractors were Clean Harbors Environmental Services, Inc. (Brooklyn, New York), Miller Environmental Group, Inc. (Calverton, New York), and Eastern Environmental Solutions, Inc. (Eastport, New York). A pre-bid meeting was conducted by H2M at the Site on June 5, 2002 to review the specifications and work plan for the soil remediation work. Miller Environmental Group and Eastern Environmental Solutions attended the pre-bid site walk and submitted proposals for the work. Clean Harbors did not attend the pre-bid site walk and declined to submit a proposal.

Cornell reviewed the two bids and awarded Eastern Environmental Solutions, Inc. (Eastern) the remediation contract. A complete set of the final bid documents, including plans and specifications for implementing the remedial activities, was submitted to NYSDEC prior to the initiation of field activities. The remediation included excavation and disposal of the impacted soils and the restoration of both areas. H2M provided technical oversight during all remediation work and collected representative confirmatory end-point soil samples from both areas. End-point soil samples were analyzed for TCL pesticides by SW-846, Method 8081 and Total Organic Carbon (TOC) by H2M Labs, Inc.

All applicable QA/QC procedures discussed in Section 4.0 (Groundwater Investigation) were incorporated into the soil remediation field activities, as appropriate. The objective of this task was to effectively remediate the impacted soils in the two areas of concern. As required by the NYSDOH, continuous air monitoring for both VOCs and particulates was conducted during all soil remediation work. The air monitoring was conducted in general accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP). Based upon our field

measurements, neither VOCs nor particulates exceeded the applicable action levels as prescribed in the NYSDOH CAMP.

5.1 Overflow Drywell Soil Remediation

Results of our PSA indicated that the highest pesticide concentrations were located within the first two feet below the bottom of the drywell. Based upon our discussions with the NYSDEC during a July 19, 1999 meeting, the impacted soils beneath the overflow drywell were to be excavated to the maximum depth practical using standard excavation equipment and techniques.

Prior to soil removal, Eastern excavated and removed the drywell dome. H2M then measured the distance to the drywell bottom utilizing a weighted tape in order to accurately determine the quantity of soils removed. Based upon our field measurements, the drywell bottom was encountered at approximately 7.5 feet below site grade. Eastern then excavated and removed all piping connecting the overflow drywell to the former evaporation pit. The dome and piping were transferred into a roll-off container for proper off site disposal.

H2M directed Eastern to remove impacted soils to a depth of approximately 16 feet below site grade. It is estimated that a total of approximately 25 cubic yards of soil was excavated and removed from the drywell. The excavated soils were then transferred into roll-off containers for transportation to an approved disposal facility. All concrete rings encountered in the course of the remedial work were removed upon completion of the work and properly disposed of off site as per NYSDEC request.

After the impacted soils were removed, H2M collected two evenly spaced confirmatory soil samples from the base of the excavation in order to confirm that the remediation was complete. H2M also collected two confirmatory side wall samples from the overflow drywell. Each of the confirmatory soil samples was analyzed for TCL pesticides by SW-846, Method 8081 and TOC. Upon completion of the soil removal, H2M directed Eastern to backfill the

excavation with New York State Department of Transportation (NYSDOT) certified fill. Pursuant to LIHREC request, the former evaporation pit was also excavated and removed. The excavation was then backfilled with NYSDOT certified fill.

A summary of the analytical results from the end-point samples is provided in Table 5.1. Only those compounds detected in one or more of the end-point samples are included in Table 5.1. Also included in the summary table are the applicable NYSDEC Recommended Soil Cleanup Objectives (RSCOs). As indicated in Table 5.1, pesticides were either non-detectable or present at concentrations well below their respective RSCOs in the two side wall end-point samples. Endosulfan I and endosulfan II exceeded the RSCOs in both end-point samples collected from the base of the excavation. Heptachlor and gamma-chlordane also exceeded the RSCOs in one of the base end-point samples. All other pesticide compounds in the samples from the base of the excavation were either non-detectable or present at concentrations below their respective RSCOs.

In consideration of the above, results of our end-point soil sample analyses indicate that three pesticide compounds are present at concentrations in excess of their respective RSCOs in subsurface soils approximately 16 feet below grade in the overflow drywell. Soils have been removed from the overflow drywell to the maximum practical depth utilizing standard excavation equipment and techniques. Therefore, further soil removal is not feasible.

Results of the 1997 PSA indicated that endosulfan I and endosulfan II were present at concentrations in excess of their respective RSCOs to a depth of 79 feet below grade. The most significantly impacted soils were present at 10 to 12 feet below grade, where endosulfan I was detected at a concentration of 310,000 ug/kg, endosulfan II at 97,000 ug/kg, and chlordane at 580,000 ug/kg. As a result of the remedial action, impacted soils have been removed to a depth of approximately 16 feet below site grade. Therefore, the most significantly impacted soils have been removed. Contaminant levels in the subsurface soils at 16 feet below grade are greatly reduced in comparison to those present in the impacted soils that have been excavated and

removed. In addition, results of our side wall analyses indicate that all significantly impacted soils have been removed adjacent to the former overflow drywell. Considering that the former overflow drywell has been backfilled with clean fill and the concrete rings have been removed, there is very little potential for significant downward migration of the contaminants remaining in the subsurface soils. Therefore, no further action is warranted with respect to the overflow drywell.

All impacted soils were disposed of off site at Wayne Disposal, Inc.-EQ (Belleville, Michigan). Waste disposal manifests are included in Appendix J. All soil remediation work with respect to the former overflow drywell is now complete.

5.2 Rock Drain Area Soil Remediation

Soil boring results from the PSA indicate that the highest pesticide concentrations in the rock drain area were present in the soils from grade to a depth of 12 feet. During the July 2002 remedial action, impacted soils in the rock drain area were excavated to a depth of approximately 14 feet below grade. Based upon the proximity of the rock drain to Horton Avenue, the excavation required shoring to approximately 25 feet below grade. It is estimated that a total of approximately 63 cubic yards of impacted soils were excavated and removed from the rock drain area. All excavated soils were then transferred to roll-off containers for transportation to the Wayne Disposal, Inc.-EQ facility. Waste disposal manifests documenting the proper disposal of the soils are presented in Appendix J.

After the impacted soils were removed, H2M collected two evenly spaced confirmatory endpoint soil samples from the base of the excavation to ensure that the soil remediation work is complete. The soil samples were analyzed for TCL pesticides by SW-846, Method 8081 and TOC. A summary of the analytical results from the rock drain end-point samples is provided in Table 5.2. Laboratory reports are provided in Appendix I.

Only those compounds detected in one or more of the end-point samples are included in Table 5.2. Also included in the summary table are the applicable NYSDEC Recommended Soil Cleanup Objectives (RSCOs). As indicated in Table 5.2, all detected pesticides compounds were present at concentrations well below their respective RSCOs in both end-point samples. Based upon the endpoint soil sample data, all of the significantly impacted soils have been removed from the former rock drain and no further action is warranted.

Upon completion of the soil removal, H2M directed the contractor to remove the shoring, backfill the excavation with NYSDOT certified clean fill, compact, and finish to site grade. All remediation work with respect to the former rock drain is now complete.

6.0 SUMMARY AND CONCLUSIONS

Results of our November 1997 PSA indicated the presence of pesticide impacted subsurface soils associated with both a rock drain and overflow drywell formerly located at the Cornell LIHREC. Cornell initiated a Voluntary Cleanup Agreement with the NYSDEC to conduct additional investigation and remediation work at the Site based upon the results of our PSA.

An April 2002 Groundwater Investigation and Soil Remediation Work Plan (Work Plan) was prepared by H2M to satisfy the Agreement's requirement for a work plan to implement a groundwater investigation and soil remediation program at the Site. The focus of the groundwater investigation was to determine whether groundwater was significantly impacted due to elevated pesticide concentrations previously identified in the subsurface soils within the rock drain area and overflow drywell. The focus of the soil remediation program was to document the removal and disposal of the impacted subsurface soils from the two former source areas. NYSDEC issued final approval of the Work Plan on June 25, 2002.

Results of the groundwater investigation indicated the presence of 4,4'-DDT and 4,4'-DDE in MW-3 located hydraulically upgradient of the two former source areas. Therefore, the contamination identified in MW-3 is not attributable to either the former rock drain or former overflow drywell. 4,4'-DDT was also identified in MW-2 located hydraulically downgradient of the former overflow drywell. However, the contaminant was identified at a concentration below its respective Class GA groundwater standard. No other pesticides were identified in MW-2. No pesticides were identified in groundwater samples collected from MW-1, located further downgradient of the former overflow drywell.

Endosulfan sulfate was detected in MW-4 at concentrations well below its NYSDOH drinking water standard. Endosulfan sulfate and endosulfan II were also detected at concentrations well below their respective NYSDOH drinking water standards in the irrigation

well. Chlordane, a pesticide detected at higher levels prior to the remedial actions, was not detected in any of the sampling rounds.

Therefore, the sampling program indicates that the impacted subsurface soils from the two former source areas have not significantly impacted groundwater quality.

Results of the soil remediation program documented the successful removal and proper disposal of all significantly impacted subsurface soils from the former rock drain. The former rock drain has been backfilled and no longer represents a source of soil or groundwater contamination.

In the former overflow drywell area, all impacted soils have been successfully removed to a depth of approximately 16 feet below grade. The most highly impacted subsurface soils present in and below the former structure have been removed and disposed of off site. The concrete rings, dome, and piping associated with the former structure have been removed and properly disposed of off site. In addition, the former evaporation pit was demolished and disposed of off site. Both areas have been backfilled with clean fill.

In conclusion, H2M certifies, based upon documentation and personal oversight, that the two former source areas have been remediated in accordance with the requirements and procedures outlined in the approved Work Plan. Further, groundwater sampling indicates no significant environmental impact to groundwater from the two former source areas. As Engineer of Record, H2M recommends no further action for this site.

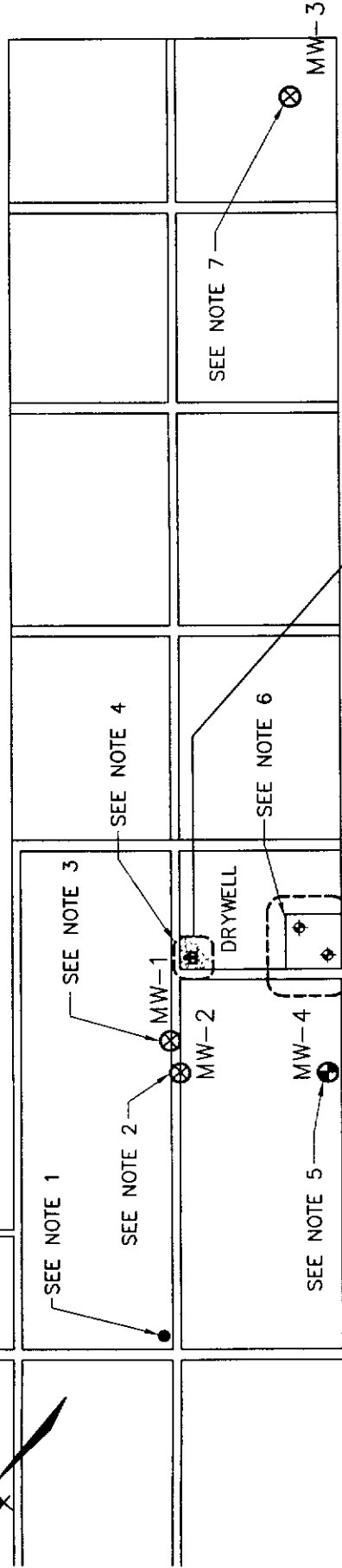
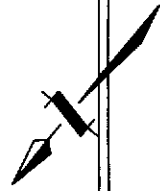
FIGURES

SCALE: 1" = 2000'

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MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.



NOTES:

1. GROUNDWATER SAMPLING LOCATION.
2. PESTICIDE CONCENTRATIONS NON-DETECTABLE. GROUNDWATER SAMPLING LOCATION.
3. PESTICIDE CONCENTRATIONS NON-DETECTABLE. GROUNDWATER SAMPLING LOCATION.
4. HIGHEST PESTICIDE CONCENTRATIONS 10' BELOW GRADE. CONCENTRATION RANGE 2,400 UG/KG (P,P-DDE) TO 580,000 UG/KG (CHLORDANE).
5. GROUNDWATER SAMPLING LOCATION.
6. PESTICIDE CONCENTRATIONS EXCEEDING NYSDEC CLEAN UP CRITERIA TO 10' BELOW GRADE. CONCENTRATION RANGE 2,400 UG/KG (ENDOSULFAN II) TO 86,000 UG/KG (ENDOSULFAN I).
7. PESTICIDE CONCENTRATIONS NON-DETECTABLE. GROUNDWATER SAMPLING LOCATION.

LEGEND

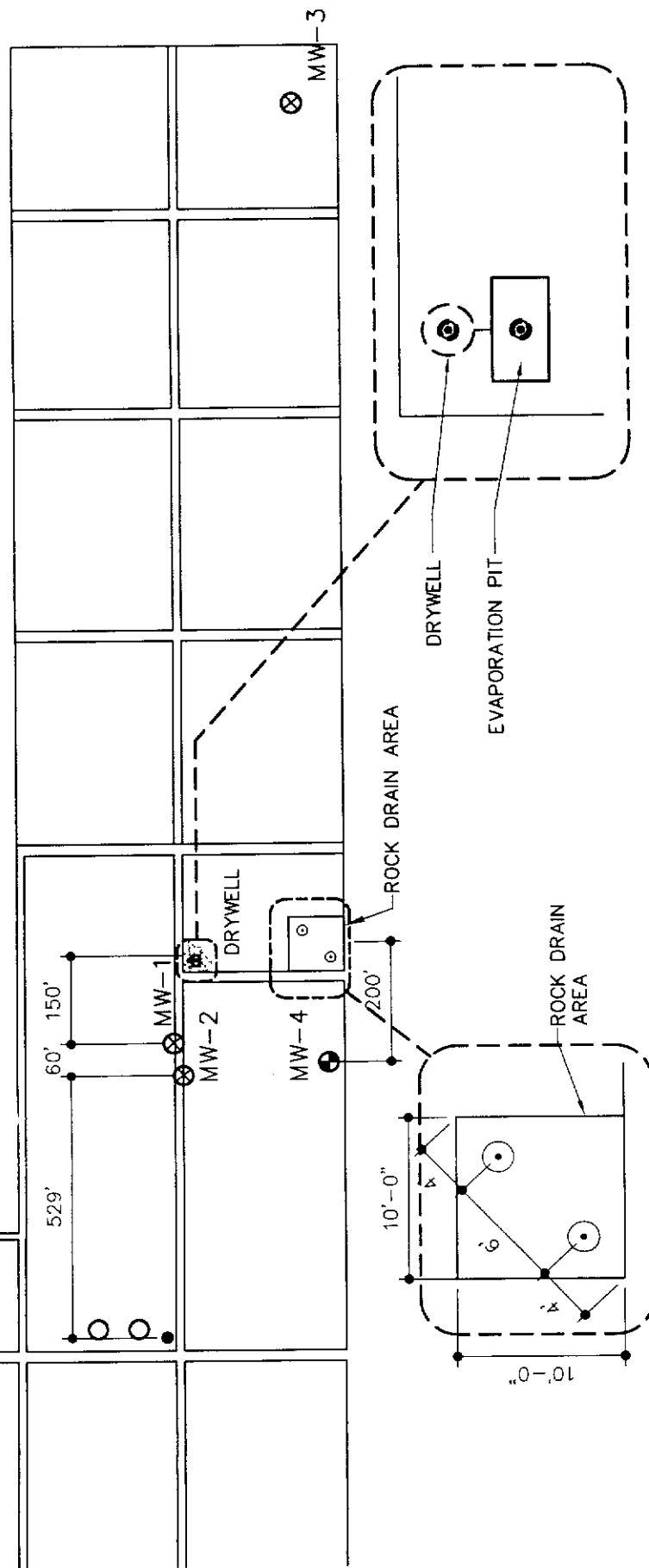
- ⊕ PROPOSED MONITORING MW-4 WELL LOCATION
- ⊗ EXISTING GROUNDWATER MONITORING WELL
- EXISTING IRRIGATION WELL

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GROUNDWATER INVESTIGATION SAMPLING
LOCATIONS AND H2M 1997 PSA RESULTS
PARTIAL SITE PLAN**

NO SCALE

FIGURE 4.1





LEGEND

- ⊙ PROPOSED MONITORING WELL LOCATION
- ⊗ EXISTING GROUNDWATER MONITORING WELL
- EXISTING IRRIGATION WELL
- OUT OF SERVICE IRRIGATION AND SUPPLY WELLS

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PARTIAL SITE PLAN

NO SCALE

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TABLES

Table 4.1
Groundwater Sampling Results ⁽¹⁾
Long Island Horticulture Research and Extension Center

Parameter	MW-1		MW-2		MW-3 ⁽²⁾		MW-4		Irrigation Well		NYSDEC Class GA Groundwater Standard ⁽³⁾	NYSDOH Drinking Water Standard
	7/02	10/02	7/02	10/02	7/02	10/02	7/02	10/02	7/02	10/02		
Endosulfan sulfate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	0.11	0.49	0.92	NA	50.0 ⁽⁴⁾
Endosulfan II	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.07	NA	50.0 ⁽⁴⁾
4,4'-DDT	<0.1	<0.1	0.08	0.06	0.39	0.30	<0.1	<0.1	<0.1	<0.1	0.2	5.0
4,4'-DDE	<0.1	<0.1	<0.1	<0.1	0.08	0.06	<0.1	<0.1	<0.1	<0.1	0.2	NA ⁽⁵⁾

Notes: (1) All results reported in micrograms per liter (ug/l)
(2) Upgradient Well
(3) NYSDC Part 703 Surface Water and Groundwater Quality Standards
(4) NYSDOH Unspecified Organic Compound (UOC)
(5) No Established Standard

Table 5.1
Overflow Drywell End-Point Soil Samples ⁽¹⁾
Long Island Horticulture Research and Extension Center

Parameter	Excavation Base # 1	Excavation Base # 2	Sidewall East	Sidewall West	NYSDEC RSCO ⁽²⁾
Heptachlor	380	26.0	<1.7	<1.7	100
Aldrin	9.8	<1.8	<1.7	<1.7	41
Endosulfan I	85,000	30,000	34.0	<1.7	900
Dieldrin	18.0	3.7	<3.4	<3.4	44
4,4'-DDE	280	96.0	<3.4	<3.4	2,100
Endrin	<3.3	4.1	<3.4	<3.4	100
Endosulfan II	37,000	15,000	30.0	<3.4	900
Endosulfan sulfate	700	97.0	6.3	<3.4	1,000
4,4'-DDT	8.0	4.7	<3.4	<3.4	2,100
Methoxychlor	100	18.0	<1.7	<1.7	10,000
Endrin ketone	4.8	<3.4	<3.4	<3.4	-
Endrin aldehyde	10.0	<3.4	<3.4	<3.4	-
gamma-Chlordane	1,100	20.0	4.0	<1.7	540

Notes: (1) All results reported in microgram per kilogram (ug/kg)
(2) NYSDEC Recommended Soil Cleanup Objectives

Table 5.2
Rock Drain Area End-Point Soil Samples ⁽¹⁾
Long Island Horticulture Research and Extension Center

Parameter	Excavation Base East	Excavation Base West	NYSDEC RSCO ⁽²⁾
delta-BHC	5.2	2.2	300
Heptachlor	2.2	2.2	100
Endosulfan I	63.0	16.0	900
Endosulfan II	35.0	9.3	900
Endosulfan sulfate	15.0	3.6	1,000

Notes: (1) All results reported in micrograms per kilogram (ug/kg)

(2) NYSDEC Recommended Soil Cleanup Objectives

**APPENDIX A
MEETS AND BOUNDS
DESCRIPTION OF THE "SITE"**

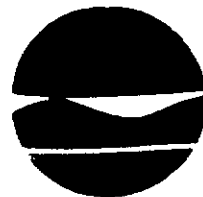
**Proposed Legal Description for Cornell University
Long Island Horticultural Laboratory *STUDY AREA*.**
(encompassing dry well, evaporation pit & drain area)

Commencing at the Point of Beginning; said point being on the Easterly side of Horton Avenue near the Southwesterly corner of Land of Cornell University and being the following three courses and distances from the corner formed by the northerly side of Reeves Avenue and the Easterly side of Horton Avenue; North $32^{\circ}39'05''$ West, a distance of 2092.18 feet;
thence North $32^{\circ}06'35''$ West, a distance of 1415.51 feet;
thence North $33^{\circ}02'50''$ West, a distance of 279.74 feet to a point;

Thence from said Point of Beginning; along the Easterly side of Horton Avenue North $33^{\circ}02'50''$ West, a distance of 400.00 feet;
thence North $56^{\circ}50'05''$ East, a distance of 400.00 feet;
thence South $33^{\circ}02'50''$ East, a distance of 400.00 feet;
thence South $56^{\circ}50'05''$ West, a distance of 400.00 feet to the Point of Beginning. Containing 3.7 ACRES, more or less.

APPENDIX B
NYSDEC APPROVED 11/94 LES
WORK PLAN

New York State Department of Environmental Conservation
Building 40—SUNY, Stony Brook, New York 11790-2356



Langdon Marsh
Commissioner

(516) 444-0230

November 30, 1994

Peter D. Paradise
Environmental Engineer
Cornell University
Environmental Compliance Office
Humphrey's Service Building
Ithaca, New York 14853-3701

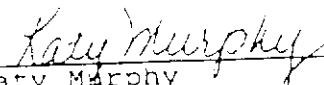
RE: LI Horticultural Research Lab

Dear Mr. Paradise:

I have reviewed your workplan for the removal of all liquids and sludges from both the evaporation pit and drywell, subsequent power washing of the evaporation pit and overflow pipe and collection of rinsewater, and found it to be acceptable.

Bob Becherer and I are planning to be on-site for this removal. If there is any change to the proposed December 6th decontamination date, or if any removal will begin on the 5th, please let us know.

Sincerely,


Katy Murphy
Division of Hazardous
Substances Regulation

cc: J. Sietzka
File

RECEIVED

DEC 9 1994

L.I. HORTICULTURAL
RESEARCH LAB.

WORK PLAN

LES personnel will arrive at Long Island Horticultural Research Lab in Riverhead, NY on December 5, 1994. LES technicians will first remove the liquid phase of the waste material in both the evaporation pit and the dry well. This will be accomplished by using an electric pump. The liquid material will be placed in DOT approved 17E/55 gallon drums and labelled for appropriate disposal as hazardous waste. This task will not require personnel to enter the pit and or dry well.

The next stage is to remove the sludge/solid phase from the evaporation pit and dry well system. LES personnel will enter the tank using appropriate confined space entry protocols (as outlined on the Health and Safety Plan). Sludge will be manually placed in 5 gallon pails and hoisted to the surface. This waste material will be placed in DOT approved 17H/55 gallon drums and labelled for disposal as hazardous waste.

Once residual liquids and solids have been removed, the evaporation pit and overflow pipe will be decontaminated in order to remove residual contaminants. This process will be conducted by using a high pressure water rinse with a solution of tri-sodium phosphate. Liquids will be collected by an electric vacuum and packaged in DOT approved 17E/55 gallon drums. Once all the rinseate liquids have been removed and the evaporation pit and overflow pipe are sufficiently decontaminated, Laidlaw along with Cornell University representatives, will cover and secure the work area.

Approximately 14 drums of contaminated liquid will be generated along with an estimated 4 drums of contaminated sludge. An estimated single drum of contaminated PPE will also be generated.

All the accumulated waste drums will be stored, in coordination with Cornell University representatives, in the on site pesticide storage building. All waste will be stored on site until an approval has been issued for disposal of the waste. In order to decrease the on site storage time a representative sample will be taken from both the sludge and liquid material before the site work takes place.

Both the liquid and sludge waste will be disposed of at Aptus's Coffeyville, Kansas RCRA Incinerators. Contaminated PPE from this project will be shipped to Laidlaw's Pinewood, S.C. secure chemical landfill. All waste will be transported via Laidlaw approved carriers. All necessary licenses and permits will be in place when the waste is picked up from the work site.

LES will provide materials necessary to complete this project safely and efficiently. Photographs of the site work will be taken by LES and submitted to Cornell. All LES Field Work is performed in compliance with all pertinent federal, state and local laws and regulations, and under strict safety standards.

APPENDIX B-1
NYSDEC FIELD NOTES



New York State Department of Environmental Conservation
MEMORANDUM

TO: Ben Sloboski
FROM: Katy Murphy DNR
SUBJECT: Park purchase & clearing of 12/7/99
DATE: 12/12/99

Attached is a copy of my notes from the 7th as you requested.

Katy

Cornell LHR 12/7/94

8:15

Kudlow site (3)

Temp - low 50s, overcast, breezy - wind from west.

Tank - ~ 2' of liquid/sludge in tank

Metered respirator full ok (O_2 , LFL)

Area cordoned off ---

Joe Auger

Ben Orlovsk

- 55 gal drum

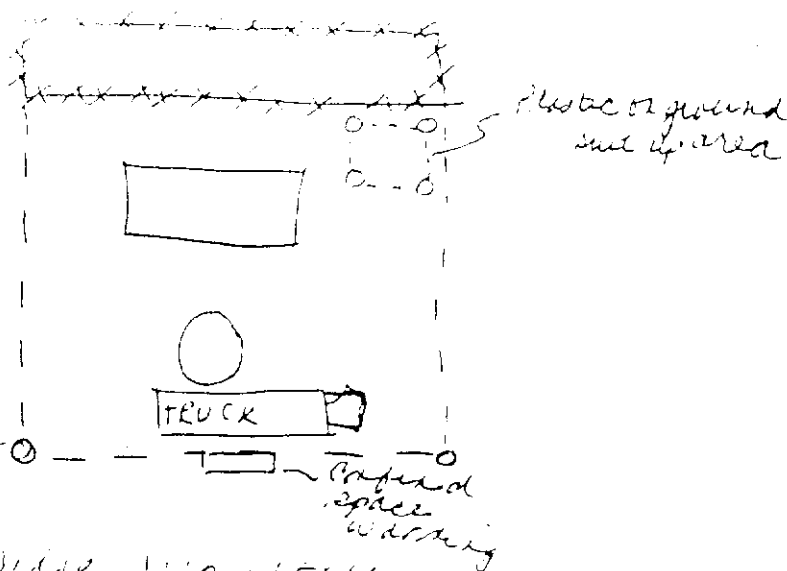
- Sample taken from

- tank only - still in place

1 - liquid

1 - sludge

- Taken Friday before
Thurs morning



- 9:05 started w/ cartridge respirator

- 9:10 pumping begun - generator driven using small pump to
line fed to drum in vehicle

- 9:15 Drum #1 full - switch to #2

- Began scraping sludge off side of tank

- 9:20 Drum #2 full - switch to #3

- 9:25 Drum #3 full - switch to #4

- Drum #1 sealed

Drum #2 sealed

- 9:30 Drum #4 filled - switch #5

- 9:35 Shucking out 2nd

Drum #3 sealed

Drum #4 sealed

Drums ~~1/2 full - 1/2 empty~~ (clean)
ring bolt

9:35 Drum #5 full - switch to #6

Breaking up sludge & allow as much liquid to be pumped out as possible

Drum #4 sealed.

9:40 Drum #6 full - to #7

9:45 Drum #7 full - switch to #8

Drum #5 sealed

Drum #6 sealed

Drum #7 sealed

9:50 Drum #8 full - switch to #9

For tank entry - ladder in tank w/ line attached to back harness & air line. Entered tank at 9:52.

Drum #8 sealed

9:53 Drum #9 full - switch to #10

9:55 Scraping sludge in tank

Clay shot down - up again

10:05 Reel 1 ~~stroke~~ - off - back up

10:08 Drum #10 full - switch to #11

Drum #9 sealed

10:12 Drum #11 full -

10:15 Switch to #12

To resample 1 liquid, 1 solid. Previous samples brought out - to be disposed in drum.

Cornell

12/7/74

(5)

- 10:20 PPE from all 55 gal drums.
Stopped pumping. Remaining drums loaded.
Drums to shed - 13 (more have moved & switched)
- 10:30 Short break while drums loaded into shed. Truck full
- 10:40 Drums being moved into pesticide storage building
for temporary storage. 13 drums
- 10:45 - All 13 drums started.
- 10:48 - Back in pit & cutting dip. Pit washed down with
a soap solution.
- 11:00 Start Drum #14
- 11:05 Drum #14 full - switch to #15.
Back in pit to loosen sludge. Pump off.
Pulling sludge out w/ 5 gal bucket after shovelling in.
Still liquid in pit. Sludge dumped into 55 gal drum #15
- 11:15 Resume pumping
- 11:25 Clapped - return to shovelling. Bob moved to site.
- 11:35 Drum #15 full - to #16
- 11:40 Trip with dry vac & pick up. Pour into 55 gal drum #17
Sent drum #14, 15
- 11:45 Scoop out w/ 5 gal pail
Shovelling out remaining sludge & liquid from bottom
- 12:15 water pump spray down pit, ladder. (6 drums)
Wash down top, lip & sides. Liquid scooped 7
out w/ 5 gal pail - into 55 gal drum
- 12:50 Still washing, scooping, scraping & vacuuming.

APPENDIX B-2
LES WASTE DISPOSAL
DOCUMENTATION

Please print or type. Do not staple

HAZARDOUS WASTE MANIFEST

P.O. Box 12620 Albany, New York 12212

UNIFORM HAZARDOUS WASTE MANIFEST

3. Generator's Name and Mailing Address

E.I. Horticultural Resort
39 Sound Ave., Riverhead, NY 11901

4. Generator's Phone: 607 255-6640

5. Transporter 1 Company Name:

TRANS-AMERICAN

7. Transporter 2 Company Name:

9. Designated Facility Name and Site Address:

Aptos Lakavilla

21750 Cedar Avenue

Lakavilla, MA 55044

11. US DOT Description (including Proper Shipping Name, Hazard Class, and Quantity)

a. **20 Waste Pesticides Liquid, Toxic, n.o.s.**
(Chlordane)

6.1 UN2902 PGII (U036/U020)

b. **20 Waste Pesticides Liquid, Toxic, n.o.s.**
(Chlordane)

6.1 UN2902 PGII (U036/U020)

c. **20 Waste Pesticides, Solid, Toxic, n.o.s.**
(Chlordane)

6.1 UN2588 PGII (U020/U036)

J. Additional Descriptions for Materials Listed Above

AP149795 1-21

L10117-LE3-

L10117-LE3-

AP148072

AP149794 22-24

15. Special Handling Instructions and Additional Information

Emergency Contacts:

Laidlaw Contact: David Davis (508)685-2124 X5364

16. GENERATOR'S CERTIFICATION: I hereby declare that the waste has been properly classified, packed, marked and labeled, and that it meets all applicable Federal, State and local regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to manage, store, transport, and dispose of hazardous waste in accordance with applicable Federal, State and local regulations and state laws and regulations, and that I am a large quantity generator.

Printed/Typed Name

Bennett O. ...

Printed/Typed Name

DONALD G. VIGOR

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name

19. Discrepancy Indication Space

Generator Notifies that all future shipments to Minnesota must be on a Minnesota Manifest

Printed/Typed Name

D. ...

PA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 5—Generator-mailed by TSD facility

NY B

679257 9

Some

11580-WA

508 384-0177

M N D 9 8 1 1 9 0 2 4 2

312 489-3475

U036/U020

2 1 0 M 2 1 1 0 1 P

U036/U020

3 0 M 0 1 1 0 1 P

U020/U036

1 0 M 2 1 1 0 1 P

NY B 679257 9

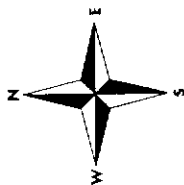
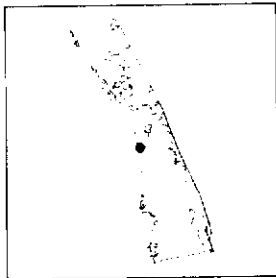
APPENDIX C
TTI WELL REPORT

*Toxics Targeting
Well Report*

**3059 Sound Avenue
Riverhead, NY 11901**

September 27, 2002

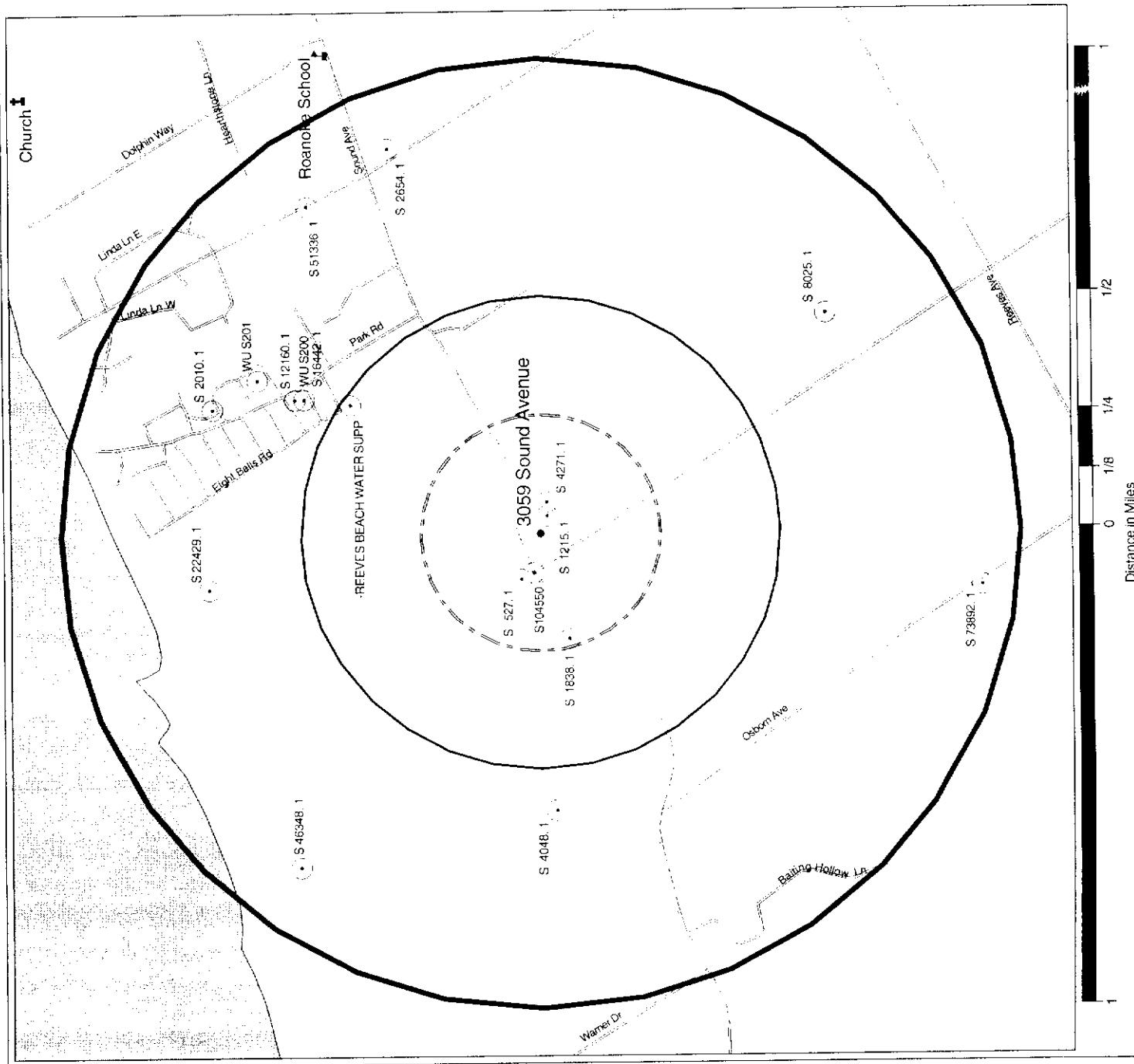
Toxics Targeting
1 Mile Well & Sensitive Receptor Map
 3059 Sound Avenue
 Riverhead, NY 11901



Suffolk County

- Wells
- School
- Hospital
- Church
- Park
- Beach

- Site Location
- Minor Roads
- Major Roads
- Expressways
- 1 Mile Radius
- 1/4 Mile Radius
- Waterbody
- NYSDEC Wetland
- County Border
- Railroad Tracks
- 1/2 Mile Radius



Well Report
3059 Sound Avenue
Riverhead, NY 11901

Please note the same well may be tracked by different agencies with slightly varied well identification numbers. Wells can be mapped in multiple locations due to variations in the accuracy of map coordinates and addresses.

USGS Ground Water Site Inventory (GWSI) Wells:

Local Well Number: S 22429.1
Site location mapped by: Map coordinate
USGS Site ID: 405820072430801

Source Agency: USGS
Source Map Name: SH3055 9269
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface: 180.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:
County: SUFFOLK
Map Scale: 112GLCLU
Date Established: 197 ft
Well Depth: .1 ft
Accuracy:
Hydrologic Unit:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:
DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

	Site Use	Water Use
Primary:	TEST	UNUSED
Secondary:		
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump:	No information provided
Construction:	No information provided
Hole:	No information provided
Openings:	No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 2010. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3086 9269
Aquifer Type:
Well Construction Date: 19460727
Hole Depth: 162 ft
Altitude Land Surface: 130.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: Site Use WITHDRAWAL OF WATER
Water Use
PUBLIC SUPPLY

USGS Site ID: 405819072424201

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GLCLU
Date Established:
Well Depth: 162 ft
Accuracy: .1 ft
Hydrologic Unit:

Secondary:
Tertiary:

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: WU S201
Site location mapped by: Map coordinate

Source Agency: USGS (PROJECT NY022)
Source Map Name:

USGS Site ID: 405814072423801

County: SUFFOLK
Map Scale:

Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface:
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Primary Aquifer:
Date Established:
Well Depth:
Accuracy:
Hydrologic Unit: 02030202

Ground-water Site Type:
MULTIPLE WELLS (ONLY FOR WELL FIELD CONSISTING OF WELLS PUMPED THROUGH A SINGLE HEADER AND LITTLE INDIVIDUAL WELL DATA EXISTS)

Data Reliability:
DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

	Site Use	Water Use
Primary:	WITHDRAWAL OF WATER	
Secondary:		
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump:	No information provided
Construction:	No information provided
Hole:	No information provided
Openings:	No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner:	No information provided
Other Identifier:	No information provided
Other Data Available:	No information provided
Site Visits:	No information provided
Field Water-quality:	No information provided
Geophysical Logs:	No information provided

Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 12160. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3087 9269
Aquifer Type:
Well Construction Date: 19540721
Hole Depth: 174 ft
Altitude Land Surface: 125.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary:	Site Use	Water Use
Secondary:	WITHDRAWAL OF WATER	PUBLIC SUPPLY
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

USGS Site ID: 405810072424101

County: SUFFOLK
Map Scale: 112GICLU
Primary Aquifer:
Date Established: 174 ft
Well Depth: .1 ft
Accuracy:
Hydrologic Unit:

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 46348. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3015
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface:
Topographic Setting:
Depth Data Source:
Station Type: GROUND WATER OTHER THAN SPRING
Significant Remark:

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:
DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: Site Use
Secondary: TEST
Water Use

USGS Site ID: 405811072434901

County: SUFFOLK
Map Scale:
Primary Aquifer:
Date Established:
Well Depth: 200 ft
Accuracy:
Hydrologic Unit:

Tertiary:

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 16442.1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3087 9269
Aquifer Type:

USGS Site ID: 4058090/2424101

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GICLU

Well Construction Date: 19660407
Hole Depth: 164 ft
Altitude Land Surface: 125.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Date Established: 163 ft
Well Depth: .1 ft
Accuracy:
Hydrologic Unit:

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

	Site Use	Water Use
Primary:	WITHDRAWAL OF WATER	PUBLIC SUPPLY
Secondary:		
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: WU S200
Site location mapped by: Map coordinate

USGS Site ID: 405809072424101

Source Agency: USGS (PROJECT NY022)
Source Map Name:
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface:
Topographic Setting:
Depth Data Source:
Station Type: GROUND WATER OTHER THAN SPRING
Significant Remark:

County: SUFFOLK
Map Scale:
Primary Aquifer:
Date Established:
Well Depth:
Accuracy:
Hydrologic Unit: 02030202

Ground-water Site Type:
MULTIPLE WELLS (ONLY FOR WELL FIELD CONSISTING OF WELLS PUMPED THROUGH A SINGLE HEADER AND LITTLE INDIVIDUAL WELL DATA EXISTS)

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: WITHDRAWAL OF WATER
Secondary:
Tertiary:

Water Use

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 51336. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3108 9270
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface: 120.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: Site Use
Secondary: TEST
Tertiary:

Water Use
IRRIGATION

USGS Site ID: 405808072421301

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GICLU
Date Established:
Well Depth: 205 ft
Accuracy: .1 ft
Hydrologic Unit:

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: -REEVES BEACH WATER SUPP
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name:
Aquifer Type:
Well Construction Date:

USGS Site ID: 405804072424200

County: SUFFOLK
Map Scale:
Primary Aquifer:
Date Established:

Hole Depth:
Altitude Land Surface:
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

Well Depth:
Accuracy:
Hydrologic Unit: 02030202

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR PANNEY TYPE

Data Reliability:
DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Site Use
Water Use

Primary:
Secondary:
Tertiary:

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided
Construction: No information provided
Hole: No information provided
Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Local Well Number: S 2654. 1
Site location mapped by: Map coordinate

USGS Site ID: 405759072420501

Source Agency: USGS
Source Map Name: SJ3110 9
Aquifer Type:

County: SUFFOLK

Map Scale: Primary Aquifer: 112GLCLO

Date Established: Well Depth: 140 ft

Accuracy: .1 ft

Hydrologic Unit:

Hole Depth: 98.0 ft

Altitude Land Surface:

Topographic Setting:

Depth Data Source:

Station Type:

Significant Remark:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: WITHDRAWAL OF WATER
Secondary:

Tertiary:

Site Use
Water Use
IRRIGATION

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 527. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3049 9269
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface: 100.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

USGS Site ID: 405746072430801

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GLCLDU
Date Established:
Well Depth: 133 ft
Accuracy: .1 ft
Hydrologic Unit:

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: Site Use
Secondary: WITHDRAWAL OF WATER
Tertiary: Water Use

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Local Well Number: S 4271. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SJ3050
Aquifer Type:
Well Construction Date:
Hole Depth:

USGS Site ID: 405743072425701

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GICLU
Date Established:
Well Depth: 105 ft

Altitude Land Surface: 100.3 ft

Accuracy: .1 ft

Topographic Setting:

Hydrologic Unit:

Depth Data Source:

Station Type: GROUND WATER OTHER THAN SPRING

Significant Remark:

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Site Use

Water Use

Primary: OBSERVATION

Secondary:

UNUSED

Tertiary:

Type(s) of Data Collected:

None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Local Well Number: S 1215.1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SJ3050 9263
Aquifer Type: Well Construction Date:
Hole Depth: 114 ft
Altitude Land Surface: 95.0 ft
Topographic Setting:
Depth Data Source:
Station Type: GROUND WATER OTHER THAN SPRING
Significant Remark:

USGS Site ID: 405743072425901

County: SUFFOLK
Map Scale: 112GLCLU
Primary Aquifer: 112GLCLU
Date Established:
Well Depth: 114 ft
Accuracy: .1 ft
Hydrologic Unit:

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

	Site Use	Water Use
Primary:	WITHDRAWAL OF WATER	IRRIGATION
Secondary:		
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 4048. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SH3019 9263
Aquifer Type: Well Construction Date:
Hole Depth:
Altitude Land Surface: 105.0 ft
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

Ground-water Site Type:
WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Primary: Site Use
Secondary: WITHDRAWAL OF WATER
Tertiary: IRRIGATION

Type(s) of Data Collected:

USGS Site ID: 405743072434201

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GLCLU
Date Established:
Well Depth: 172 ft
Accuracy: .1 ft
Hydrologic Unit:

None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Local Well Number: S 1838.1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SJ3030 9269
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface: 100.0 ft

USGS Site ID: 405741072431701

County: SUFFOLK
Map Scale:
Primary Aquifer: 112G1ACLU
Date Established:
Well Depth: 133 ft
Accuracy: .1 ft

Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

Hydrologic Unit:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

	Site Use	Water Use
Primary:	WITHDRAWAL OF WATER	IRRIGATION
Secondary:		
Tertiary:		

Type(s) of Data Collected:
None identified

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Local Well Number: S 8025. 1

Site location mapped by: Map coordinate

Source Agency: USGS

Source Map Name: SJ3065 9269

Aquifer Type:

Well Construction Date: 19490930

Hole Depth:

Altitude Land Surface: 85.0 ft

Topographic Setting:

Depth Data Source:

Station Type: GROUND WATER OTHER THAN SPRING

Significant Remark:

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Site Use

Primary: WITHDRAWAL OF WATER

Secondary:

Tertiary:

Water Use
IRRIGATION

Type(s) of Data Collected:

WATER QUALITY--INTERMITTENT (Active data-collection)

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

USGS Site ID: 405712072423101

County: SUFFOLK

Map Scale:

Primary Aquifer: 112GLCLK

Date Established:

Well Depth: 130 ft

Accuracy: .1 ft

Hydrologic Unit:

MISCELLANEOUS INFORMATION:

Owner: No information provided
Other Identifier: No information provided
Other Data Available: No information provided
Site Visits: No information provided
Field Water-quality: No information provided
Geophysical Logs: No information provided
Networks: No information provided
Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided
Aquifers: No information provided

Local Well Number: S 73892. 1
Site location mapped by: Map coordinate

Source Agency: USGS
Source Map Name: SJ3026 9269
Aquifer Type:
Well Construction Date:
Hole Depth:
Altitude Land Surface:
Topographic Setting:
Depth Data Source:
Station Type:
Significant Remark:

GROUND WATER OTHER THAN SPRING

Ground-water Site Type:

WELL, FOR SINGLE WELLS OTHER THAN WELLS OF THE COLLECTOR OR RANNEY TYPE

Data Reliability:

DATA HAVE NOT BEEN FIELD CHECKED BY THE REPORTING AGENCY, BUT THE REPORTING AGENCY CONSIDERS THE DATA RELIABLE

Site Use

Primary: TEST

Secondary:

Tertiary:

Type(s) of Data Collected:

None identified

USGS Site ID: 405656072431101

County: SUFFOLK
Map Scale:
Primary Aquifer: 112GLCUU
Data Established:
Well Depth: 68 ft
Accuracy:
Hydrologic Unit:

Water Use

Instruments at Site:

CONSTRUCTION INFORMATION:

Lift and Major Pump: No information provided

Construction: No information provided

Hole: No information provided

Openings: No information provided

DISCHARGE INFORMATION:

No information provided

MISCELLANEOUS INFORMATION:

Owner: No information provided

Other Identifier: No information provided

Other Data Available: No information provided

Site Visits: No information provided

Field Water-quality: No information provided

Geophysical Logs: No information provided

Networks: No information provided

Remarks: No information provided

GEOHYDROLOGIC LOGS INFORMATION:

Geohydrologic Unit: No information provided

Aquifers: No information provided

Long Island Wells over 45 gal/min:
Source: NYS DEC

Located by: LATITUDE/LONGITUDE COORDINATE

No mapped wells were identified

Wells possibly in search area based on owner address information (not mapped):

Well Number: S013709	Abandoned: No	Name: SUFFOLK CEMENT	Zip: 11933
Owner: SUFFOLK CEMENT	Street: BOX 241	City: CALVERTON, N.Y.	
Permit: 1397	Expiration Date:	Purpose: WASH	Uniform Procedures Number:
Aquifer: UGL	Capacity: 240 gal/min	Depth: 74 ft	Remarks:
1993 Pumpage: 253	1994 Pumpage: 132	1995 Pumpage: 206	1996 Pumpage: 345
Well Number: S023822	Abandoned: No	Name: BAITING HOLLOW C.C.	
Owner: BAITING HOLLOW C.C.	Street: P.O. BOX 464	City: RIVERHEAD N.Y.	Zip: 11901
Permit: 2367	Expiration Date:	Purpose: GEN	Uniform Procedures Number:
Aquifer:	Capacity: 320 gal/min	Depth: 249 ft	Remarks:
1993 Pumpage: None Reported	1994 Pumpage: None Reported	1995 Pumpage: None Reported	1996 Pumpage: None Reported
Well Number: S048469	Abandoned: No	Name: SUFFOLK CEMENT	
Owner: SUFFOLK CEMENT	Street: BOX 241	City: CALVERTON, N.Y.	Zip: 11933
Permit: 2931	Expiration Date:	Purpose: IND	Uniform Procedures Number:
Aquifer: UGL	Capacity: 70 gal/min	Depth: 60 ft	Remarks:
1993 Pumpage: 263	1994 Pumpage: 1187	1995 Pumpage: 955	1996 Pumpage: 974
Well Number: S053167	Abandoned: No	Name: HOLIDAY INN	
Owner: HOLIDAY INN	Street: BOX 883	City: RIVERHEAD, N.Y.	Zip: 11901
Permit: 3008	Expiration Date:	Purpose: DOM	Uniform Procedures Number:
Aquifer: UGL	Capacity: 150 gal/min	Depth: 59 ft	Remarks:
1993 Pumpage: 0	1994 Pumpage: None Reported	1995 Pumpage: None Reported	1996 Pumpage: None Reported
Well Number: S053221	Abandoned: No	Name: RIVERHEAD TERMINAL	
Owner: TOSCO CORPORATION	Street: P.O. BOX 111	City: RIVERHEAD, NEW YORK	Zip: 11901
Permit: 3007	Expiration Date:	Purpose: FIRE	Uniform Procedures Number:
Aquifer: UGL	Capacity: 0 gal/min	Depth: 0 ft	Remarks:
1993 Pumpage: 3888	1994 Pumpage: 3859	1995 Pumpage: 4608	1996 Pumpage: None Reported
Well Number: S090288	Abandoned: No	Name: WARNER NURSERY	
Owner: WARNER, AUSTIN H., JR.	Street: SOUND AVE.	City: CALVERTON, N.Y.	Zip: 11933
Permit: 3630	Expiration Date: 03/08/1998	Purpose: IRR	Uniform Procedures Number: 10-88-0002
Aquifer: UGL	Capacity: 500 gal/min	Depth: 130 ft	Remarks:
1993 Pumpage: 13762	1994 Pumpage: 9455	1995 Pumpage: 13260	1996 Pumpage: 7755
Well Number: S096578	Abandoned: No	Name: SCHMITT, PHILIP	
Owner: SCHMITT, PHILIP A.	Street: BOX 25, ROANOKE AVENUE	City: RIVERHEAD, NEW YORK	Zip: 11901
Permit: 3642	Expiration Date: 04/08/1998	Purpose: IRRIG	Uniform Procedures Number: 10-88-0269
Aquifer: UGL	Capacity: 800 gal/min	Depth: 155 ft	Remarks:
1993 Pumpage: None Reported	1994 Pumpage: None Reported	1995 Pumpage: 15857	1996 Pumpage: 19292
Well Number: XXXXXXXX	Abandoned: Yes	Name: KUJAWSKI AND SONS	
Owner: KUJAWSKI, JOHN	Street: 143 SOUND AVENUE	City: RIVERHEAD, NEW YORK	Zip: 11901
Permit: 3564	Expiration Date: 03/02/1998	Purpose: IRR	Uniform Procedures Number: 10-87-0701
Aquifer:	Capacity: 0 gal/min	Depth: 0 ft	Remarks: *WILL NOT DRILL WELL
1993 Pumpage: 0	1994 Pumpage: 0	1995 Pumpage: None Reported	1996 Pumpage: 0
Well Number: 9999999	Abandoned: No	Name: SANDY POND GOLF	
Owner: SANDY POND GOLF	Street: 26 MILBROOK LANE	City: RIVERHEAD, NEW YORK	Zip: 11901
Permit: 3595	Expiration Date: 11/30/1997	Purpose: IRR/G	Uniform Procedures Number: 10-87-1527

Aquifer: Capacity: 0 gal/min Depth: 0 ft Remarks:
1993 Pumpage: 0 1994 Pumpage: 0 1995 Pumpage: 6133 1996 Pumpage: 4206

There were 866 wells with no coordinate information in Suffolk County.

Public Supply Wells:
Source: NYS DEC

Located by: LATITUDE/LONGITUDE COORDINATE

No mapped wells were identified

Wells with no address or valid coordinate information, in Suffolk County (not mapped):

Well Number: S000075	Owner: SCWA	Abandoned: No
Well Number: S016256	Owner: SCWA	Abandoned: Yes
Well Number: S017241	Owner: SCWA	Abandoned: No
Well Number: S018762	Owner: SCWA	Abandoned: No
Well Number: S027070	Owner: SCWA	Abandoned: No
Well Number: S033922	Owner: SCWA	Abandoned: No
Well Number: S034894	Owner: SCWA	Abandoned: No
Well Number: S046235	Owner: SCWA	Abandoned: No
Well Number: S048194	Owner: SCWA	Abandoned: No
Well Number: S059941	Owner: RIVERHEAD WATER DIST	Abandoned: No
Well Number: S083096	Owner: SCWA	Abandoned: No
Well Number: S088466	Owner: RIVERHEAD WATER DIST	Abandoned: No
Well Number: S089754	Owner: SCWA	Abandoned: No
Well Number: S089756	Owner: SCWA	Abandoned: No
Well Number: S093519	Owner: SCWA	Abandoned: No
Well Number: S093701	Owner: SCWA	Abandoned: No
Well Number: S093702	Owner: SCWA	Abandoned: No
Well Number: S094274	Owner: SCWA	Abandoned: No
Well Number: S096232	Owner: SCWA	Abandoned: No
Well Number: S096352	Owner: SCWA	Abandoned: No
Well Number: S096673	Owner: SCWA	Abandoned: No
Well Number: S098322	Owner: SCWA	Abandoned: No
Well Number: S098350	Owner: SCWA	Abandoned: No
Well Number: S098721	Owner: SCWA	Abandoned: No
Well Number: S099014	Owner: SCWA	Abandoned: No
Well Number: S099271	Owner: SCWA	Abandoned: No
Well Number: S099928	Owner: SCWA	Abandoned: No
Well Number: S099960	Owner: SCWA	Abandoned: No
Well Number: S100069	Owner: SCWA	Abandoned: No
Well Number: S100453	Owner: SCWA	Abandoned: No
Well Number: S100608	Owner: SCWA	Abandoned: No
Well Number: S100691	Owner: SCWA	Abandoned: No
Well Number: S101321	Owner: SCWA	Abandoned: No
Well Number: S101364	Owner: SCWA	Abandoned: No
Well Number: S105301	Owner: SCWA	Abandoned: No
Well Number: S106977	Owner: SCWA	Abandoned: No
Well Number: S106978	Owner: SCWA	Abandoned: No

Well Registration:

Source: NYS DEC

Located by: ADDRESS

This well is mapped:

Well Number: S104550

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Well Location: HORTON AVENUE AND SOUND AVENUE, RIVERHEAD

ADDRESS CHANGE INFORMATION

Revised Street: HORTON AVENUE / SOUND AVENUE

Revised Zip Code: 11901

Owner: AQUA LONG FISH FARM

Mail Address: HORTON AVENUE, RIVERHEAD

Permit Number:

Driller Registration Number: 1765

Depth: 100 ft

Purpose: DOMESTIC

Approval Date for Drilling: 05/24/1994

Remarks:

These wells are unmapped and may be located in the search area:

Well Number: S102265

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: PETHOVICH, J.

Permit Number:

Depth: 80 ft

Mail Address: BOX 131, JAMESPORT

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 01/29/1993

Remarks:

Well Number: S102651

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: MONTAG, MARTIN

Permit Number:

Depth: 70 ft

Well Location: SOUND SHORE ROAD, RIVERHEAD

Mail Address: P.O. BOX 572, UPTON

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 05/13/1993

Remarks:

Well Number: S103175

ADDRESS CHANGE INFORMATION

Revised Street: PINEHURST DRIVE / ELM ROAD

Revised Zip Code: 11933

Owner: EAST ISLE

Permit Number:

Depth: 70 ft

Well Location: PINEHURST DRIVE AND ELM ROAD, CAULVERTON

Mail Address: 278 JAMAICA AVENUE, MEDFORD

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 08/06/1993

Remarks:

Well Number: S103881

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: ENTENMANN, ROBERT

Permit Number:

Depth: 90 ft

Well Location: 171 SOUND AVENUE, RIVERHEAD

Mail Address: 171 SOUND AVENUE, RIVERHEAD

Driller Registration Number: 1457

Purpose: DOMESTIC

Approval Date for Drilling: 11/22/1993

Remarks:

Well Number: S103996

ADDRESS CHANGE INFORMATION

Well Location: 1921 ROANOKE AVENUE, RIVERHEAD

Revised Street: NO CHANGE
Revised Zip Code: 11901
Owner: MUMA, EDITH
Permit Number:
Depth: 80 ft

Mail Address: 547 EAST MAIN STREET, RIVERHEAD
Driller Registration Number: 10
Purpose: DOMESTIC

Approval Date for Drilling: 01/07/1994
Remarks:

Well Number: S104104
ADDRESS CHANGE INFORMATION
Revised Street: OSBOURNE AVENUE / HORTONS AVENUE
Revised Zip Code: 11901
Owner: DOUBRAVE, DERRICK
Permit Number:
Depth: 105 ft

Well Location: OSBOURNE AVENUE AND HORTONS AVENUE, RIVERHEAD

Mail Address: P.O. BOX 1010, AQUEBOGUE
Driller Registration Number: 10
Purpose: DOMESTIC

Approval Date for Drilling: 02/25/1994
Remarks:

Well Number: S104142
ADDRESS CHANGE INFORMATION
Revised Street: NO CHANGE
Revised Zip Code: 11901
Owner: ENTENMANN, ROBERT
Permit Number:
Depth: 90 ft

Well Location: 171 SOUND AVENUE, RIVERHEAD

Mail Address: 171 SOUND AVENUE, RIVERHEAD
Driller Registration Number: 1457
Purpose: DOMESTIC

Approval Date for Drilling: 03/17/1994
Remarks:

Well Number: S104712
ADDRESS CHANGE INFORMATION
Revised Street: NO CHANGE
Revised Zip Code: 11933
Owner: WATERWAYS AT BAY POINTE
Permit Number:
Depth: 27 ft

Well Location: WATERWAYS STP, CALVERTON

Mail Address: P.O. BOX 610, CALVERTON
Driller Registration Number: 1556
Purpose: MONITOR

Approval Date for Drilling: 06/16/1994
Remarks:

Well Number: S105242
ADDRESS CHANGE INFORMATION
Revised Street: NO CHANGE
Revised Zip Code: 11933
Owner: HELLERMAN, GLENN
Permit Number:
Depth: 240 ft

Well Location: FARM LAND, CALVERTON

Mail Address: 2250 SIGSBEE ROAD, MATTITUCK
Driller Registration Number: 10
Purpose: DOMESTIC

Approval Date for Drilling: 09/01/1994
Remarks: *CANCELLED

Well Number: S105439T
ADDRESS CHANGE INFORMATION
Revised Street: NO CHANGE
Revised Zip Code: 11901
Owner: RIVERHEAD WATER DISTRICT
Permit Number: WSA9065
Depth: 500 ft

Well Location: WELL 7-3, RIVERHEAD

Mail Address: 11035 PULASKI STREET, RIVERHEAD
Driller Registration Number: 1299
Purpose: TEST

Approval Date for Drilling: 09/22/1994
Remarks:

Well Number: S106757
ADDRESS CHANGE INFORMATION
Revised Street: NO CHANGE
Revised Zip Code: 11901
Owner: GORE
Permit Number:

Well Location: 93 OLD WESTHAMPTON ROAD, RIVERHEAD

Mail Address: 93 OLD WESTHAMPTON ROAD, RIVERHEAD
Driller Registration Number: 1674

Approval Date for Drilling: 06/01/1995

Depth: 50 ft

Purpose: DOMESTIC

Remarks:

Well Number: S106816

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11933

Owner: GUMBS, C.

Permit Number:

Depth: 50 ft

Well Location: 314 STARR BOULEVARD, CALVERTON

Mail Address: 314 STARR BOULEVARD, CALVERTON

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 06/08/1996
Remarks:

Well Number: S108348

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: RIVERHEAD WATER DISTRICT

Permit Number: WSA9370

Depth: 300 ft

Well Location: WELL #1, RIVERHEAD

Mail Address: 200 HOWELL AVENUE, RIVERHEAD

Driller Registration Number: 5

Purpose: PUBLIC SUPPLY

Approval Date for Drilling: 03/26/1996
Remarks: *REPLACES ORIG. WELL #1

Well Number: S108499

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11933

Owner: WATSON, KAREN

Permit Number:

Depth: 50 ft

Well Location: 280 PARKWAY DRIVE, CALVERTON

Mail Address: 280 PARKWAY DRIVE, CALVERTON

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 04/15/1996
Remarks:

Well Number: S109507

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11933

Owner: MANZI CONSTRUCTION

Permit Number:

Depth: 100 ft

Well Location: STARR BOULEVARD, CALVERTON

Mail Address: 586 ROUTE 25A, ROCKY POINT

Driller Registration Number: 241

Purpose: DOMESTIC

Approval Date for Drilling: 10/23/1996
Remarks:

Well Number: S109584

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: LEBANON CHEMICAL CORPORATION

Permit Number:

Depth: 80 ft

Well Location: 4756 SOUND AVENUE, RIVERHEAD

Mail Address: 4756 SOUND AVENUE, RIVERHEAD

Driller Registration Number: 10

Purpose: DOMESTIC

Approval Date for Drilling: 11/01/1996
Remarks:

Well Number: S110325

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised Zip Code: 11901

Owner: HUNG SUN CHUL

Permit Number:

Depth: 63 ft

Well Location: HORTON AVENUE, RIVERHEAD

Mail Address: 61 EVERGREEN AVENUE, EAST MORICHES

Driller Registration Number: 1389

Purpose: IRRIGATION

Approval Date for Drilling: 04/28/1997
Remarks:

These wells are unmapped and may be located in the search area:

Well Number: S034272	Well Location: WELL #7-1	Revised Zip Code: UNKNOWN
Well Number: S103447T	Well Location: 50 FEET NORTH OF S-28767	Revised Zip Code: UNKNOWN
Well Number: S104353	Well Location: RED CREEK CIRCLE, RED CREEK RIDGE	Revised Zip Code: UNKNOWN
Well Number: S104529	Well Location: PARKLAND STP	Revised Zip Code: UNKNOWN
Well Number: S104530	Well Location: PARKLAND STP	Revised Zip Code: UNKNOWN
Well Number: S104531	Well Location: PARKLAND STP	Revised Zip Code: UNKNOWN
Well Number: S104532	Well Location: STRATMORE STP	Revised Zip Code: UNKNOWN
Well Number: S104533	Well Location: STRATMORE STP	Revised Zip Code: UNKNOWN
Well Number: S104534	Well Location: STRATMORE STP	Revised Zip Code: UNKNOWN
Well Number: S104535	Well Location: KNOBHILL STP	Revised Zip Code: UNKNOWN
Well Number: S104536	Well Location: KNOBHILL STP	Revised Zip Code: UNKNOWN
Well Number: S105439	Well Location: WELL 7-3	Revised Zip Code: UNKNOWN
Well Number: S107781	Well Location: LOT #12, OAK ISLAND	Revised Zip Code: UNKNOWN

Suffolk County Water Authority Wells:

Located by: STATE PLANE COORDINATE

None Identified

Suffolk County Water Authority Wells with MTBE contamination:

None Identified

Sample Freedom of Information Request Letters

Freedom of Information Officer
U. S. Environmental Protection Agency
290 Broadway
New York, New York 10007-1866

Greetings:

Under the provision of the Freedom of Information Act, 5 U. S. C. 552, I am requesting access to certain information available from your agency. I would like to receive information regarding the known or potential environmental and public health hazards posed by the toxic waste dump/wastewater discharge/chemical storage facility/solid waste site/air discharge/petroleum storage facility/toxic spill located at _____. The permit/identification number of the facility/site is _____. Specifically, I would like to obtain:

- A summary of any *record of decision* regarding the investigation or clean up of the site;
- Notification of the *lead agency* that is primarily responsible for investigating and cleaning up the site;
- Notification of any legal action involving the site;
- Detailed site reports, monitoring data, regulatory non-compliance notices, documents or studies regarding any pollution problems at this site, and how I may obtain copies of them or review them in person.

If there are any fees imposed for searching or copying the materials I have requested, please inform me of that fact before filling this request.

I would appreciate your handling this request as quickly as possible. However, if you do not grant it within 10 working days, as the law stipulates, I will deem it denied.

Thank you for your attention. I await your reply.

Records Access Officer
New York State
Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233

Greetings:

I am writing pursuant to the New York Freedom of Information Law (Article 6, Public Officers Law) to request access to certain information available from your agency. I would like to receive information regarding the known or potential environmental and public health hazards posed by the toxic waste dump/wastewater discharge/chemical storage facility/solid waste site/air discharge/petroleum storage facility/toxic spill located at _____. The permit/identification number of the facility/site is _____. Specifically, I would like to obtain:

- A summary of any *record of decision* regarding the investigation or clean up of the site;
- Notification of the *lead agency* that is primarily responsible for investigating and cleaning up the site;
- Notification of any legal action involving the site;
- Detailed site reports, monitoring data, regulatory non-compliance notices, documents or studies regarding any pollution problems at this site, and how I may obtain copies of them or review them in person.

If there are any fees imposed for searching or copying the materials I have requested, please inform me of that fact before filling this request.

I would appreciate it if you would process this request as quickly as possible. As I am sure you know, Section 89 (3) of the Freedom of Information law requires that you make the information I have requested available or furnish a written denial within five business days. If you do choose to deny access, I would like to know specifically what is being denied and the legal basis, under section 87(2), for such a denial.

Thank you for your attention. I await your reply.

Freedom of Information request denials can be appealed. If your New York Freedom of Information Law appeal is denied, please contact: The Committee on Open Government, 162 Washington, Avenue, Albany, NY 12231

APPENDIX D
NYSDEC WELL COMPLETION REPORTS

County Suffolk

ORIGINAL TO COMMISSION

Well No. 15412
(on preliminary report)State of New York
Department of Conservation
Division of Water Power and Control

COMPLETION REPORT—LONG ISLAND WELL

LOG
Ground Surf., El. ft. above^ ft.
v ft.
Top of WellOwner Rever Park Beach Co., Inc.Address 316 Sound Ave., Riverhead, L.I., N.Y.Location of well Rever Park, Riverhead, L.I.All measurements from top of pipe. Depth of well below surface 163'4" feetDepth to ground water from surface 116'6" feet

CASINGS:

Diameter 6 in. in. in. in.

Length ft. ft. ft. ft.

Sealing

Casings removed

Cook WW Red Brass 10' of slot 10'8" Overall #20 slot.
SCREENS: Make OpeningsDiameter 5-3/4 in. in. in. in.

Length ft. ft. ft. ft.

Depth to top from top of casing 149'10" ft.PUMPING TEST: Date 7/19/58 Test or permanent pump? Perm.Duration of Test days 3 hoursMaximum Discharge 88 gallons per minuteStatic level prior to test 116 ft. 6 in. below top of casingLevel during Max. Pumping 120 ft. 6 in. below top of casingMaximum Drawdown 4 ft.

Approx. time of return to normal level after cessation At once

of pumping hours minutes

PUMP INSTALLED:

Type Submersible Make Red Jacket Model No. 500C4-12EMotive power Elec. Make Franklin H.P. 5Capacity 70 g.p.m. against } ft. of discharge headNo. bowls or stages 12 } ft. of total head

DROP LINE:

SUCTION LINE

Diameter 2 in. in.Length 132 ft. ft.Use of water PublicWork started 6/12/58 Completed 7/19/58Date 7/26/58 Driller Joseph J. Kreiger, Inc.License No. 10

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.

STATE OF NEW YORK
WATER POWER AND
CONTROL COMMISSION
RECEIVED
JUL 30 1958

Show North Point



PARK RD.

WELL 1216

WELL 16442 • 66

22

MIDLAND ST

max 1700' →

SOUND AVE

County Westchester

ORIGINAL—TO COMMISSION

Well No. 5-16442
(for preliminary report)

C.S.A. 41304

State of New York
Department of Conservation
Division of Water ResourcesLOG
Ground Surf., El.ft. aboveΛ
.....ft.
V
Top of Well

COMPLETION REPORT—LONG ISLAND WELL

Formerly Reers Park Beach Co
Owner Joseph J. Kreiger Inc.
Address 261 W. MAIN ST. Riverhead N.Y.
Location of well Reers Park Beach Riverhead N.Y.
Dept of well below surface 163' 4" feet
Depth to ground water from surface 116' 6" feet

CASINGS:

Diameter 6 in.in.in.in.
Lengthft.ft.ft.ft.
Sealing
Casings removed

SCREENS: Make Cock WW Openings #20
Diameter 5 3/4 in.in.in.in.
Length 10 ft.ft.ft.ft.
Depth to top from top of casing 149' 10" ft.

PUMPING TEST: Date 4/7/66 Test or permanent pump? Permanent
Duration of Testdayshours
Maximum Discharge 120 gallons per minute
Static level prior to test 116 ft. 6 in. below top of casing
Level during Max. Pumping 123 ft.in. below top of casing
Maximum Drawdown 6 1/2 ft.
Approx. time of return to normal level after cessation
of pumping at once hoursminutes

PUMP INSTALLED:

Type S.P. Make Red Jacket Model No. 1506 FH
Motive power Electric Make Franklin H.P. 15
Capacity 120 g.p.m. against } 220 ft. of discharge head
No. bowls or stages 6 } 6 ft. of total head

DROP LINE:

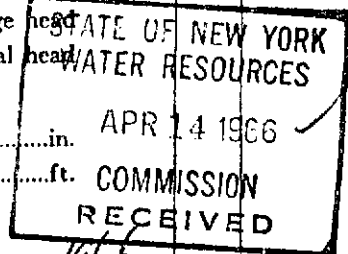
SUCTION LINE:

Diameter 3 in.in.in.in.
Lengthft.ft.ft.ft.

Use of water for water supplyWork started April 1, 1966 Completed April 7, 1966Date 4/12/66 Driller J.J. Kreiger Inc.License No. 10

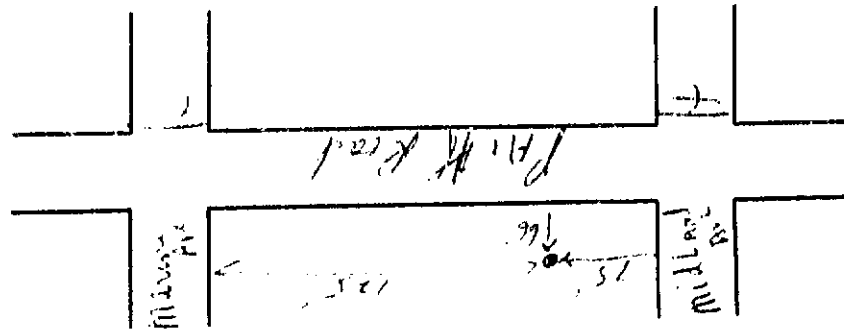
NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.



1440

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

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

County SuffolkWell Number S-104550

COMPLETION REPORT—LONG ISLAND WELL

OWNER <u>Aqua Long Fish Farm</u>		*LOG Ground Surface	
ADDRESS <u>Horton Avenue Riverhead, NY 11961</u>		EL. <u>35</u> ft. above sea	
LOCATION OF WELL <u>same</u>		_____ ft.	
DEPTH OF WELL BELOW SURFACE <u>105</u>		DEPTH TO GROUNDWATER FROM SURFACE <u>35</u>	
CASINGS			
DIAMETER <u>4</u> in. _____ in. _____ in. _____ in.			
LENGTH <u>101</u> ft. _____ ft. _____ ft. _____ ft.			
SEALING		CASINGS REMOVED	
SCREENS			
MAKE <u>Johnson</u>		OPENINGS # <u>16 Slet</u>	
DIAMETER <u>4</u> in. _____ in. _____ in. _____ in.			
LENGTH <u>4</u> ft. _____ ft. _____ ft. _____ ft.			
DEPTH TO TOP FROM TOP OF CASING <u>101</u>			
PUMPING TEST			
DATE <u>6-1-94</u>		TEST OR <u>PERMANENT</u> PUMP?	
DURATION OF TEST days _____ hours		MAXIMUM DISCHARGE <u>35</u> gallons per min.	
STATIC LEVEL PRIOR TO TEST <u>35</u> ft. _____ in. below top of casing		LEVEL DURING MAXIMUM PUMPING <u>40</u> _____ in. below top of casing	
MAXIMUM DRAWDOWN <u>5</u> ft.		Approximate time of return to normal level after cessation of pumping hours _____ min.	
PUMP INSTALLED			
TYPE <u>Submersible</u>	MAKE <u>Grund</u>	MODEL NUMBER <u>1682010</u>	
MOTIVE POWER <u>electric</u>	MAKE <u>Franklin</u>	H.P. <u>2</u>	
CAPACITY <u>20</u> g.p.m. against		<u>200</u> ft. of discharge head	
NUMBER OF BOWLS OR STAGES <u>12</u>		<u>300</u> ft. of total head	
DROP LINE		SUCTION LINE	
DIAMETER <u>1</u> in.		DIAMETER _____ in.	
LENGTH <u>85</u> ft.		LENGTH _____ ft.	
METHOD OF DRILLING <input type="checkbox"/> rotary <input type="checkbox"/> cable tool <input type="checkbox"/> other _____		USE OF WATER	
WORK STARTED <u>6-1-94</u>		COMPLETED <u>6-2-94</u>	
DATE <u>6-21-94</u>	DRILLER <u>Brian Schieicher</u>	REGISTRATION NO. <u>1765</u>	
* 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 Driller's Registration and Reports.			

4" PVC pipe

0-5' loam

5-30' gray sandy clay

30-80' sand + gravel

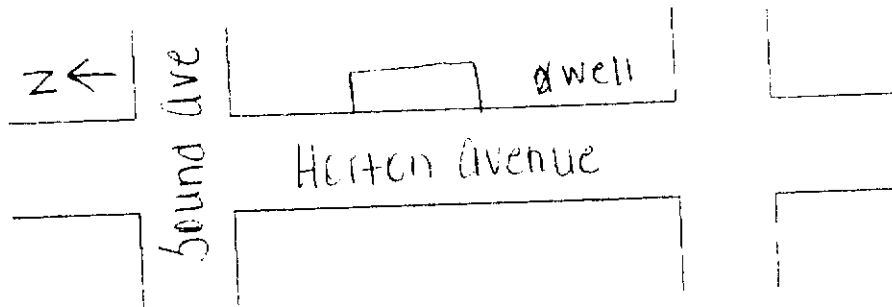
80-105' coarse tan sand

4" x 4" PVC screen

PVC plug

ORIGINAL—Environmental Conservation Copy

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

ORIGINAL - TO COMMISSION

County Suffolk

State of New York (W.S.A.#1409) No. S. 2010
Department of Conservation
Division of Water Power and Control
(on preliminary report)LOG
Ground Surf.

COMPLETION REPORT—LONG ISLAND WELLS

LOG
C'd

Sand &
gravel with
lumps of
clay
73'-----
Fine
sand
83'-----
Coarse
gravel &
stones
89'-----
Fine Sand
with streaks
of clay

El. ft.

Owner Edward C. Griffin & Son, Inc.

Address Port Jefferson, N.Y.

Location of well Reeves Park, Riverhead, N.Y. and Hill Drives. N.W. cor. Woodlawn

Depth 162' feet

Depth to water: First 104'06" ft.; Final ft.

CASINGS:

Diameter 6 --in. --in. --in. --in.
Length 152 ft. ft. ft. ft.

SCREENS: Type Slotted Brass, Bailed in

Diameter 6 --in. --in. --in. --in.
Length 10 ft. ft. ft. ft.
Depth to top 152 ft.

Salinity
86-145 10 PPM

Water
level
104-00

PUMPING TEST: Date
Duration of Test days hours
Maximum Discharge gallons per minute
Static Level Prior to Test feet inches
Level during Max. Pumping feet inches
Maximum Drawdown feet inches
Approx. time of return to normal level after cessation
of pumping hours minutes

112'
Clay &
Stones

118'

Clean

Coarse

Sand &

gravel

126'

Hard sandy

formation

with clay

145'

Clean sand

for a

well, 162'

Tail

piece

Bottom of Column

PUMP INSTALLED:

Type Deep Well Turbine
Motive power Electric
Capacity 40 g.p.m.

DROP LINE:

Diameter 3 --in. --in.
Length 110 ft. ft.

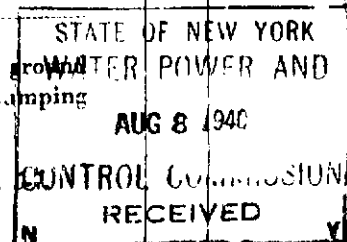
162' TOP OF STRAINER
Public Supply

Work started June 6, 1940 Completed June 21, 1940

Date July 27, 1940 Driller John Timman
License No. 16

NOTE: Show log of well—materials encountered, with depths below ground surface, water-bearing beds, casings, screens, pump, additional pumping tests and other matters of interest.

See Instructions as to Well Drillers' Licenses and Reports—pp.

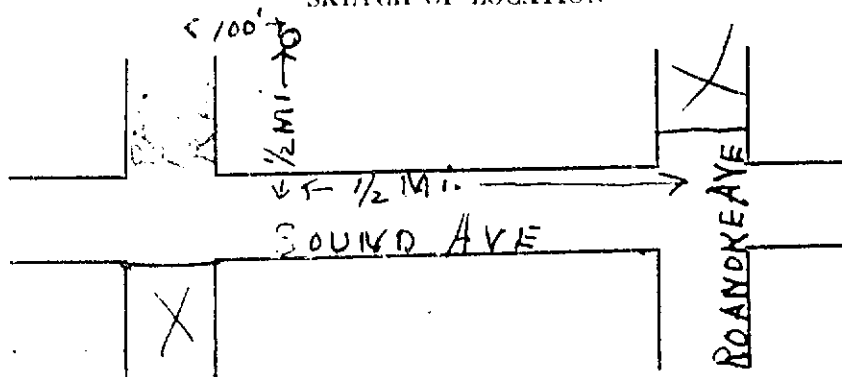


(Take off 8' for pit.)

REEVES
PARK.

N.

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

Chloride Content (Salinity)
in parts per million

1948 - 22 ppm - 7/27/48
1949 - 20 ppm - 9/19/49
1950 - 18 ppm - 7/13/50

WSA 2505
ORIGINAL—TO COMMISSION

County.....

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

Well No. 8-12160
(on preliminary report)

LOG

Ground Surf., El.....ft. above sea

COMPLETION REPORT—LONG ISLAND WELL

A.....ft.
V.....ft.
Top of Well

Owner.....Reeves Park Beach Co., Inc.....

Address.....Broadway, Greenlawn, L.I., N.Y.....

Location of well.....Reeves Park Beach, Riverhead, L.I.....

Depth of well below top of pipe.....168'2".....feet

Depth to ground water from surface.....111'7".....feet

CASINGS:

Diameter.....6.....in.in.in.in.

Length.....151'6".....ft.ft.ft.ft.

Sealing

Casings removed

SCREENS: Make.....Cook Red Brass.....Openings.....16 Slot

Diameter.....5-3/4.....in.in.in.in.

Length.....15'2" of slot.....ft.ft.ft.ft.

Depth to top from top of casing.....149'2".....ft.

PUMPING TEST: Date.....June 30, 1954.....Test or permanent pump?.....Perm.

Duration of Test.....4.....days.....hours

Maximum Discharge.....51.....gallons per minute

Static level prior to test.....111.....ft.7.....in. below top of casing

Level during Max. Pumping.....113.....ft.7.....in. below top of casing

Maximum Drawdown.....2.....ft.

Approx. time of return to normal level after cessation At Once

of pumping.....hours.....minutes

PUMP INSTALLED:

Submersible.....Type.....Type 10D33
Make.....Clayton-Mark (Reda).....Model No. 810

Motive power.....Electric.....Make.....H.P. 3

Capacity.....31.....g.p.m. against } 115.....ft. of discharge head

No. bowls or stages.....10.....} 226.....ft. of total head

DROP LINE:

SUCTION LINE:

Diameter.....2.....in.

Length.....140.....ft.

Use of water.....Public supply.....

Work started.....May 5, 1954.....Completed.....July 21, 1954

Date.....September 29, 1954.....Driller.....Joseph J. Kreiger, Inc.

License No.....10

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 a. Well Drillers' Licenses and Reports—pp. 5-7.

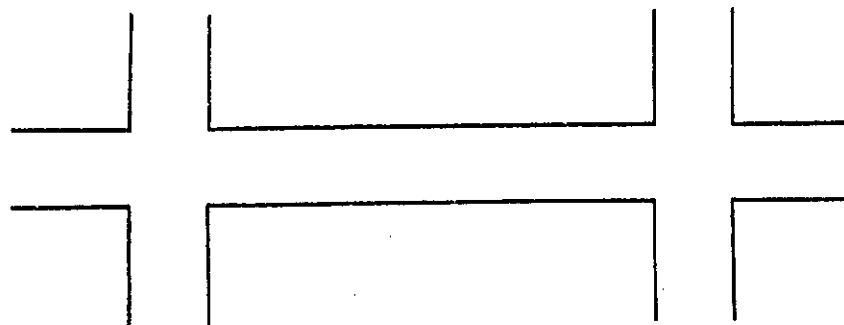
STATE OF NEW YORK
WATER POWER AND

COMMISSION
RECEIVED

Sand
11
Red clay
13
Stones
16
Clay with gravel mixed
26
Sand & Gravel
133
Clay
135
Fine muddy sand
150
Sand and Gravel
Clean.
168'2"

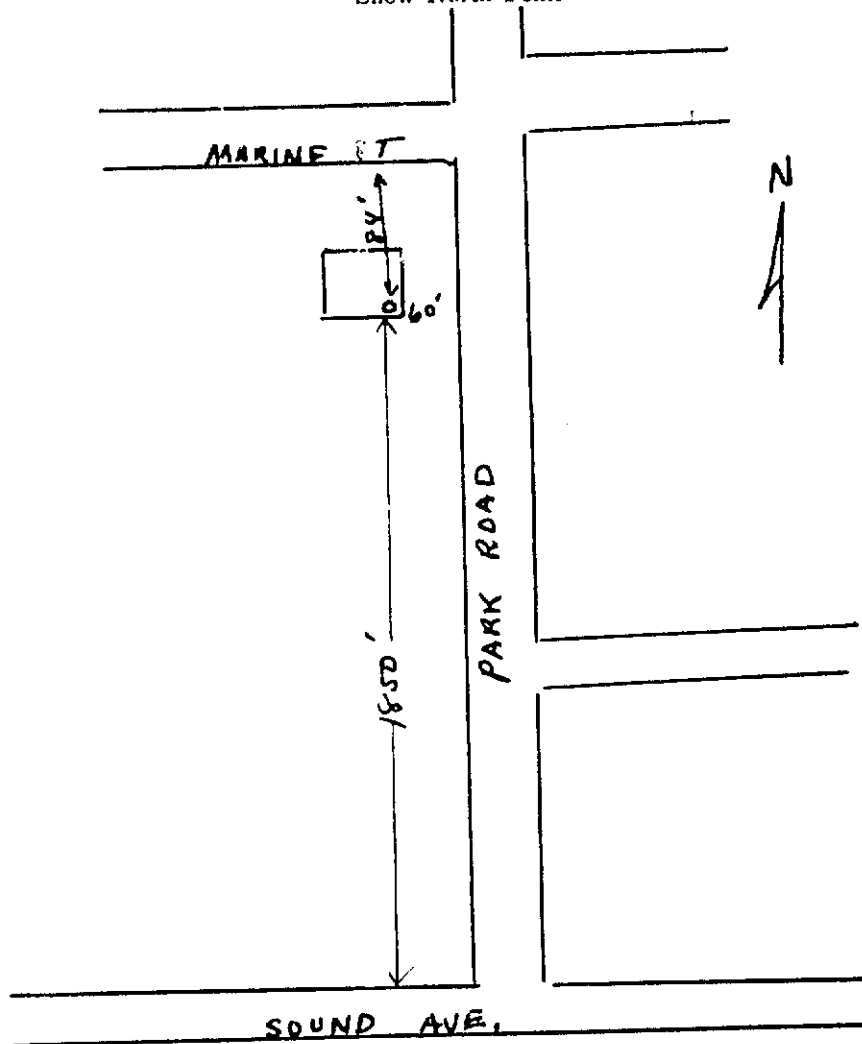
OCT 1 - 1954

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



APPENDIX E
DRILLING AND WELL COMPLETION LOGS: MW-4

**LAND, AIR, WATER
ENVIRONMENTAL SERVICES, INC.**



32 CHICHESTER AVE. PO BOX 372 CENTER MORICHES, NY 11934

(631) 874-2112 FAX (631) 874-4547

DRILLER'S LOGS

Cornell Research Lab
Riverhead, NY

July 2002

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

page: 1 of 1

MW-#4

DATE: July 8, 2002

SITE: Cornell Research Lab
Riverhead, NY

CONSULTANT: H2M Group
Melville, New York

DEPTH DRILLED: 92 feet
CASING INSTALLED: 75 feet PVC
CASING DIAMETER: 4 inches
DRILLING METHOD: Hollow Stem Auger 6 5/8

DEPTH TO WATER: 80 feet
SCREEN INSTALLED: 15 feet PVC
SLOT SIZE: 0.010 inches
WELL GROUTED: No

DRILLER: C. Pedersen

HELPER: J. Palmer

DEPTH FROM TO		Recovery	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft	Hand		Brown sand/loamy, medium to fine, 5% gravel
5 ft	25 ft	Auger Cuttings		Light tan sand, coarse to medium, 20% gravel
25 ft	50 ft	Auger Cuttings		Light tan sand, coarse to medium, 5% gravel
50 ft	75 ft	Auger Cuttings		Light tan/white sand, coarse to medium, 5% gravel
75 ft	92 ft	Auger Cuttings		Light tan/white sand, coarse to medium, 5% gravel, wet

GROUNDWATER MONITORING WELL REPORT

SITE: Cornell University LIHREC INSTALLATION DATE: 7/8/02 PROJECT NO.: CORN 9501
 WELL NO.: MW-4 LOCATION: As per April 2002 Work Plan
 DRILLER: Land, Air, Water Env. Services HYDROGEOLOGIST: CJF

	<p>DRILLING METHOD <u>HSA</u></p> <p><u>N/A</u></p> <p><u>8" 12"</u> DIAMETER (I.D.) LENGTH</p> <p><u>Approx. 36"</u></p> <p><u>PVC 4"</u> MATERIAL DIAMETER (I.D.)</p> <p><u>bentonite / grout (cement)</u></p> <p><u>75'</u></p> <p><u>Schedule 40 PVC</u></p> <p><u>0.010"</u></p> <p><u>PVC 4"</u></p> <p><u>Moric No. 2 Well Grout</u></p> <p><u>90'</u></p> <p><u>92'</u></p>
<p>UNIFORM END</p> <p>(L1) LENGTH OF RISER <u>75'</u> (L2) LENGTH OF SCREEN <u>15'</u> CASING ELEVATION <u>504.02'</u> STANDPIPE ELEV.: <u>N/A</u> ACTUAL ELEVATIONS - WHERE AVAILABLE</p>	

APPENDIX F
CHAIN OF CUSTODY FORMS



575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

No. 5563 EXTERNAL CHAIN OF CUSTODY

CLIENT:				H2M SDG NO:					
PROJECT NAME/NUMBER				NOTES:					
SAMPLERS: (signature)/Client				Project Contact:					
DELIVERABLES:				Phone Number:					
TURNAROUND TIME:				LAB I.D. NO.					
ANALYSIS REQUESTED				REMARKS:					
ORGANIC				INORG.					
VOA				Metal					
PBB				CN					
PCB									
DATE	TIME	MATRIX	FIELD I.D.	Sample Container Description	Total No. of Containers	ANALYSIS REQUESTED	INORG.	LAB I.D. NO.	REMARKS:
7/10/01	11:00	soil	100-00-001	100-00-001	2	1	1	100-00-001	100-00-001
7/10/01	11:00	soil	100-00-002	100-00-002	2	1	1	100-00-002	100-00-002
7/10/01	11:00	soil	100-00-003	100-00-003	2	1	1	100-00-003	100-00-003
7/10/01	11:00	soil	100-00-004	100-00-004	2	1	1	100-00-004	100-00-004
7/10/01	11:00	soil	100-00-005	100-00-005	2	1	1	100-00-005	100-00-005
7/10/01	11:00	soil	100-00-006	100-00-006	2	1	1	100-00-006	100-00-006
7/10/01	11:00	soil	100-00-007	100-00-007	2	1	1	100-00-007	100-00-007
7/10/01	11:00	soil	100-00-008	100-00-008	2	1	1	100-00-008	100-00-008
7/10/01	11:00	soil	100-00-009	100-00-009	2	1	1	100-00-009	100-00-009
7/10/01	11:00	soil	100-00-010	100-00-010	2	1	1	100-00-010	100-00-010
7/10/01	11:00	soil	100-00-011	100-00-011	2	1	1	100-00-011	100-00-011
7/10/01	11:00	soil	100-00-012	100-00-012	2	1	1	100-00-012	100-00-012
7/10/01	11:00	soil	100-00-013	100-00-013	2	1	1	100-00-013	100-00-013
7/10/01	11:00	soil	100-00-014	100-00-014	2	1	1	100-00-014	100-00-014
7/10/01	11:00	soil	100-00-015	100-00-015	2	1	1	100-00-015	100-00-015
7/10/01	11:00	soil	100-00-016	100-00-016	2	1	1	100-00-016	100-00-016
7/10/01	11:00	soil	100-00-017	100-00-017	2	1	1	100-00-017	100-00-017
7/10/01	11:00	soil	100-00-018	100-00-018	2	1	1	100-00-018	100-00-018
7/10/01	11:00	soil	100-00-019	100-00-019	2	1	1	100-00-019	100-00-019
7/10/01	11:00	soil	100-00-020	100-00-020	2	1	1	100-00-020	100-00-020
7/10/01	11:00	soil	100-00-021	100-00-021	2	1	1	100-00-021	100-00-021
7/10/01	11:00	soil	100-00-022	100-00-022	2	1	1	100-00-022	100-00-022
7/10/01	11:00	soil	100-00-023	100-00-023	2	1	1	100-00-023	100-00-023
7/10/01	11:00	soil	100-00-024	100-00-024	2	1	1	100-00-024	100-00-024
7/10/01	11:00	soil	100-00-025	100-00-025	2	1	1	100-00-025	100-00-025
7/10/01	11:00	soil	100-00-026	100-00-026	2	1	1	100-00-026	100-00-026
7/10/01	11:00	soil	100-00-027	100-00-027	2	1	1	100-00-027	100-00-027
7/10/01	11:00	soil	100-00-028	100-00-028	2	1	1	100-00-028	100-00-028
7/10/01	11:00	soil	100-00-029	100-00-029	2	1	1	100-00-029	100-00-029
7/10/01	11:00	soil	100-00-030	100-00-030	2	1	1	100-00-030	100-00-030
7/10/01	11:00	soil	100-00-031	100-00-031	2	1	1	100-00-031	100-00-031
7/10/01	11:00	soil	100-00-032	100-00-032	2	1	1	100-00-032	100-00-032
7/10/01	11:00	soil	100-00-033	100-00-033	2	1	1	100-00-033	100-00-033
7/10/01	11:00	soil	100-00-034	100-00-034	2	1	1	100-00-034	100-00-034
7/10/01	11:00	soil	100-00-035	100-00-035	2	1	1	100-00-035	100-00-035
7/10/01	11:00	soil	100-00-036	100-00-036	2	1	1	100-00-036	100-00-036
7/10/01	11:00	soil	100-00-037	100-00-037	2	1	1	100-00-037	100-00-037
7/10/01	11:00	soil	100-00-038	100-00-038	2	1	1	100-00-038	100-00-038
7/10/01	11:00	soil	100-00-039	100-00-039	2	1	1	100-00-039	100-00-039
7/10/01	11:00	soil	100-00-040	100-00-040	2	1	1	100-00-040	100-00-040
7/10/01	11:00	soil	100-00-041	100-00-041	2	1	1	100-00-041	100-00-041
7/10/01	11:00	soil	100-00-042	100-00-042	2	1	1	100-00-042	100-00-042
7/10/01	11:00	soil	100-00-043	100-00-043	2	1	1	100-00-043	100-00-043
7/10/01	11:00	soil	100-00-044	100-00-044	2	1	1	100-00-044	100-00-044
7/10/01	11:00	soil	100-00-045	100-00-045	2	1	1	100-00-045	100-00-045
7/10/01	11:00	soil	100-00-046	100-00-046	2	1	1	100-00-046	100-00-046
7/10/01	11:00	soil	100-00-047	100-00-047	2	1	1	100-00-047	100-00-047
7/10/01	11:00	soil	100-00-048	100-00-048	2	1	1	100-00-048	100-00-048
7/10/01	11:00	soil	100-00-049	100-00-049	2	1	1	100-00-049	100-00-049
7/10/01	11:00	soil	100-00-050	100-00-050	2	1	1	100-00-050	100-00-050
7/10/01	11:00	soil	100-00-051	100-00-051	2	1	1	100-00-051	100-00-051
7/10/01	11:00	soil	100-00-052	100-00-052	2	1	1	100-00-052	100-00-052
7/10/01	11:00	soil	100-00-053	100-00-053	2	1	1	100-00-053	100-00-053
7/10/01	11:00	soil	100-00-054	100-00-054	2	1	1	100-00-054	100-00-054
7/10/01	11:00	soil	100-00-055	100-00-055	2	1	1	100-00-055	100-00-055
7/10/01	11:00	soil	100-00-056	100-00-056	2	1	1	100-00-056	100-00-056
7/10/01	11:00	soil	100-00-057	100-00-057	2	1	1	100-00-057	100-00-057
7/10/01	11:00	soil	100-00-058	100-00-058	2	1	1	100-00-058	100-00-058
7/10/01	11:00	soil	100-00-059	100-00-059	2	1	1	100-00-059	100-00-059
7/10/01	11:00	soil	100-00-060	100-00-060	2	1	1	100-00-060	100-00-060
7/10/01	11:00	soil	100-00-061	100-00-061	2	1	1	100-00-061	100-00-061
7/10/01	11:00	soil	100-00-062	100-00-062	2	1	1	100-00-062	100-00-062
7/10/01	11:00	soil	100-00-063	100-00-063	2	1	1	100-00-063	100-00-063
7/10/01	11:00	soil	100-00-064	100-00-064	2	1	1	100-00-064	100-00-064
7/10/01	11:00	soil	100-00-065	100-00-065	2	1	1	100-00-065	100-00-065
7/10/01	11:00	soil	100-00-066	100-00-066	2	1	1	100-00-066	100-00-066
7/10/01	11:00	soil	100-00-067	100-00-067	2	1	1	100-00-067	100-00-067
7/10/01	11:00	soil	100-00-068	100-00-068	2	1	1	100-00-068	100-00-068
7/10/01	11:00	soil	100-00-069	100-00-069	2	1	1	100-00-069	100-00-069
7/10/01	11:00	soil	100-00-070	100-00-070	2	1	1	100-00-070	100-00-070
7/10/01	11:00	soil	100-00-071	100-00-071	2	1	1	100-00-071	100-00-071
7/10/01	11:00	soil	100-00-072	100-00-072	2	1	1	100-00-072	100-00-072
7/10/01	11:00	soil	100-00-073	100-00-073	2	1	1	100-00-073	100-00-073
7/10/01	11:00	soil	100-00-074	100-00-074	2	1	1	100-00-074	100-00-074
7/10/01	11:00	soil	100-00-075	100-00-075	2	1	1	100-00-075	100-00-075
7/10/01	11:00	soil	100-00-076	100-00-076	2	1	1	100-00-076	100-00-076
7/10/01	11:00	soil	100-00-077	100-00-077	2	1	1	100-00-077	100-00-077
7/10/01	11:00	soil	100-00-078	100-00-078	2	1	1	100-00-078	100-00-078
7/10/01	11:00	soil	100-00-079	100-00-079	2	1	1	100-00-079	100-00-079
7/10/01	11:00	soil	100-00-080	100-00-080	2	1	1	100-00-080	100-00-080
7/10/01	11:00	soil	100-00-081	100-00-081	2	1	1	100-00-081	100-00-081
7/10/01	11:00	soil	100-00-082	100-00-082	2	1	1	100-00-082	100-00-082
7/10/01	11:00	soil	100-00-083	100-00-083	2	1	1	100-00-083	100-00-083
7/10/01	11:00	soil	100-00-084	100-00-084	2	1	1	100-00-084	100-00-084
7/10/01	11:00	soil	100-00-085	100-00-085	2	1	1	100-00-085	100-00-085
7/10/01	11:00	soil	100-00-086	100-00-086	2	1	1	100-00-086	100-00-086
7/10/01	11:00	soil	100-00-087	100-00-087	2	1	1	100-00-087	100-00-087
7/10/01	11:00	soil	100-00-088	100-00-088	2	1	1	100-00-088	100-00-088
7/10/01	11:00	soil	100-00-089	100-00-089	2	1	1	100-00-089	100-00-089
7/10/01	11:00	soil	100-00-090	100-00-090	2	1	1	100-00-090	100-00-090
7/10/01	11:00	soil	100-00-091	100-00-091	2	1	1	100-00-091	100-00-091
7/10/01	11:00	soil	100-00-092	100-00-092	2	1	1	100-00-092	100-00-092
7/10/01	11:00	soil	100-00-093	100-00-093	2	1	1	100-00-093	100-00-093
7/10/01	11:00	soil	100-00-094	100-00-094	2	1	1	100-00-094	100-00-094
7/10/01	11:00	soil	100-00-095	100-00-095	2	1	1	100-00-095	100-00-095
7/10/01	11:00	soil	100-00-096	100-00-096	2	1	1	100-00-096	100-00-096
7/10/01	11:00	soil	100-00-097	100-00-097	2	1	1	100-00-097	100-00-097
7/10/01	11:00	soil	100-00-098	100-00-098	2	1	1	100-00-098	100-00-098
7/10/01	11:00	soil	100-00-099	100-00-099	2	1	1	100-00-099	100-00-099
7/10/01	11:00	soil	100-00-100	100-00-100	2	1	1	100-00-100	100-00-100

LABORATORY USE ONLY	
Discrepancies Between Sample Labels and COC Record? Y or N	Explain:
1. Shipped ___ or Hand Delivered ___ Airbill#	
2. Ambient or chilled	
3. Received in good condition: Y or N	
4. Properly preserved: Y or N	
5. Samples returned to lab ___ Hrs from collection.	
COC Tape was:	
1. Present on outer package: Y or N	
2. Unbroken on outer package: Y or N	
3. COC record present & complete upon sample receipt: Y or N	



No. 5748

H2M SDG NO.:

CLIENT:

PROJECT NAME/NUMBER

NAME/NUMBER	POWELL 10112
	Combined investigation and reinvestigation (CON and)

SAMPI FRS: (signature)/Client

 (signature)/Client

DELIVERABLES:

TURNAROUND TIME:

[illegible]

Relinquished by: (Signature)

Date	Time
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Received by: (Signature)

Date	Time
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LABOR

LABORATORY USE ONLY

Relinquished by: (Signature)

Date	Time
------	------

Received by: (Signature)

Date	Time
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Discrepancies Between Sample Labels and

Between and	Samples were: 1. Shipped _____ or Hand 2. Ambient or chilled
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Relinquished by: (Signature)

Date	Time
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Received by: (Signature)

Date	Time
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COC Record? Y or N
Explain:

Y or N	3. Received in good condition	4. Properly preserved	5. Samples returned to donor

Relinquished by: (Signature)

Date	Time
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Received by: (Signature)

Date	Time
------	------

1. Present on outer pack

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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1000

[illegible][illegible]

Y or N	
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No. 5762 **EXTERNAL CHAIN OF CUSTODY**

Tel: (516) 694-3040 Fax: (516) 420-8436

CORN 9501

15

1577 East 15th St
Anchorage, Alaska 99503

TURNAROUND TIME:

Relinquished by: (Signature)	Date	Time	Received by: (Sig)
Relinquished by: (Signature)	Date	Time	Received by: (Sig)
Relinquished by: (Signature)	Date	Time	Received by: (Sig)
Relinquished by: (Signature)	Date	Time	Received by: (Sig)

LABORATORY USE ONLY			
Signature) _____	Date	Time	Discrepancies Between Sample Labels and COC Record? Y or N
			Explain:

Samples were:			
1. Shipped _____ or Hand Delivered _____ Airbill# _____			
2. Ambient or chilled			
3. Received in good condition: Y or N			
4. Properly preserved: Y or N			
5. Samples returned to lab _____ Hrs from collection.			
COC Tape was:			
1. Present on outer package: Y or N			
2. Unbroken on outer package: Y or N			
3. COC record present & complete upon sample receipt: Y or N			
Signature) _____	Date	Time	_____

Signature) _____	Date	Time	_____

Signature) _____	Date	Time	_____

Signature) _____	Date	Time	_____

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Signature) _____	Date	Time	_____

Signature) _____	Date		

No. 5328 **EXTERNAL CHAIN OF CUSTODY**

Tel: (516) 694-3040 Fax: (516) 420-8436

DISK COPY - LABORATORY

APPENDIX G
GROUNDWATER SAMPLING RECORD SHEETS

GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LHAEC* DATE: *7/17/12* TIME: *3:35 pm*

JOB#: *CORN 9501* SAMPLERS: *CJT/RWW*

SAMPLE LOCATION: *MW-1* MEASURING PT: *h of river*

DEPTH TO WATER: *79.6* FT. WELL DEPTH: *92* FT.

STATIC WATER LEVEL: *12.4* FT. STATIC VOLUME: *8.09* GALS.

MIN. VOLUME TO BE REMOVED: *24.27* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *5.0* GPM +/- GALS. PER LINEAR FT.

TIME PUMPED: *20* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *100* GALS. 4 INCH x .653 *X*

SAMPLING ANALYSIS: *TCL performed by Method 8081*

P/D Air Monitoring results: At/ near background concentrations.

FIELD PARAMETERS:

TEMP: *18.1/13.7/13.2/13.6* °C

CONDUCTIVITY: *233/283/281/281* US

pH: *NM*

TURBIDITY: *—* NTU

NOTES: *Silt-free after 5.0 gallons removed.*

start pump: 3:10 pm

end pump: 3:30 pm

SIGNATURE: *[Signature]* / *CJT*

H2M GROUP

ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LHH Rec*

DATE: *7/17/02* TIME: *2:20 pm*

JOB#: *CORN 9501*

SAMPLERS: *CJT/KWW*

SAMPLE LOCATION: *MW-2*

MEASURING PT: *top of river*

DEPTH TO WATER: *79.7* FT.

WELL DEPTH: *92* FT.

STATIC WATER LEVEL: *12.3* FT.

STATIC VOLUME: *8.03* GALS.

MIN. VOLUME TO BE REMOVED: *24.10* GALS.

EVACUATION TECHNIQUE:

SUBM. PUMP



CENT. PUMP



BLADDER PUMP



BAILER



DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *5.0*

GPM +/-

GALS. PER LINEAR FT.

TIME PUMPED: *20*

MINS.

2 INCH x .163

TOTAL VOLUME PURGED: *100* GALS.

4 INCH x .653x

SAMPLING ANALYSIS: *TCL pesticides by Method 8081.*

P10 Air Monitoring results: At/near Lockwood concentrations.

FIELD PARAMETERS:

TEMP: *18.4/15.7/14.6/12.9/12* °C

CONDUCTIVITY: *180.6/240/263/264* us

pH: *NM*

TURBIDITY: *—* NTU

NOTES: *Silt-free after approx. 5.0 gallons removed.*

start pump: 1:55 pm

end pump: 2:15 pm

SIGNATURE: *[Signature]* / *CJT*

H2M GROUP

ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LIAREC* DATE: *7/17/12* TIME: *MW-3*

JOB#: *CORN 9501* SAMPLERS: *CTE/KWW*

SAMPLE LOCATION: *MW-3* MEASURING PT: *Top of river*

DEPTH TO WATER: *73.3* FT. WELL DEPTH: *92* FT.

STATIC WATER LEVEL: *18.7* FT. STATIC VOLUME: *12.21* GALS.

MIN. VOLUME TO BE REMOVED: *36.63* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *Approx. 10* GPM GALS. PER LINEAR FT. *N/A*

TIME PUMPED: *12* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *Approx. 120* GALS. 4 INCH x .653 *X*

SAMPLING ANALYSIS: *TCL pesticides by Method 8081.*

PID Air Monitoring results: At/near background concentrations.

FIELD PARAMETERS:

TEMP: *25/25/25* °C

CONDUCTIVITY: *267/237/249* us

pH: *NM*

TURBIDITY: *—* NTU

NOTES: *Silt-free after approx. 5 gallons removed.*

Pump start: 11:58 am

Pump end: 12:10 pm

SIGNATURE: *[Signature]*

H2M GROUP

ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LINKEC* DATE: *7/17/02* TIME: *1:23 pm*

JOB#: *CORN 9501* SAMPLERS: *CJF / RWW*

SAMPLE LOCATION: *MW-4* MEASURING PT: *Top of riser*

DEPTH TO WATER: *79.25* FT. WELL DEPTH: *92* FT.

STATIC WATER LEVEL: *12.75* FT. STATIC VOLUME: *8.33* GALS.

MIN. VOLUME TO BE REMOVED: *24.98* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *10.0 (approx.)* GPM GALS. PER LINEAR FT. *N/A*

TIME PUMPED: *9* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *90* GALS. +/- 4 INCH x .653 *X*

SAMPLING ANALYSIS: *TCL pesticides by Method 8081.*

PID Air Monitoring results: At or near background concentration throughout monitoring period.

FIELD PARAMETERS:

TEMP: *25/25/25* °C

CONDUCTIVITY: *1124/123/215* US

pH: *NM*

TURBIDITY: *—* NTU

NOTES: *Silt-free after approx. 5 gallons removed.*

Start pump: 1:05 pm

end pump: 1:14 pm

SIGNATURE: *[Signature]* / CJF

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GROUNDWATER SAMPLING RECORD SHEET

 SITE: *Cornell LIHREC*

 DATE: *7/17/02*

 TIME: *3:15pm*

 JOB#: *CORN 9501*

 SAMPLERS: *CSE/RWW*

 SAMPLE LOCATION: *Irrigation Well S-73265*

 MEASURING PT: *top of riser*

 DEPTH TO WATER: *Not accessible* FT.

 WELL DEPTH: *154* FT.

 STATIC WATER LEVEL: *—* FT.

 STATIC VOLUME: *—* GALS.

 MIN. VOLUME TO BE REMOVED: *—* GALS.

EVACUATION TECHNIQUE:

SUBM. PUMP

CENT. PUMP

☐

BLADDER PUMP

☐

BAILER

☐

DEPTH TO PUMP INTAKE: FT.

FLOW RATE:

GPM

GALS. PER LINEAR FT.

TIME PUMPED:

MINS.

2 INCH x .163

TOTAL VOLUME PURGED:

GALS.

4 INCH x .653

SAMPLING ANALYSIS:

TCL pesticides by Method 8081.

FIELD PARAMETERS:

TEMP:

°C

CONDUCTIVITY:

us

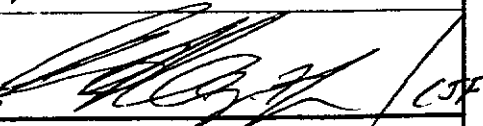
pH:

TURBIDITY:

NTU

 NOTES: *Linerhoff turbine pump. Well head not accessible.*
Sample collected utilizing sample collection valve on
pump. Pump in use at time of sample collection.

SIGNATURE:


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GROUNDWATER SAMPLING RECORD SHEET

SITE: Cornell LHAEC DATE: 10/17/02 TIME: 12:00 pm

JOB#: CORN 9501 SAMPLERS: CTF/RWW

SAMPLE LOCATION: MW-1 MEASURING PT: Top of river

DEPTH TO WATER: 79.93' (min) FT. WELL DEPTH: 94.3 FT.

STATIC WATER LEVEL: 14.37 FT. STATIC VOLUME: 9.38 GALS.

MIN. VOLUME TO BE REMOVED: 28.15 GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: N/A FT.

FLOW RATE: 10 GPM +/- GALS. PER LINEAR FT. —

TIME PUMPED: 6 MINS. 2 INCH x .163

TOTAL VOLUME PURGED: 60 GALS. +/- 4 INCH x .653 X

SAMPLING ANALYSIS: TLL performed by SW-846 Method
8001

FIELD PARAMETERS:

TEMP: 12.7 °C CONDUCTIVITY: 270 us

pH: 6.7 S.V. TURBIDITY: — NTU

NOTES: H₂O = 79.93' after pumps

NKDEC collected split sample.

SIGNATURE:  CTF

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GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LIHREC* DATE: *10/15/02* TIME: *11:35 AM*

JOB#: *CORN 9501* SAMPLERS: *CTF/RWW*

SAMPLE LOCATION: *MW-2* MEASURING PT: *Top of riser*

DEPTH TO WATER: *80.02 (ppt)* FT. WELL DEPTH: *93.38* FT.

STATIC WATER LEVEL: *13.36* FT. STATIC VOLUME: *8.72* GALS.

MIN. VOLUME TO BE REMOVED: *40.08* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *1.0* GPM +/- GALS. PER LINEAR FT. -

TIME PUMPED: *5* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *50* GALS. 4 INCH x .653 x

SAMPLING ANALYSIS: *TCL performed by SW-846,*
Method 8081

FIELD PARAMETERS:

PID: *at/ncr* TEMP: *11.9* °C CONDUCTIVITY: *260* us

background pH: *6.15* TURBIDITY: *-* NTU

NOTES: *Stw = 79.67' after pumping. J. Archer*
of NYSDEC wants collect split-sample.

SIGNATURE: *[Signature]* /CTF

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GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LIHREC* DATE: *10/15/12* TIME: *9:25 am*

JOB#: *CORN 9501* SAMPLERS: *CTF / RNN*

SAMPLE LOCATION: *MW-3* MEASURING PT: *Top of riser*

DEPTH TO WATER: *73.49 (pin)* FT. WELL DEPTH: *92.69* FT.

STATIC WATER LEVEL: *19.2* FT. STATIC VOLUME: *12.53* GALS.

MIN. VOLUME TO BE REMOVED: *37.6* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *10 +/-* GPM GALS. PER LINEAR FT. *N/A*

TIME PUMPED: *8* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *80* GALS. 4 INCH x .653 x

SAMPLING ANALYSIS: *TCL performed by SW-846,*
Method 8081

FIELD PARAMETERS:

P10/After near TEMP: *11.5* °C CONDUCTIVITY: *305* us

background. pH: *6.15* s.v. TURBIDITY: *—* NTU

NOTES: *MS/MSD collected at this well.*

NYDEC on site to collect split-sample

Stw = 73.49' after pumping

SIGNATURE: *[Signature]* *CTF*

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GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LIHREC* DATE: *10/10/12* TIME: *10:45am*

JOB#: *CORN 9501* SAMPLERS: *CF/PWW*

SAMPLE LOCATION: *MW-4* MEASURING PT: *Top of river*

DEPTH TO WATER: *79.68 (pie)* FT. WELL DEPTH: *94.73* FT.

STATIC WATER LEVEL: *15.05* FT. STATIC VOLUME: *9.82* GALS.

MIN. VOLUME TO BE REMOVED: *29.48* GALS.

EVACUATION TECHNIQUE: SUBM. PUMP ☒ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *N/A* FT.

FLOW RATE: *10.0 ± 1* GPM GALS. PER LINEAR FT. *-*

TIME PUMPED: *5* MINS. 2 INCH x .163

TOTAL VOLUME PURGED: *50* GALS. 4 INCH x .653 x

SAMPLING ANALYSIS: *TCL Perchloride by SW-846*
Method 8081

FIELD PARAMETERS:

At monitoring: TEMP: *11.7* °C CONDUCTIVITY: *174* us

PID = at/water by pH: *5.93* s.u. TURBIDITY: *-* NTU

NOTES: *NYSDEC collected split sample.*

Stw = 79.67' after pumping

SIGNATURE: *[Signature]*

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GROUNDWATER SAMPLING RECORD SHEET

SITE: *Cornell LINDREC* DATE: *10/2/02* TIME: *10:25 am*

JOB#: *CORN 9501* SAMPLERS: *CTF*

SAMPLE LOCATION: *Irrigation Well S-7265* MEASURING PT: *N/A*

DEPTH TO WATER: *N/A* FT. WELL DEPTH: *154* FT. \pm

STATIC WATER LEVEL: *—* FT. STATIC VOLUME: *—* GALS.

MIN. VOLUME TO BE REMOVED: *—* GALS.

EVACUATION TECHNIQUE: *—* SUBM. PUMP ☐ CENT. PUMP ☐

BLADDER PUMP ☐ BAILER ☐

DEPTH TO PUMP INTAKE: *—* FT.

FLOW RATE: *—* GPM GALS. PER LINEAR FT.

TIME PUMPED: *30* MINS. \pm 2 INCH x .163

TOTAL VOLUME PURGED: *—* GALS. 4 INCH x .653

SAMPLING ANALYSIS: *TCL Perchlor by SW-846, Method 9001*

FIELD PARAMETERS:

TEMP: *NM* °C CONDUCTIVITY: *NM* us

pH: *NM* TURBIDITY: *NM* NTU

NOTES: *Line shaft turbine pump. Wellhead not accessible. Well out of service at time of 10/15/02 site visit to collect MW-1 through MW-4 samples. As per NYDEC F-blanks and H2O not required at this well.*

SIGNATURE: *[Signature]* *CTF*

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APPENDIX H
GROUNDWATER DATA SUMMARY SHEETS

IE
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: CORN

SAS No.: _____

SDG No.: CORN001

Matrix: (soil/water) WATER

Lab Sample ID: 0207555-002A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A17187.RAW

% Moisture: _____ Decanted: (Y/N) N

Date Received: 07/17/02

Extraction: (Type) CONT

Date Extracted: 07/18/02

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 07/20/02

Injection Volume: 0.5 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM04.2

CORN001 S18

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: CORN SAS No.: _____ SDG No.: CORN001

Matrix: (soil/water) WATER Lab Sample ID: 0207555-003A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A17188.RAW

% Moisture: _____ Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) CONT Date Extracted: 07/18/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/20/02

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.08	PJ
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM04.2

CORN001 S19

IE
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: CORN

SAS No.: _____

SDG No.: CORN001

Matrix: (soil/water) WATER

Lab Sample ID: 0207555-004A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A17189 RAW

% Moisture: _____ Decanted: (Y/N) N

Date Received: 07/17/02

Extraction: (Type) CONT

Date Extracted: 07/18/02

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 07/20/02

Injection Volume: 0.5 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS. (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.050	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.08	J
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	J
72-43-5	Methoxychlor	0.39	
53494-70-5	Endrin ketone	0.50	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.10	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	0.050	U
		5.0	U

IE
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: CORN SAS No.: _____ SDG No.: CORN001

Matrix: (soil/water) WATER Lab Sample ID: 0207555-005A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A17192.RAW

% Moisture: _____ Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) CONT Date Extracted: 07/18/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/20/02

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.11	
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM04.2

CORN001 S21

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
IRRIGATION WELL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: CORN SAS No.: _____ SDG No.: CORN001

Matrix: (soil/water) WATER Lab Sample ID: 0207555-001A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A17186 RAW

% Moisture: _____ Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) CONT Date Extracted: 07/18/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/20/02

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.49	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: CORN SAS No.: _____ SDG No.: CORN002

Matrix: (soil/water) WATER Lab Sample ID: 0210504-001A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: H17141.RAW

% Moisture: _____ Decanted: (Y/N) N Date Received: 10/16/02

Extraction: (Type) CONT Date Extracted: 10/17/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/02

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND		CONCENTRATION UNITS:	
		(µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM04.2

CORN002 S15

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: CORN SAS No.: _____ SDG No.: CORN002

Matrix: (soil/water) WATER Lab Sample ID: 0210504-002A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: H17142 RAW

% Moisture: _____ Decanted: (Y/N) N Date Received: 10/16/02

Extraction: (Type) CONT Date Extracted: 10/17/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/02

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND		CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L		Q
319-84-6	alpha-BHC	0.050		U
319-85-7	beta-BHC	0.050		U
319-86-8	delta-BHC	0.050		U
58-89-9	gamma-BHC	0.050		U
76-44-8	Heptachlor	0.050		U
309-00-2	Aldrin	0.050		U
1024-57-3	Heptachlor epoxide	0.050		U
959-98-8	Endosulfan I	0.050		U
60-57-1	Dieldrin	0.10		U
72-55-9	4,4'-DDE	0.10		U
72-20-8	Endrin	0.10		U
33213-65-9	Endosulfan II	0.10		U
72-54-8	4,4'-DDD	0.10		U
1031-07-8	Endosulfan sulfate	0.10		U
50-29-3	4,4'-DDT	0.06		J
72-43-5	Methoxychlor	0.50		U
53494-70-5	Endrin ketone	0.10		U
7421-93-4	Endrin aldehyde	0.10		U
5103-71-9	alpha-chlordane	0.050		U
5103-74-2	gamma-Chlordane	0.050		U
8001-35-2	Toxaphene	5.0		U

FORM I PEST

OLM04.2

CORN002 S16

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: CORN

SAS No.: _____

SDG No.: CORN002

Matrix: (soil/water) WATER

Lab Sample ID: 0210504-003A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: H17143.RAW

% Moisture:

Decanted: (Y/N) N

Date Received: 10/16/02

Extraction: (Type)

CONT

Date Extracted: 10/17/02

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 0.5 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) <u>UG/L</u>	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.06	J
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.30	P
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM04.2

CORN002 S17

IE
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: CORN

SAS No.: _____

SDG No.: CORN002

Matrix: (soil/water) WATER

Lab Sample ID: 0210504-004A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: H17146.RAW

% Moisture: _____ Decanted: (Y/N) N

Date Received: 10/16/02

Extraction: (Type) CONT

Date Extracted: 10/17/02

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 0.5 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND		CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L		Q
319-84-6	alpha-BHC	0.050		U
319-85-7	beta-BHC	0.050		U
319-86-8	delta-BHC	0.050		U
58-89-9	gamma-BHC	0.050		U
76-44-8	Heptachlor	0.050		U
309-00-2	Aldrin	0.050		U
1024-57-3	Heptachlor epoxide	0.050		U
959-98-8	Endosulfan I	0.050		U
60-57-1	Dieldrin	0.10		U
72-55-9	4,4'-DDE	0.10		U
72-20-8	Endrin	0.10		U
33213-65-9	Endosulfan II	0.10		U
72-54-8	4,4'-DDD	0.10		U
1031-07-8	Endosulfan sulfate	0.11		
50-29-3	4,4'-DDT	0.10		U
72-43-5	Methoxychlor	0.50		U
53494-70-5	Endrin ketone	0.10		U
7421-93-4	Endrin aldehyde	0.10		U
5103-71-9	alpha-chlordane	0.050		U
5103-74-2	gamma-Chlordane	0.050		U
3001-35-2	Toxaphene	5.0		U

FORM I PEST

OLM04.2

CORN002 S18

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IRRWELL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: CORN

SAS No.: _____

SDG No.: CORN003

Matrix: (soil/water) WATER

Lab Sample ID: 0210928-001A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: H17932.RAW

% Moisture: _____ Decanted: (Y/N) N

Date Received: 10/29/02

Extraction: (Type) CONT

Date Extracted: 11/05/02

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 11/14/02

Injection Volume: 0.5 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.07	J
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.92	
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

APPENDIX I
END-POINT SOIL SAMPLE LAB REPORTS

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : 0207208-001A

Sample Information...

Type : Soil

Origin:

Client ID. : OVERFLOW DRYWELL

Collected 7/8/02 11:30:00 AM

EXCAVATION BASE ENDPOINT SAMPLE

Received 7/8/02 5:51:00 PM

Collected By : CJF03

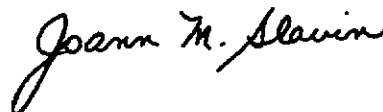
Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
beta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
delta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
gamma-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Heptachlor	380	µg/Kg-dry	SW8081	7/12/02 12:05:00 PM
Aldrin	9.8	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Heptachlor epoxide	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Endosulfan I	85000	µg/Kg-dry	SW8081	7/12/02 1:53:00 PM
Dieldrin	18	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
4,4'-DDE	280	µg/Kg-dry	SW8081	7/12/02 12:05:00 PM
Endrin	< 3.3	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Endosulfan II	37000	µg/Kg-dry	SW8081	7/12/02 1:53:00 PM
4,4'-DDD	< 3.3	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Endosulfan sulfate	700	µg/Kg-dry	SW8081	7/12/02 12:05:00 PM
4,4'-DDT	8.0	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Methoxychlor	100	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Endrin ketone	4.8	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Endrin aldehyde	10	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
alpha-Chlordane	< 1.7	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
gamma-Chlordane	1100	µg/Kg-dry	SW8081	7/12/02 12:05:00 PM
Toxaphene	< 170	µg/Kg-dry	SW8081	7/11/02 7:31:00 PM
Percent Moisture	1.3	wt%	D2216	7/10/02 7:00:00 AM
Total Organic Carbon	153	mg/Kg-dry	LLOYD KAHN	7/17/02 10:47:00 AM

Qualifiers: E - Value above quantitation range

D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : 0207208-002A

Sample Information...
Type : Soil

Origin:

Client ID. : OVERFLOW DRYWELL

Collected 7/8/02 1:30:00 PM

EXCAVATION BASE ENDPOINT SAMPLE

Received 7/8/02 5:51:00 PM

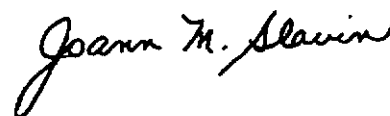
Collected By : CJF03

Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
beta-BHC	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
delta-BHC	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
gamma-BHC	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Heptachlor	26	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Aldrin	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Heptachlor epoxide	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endosulfan I	30000	µg/Kg-dry	SW8081	7/12/02 3:41:00 PM
Dieldrin	3.7	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
4,4'-DDE	96	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endrin	4.1	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endosulfan II	15000	µg/Kg-dry	SW8081	7/12/02 3:41:00 PM
4,4'-DDD	< 3.4	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endosulfan sulfate	97	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
4,4'-DDT	4.7	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Methoxychlor	18	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endrin ketone	< 3.4	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Endrin aldehyde	< 3.4	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
alpha-Chlordane	< 1.8	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
gamma-Chlordane	20	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Toxaphene	< 180	µg/Kg-dry	SW8081	7/11/02 8:43:00 PM
Percent Moisture	3.5	wt%	D2216	7/10/02 7:10:00 AM
Total Organic Carbon	224	mg/Kg-dry	LLOYD KAHN	7/17/02 10:51:00 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : 0207208-003A

Sample Information...
Type : Soil

Origin:

Client ID. : OVERFLOW DRYWELL

Collected 7/8/02 3:30:00 PM

SIDEWELL ENDPOINT SAMPLE (EAST)

Received 7/8/02 5:51:00 PM

Collected By : CJF03

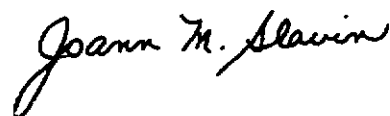
Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
beta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
delta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
gamma-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Heptachlor	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Aldrin	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Heptachlor epoxide	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endosulfan I	34	µg/Kg-dry	SW8081	7/15/02 12:03:00 PM
Dieldrin	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
4,4'-DDE	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endrin	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endosulfan II	30	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
4,4'-DDD	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endosulfan sulfate	6.3	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
4,4'-DDT	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Methoxychlor	< 17	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endrin ketone	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Endrin aldehyde	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
alpha-Chlordane	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
gamma-Chlordane	4.0	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Toxaphene	< 170	µg/Kg-dry	SW8081	7/11/02 5:07:00 PM
Percent Moisture	1.6	wt%	D2216	7/10/02 7:15:00 AM
Total Organic Carbon	112	mg/Kg-dry	LLOYD KAHN	7/17/02 10:58:00 AM

Qualifiers: E - Value above quantitation range

D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville, NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : **0207208-004A**

Sample Information...
Type : Soil

Origin:

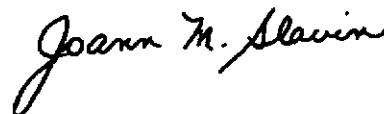
Client ID. : **OVERFLOW DRYWELL**
SIDEWELL ENDPOINT SAMPLE (WEST)

Collected 7/8/02 3:30:00 PM
Received 7/8/02 5:51:00 PM
Collected By : CJF03
Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
beta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
delta-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
gamma-BHC	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Heptachlor	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Aldrin	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Heptachlor epoxide	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endosulfan I	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Dieldrin	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
4,4'-DDE	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endrin	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endosulfan II	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
4,4'-DDD	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endosulfan sulfate	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
4,4'-DDT	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Methoxychlor	< 17	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endrin ketone	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Endrin aldehyde	< 3.4	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
alpha-Chlordane	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
gamma-Chlordane	< 1.7	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Toxaphene	< 170	µg/Kg-dry	SW8081	7/11/02 5:43:00 PM
Percent Moisture	1.7	wt%	D2216	7/10/02 7:20:00 AM
Total Organic Carbon	159	mg/Kg-dry	LLOYD KAHN	7/17/02 11:02:00 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : 0207258-002A

Sample Information...
Type : Soil

Origin:

Client ID. : ROCK DRAIN EXCAVATION EAST

Collected 7/9/02 2:00:00 PM

Received 7/9/02 5:00:00 PM

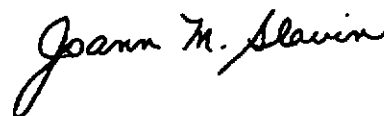
Collected By : CJF03

Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
beta-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
delta-BHC	5.2	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
gamma-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Heptachlor	2.2	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Aldrin	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Heptachlor epoxide	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endosulfan I	63	µg/Kg-dry	SW8081	7/15/02 8:33:00 PM
Dieldrin	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
4,4'-DDE	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endrin	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endosulfan II	35	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
4,4'-DDD	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endosulfan sulfate	15	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
4,4'-DDT	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Methoxychlor	< 18	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endrin ketone	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Endrin aldehyde	< 3.4	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
alpha-Chlordane	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
gamma-Chlordane	< 1.8	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Toxaphene	< 180	µg/Kg-dry	SW8081	7/15/02 7:57:00 PM
Percent Moisture	3.1	wt%	D2216	7/10/02 7:25:00 AM
Total Organic Carbon	103	mg/Kg-dry	LLOYD KAHN	7/17/02 11:04:00 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

Cornell L.I. H.R.L.
39 Sound Ave.
Riverhead, NY 11901
Attn To :

Lab No. : 0207258-003A

Sample Information...

Type : Soil

Origin:

Client ID. : ROCK DRAIN EXCAVATION WEST

Collected 7/9/02 2:05:00 PM

Received 7/9/02 5:00:00 PM

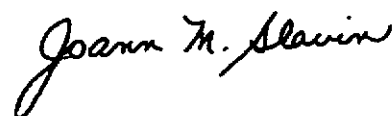
Collected By : CJF03

Copies To : CJF

Parameter(s)	Results	Units	Method Number	Analyzed
alpha-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
beta-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
delta-BHC	2.2	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
gamma-BHC	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Heptachlor	2.2	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Aldrin	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Heptachlor epoxide	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endosulfan I	16	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Dieldrin	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
4,4'-DDE	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endrin	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endosulfan II	9.3	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
4,4'-DDD	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endosulfan sulfate	3.6	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
4,4'-DDT	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Methoxychlor	< 18	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endrin ketone	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Endrin aldehyde	< 3.4	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
alpha-Chlordane	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
gamma-Chlordane	< 1.8	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Toxaphene	< 180	µg/Kg-dry	SW8081	7/15/02 9:09:00 PM
Percent Moisture	3.8	wt%	D2216	7/10/02 7:30:00 AM
Total Organic Carbon	188	mg/Kg-dry	LLOYD KAHN	7/17/02 11:06:00 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

Date Reported : 7/19/02



Laboratory Manager

APPENDIX J
WASTE DISPOSAL DOCUMENTATION

Please print or type.

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Number	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Cornell University LI+REC 3051 SOUND AVENUE RIVERHEAD, N.Y.		NYD 00077799		A. State Manifest Document Number MI 8253685		
4. Generator's Phone (631) 727 3545		6. US EPA ID Number		B. State Generator's ID UPW-0345921-0H		
5. Transporter 1 Company Name ALL STATE POWER VAC		7. US EPA ID Number VW034512124		C. State Transporter's ID H10576		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 732 850 0000		
9. Designated Facility Name and Site Address Wayne Disposal (EOT) Inc Site # 2 LEWIS 41350 N. I 94 Service Dr. Bellaire MI 48111		10. US EPA ID Number MID04600633		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 1800 592-5489		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X RO HAZARDOUS WASTE SOLID ID NOS 4, NA 3077 ENDOSULFAN I & II		001	CM	15.690	T	N4C5
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above Approval # 071902 WAB BOX 122-75						K. Handling Codes a. b. c. d.
15. Special Handling Instructions and Additional Information 24 Hour Emergency # 800 967 3478						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Michael Flynn AS Agent to Generator		Signature [Signature]		Date Month Day Year 07/15/02		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Date Month Day Year 07/15/02		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature [Signature]		Date Month Day Year 07/15/02		
19. Discrepancy Indication Space ok to change 130 pm Steve Sidera Allied 7/31/02 4:44pm						
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.		Signature [Signature]		Date Month Day Year 07/31/02		

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-252-4705 OR OUT OF STATE AT 517-373-7860 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITYDO NOT WRITE IN THIS SPACE
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Serials 325,111 to 325,116 incl.

Form Approved UMB No. 2050-0039

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N40 005747949		Manifest Document No. 33681		2. Page 1 of		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address CORNELL UNIVERSITY, L.I. H.R.E.C. 3059 SOUND AVENUE, RIVERHEAD, NY 11901						A. State Manifest Document Number MI 8253681				
4. Generator's Phone 631 727-3593						B. State Generator's ID UPW-0345921-04				
5. Transporter 1 Company Name ALL STATE POWER VAC						C. State Transporter's ID				
7. Transporter 2 Company Name						D. Transporter's Phone 732-875-0225				
8. US EPA ID Number						E. State Transporter's ID				
9. Designated Facility Name and Site Address WAYNE DISPOSAL (EQ) S.A. # 26-111 49350 B-I 94 SERVICE DR. SELLEVILLE, NY 48111						F. Transporter's Phone				
10. US EPA ID Number MI0 048070633						G. State Facility's ID				
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER) HM						12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
EQ HAZARDOUS WASTE SOLID H.O.S. 9, NA 3077 ENDOSULFAN I & II						001 (M)		207.	T	NHCS
J. Additional Descriptions for Materials Listed Above APPROVAL 071902 WAB Box # 92-20						K. Handling Codes a. b. c. d.				
16. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # 800-969-3478										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Michael Flynn, Administrator						Signature <i>[Signature]</i>		Date Month Day Year 07/25/02		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name DANIEL LEANIER						Signature <i>[Signature]</i>		Date Month Day Year 07/25/02		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name						Signature		Date Month Day Year		
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name Doni Be...										
Signature <i>[Signature]</i>						Date Month Day Year 07/25/02				

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-252-4706 OR OUT OF STATE AT 517-373-7060 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-6802 24 HOURS PER DAY.

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TRANSPORTER

FACILITY



WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Required under authority of Part 111 and
Part 121 of Act 311, 1994, as amended.

Failure to file may subject you to
criminal and/or civil penalties under
Sections 324.11151 or 324.12118 MCL.

Please print or type.

Form Approved: OMB No. 2050-0035

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N40 000 747799		Manifest Receipt No. 15222		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address CORNELL UNIVERSITY, I.I. H.B.Y.C. 3059 SOUND AVENUE, RIVERHEAD, NY 11901						A. State Manifest Document Number MI 8253682							
4. Generator's Phone: 631 727-3395						B. State Generator's ID							
5. Transporter 1 Company Name A.I.L. STATE POWER VAC						C. State Transporter's ID 10296							
6. US EPA ID Number 16140345921011						D. Transporter's Phone 733 81-0220							
7. Transporter 2 Company Name						E. State Transporter's ID							
8. US EPA ID Number						F. Transporter's Phone							
9. Designated Facility Name and Site Address WAYNE DISPOSAL (EQ) 49350 N-1 94 SERVICE DR. BELLEVILLE, MI 48111						G. State Facility's ID							
10. US EPA ID Number 1410 048 090 633						H. Facility's Phone 800-552-5459							
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER) a. X 19 HAZARDOUS WASTE SOLID W.O.S. 9, RA 3077 ENDOSULFAN I & II						12. Containers No. Type 001 CM 18		13. Total Quantity 18		14. Unit T		15. Waste No. NHCS	
J. Additional Descriptions for Materials Listed Above APPROVAL 071902 NAB Box # 120-20 TA. 115 T Y2						K. Handling Codes a. b. c. d.							
15. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # 800-969-3478													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name Michael Flynn As Agent for Generator						Signature <i>[Signature]</i>		Date 07/23/92					
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>[Signature]</i>		Date 07/28/92					
Printed/Typed Name Kenneth Onyiah						Signature <i>[Signature]</i>		Date 07/28/92					
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature		Date					
Printed/Typed Name						Signature		Date					
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Signature <i>[Signature]</i>		Date 08/01/92					
Printed/Typed Name D. Decker						Signature <i>[Signature]</i>		Date 08/01/92					

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-6342 24 HOURS PER DAY.



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Required under authority of Part 111 and
Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to
criminal and/or civil penalties under
Sections 324.11161 or 324.12116 MCL

Form Approved UMB No. 2050-0039

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A 000 747799		Manifest Document No. 53673		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address CORWELL UNIVERSITY, L.I. H.R.E.C. 3059 SOUND AVENUE, RIVERHEAD, NY 11901						A. State Manifest Document Number MI 8253683					
4. Generator's Phone: 631 727-3595						B. State Generator ID UPW-0345921-0H					
5. Transporter 1 Company Name ALL STATE POWER VAC						C. State Transporter's ID 0366					
7. Transporter 2 Company Name						D. Transporter's Phone 732-815-0210					
8. US EPA ID Number						E. State Transporter ID [200] 016899					
9. Designated Facility Name and Site Address WAYNE DISPOSAL (EQ) 49350 M-I 94 SERVICE DR. BELLEVILLE, MI 48111						F. Transporter's Phone					
10. US EPA ID Number MID 048090633						G. State Facility's ID					
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER) HM a. X EQ HAZARDOUS WASTE SOLID M.O.S. 9, NA 3077 ENDOSULFAN I & II						12. Containers No. Type XX1(M		13. Total Quantity 18		14. Unit TNHCS	
J. Additional Descriptions for Materials Listed Above APPROVAL 071902 WAS Box # 111-20						K. Handling Codes a. b. c. d.					
15. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # 800-969-3478											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name Michael Flynn AS Agent for Cornwell						Signature [Signature]		Date Month Day Year 072702			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name OLANOMIR MARKOWSKI						Signature [Signature]		Date Month Day Year 072702			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name						Signature		Date Month Day Year			
19. Discrepancy Indication Space											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Anna Marie Fallon						Signature Anna Marie Fallon		Date Month Day Year 072502			

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-490-4706 OR OUT OF STATE AT 817-377-7860 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.



WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Required under authority of Part 111 and
Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to
criminal and/or civil penalties under
Sections 324.11151 or 324.12116 MCL.

Please Print or type.

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N40 000747799		Manifest Document No. 8253684		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address CORNELL UNIVERSITY, L.I. N.R.E.C. 3059 SOUND AVENUE, RIVERHEAD, NY 11901						A. State Manifest Document Number MI 8253684			
4. Generator's Phone (631) 727-3595						B. State Generator's ID			
5. Transporter 1 Company Name ALL STATE POWER VAC						C. State Transporter's ID H10376			
7. Transporter 2 Company Name						D. Transporter's Phone 732-845-0260			
9. Designated Facility Name and Site Address WAYNE DISPOSAL (HQ) INC. 3141 S. 11 49350 M-1 94 SERVICE DR. BELLEVILLE, MI 48111						E. State Transporter's ID			
10. US EPA ID Number MID 048090633						F. Transporter's Phone			
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER) HM BQ HAZARDOUS WASTE SOLID N.O.S. 9.WA 3077 ENDOSULFAN I & II						12. Containers No. Type 20 1CM 000187		13. Total Quantity Unit NHCS	
14. Additional Descriptions for Materials Listed Above APPROVAL 071902 WAB						15. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # 800-969-3478		K. Handling Codes a. b. c. d.	
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR: If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						Date Month Day Year 02/21/2002			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name ORR S. J. MATTHEWS III						Signature [Signature]		Date Month Day Year 02/22/02	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name						Signature		Date Month Day Year	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name [Signature]						Signature [Signature]		Date Month Day Year 02/22/02	



WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Required under authority of Part 131 and
Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to
criminal and/or civil penalties under
Sections 324.11151 or 324.12116 MCL.

Please print or type.

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NY40 000 747 759	Manifest Document No. 5-682	2. Page 1 of 1	Information in the shaded area is not required by Federal law.	
3. Generator's Name and Mailing Address CORNELL UNIVERSITY, L.I. H.R.E.C. 3059 SOUND AVENUE, RIVERHEAD, NY 11901				A. State Manifest Document Number MI 8253680		
4. Generator's Phone (631) 727-3593				B. State Generator's ID UPW-0343921-OH		
5. Transporter 1 Company Name ALL STATE POWER VAC		8. US EPA ID Number WJD 00312047		C. State Transporter's ID 110356		
7. Transporter 2 Company Name SAME		8. US EPA ID Number		D. Transporter's Phone 732 215 0121		
9. Designated Facility Name and Site Address WAYNE DISPOSAL (EQ) 49350 M-I 94 SERVICE DR. BELLEVILLE, MI 48111		10. US EPA ID Number WJD 043 090 633		E. State Transporter's ID 800 866 4699		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 1800 552-5489		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM No.) RQ HAZARDOUS WASTE SOLID N.O.S. 9, NA 3077 ENDOSULFAN I & II				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
J. Additional Descriptions for Materials Listed Above BOX-54-20				K. Handling Codes a. b. c. d.		
15. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # 800-369-3478						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Michael Ryan Adams		Signature <i>[Signature]</i>		Date 01/22/02		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name JOHN J. MATTHEWS III		Signature <i>[Signature]</i>		Date 01/23/02		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name SIMON MIP HANKOVSKS		Signature <i>[Signature]</i>		Date 01/24/02		
19. Discrepancy Indication Space <i>[Initials]</i>						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name Lori Bean		Signature <i>[Signature]</i>		Date 01/24/02		

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-252-4708 OR OUT OF STATE AT 517-373-7668 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-9602 24 HOURS PER DAY.

FROM : ALLIEDURSTE

FAX NO. : 516 8689844

Aug. 02 2002 12:22PM PB

06/02/2002 00:15

10005925329

EO

PAGE 08/08

WAYNE DISPOSAL, INC
EQ-The Environmental Quality Company

48350 North I-94 Service Drive, Batteville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC.

2163 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108369

EQ Account #: 1448

Manifest: M10263682

Shipper:

Hauler: ALL STATE

Date: 08/01/2002

Time In: 2:34 PM

Time Out: 3:25 PM

Unit# Approval/Service Generator

Unit#	Approval/Service	Generator	Waste Code	Bill Unit	Gross	Tare	Net	Quantity
01	071802WAS		NYD000747789	CORNELL UNIVERSITY				
			NHCS	TONS	78,000	42,600	35,400	17,730
			Permitual Care Surcharge					

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-the Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

Page 1 of 1

FROM : ALLIEDWASTE

FAX NO. : 516 8689844

Aug. 02 2002 12:29PM P1

08/02/2002 08:15

10005925329

EQ

PAGE 07/08

WAYNE DISPOSAL, INC

EQ-The Environmental Quality Company

40200 North I-44 Service Drive, Belleville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC.

2163 MERRICK AVENUE
MERRICK, NY 11688

Receipt ID: 1109382

EQ Account #: 1448

Manifest: M10283680

Shipper:

Hauler: ALL STATE

Date: 08/01/2002

Time In: 7:18 AM

Time Out: 8:10 AM

Line# Approval/Service Generator

01 071902WAB

Waste Code Bill Unit

NY0000747788

Gross

Tare

Net

Quantity

NHCS

TONS

79,080

42,620

37,460

18.730

Perpetual Care Surcharge

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-the Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

Page 1 of 1

FROM : ALLIED WASTE

FAX NO. : 516 8699344
EQ

Aug. 02 2002 12:19PM F3

08/02/2002 00:15 10005925323

WAYNE DISPOSAL, INC
EQ-The Environmental Quality Company

48360 North I-94 Service Drive, Belleville, Michigan 48111

Receipt**ALLIED WASTE SERVICES, INC.**2183 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108008

EQ Account #: 1449

Manifest: MI0253885

Shipper:

Header: ALL STATE

Date: 07/31/2002

Time In: 7:44 AM

Time Out: 8:50 AM

Line#	Approval/Service	Generator	Waste Code	Bin Unit	Gross	Tare	Net	Quantity
01	071802WAB	NY0000747799 CORNELL UNIVERSITY	NH05	TONS	74,020	43,540	31,380	15.890
Perpetual Care Surcharge								

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-The Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PRECIOUS

Page 1 of 1

FROM: ALLIED WASTE

FAX NO. 516 8689844
EQ

Aug. 02 2002 12:18PM P2

PAGE 05/08

WAYNE DISPOSAL, INC
EQ-The Environmental Quality Company
49350 North I-34 Service Drive, Belleville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC

2183 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108354

EQ Account #: 1449

Manifest: M18253879

Shipper:

Hauler: ALL STATE

Date: 07/30/2002

Time In: 7:00 AM

Time Out: 9:16 AM

Line#	Approval/Service	Generator	Waste Code	BU Unit	Gross	Tare	Net	Quantity
01	071902WAB	NY0000747799 CORNELL UNIVERSITY	NHCS	TONS	77,000	39,880	37,120	18,580
Perpetual Care Surcharge								

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-The Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY _____

NO SALVAGING ON PREMISES

Page 1 of 1

FROM : ALLIEDWASTE

FAX NO. : 516 8689844

Aug. 02 2002 12:20PM PS

08/02/2002 08:15

18005925329

EO

PAGE 03/09

WAYNE DISPOSAL, INC

EQ-The Environmental Quality Company

48380 North I-84 Service Drive, Schererville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC

2183 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108005

EQ Account #: 1448

Manifest: M78263684

Shipper:

Hauler: ALL STATE

Date: 07/25/2002

Time In: 8:35 AM

Time Out: 9:33 AM

Line# Approval/Service Generator

	Waste Code	Bill Unit	Gross	Tare	Net	Quantity
01	071802WAB	NY0000747780	CORNELL UNIVERSITY			
	NHCS	TONS	79.060	41,240	37,820	18 810
	Perpetual Care Burial Charge					

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-the Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

Page 1 of 1

FROM : ALLIED WASTE

FAX NO. : 516 8689844

Aug. 02 2002 12:19PM P4

08/02/2002 00:15

18005925329

EQ

PAGE 04/06

WAYNE DISPOSAL, INC

EQ-The Environmental Quality Company

48150 North 194 Service Drive, Belleville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC.

2183 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108051

EQ Account #: 1448

Manifest: M18253681

Shipper:

Hauler: ALL STATE

Date: 07/30/2002

Time In: 7:07 AM

Time Out: 8:30 AM

Line# Approval/Service Generator

	Waste Code	Bill Unit	Gross	Tare	Net	Quantity
01 071902WAB	NM0000747H9					
	NHCB	TONS	77,520	40,880	36,640	18,270
	Perpetual Care Surcharge					

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk.
I, both personally and on behalf of my employer, release EQ-the Environmental Quality Company from any and all liability
not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

Page 1 of 1

FROM : ALLIED WASTE
00000002 00000000 100000000000FAX NO. : 516 8689844
EQAug. 02 2002 12:21PM P6
PAGE 02/08

WAYNE DISPOSAL, INC
EQ-The Environmental Quality Company
48380 North I-94 Service Drive, Beaverville, Michigan 48111

Receipt

ALLIED WASTE SERVICES, INC.

2183 MERRICK AVENUE
MERRICK, NY 11566

Receipt ID: 1108300

EQ Account #: 1449

Manifest: M8253689

Shipper:

Hauler: ALL STATE

Date: 07/26/2002

Time In: 7:05 AM

Time Out: 8:28 AM

Line# Approval/Service Generator

	Waste Code	Bill Unit	Gross	Tare	Net	Quantity
01	071802WAB	NY0000747799	CORNE L UNIVERSITY			
	NHCS	TONS	77.960	41.120	26.840	18.420
	Perpetual Care Surcharge					

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-the Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

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