



Route 100  
Somers, NY 10589

April 5, 2005

Dear Resident:

Enclosed is a newsletter providing an update of the Groundwater Vapor Project and groundwater remediation activities in the Village of Endicott. In this issue, the following topics are covered:

- **Summary of Significant Project Activities in 2004**
- **Village of Endicott Groundwater Vapor Project**
  - Update of Ventilation System Design and Installation
  - Operation and Maintenance of Ventilation Systems
  - Credit for Ventilation System Operating Cost
  - Ambient Air Monitoring
- **Remediation Activities in Endicott**
  - Groundwater Investigations
  - Groundwater Extraction and Treatment Systems

We hope that you continue to find this information helpful. Please do not hesitate to contact us via the toll-free project information line at 1-888-738-7968 with any questions you may have about IBM's activities.

Sincerely,

*M. E. Meyers*

Mitchell E. Meyers  
Project Manager

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# PROJECT UPDATE

## ENDICOTT GROUNDWATER VAPOR PROJECT AND GROUNDWATER REMEDIATION ACTIVITIES

### IBM CORPORATION • SPRING 2005 NEWSLETTER

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This newsletter continues IBM's practice of providing the community a regular update of the Groundwater Vapor Project (GVP) and groundwater remediation activities in the Village of Endicott.

#### SUMMARY OF SIGNIFICANT PROJECT ACTIVITIES IN 2004

Since launching the GVP in November 2002, IBM has performed an extensive amount of work. Following are highlights of some of the significant project activities that took place in 2004:

**1. Confirmed the Limits of Ventilation.** Results of sampling conducted at 119 properties during 2004, as part of the final phase of GVP sampling, confirmed the previously established limits of ventilation of the GVP.

**2. Validated ventilation system design criteria.** From December 2003 through December 2004, post-ventilation sampling was conducted with the approval of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) at a broad, representative cross-section of structures including those with more difficult designs. The analysis of post-ventilation sampling results and field observations confirm the successful design of the ventilation systems for mitigating groundwater vapor intrusion. IBM has fulfilled the post-ventilation sampling requirement under the GVP.

**3. Substantially completed ventilation system designs and installations.** During 2004, we substantially completed the installation of ventilation systems at the remaining properties where we were able to perform work. Approximately 50 properties have owners who have declined IBM's offer, have been unresponsive, or have unsafe conditions at the property that prevent us from installing a ventilation system.

**4. Collected and analyzed 343 soil vapor samples from 61 soil vapor monitoring implants installed at 31 locations.** The purpose of this activity is to monitor soil vapor concentrations of target volatile organic compounds (VOCs) sampled under the GVP and to document anticipated improvements in soil vapor conditions over time resulting from continued implementation of IBM's groundwater remediation activities.

**5. Installed 3160 feet of conveyance piping.** Installation of piping to transfer water from three new groundwater extraction wells to existing groundwater treatment buildings on Jefferson Avenue and Garfield Avenue was completed. As a result, the portable carbon filter units temporarily placed adjacent to the extraction well in the parking lot between Grant and Garfield Avenues have been removed.

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**6. Installed 83 new monitoring wells.** These additional monitoring wells were installed in specific areas to support continued multiple soil and groundwater investigative activities.

**7. Collected over 1400 groundwater samples, and over 1600 groundwater elevation measurements.**

Samples and measurements were collected as part of ongoing groundwater monitoring, investigative and remediation work being performed by IBM in seven specific areas to determine groundwater conditions and trends.

**8. Finalized the Supplemental Groundwater Assessment Report.** Results of work performed in 2003 in accordance with the Supplemental Groundwater Assessment have been compiled into a final report. The final report consists of two volumes totaling approximately 500 pages of text,

figures and data approved by the NYSDEC and NYSDOH on October 4, 2004.

**9. Presented two unconditional grants to the Village of Endicott.** One grant was in the amount of \$2 million toward the design, construction and installation of an air stripper for the South Street Wellfield, and the second grant, in the amount of \$100,000, was for the Village to retain technical expertise to help it further understand the environmental conditions throughout the Village.

**10. Communicated with residents.** IBM participated in three public availability sessions and published three comprehensive newsletters in 2004. IBM also remains accessible to the public through its toll-free project information line at 1-888-738-7968.

## **VILLAGE OF ENDICOTT GROUNDWATER VAPOR PROJECT**

### ***Update of Ventilation System Design and Installation***

Ventilation system designs and installations are substantially complete. Of the 485 properties with structures for which IBM has offered to design and install ventilation systems, based on criteria established by the NYSDEC and NYSDOH, 437 ventilation system designs and 433 installations had been completed as of February 11, 2005. The majority of the remaining properties are those whose owners have declined IBM's offer of a ventilation system or have not been responsive to our repeated attempts to contact them. Annual follow-up calls were attempted in August 2004 and follow-up letters were sent in November 2004 to the remaining properties that do not have an installed ventilation system. The NYSDOH requests that any property owner who has received a ventilation offer, and who does not yet have a system installed, should contact Nathan Walz, or Jennifer Cunningham, NYSDOH representatives, at 1-800-458-1158, ext. 27860.

### ***Operation and Maintenance of Ventilation Systems***

IBM submitted an Operation, Maintenance and Monitoring work plan for the ongoing operation, maintenance and repair of installed ventilation systems. This plan was approved by the NYSDEC on December 24, 2004.

In accordance with this plan, property owners are being contacted to schedule an appointment to confirm that the ventilation system installed at their property is operating properly. These appointments require approximately one hour for a typical residential home. More complex structures will require additional time. Visits to properties began in early January 2005 and are expected to continue throughout 2005. We appreciate the cooperation of property owners as we continue to perform this work.

### ***Credit for Ventilation System Operating Cost***

As you may recall from previous newsletters, the cost of electricity associated with operating the ventilation system for the purpose of addressing groundwater vapor intrusion will be paid by IBM. IBM will pay for the electric consumption by having a credit issued through New York State Electric and Gas (NYSEG) Corporation to the account number associated with the electric meter to which the ventilation system is connected.

For properties where a ventilation system had been completed as of the end of 2004, credits were posted to NYSEG in February 2005 and property owners can expect a credit for 2005 electrical consumption of the ventilation system to be reflected on their bill around the beginning of April 2005.

### ***Ambient Air Monitoring***

During the second half of 2004, several plans associated with the ambient air (outdoor air) monitoring program were developed with the oversight and approval of the NYSDEC and NYSDOH. To support the plans, ventilation system exhaust tests and air dispersion modeling were conducted. A report of the testing results was approved by the NYSDEC and NYSDOH.

A modeling feasibility study was presented to the NYSDEC for comment prior to performing air dispersion modeling (a type of mathematical model) which was conducted to help determine the locations where there may be changes in air quality due to ventilation system emissions. The modeling provided scientific rationale for the number and location of ambient air monitoring stations to be operated within the GVP area. In addition, one monitoring station will be installed to measure the background air quality outside the GVP area.

We are currently in the process of installing the ambient air monitoring stations and expect monitoring to begin in the second quarter of 2005.

## **REMEDIATION ACTIVITIES IN ENDICOTT**

### ***Groundwater Investigations***

Groundwater investigations involving the installation of an additional 83 monitoring wells were completed in several areas. These primarily include investigations in the Upper Aquifer following recommendations made by IBM in the Supplemental Groundwater Assessment (SGA) Report and related evaluations.

As you may recall from the previous newsletter, these investigation efforts also involve the confirmation of the source, migration pathway, and the extent of contamination in bedrock, and the proper location of a replacement well for the existing EN-CAF bedrock extraction well, currently located near the southeast corner of North Street and McKinley Avenue. The origin of this work was based on recommendations made in IBM's SGA report and a subsequent report evaluating existing remedial systems that was submitted to the NYSDEC on April 30, 2004. As a result, 14 bedrock monitoring wells have been installed and this work is expected to continue through 2005.

Work plans for additional investigations in five areas have been submitted to and approved by the NYSDEC and NYSDOH. Implementation of these investigations is now in various stages of completion.

*Groundwater Extraction and Treatment Systems*

Three new groundwater extraction test wells (EN-284TD, EN-428T and EN-92T) have been installed and placed into operation to extract groundwater from the Upper Aquifer. A fourth test well (EN-91T) has been installed and was placed into service in March 2005. Together with upgrades and replacements of existing extraction wells, these new wells have increased the groundwater extraction capacity from approximately 230 gallons per minute (gpm) to more than 330 gpm. To handle this higher groundwater extraction volume, upgrades were completed on one of the three existing groundwater treatment systems. These efforts have increased their combined capacity from 300 gpm to 450 gpm.

Favorable results were obtained utilizing vacuum-assisted extraction at extraction test well EN-284TD. The same technology has also been applied at extraction test well EN-428, and is underway at extraction test well EN-92T and will commence shortly at extraction test well EN-91T. We are evaluating the effectiveness of this technology at these locations.

**SUMMARY**

With ventilation system design and installations substantially complete, and post ventilation sampling results that validate the design criteria, work under the GVP in 2005 will focus on the operation and maintenance of ventilation systems.

Many of the project activities in 2004 involved conducting investigations to better understand groundwater conditions and enhance groundwater remediation in the Village of Endicott. Results of those investigations will be available in 2005. IBM continues to diligently implement all remaining groundwater remediation activities in the Village.

IBM continues to be committed to keeping the public informed of the status of the GVP and groundwater remediation activities in Endicott through periodic newsletters, notification letters and calls to residents in areas of ongoing work activities, and through its participation in public availability sessions. An information repository, located at the Village of Endicott George F. Johnson Memorial Library, 1001 Park Street, continues to be updated with copies of work plans, reports and newsletters. Seven comprehensive project newsletters have been published to date since the launch of the GVP in November 2002. Residents are encouraged to call the toll-free information line at 1-888-738-7968 with any questions.

**PROJECT RESOURCES**

The community may direct their questions to the following representatives:

Mitch Meyers  
IBM Project Manager  
1-888-738-7968

Nathan Walz or Jennifer  
Cunningham  
NYS Department of Health  
1-800-458-1158, ext. 27860

Tim Digiulio  
NYS Department of  
Environmental Conservation  
1-800-388-8223

Alison Spare  
Community Relations Advisor  
to IBM  
1-888-738-7968

Ron Brink or Robert Denz  
Broome County Health Dept.  
607-778-2806

## **Project Resources**

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Tim Digiulio  
New York State Department of Environmental  
Conservation  
1-800-388-8223

## **Mailing List Corrections**

Please call 1-888-738-7968 with any corrections to the mailing list or changes in your telephone number. The mailing list is used for the sole purpose of communicating with residents and property owners about the Groundwater Vapor Project.

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