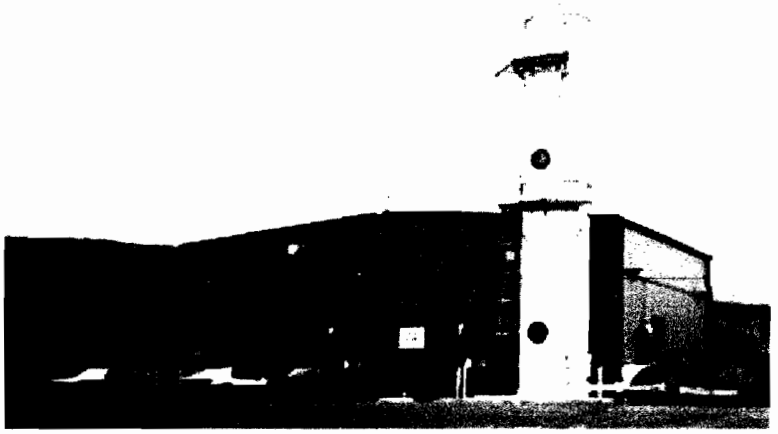
2002 ANNUAL SUMMARY REPORT

Old Bethpage
Solid Waste Disposal Complex
Groundwater Treatment Facility

TOWN OF OYSTER BAY

DEPARTMENT OF PUBLIC WORKS
SYOSSET, NEW YORK 11791

MAY 2003



LOCKWOOD
KESSLER &
BARTLETT, INC.
SYOSSET, NEW YORK 11791

2002
ANNUAL SUMMARY REPORT

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
GROUNDWATER TREATMENT FACILITY

TOWN OF OYSTER BAY
DEPARTMENT OF PUBLIC WORKS

Prepared By

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MAY 2003

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Richard W. Lenz, P.E., N.S.P.E.
Commissioner

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October 1, 2003

Mr. Gerald Rider, P.E., Chief
NYS Department of Environmental Conservation
Division of Environmental Remediation
Remedial Section B, Remedial Bureau D
625 Broadway, 11th Floor
Albany, NY 12233-7014

Re: 2002 Annual Report
Old Bethpage Landfill Groundwater Remediation
Consent Decree 83 CIV 5357
Contract No. PWC 04-00

Dear Mr. Rider:

Enclosed is one copy of the 2002 Annual Report for the Old Bethpage Landfill Groundwater Remediation. This report is submitted in satisfaction of the Town's Consent Decree requirements and summarizes the results from the groundwater treatment facility operations and monitoring activities performed during the 2002 calendar year.

In summary, the 2002 results indicate that the facility is operating according to design, and that groundwater quality is continuing to improve in response to the ongoing remediation. During 2002, a total of 460 million gallons of groundwater with an average volatile organic compound (VOC) concentration of 160 micrograms per liter (ug/L) was remediated at an average daily flow rate of 1.35 million gallons per day. The facility maintained an on-line performance of 90 percent during 2002 and achieved an overall treatment efficiency of 99.54 percent. The average total VOC concentration in the facility effluent was 0.1 ug/L.

Should you have any further questions, please do not hesitate to call Matthew Russo, Division of Engineering, at (516) 677-5886.

Very truly yours,

JAMES T. WHELAN
DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

RICHARD W. LENZ, P.E.
COMMISSIONER
DEPARTMENT OF PUBLIC WORKS

RWL:JTW:MR:ew
Attachment

pwc14-02 2002 annual rap report

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C. "ANNUAL SUMMARY, OLD BETHPAGE QUARTERLY GROUNDWATER MONITORING PROGRAM, JANUARY THROUGH DECEMBER 2002", Gannett Fleming Engineers and Architects, P.C., May 2003.

SECTION 1.0
INTRODUCTION

1.1 Purpose of this Document

Operation of the Groundwater Treatment Facility (GTF) located at the Old Bethpage Solid Waste Disposal Complex (OBSWDC) in Old Bethpage, Long Island, New York, commenced on April 1, 1992. Pursuant to the terms of Consent Decree 83 CIV 5357 with the State of New York, the Town of Oyster Bay (Town) is required to submit quarterly operating and annual summary reports for the GTF. The reports shall contain appropriate operational and summary data, respectively, to demonstrate compliance with the Consent Decree. This document is the annual summary report for calendar year 2002, and is submitted in satisfaction of Consent Decree requirements.

1.2 Scope of this Document

This report is divided into six sections and three appendices. Section 2.0 (Background Information) presents background information on site history and a summary of the Town's responsibilities with respect to the Consent Decree. Section 3.0 (Groundwater Treatment Facility Operations) provides an overview of GTF operations and the scope of the various monitoring programs. Section 4.0 (Groundwater Monitoring Program) summarizes the results from the hydraulic monitoring and groundwater sampling activities performed during this reporting period. Section 5.0 (Air Stripper Stack Emissions Monitoring) summarizes the results of the mass-balance calculations and dispersion modeling performed by LKB for the air stripper exhaust. Section 6.0 (Discussion and Recommendations) discusses the results achieved by the GTF operation and monitoring programs during 2002, and provides recommendations based on the current findings. The appendices contain a well location map, and other consultants' annual summary reports for the groundwater and ambient air/soil gas monitoring programs, respectively.

SECTION 2.0
BACKGROUND INFORMATION

2.1 Site History

The OBSWDC has been in operation since 1958, and was used for the processing and disposal of all non-hazardous waste generated in the Town. The wastes were burned in two on-site incinerators, and excess materials were compacted and baled for disposal in the on-site Old Bethpage Landfill (Landfill). The Landfill also accepted incinerator ash and residue, as well as raw municipal solid waste bypassed around the incinerators during periods of maintenance downtime.

In April 1986, all landfilling and incineration activities ceased, and the Town began to ship, offsite, all solid waste collected that was not recycled. Presently, the site operations largely consist of operating the Town's scalehouse, solid waste transfer station, recycling program, clean fill disposal site, gas control system, power generating facility, leachate and groundwater treatment facilities, and vehicle maintenance garage.

In June 1988, the Town entered into Consent Decree 83 CIV 5357 with the State of New York. That document required the Town to perform the following actions:

- design, construct and operate the GTF, to contain, recover and remediate the off-site contaminated groundwater plume associated with the Landfill;
- design and construct an acceptable cap for the Landfill;
- continue to operate the leachate treatment facility;
- continue to operate the landfill gas migration control system; and
- perform various monitoring functions designed to assess the adequacy of the remediation efforts.

The GTF, which is located in the northeast corner of the OBSWDC (see Appendix A), began normal operations on April 1, 1992. The final capping activities at the top of the closed Landfill, initiated in early 1992, were completed in early 1993. As noted above,

the Town continues to operate the leachate treatment facility and the landfill gas migration collection system. As a result of these actions, the Landfill is now classified as a Class 4 site (Site is properly closed – requires continued management) by the New York State Department of Environmental Conservation (NYSDEC).

2.2 Consent Decree Requirements Pertaining to Groundwater Plume Remediation

2.2.1 Requirements for Groundwater Monitoring

The nature and extent of the area to be remediated (a.k.a., the "plume"), under the terms and conditions of the Consent Decree were defined in the report titled "OBSWDC Offsite Groundwater Monitoring Program, Old Bethpage, Long Island, New York", by Geraghty & Miller, Inc., and dated September 1986.

To verify hydraulic containment of the plume by the recovery well system, and assess the progress of the remediation, the Town implemented a groundwater monitoring program. In accordance with the requirements set forth in the Consent Decree, the groundwater monitoring program is comprised of the following elements:

Hydraulic Monitoring - Monthly rounds of water-level measurements in the required monitoring wells until equilibrium and appropriate drawdown has been established; followed by quarterly water-level monitoring in a reduced number of wells thereafter so long as hydraulic control of the plume is maintained.

Groundwater Quality Monitoring - A baseline comprehensive first round of monitoring in the required wells prior to start-up of the GTF; followed by quarterly monitoring of groundwater quality until the termination criteria, as defined in the Consent Decree, have been demonstrated; and termination/post-termination monitoring thereafter for a minimum of five full years (20 quarters).

A total of 16 rounds of monthly hydraulic monitoring were performed during the period from April 1992 through September 1993. Beginning with the October 1993 round, which was performed concurrently with the fourth quarter 1993 groundwater quality monitoring round, the frequency of hydraulic monitoring was reduced to quarterly.

Thirty-seven quarterly hydraulic monitoring rounds have been completed since October 1993.

The baseline first round of groundwater quality monitoring was performed during the period from July 30 through August 2, 1991. Quarterly monitoring of groundwater quality began in July 1992, approximately three months after start-up of the GTF and a total of forty-two quarterly rounds have been completed to date.

The following hydraulic and groundwater quality monitoring activities were completed during 2002 in fulfillment of Consent Decree requirements:

- four rounds of quarterly water-level measurements, collected on February 18, April 8, July 1, and October 21, 2002, respectively; and

- four rounds of quarterly groundwater quality samples collected on February 20-22, April 9-11, July 2-8, and October 22-24, 2002, respectively.

Water-level measurements were collected from all of the wells originally specified in the Consent Decree, rather than in a reduced number of wells, as this information is required by the groundwater sampling protocol. Water-level measurements were also collected from Claremont Site Well Clusters EW-1 (first round only), EW-2 and EW-3.

The groundwater samples from all four quarterly sampling rounds were analyzed for the volatile organic compound (VOCs), total (unfiltered) metals, dissolved (filtered) metals and leachate indicator parameters required by the Consent Decree. All 16 of the monitoring wells specified in the Consent Decree were sampled during each round, including Landfill Well LF-1, which was sampled for leachate indicator parameters only as per Consent Decree requirements. In addition, in keeping with a prior recommendation, Well MW-9D was sampled during the third quarter 2002 monitoring round to provide current data for the deep potentiometric zone of the aquifer at this location downgradient of the Landfill and upgradient of the Town's recovery wellfield. Well OBS-2, which is located downgradient of the Town's recovery wellfield, was sampled for VOCs during the third quarter monitoring round. During the fourth quarter monitoring round, split samples were collected from Wells MW-10B and MW-10C, which were sampled by the USEPA as part of work being performed at the Claremont Site.

2.2.2 Treatment Facility Discharge Limitations and Monitoring Requirements

The Consent Decree placed certain limitations on the effluent quality of the GTF. The limits are listed in Table 2 of that document, which is titled "Groundwater Aquifer and Treated Groundwater Discharge Requirements". Some effluent limitations were later modified in a letter to the Town from the New York State Department of Law, and in subsequent revisions to the New York State Part 703 Ambient Water Quality Standards, which were last updated in March of 1998. The current limits, for both VOCs and inorganic parameters, are listed in Tables 1 and 2 of this report, respectively. The Town began monthly SPDES monitoring of the GTF effluent in April of 1992 for the parameters listed in Tables 1 and 2, and continued during 2002. The town also performs monthly SPDES monitoring of the GTF influent for the VOCs listed in Table 1. A New York State-certified outside laboratory performed the SPDES influent and effluent analyses.

The Consent Decree also placed limitations on the air stripper stack emissions. These limits appear in the Consent Decree as Table 1, which is titled "Applicable Air Discharge Requirements for Air Stripper Treatment System", and is reproduced in this report as Table 3. The Town began quarterly monitoring of the air stripper stack emissions on May 28, 1992, and performed quarterly monitoring through the second quarter of 1998. Beginning with the third quarter of 1998, the Town suspended the air stripper stack emissions monitoring program indefinitely as this program is not specifically mandated by the Consent Decree, and review of the body of data generated to date indicated that it was no longer warranted. In lieu of stack testing, the Town now uses the water-quality data generated by its an on-site laboratory and the operating data recorded by Town personnel to calculate air emissions from the stack and, if required, model air-quality impacts at the downwind property line.

In addition to the above requirements, the Town is required to perform certain self-monitoring functions related to recording comprehensive flow measurements for the GTF and maintaining a record of downtime. The Town has enhanced these abilities with the installation of the on-site laboratory. The laboratory is used to monitor the GTF influent and effluent three times per week, and groundwater at each recovery well on a weekly basis. This regular monitoring allows Town personnel to make process adjustments when necessary, and may also warn the operator of equipment malfunction, or the need for maintenance. Weekly monitoring of each recovery well will

TABLE 1

VOLATILE ORGANIC COMPOUNDS (VOCs)
EFFLUENT LIMITATIONS

CHEMICAL CONSTITUENT	ALLOWABLE CONCENTRATION (in parts per billion)
TOTAL VOCs (for discharge)	100
TOTAL VOCs (for groundwater)	50
BENZENE	1*
BROMODICHLOROMETHANE	50
BROMOFORM	50
CARBON TETRACHLORIDE	5
CHLOROBENZENE	5*
CHLORODIBROMOMETHANE	50
CHLOROETHANE	5*
CHLOROFORM	7*
DICHLOROBENZENE (each isomer)	3*
1,1 DICHLOROETHANE	5*
1,2 DICHLOROETHANE	0.6*
1,1 DICHLOROETHENE	5*
1,2 DICHLOROETHENE cis	5
1,2 DICHLOROETHENE trans	5*
1,2 DICHLOROPROPANE	1*
ETHYLBENZENE	5*
METHYLENE CHLORIDE	5*
TETRACHLOROETHENE	5*
TOLUENE	5*
1,1,1 TRICHLOROETHANE	5*
TRICHLOROETHENE	5
VINYL CHLORIDE	2
XYLENE (each isomer)	5*

Limits taken from Table 2, "Groundwater Aquifer And Treated Groundwate Discharge Requirements", of Consent Decree 83 CIV 5357, Appendix A.

* indicates value modified by 11/10/88 letter to the Town, and/or in subsequent revisions to the NYCRR Part 703 Groundwater Standards.

TABLE 2

INORGANIC EFFLUENT LIMITATIONS

LEACHATE INDICATOR	ALLOWABLE CONCENTRATION (in parts per million)
BARIUM	1
CADMIUM	0.005*
CHLORIDE	250
CHROMIUM (total or hexavalent)	0.05
COPPER	0.2*
CYANIDE	0.2
IRON	0.3
IRON AND MANGANESE	0.5*
LEAD	0.025
MAGNESIUM (no Class GA limit)	35
MANGANESE	0.3
MERCURY	0.0007*
SILVER	0.05
ZINC (no Class GA limit)	5
TOTAL DISSOLVED SOLIDS	500
NITRATE	10
SULFATE	250
PHENOLS (total)	0.001

Limits taken from Table 2, "Groundwater Aquifer And Treated Groundwater Discharge Requirements", of Consent Decree 83 CIV 5357, Appendix A.

* indicates value modified by 11/10/88 letter to the Town, and/or in subsequent revisions to the NYCRR Part 703 Groundwater Standards.

TABLE 3

APPLICABLE AIR DISCHARGE REQUIREMENTS FOR AIR STRIPPING TREATMENT SYSTEM*

Constituent	-Ambient Air Concentrations- NYSDEC Annual Guideline (ug/m3)
Vinyl Chloride	4.00E-01
Freon 13	3.00E-02
Methylene Chloride	1.17E+03
1,1-Dichloroethane	2.70E+03
1,2-Dichloroethene	2.63E+03
Chloroform	1.67E+02
1,1,1,-Trichloroethane	3.80E+04
Carbon Tetrachloride	1.00E+02
1,2-Dichloroethane	2.00E+01
Trichloroethylene	9.00E+02
1,2,-Dichloropropane	1.17E+03
Bromodichloromethane	3.00E-02
Tetrachloroethene	1.12E+03
Chlorodibromomethane	3.00E-02
Bromoform	1.67E+01
Benzene	1.00E+02
Toluene	7.50E+03
Ethyl Benzene	1.45E+03
(m) Xylene	1.45E+03
(o&p) Xylene	1.45E+03
(m) Dichlorobenzene	3.00E-02
(o) Dichlorobenzene	1.00E+03
(p) Dichlorobenzene	1.50E+03
Chloroethane	5.20E+04
1,1,-Dichloroethylene	6.67E+01
Chlorobenzene	1.17E+03
Ammonia	3.60E+02

* Established per New York State Department of Environmental Conservation Air Guide No. 1 for Toxic Air Contaminants. If any federal National Ambient Air Quality Standards or National Emission Standards for Hazardous Air Pollutants are promulgated which are more stringent than these State guidelines, the more stringent standard shall apply.

also assist the Town in establishing the initiation of termination monitoring, as proscribed in the Consent Decree. Since 2001, the Town has maintained certification of its on-site laboratory to perform Method 601/602 VOC analyses under the New York State Department of Health's Environmental Laboratory Approval Program (ELAP).

2.3 Other Consent Decree Requirements

2.3.1 Requirements for Ambient Air and Soil-Gas Quality Monitoring

"RAP Attachment 2" in the Consent Decree requires the Town to monitor ambient air and soil gas quality in the vicinity of the Landfill on a quarterly basis. These monitoring efforts took place on February 25-26, May 6-7, September 25-26, and November 14-15, 2002, respectively. A New York State-certified outside laboratory performed the analyses. The results were compared to NYSDEC ambient air quality limits. These results were used to evaluate the impacts that the Landfill, together with all other OBSWDC operations, have on the local air quality.

In early 1998, it was recommended that the Town request approval from the NYSDEC to reduce the frequency of ambient air monitoring from quarterly to annual. This monitoring program is specifically mandated by the Consent Decree; however, review of the body of data generated to date indicates that a reduction in the frequency of this monitoring is warranted. Pending receipt of this approval, however, the Town is required to continue this monitoring program on a quarterly schedule.

2.3.2 Requirements for Thermal Oxidizer Stack Emissions Monitoring

"RAP Attachment 2" in the Consent Decree also requires the Town to perform annual monitoring of the stack emissions from the thermal oxidizer. The purpose of this monitoring is to ensure that the landfill gas collected by the Town's migration prevention system, which contain trace amounts of organic compounds, undergoes complete high temperature destruction. Thermal oxidizer stack emissions monitoring for 2002 took place on October 8th. The results of this test were reported in the 2002 Fourth Quarter Report, and the consultant's report of the findings was submitted in its entirety as Appendix H of that report.

SECTION 3.0
GROUNDWATER TREATMENT FACILITY OPERATIONS

3.1 Theory of Operation

A system of five (5) groundwater recovery wells, designated RW-1 through RW-5, was installed at the leading edge of the off-site VOC plume associated with the Landfill, in Bethpage State Park. The locations of the recovery wells, in relation to the Landfill and other site features, are shown on the Well Location Map in Appendix A.

The combined flow from all wells is directed through common transmission piping to the air stripper wet well. A triplex pump arrangement delivers the collected groundwater to the top of the air stripper, which contains proprietary packing media. As the groundwater passes through and wets the packing, it is contacted with air directed into the bottom of the air stripper via a blower. Dissolved VOCs pass from the liquid phase (groundwater) into the gas phase (air), and exit the stripper through a stack.

The treated groundwater is directed into a receiving wet well, where another triplex pump arrangement delivers it to a series of Town-owned recharge basins. The primary recharge basin, Recharge Basin No. 1, contains a system of eight diffusion wells and is located upgradient of the Landfill on the west perimeter of the OBSWDC. The secondary recharge basin is Town Recharge Basin No. 33, which is located on Winding Road across from the east face of the Landfill. The Town also uses an unnamed temporary recharge basin located north-northeast of the GTF building on an as-needed basis. The locations of these recharge basins are shown in Appendix A.

3.2 Physical Plant

The GTF consists of the following major components:

- five recovery wells, which deliver a combined maximum design flow of 1.5 million gallons per day (MGD);
- the treatment plant building, which houses the control room, laboratory, wet wells, pumps, acid-rinse system, and chemical holding tanks;

- the air stripper, which contains proprietary media;
- Recharge Basin No. 1, which contains eight diffusion wells; and
- transmission piping.

3.3 Initial Operating Conditions

On April 1, 1992, the GTF began pumping approximately 1.5 MGD of groundwater from the five recovery wells located in Bethpage State Park. Flow was processed through the air stripper operating at a nominal 1,050 gallons per minute (GPM) forward hydraulic flow and approximately 10,400 standard cubic feet per minute (SCFM) of atmospheric air. The treatment plant design and the initial operating conditions are based on continuous 24 hours per day, seven days per week operation.

3.4 Monitoring Functions Related to Groundwater Treatment

3.4.1 Daily Operations Reports

The control console located at the GTF provides continuous readouts to the operating personnel of pumpage rates from each recovery well, as well as various locations throughout the plant. Hourly, the operating personnel transfer these readings onto a "Daily Operations Report". One report is completed for each 8-hour shift. The report also provides a space for any written observations made by those personnel concerning plant operations. Copies of these reports were provided in Appendix B of the quarterly reports. The originals will be archived by the Town for at least five years following termination of the GTF, as per Consent Decree requirements.

The Town has developed computer software to assist in assembling these data into meaningful form for reporting purposes. On an ongoing basis, the Town enters the data into an Excel-based program, which sorts it into separate databases for further review and interpretation.

3.4.2 Organic Analyses Reports

The Town installed a gas chromatograph at the on-site laboratory to self-monitor the day to day treatment efficiency of the GTF. During 2002, influent and effluent samples were collected three times per week and analyzed for VOCs. In addition, weekly samples from each of the off-site recovery wells were collected and analyzed for VOCs.

The Town has also developed computer software to assist in assembling the VOC data into meaningful form for reporting purposes. At the conclusion of each analysis, the software enters all data into an Excel-based program, which sorts it into separate databases for further review and interpretation, and prints out a computer-generated "Organic Analyses Report" for inclusion in the quarterly reports. The Organic Analyses Reports for 2002 have been previously submitted as Appendix C of the respective quarterly reports.

3.4.3 Inorganic Analyses Reports

The Town also installed at the on-site laboratory, equipment to self-monitor selected inorganic water-quality parameters. These tests are performed to forewarn the operating personnel of changes in the influent or effluent, which may signal potential equipment problems requiring maintenance, or the need for other corrective action. Therefore, soluble iron is occasionally monitored through the air stripper to quantify the potential for iron fouling of the packing media. Dissolved oxygen is measured in the effluent to assure proper blower operation and to verify thorough aeration of the influent. Results from this testing are entered onto an "Inorganic Analyses Report" for inclusion in the quarterly reports. The Inorganic Analyses Reports for 2002 have been previously submitted as Appendix D of the respective quarterly reports.

3.4.4 State Pollution Discharge Elimination System (SPDES) Reports

In addition to self-monitoring, the Town sends monthly facility influent and effluent samples to a New York State-certified laboratory for organic and inorganic (effluent only) analyses. The analyses performed are those listed in Table 6 of the Consent Decree, titled "Analytical Methods", which is reproduced here in Table 4 as it appears in that document. The 2002 SPDES reports were submitted as Appendix E of the respective quarterly reports.

TABLE 4
Analytical Methods

Parameter	Analytical Method	Sample Preservation	Holding Time
Chloride	SM 407 A	None	28 Days
Ammonia	SM 417B, EPA 350.2	Cool to 4°C pH 2 w/H_2SO_4	28 Days
Iron SM 303B,	EPA 236.1	Field filter, Cool to 4°C, pH 2 w/HNO_3	6 Months
Hardness	SM 314B, EPA 130.2	Cool to 4°C	6 Months
Alkalinity	SM 403, EPA 310.1	Cool to 4°C	14 Days
pH (measured in field)	SM 423	None	Analyze Immediately
Specific Conductance (measured in field)	SM 205	Cool to 4°C	28 Days
VOCs	EPA 601 and 602	Cool to 4°C	14 Days
Metals and others*	EPA 40 CFR 136.3 (Individual Analyses)	As per Individual method	As per Individual method

*Aluminum, Copper, Lead, Manganese, Nickel, Sodium, Zinc, Chromium (VI), Chromium, Mercury, Potassium, Magnesium, Calcium, Total Dissolved Solids, Nitrate, Sulfate, Carbonate, Total Kjeldahl Nitrogen, Bicarbonate Alkalinity, Cyanide, Phenols, and Barium.

3.4.5 Air Stripper Stack Emissions Monitoring

Air stripper stack emissions monitoring for 2002 was performed by LKB using the water-quality data generated by the Town's on-site laboratory and the GTF operational data recorded by Town personnel. A mass-balance approach was used to calculate VOC emissions from the air stripper stack. The results were compared to the stack discharge limits listed in the Consent Decree. One or more VOCs exceeded these limits each quarter. Therefore, dispersion modeling was performed to determine air-quality impacts at the downwind property boundary. The results from the air stripper stack emissions monitoring were submitted as Section 5.0 of the respective quarterly reports and are summarized Section 5.0 of this report.

3.5 Other Monitoring Functions

3.5.1 Ambient Air and Soil-Gas Quality Monitoring

The 2002 quarterly ambient air and soil-gas quality monitoring rounds were performed on February 25-26, May 6-7, September 25-26, and November 14-15, 2002, respectively. The ambient air testing procedure involves the taking of simultaneous, measured samples for VOC analyses, upwind and downwind of the Landfill. These results are used to evaluate the impacts that the Landfill, together with other OBSWDC operations, have on the local air quality. The soil gas quality testing provides useful information regarding the effectiveness of the landfill gas collection system. The 2002 quarterly ambient air and soil gas quality reports have been submitted previously as Appendix F of the respective quarterly monitoring reports. The consultant's annual summary report for this program is reproduced in its entirety as Appendix B of this report.

3.5.2 Thermal Oxidizer Stack Emissions Monitoring

The annual thermal oxidizer stack emissions test was performed on October 8, 2002. The testing procedure involves the taking of simultaneous, measured samples for VOC analyses from the thermal oxidizer stack. Simultaneously, the burner operating conditions during the test are also monitored. The analytical results, after adjustment to standard conditions, demonstrate the degree of trace organics destruction achieved by

the equipment. The consultant's report of his findings for this test was submitted previously as Appendix H of the 2002 Fourth Quarter Report.

SECTION 4.0
GROUNDWATER MONITORING PROGRAM

4.1 General

In compliance with the Consent Decree for the Landfill, the following groundwater monitoring activities were performed during calendar year 2002:

- four rounds of quarterly water-level measurements collected on February 18, April 8, July 1, and October 21, 2002, respectively; and
- four rounds of quarterly groundwater quality samples collected on February 20-22, April 9-11, July 2-8, and October 22-24, 2002, respectively.

The results from each monitoring round were submitted as Appendix G of each quarterly report. The consultant's annual summary report for 2002 is reproduced in Appendix C of this report. The results from each monitoring round are presented in Sections A through D of Appendix C, respectively.

4.1.1 Field Sampling Protocols

Except as noted in the quarterly monitoring reports, the field sampling protocols used during each 2002 monitoring round were those previously submitted to the NYSDEC by the Town in July of 1991. Quality Assurance/Quality Control (QA/QC) procedures utilized during each 2002 monitoring round consisted of one field blank analyzed for all parameters, and daily trip blanks analyzed for VOCs only. The blank samples were used to gauge the level of background contamination, if any, from sources other than the wells. In addition, one anonymous replicate sample was collected during each sampling round and analyzed for all parameters to determine the laboratory precision of the analytical results. All field procedures were in conformance with Sections IV.A, B and C in Appendix A of the Consent Decree.

4.1.2 Elevation of Well Screen Intervals

Elevations of the well screen intervals (in feet, relative to Mean Sea Level (MSL)) were assigned to the following zones for data correlation and water-level mapping purposes:

- Water Table Zone: 76 to 43 feet above MSL;
- Shallow Potentiometric Zone: 30 feet above to 30 feet below MSL; and
- Deep Potentiometric Zone: 65 to 157 feet below MSL.

The recovery well screen intervals range in elevation from 4 feet above MSL to 128 feet below MSL, and therefore intersect both the shallow and deep potentiometric zones.

4.2 Hydraulic Monitoring

The purposes of the hydraulic monitoring are: 1) to delineate the effective capture zone of the groundwater recovery wells so that hydraulic containment of the VOC plume can be demonstrated; and 2) to determine the extent of mounding around the recharge basin(s), and the effect of that mounding, if any, on local groundwater flow patterns.

The following wells were incorporated into the 2002 hydraulic monitoring rounds:

- The 23 off-site monitoring wells (e.g., MW-5A, MW-5B, etc.);
- Existing Phase II and III wells (LF-1 through LF-4 and TW-1 through TW-3);
- Nassau County Monitoring Well N-9980 (N-9936), at Melville Road;
- Observation Wells OBS-1 and OBS-2;
- Recovery Wells RW-1 through RW-5;
- Upgradient/Recharge Basin Wells M-29A&B and M-30A&B;
- Replacement Wells M-29A-R, M-30B-R and TW-3-R; and
- Claremont Site Well Clusters EW-1, EW-2 and EW-3.

With the exception of Wells MW-7A, MW-9A and M-30A, which were dry during all four quarterly monitoring rounds, Wells MW-6A, which was dry at the time of the first quarter monitoring round, Well Cluster EW-2, which was not measured during the first quarter monitoring round, Well M-29B, which was dry during the second, third and fourth quarter monitoring rounds and Well Cluster EW-1, which could not be measured during the second, third and fourth quarter monitoring rounds due to a newly-installed

fence, and Well EW-2A, which was dry at the time of the fourth quarter monitoring round, all of the monitoring wells specified in the Consent Decree were measured during each of the hydraulic monitoring rounds performed during 2002. Static water levels were measured to the nearest 0.01-foot with an electronic water-level meter. The water-level data collected during 2002 are provided in Appendix C, and are summarized in Table 5 of this report.

The water-level data were converted to elevations relative to MSL and plotted according to well depth on a Location Plan. The water-level elevations were then contoured to produce the water table, shallow potentiometric and deep potentiometric surface maps shown in Figures 1 through 3 in each section of Appendix C. The approximate areal extent of the total VOC plume (based on the 2002 data) and the limiting flow lines of the effective capture zone were also drawn on these figures. Contour lines are dashed where the data points are less than optimum, and the limiting flow lines drawn though these areas are approximate.

4.2.1 Overview of 2002 Water-Level Data

As shown in Table 5, during 2002, with the exception of Well TW-1, which appears to be influenced by mounding around Recharge Basin No. 1, water-level elevations decreased by an average of 2.55 feet in the 38 monitoring and observation wells for which comparative data are available. A similar average decrease of 2.82 feet was observed for the recovery wells. The site-wide decrease in water-level elevations during 2002 is attributed to the fact that virtually no aquifer recharge occurred during the second half of 2002 as a result of unusually low rainfall during this period. The rate at which water-level elevations decreased was highest during the fourth quarter of 2002.

The magnitudes of the water-level elevation decreases observed during 2002 were similar for all three aquifer zones and averaged -2.72 feet, -3.17 feet and –2.37 feet for the water-table, shallow potentiometric and deep potentiometric zones of the aquifer, respectively. The largest magnitude decreases were observed in wells that are also influenced by the recovery wellfield (e.g., Well MW-6C (-4.68 feet)). The smallest magnitude decreases were observed in deeper wells that are remote from the recovery wellfield (e.g., Well MW-11B (-0.73 feet)).

TABLE 5

SUMMARY OF 2002 WATER-LEVEL ELEVATION DATA

Well Number	Screened Interval	2002 Water-Level Elevation Data*				Net Change** During 2002
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
MW-5A	1	59.69	59.64	58.77	56.43	-3.26
MW-5B	2	59.72	59.63	58.76	56.63	-3.09
MW-6A	1	DRY	59.04	57.94	56.33	-2.71
MW-6B	2	59.21	58.94	57.80	56.23	-2.98
MW-6C	2	59.96	59.09	58.01	55.28	-4.68
MW-6D	2	57.95	59.01	57.97	56.37	-1.58
MW-6E	3	59.03	58.78	57.57	57.26	-1.77
MW-6F	>3	57.53	58.42	57.22	55.96	-1.57
MW-7A	1	DRY	DRY	DRY	DRY	NA
MW-7B	3	53.59	53.24	53.11	50.71	-2.88
MW-8A	1	59.35	58.99	58.42	55.96	-3.39
MW-8B	2	59.72	59.22	58.44	56.75	-2.97
MW-8C	3	59.97	59.76	58.63	57.31	-2.66
MW-9A	1	DRY	DRY	DRY	DRY	NA
MW-9B	2	55.22	54.84	54.23	51.52	-3.70
MW-9C	3	54.28	53.92	53.45	51.28	-3.00
MW-9D	>3	55.05	54.75	53.88	52.86	-2.19
MW-10A	1	58.73	58.33	57.86	55.51	-3.22
MW-10B	2	58.36	58.02	57.16	55.72	-2.64
MW-10C	3	58.42	58.11	57.15	56.04	-2.38
MW-10D	3	58.45	58.19	56.96	55.42	-3.03
MW-11A	>2 & <3	50.40	49.09	49.87	49.67	-0.73
MW-11B	3	50.21	49.91	49.70	49.48	-0.73
M-29A-R	1	59.67	61.35	60.37	58.63	-1.04
M-29B	1	63.58	DRY	DRY	DRY	NA
M-30A	1	DRY	DRY	DRY	DRY	NA
M-30B-R	1	63.21	62.71	61.66	59.92	-3.29
N-9980	1 & 2	45.07	45.05	43.83	42.38	-2.69
LF-1	2	61.39	61.11	59.85	57.91	-3.48
LF-2	2	60.95	60.59	NM	57.69	-3.26
LF-3	2	63.56	63.06	62.01	60.40	-3.16
LF-4	2	63.88	63.59	62.32	60.54	-3.34
OBS-1	3	55.25	54.36	53.57	52.59	-2.66
OBS-2	3	53.55	53.20	52.53	51.45	-2.10
RW-1	2 & 3	47.81	47.48	46.01	53.64	-1.80
RW-2	2 & 3	45.02	44.50	42.21	40.94	-4.08
RW-3	2 & 3	42.55	42.42	54.02	39.69	-2.86
RW-4	2 & 3	46.40	47.72	46.49	44.99	-1.41
RW-5	2 & 3	48.60	48.24	46.50	44.96	-3.64
TW-1	1	DRY	64.43	64.28	66.64	2.21
TW-2	1	58.81	60.48	59.45	57.60	-1.21
TW-3-R	1	58.39	60.35	59.29	57.39	-1.00
EW-1A	1	60.47	NM	NM	NM	NA
EW-1B	>1&<2	60.39	NM	NM	NM	NA
EW-1C	2	60.61	NM	NM	NM	NA
EW-2A	1	NM	58.89	57.86	DRY	NA
EW-2B	>1&<2	NM	59.09	58.14	56.64	-2.45
EW-2C	2	NM	58.91	57.96	56.65	-2.26
EW-3A	1	57.43	57.00	56.42	55.24	-2.19
EW-3B	>1&<2	57.52	57.06	56.32	55.16	-2.36
EW-3C	2	57.43	57.08	56.35	55.85	-1.58

1 - Water-Table Zone (76 to 43 feet above Mean Sea Level (MSL)).
2 - Shallow Potentiometric Zone (30 feet above to 30 feet below MSL).
3 - Deep Potentiometric Zone (65 to 157 feet below MSL).
* - All water-level data are in feet relative to MSL.
** - Net Change is in feet.
NM - not measured, NA - not applicable.

The relative increase in water-level elevation noted for Well TW-1 appears to be associated with mounding around Recharge Basin No. 1. The relative increase in water-level elevation noted for Recovery Well RW-1 reflects the fact that this well was off-line at the time of the fourth quarter water-level round. Since these results are anomalous, they are not included in the above discussion of water level trends.

Water-level elevations in all three aquifer zones were consistently highest in wells located north and west of the Landfill, and lowest in wells located south and east of the Landfill, confirming that the horizontal groundwater flow direction was from northwest to southeast across the site during 2002 with the exception of the radially inward flow within the effective capture zone of the recovery welllfield. This groundwater flow direction is consistent with previous data for the site, as well as the regional data reported by the United States Geological Survey. Although localized mounding occurs in the shallower zones of the aquifer in the vicinity of actively used recharge basins, the discharge of treated groundwater to the basins does not appear to have a significant effect on groundwater flow patterns in the deeper zones of the aquifer.

Based on the average decrease in water-level elevation between upgradient Well LF-4 and downgradient Well MW-11A (12.82 feet) and the distance between the wells (8,100 feet), the horizontal hydraulic gradient in the shallow potentiometric zone is approximately 0.0016. This hydraulic gradient is consistent with that observed for other areas of Long Island. Previous aquifer tests by Geraghty & Miller, Inc. determined that the groundwater flow velocity in the vicinity of the site is approximately 0.5 feet per day.

Review of the water-level data in Table 5 further indicates that the natural vertical hydraulic gradient in this area, which is downward, has been altered by pumpage from the Town's recovery wellfield, and to a lesser extent by unusual recharge conditions. Specially, at well clusters located outside the radius of influence of the Town's recovery wellfield, water-level elevations generally decrease with increasing well depth, indicating a downward vertical hydraulic gradient. In contrast, at well clusters located within the radius of influence of the recovery wellfields (e.g., Well Cluster MW-6), water-level elevations remain constant or increase with increasing well depth,

indicating flat or upward vertical hydraulic gradients, respectively. These influences can be attributed to long-term pumping at the Town's recovery wellfield, which has lowered hydraulic head pressures in the shallow and deep potentiometric zones, where the recovery wells are screened.

The presence of flat or upward vertical hydraulic gradients at certain locations indicates that groundwater is no longer moving downward in the aquifer as it migrates downgradient at these locations. Note that a flat or slightly upward vertical hydraulic gradient exists at Well Cluster MW-10 and between the "B" and "C" wells at the Claremont Site's Well Cluster EW-3, indicating that the Town's recovery wellfield may also be influencing groundwater flow patterns at these locations.

In addition, since mid 2000, relatively strong upward hydraulic gradients have been observed at Well Cluster MW-8. Previously, downward gradients were observed at this well cluster, which is located outside the radius of the Town' recovery wellfield. The upward gradients observed at this well cluster since mid 2000 may reflect localized hydraulic influences from the Claremont Site's recovery wells, which are located a short distance to the south of Well Cluster MW-8.

Review of the various water-level maps in Appendix C indicates that the overall size and position of the capture zone remained consistent during 2002, although some variation was noted from quarter to quarter. The GTF maintained an average on-line performance of 90 percent during 2002, and remediated approximately 490 million gallons of groundwater at an average influent flow rate of 1.35 MGD. Moreover, the water level maps shown in Appendix C indicate that the full extent of the Landfill's VOC plume was being captured during 2002.

4.3 Groundwater Quality and Quarterly Monitoring

In fulfillment of Consent Decree requirements, four rounds of quarterly groundwater sampling were conducted on February 20-22, April 9-11, July 2-8, and October 22-24, 2002, respectively.

As per Consent Decree requirements, the following 16 wells were sampled during each round:

Off-Site Wells:	MW-5B
	MW-6A, MW-6B, MW-6C, MW-6E and MW-6F
	MW-7B
	MW-8A and MW-8B
	MW-9B and MW-9C
	MW-11A and MW-11B
Observation Well:	OBS-1
Upgradient Well:	M-30B-R
Landfill Well:	LF-1

The groundwater samples from all four quarterly monitoring rounds were analyzed for the VOCs, total (unfiltered) metals, dissolved (filtered) metals and leachate indicator parameters listed in Table 4. The only exceptions were the samples from Well LF-1, which were analyzed for leachate indicator parameters only, as per Consent Decree requirements.

In keeping with a previous recommendation, Well MW-9D was also sampled during the third quarter round to provide current data for the deep potentiometric zone of the aquifer at this location, which is downgradient of the Landfill and upgradient of the Town's recovery wellfield. Moreover, Well OBS-2, which is located downgradient of the Town's recovery wellfield was sampled for VOCs during the third quarter monitoring round. During the fourth quarter monitoring round, split samples were collected from Wells MW-10B and MW-10C, which were being sampled by the USEPA as part of a synoptic sampling round for wells located downgradient of the Claremont Site.

The analytical results from each quarterly monitoring round are summarized in Sections A through D of Appendix C, respectively. The certified laboratory data reports were included in Appendix G of the respective quarterly reports. No artifact compounds or blank contaminants were reported during any of the 2002 quarterly monitoring rounds, and duplicate sample results were reported to be within acceptable limits for all analyses.

The groundwater recovery system was designed to capture and treat the VOC portion of the Landfill plume. Therefore, the data analysis focuses on VOC contamination. Analysis

of the metal and leachate indicator results was limited to a comparison of those data to VOC plume dimensions, and a compilation of exceedances of the groundwater aquifer requirements for these parameters based on the limitations provided in Table 2.

The VOC data collected during the four 2002 quarterly monitoring rounds were evaluated on the basis of their observed 2002 ranges, and comparison to pre-2002 quarterly monitoring results and the 1991 baseline sampling data. To facilitate this evaluation, summary tables have been incorporated into the text of this report. These tables are intended to demonstrate annual and long-term trends in the data, and therefore differ from those used in the quarterly reports. Specifically, the 2002 VOC data are presented as the minimum, maximum and average concentrations detected, rather than as specific results for each quarter. The pre-2002 VOC data are presented as average concentrations for both 2001 and the combined period from 1992-2001, rather than as historical minimum, maximum and average values. The baseline 1991 data are presented as the actual concentrations detected.

Also, it should be noted that the ranges and averages given for Well OBS-1 reflect only those quarters for which data are available. During 2002, Well OBS-1 was sampled during all four quarterly monitoring rounds. Well OBS-1 has been sampled during 31 of the 42 monitoring rounds performed since start-up of the GTF. Well OBS-2 was sampled as a substitute well during the 11 quarterly monitoring rounds when Well OBS-1 was damaged and could not be sampled. However, since Well OBS-2 was not sampled as a substitute well during 2002, and was only sampled for VOCs during the third quarter of 2002, the previous results for this well are not discussed in this report. Moreover, Well MW-9D has only been sampled five times since start-up of the GTF, specifically during the third quarter rounds of 1998, 1999, 2000, 2001 and 2002. The ranges and averages given for Well MW-9D are based on the results from these five sampling events.

Consistent with the quarterly reports, the following subsections discuss the distribution of total VOC concentrations, as well as the nature and extent of the three distinct VOC groupings which have historically been detected in groundwater: volatile halogenated organics, excluding tetrachloroethene (VHOs); aromatic hydrocarbons; and tetrachloroethene. Plume maps depicting the approximate areal extent of these VOC groupings, based on the results from each 2002 quarterly monitoring round, are provided in Figures 4 through 6 in each section of Appendix C, respectively.

4.3.1 Analysis of 2002 Total VOC Data

VOCs were detected in 12 of the 19 wells sampled for VOCs during 2002, including ten of the 15 wells sampled quarterly (MW-5B, MW-6B, MW-6C, MW-6E, MW-7B, MW-8A, MW-8B, MW-9C, OBS-1 and M-29A-R), Well MW-9D, which was sampled during the third quarter monitoring round, and Wells MW-10B and MW-10C, which were sampled during the fourth quarter monitoring round. Except for Wells MW-5B, MW-6E, MW-8B, MW-9C and M-29A-R, which were non-detectable for VOCs during 2001, and Wells MW-10B and MW-10C, which not sampled in 2001, these are the same wells in which VOCs were detected last year. Moreover, in addition to Wells MW-6A and OBS-2, in which VOCs were previously detected but are currently at non-detectable levels; and Well Cluster EW-3; which contained VOCs during the expanded third quarter 1998 monitoring round, these are the wells in which VOCs have historically been detected. The total VOC concentrations in Wells MW-9C and M-29-R, which are limited to 1-ppb detections during the first quarter 2002 monitoring round, appear to be spurious and are not discussed further in this report.

The distribution of total VOCs detected in the wells sampled quarterly during 2002, contrasted against previous data, is summarized in the following table:

TOTAL VOC CONCENTRATIONS IN 2002 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2002 (Max.)	Range (Avg.)	2001 Average	1992-2001 Average	Baseline 1991 Data
MW-5B	ND	5	1.8	ND	6	17
MW-6B	4.7	30	17	17	17	105
MW-6C	3	18	9.5	10	8	31
MW-6E	2.2	8	6	ND	7	53
MW-7B	138	240	191	195	126	157
MW-8A	22	36	29	15	350	507
MW-8B	ND	1.6	0.8	ND	4	43
MW-9D	53	53	53	79	87	ND
OBS-1	3.7	25	14	20	138	8

* all concentrations in parts per billion (ppb), ND = not detectable.

Note that, relative to the 2001 averages, the 2002 average concentrations were lower for Wells MW-9D and OBS-1, similar for Wells MW-5B, MW-6B, MW-6C, MW-7B and MW-8B, and higher for Wells MW-6E and MW-8A. The decreases in average total VOC concentration in Wells MW-9D and OBS-1 are consistent with the overall downward trend in groundwater VOC concentrations that has been observed since start-up of the GTF. The similar very low average total VOC concentrations in Wells MW-5B and MW-8B are consistent with the sporadic low concentrations that have been detected in these wells since start-up of the GTF. The similar average total VOC concentrations in Wells MW-6B, MW-6C and MW-MW-7B are attributed to the fact that the rates of improvement in groundwater quality are lower than when the GTF first became operational. The increases in average total VOC concentration in Wells MW-6E and MW-8A are attributed to local groundwater quality conditions at these locations.

Comparison of the 2002 average total VOC concentrations to the 1992-2001 averages indicates temporal decreases in total VOC concentration for Wells MW-5B, MW-8A, MW-8B, MW-9D and OBS-1, temporal increases for Wells MW-6B and MW-6C, and a relatively large magnitude temporal increase for Well MW-7B. The temporal decreases in average total VOC concentration observed for five of the nine wells are consistent with the overall temporal decrease in groundwater VOC concentrations observed since start-up of the GTF. Previously, decreasing trends were also observed for Wells MW-6A, MW-9C and OBS-2, which are now non-detectable for VOCs. The temporal increases observed for Wells MW-6B and MW-6C are artifacts of the data caused by plume dilution associated with the full-time discharge of treated groundwater to Town Recharge Basin No. 33 during the period from October 1994 trough October 1996. As a result of this dilution, the 1992-2001 averages for these two wells are biased low. Overall, total VOC concentrations in these two wells have also shown fluctuating but gradually decreasing trends since start-up of the GTF. The relatively large magnitude temporal increase observed for Well MW-7B reflects the increase in total VOC concentrations detected in this well during 2001. As noted previously, this increase is believed to reflect a temporary westward shift in the position of the VOC plume. Prior to 2001, total VOC concentrations in Well MW-7B showed a fluctuating but generally decreasing trend.

Compared to the baseline 1991 data, the 2002 average total VOC concentrations were lower for all wells except Wells MW-7B, MW-9D and OBS-1. The relative increases noted for Wells MW-9D and OBS-1 can be attributed to downgradient migration of the

Landfill VOC plume toward the Town's recovery wellfield subsequent to start-up of the GTF. The relative increase noted for Well MW-7B is believed to reflect a shift in the position of the plume, as noted above.

During 2002, the general pattern of total VOC concentrations in the eight wells monitored quarterly was similar to the water-level elevation data in that the highest and lowest concentrations occurred primarily during the first and fourth quarters, respectively. Overall, total VOC concentrations in the wells sampled quarterly showed decreasing trends during 2002. This finding is consistent with the overall temporal increase in groundwater VOC concentrations observed since start-up of the GTF, and indicates that groundwater quality is continuing to improve in response to the ongoing groundwater remediation.

Based on comparison of the fourth quarter 2002 data to the third quarter 1998 data, total VOC concentrations in Wells MW-10B and MW-10C, which are attributed to the Claremont Site, have decreased by approximately two orders of magnitude since 1998.

Figures 1, 2 and 3 in Sections A through D of Appendix C show the approximate areal extent of the total VOC plume in each aquifer zone, based on the results from each quarterly monitoring round, respectively. The current dimensions of the plume include the data from the additional wells sampled during the third quarter 1998 monitoring round. As shown in these figures, the occurrence of VOCs in the water-table zone is limited to the area immediately downgradient of the Claremont Site. In contrast, the occurrence of VOCs in the shallow potentiometric zone extends from the Landfill downgradient to the recovery wellfield, and shows the greatest areal extent of the three aquifer zones. It should be noted, however, that the portion of the plume shown around Wells MW-10B and EW-3C is attributed to the Claremont Site. The occurrence of VOCs in the deep potentiometric zone is limited to the area downgradient of the Landfill and in the immediate vicinity of the Town's recovery wellfield.

Apart from the portion of the plume in the vicinity of Wells MW-10B and EW-3C, which is attributed to the Claremont Site, the current plume dimensions are somewhat smaller relative to the 1991 plume boundaries. These findings, together with the temporal decrease in total VOC concentrations observed since start-up of the GTF, indicate that groundwater quality is continuing to improve in response to the ongoing remediation.

The Consent Decree specifies a Groundwater Aquifer Requirement of 50 ppb for total VOCs. During 2002, this limit was exceeded in Wells MW-7B and MW-9D. Prior to 2001, this limit was also exceeded in Wells MW-8A and OBS-1. These are the wells that have historically exceeded this limit. The magnitudes of the exceedances have been gradually decreasing since start-up of the GTF. The exceedance noted for Well MW-9D reflects the continued downgradient migration of the deeper portion of the Landfill plume toward the Town's recovery wellfield subsequent to start-up of the GTF.

4.3.2 Analysis of 2002 VHO Data

VHOs were detected in six of the nine wells in which VOCs were detected during 2002, including three of the wells sampled quarterly (MW-7B, MW-8A and OBS-1), Well MW-9D, which was sampled during the third quarter round, and Wells MW-10B and MW-10C, which were sampled during the fourth quarter round. Except for Wells MW-10B and MW-10C, which were not sampled in 2001, these are the same wells in which VHOs were detected last year. Moreover, in addition to Wells MW-5B, MW-6A, MW-6B, MW-6E, MW-8B, MW-9C and OBS-2, in which VHOs have previously been detected but are currently at non-detectable levels, these are the wells in which VHOs have been detected during quarterly monitoring. VHOs were also detected in Wells MW-10D and LF-1 during the expanded third quarter 1998 monitoring round.

The distribution of total VHOs detected in the wells sampled quarterly during 2002 and Well MW-9D, contrasted against previous data, is summarized in the following table:

TOTAL VHO CONCENTRATIONS IN 2002 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2002 (Max.)	Range (Avg.)	2001 Average	1992-2001 Average	Baseline 1991 Data
MW-7B	25	50	36	23	17	17
MW-8A	1	2	1.4	1	149	65
MW-9D	31	31	31	50	55	ND
OBS-1	0.6	7.5	4.1	6	61	13

* all concentrations in parts per billion (ppb), ND = not detectable.

Note that, relative to the 2001 and 1992-2001 average concentrations, the 2002 average concentrations were lower or similar for all wells except Well MW-7B. With

respect to the wells sampled quarterly, the relative decreases are consistent with the overall temporal decrease in total VHO concentrations observed across the site since start-up of the GTF. Moreover, the 2002 results for Wells MW-8A and OBS-1 are the lowest total VHO concentrations detected in these wells since the start of quarterly monitoring. The temporal increase in total VHO concentrations in Well MW-7B is attributed to a temporary westward shift in the position of the VOC plume, as noted previously. The decrease in the "average" total VHO concentration in Well MW-9D during 2002, relative to 2001, is also consistent with the overall temporal decrease in total VHO concentrations that has occurred since start-up of the GTF.

Comparison of the 2002 average total VHO concentrations to the baseline 1991 data indicates relative decreases in concentration for Wells MW-8A and OBS-1, and relative increases for Well MW-7B and MW-9D. The relative decreases noted for Wells MW-8A and OBS-1 are consistent with the overall decrease in groundwater total VHO concentrations observed since start-up of the GTF. The relative increase noted for Well MW-7B is believed to be attributable to a shift in the position of the VOC plume, as mentioned above. The relative increase noted for Well MW-9D is attributed to migration of the VHO plume to this location subsequent to start-up of the GTF.

During 2002, the general pattern of total VHO concentrations in the three wells monitored quarterly was similar to the total VOC results in that the highest and lowest concentrations occurred primarily during the first and fourth quarters, respectively. However, overall, total VHO concentrations remained fairly consistent in all three wells. This is expected, and reflects the fact that as the remediation progresses, the magnitudes of the improvement in water quality become less pronounced and therefore harder to distinguish on a short-term basis.

Figure 4 in Sections A through D of Appendix C shows the approximate areal extent of total VHOs in groundwater based on the results from each quarterly monitoring round. As shown, the current dimensions of the VHO plume are generally comparable to the 2001 findings, and the plume maps include the data from the additional wells sampled during the expanded third quarter 1998 monitoring round. Note that the configuration of the VHO plume has changed somewhat relative to the baseline 1991 plume boundaries. Specifically, in addition to the general lack of VHO detections in the central portion of the plume area (e.g., Well MW-5B), the eastern side of the plume has been

extended to reflect the VHO detections in Well Clusters MW-10 and EW-3, which are associated with the off-site plume from the Claremont Site.

A total of ten specific VHO compounds was detected in the quarterly groundwater samples collected during 2002. Three of these VHOs (1,2-dichloroethene, trichloroethene and vinyl chloride) were detected in the wells sampled quarterly. These are the VHOs that have been detected in groundwater on a regular basis. These three VHOs and six others (dichlorodifluoromethane, chloroethane, fluorotrichloromethane, 1,1,1-trichloroethane, 1,1-dichloroethane and 1,2-dichloropropene) were detected in the third quarter 2002 sample from Well MW-9D. The concentrations of individual VHO species detected in the sample from Well MW-9D ranged from 0.5 ppb to 6.7 ppb, and averaged 3.4 ppb. Five VHOs (chloroform, 1,1-dichloroethene, 1,2-dichloroethene, 1,1,1-trichloroethane and trichloroethene) were detected in Well MW-10B. Four VHOs (chloroform, 1,2-dichloroethene, 1,2-dichlororopene and trichloroethene) were detected in Well MW-10C. The concentrations of the individual VHOs in Wells MW-10B and MW-10C ranged from 0.6 ppb to 5.8 ppb and averaged 2.2 ppb.

The nature and extent of the three VHO compounds detected in the wells sampled quarterly during 2002 are summarized below:

VHO COMPOUNDS DETECTED IN 2002 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2002 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
1,2-dichloroethene	9/12	0.7	5.6	1.9	5
Trichloroethene	10/12	0.5	25	15	5
Vinyl chloride	1/12	1.1	1.1	1.1	2

* all concentrations in ppb.

** frequency each compound was detected in the samples in which these three VHOs were detected.

*** see Table 1.

The highest concentrations of 1,2-dichloroethene were detected in the first and second quarter samples from Well OBS-1 and in Well MW-10C, which was sampled during the fourth quarter round. The highest concentrations of trichloroethene were detected in Well MW-7B. Vinyl chloride was detected in the second quarter sample from Well

OBS-1, and the sample from Well MW-9D collected during the third quarter round. Overall, the pattern of VHO detections was similar to that observed during 2001.

Exceedances of the Groundwater Aquifer Requirements imposed by the Consent Decree occurred in Wells MW-7B, MW-9D, MW-10C and OBS-1 during 2002. For Well MW-7B, exceedances were noted for trichloroethene during all four monitoring rounds. For the sample collected from Well MW-9D, exceedances were noted for chloroethane, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethene, and vinyl chloride. For Well OBS-1, an exceedance was noted for 1,2-dichloroethene during the second quarter round. The number and magnitudes of the exceedances noted during 2002 are less than those observed during 2001, which is in keeping with the gradual temporal reduction in groundwater VOC concentrations observed since start-up of the GTF.

4.3.3 Analysis of 2002 Aromatic Hydrocarbon Data

Aromatic hydrocarbons were detected in ten of the 13 wells in which VOCs were detected during 2002, including nine of the wells sampled quarterly (MW-5B, MW-6B, MW-6C, MW-6E, MW-8A, MW-8B, MW-9C, OBS-1 and M-29A-R), and Well MW-9D, which was sampled during the third quarter monitoring round. However, it should be noted that the aromatic hydrocarbon detections in Wells MW-9C and M-30B-R were limited to single 1-ppb detections during the first quarter round. As such, they were considered to be spurious and are not discussed further in this report. Aromatic hydrocarbons were not detected in Wells MW-10B and MW-10C.

With the exception of Wells MW-5B, MW-6E and MW-8B, which were non-detectable for VOCs during 2001, these are the same wells in which aromatic hydrocarbons were detected last year. Moreover, in addition to Wells MW-6A, MW-9C and OBS-2, in which low levels of aromatic hydrocarbons were previously detected but are currently at non-detectable levels, these are the wells in which aromatic hydrocarbons have been detected during quarterly monitoring. Aromatic hydrocarbons were also detected in Landfill Wells LF-1 and LF-2 during the expanded third quarter 1998 monitoring round.

The distribution of total aromatic hydrocarbons detected in wells sampled during 2002, contrasted against previous data, is summarized below:

TOTAL AROMATIC HYDROCARBONS IN 2002 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2002 (Max.)	Range (Avg.)	2001 Average	1992-2001 Average	Baseline 1991 Data
MW-5B	ND	5	2	ND	4	15
MW-6B	5	30	17	17	17	48
MW-6C	3	18	10	10	7	30
MW-6E	2	8	5	ND	5	37
MW-8A	ND	2.4	0.6	0.1	1	2
MW-8B	ND	2	0.8	ND	ND	1
MW-9D	20	20	20	27	26	ND
OBS-1	3	12	7	11	71	110

* all concentrations in ppb, ND = not detectable.

Note that, relative to the 2001 average concentrations, the 2002 average concentrations are lower for Wells MW-9D and OBS-1, the same for Wells MW-6B and MW-6C, and higher for Wells MW-5B, MW-6E and MW-8A. The decreases noted for Wells MW-9D and OBS-1 are consistent with the site-wide temporal decrease in groundwater aromatic hydrocarbon concentrations observed since start-up of the GTF. The results for Wells MW-6B and MW-6C indicate that aromatic hydrocarbon concentrations have been relatively consistent in these wells since 2001. However, it is noted that aromatic hydrocarbon concentrations in these two wells decreased during the second half of 2002, consistent with the site-wide trend. The increases in average total hydrocarbon concentration in the other wells are attributed to be relatively short-term fluctuations associated with the lack of recharge, and the associated plume dilution, during the second half of 2002.

Comparison of the 2002 average total aromatic hydrocarbon concentrations to the 1992-2001 averages indicates temporal decreases in concentration for Wells MW-5B, MW-8A, MW-9D and OBS-1, comparable values for Wells MW-6B and MW-6E, and slight increases for Wells MW-6C and MW-8B. The decreases noted for Wells MW-5B, MW-8A, MW-9D and OBS-1 during 2002 are consistent with the overall temporal decreases in groundwater aromatic hydrocarbon concentrations observed in these wells since start-up of the GTF. The comparable values noted for Wells MW-6B and MW-6E indicate that aromatic hydrocarbon concentrations in these wells have remained relatively constant since 1992. The slight increases in concentration noted for Wells MW-6C and MW-8B are attributed to local groundwater quality conditions at these locations.

Comparison of the 2002 average concentrations to the 1991 baseline data indicates decreases for all wells except Well MW-9D, which increased from non-detectable in 1991 to 20 ppb in 2002. As noted previously, this increase reflects downgradient migration of the deeper portion of the Landfill plume at this location towards the Town's recovery wellfield subsequent to start-up of the GTF.

During 2002, total aromatic hydrocarbon concentrations showed fluctuating, but generally decreasing trends in all of the wells sampled on a quarterly basis. Similar to the water-level, total VOC and total VHO results, on a per well basis, total aromatic hydrocarbon concentrations showed a decreasing trends during 2002.

Figure 5 in Sections A through D of Appendix C shows the approximate areal extent of the aromatic hydrocarbon plume based on the results from each of four 2002 quarterly monitoring rounds, respectively. Comparison of these figures to previous findings indicates that the dimensions of the aromatic hydrocarbon plume have decreased somewhat relative to the baseline 1991 plume boundary.

A total of six aromatic hydrocarbon species were detected during 2002: benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, toluene and xylene. In general, these are the aromatic hydrocarbon species that have historically been detected in groundwater samples.

The nature and extent of aromatic hydrocarbon compounds in groundwater, based on the 2002 data, are summarized below:

AROMATIC HYDROCARBONS DETECTED IN 2002 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2002 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
Benzene	10/23	0.7	9.7	4.1	1
Chlorobenzene	14/23	0.8	9.2	2.7	5
1,4-dichlorobenzene	14/23	0.5	7.2	2.7	3
1,2-dichlorobenzene	15/23	0.6	3.5	1.3	3
Toluene	15/23	0.5	7.2	1.9	5
Xylene (total)	8/23	0.6	5.3	2.3	5

* all concentrations in parts per billion (ppb).

** frequency each compound was detected in samples in which aromatic hydrocarbons were detected.

*** see Table 2.

Benzene was detected in Well OBS-1 during all four 2002 monitoring rounds, in Well MW-6C during the first, second and fourth monitoring rounds, in Well MW-6B during the first and second quarter monitoring rounds, and in the third quarter sample from Well MW-9D. The highest levels of benzene were detected in Wells MW-6B, MW-9D and OBS-1. Chlorobenzene was detected in Wells MW-6B, MW-6C and MW-6E during all four 2002 quarterly monitoring rounds, in Well OBS-1 during the second quarter monitoring round, and in the third quarter sample from Well MW-9D. The highest concentrations of chlorobenzene were detected in Well MW-6B, followed by Well MW-6C. Dichlorobenzenes were detected in all four samples from Wells MW-6B, MW-6C and OBS-1, and in the second, third and fourth quarter samples from Well MW-6E. 1-4-dichlorobenzene is the isomer detected most often and at the highest concentrations. Toluene was detected in all of the wells in which aromatic hydrocarbons were detected during the first quarter round, and in all wells except Well OBS-1 in which aromatic hydrocarbons were detected during the second quarter monitoring round. Toluene was detected in Wells MW-6B and MW-6E during the third quarter monitoring round and in Well MW-8B during the fourth quarter monitoring round. The highest concentrations of toluene were detected in Wells MW-5B and MW-6E during the first quarter monitoring round. Xylene was detected in Wells MW-6B, MW-6C and OBS-1 during the first quarter monitoring round, in Wells MW-5B, MW-6B, MW-6C and MW-6E during the

second quarter monitoring round, and in the third quarter sample from Well MW-9D. The highest concentration of xylene was detected in the sample from Well MW-9D.

Exceedances of the Groundwater Aquifer Requirements imposed by the Consent Decree were noted for benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene and xylene. Specifically, a total of eight exceedances for benzene were noted in the quarterly samples from Wells MW-6B, MW-6C, MW-9D and OBS-1. Exceedances for chlorobenzene were noted for Well MW-6B during the first and second quarter monitoring rounds. Exceedances for dichlorobenzene were noted for Wells MW-6B and MW-6C during the first and second quarter monitoring rounds. Exceedances for toluene were noted for Wells MW-5B and MW-6E during the first quarter monitoring round. An exceedance for xylene was noted for the third quarter sample from Well MW-9D. On a per quarter basis, a total of seven exceedances were noted for the first and second quarter monitoring rounds, three exceedances were noted for the third quarter monitoring round and one exceedance was noted for the fourth quarter monitoring round. The decreasing frequency of exceedances during 2002 is consistent with the overall temporal reduction in groundwater aromatic hydrocarbon concentrations. No exceedances for aromatic hydrocarbons occurred in Wells MW-8A and MW-8B during 2002.

4.3.4 Analysis of 2002 Tetrachloroethene Data

Tetrachloroethene was detected in Wells MW-7B, MW-8A and OBS-1 during all four 2002 quarterly monitoring rounds, in the sample collected from Well MW-9D during the third quarter monitoring round, and in the split sample from Well MW-10B collected during the fourth quarter monitoring round. With the exception of Well MW-8B, which was non-detectable for tetrachloroethene during 2002, and Well MW-10B, which was not sampled in 2001, these are the same wells in which tetrachloroethene was detected last year.

The highest concentrations of tetrachloroethene were detected in Wells MW-7B (113-190 ppb) and MW-8A (21-33 ppb). Lower concentrations were detected in Wells MW-9D (2.5 ppb), MW-10B (2.4 ppb) and OBS-1 (0.6-5.2 ppb). Groundwater tetrachloroethene concentrations showed fluctuating but generally decreasing trends during 2002.

Compared to last year's data, on average, tetrachloroethene concentrations decreased in Well MW-7B, increased in Well MW-8A, and remained essentially unchanged in Wells MW-9D and OBS-1. The decrease in tetrachloroethene concentrations in Well MW-7B, relative to last year, is believed to reflect the resumption of the decreasing trend observed in this well prior to the shift in the position of the VOC plume in 2001, as discussed previously in Section 4.3.1. The increase noted for Well MW-8A is attributed to the overall lack of recharge, and the resulting plume dilution, during 2002. The similar average tetrachloroethene concentration detected in Well OBS-1 during 2002 is consistent with the fluctuating but slowly decreasing trend observed in this well since 1996. The comparable findings for Well MW-9D indicate that tetrachloroethene levels in the deep potentiometric zone of the aquifer at this location have remained relatively unchanged since last year.

Compared to the 1992-2001 data, except for the increase in tetrachloroethene concentrations in Well MW-7B since 2001, groundwater tetrachloroethene levels have shown gradually decreasing trends since start-up of the GTF.

Figure 6 in Sections A through D of Appendix C shows the approximate areal extent of the tetrachloroethene plume based on the results from each of the 2002 quarterly monitoring rounds, respectively. As shown, the tetrachloroethene plume extends from the area upgradient of Well MW-8A, downgradient to Recovery Wells RW-3, RW-4 and RW-5. All four figures are similar, and include the results from the additional wells sampled during the expanded third quarter 1998 monitoring round and the current data for Well MW-10B. The current extent of the tetrachloroethene plume is consistent with that shown by pre-2002 quarterly monitoring rounds, and corresponds to the eastern component of the tetrachloroethene plume delineated by the baseline 1991 monitoring data. The western component of the tetrachloroethene plume, which was delineated on the baseline 1991 results as a separate plume, is shown as an extension of the eastern component of the tetrachloroethene plume in Figure 6 in Section A, B and C of Appendix C to more accurately reflect the distribution of tetrachloroethene in groundwater.

All concentrations of tetrachloroethene detected in Wells MW-7B and MW-8A during 2002 exceeded the 5-ppb Groundwater Aquifer Requirement. The tetrachloroethene concentration detected in Well OBS-1 during the first quarter monitoring round also

exceeded this limit. Overall, the frequency and magnitude of exceedances for tetrachloroethene have been gradually decreasing since start-up of the GTF.

4.3.5 Delineation of the VOC Plume

The position of the total VOC plume, which is a composite of the three site-specific VOC groupings, has been delineated on the water table and potentiometric surface maps in Figures 1 through 3 in each section of Appendix C. The outlines (shaded areas) represent the approximate areal extent of the total VOC plume based on the findings of the respective 2002 quarterly monitoring rounds. A review of the total VOC plume outlines in these figures indicates that the approximate length of the plume downgradient of the landfill is 2,400 feet, and the maximum width of the plume is about 3,600 feet. Overall, the dimensions of the plume are consistent with the 2001 data.

4.3.6 Analysis of 2002 Inorganic Data

Inorganic data collected during the 2002 quarterly monitoring rounds are summarized in Tables 4 and 5 of each section in Appendix C. Overall, the distribution of leachate indicators in the aquifer remained relatively constant during the first three quarters of 2002, and was similar to that of previous quarterly monitoring efforts and the 1991 baseline sampling round. Moreover, prior to the fourth quarter monitoring round, the extent and concentration of leachate indicator parameters in groundwater appeared to also be decreasing over time at most locations in response to the ongoing groundwater remediation. However, during the fourth quarter 2002 monitoring round, a significant increase in the number of detections of leachate indicators was noted. This increase is believed to represent a relatively short-term fluctuation and is attributed to the lack of recharge, and the resulting plume dilution, during the second half of 2002.

Moreover, certain leachate indicators were detected in Wells MW-8A and MW-8B on a regular basis during 2002. The presence of leachate indicators in these two wells is believed to reflect localized hydraulic influences associated with the Claremont Site's recovery wellfield, which is located a short distance south of these wells and screened in the water table zone of the aquifer. Specifically, it appears that pumpage from this wellfield is causing the Landfill plume in this area to shift eastward.

The overall distribution of inorganic parameters within the aquifer during 2002 was evaluated based on the nature and occurrence of exceedances of the Groundwater Aquifer Requirements listed in Table 2. During 2002, exceedances were noted for ammonia, chloride, iron, manganese, mercury, phenols, sodium, and total dissolved solids. Exceedances occurred in Wells MW-5B, MW-6B, MW-6C, MW-6E, MW-6F, MW-7B, MW-8A, MW-8B, MW-9B, MW-9C, MW-9D, LF-1 and OBS-1. Nearly all of the exceedances occurred in wells located directly downgradient of the Landfill, and primarily occurred in Wells MW-5B and OBS-1, and Well Clusters MW-6, MW-8 and MW-9.

4.4 Hydraulic Evaluation of the Groundwater Remediation System

4.4.1 Effective Capture Zone

Figures 1 through 3 in each section of Appendix C show the configuration of the water table, and the shallow and deep potentiometric surfaces, respectively, relative to the position of the total VOC plume based on the findings of the 2002 quarterly monitoring rounds. In addition, the limiting flow lines depicting the capture zone are shown on the shallow and deep potentiometric surface maps.

Note that, due to downtime associated with repair and maintenance of the various recovery wells and treatment system appurtenances, the GTF was not fully operational during the third and fourth quarters of 2002. As a result, the capture zone was not developed to its maximum extent during this period. Nevertheless, analysis of the limiting flow lines in Figures 1 through 3 in each section of Appendix C indicates that the Landfill VOC plume was being captured during this period.

Review of the 2002 water-level data, and prior data, indicates that the current capture zone developed soon after start-up of the GTF, and that its size and shape has remained stable over time. For example, comparison of the water-level data for the April 30, 1992 round (i.e., the first monthly water-level round following start-up of the GTF) with the pre-pumping water-level data from the October 1991 round, indicates that water levels in the vicinity of the capture zone initially declined an average of 10.5 feet in response to pumping. Specifically, pre-pumping water levels ranged from approximately 65.3 to 66.8 feet above MSL, whereas pumping water levels ranged from approximately 52.2 to 57.3 feet above MSL.

Since the April 30, 1992 round, the average water-level elevation in the recovery wells during pumping conditions has ranged from a low of 47.5 feet above MSL following the 1995 drought, to a high of 56.5 feet above MSL following the 1997-98 El Nino winter. Water-level elevations in the recovery wells also show what appear to be relatively minor fluctuations that can be correlated to normal seasonal variations in recharge.

During the period from April 1, 1992 through December 31, 2002, various recovery wells have been temporarily off-line on the dates that the hydraulic monitoring rounds were conducted. While off-line, water levels in these wells recovered approximately 7 to 12 feet relative to the other wells, but remained approximately 3 to 5 feet below their pre-pumping levels due to the drawdown associated with the other recovery wells.

Including the wells around the various recharge basins, which may be influenced by mounding, water-level elevations in 37 of the 38 monitoring and observation wells for which comparative data are available decreased by an average of -2.55 feet during 2002, and averaged approximately 7 feet lower relative to the average of the July and October 1991 (pre-pumping) baseline water-level data for each well. Drawdown in the capture zone during 2002 is approximately 14 feet relative to the water-level elevation in the recovery wells prior to start-up of the GTF.

Based upon the limiting flow lines of the capture zones, as presented in Figures 2 and 3 of each section of Appendix C, the average facility flow of 1.35 MGD (see Section 6.0) during 2002 has adequately maintained hydraulic control over the Landfill VOC plume. Furthermore, control of the VOC plume has been maintained during the forty-three operating quarters since start-up of the GTF, where average facility flow has varied from approximately 0.90 to 1.48 MGD regardless of the seasonal effects. Therefore, the frequency of hydraulic monitoring can continue to be safely reduced to the present quarterly from the original monthly schedule.

4.4.2 Effects of Mounding Due to Recharge

During the second half of 2002, the mounding effects associated with the various recharge basins were not as pronounced due to a somewhat decreased flow rate associated with recovery well downtime, and the fact that the effluent from the GTF was distributed among the available recharge basins.

4.4.3 Evaluation of System Pumpage

System pumpage during 2002 was evaluated based on the information regarding total system pumpage and individual recovery well flow presented in the quarterly monitoring reports. During 2002, the average daily flow through the air stripper was 1.35 MGD. System flow was primarily affected by Recovery Well RW-3 being off-line for repair during the second half of 2002. There was also limited downtime due to maintenance and repair of the various treatment system appurtenances, weather-related shutdowns, and two Town holidays. Quarterly pumpage records and system flow data for 2002 were summarized by LKB and reproduced as Table 5 in each section of Appendix C.

SECTION 5.0
AIR STRIPPER STACK EMISSIONS MONITORING RESULTS

LKB used the water-quality data generated at the Town's on-site laboratory and the operational data recorded by Town personnel to calculate the average concentrations of individual VOCs in the air stripper stack exhaust during each quarter of 2002. The results were compared to the stack discharge limits established by the Consent Decree and the short-term and annual guideline concentrations (SGCs and AGCs, respectively) published by the NYSDEC.

The results from this comparison indicated that while the stack discharge limits and SGCs were consistently satisfied, the concentrations of at least one VOC were higher than the AGCs during all four quarters of 2002. Therefore, air dispersion modeling was performed to calculate the concentrations of VOCs at the downwind property boundary.

The same model (Industrial Source Complex – Short Term Model (a.k.a., "ISCST3")) and receptor grid were used to maintain consistency with previous monitoring efforts. However, six years of weather data from Islip-MacArthur Airport (1989-1994) were used in the assessment model, rather than the one year of weather data from the OBSWDC (1985) previously utilized, as these data were believed to be more representative of average current conditions based on the extent of the data and their timeliness.

Based on the results from the modeling, the maximum downwind impacts occurred just to the northeast of the air stripper at the OBSWDC property line, along Winding Road. Comparison of the predicted impacts to the NYSDEC Air Guide No. 1 limits indicated that the concentrations of all VOCs at the worst-case downwind receptor were well below their respective SGC and AGC during all four quarters of 2002.

Review of the 2002 monitoring efforts indicates that using the influent/effluent data from the on-site laboratory and the operational data recorded by Town personnel to calculate air stripper stack emissions is a valid approach, and that modeling of these results is an appropriate method of predicting the downwind impacts. Therefore, this methodology will continue to be used for future air stripper stack emissions monitoring.

SECTION 6.0
DISCUSSION AND RECOMMENDATIONS

6.1 Discussion

6.1.1 Facility Operations

Review of the operational data provided in the quarterly reports indicates that the GTF maintained an average on-line performance of 90 percent during 2002. A total of 460 million gallons of groundwater were pumped, treated and recharged, at an average daily flow rate of 1.35 MGD (Figure 1).

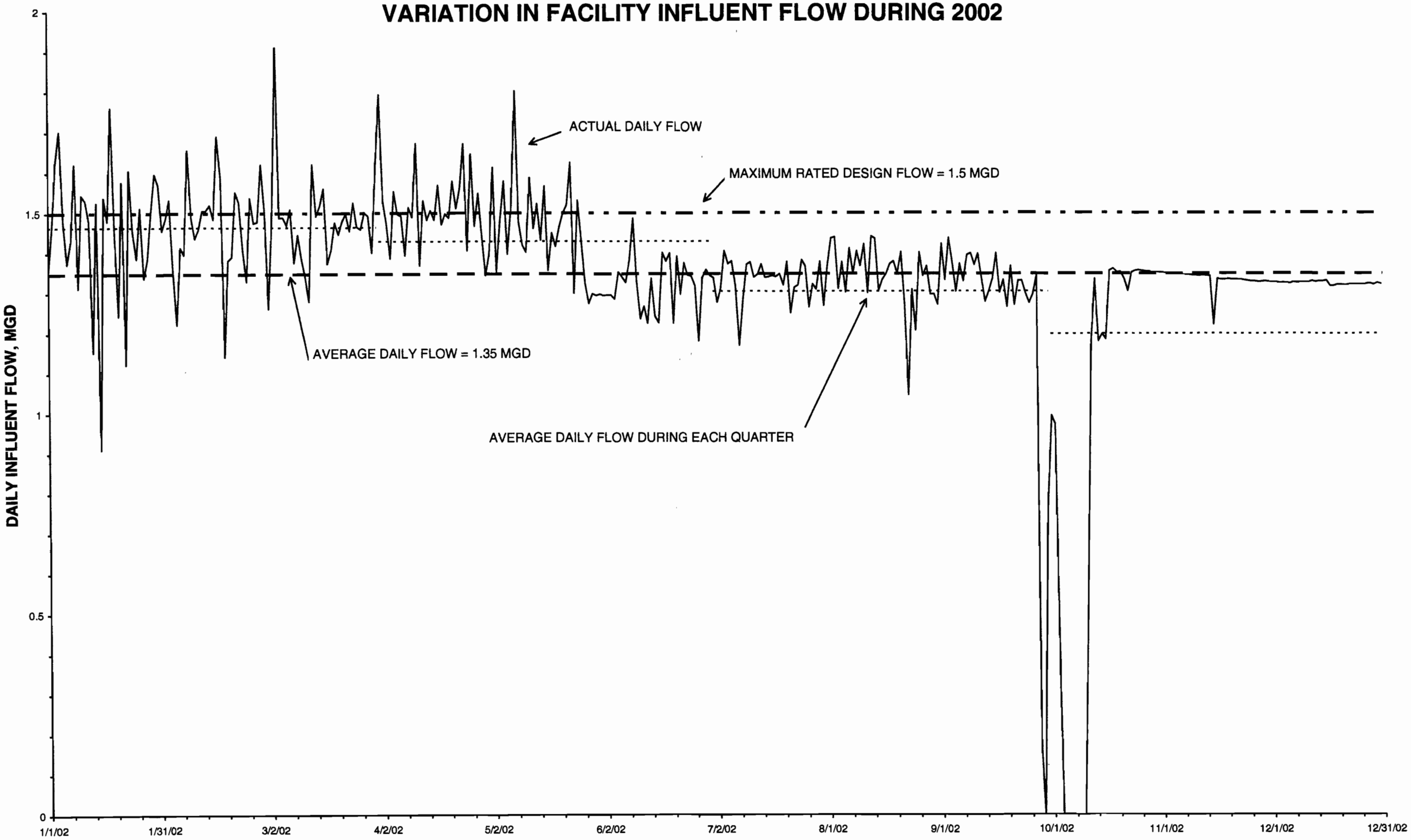
The GTF's performance on a quarterly basis is summarized below:

Reporting Period	On-Line Performance (%)	Avg. Daily Flow (MGD)	Total Flow (MG)
1st Quarter of 2002	97	1.46	131
2nd Quarter of 2002	94	1.41	128
3rd Quarter of 2002	93	1.30	120
4th Quarter of 2002	80	1.21	111

Determination of the on-line performance of the GTF is based on the percentage of the total available operating time that the GTF was actually on-line during the reporting period. The total available pump operating time during 2002 was 43,800 hours, based on five recovery wells operating 24 hours per day for 365 days. The total downtime recorded on the Daily Operations Reports during 2002 was 5,132 hours.

As shown in Figure 1, the majority of the downtime (83%) occurred during the last two quarters of 2002. This downtime was primarily associated with Recovery Wells RW-1 and/or RW-3 being off-line for repair, but included routine maintenance and repair of the various treatment system appurtenances.

FIGURE 1
VARIATION IN FACILITY INFLUENT FLOW DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

Based on the Town laboratory's data, which were quality checked with the monthly SPDES analyses, during 2002, the total VOC concentration of the GTF influent averaged 160 ppb and the total VOC concentration of the effluent averaged 0.1 ppb (Figure 2). The total VOC concentration of the GTF influent varied according to which recovery wells were on-line, but otherwise remained relatively constant during 2002. The relative proportions of the individual VOC species comprising the plume also remained consistent during 2002 (Figure 3).

With respect to the individual recovery wells, total VOC concentrations in Recovery Wells RW-1, RW-2, RW-3 and RW-5 showed generally decreasing trends during 2002, whereas total VOC concentrations in Recovery Well RW-4 showed an increasing trend during 2002 (Figure 4).

The treatment efficiency of the GTF air stripper averaged 99.9 percent during 2002 (Figure 5), which is comparable to that achieved in previous years. Removal efficiencies have remained high for three reasons. Firstly, a five-well recovery system tends to dampen out large variations in influent VOC concentrations to the air stripper. Secondly, the amount of VOC loading to the air stripper has been gradually decreasing over time in response to the ongoing remediation. Lastly, a high awareness exists among operating personnel regarding maintenance of the stripper internals through observation of the tower packing, where iron deposit fouling can cause a drop in process efficiency. Acid washes of the tower internals are a regular maintenance procedure.

The VOC results from the 12 monthly SPDES effluent samples collected during 2002 did not detect any VOCs above the certified laboratory's method detection limits, which are lower than the Groundwater Aquifer Limits listed in Table 1. Moreover, the results from the self-monitoring effluent analyses performed three times per week at the Town's on-site laboratory did not detect any VOCs above the limits listed in Table 1. Therefore, based on the results from the SPDES monitoring and self-monitoring performed during 2002, no additional treatment units are required to remove VOCs from the GTF effluent since all Consent Decree limits continue to be satisfied.

FIGURE 2
COMPARISON OF INFLUENT/EFFLUENT TOTAL VOC CONCENTRATIONS DURING 2002

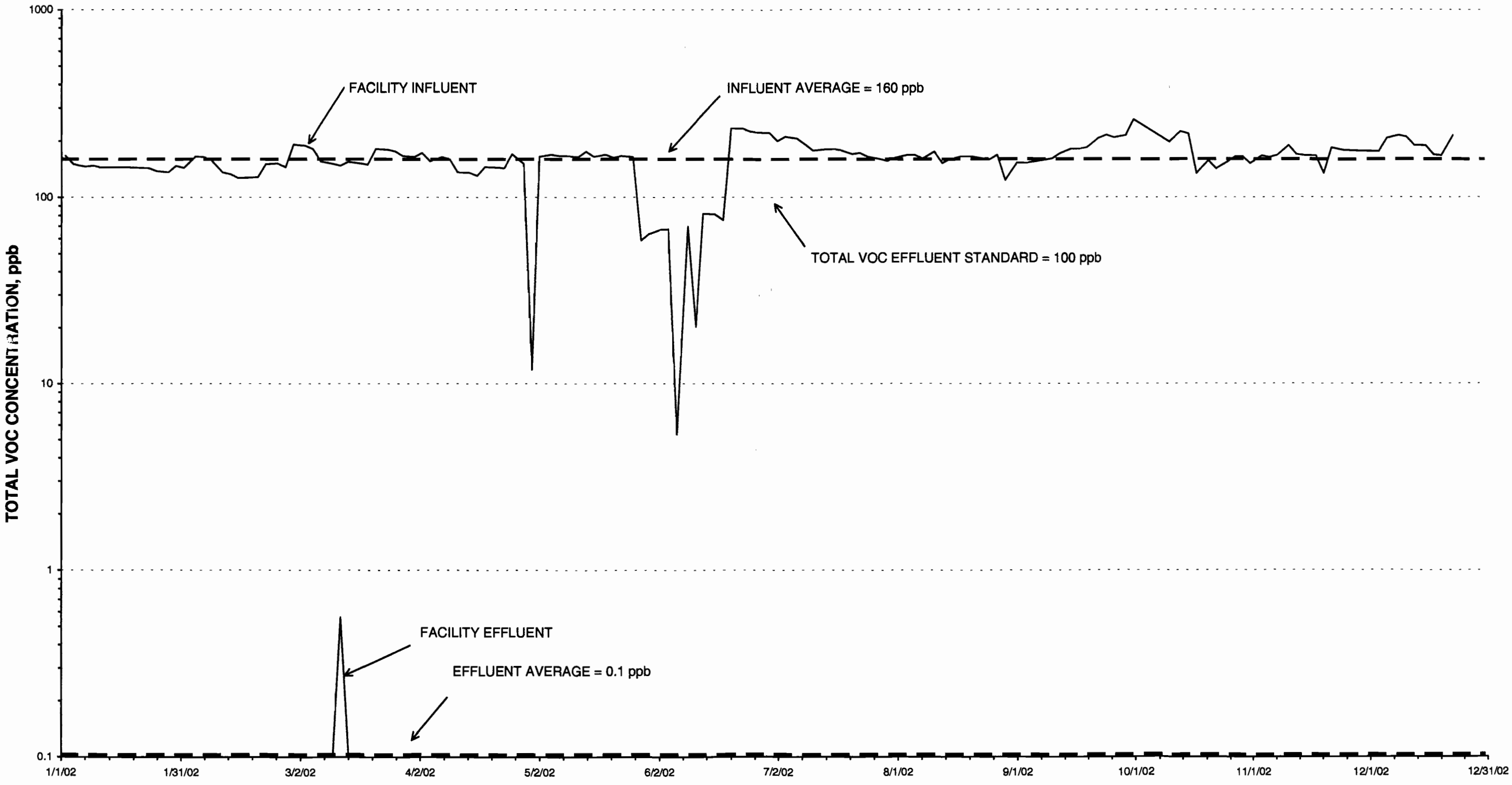


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FIGURE 3
VARIATION IN FACILITY INFLUENT VOC CONCENTRATIONS DURING 2002

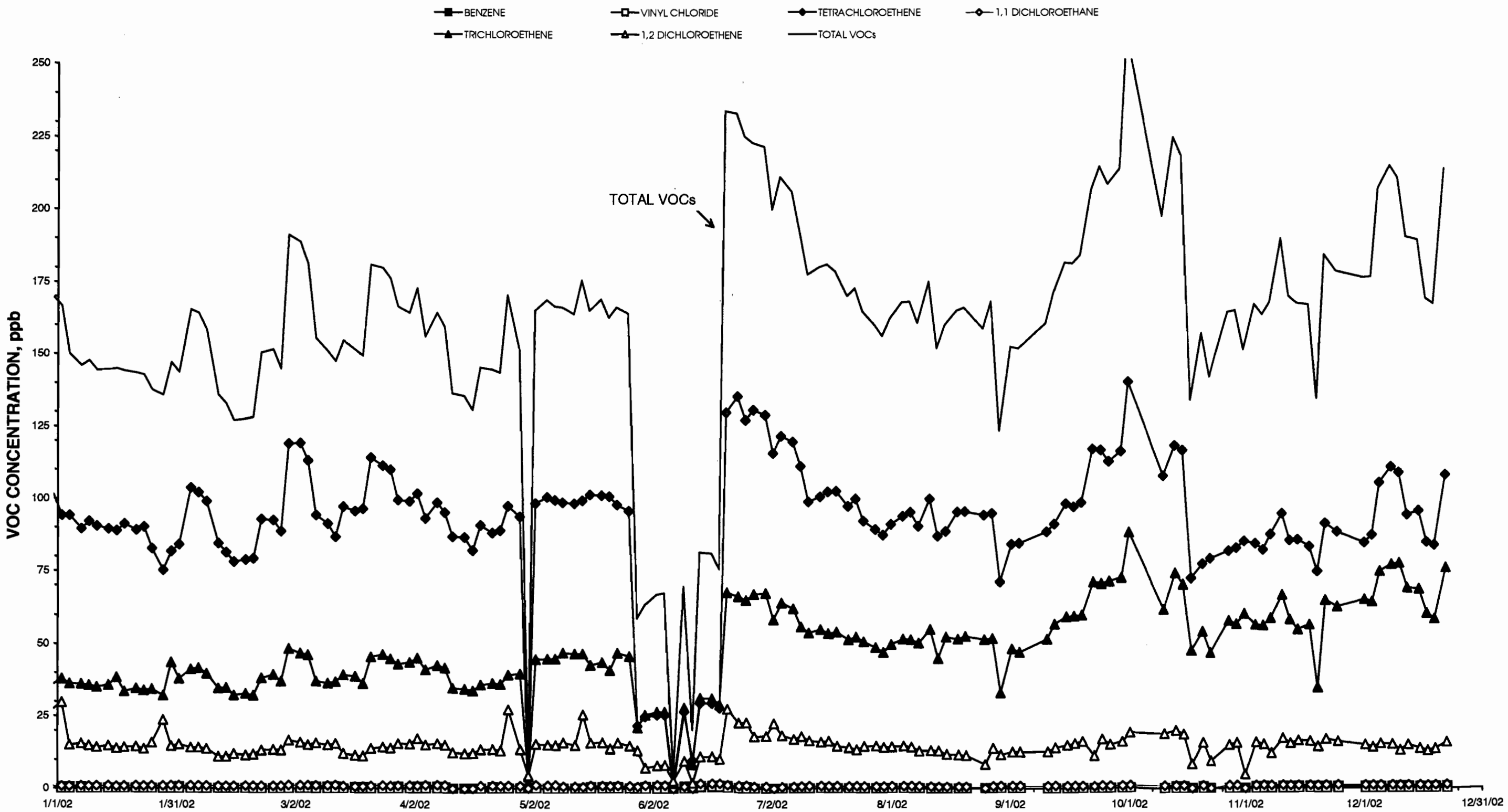

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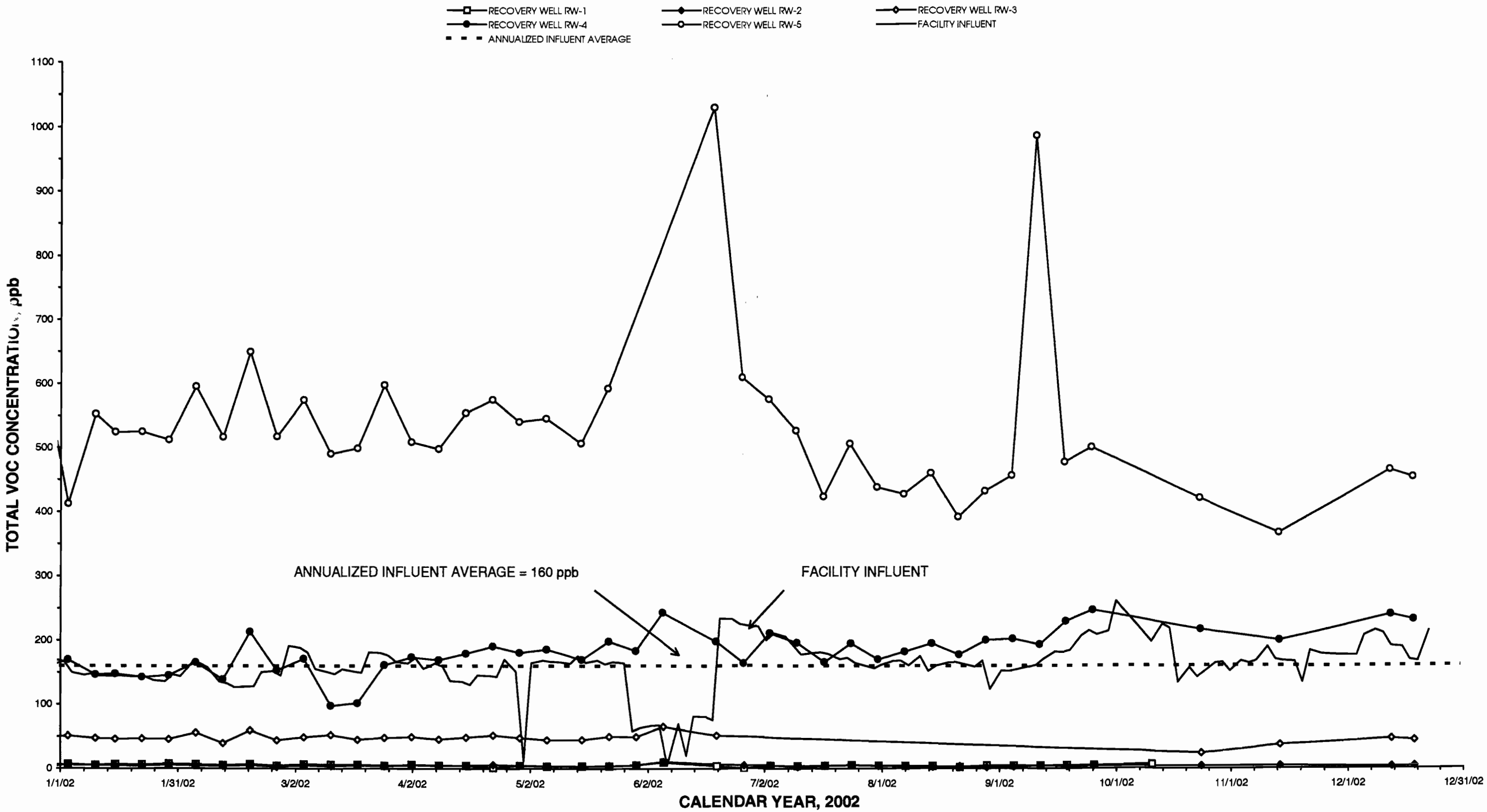
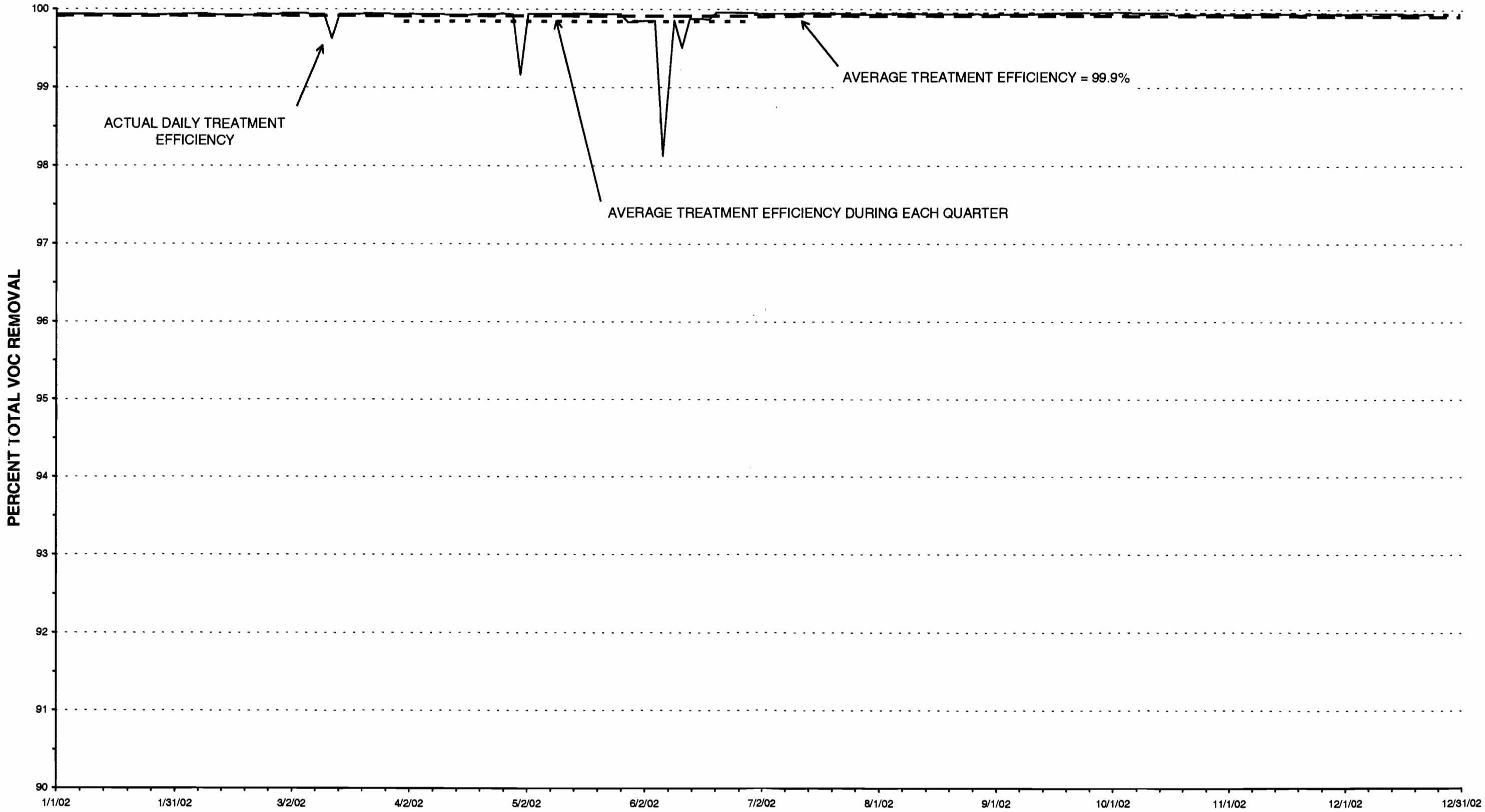
FIGURE 4
VARIATION IN WELLFIELD TOTAL VOC CONCENTRATIONS DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 5
VARIATION IN TREATMENT EFFICIENCY DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

The inorganic and leachate indicator parameter results from the 12 monthly SPDES effluent samples collected during 2002 indicate that with the exception of ammonia, the concentrations of the parameters analyzed for were also less than the Groundwater Aquifer Requirements listed in Table 2. The results from the self-monitoring effluent analyses performed at the Town's on-site laboratory also indicate that the ammonia concentration of the GTF effluent was often higher than the limits specified in Table 2. The concentrations of ammonia detected are believed to be attributable in part to runoff from the horse stable located on Winding Road. This issue is being addressed by the property owner and the Nassau County Department of Public Works.

The concentrations of ammonia detected in the GTF effluent are less than the 10 mg/L SPDES total nitrogen limitation (applicable in Nassau County). Moreover, samples from Well M-30B-R, located adjacent to Recharge Basin No. 1 and screened at the water table, do not show elevated levels of ammonia-nitrogen. Biological assimilation of nitrogen in the recharge basin may account for its absence in the shallow groundwater near the recharge basin.

Based on this assessment of the inorganic and leachate indicator parameter results, no additional treatment units are currently proposed to remove iron or other inorganic or leachate indicator parameters from the GTF effluent.

The 2002 air stripper stack emission monitoring results (Section 5.0) indicates that the concentrations of at least one VOC exceeded the Consent Decree stack discharge limits during each monitoring quarter. However, dispersion modeling of the results indicates that air-quality impacts at the worst case off-site receptor are well below the NYSDEC air quality limits. Therefore, on the basis of these findings, no additional treatment units are currently required to remove VOCs from the air stripper stack exhaust since all applicable guideline values are currently satisfied.

6.1.2 Hydraulic Control of the VOC Plume

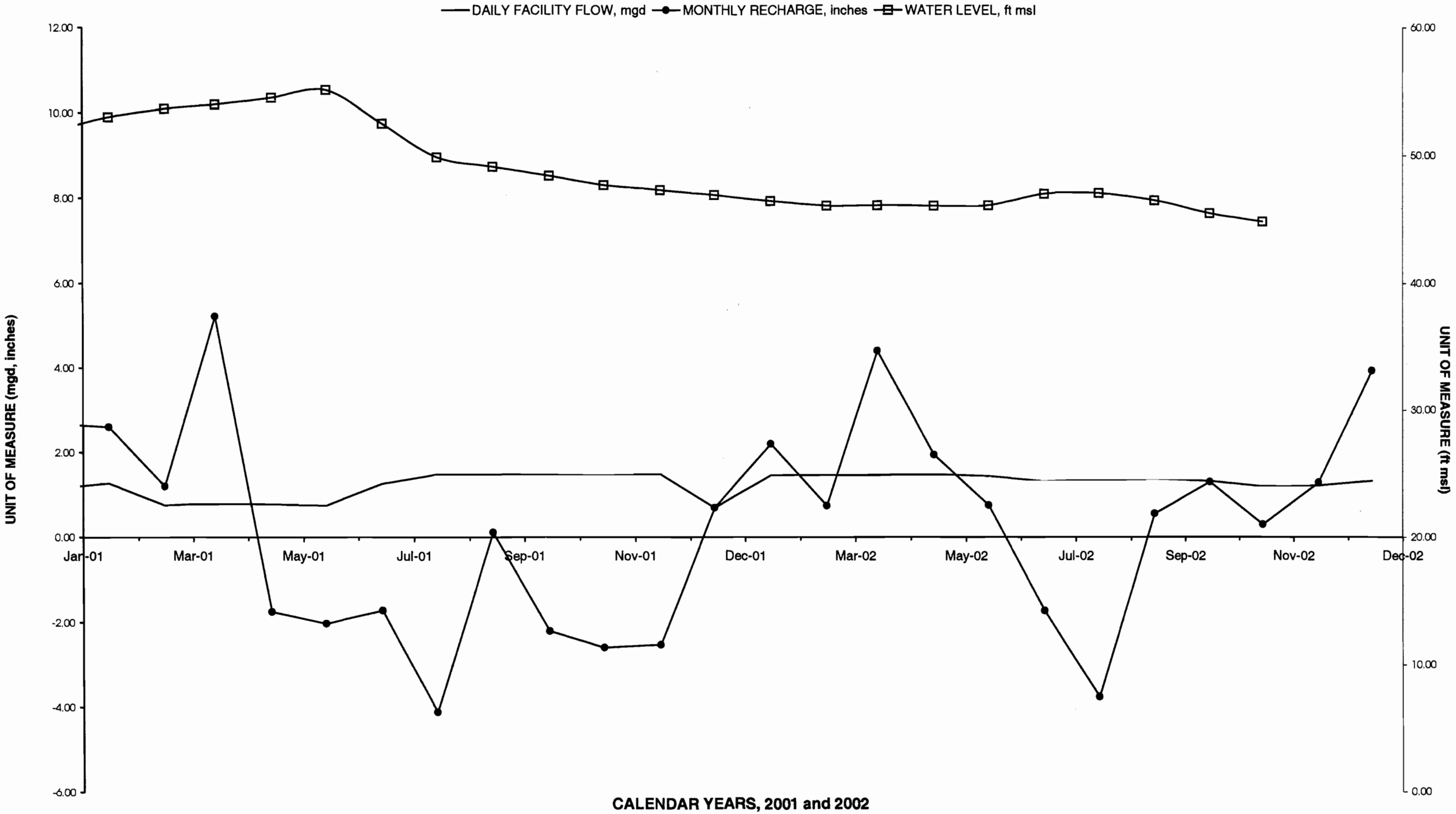
In order to evaluate and compare the respective effects of system flow and recharge on water levels within the capture zone, data on system pumpage, recharge and water-level elevations were compiled for 2001-2002, and summarized graphically in Figure 6. Facility flow data were compiled from the "Daily Operations Reports" and are presented in Figure 6 as the average flow for the days on which the hydraulic monitoring rounds

were conducted. Recharge was estimated as the monthly precipitation corrected for evapotranspiration. Precipitation data were obtained from a meteorological station located approximately 2 miles east of the site. Evapotranspiration (ET) data were obtained from the local U.S. Soil Conservation Service office in the form of historical monthly ET values for grass, which is the dominant ground cover at both the OBSWDC and adjacent Bethpage State Park. The water-level data shown in Figure 6 represent the average water-level elevations recorded for the five recovery wells during each hydraulic monitoring round.

Review of Figure 6 indicates that facility flow, and to a lesser extent unusual recharge conditions, are the primary factors influencing water-level elevations in the capture zone. Specifically, the average water-level elevation in the recovery wells remains very constant over time, despite the normal seasonal variation in recharge to the aquifer. However, unusual recharge conditions, such as the total lack of recharge that occurred during the third quarter of 2002, also appear to influence water-level elevations in the recovery wells. Moreover, there is a time lag of several months between when recharge occurs and its effect is seen on water level elevations in the recovery wellfield.

Based on the above evaluation, if the average facility flow is maintained at the current levels, regardless of seasonal recharge, hydraulic monitoring can continue to be safely reduced to quarterly from the original monthly schedule. This specific revision to the current monitoring procedures is provided for in the Consent Decree, and was implemented beginning with the fourth quarter 1993 monitoring round.

FIGURE 6
CORRELATION OF RECOVERY WELL AND HYDRAULIC DATA



CALENDAR YEARS, 2001 and 2002

TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

As discussed previously in Section 4.4.1, analysis of the limiting flow lines and plume boundaries for the 2002 data indicates that hydraulic control of the Landfill VOC plume was maintained during all four operating quarters. Moreover, as shown in Figures 1 through 3 in each section of Appendix C, although the GTF was not fully operational during the last two quarters of 2002, the capture zone appears to have been sufficient to maintain hydraulic control of the Landfill VOC plume. Overall, the configuration of the capture zone was comparable to previous operating years.

6.1.3 Variation in Wellfield VOC Concentrations

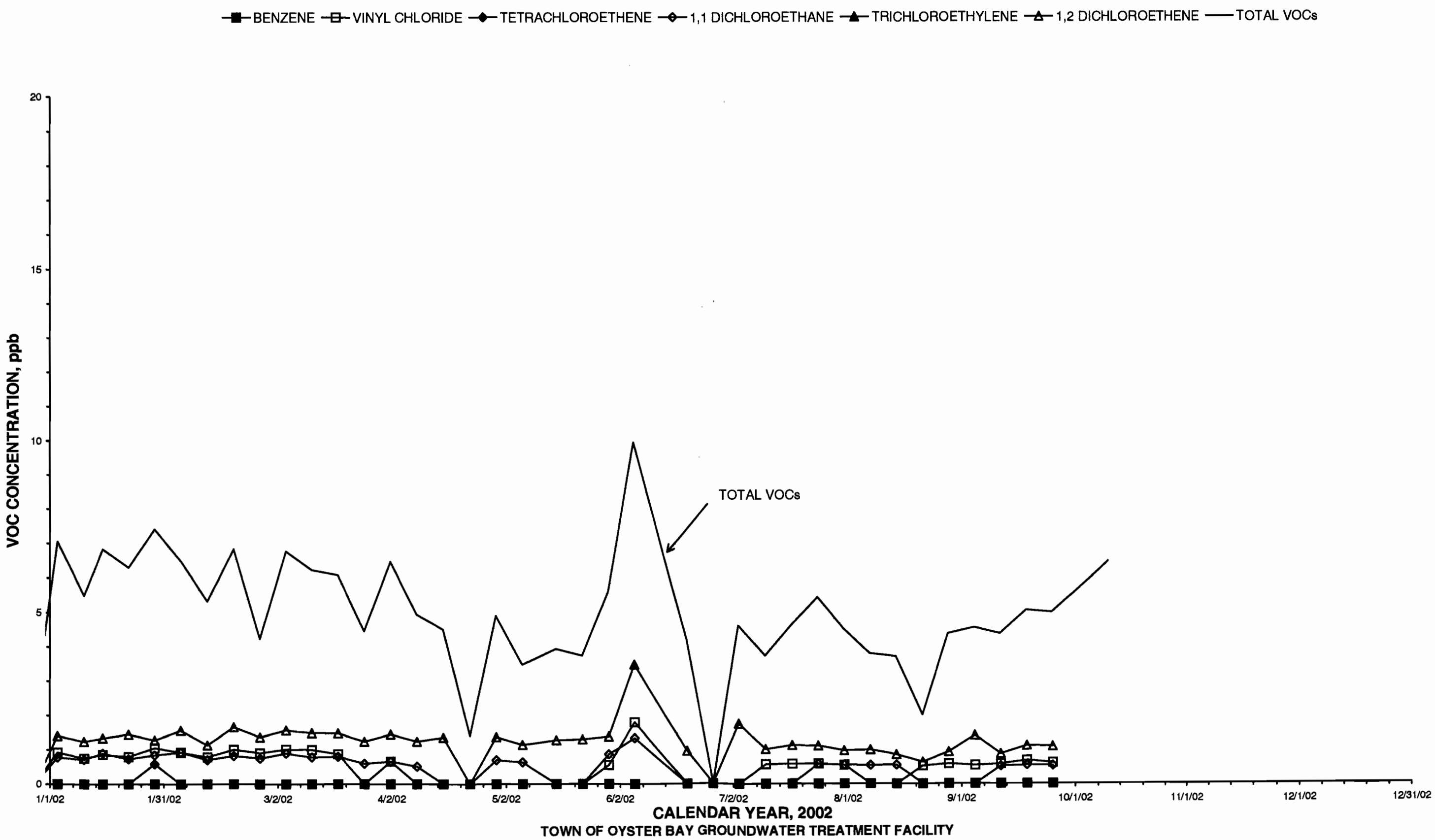
During 2002, the Town continued to monitor VOC concentrations in each recovery well on a weekly basis. These data are summarized for each recovery well in Figures 7 through 11, respectively. Review of these figures indicates that total VOC concentrations in Recovery Wells RW-1, RW-2, RW-3 and RW-5 showed gradual decreasing trends during 2002, consistent with the overall temporal decreases observed in these wells since start-up of the GTF. Total VOC concentrations in Recovery Well RW-4 continued to show an increasing trend during 2002, reflecting the increase in trichloroethene levels observed in this well since mid 1999.

As shown in Figures 7 through 11, the trends in total VOC concentration for Recovery Wells RW-1 and RW-2 can be attributed to a variety of VHOs, whereas the trend for Recovery Well RW-3 is associated primarily with two compounds: 1,2-dichloroethene and tetrachloroethene. The trend for Recovery Well RW-4 is also associated primarily with two compounds: trichloroethene and tetrachloroethene. The trend for Recovery Well RW-5 is associated almost entirely with tetrachloroethene. The trends observed for the recovery wells are consistent with the monitoring well data described previously in Section 4.3.

6.1.4 Remediation of Groundwater Plumes from Other Sources

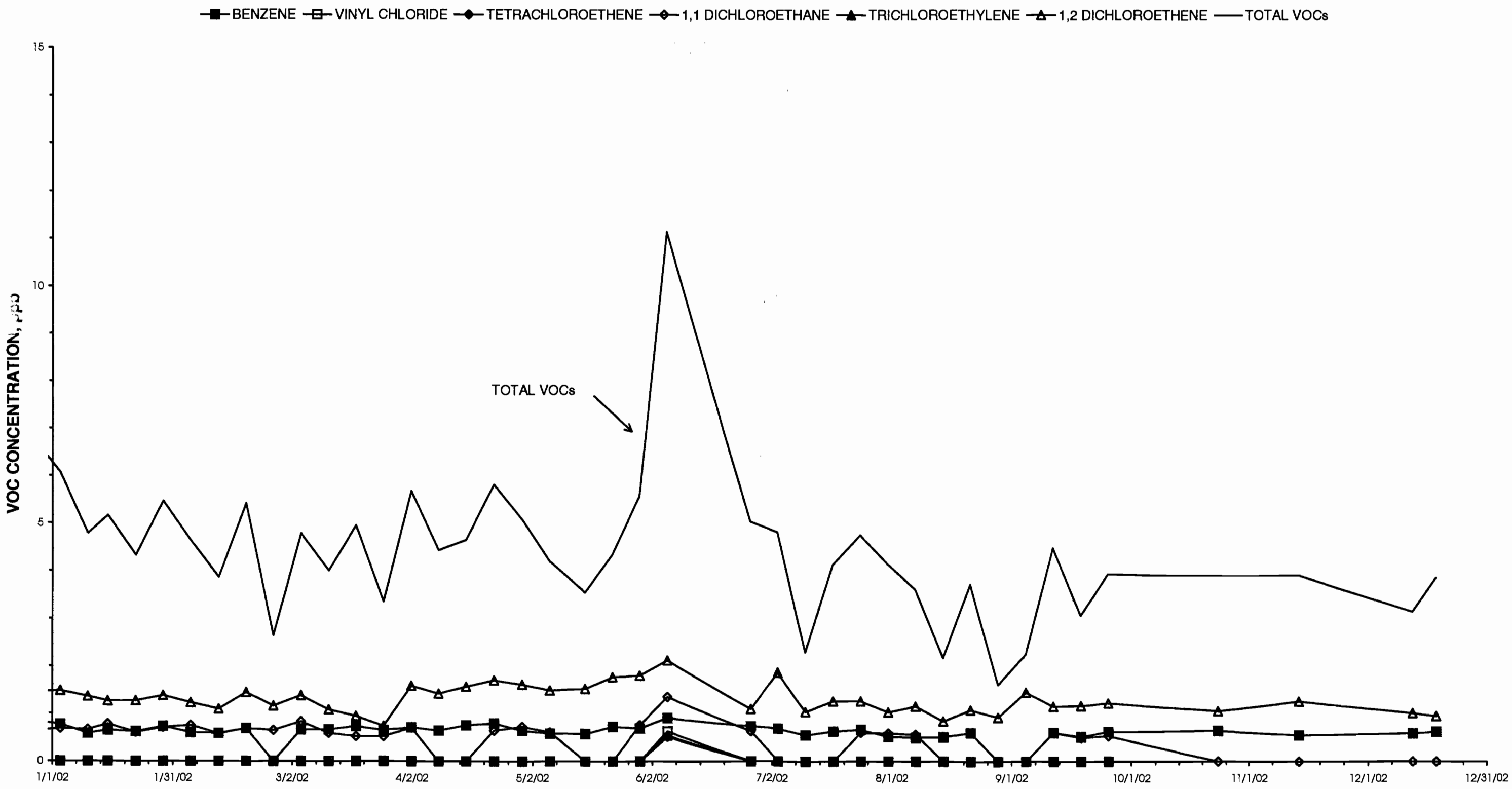
Review of the available data regarding the distribution of VOCs in groundwater indicates that a portion of the VOC plume being remediated by the GTF is not attributable to the Landfill, but associated instead with one or more adjacent properties. Specifically, the concentrations of VOCs detected in groundwater have not been homogeneously distributed as would be expected from hydrodynamic dispersion of a plume originating entirely from the Landfill.

FIGURE 7
VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-1 DURING 2002



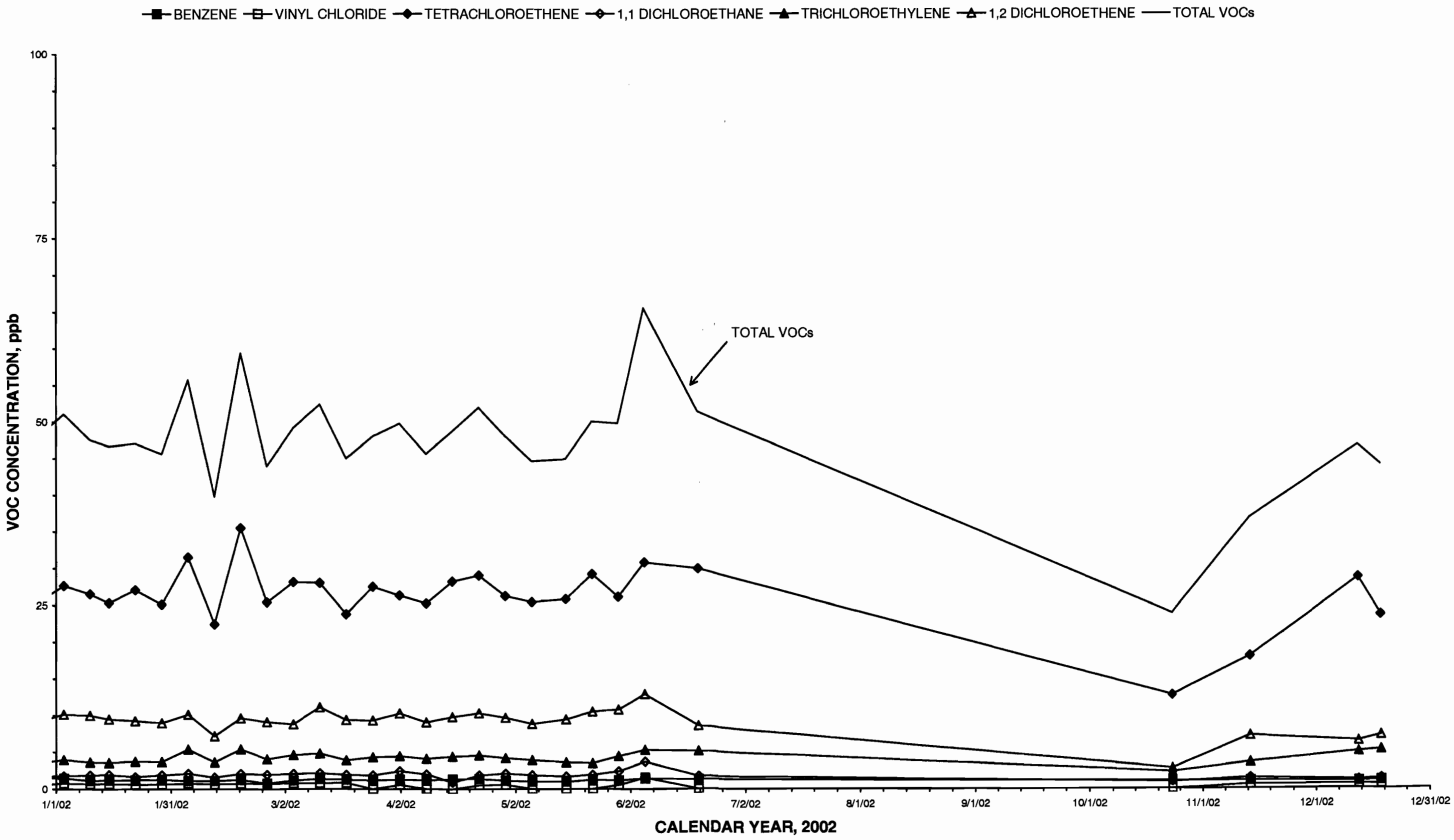
TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 8
VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-2 DURING 2002



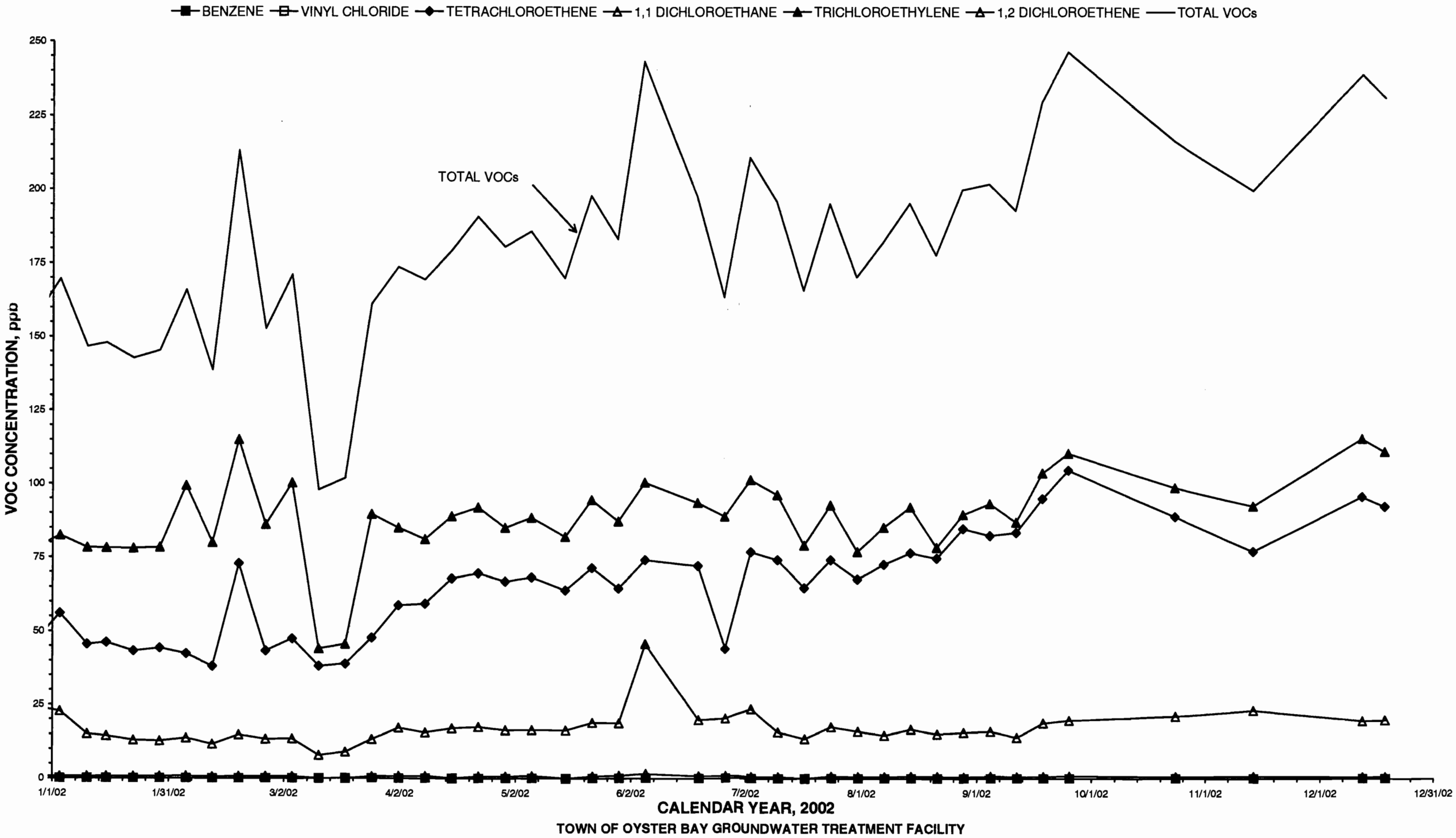
TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 9
VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-3 DURING 2002



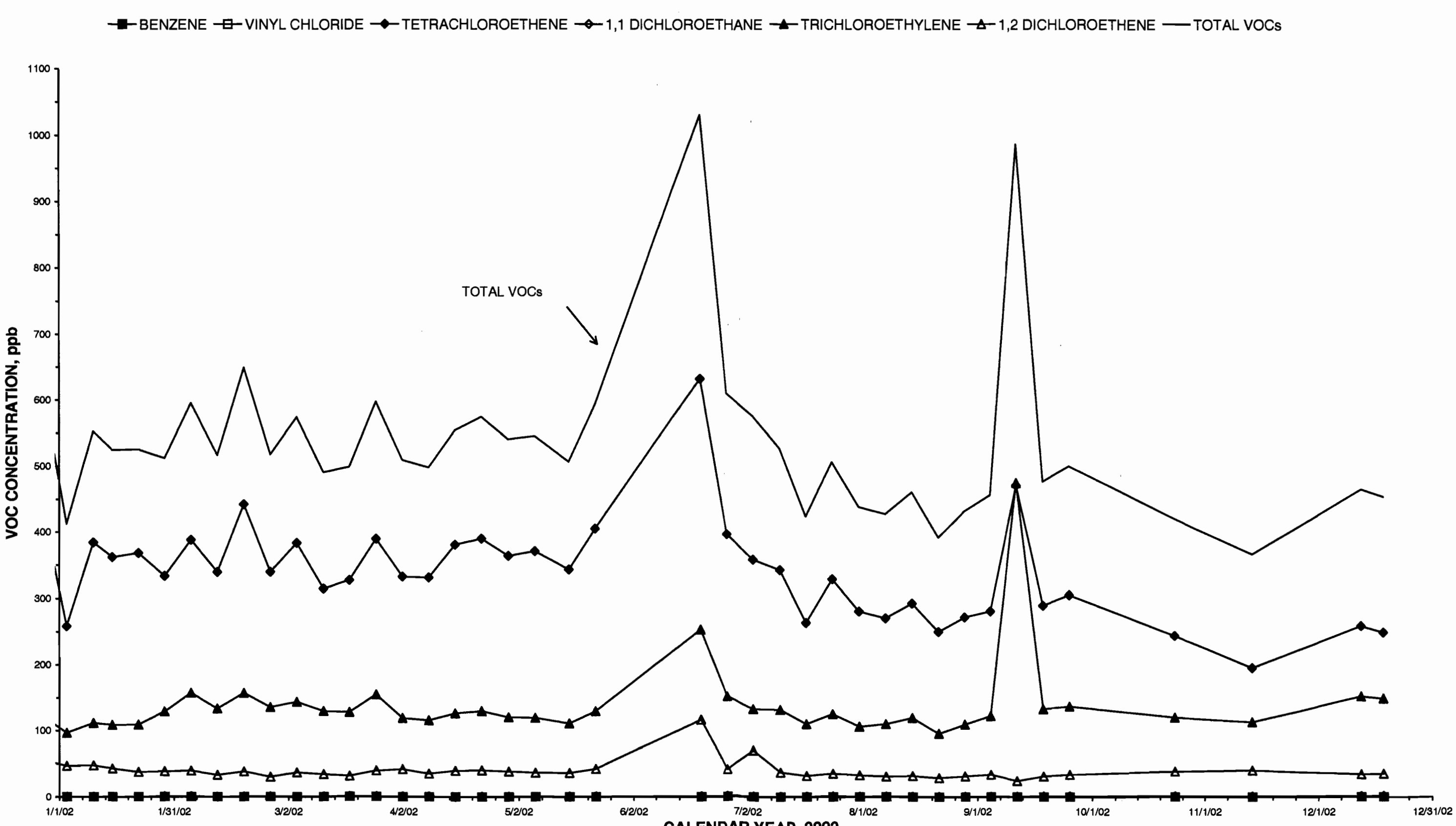
TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 10
VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-4 DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 11
VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-5 DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

The current distribution of VOCs in groundwater, based on the 2002 quarterly monitoring data, continues to be indicative of this scenario. Specifically, much higher concentrations of tetrachloroethene and several VHOs which are breakdown products of tetrachloroethene, were detected on the east side of the plume in Monitoring Wells MW-7B and MW-8A, and Recovery Wells RW-3, RW-4 and RW-5.

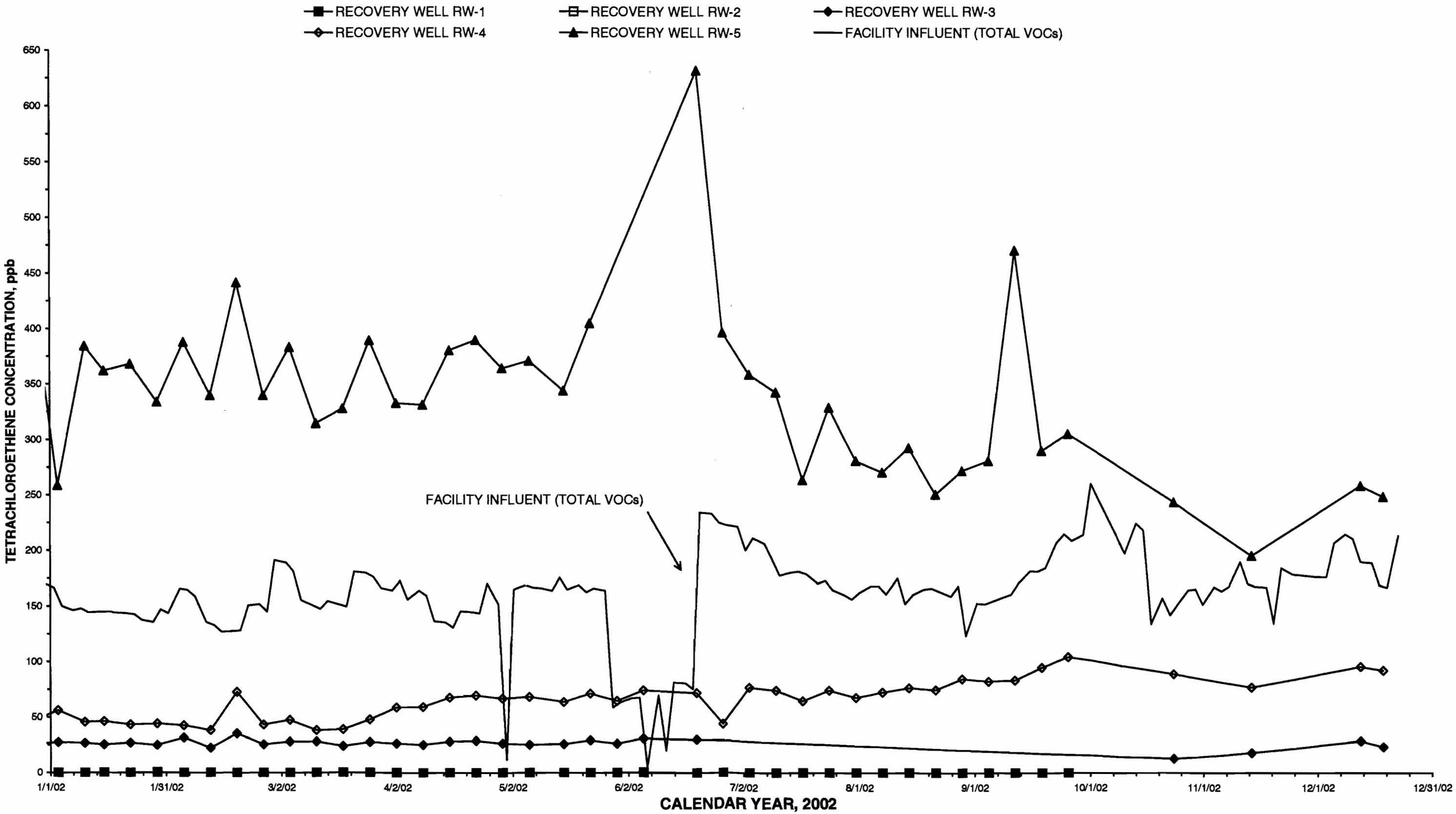
The fact that high total VOC concentrations have historically been detected in Well MW-8A, which is screened in the water-table zone, and not in Well MW-8B, which is screened in the shallow potentiometric zone, indicates that this well cluster is located immediately downgradient of a separate VOC source near the east side of the Landfill. In contrast, at Well Cluster MW-6, which is located immediately downgradient of the Landfill, VOCs were not detected in the water-table zone monitoring well (Well MW-6A) during 2002.

The Claremont Site is located directly upgradient of Well Cluster MW-8, at the northerly end of what has been referred to as the "eastern tetrachloroethene plume". Tetrachloroethene is the major contaminant historically associated with the Claremont Site, although previous investigations have identified high concentrations of other VHO compounds, such as trichloroethene, in soil and groundwater.

With respect to the Town's recovery wellfield, the Claremont Site is located closest to, and hydraulically upgradient from, Recovery Well RW-5, and at increasing distance from Recovery Wells RW-4, RW-3, etc. The detected concentrations of tetrachloroethene, as well as several other VHO compounds, show a marked decrease with increasing distance from the Claremont Site. This relationship is illustrated in Figure 12, which demonstrates the wide variation in tetrachloroethene concentrations detected in the individual recovery wells during 2002. Figure 13 is a cross-section plot showing the average annual concentration of selected VOCs at each recovery well, and clearly illustrates the increasing concentration of tetrachloroethene in the direction of the Claremont Site.

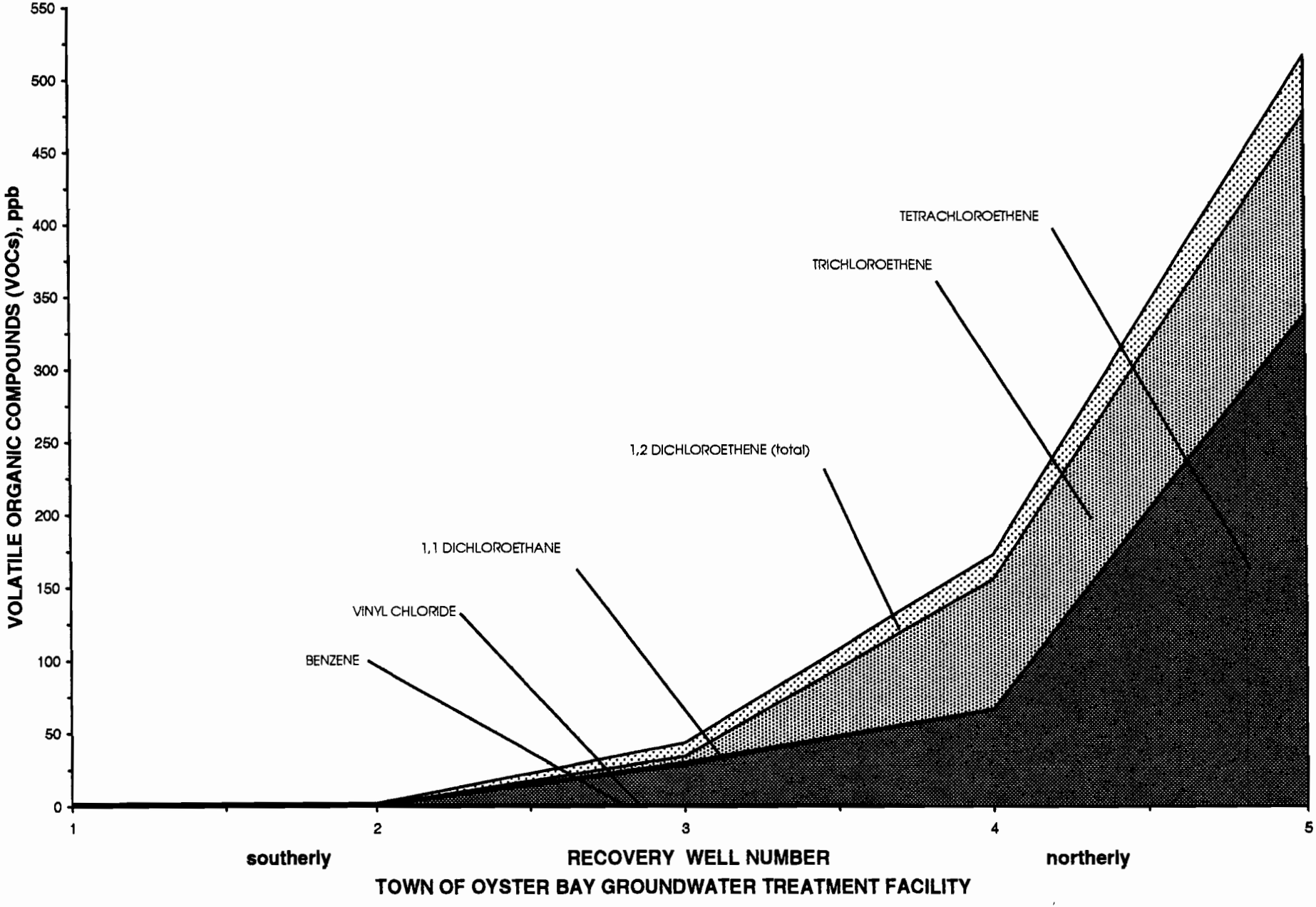
Aromatic hydrocarbons, in contrast to VHOs and tetrachloroethene, were primarily detected at lower concentrations, in wells located downgradient of the Landfill and the adjacent Nassau County Fireman's Training Center.

FIGURE 12
VARIATION IN WELLFIELD TETRACHLOROETHENE CONCENTRATIONS DURING 2002



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 13
AVERAGE DISTRIBUTION OF VOCs ACROSS RECOVERY WELLFIELD DURING 2002



6.1.5 Overview of Other Monitoring Program Results

The results from the ambient air and soil-gas quality monitoring performed during 2002 indicate that the Landfill, and all other OBSWDC operations together, do not have a significant impact on air quality. The results from the thermal oxidizer test indicate that the thermal oxidizer continues to operate according to design and that the current air quality limits are satisfied.

6.2 Recommendations

6.2.1 Groundwater Treatment Facility

Under the current operating conditions, the analytical results compiled during 2002 do not support the need for additional groundwater or air stripper-exhaust treatment units at this time. However, continued quantitative, maintenance and facility improvements should be identified and implemented. In this regard, it is recommended that the Town maintain certification of its on-site environmental laboratory under New York State's Environmental Laboratory Approval Program (ELAP) and perform the quarterly groundwater VOC analyses in-house as an effective means to expedite analyses and control project costs. It is also recommended that the Town repair the air stripper blower meter as soon as possible and continue to perform acid washes of the air stripper internals on an as-needed basis. With respect to the various recharge basins utilized for the project, it is recommended that the Town continue the phased cleaning of the basins so that sufficient recharge capacity is maintained.

Since the overall dimensions of the Landfill plume have decreased in response to the ongoing remediation, some reduction in flow from the recovery wellfield may be possible without compromising hydraulic control of the Landfill plume. Flow reduction may be accomplished by throttling flow from the wellfield or selected wells, taking one or more wells out of operation for some period of time, or a combination of these techniques. Although some cost savings can be realized if flow reduction is implemented, the real benefit is in reducing the hydraulic loading on the various recharge basins.

6.2.2 Groundwater Monitoring Program

Based on the present demonstrated hydraulic control over the Landfill VOC plume regardless of the normal variation in total system flow and seasonal groundwater recharge, it is recommended that the frequency of hydraulic monitoring continue to be reduced to quarterly from monthly, as previously discussed in Section 6.1.2. It is also recommended that water-level measurements continue to be collected from Well Clusters EW-2 and EW-3, located downgradient of the Claremont Site, as part of the quarterly monitoring activities to provide current data at these locations.

The water-quality data indicate that groundwater quality is continuing to improve in response to the ongoing remediation and that at certain locations (e.g., Well MW-9D) the concentrations of Landfill-related VOCs continue to exceed water-quality standards. Moreover, the hydraulic and water-quality data collected at Well Cluster MW-8 during 2002 indicated that the on-site groundwater treatment system at the Claremont Site appears to be altering local hydraulic and water-quality conditions in the eastern portion of the plume area. Therefore, it is recommended that the quarterly groundwater quality monitoring program be continued without change to track the progress of the ongoing remediation and evaluate potential impacts from the Claremont Site's groundwater remediation system on the Town's system. It is also recommended that Well MW-9D, which is not part of the quarterly monitoring program but contains significant concentrations of Landfill-related contaminants, continue to be sampled annually to provide data on the deep potentiometric zone of the aquifer at this location downgradient of the Landfill and upgradient of the Town's recovery wellfield. Any future reduction in the testing frequency specified in the Consent Decree will require the concurrence of the regulatory agencies. Any improvements in sampling/analytical protocols should be incorporated into the program as they are developed, after approval by the regulatory agencies.

6.2.3 Thermal Oxidizer Stack Emissions Monitoring Program

The Town is required to continue this program on an annual basis, as proscribed by the Consent Decree. All monitoring results will be compared to the latest version of NYSDEC Air Guide No. 1. Improvements in sampling/analytical protocols should be incorporated into the program as they are developed after approval by the regulatory agencies.

6.2.4 Ambient Air and Soil-Gas Quality Monitoring Program

In Early 1998, it was recommended that the Town request approval from the NYSDEC to reduce the frequency of ambient air monitoring from quarterly to annual. Pending receipt of such approval, the Town is required to monitor on a quarterly basis.

6.2.5 Air Stripper Stack Emissions Monitoring Program

The results presented in Section 5.0 indicate that the current methodology is viable for modeling air quality impacts from the GTF at the OBSWDC property line. Therefore, it is recommended that this methodology continue to be used for subsequent reports.

APPENDIX A

WELL LOCATION MAP

APPENDIX B

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
EVALUATION OF VOLATILE ORGANIC COMPOUNDS
IN AIR AND SOIL GAS AND SOIL GAS PRESSURE READINGS

2002 Annual Summary Report

RTP Environmental Associates, Inc.
December 2002

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOIL GAS AND SOIL GAS PRESSURE READINGS

2002 Annual Summary Report

Prepared for:

Town of Oyster Bay
Department of Public Works
Syosset, New York

Prepared by:

RTP Environmental Associates, Inc.®
400 Post Avenue
Westbury, New York

December 2002

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOIL GAS AND SOIL GAS PRESSURE READINGS

2002 Annual Summary

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A - 2002 Quarterly Ambient Air Concentration Data
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TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOIL GAS AND SOIL GAS PRESSURE READINGS

1.0 INTRODUCTION

The Town of Oyster Bay (the Town) has contracted RTP Environmental Associates, Inc. to conduct a supplemental gas monitoring program of volatile organic compounds (VOCs) and soil gas pressures during 2002 on a quarterly basis at the Old Bethpage Landfill. The landfill is located within the Old Bethpage Solid Waste Disposal Complex (OBSWDC). The ambient air, soil gas and soil gas pressure monitoring program was designed to comply with several requirements stipulated in the New York State Consent Decree (83CIV5357) RAP Attachment 2. The details of the specific monitoring methods used, laboratory analyses performed and the results for all program phases including VOC monitoring, have been presented in the 2002 quarterly reports. The quarterly reports have been forwarded to the Town as they were completed. The other monitoring efforts being conducted to complete the Consent Decree requirements were reported separately. This evaluation has been prepared to review and summarize the ambient air and soil gas VOC concentration and soil gas pressure data that were collected during the 2002 monitoring efforts.

The OBSWDC is located in the Town of Oyster Bay, New York. The OBSWDC is comprised of a landfill, power generating facility, thermal oxidizer, leachate and groundwater treatment systems, clean fill disposal site, solid waste recycling center, solid waste transfer station, vehicle maintenance garage and scale house. The OBSWDC is bordered on the north by Bethpage Sweethollow Road, on the west by Round Swamp Road and on the east by Winding Road. A concrete plant and the Nassau County Firemen's Training Center (NCFTC) are located along the southern border of the OBSWDC and a campground is located along the northwest border. An industrial park adjoins the northeastern border of the OBSWDC and other industrial areas exist nearby to the north and west. These other industrial areas do not have common boundaries with the OBSWDC, however, these locations are sources of air pollutants that impact the area. Other sources of air pollutants are vehicular traffic on the roads that border the OBSWDC as well as regional sources. Therefore, several other sources contributing VOCs influence the ambient concentrations being monitored.

To control landfill emissions, the landfill has undergone significant changes as part of the closure process. A gas collection system was installed along the perimeter of the landfill and portions began operating in 1981 and a

capping program was initiated in 1983. The capping program involved placing an impervious clay cap over the landfill. The capping program was completed in January, 1993. The perimeter gas collection system was expanded in 1995. Six landfill gas extraction wells (LGV23, LGV24, LGV25, LGV26, LGV27 and LGV28) were installed and became operational August 16, 1995. These wells were located along the western and southern perimeters of the capped landfill and they were designed to contain gas migration and to maintain acceptable methane levels at the thermal oxidizer. Four (4) additional perimeter gas collection wells (LGV29, LGV30, LGV31 and LGV32) were installed and became operational during 1996 along the west side of the Haul Road, near Briden Construction. The perimeter loop around the landfill was also completed during 1996.

The thermal oxidizer was installed in 1987 to combust the landfill gas collected by the perimeter collection system. Recently the contractor who was mining gas from the landfill for energy production suspended operations due to low recovery rates of landfill gas. All of these activities have restricted or mitigated the release of gas from the landfill and thereby reduced landfill gas and associated air pollutant emissions.

As stipulated in the Consent Decree, ambient air and soil gas concentrations and soil gas pressure levels are currently measured on a quarterly basis at selected points around the landfill. The results are reported quarterly and are summarized in this report. The air emissions from the thermal oxidizer were tested on a quarterly basis initially and are now tested on an annual basis. The test results for the thermal oxidizer have been reported separately.

2.0 ANALYSIS OF DATA

2.1 Analysis of the 2002 Data Base

The established target compound list (TCL) for this study was based on the Volatile Organic Sampling Train (VOST) method developed by the United States Environmental Protection Agency (USEPA) to quantify various VOC emissions. The standard VOST sampling train was modified slightly to make a portable unit for in-field use. The sampling train and the sampling and analysis protocols along with all the details on data collection, analysis and other documentation are provided in the quarterly reports.

The sampling events were scheduled to observe concentrations during various seasons of the year. As a conservative step, the sampling events took place during periods of steady or falling atmospheric pressure. These periods would coincide with the greatest potential for releases of VOCs from the landfill. Sampling for each quarterly test occurred

over a consecutive 24-hour period. Table 2.1 provides the months during which the quarterly test efforts for each year of the sampling program were conducted. Monitoring for the 2002 sampling program which is evaluated herein, occurred in February, May, September and November 2002.

The program TCL is provided in Table 2.2 along with toxicity and guideline concentration values. The TCL has been modified during the course of the monitoring effort because of changing State requirements, analytical capabilities and continuing data review as related to the tentatively identified compounds being detected.

Several changes to the TCL and analytical procedures had been made for the 1997 program and these changes apply to the 2002 program as well. The designation for cis-1,2-dichloroethene was changed from a tentatively identified compound to a target compound as the result of preceding tests. The combined 1-ethyl-2-methylbenzene and 1-ethyl-4-methylbenzene isomers are reported as 2/4-ethyltoluene (total) as a means of simplifying the data reduction reporting process, and because the combined isomer concentration is required for direct comparison to the NYSDEC guideline value. Furthermore, a practical quantitation limit (PQL) was introduced by the analytical laboratory H2M, for several compounds as a result of lowering the minimum detection limit from twenty (20) nanograms to five (5) nanograms. The PQL represents the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. H2M introduced a target tentatively identified compound (TIC) minimum detection limit of twenty-five (25) ng which also can be applied to additional TICs when less than six (6) are detected. Otherwise, the lowest mass loading of the top six (6) additional TICs is considered to be the additional TIC minimum detection limit of a particular sample.

The New York State Department of Environmental Conservation (NYSDEC) provides both short-term (1-hour) and long-term (annual average) guideline concentration values for most of the compounds being monitored. Short-term guideline concentration (SGCs) values are significantly higher than annual guideline concentration (AGCs) values, and therefore, the program concentrates on longer term averages based on 24-hour samples as stipulated in the Consent Decree. The October 16, 1995 Air Guide-1 AGC and SGC values have been used in previous quarterly and annual reports until 2000. As of July 12, 2000 revisions of the Air Guide-1 AGS/SGS values were released by the NYSDEC. These new values have been in the 2001 quarterly and annual reports, the 2002 quarterly reports and will be contained within this report. Based on a recent discussion with NYSDEC Central Office staff, additional revisions are projected for January 2003.

TABLE 2.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

PROGRAM EFFORTS ACCORDING TO CALENDAR QUARTER

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1990-1991	July	October	February	May
1992-1993	October	March	May	August
1994	April	July	September	December
1995	March	May	July	October
1996	March	June	August	November
1997	February	April	August	November
1998	March	May	August	November
1999	March-April	May	July	November
2000	March	June	August	October
2001	March	May	August	September
2002	February	May	September	November

Note:
The first two years of the program did not follow the calendar year schedule.

TABLE 2.2

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

2002 PROGRAM TARGET COMPOUND LIST
AND NYSDEC AMBIENT AIR GUIDELINE CONCENTRATIONS

CHEMICAL NAME	CAS NUMBER	AIRS CODE	24 HOUR SGC ug/m^3	W (SCG)	AGC ug/m^3	W (ACG)	T	CODES														
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acetone	00067-64-1	4	72000	Z	28000	T	L				I											
Benzaldehyde	00100-52-7	4	---		0.1	d																
Benzene	00071-43-2	4	520	D	1.30E-01	E	H	U		H	A											
Bromodichloromethane	00075-27-4	4	---		2.00E-02	D	H															
Bromoform	00075-25-2	4	---		9.00E-01	E	M			H	I											
Bromomethane	00074-83-9	4	1560	D	5	E	M			H	I											
2-Butanone	00078-93-3	4	23600	D	1000	E	M			H												
Carbon Disulfide	00075-15-0	6	2480	D	700	E	M			H												
Carbon Tetrachloride	00056-23-5	4	520	D	6.70E-02	E	H	U		H	B											
Chlorobenzene	00108-90-7	4	---		110	T	M			H	I											
Chloroethane	00075-00-3	4	---		10000	E	L			H	I											
Chloroethyl Vinyl Ether	00110-75-8		---		0.1	d																
Chloroform	00067-66-3	4	60	D	4.30E-02	E	M	U		H	I											
Chloromethane	00074-87-3	4	8800	D	770	D	M			H	I											
Dibromochloromethane	00124-48-1	4	---		1.00E-01	d	M															
1,2-Dichlorobenzene (o)	00095-50-1	4	12000	Z	360	T	M				I											
1,3-Dichlorobenzene (m)	00541-73-1	4	12000	A	360	A	M										R	R				
1,4-Dichlorobenzene (p)	00106-46-7	4	---		9.00E-02	D	M	U		H	I											
1,1-Dichloroethane	00075-34-3	4	---		20	D	L			H	I											
1,2-Dichloroethane	00107-06-2	4	---		3.80E-02	E	M	U		H	I											
1,1-Dichloroethene	00075-35-4	4	---		2.00E-02	E	H	U		H												
cis-1,2-Dichloroethene	156-59-2	4	---		1900	A	M										R					
trans-1,2-Dichloroethene	156-60-5	4	---		0.10	d	M															
1,2-Dichloropropane	00078-87-5	4	20400	Z	4.00E+00	E	M			H	I											
1,3-Dichloropropene,cis & trans isomers	00542-75-6	4	---		2.50E-01	E		U		H	I											
Ethylbenzene	00100-41-4	4	21600	Z	1000	E	M			H												
2/4 Ethyltoluene (total)	611-14-3/622-96-8		0		0.1	d																
Freon 13	00075-72-9	4	224000	A	20000	A	L										R	R				
2-Hexanone	00591-78-6	4	1640	Z	4.80E+01	T																
Methylene Chloride	00075-09-2	6	5600	D	2.1	E	M	U		H	I											
4-Methyl-2-Pentanone	00108-10-1	4	12400	Z	490	T	M			H												
Styrene	00100-42-5	4	8400	D	1000	E	M			H	I											
1,1,2,2-Tetrachloroethane	00079-34-5	4	---		0.017	E	M	U		H	I											
Tetrachloroethene	00127-18-4	4	400	H	1.00E+00	H	M	U		H	I											
Toluene	00108-88-3	4	14800	D	400	E	L			H												
1,1,1-Trichloroethane	00071-55-6	6	27200	D	1.00E+03	D	L			H	I											
1,1,2-Trichloroethane	00079-00-5	4	---		6.30E-02	E	M	U		H	I											
Trichloroethene	00079-01-6	4	21600	Z	4.50E-01	D	M	U		H	I											
Trichlorofluoromethane	00075-69-4	6	224000	Y	20000	D	L				C	I										
Vinyl Chloride	00075-01-4	4	72000	D	2.00E-02	D	H			H	A											
Xylenes (Total)	01330-20-7	4	1720	D	700	D	M			H	I											

TABLE 2.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

PROGRAM TARGET COMPOUND LIST
AND NYSDEC AMBIENT AIR GUIDELINE CONCENTRATIONS

FOOTNOTES:

TOXICITY (T):
(H) HIGH Toxicity Contaminant.
(M) MODERATE Toxicity Contaminant.
(L) LOW Toxicity Contaminant.

WHO (W), Source of AGC/SGC Assignment:
(A) AGC/SGC based upon NYSDEC "Analogy".
(D) NYSDEC derived AGC/SGC.
(E) AGC based upon EPA IRIS data (RFC or Unit Risk).
(H) NYSDOH derived AGC/SGC.
(S) AGC/SGC listed is FEDERAL or NYS Standard.
(T) AGC based upon ACGIH TLV.
(Y) SGC is based on ACGIH TLV Ceiling limit.
(Z) SGC is based on ACGIH STEL.
(d) AGC assigned Moderate Toxicity "de minimis" limit.
(*) AGC assigned High Toxicity "de minimis" limit.
(---) There is no SGC for this compound.

WHO (W), Source of special AGC/SGC Interim Assignment:
(s) AGC/SGC based upon Equivalent FEDERAL or NYS Standard.
(X) There is no AGC/SGC value for this contaminant.

-----codes-----
111111
123456789012345:

codes, (Position 1):
(U) AGC equivalent to "one in a million risk".

codes, (Position 3):
(H) FEDERAL HAP identified by 1990 CAAA.

codes, (Positions 4 & 5):
(A) ACGIH Human Carcinogen.
(B) ACGIH Suspected Human Carcinogen.
(C) ACGIH Ceiling Limit.
(G) ACGIH Simple Asphxiant.
(I) Refer to ACGIH Handbook.
(K) Multiple TLVs assigned in ACGIH Handbook.

codes, (Position 8):
(Q) REFERENCED AGC adjusted for elemental assignment.

codes, (Position 9):
(Q) REFERENCED SGC adjusted for elemental assignment.

codes, (Position 10):
(R) AGC ASSIGNED TO REFERENCED COMPOUND.

codes, (Position 11):
(R) SGC ASSIGNED TO REFERENCED COMPOUND.

codes, (Position 12):
(Q) AGC ASSIGNED AS DIFFERENT ELEMENT(s) & ADJUSTED.

codes, (Position 13):
(Q) SGC ASSIGNED AS DIFFERENT ELEMENT(s) & ADJUSTED.

codes, (Position 14):
(M) REFERENCED AGC adjusted for MOLECULAR WEIGHTS.

codes, (Position 15):
(M) REFERENCED SGC adjusted for MOLECULAR WEIGHTS.

The ambient air monitoring program incorporates repositioning of sampling equipment to best define the overall contributions associated with the OBSWDC during each quarterly 24-hour test effort. Normally, two (2) collocated samples were taken at an upwind location and three (3) samples were taken at two (2) locations downwind of the OBSWDC. Therefore, upwind concentrations can be compared directly to downwind concentrations to conservatively determine the impact of the OBSWDC on the ambient air.

2.2 Analysis of 2002 Ambient Air Quality Data

Ambient air quality levels were monitored for each 24-hour sampling period at three (3) sampling locations during the 2002 sampling events. Samplers were positioned at two (2) locations generally downwind of the OBSWDC as prescribed by the Consent Decree. Two (2) collocated low volume samples and an individually located low volume sample were collected in the areas downwind of the landfill during the test efforts. Collocated samples were used as precision checks and in a screening procedure to assure high concentration constituents do not invalidate an analysis. In this case, at the upwind location and one (1) downwind location, collocated samplers were positioned to provide duplicate samples for QA/QC purposes.

Table 2.3 provides data for the 2002 monitoring program at the primary downwind sampling locations. The primary downwind location presented for each quarter was chosen based on the highest total speciated target VOCs for the downwind samples per quarterly test effort. These data represent conservative annual average ambient air concentrations downwind of the OBSWDC. The samples were collected over a 24-hour period using a 0.25 liter per minute nominal sampling rate. The individual quarterly 24-hour samples were averaged to provide an estimated annual average concentration for locations downwind of the OBSWDC. As shown in Table 2.3, the annual average downwind value of six (6) TCL constituents exceeded the level of their respective current AGCs specified by the NYSDEC. One (1) TIC constituent exceeded the level of it's AGC. No Target or Tentatively Identified compounds exceeded their respective SGC values.

Table 2.4 presents the 2002, 24-hour monitoring data for ambient air concentrations at the selected upwind sample locations. Two (2) collocated samplers were positioned upwind of the OBSWDC during all four (4) quarters of testing. The quarterly upwind samples presented in Table 2.4 were chosen based on lowest total speciated target VOCs in order to provide conservative 24-hour ambient air background concentrations for determining a conservative landfill impact. The samples were collected using a 0.25 liter per minute nominal sampling rate. The individual quarterly 24-hour samples were averaged to provide an estimated annual average background ambient

TABLE 2.3

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

SUMMARY OF 24-HOUR DOWNWIND AMBIENT AIR VOST SAMPLE RESULTS

2002 Annual Summary

Quarterly I.D. Sample Identification*	1st D2	2nd D2	3rd D2	4th D2	ANNUAL AVERAGE DOWNWIND VALUE	CURRENT AGC	24 HOUR SGC
Lower Quantitation Limit (ug/m^3)	0.014	0.015	0.024	0.019	0.020	---	---
Practical Quantitation Limit (ug/m^3)	0.023	0.025	0.039	0.031	0.031	---	---
Target TIC Lower Quantitation Limit (ug/m^3)	0.071	0.077	0.121	0.097	0.098	---	---

Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Acetone***	4.25E-01	5.26E-01	2.13E+00	1.81E+00	1.22E+00	28,000	72,000
Benzaldehyde****						0.1	---
Benzene	6.00E-01	4.02E-01	7.25E-01	1.31E+00	7.80E-01	0.13	520
Bromodichloromethane						0.02	---
Bromoform***				3.47E-02	3.02E-02	0.9	---
Bromomethane	1.42E-02				1.83E-02	5.0	1,560
2-Butanone***	2.04E-01	2.04E-01	7.73E-01	6.56E-01	4.59E-01	1000	23,600
Carbon Disulfide				7.34E-02	3.18E-02	700	2480
Carbon Tetrachloride	8.22E-01	6.60E-01	8.21E-01	1.08E+00	8.44E-01	0.067	520
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether****						0	---
Chloroform	7.00E-01	5.20E-02	1.43E-01	1.51E-01	1.05E-01	0.043	60
Chloromethane	8.22E-02	7.74E-02	1.59E-01	1.89E-01	1.27E-01	770	8,800
Dibromochloromethane						0.1	---
1,2-Dichlorobenzene (o)						360	12,000
1,3-Dichlorobenzene (m)						360	12,000
1,4-Dichlorobenzene (p)	7.65E-02	8.05E-02		2.20E-01	1.00E-01	0.09	---
1,1-Dichloroethane						20	---
1,2-Dichloroethane						0.038	---
1,1-Dichloroethene						0.02	---
cis-1,2-Dichloroethene						1,900	---
trans-1,2-Dichloroethene						0.1a	---
1,2-Dichloropropane						4	20,400
1,3-Dichloropropene, cis & trans isomers						0.3	---
Ethylbenzene	2.04E-01	1.80E-01	3.00E-01	6.18E-01	3.25E-01	1,000	21,600
2/4-Ethyltoluene (total)	3.97E-01	4.02E-01	3.86E-01	1.12E+00	5.76E-01	0.1	---
Freon 13****						20000	224,000
2-Hexanone***						48	1640
Methylene Chloride	7.37E-01	2.41E-01	4.01E-01	5.79E-01	4.90E-01	2.1	5,600
4-Methyl-2-Pentanone***				1.27E-01	5.34E-02	490	12,400
Styrene				7.34E-02	3.18E-02	1,000	8,400
1,1,2,2-Tetrachloroethane						0.017	---
Tetrachloroethene	5.67E-01	2.54E-01	4.06E-01	1.16E+00	5.96E-01	1.0	400
Toluene	9.92E-01	8.67E-01	1.88E+00	2.78E+00	1.63E+00	400	14,800
1,1,1-Trichloroethane	2.55E-01	2.07E-01	2.42E-01	3.67E-01	2.68E-01	1,000	27,200
1,1,2-Trichloroethane						0.06	---
Trichloroethene	1.64E-01	4.02E-02	1.79E+00	1.43E-01	5.34E-01	0.45	21,600
Trichlorofluoromethane	1.22E+00	1.36E+00	1.40E+00	3.09E+00	1.77E+00	20000	224,000
Vinyl Chloride						0.02	72,000
Xylenes (Total)	8.78E-01	8.36E-01	1.30E+00	3.01E+00	1.51E+00	700	1,720

TABLE 2.3
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

SUMMARY OF 24-HOUR DOWNWIND AMBIENT AIR VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

2002 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	D2	D2	D2	D2	DOWNWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.071	0.077	0.121	0.097	0.091	---	---
Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Butane	5.77E-01				< 2.18E-01	45,000	
2-Methyl-Butane			1.01E+00	1.70E+00	< 7.15E-01	200	
2-Methoxy-2-Methyl-Propane	6.59E-01	6.81E-01	1.26E+00	1.81E+00	1.10E+00	3,000	
2-Methyl-Pentane	4.95E-01	4.64E-01	8.21E-01	1.35E+00	7.83E-01	4,200	140,000
Dichlorodifluoromethane	6.32E-01	6.81E-01	2.42E+00		< 9.57E-01	12,000	
Isobutane	4.95E-01				< 1.97E-01	45,000	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.04E-01	4.64E-01		1.16E+00	< 5.87E-01		
2,2 - dimethyl - heptane		3.10E-01			< 1.50E-01		
2,2 - dimethyl - hexane			9.66E-01		< 3.03E-01		
Hexachloroethane				2.90E+00	< 7.92E-01	0.25	
1,2,3 - trimethyl-benzene		4.02E-01			< 1.73E-01	290	
Octane			1.01E+00		< 3.14E-01	3,300	
Pinene isomer				1.31E+00	< 3.95E-01		

NOTES:
- Concentrations are in micrograms per cubic meter (ug/m3).
- Shaded areas indicate concentrations that exceed the level of the Annual Guideline Concentration (AGC).

* The samples identified were chosen based on the highest total speciated target VOCs for the downwind samples per test effort.

** This downwind sample was analyzed for breakthrough (analyzing the front and back traps separately) by the laboratory. Therefore, some of the concentrations reported for these compounds were listed as "<" values in the 2002 quarterly reports.

*** An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

**** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

***** Proposed Value

- Blank values:

Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.

TABLE 2.4

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

SUMMARY OF 24-HOUR UPWIND AMBIENT AIR VOST SAMPLE RESULTS

2002 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U1	U2	U2	U2	UPWIND VALUE	AGC	SGC
Lower Quantitation Limit (ug/m^3)	0.0129	0.014	0.0234	0.0142	0.017	---	---
Practical Quantitation Limit (ug/m3)	0.0206	0.022	0.0374	0.0227	0.027	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.0644	0.068	0.1168	0.0708	0.085	---	---

Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Acetone***	3.87E-01	5.18E-01	1.45E+00	1.70E+00	1.01E+00	28,000	72,000
Benzaldehyde****						0.1	---
Benzene						0.13	520
Bromodichloromethane						0.02	---
Bromoform***				3.40E-02	2.84E-02	0.9	---
Bromomethane	1.55E-02				1.67E-02	5.0	1,560
2-Butanone***	1.83E-01	2.32E-01	3.93E-01	7.08E-01	3.79E-01	1000	23,600
Carbon Disulfide				3.40E-02	2.10E-02	700	2480
Carbon Tetrachloride	7.02E-01	6.54E-01	6.07E-01	1.08E+00	7.65E-01	0.067	520
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether****						0	---
Chloroform						0.043	60
Chloromethane	9.02E-02	5.72E-02	1.36E-01	2.58E-01	1.35E-01	770	8,800
Dibromochloromethane						0.1	---
1,2-Dichlorobenzene (o)						360	12,000
1,3-Dichlorobenzene (m)						360	12,000
1,4-Dichlorobenzene (p)	5.15E-02	1.01E-01	5.61E-02	1.87E-01	9.89E-02	0.09	---
1,1-Dichloroethane						20	---
1,2-Dichloroethane						0.038	---
1,1-Dichloroethene						0.02	---
cis-1,2-Dichloroethene						1,900	---
trans-1,2-Dichloroethene						0.1a	---
1,2-Dichloropropane						4	20,400
1,3-Dichloropropene, cis & trans isomers						0.25	---
Ethylbenzene	2.24E-01	2.04E-01	2.20E-01	7.08E-01	3.39E-01	1,000	21,600
2/4-Ethyltoluene (total)	4.64E-01	3.81E-01	4.35E-01	1.30E+00	6.46E-01	0.1	---
Freon 13****						20000	224,000
2-Hexanone***						48	1640
Methylene Chloride	5.15E-01	2.51E-01	2.94E-01	5.38E-01	4.00E-01	2.1	5,600
4-Methyl-2-Pentanone***						490	12,400
Styrene			3.74E-02	9.63E-02	4.01E-02	1,000	8,400
1,1,2,2-Tetrachloroethane						0.017	---
Tetrachloroethene	2.84E-01	3.00E-01	1.87E-01	1.27E+00	5.11E-01	1.0	400
Toluene	1.01E+00	9.81E-01	1.26E+00	2.83E+00	1.52E+00	400	14,800
1,1,1-Trichloroethane	2.16E-01	2.32E-01	1.73E-01	2.83E-01	2.26E-01	1,000	27,200
1,1,2-Trichloroethane						0.06	---
Trichloroethene	5.15E-02	3.27E-02	6.07E+00	2.15E-01	1.59E+00	0.45	21,600
Trichlorofluoromethane	1.01E+00	1.14E+00	9.81E-01	1.56E+00	1.17E+00	20000	224,000
Vinyl Chloride						0.02	72,000
Xylenes (Total)	1.01E+00	9.26E-01	9.35E-01	3.12E+00	1.50E+00	700	1,720

TABLE 2.4
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

24-HOUR UPWIND AMBIENT AIR VOST SAMPLE RESULTS

SUMMARY OF ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

2002 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U1	U2	U2	U2	UPWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.064	0.068	0.117	0.071	0.080	---	---
Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Butane	6.70E-01				< 2.31E-01	45,000	
2-Methyl-Butane	7.22E-01	4.36E-01	7.48E-01	2.21E+00	1.03E+00	200	
2-Methoxy-2-Methyl-Propane	7.73E-01	6.80E-01	8.88E-01	1.78E+00	1.03E+00	3,000	
2-Methyl-Pentane	5.93E-01	4.90E-01	5.14E-01	1.44E+00	7.59E-01	4,200	140,000
Dichlorodifluoromethane	9.02E-01	4.90E-01	1.31E+00		< 6.93E-01	12,000	
C3 Substituted Benzene (RT=13.47-16.63)			5.61E-01		< 1.91E-01		
Isobutane	5.41E-01				< 1.99E-01	45,000	
Hexane				9.92E-01	< 3.10E-01	200	
1,1,2-Trichloro-1,2,2-trifluoroethane		5.45E-01		9.07E-01	< 4.08E-01		
Hexachloroethane				2.46E+00	< 6.77E-01	0.25	
1,2,3 - trimethyl-cyclopentane		5.18E-01			< 1.93E-01		
Branched Alkane			5.14E-01		< 1.79E-01		

NOTES:

- Concentrations are in micrograms per cubic meter (ug/m^3).
- Shaded areas indicate concentrations that exceed the level of the Annual Guideline Concentration (AGC).

* The samples identified were chosen based on the lowest total speciated target VOCs for the upwind samples per test effort.

*** An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

**** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

***** Proposed Value

- Blank values:

Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.

air quality concentration. Of the annual average background (upwind) concentrations presented in Table 2.4, six (6) TCL constituents exceeded the level of the current NYSDEC AGCs. Again, one (1) TIC identified at both the upwind sites exceeded the level of it's respective AGC. No Target or Tentatively Identified Compounds exceeded their respective SGC values.

As a means of providing a conservative estimate of the potential impacts from the OBSWDC, the difference between the annual average upwind values and downwind values are calculated and compared to the level of the current NYSDEC AGCs. These values are provided in Table 2.5. To be conservative, the upwind annual average included quarterly upwind samples with comparatively the lowest concentration of speciated target VOCs while the downwind annual average included quarterly samples with comparatively the highest concentrations of speciated target VOCs. As shown in Table 2.5, the results indicate that one (1) TCL constituent, carbon tetrachloride, potentially impacts the ambient air quality at a concentration that exceeds the level of it's current AGC. If an estimate is calculated using all upwind and downwind data, the net carbon tetrachloride impact downwind of the landfill is just below the State guideline. All other TCL constituents identified in the annual averages have differential downwind impact values that are below their respective AGCs.

The short-term guideline values for the target compounds were estimated from the 24-hour recorded values. The individual quarterly concentrations shown in Tables 2.3 and 2.4 were compared to the 24-hour SGC values, (which are calculated by multiplying the current SGC by 0.4, an EPA averaging time adjustment factor). This comparison of the observed values with the resulting guidelines show that concentrations fall within their respective SGC values. The remaining upwind and downwind ambient air quality sample data that were collected during the four test efforts during the 2002 monitoring program are presented in Appendix A. In all cases, no measured concentrations exceeded this respective short-term guideline value.

Directly to the northeast of the landfill are several corporations that use paints and other chemicals to manufacture products. Under certain meteorological conditions when the winds are persistent from the northeast, these activities may affect the ambient upwind and many times, the downwind samplers. Various constituents may affect (some in large quantities) the sample concentrations observed during the 24-hour ambient sampling period.

2.3 Analysis of the Ambient Air Quality Program Data Base Since 1990

The ambient air quality at and surrounding the Old Bethpage Landfill has been monitored by RTP Environmental Associates, Inc. for the Town since 1990. Over the course of the past thirteen years, several changes have been made

TABLE 2.5

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

ESTIMATION OF POTENTIAL IMPACTS

Quarterly I.D.	ANNUAL AVERAGE	ANNUAL AVERAGE	DOWNWIND -	CURRENT
Sample Identification	DOWNWIND VALUE	UPWIND VALUE	UPWIND VALUE	AGC
Lower Quantitation Limit (ug/m3)	0.0196	0.0171	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.0314	0.0273	---	---
Practical Quantitation Limit (ug/m3)	0.0982	0.0853	---	---

Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Acetone*	1.22E+00	1.01E+00	2.10E-01	28,000
Benzaldehyde**				0.1
Benzene	7.58E-01	8.06E-01		0.13
Bromodichloromethane				0.02
Bromoform*	3.02E-02	2.84E-02	1.76E-03	0.9
Bromomethane	1.83E-02	1.67E-02	1.62E-03	5.0
2-Butanone*	4.59E-01	3.79E-01	8.06E-02	1000
Carbon Disulfide	3.18E-02	2.10E-02	1.08E-02	700
Carbon Tetrachloride	8.44E-01	7.65E-01	7.86E-02	0.067
Chlorobenzene				110
Chloroethane				10,000
Chloroethyl Vinyl Ether**				0.1
Chloroform	1.03E-01	9.02E-02	1.45E-02	0.043
Chloromethane	1.27E-01	1.35E-01		770
Dibromochloromethane				0.1
1,2-Dichlorobenzene (o)				360
1,3-Dichlorobenzene (m)				360
1,4-Dichlorobenzene (p)	1.00E-01	9.89E-02	1.45E-03	0.09
1,1-Dichloroethane				20
1,2-Dichloroethane				0.038
1,1-Dichloroethene				0.02
cis-1,2-Dichloroethene				1,900
trans-1,2-Dichloroethene				0.1a
1,2-Dichloropropane				4
1,3-Dichloropropene, cis & trans isomers				0.25
Ethylbenzene	3.25E-01	3.39E-01		1,000
2/4-Ethyltoluene (total)	5.76E-01	6.46E-01		0.1
Freon 13**				20000
2-Hexanone*				48
Methylene Chloride	4.90E-01	4.00E-01	8.98E-02	2.1
4-Methyl-2-Pentanone*	5.34E-02		5.34E-02	490
Styrene	3.18E-02	4.01E-02		1,000
1,1,2,2-Tetrachloroethane				0.017
Tetrachloroethene	5.96E-01	5.11E-01	8.49E-02	1.0
Toluene	1.63E+00	1.52E+00	1.10E-01	400
1,1,1-Trichloroethane	2.68E-01	2.26E-01	4.16E-02	1,000
1,1,2-Trichloroethane				0.063
Trichloroethene	5.34E-01	1.59E+00		0.45
Trichlorofluoromethane	1.77E+00	1.17E+00	5.95E-01	20000
Vinyl Chloride				0.02
Xylenes (Total)	1.51E+00	1.50E+00	1.19E-02	700

NOTES:

- Concentrations are in micrograms per cubic meter (ug/m3).
- Shaded areas indicate concentrations that exceed the level of the Annual Guideline Concentration (AGC).

* An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- Blank values:

Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

to the program to improve the quality of the data. These changes occurred throughout the program, principally before 1997. A comparison between upwind and downwind sample ambient data collected during 2001 and in 2002 confirm that benzene, carbon tetrachloride, chloroform, 1,4 - ethylbenzene (p), 2/4-ethyltoluene (previously reported as ethyl-methyl benzene) and trichloroethene concentrations consistently exceed the level of the NYSDEC ambient annual guideline values at both upwind and downwind locations. For the 2001 monitoring program 1,1,2,2-tetrachloroethane exceeded it's guideline at the downwind samples only and was not present in the ambient samples during the 2002 monitoring efforts. Several compounds observed in upwind and downwind samples during the first two years of monitoring appear at slightly higher concentration values when compared to 2001 and 2002 values. The decrease for some compounds may, in part, be attributed to landfill capping which was completed in January 1993 and the decrease in landfill gas generation which is expected to occur with time. Furthermore, the 2002 study data show that upwind and downwind concentrations for most compounds, in general, are similar and thus, tending to discount the OBSWDC as a significant source of any detected compounds.

2.4 Analysis of 2002 Soil Gas VOC Concentration Data

The 2002 soil gas VOC samples provide data on the concentrations of TCL and TIC constituents in the soil gas in the vicinity of the landfill. Soil gas concentrations of the identified constituents observed during the 2002 year of testing have been presented in the quarterly reports and summary tables are reproduced in Appendix B of this report. Table 2.6 provides an annual summary of soil gas VOC concentrations. To be conservative, these samples were chosen based on the highest total speciated target VOCs for the soil gas samples per test effort for the shallow thirty inch wells only. As shown in Table 2.6, a total of six (6) compounds averaged higher than their respective AGC value in the ambient air. At any individual well, M13 provides the highest annual average out of all the soil gas wells analyzed during the 2002 quarterly monitoring efforts. The number of soil gas wells containing target compound constituents that had exceeded the level of their respective AGCs were similar throughout the four 2002 quarterly tests. For TIC constituents, two (2) compounds a limonene isomer and hexachloroethane are shown on average to exceed the annual level. The limonene isomer was only detected during the first quarter effort and hexachloroethane was only detected during the fourth quarter effort, but since these compounds were seen in such large quantities, the annual average was in exceedance of each compounds respective AGC value even though each compound was only present during one quarterly sampling effort. Since these are not ambient air values, they cannot be directly compared to NYSDEC ambient guidelines; although, the measured ten-minute concentrations for several compounds are in excess of the levels of annual ambient air guideline values specified. The NYSDEC has not developed VOC concentration guidelines for soils, and therefore, a direct comparison to applicable State regulations cannot be made. Nassau County does not have soil gas standards at this point.

TABLE 2.6

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

SUMMARY OF SOIL GAS VOC SAMPLE RESULTS
CALENDAR YEAR 2002

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M37	M13	M13	M5	---	AGC
Lower Quantitation Limit (LQL)	0.469	0.98	0.648	0.952	0.799	---
Practical Quantitation Limit (PQL)	0.750	1.56	1.04	1.52	1.28	---
Targeted TIC LQL	2.35	4.88	3.24	4.76	4.00	---
Constituent/Units	($ug/std\text{-}m^3$)	($ug/std\text{-}m^3$)	($ug/std\text{-}m^3$)	($ug/std\text{-}m^3$)	($ug/std\text{-}m^3$)	(ug/m^3)
Acetone**	1.50E+00	3.22E+00	1.08E+01	5.05E+00	5.13E+00	28,000
Benzaldehyde***						0.1
Benzene	5.65E-01			2.70E+00	1.61E+00	0.13
Bromodichloromethane						0.02
Bromoform**						0.9
Bromomethane						5.0
2-Butanone**						1000
Carbon Disulfide						700
Carbon Tetrachloride	2.72E+00			1.33E+00	2.50E+00	0.067
Chlorobenzene						110
Chloroethane						10,000
Chloroethyl Vinyl Ether***						0.1
Chloroform		< 1.86E+00	6.99E+00		3.45E+00	0.043
Chloromethane						770
Dibromochloromethane						0.1
1,2-Dichlorobenzene (o)						360
1,3-Dichlorobenzene (m)						360
1,4-Dichlorobenzene (p)						0.09
1,1-Dichloroethane		< 1.07E+00	2.20E+00		2.25E+00	20
1,2-Dichloroethane						0.038
1,1-Dichloroethene						0.02
cis-1,2-Dichloroethene						1,900
trans-1,2-Dichloroethene						0.1a
1,2-Dichloropropane						4
1,3-Dichloropropene, cis & trans isomers						0.25
Ethylbenzene	1.97E+00			1.43E+00	2.15E+00	1,000
2/4-Ethyltoluene (total)				2.29E+00	1.89E+00	0.1
Freon 13***						20000
2-Hexanone**						48
Methylene Chloride	1.13E+01	3.71E+00	1.42E+00	3.87E+01	1.57E+01	2.1
4-Methyl-2-Pentanone**						490
Styrene						1,000
1,1,2,2-Tetrachloroethane						0.017
Tetrachloroethene	1.03E+00	< 3.47E+01	5.57E+01	2.95E+00	1.52E+01	1.0
Toluene	8.72E+00	< 1.17E+00		7.43E+00	7.03E+00	400
1,1,1-Trichloroethane	4.50E+00	3.03E+00	4.40E+00		4.54E+00	1,000
1,1,2-Trichloroethane						0.063
Trichloroethene	1.03E+00	< 2.54E+00	2.85E+00		2.42E+00	0.45
Trichlorofluoromethane	2.35E+00	< 2.15E+00	2.46E+00	1.52E+00	2.17E+00	20000
Vinyl Chloride						0.02
Xylenes (Total)	8.35E+00			4.95E+00	6.22E+00	700

TABLE 2.6
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL

SUMMARY OF SOIL GAS VOC SAMPLE RESULTS
CALENDAR YEAR 2002

Quarterly	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M37	M13	M13	M5	---	AGC
Additional TIC LQL	2.35	4.88	3.24	4.76	3.04	---

Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Butane	1.95E+01			5.05E+00	8.17E+00	45,000
2-Methyl-Butane	7.53E+00			6.95E+00	5.65E+00	200
2-Methyl-Pentane				4.86E+00	3.83E+00	4,200
Dichlorodifluoromethane			3.63E+00		3.90E+00	12,000
Isobutane	2.88E+00				3.94E+00	45,000
Hexane				1.76E+01	7.02E+00	200
Unknown Hydrocarbon				9.24E+00	4.93E+00	
Hexachloroethane				2.05E+01	7.74E+00	0.25
1,1 - diflouro - ethane	9.30E+00				5.55E+00	44,000
Limonene	3.01E+00				4.76E+00	0.1
Pyrrolidine	2.79E+00				3.92E+00	

NOTES:

- Concentrations are in micrograms per cubic meter (ug/m3).
- Shaded areas indicate concentrations that exceed the level of the Annual Guideline Concentration (AGC).

* The samples identified were chosen based on the highest total speciated target VOCs for the soil gas samples per test effort.

** An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

*** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- Blank values:

Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

The 2002 soil gas VOST sample results for cluster well M9, including wells M9(10'), M9(20'), M9(30') and M9(40') show an increase in certain constituent concentrations as well depth increases for all four quarterly tests. This trend may be attributed to groundwater conditions at this location. This trend was not observed during the fourth quarter test for hexachloroethane which exhibited a decreasing concentration profile with depth. This occurrence will be investigated further.

2.5 Analysis of the Soil Gas Program Data Base Since 1990

VOC concentrations in soil gas samples have been measured at the OBSWDC since 1990. Throughout the past twelve years, modifications have been made to the soil gas program in order to provide quality data. However, since 1992, the soil gas wells that have been sampled and the target sample volume has remained the same. Therefore, these data are directly comparable. A comparison of soil gas VOC concentration data from 1992 through 2002 shows that the compounds benzene, carbon tetrachloride, chloroform, tetrachloroethene and trichloroethene consistently exceed the level of the NYSDEC ambient annual guideline values, except that benzene was not detected in excess during the 2001 sampling efforts. In general, these soil gas VOC concentration exceedances increased in number from 1992 through 1997. Since 1997, the number of exceedances has remained similar for each test year. It is critical to note that the subsurface soil gas data were only ten minute samples which are not directly comparable to NYSDEC annual guideline concentration values for ambient air. As stated before, Nassau County does not have soil gas standards at this point, and therefore, a direct comparison to applicable regulations cannot be made.

2.6 Analysis of 2002 Soil Gas Pressure Measurements

Soil gas pressure measurements were made during the 2002 testing program as prescribed in the Consent Order. The locations of the pressure wells are provided in the quarterly reports. PW1 and PW2 are on the Old Bethpage Solid Waste Disposal Complex property while PW3 is off-site at the Firemen's Training Center. PW1 and PW3 are located outside the perimeter collection system while PW2 is located within the perimeter collection system.

The majority of soil gas pressure readings were zero or negative during 2002. The soil gas pressure readings, as provided in Appendix C, show that very slightly positive pressure readings were measured at PW1 (all depths) for the first and second quarters. Zero or negative readings were measured at the rest of the test sites for all quarters. Positive or zero pressure readings are dependent on landfill influences, the perimeter collection system status, atmospheric pressure and perched water near the well location. A drop in the ambient barometric pressure, in general, causes gases to be emitted from the soil, resulting in a positive pressure reading relative to the ambient pressure at a pressure well.

Ambient atmospheric pressure is measured at the landfill during each quarterly test effort to determine the atmospheric pressure drop over the 24-hour test period. Ambient pressure drops for each quarter were calculated by subtracting the lowest ambient pressure from the highest. Ambient pressure drops during the test efforts were reviewed and are similar for the first and second quarters with a large pressure drop (>0.34 in mercury) and similar for the third and fourth quarters with a smaller pressure drop (<0.11 in mercury).

3.0 SUMMARY AND CONCLUSIONS

In summary, the 2002 test program involved collecting data on ambient air and soil gas volatile organic compound samples and soil gas pressure readings. The program was completed according to the NYSDEC approved monitoring plan which is in conformance with the Order on Consent. The data indicates that several compounds, most notably benzene, carbon tetrachloride, chloroform, 1,4- ethylbenzene, 2/4-ethyltoluene and trichloroethene had ambient air concentrations in excess of the level of their respective NYSDEC annual guideline concentrations. These compounds were measured in excess of the level of the guideline values at locations both upwind and downwind of the OBSWDC.

The samples collected downwind of the OBSWDC generally show average VOC concentration levels that do not exceed NYSDEC guidelines when average conservative upwind VOC concentrations are subtracted. However, one target constituent, carbon tetrachloride, when adjusted for conservative background levels, exceeded the level of the guideline value downwind of the landfill. When all data are used to estimate actual conditions as monitored, carbon tetrachloride emissions from the landfill would not singularly cause an exceedance of the State AGC value.

Representative upwind and downwind values have been used in estimating air quality impacts associated with releases from the landfill. It should be noted, however, that quarterly monitoring occurred during generally steady or falling barometric pressure conditions which tend to maximize the observed impacts from any landfill source. The downwind sampling locations were also positioned on or near the foot of the landfill slope again maximizing the recorded impact. One would expect to observe a decrease in these levels as the distance downwind of the landfill and the other sources increases.

A data base is being developed for both an uncapped and a capped landfill. Since capping was completed, the data collected for a limited set of compounds continues to show an exceedance of the NYSDEC ambient guideline values both upwind and downwind of the OBSWDC. Additionally, the target compound list has been occasionally updated based on continuing reviews of tentatively identified compounds being detected by enhanced analytical procedures.

These compounds can be significant as illustrated by hexachloroethane, which was not on the initial list of target compounds but was measured in excess of the current State annual guideline concentration both upwind and downwind of the OBSWDC. This additional TIC is not often found during quarterly sampling efforts and was last detected during the 2001 third quarter effort. Hexachloroethane was found in significant quantities only during the fourth quarter of the 2002 sampling efforts. Since the concentrations were so large during the fourth quarter, the 2002 annual average was therefore in excess of the current State haxachloroethane annual guideline. This compound is rarely detected in the vicinity of the OBSWDC, and the source(s) are currently unknown. Additional investigation is continuing to determine if the presence of this compound is spurious. No additional precautions are recommended at this point since concentrations are below the State SGC limit.

In conclusion, the ambient VOC concentrations measured during the 2002 study upwind and downwind of the facility for most compounds appear to be similar. Based on this data, the Old Bethpage Solid Waste Disposal Complex, is not having a significant impact on air quality for measured VOC compounds. No VOC compound concentrations measured downwind of the landfill exceeded NYSDEC short-term guidelines.

APPENDIX A

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOILS AND SOIL GAS PRESSURE READINGS

2002 ANNUAL SUMMARY REPORT

2002 QUARTERLY AMBIENT AIR CONCENTRATION DATA

TABLE 4.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

2002 FIRST QUARTER

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	CURRENT
SAMPLE IDENTIFICATION*	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
LOWER QUANTITATION LIMIT (LQL)	0.0129	0.0130	0.0142	0.0137	0.0292	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0206	0.0208	0.0227	0.0220	0.0466	8	8		
TARGETED TIC LQL	0.0644	0.0651	0.0708	0.0687	0.146	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
Acetone**	3.87E-01	3.65E-01	4.25E-01	4.12E-01	4.23E-01			28000	72,000
Benzaldehyde***								0.1	---
Benzene	**6.70E-01**	**6.51E-01**	**6.80E-01**	**6.32E-01**	**< 6.85E-01**			0.13	520
Bromodichloromethane								0.02	---
Bromoform**		2.08E-02						0.90	---
Bromomethane	1.55E-02		1.42E-02					5	1,560
2-Butanone**	1.83E-01	1.77E-01	2.04E-01	2.39E-01	< 1.98E-01			1000	23,600
Carbon Disulfide								700	2,480
Carbon Tetrachloride	**7.22E-01**	**6.77E-01**	**8.22E-01**	**7.69E-01**	**7.87E-01**			0.067	520
Chlorobenzene								110	---
Chloroethane								10000	---
Chloroethyl Vinyl Ether***								0.1	---
Chloroform	**6.19E-02**	**5.99E-02**	**7.08E-02**	**6.32E-02**	**< 7.58E-02**			0.043	60
Chloromethane	9.02E-02	8.07E-02	8.22E-02	8.79E-02	< 8.16E-02			770	8,800
Dibromochloromethane								0.10	---
1,2-Dichlorobenzene (o)								360	12,000
1,3-Dichlorobenzene (m)								360	12,000
1,4-Dichlorobenzene (p)	5.15E-02	4.95E-02	7.65E-02	7.42E-02	**< 9.04E-02**			0.09	---
1,1-Dichloroethane								20	---
1,2-Dichloroethane								0.04	---
1,1-Dichloroethene								0.02	---
cis-1,2-Dichloroethene								1900	---
trans-1,2-Dichloroethene								0.1a	---
1,2-Dichloropropane								4.00	20,400
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	2.24E-01	2.19E-01	2.04E-01	1.90E-01	< 2.24E-01			1000	21,600
2/4-Ethyltoluene (total)	**4.64E-01**	**4.43E-01**	**3.97E-01**	**3.57E-01**	**< 4.23E-01**			0.1	---
Freon 13***								20000	224,000
2-Hexanone**								48.00	1,640
Methylene Chloride	5.15E-01	3.91E-01	7.37E-01	6.87E-01	3.27E-01	11		2.1	5,600
4-Methyl-2-Pentanone**								490	12,400
Styrene								1000	8,400
1,1,2,2-Tetrachloroethane								0.017	---
Tetrachloroethene	2.84E-01	2.86E-01	5.67E-01	5.22E-01	< 5.98E-01			1.00	400
Toluene	1.01E+00	9.90E-01	9.92E-01	9.07E-01	< 1.01E+00			400	14,800
1,1,1-Trichloroethane	2.16E-01	2.08E-01	2.55E-01	2.39E-01	2.36E-01	8		1000.00	27,200
1,1,2-Trichloroethane								0.063	---
Trichloroethene	5.15E-02	4.95E-02	1.64E-01	1.48E-01	< 1.46E-01			0.45	21,600
Trichlorofluoromethane	1.01E+00	9.11E-01	1.22E+00	1.32E+00	1.02E+00			20000	224,000
Vinyl Chloride								0.02	72,000.0
Xylenes (Total)	1.01E+00	9.90E-01	8.78E-01	8.24E-01	< 9.18E-01			700	1,720

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

2002 FIRST QUARTER

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	CURRENT
SAMPLE IDENTIFICATION (1)	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.064	0.065	0.071	0.069	0.146	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
2-Methyl-pentane	5.93E-01	6.25E-01		4.95E-01	< 5.10E-01				
2-Methoxy-2-Methyl-propane	7.73E-01	8.07E-01	7.37E-01	6.59E-01	8.13E-01				
Branched Alkane RT: 13.60					< 3.64E-01				
C3 subst. Benzene RT: 13.46					< 4.52E-01				
2-Methyl-butane	7.22E-01	7.29E-01	7.37E-01		< 5.39E-01				
Hexane					< 4.52E-01			200	
Unknown RT: 14.26					< 4.52E-01				
Isobutane	5.41E-01	5.21E-01	5.95E-01	4.95E-01	< 7.14E-01			45,000	
Dichlorodifluoromethane	9.02E-01	5.99E-01	8.78E-01	6.32E-01	< 1.01E+00			12,000	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro			5.67E-01	6.04E-01	< 5.10E-01				
Butane	6.70E-01	6.25E-01	6.80E-01	5.77E-01	< 8.60E-01			45,000	

NOTES:

* See Figure 2.1 for ambient air and soil gas sampling locations.

** An 8 (splitless) nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

*** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

****This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised July, 2000 and still current as of April, 2002) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the 15th hole fairway approximately 150 feet west of Round Swamp Road.

D1/D2: Ambient downwind samplers collocated approximately 150 feet up the northern landfill access road.

D3: Ambient downwind sampler collected approximately 75 feet southwest of the RAP Building.

TB1: Trip Blank

- All values are reported in micrograms per standard cubic meter (ug/std-m^3) except for the field blank and trip blank mass loading results which are reported in nanograms (ng).
- Blank values:
  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).
  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July, 2000 and still current as of April, 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the analytical results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

SECOND QUARTER 2002

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	CURRENT
SAMPLE IDENTIFICATION*	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
LOWER QUANTITATION LIMIT (LQL)	0.0137	0.0136	0.0134	0.0155	0.0288	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0219	0.0218	0.0214	0.0248	0.0461	8	8		
TARGETED TIC LQL	0.0685	0.0681	0.0668	0.0774	0.144	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
Acetone**	4.11E-01	5.18E-01	4.01E-01	5.26E-01	4.84E-01			28,000	180,000
Benzaldehyde***								0.10	----
Benzene	**4.38E-01**	**4.36E-01**	**4.55E-01**	**4.02E-01**	**< 3.89E-01**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform**			2.14E-02					0.9	---
Bromomethane			1.87E-02					5.0	3,900
2-Butanone**	2.08E-01	2.32E-01	2.03E-01	2.04E-01	< 2.13E-01			1,000	59,000
Carbon Disulfide	1.37E-02							700	6,200
Carbon Tetrachloride	**6.85E-01**	**6.54E-01**	**6.68E-01**	**6.50E-01**	**6.74E-01**			0.07	1,300
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether***								0.10	----
Chloroform	**5.75E-02**	**5.72E-02**	**5.61E-02**	**5.26E-02**	**< 5.76E-02**			0.04	150
Chloromethane	6.30E-02	5.72E-02	8.82E-02	7.74E-02	< 1.07E-01			770	22,000
Dibromochloromethane								0.10	---
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	6.85E-02	**1.01E-01**	8.29E-02	8.05E-02	< 6.92E-02			0.09	---
1,1-Dichloroethane								20	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene								0.02	---
cis-1,2-Dichloroethene								1,900	---
trans-1,2-Dichloroethene								0.10	----
1,2-Dichloropropane								4.00	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	1.95E-01	2.04E-01	1.82E-01	1.80E-01	< 1.84E-01			1,000	54,000
2/4-Ethyltoluene (total)	**3.84E-01**	**3.81E-01**	**4.01E-01**	**4.02E-01**	**< 3.60E-01**			0.10	
Freon 13***								20,000	560,000
2-Hexanone**								48	4,100
Methylene Chloride	2.33E-01	2.51E-01	2.35E-01	2.41E-01	2.91E-01	15		2	14,000
4-Methyl-2-Pentanone**								490	31,000
Styrene								1,000	21,000
1,1,2,2-Tetrachloroethane								0.02	---
Tetrachloroethene	2.74E-01	3.00E-01	2.41E-01	2.54E-01	< 2.71E-01			1.0	1,000
Toluene	9.04E-01	9.81E-01	8.82E-01	8.67E-01	< 8.21E-01			400	37,000
1,1,1-Trichloroethane	2.41E-01	2.32E-01	2.09E-01	2.07E-01	2.25E-01			1,000	68,000
1,1,2-Trichloroethane								0.06	---
Trichloroethene	3.01E-02	3.27E-02	3.48E-02	4.02E-02	< 6.63E-02			0.45	54,000
Trichlorofluoromethane	1.29E+00	1.14E+00	1.20E+00	1.36E+00	1.17E+00			20,000	560,000
Vinyl Chloride								0.02	180,000.0
Xylenes (Total)	9.32E-01	9.26E-01	8.29E-01	8.36E-01	< 7.93E-01			700	4,300

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

SECOND QUARTER 2002

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	CURRENT
SAMPLE IDENTIFICATION (1)	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.068	0.068	0.067	0.077	0.144	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
2-Methyl-pentane	5.21E-01	4.90E-01	4.55E-01	4.64E-01	< 3.89E-01			4,200	350,000
2-Methoxy-2-Methyl-propane	7.12E-01	6.81E-01	6.68E-01	6.81E-01	6.92E-01			3,000	
Cyclopentane, 1,2,3-trimethyl	6.58E-01	5.18E-01							
2-Methyl-butane		4.36E-01	5.08E-01		< 5.04E-01			200	
Benzene, 1,2,3-trimethyl			3.74E-01	4.02E-01	< 4.18E-01			290	
Hexane			3.74E-01		< 4.47E-01			200	
Heptane, 2,2-dimethyl				3.10E-01					
Decane					< 2.91E-01			0.1	
Isobutane	4.66E-01				< 6.20E-01			45,000	
Dichlorodifluoromethane	6.85E-01	4.90E-01	7.22E-01	6.81E-01	< 1.11E+00			12,000	
Butane					< 5.33E-01			45,000	
Nonanal					< 3.89E-01				
Ethane, 1,1,2-trichloro-1,2,2-trifluoro	6.30E-01	5.45E-01		4.64E-01	< 3.60E-01			180,000	960,000

NOTES:

* See Figure 2.1 for ambient air and soil gas sampling locations.

** An 8 (splitless) nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

*** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

**** A 24-hour guideline concentration equivalent can be calculated by multiplying the current SGC value (last revised July 2000 and still current as of April 2002) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated approximately 35 feet east of plant drive across from well M34.

D1/D2: Ambient downwind samplers collocated approximately 75 feet south of the RAP building.

D3: Ambient downwind sampler collected on the northern landfill access road, approximately 250 southeast of soil gas well M22.

FB3: Ambient Field Blank

TB1: Trip Blank

- All values are reported in micrograms per standard cubic meter (ug/std-m^3) except for the field blank and trip blank mass loading results which are reported in nanograms (ng).
- Blank values:

  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of April 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the analytical results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

THIRD QUARTER 2002

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION*	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
LOWER QUANTITATION LIMIT (LQL)	0.0132	0.0234	0.0171	0.0242	0.0422	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0212	0.0374	0.0273	0.0386	0.0675	8	8		
TARGETED TIC LQL	0.0661	0.1168	0.0853	0.1208	0.211	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
Acetone**	1.14E+00	1.45E+00	1.81E+00	2.13E+00	1.69E+00	12		28,000	180,000
Benzaldehyde***								0.1	—
Benzene	5.82E-01	5.61E-01						0.13	1,300
Bromodichloromethane								0.02	—
Bromoform**								0.9	—
Bromomethane								5.0	3,900
2-Butanone**	4.23E-01	3.93E-01	6.14E-01	7.73E-01	< 4.22E-01			1,000	59,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	6.35E-01	6.07E-01						0.07	1,300
Chlorobenzene								110	—
Chloroethane								10,000	—
Chloroethyl Vinyl Ether***								0.10	—
Chloroform	1.06E-01	8.88E-02						0.04	150
Chloromethane	5.56E-02	1.36E-01	8.87E-02	1.59E-01	< 1.31E-01			770	22,000
Dibromochloromethane								0.1	—
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	3.70E-02	5.61E-02	7.85E-02		< 7.59E-02			0.09	—
1,1-Dichloroethane								20	—
1,2-Dichloroethane								0.038	—
1,1-Dichloroethene								0.02	—
cis-1,2-Dichloroethene			2.05E-02					1,900	—
trans-1,2-Dichloroethene								0.1a	—
1,2-Dichloropropane								4.00	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	—
Ethylbenzene	2.33E-01	2.20E-01	2.66E-01	3.00E-01	< 2.07E-01			1,000	54,000
2/4-Ethyltoluene (sum)	4.50E-01	4.35E-01						0.1	
Freon 13***								20,000	560,000
2-Hexanone**								48	4,100
Methylene Chloride	2.91E-01	2.94E-01	4.10E-01	4.01E-01	3.12E-01	5		2	14,000
4-Methyl-2-Pentanone**								490	31,000
Styrene	3.44E-02	3.74E-02						1,000	21,000
1,1,2,2-Tetrachloroethane								0.02	—
Tetrachloroethene	1.93E-01	1.87E-01	3.75E-01	4.06E-01	< 2.49E-01			1.0	1,000
Toluene	1.32E+00	1.26E+00	1.57E+00	1.88E+00	< 1.16E+00			400	37,000
1,1,1-Trichloroethane	1.77E-01	1.73E-01	2.32E-01	2.42E-01	< 2.11E-01			1,000	68,000
1,1,2-Trichloroethane								0.06	—
Trichloroethene	4.23E+00	6.07E+00	1.92		<			0.45	54,000
Trichlorofluoromethane	8.99E-01	9.81E-01	1.33E+00	1.40E+00	1.17E+00			20,000	560,000
Vinyl Chloride								0.02	180,000
Xylenes (Total)	1.11E+00	9.35E-01	1.26E+00	1.30E+00	< 9.07E-01			700	4,300

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

THIRD QUARTER 2002

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION (1)	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.066	0.117	0.085	0.121	0.211	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
2-Methyl-pentane	5.56E-01	5.14E-01	5.80E-01	8.21E-01	< 5.23E-01			4,200	
2-Methoxy-2-Methyl-propane	7.94E-01	8.88E-01	9.56E-01	1.26E+00	9.87E-01				
Branched Alkane RT: 13.53 - 13.56	5.56E-01	5.14E-01							
Octane				1.01E+00					
1,3-Pentadiene, (Z)					< 2.70E-01				
C3 subst. Benzene (RT - 13.40)		5.61E-01			< [illegible]			0.12	32
2-Methyl-butane	6.35E-01	7.48E-01	8.19E-01	1.01E+00	< 5.70E-01				
2,2-dimethyl-Hexane				9.66E-01					
Hexane			5.46E-01		< 6.12E-01			240	42,000
Decane	5.56E-01				< [illegible]			0.1	
Unknown RT: 1.71					< 5.70E-01				
Dichlorodifluoromethane	8.73E-01	1.31E+00	1.64E+00	2.42E+00	< 2.38E+00				
n-Propyl acetate					< 5.19E-01				
Butane			5.80E-01		< 5.70E-01				

NOTES:

* See Figure 2.1 for ambient air and soil gas sampling locations.

** An 8 (splitless) nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

*** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

****This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised July 2000 and still current as of April 2002) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated on the northeastern side of the landfill, approximately 450 feet north of soil gas well M39

D1/D2: Ambient downwind samplers collocated approximately 500 feet south of the soil gas well M21.

D3: Ambient downwind sampler collected on the southwestern side of the landfill approximately 250 feet north northeast of soil gas well M37.

TB1: Trip Blank

- All values are reported in micrograms per standard cubic meter (ug/std-m^3) except for the field blank and trip blank mass loading results which are reported in nanograms (ng).
- Blank values:
  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).
  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of April 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the analytical results, Appendix C
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FOURTH QUARTER 2002

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION*	U1	U2	D1	D2	D3	FB2	TB1	AGC	SGC****
LOWER QUANTITATION LIMIT (LQL)	0.0146	0.0142	0.0139	0.0193	0.0310	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0234	0.0227	0.0222	0.0309	0.0495	8	8		
TARGETED TIC LQL	0.0731	0.0708	0.0694	0.0965	0.155	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
Acetone**	1.23E+00	1.70E+00	1.39E+00	1.81E+00	2.23E+00	14		28,000	72,000
Benzaldehyde***								0.1	---
Benzene	**1.49E+00**	**1.56E+00**	**1.19E+00**	**1.31E+00**	**< 1.47E+00**			0.13	520
Bromodichloromethane								0.02	---
Bromoform**	3.22E-02	3.40E-02	3.06E-02	3.47E-02	< 6.19E-02			0.9	---
Bromomethane								5.0	1,560
2-Butanone**	5.26E-01	7.08E-01	6.39E-01	6.56E-01	< 6.13E-01			1,000	23,600
Carbon Disulfide	2.92E-02	3.40E-02	2.78E-02	7.34E-02	< 1.27E-01			700	2,480
Carbon Tetrachloride	**1.05E+00**	**1.08E+00**	**1.03E+00**	**1.08E+00**	**1.21E+00**			0.07	520
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether***								0.1	---
Chloroform	**1.46E-01**	**1.53E-01**	**1.39E-01**	**1.51E-01**	**1.55E-01**			0.04	60
Chloromethane	2.25E-01	2.58E-01	2.11E-01	1.89E-01	< 6.81E-02			770	8,800
Dibromochloromethane								0.1	---
1,2-Dichlorobenzene (o)								360	12,000
1,3-Dichlorobenzene (m)								360	12,000
1,4-Dichlorobenzene (p)	**1.78E-01**	**1.87E-01**	**1.83E-01**	**2.20E-01**	**< 2.20E-01**			0.09	---
1,1-Dichloroethane								20	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene								0.02	---
cis-1,2-Dichloroethene								1,900	---
trans-1,2-Dichloroethene								0	---
1,2-Dichloropropane								4.00	20,400
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	6.14E-01	7.08E-01	5.00E-01	6.18E-01	< 6.66E-01			1,000	21,600
2/4-Ethyltoluene (total)	**1.23E+00**	**1.30E+00**	**9.72E-01**	**1.12E+00**	**< 1.38E+00**			0.1	
Freon 13***								20,000	224,000
2-Hexanone**								48	1,640
Methylene Chloride	4.97E-01	5.38E-01	5.56E-01	5.79E-01	6.87E-01	7		2.1	5,600
4-Methyl-2-Pentanone**			7.22E-02	1.27E-01				490	12,400
Styrene	9.06E-02	9.63E-02	6.39E-02	7.34E-02				1,000	8,400
1,1,2,2-Tetrachloroethane								0.017	---
Tetrachloroethene	**1.17E+00**	**1.27E+00**	**1.03E+00**	**1.16E+00**	**1.29E+00**			1.0	400
Toluene	2.75E+00	2.83E+00	2.39E+00	2.78E+00	< 2.96E+00			400	14,800
1,1,1-Trichloroethane	2.78E-01	2.83E-01	3.33E-01	3.67E-01	3.56E-01			1,000	27,200
1,1,2-Trichloroethane								0.063	---
Trichloroethene	2.08E-01	2.15E-01	1.36E-01	1.43E-01	< 2.01E-01			0.45	21,600
Trichlorofluoromethane	1.40E+00	1.56E+00	3.89E+00	3.09E+00	1.79E+00			20,000	224,000
Vinyl Chloride								0.02	72,000.0
Xylenes (Total)	2.89E+00	3.12E+00	2.53E+00	3.01E+00	< 2.99E+00			700	1,720

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FOURTH QUARTER 2002

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION (1)	U1	U2	D1	D2	D3	FB2	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.073	0.071	0.069	0.097	0.155	25	25		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ng)	(ng)	(ug/m3)	(ug/m3)
2-Methyl-pentane	1.26E+00	1.44E+00	1.14E+00	1.35E+00	< 9.75E-01			4,200	350,000
2-Methoxy-2-Methyl-propane	1.73E+00	1.78E+00	1.50E+00	1.81E+00	< 1.50E+00			3,000	
Pinene isomer			1.28E+00	1.31E+00	< 9.44E-01				
C3 subst. Benzene (RT= 13.37 - 13.40)	8.19E-01				< 8.82E-01				
2-Methyl-butane	1.96E+00	2.21E+00	1.44E+00	1.70E+00	< 2.99E+00			200	
Hexane	9.06E-01	9.92E-01	8.89E-01		< 1.04E+00			200	
Isobutane					< 2.52E+00			45,000	
Dichlorodifluoromethane					< 2.00E+00			12,000	
Butane					< 3.79E+00			45,000	
Hexachloroethane	**2.54E+00**	**2.46E+00**	**2.44E+00**	**2.90E+00**	**3.44E+00**			0.25	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro		9.07E-01		1.16E+00				180,000	384,000
3-methyl-pentane					< 1.10E+00				

NOTES:

- * See Figure 2.1 for ambient air and soil gas sampling locations.
- ** An 8 (splitless) nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.
- *** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.
- ****This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised July 2000 and still current as of December 2002) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated on the 15th hole of the Bethpage Black golf course, approximately 250 feet west of Round Swamp Road.
D1/D2: Ambient downwind samplers collocated approximately 100 feet southwest of the southwestern connerof the RAP building.
D3: Ambient downwind sampler collected on the eastern side of the landfill, on the last footbridge, approximately 75 feet west of Winding Road.
TB1: Trip Blank

- All values are reported in micrograms per standard cubic meter (ug/std-m^3) except for the field blank and trip blank mass loading results which are reported in nanograms (ng).
- Blank values:
  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).
  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of December 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the analytical results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

APPENDIX B

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOILS AND SOIL GAS PRESSURE READINGS

2002 ANNUAL SUMMARY REPORT

2002 QUARTERLY SOIL GAS CONCENTRATION DATA

TABLE 4.2

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

2002 FIRST QUARTER

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.496	0.493	0.495	0.495	0.495	0.496	0.491	0.989	0.490	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.794	0.789	0.791	0.791	0.792	0.793	0.786	1.583	0.78	---	—
TARGETED TIC LQL	2.48	2.47	2.47	2.47	2.48	2.48	2.46	4.95	2.45	—	—
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Acetone*				1.09E+00						28,000	180,000
Benzaldehyde**										0.1	—
Benzene										0.13	1300
Bromodichloromethane										0.02	—
Bromoform*										0.9	—
Bromomethane										5	3900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride				**4.95E-01**						0.067	1,300
Chlorobenzene										110	—
Chloroethane										10,000	—
Chloroethyl Vinyl Ether**										0.1	—
Chloroform								< 1.19E+00	**4.90E-01**	0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane								< 1.09E+00	5.88E-01	20	—
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	—
cis-1,2-Dichloroethene										1,900	—
trans-1,2-Dichloroethene								**< 1.09E+00**	**1.08E+00**	0.1a	—
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	—
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.1	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	**1.98E+01**	1.87E+00	**2.37E+00**	1.98E+00	1.88E+00	1.88E+00	1.67E+00	**2.97E+00**	1.57E+00	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	—
Tetrachloroethene		**1.78E+00**		5.93E-01		**4.26E+01**	**1.18E+02**	**< 1.79E+02**	**1.67E+02**	1	1,000
Toluene										400	37,000
1,1,1-Trichloroethane		1.38E+00	1.09E+00	1.48E+00	1.88E+00	2.58E+00	5.99E+00	1.22E+01	1.76E+01	1,000	68,000
1,1,2-Trichloroethane										0.063	—
Trichloroethene		**2.07E+00**						**< 1.38E+00**	**2.16E+00**	0.45	54,000
Trichlorofluoromethane		1.28E+00	1.29E+00	1.19E+00	1.29E+00	4.16E+00	6.48E+00	1.16E+01	1.76E+01	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)										700	4,300

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

2002 FIRST QUARTER

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	2.48	2.47	2.47	2.47	2.48	2.48	2.46	4.95	2.45	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Dichlorodifluoromethane						8.23E+00	1.77E+01	3.73E+01	4.90E+01	12,000	
Dichlorotetrafluoroethane						5.35E+00	1.28E+01	< 3.51E+01	5.39E+01	17,000	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro						9.91E+00	3.34E+01	5.24E+01	8.82E+01		

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

2002 FIRST QUARTER

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.467	0.929	0.470	0.461	0.455	0.460	0.465	0.469	0.463	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.747	0.743	0.752	0.738	0.727	0.74	0.744	0.750	0.741	---	—
TARGETED TIC LQL	2.33	4.64	2.35	2.31	2.27	2.30	2.33	2.35	2.32	---	—
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Acetone*	1.68E+00	< 2.14E+00	1.50E+00	1.01E+00	1.18E+00	1.75E+00	1.02E+00	1.50E+00	8.34E-01	28,000	180,000
Benzaldehyde**										0.1	---
Benzene							**4.65E-01**	**5.63E-01**		0.13	1300
Bromodichloromethane										0.02	—
Bromoform*										0.9	—
Bromomethane										5	3,900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride				**4.61E-01**			**5.58E-01**	**2.72E+00**		0.067	1,300
Chlorobenzene										110	—
Chloroethane										10,000	—
Chloroethyl Vinyl Ether**										0.1	---
Chloroform	**5.60E-01**	**< 1.39E+00**								0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	—
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	—
1,1-Dichloroethane										20	—
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	—
cis-1,2-Dichloroethene										1,900	—
trans-1,2-Dichloroethene										0.1a	—
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	—
Ethylbenzene								1.97E+00		1,000	54,000
2/4-Ethyltoluene (total)										0.1	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	**5.04E+00**	**3.06E+00**	1.88E+00	2.12E+00	**4.00E+00**	**4.23E+00**	**3.72E+00**	**1.13E+01**	**5.10E+00**	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	—
Tetrachloroethene	**1.77E+01**	**< 2.23E+00**	**2.16E+00**	**1.38E+00**				**1.03E+00**	**1.30E+01**	1	1,000
Toluene							7.44E-01	8.72E+00		400	37,000
1,1,1-Trichloroethane	3.08E+00	< 1.39E+00	1.03E+00	1.57E+00	1.82E+00	1.38E+00	9.30E-01	4.50E+00	1.58E+00	1,000	68,000
1,1,2-Trichloroethane										0.063	—
Trichloroethene	**1.03E+00**							**1.03E+00**		0.45	54,000
Trichlorofluoromethane	1.87E+00	< 2.41E+00	1.32E+00	1.38E+00	1.09E+00	1.10E+00	1.30E+00	2.35E+00	1.48E+00	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)								8.35E+00		700	4,300

TABLE 4.2
(Concluded)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

2002 FIRST QUARTER

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.33	2.32	2.35	2.31	2.27	2.30	2.33	2.35	2.32	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
2-Methyl-butane								7.53E+00			
Isobutane								2.88E+01		45,000	
1,1-dichloro,1-fluoroethane							1.67E+01				
Pyrrolidine								2.79E+00			
Limonene								6.14E+00			
Butane								1.95E+01		45,000	
Ethane, 1,1- difluoro								9.30E+00			

NOTES:

* An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- All values are reported in micrograms per standard cubic meter (ug/std-m3).
- Blank values:

  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July, 2000 and still current as of April, 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the Analytical Results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.2

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

SECOND QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.517	0.514	0.521	0.524	0.511	0.514	0.514	1.018	0.514	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.827	0.823	0.833	0.838	0.817	0.823	0.823	1.629	0.82	---	---
TARGETED TIC LQL	2.59	2.57	2.60	2.62	2.55	2.57	2.57	5.09	2.57	---	---
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Acetone*	1.96E+00	1.95E+00	1.46E+00	4.50E+00	1.94E+00	2.16E+00	1.85E+00			28,000	180,000
Benzaldehyde**										0.10	----
Benzene				**7.33E-01**						0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5	3900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride										0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**1.03E+00**				**1.02E+00**					0.043	150
Chloromethane				4.40E+00						770	22,000
Dibromochloromethane										0.10	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane										20	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene									**1.03E+00**	0.10	----
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	**2.17E+00**	1.95E+00	**2.50E+00**	**2.30E+00**	**2.45E+00**	**2.16E+00**	2.06E+00	**4.07E+00**	1.85E+00	2.10	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	—
Tetrachloroethene	**[illegible]**	**[illegible]**	9.38E-01	**5.24E+00**		**4.73E+01**	**1.15E+02**	**< 1.63E+02**	**1.75E+02**	1.0	1,000
Toluene	8.27E-01			1.05E+00		5.14E-01			7.19E-01	400	37,000
1,1,1-Trichloroethane	8.27E-01	7.20E-01	8.33E-01	6.28E-01	7.15E-01	2.06E+00	3.70E+00	7.13E+00	1.44E+01	1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene								**< 1.22E+00**	**2.26E+00**	0.45	54,000
Trichlorofluoromethane	2.07E+00	1.65E+00	1.25E+00	1.68E+00	1.63E+00	3.40E+00	5.45E+00	7.03E+00	1.75E+01	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)										700	4,300

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

SECOND QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Curre
ADDITIONAL TIC LQL	2.59	2.57	2.60	2.62	2.55	2.57	2.57	5.09	2.57	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m
Hexane						6.28E+00				200	
Dichlorodifluoromethane						4.42E+00	1.54E+01	< 3.11E+01	5.14E+01	12,000	
1,1-dichloro,1-fluoroethane	7.76E+00					3.50E+00					
Nonanal				5.13E+00							
Dichlorotetrafluoroethane						2.67E+00	1.13E+01	< 2.80E+01	4.32E+01	17,000	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro						5.76E+00	2.26E+01	3.05E+01	8.53E+01	180,000	960

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

SECOND QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.977	0.489	0.500	0.493	0.492	0.492	0.489	0.481	0.484	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	1.563	0.782	0.800	0.788	0.787	0.79	0.782	0.770	0.775	---	---
TARGETED TIC LQL	4.88	2.44	2.50	2.46	2.46	2.46	2.44	2.41	2.42	---	---
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Acetone*	3.22E+00	3.62E+00	4.60E+00	3.45E+00	3.25E+00	2.95E+00	3.62E+00	3.46E+00	3.68E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5	3,900
2-Butanone*						2.16E+00				1000	59,000
Carbon Disulfide						1.67E+00				700	6200
Carbon Tetrachloride										0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform										0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.10	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane	< 1.07E+00									20	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										0.10	----
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride			2.10E+00	1.77E+00	1.38E+00	1.87E+00				2.10	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene					8.86E-01		7.82E-01			1.0	1,000
Toluene	< 1.17E+00	1.76E+00	1.90E+00	1.18E+00	1.97E+00	2.26E+00	2.05E+00	2.89E+00	1.36E+00	400	37,000
1,1,1-Trichloroethane	3.03E+00	7.82E-01	1.00E+00	8.87E-01	8.86E-01	7.87E-01	8.80E-01	1.92E+00	1.07E+00	1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene										0.45	54,000
Trichlorofluoromethane	< 2.15E+00	2.25E+00	1.80E+00	3.05E+00	1.28E+00	1.38E+00	1.76E+00	2.79E+00	2.42E+00	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)		7.82E-01					1.27E+00			700	4,300

TABLE 4.2
(Concluded)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

SECOND QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Curre
ADDITIONAL TIC LQL	4.88	2.44	2.50	2.46	2.46	2.46	2.44	2.41	2.42	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug n
Undecane							3.91E+00	1.83E+01			
Methane, chlorodifluoro									2.62E+00		
Unknown RT: 2.69						3.44E+00					
1,1-dichloro,1-fluoroethane				4.73E+00							
Nonanal		5.47E+00				4.03E+00	3.52E+00	2.69E+00			

24C

NOTES:

* An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- All values are reported in micrograms per standard cubic meter (ug/std-m3).
- Blank values:

  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of April 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the Analytical Results, Appendix C.
- ($ug/std-m^3$): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.2

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

THIRD QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.618	0.580	0.669	0.670	0.620	0.623	0.581	1.276	0.608	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.989	0.928	1.071	1.072	0.991	0.996	0.930	2.041	0.97	---	---
TARGETED TIC LQL	3.09	2.90	3.35	3.35	3.10	3.11	2.91	6.38	3.04	---	---
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Acetone*	4.82E+00	5.57E+00	5.22E+00	6.84E+00	3.97E+00	5.35E+00	8.60E+00	< 3.06E+00	5.22E+00	28,000	180,000
Benzaldehyde**										0.1	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.9	---
Bromomethane										5	3900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride										0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.1	---
Chloroform	**2.60E+00**	**6.96E-01**	**1.47E+00**			**6.23E-01**				0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane										20	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										0.1a	----
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.1	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	1.48E+00	1.28E+00	1.87E+00	**2.68E+00**	1.49E+00	1.25E+00	1.05E+00		1.46E+00	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**1.48E+01**	**1.04E+00**	9.37E-01		6.20E-01	**5.48E+01**				1	1,000
Toluene				1.47E+00						400	37,000
1,1,1-Trichloroethane							2.91E+00		1.17E+01	1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene										0.45	54,000
Trichlorofluoromethane	2.97E+00	1.28E+00	1.07E+00	8.04E-01	9.91E-01	4.48E+00	5.70E+00	< 1.79E+00	1.08E+01	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)										700	4,300

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TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

THIRD QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	3.09	2.90	3.35	3.35	3.10	3.11	2.91	6.38	3.04	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Dichlorodifluoromethane	5.81E+00					9.96E+00	1.86E+01	< 3.51E+01	5.83E+01	12,000	-----
Dichlorotetrafluoroethane							1.28E+01	< 2.61E+01	5.71E+01	17,000	-----
Ethane, 1,1,2-trichloro-1,2,2-trifluoro						9.96E+00		< 1.72E+01	6.20E+01	20,000	560,000

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

THIRD QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.648	0.614	0.549	0.544	0.615	0.597	0.665	0.486	0.666	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	1.036	0.983	0.879	0.871	0.984	0.96	2.128	0.777	1.065	---	---
TARGETED TIC LQL	3.24	3.07	2.75	2.72	3.08	2.99	3.32	2.43	3.33	---	---
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Acetone*	1.08E+01	1.35E+01	5.71E+00	4.79E+00	8.00E+00	1.19E+01	1.01E+01	4.66E+00	5.06E+00	28,000	180,000
Benzaldehyde**										0.1	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.9	---
Bromomethane										5	3,900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride										0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.1	----
Chloroform	**6.99E+00**	**1.35E+01**	**4.18E+00**	**9.79E-01**						0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane	2.20E+00									20	---
1,2-Dichloroethane		2.33E+00								0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										0.1a	----
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.1	
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	1.42E+00	1.35E+00	9.89E-01	1.63E+00	1.35E+00	9.56E-01		7.77E-01	1.07E+00	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**5.57E+01**	**9.58E+00**	**4.62E+00**	6.53E-01		7.17E-01				1	1,000
Toluene		6.14E-01					1.46E+00			400	37,000
1,1,1-Trichloroethane	4.40E+00	7.37E-01								1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene	**2.85E+00**									0.45	54,000
Trichlorofluoromethane	2.46E+00	2.46E+00	1.43E+00	1.20E+00	1.11E+00	1.19E+00	1.20E+00	1.17E+00	1.86E+00	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)										700	4,300

TABLE 4.2
(Concluded)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

THIRD QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	3.24	3.07	2.75	2.72	3.08	2.99	6.65	2.43	3.33	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
3-Octanone							7.71E+00				
Hexane									4.79E+00		
1R-.alpha.-Pinene								4.96E+00			
Dichlorodifluoromethane	3.63E+00	3.44E+00			3.57E+00	3.35E+00		4.76E+00			
Limonene								2.92E+00			

NOTES:

* An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- All values are reported in micrograms per standard cubic meter (ug/std-m3).
- Blank values:

  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of April 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the Analytical Results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

TABLE 4.2

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

FOURTH QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.479	0.480	0.476	0.952	0.477	0.503	0.513	0.998	0.506	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.766	0.768	0.762	1.524	0.763	0.805	0.821	1.597	0.81	---	---
TARGETED TIC LQL	2.39	2.40	2.38	4.76	2.39	2.52	2.57	4.99	2.53	---	---
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
Acetone*		1.06E+00	1.62E+00	< 5.05E+00	3.44E+00	1.91E+00		< 3.09E+00	2.63E+00	28,000	180,000
Benzaldehyde**										0.1	---
Benzene				**< 2.10E+00**						0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.9	---
Bromomethane										5	3900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride		**7.68E-01**		**< 1.33E+00**						0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.1	---
Chloroform	**1.15E+00**				**1.53E+00**		**1.03E+00**	**< 1.20E+00**		0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane										20	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										0.1	---
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene				< 1.43E+00						1,000	54,000
2/4-Ethyltoluene (total)				**< 2.29E+00**						0.1	---
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	5.75E-01	8.65E-01	5.71E-01	**3.87E+01**		1.01E+00		**3.49E+00**	6.07E-01	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**1.72E+01**	**3.65E+00**	**4.19E+00**	**< 2.95E+00**	**4.39E+00**	**3.72E+01**	**5.54E+01**	**< 7.83E+01**	**2.23E+02**	1	1,000
Toluene				7.43E+00						400	37,000
1,1,1-Trichloroethane								< 1.60E+00	1.01E+01	1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene										0.45	54,000
Trichlorofluoromethane	2.97E+00	2.59E+00		< 1.52E+00	1.43E+00	3.12E+00	2.57E+00	2.99E+00	1.01E+01	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)				< 4.95E+00						700	4,300

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

FOURTH QUARTER 2002

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	2.39	2.40	2.38	4.76	2.39	2.52	2.57	4.99	2.53	AGC	SGC
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m3)	(ug/m3)
2-Methyl-pentane				< 4.86E+00						4,200	350,000
2-Methyl-butane				< 6.95E+00						200	
Hexane				< 1.76E+01						200	
Unknown RT: 4.10- 5.79				< 9.24E+00							
Dichlorodifluoromethane	7.28E+00	3.46E+00			2.86E+00	2.92E+00				12,000	
1,1-dichloro,1-fluoroethane	1.05E+01					1.21E+01					
Butane				< 5.05E+00						45,000	
Hexachloroethane	**4.60E+01**	**3.36E+01**	**2.57E+01**	**2.05E+01**	**2.67E+01**	**2.31E+01**	**8.73E+00**	**9.58E+00**	**4.86E+00**	0.25	
Dichlorotetrafluoroethane	8.72E+00									17,000	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro									5.36E+01	180,000	960,000

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY

OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

FOURTH QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.491	0.498	0.492	0.494	0.493	0.491	0.488	0.488	0.478		
PRACTICAL QUANTITATION LIMIT (PQL)	0.785	0.797	0.787	0.790	0.789	0.79	0.780	0.780	0.764		
TARGETED TIC LQL	2.45	2.49	2.46	2.47	2.47	2.46	2.44	2.44	2.39		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Acetone*	1.08E+00	1.39E+00	4.43E+00	1.78E+00	2.17E+00	2.06E+00	2.05E+00	2.93E+00	2.87E+00	28,000	180,000
Benzaldehyde**										0.1	---
Benzene							**1.17E+00**	**8.78E-01**		0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.9	---
Bromomethane										5	3,900
2-Butanone*										1000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride				**7.90E-01**	**6.90E-01**		**6.83E-01**	**8.78E-01**		0.067	1,300
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.1	---
Chloroform	**1.37E+00**	**3.49E+00**	**7.87E-01**		**1.18E+00**	**6.88E-01**			**4.78E-01**	0.043	150
Chloromethane										770	22,000
Dibromochloromethane										0.1	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)										0.09	---
1,1-Dichloroethane										20	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										0.02	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										0.1	---
1,2-Dichloropropane										4	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)							**7.80E-01**			0.1	---
Freon 13**										20000	560,000
2-Hexanone*										48	4100
Methylene Chloride	7.85E-01	5.98E-01	6.89E-01	1.18E+00	1.18E+00	9.82E-01	1.46E+00	1.17E+00	6.69E-01	2.1	14,000
4-Methyl-2-Pentanone*										490	31,000
Styrene										1,000	21,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**1.37E+01**	**6.97E+00**	**4.33E+00**	**1.48E+00**	**1.68E+00**	**1.77E+00**	**2.34E+00**	**3.22E+00**	**3.25E+01**	1.0	1,000
Toluene			6.89E-01	5.92E-01	6.90E-01	6.88E-01	2.63E+00	1.66E+00		400	37,000
1,1,1-Trichloroethane	6.87E-01			1.38E+00					4.78E-01	1,000	68,000
1,1,2-Trichloroethane										0.063	---
Trichloroethene	**6.87E-01**									0.45	54,000
Trichlorofluoromethane	1.77E+00	2.59E+00		1.68E+00	1.58E+00	1.47E+00	1.46E+00	1.37E+00	1.62E+00	20000	560,000
Vinyl Chloride										0.02	180,000
Xylenes (Total)							1.85E+00	1.17E+00		700	4,300

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TABLE 4.2
(Concluded)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS

ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

FOURTH QUARTER 2002

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.45	2.49	2.46	2.47	2.47	2.46	2.44	2.44	2.39		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Undecane			6.69E+00								
Pinene isomer								2.54E+00			
Dichlorodifluoromethane	3.53E+00			6.22E+00	3.45E+00	3.14E+00	3.61E+00	2.73E+00		12,000	
1,1-dichloro,1-fluoroethane		4.18E+00				2.85E+00	3.22E+00	2.54E+01			
Chlorodifluoro-methane		1.20E+00								50,000	
Hexachloroethane		**2.59E+01**				**2.65E+00**	**4.39E+00**	**6.73E+00**	**1.81E+01**	0.25	

NOTES:

* An 8 nanogram practical quantitation limit has been assigned to these compounds due to their poor responses during laboratory analysis.

** Targeted Tentatively Identified Compound (TIC). As reported by the laboratory, Targeted TICs have a Lower Quantitation Limit that is five (5) times the targeted compound Lower Quantitation Limit.

- All values are reported in micrograms per standard cubic meter (ug/std-m3).
- Blank values:

  Targeted Compounds and Targeted TICs- All blank values are below the Lower Quantitation Limit, Practical Quantitation Limit (applies to Acetone, Bromoform, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone), or the Targeted TIC Lower Quantitation Limit (applies to Benzaldehyde, Chloroethyl Vinyl Ether and Freon 13).

  Additional Tentatively Identified Compounds- All blank values are either below the Targeted TIC Lower Quantitation Limit where less than six (6) additional TICs are reported for a particular sample or below the lowest reported additional TIC value, where six (6) or more additional TICs are reported for a particular sample.
- Values in shaded areas are at or exceed the level of the current (last revised July 2000 and still current as of December 2002) and/or previous ambient air Annual Guideline Concentration (AGC) values.
- Less than values (<) are used where the Lower Quantitation Limit, the Target TIC Lower Quantitation Limit, or the Practical Quantitation Limit is averaged with the reported values.
- Freon 13 is listed as Chlorotrifluoromethane in the Analytical Results, Appendix C.
- (ug/std-m^3): micrograms per standard cubic meter
- (ng): nanograms

APPENDIX C

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR AND SOILS AND SOIL GAS PRESSURE READINGS

2002 ANNUAL SUMMARY REPORT

2002 QUARTERLY SOIL GAS PRESSURE DATA

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

2002 FIRST QUARTER

SAMPLE ID	DATE (m/d/yr)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	2/26/02	0820	PW1	NW corner of the landfill on Haul Road	10	0.04
P2	2/26/02	0820	PW1	NW corner of the landfill on Haul Road	20	0.07
P3	2/26/02	0821	PW1	NW corner of the landfill on Haul Road	10	0.04
P4	2/26/02	0821	PW1	NW corner of the landfill on Haul Road	20	0.07
P5	2/26/02	0750	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	2/26/02	0750	PW2	SE corner of the landfill NW of Well M2	20	-0.01
P7	2/26/02	0751	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	2/26/02	0751	PW2	SE corner of the landfill NW of Well M2	20	-0.01
P9	2/26/02	0734	PW3	Fireman's Training Center	10	0.00
P10	2/26/02	0734	PW3	Fireman's Training Center	20	-0.07
P11	2/26/02	0735	PW3	Fireman's Training Center	10	-0.01
P12	2/26/02	0735	PW3	Fireman's Training Center	20	-0.07

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.
- Data measurements were taken on February 26, 2002 between 0734 am - 0821 am.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

SECOND QUARTER 2002

SAMPLE ID	DATE (m/d/yr)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	5/7/2002	0640	PW1	NW corner of the landfill on Haul Road	10	0.05
P2	5/7/2002	0640	PW1	NW corner of the landfill on Haul Road	20	0.07
P3	5/7/2002	0642	PW1	NW corner of the landfill on Haul Road	10	0.06
P4	5/7/2002	0642	PW1	NW corner of the landfill on Haul Road	20	0.08
P5	5/7/2002	0650	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	5/7/2002	0650	PW2	SE corner of the landfill NW of Well M2	20	-0.10
P7	5/7/2002	0651	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	5/7/2002	0651	PW2	SE corner of the landfill NW of Well M2	20	-0.09
P9	5/7/2002	0657	PW3	Fireman's Training Center	10	-0.02
P10	5/7/2002	0657	PW3	Fireman's Training Center	20	-0.18
P11	5/7/2002	0658	PW3	Fireman's Training Center	10	-0.02
P12	5/7/2002	0658	PW3	Fireman's Training Center	20	-0.19

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.
- Data measurements were taken on May 7, 2002 between 6:40 am - 6:58 am.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

THIRD QUARTER 2002

SAMPLE ID	DATE (m/d/yr)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	9/26/2002	0711	PW1	NW corner of the landfill on Haul Road	10	-0.02
P2	9/26/2002	0711	PW1	NW corner of the landfill on Haul Road	20	-0.03
P3	9/26/2002	0712	PW1	NW corner of the landfill on Haul Road	10	-0.02
P4	9/26/2002	0712	PW1	NW corner of the landfill on Haul Road	20	-0.03
P5	9/26/2002	0705	PW2	SE corner of the landfill NW of Well M2	10	-0.01
P6	9/26/2002	0705	PW2	SE corner of the landfill NW of Well M2	20	-0.08
P7	9/26/2002	0705	PW2	SE corner of the landfill NW of Well M2	10	-0.01
P8	9/26/2002	0705	PW2	SE corner of the landfill NW of Well M2	20	-0.08
P9	9/26/2002	0730	PW3	Fireman's Training Center	10	0.00
P10	9/26/2002	0730	PW3	Fireman's Training Center	20	-0.19
P11	9/26/2002	0731	PW3	Fireman's Training Center	10	0.00
P12	9/26/2002	0731	PW3	Fireman's Training Center	20	-0.19

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.
- Data measurements were taken on September 26, 2002 between 0705 am - 0731 am.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

FOURTH QUARTER 2002

SAMPLE ID	DATE (m/d/yr)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	11/15/2002	0702	PW1	NW corner of the landfill on Haul Road	10	-0.08
P2	11/15/2002	0702	PW1	NW corner of the landfill on Haul Road	20	-0.12
P3	11/15/2002	0703	PW1	NW corner of the landfill on Haul Road	10	-0.07
P4	11/15/2002	0703	PW1	NW corner of the landfill on Haul Road	20	-0.08
P5	11/15/2002	0711	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	11/15/2002	0711	PW2	SE corner of the landfill NW of Well M2	20	-0.12
P7	11/15/2002	0712	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	11/15/2002	0712	PW2	SE corner of the landfill NW of Well M2	20	-0.13
P9	11/15/2002	0727	PW3	Fireman's Training Center	10	-0.03
P10	11/15/2002	0727	PW3	Fireman's Training Center	20	-0.21
P11	11/15/2002	0728	PW3	Fireman's Training Center	10	-0.02
P12	11/15/2002	0728	PW3	Fireman's Training Center	20	-0.20

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.
- Data measurements were taken on November 15, 2002 between 7:02 am - 7:28 am.

APPENDIX C

ANNUAL SUMMARY
OLD BETHPAGE LANDFILL
QUARTERLY GROUNDWATER MONITORING PROGRAM
JANUARY THROUGH DECEMBER 2002

Gannett Fleming Engineers and Architects, P.C.
May 2002

OLD BETHPAGE LANDFILL
BETHPAGE, NEW YORK

ANNUAL SUMMARY
OLD BETHPAGE LANDFILL
QUARTERLY GROUNDWATER
MONITORING PROGRAM
JANUARY THROUGH DECEMBER 2002

PROJECT #39852

MAY 2003

Office Location:
GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.
480 Forest Avenue
Locust Valley, New York 11560

Office Contact:
Greg Ernst
(516) 671-8440

Locations Nationwide

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- Continued -

Tab D	Description
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Table 2	Groundwater Remediation System Pumpage Records - October through December 2002
Table 3	Groundwater Analytical Results - Volatile Halogenated Hydrocarbons, Fourth Quarterly Sampling Round, October 2002
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Figure 4	Approximate Extent and Distribution of Total Volatile Halogenated Organics - February 2002
Figure 5	Approximate Extent and Distribution of Total Aromatic Hydrocarbons - February 2002
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Tab B	Description
Figure 1	Groundwater Flow Map - Water Table - April 8, 2002
Figure 2	Groundwater Flow Map - Shallow Potentiometric - April 8, 2002
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Figure 4	Approximate Extent and Distribution of Total Volatile Halogenated Organics - April 2002
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- Continued -

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Figure 1	Groundwater Flow Map - Water Table - July 1, 2002
Figure 2	Groundwater Flow Map - Shallow Potentiometric - July 1, 2002
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Figure 4	Approximate Extent and Distribution of Total Volatile Halogenated Organics - July 2002
Figure 5	Approximate Extent and Distribution of Total Aromatic Hydrocarbons - July 2002
Figure 6	Approximate Extent and Distribution of Tetrachloroethene - July 2002

Tab D	Description
Figure 1	Groundwater Flow Map - Water Table - October 21, 2002
Figure 2	Groundwater Flow Map - Shallow Potentiometric - October 21, 2002
Figure 3	Groundwater Flow Map - Deep Potentiometric- October 21, 2002
Figure 4	Approximate Extent and Distribution of Total Volatile Halogenated Organics - October 2002
Figure 5	Approximate Extent and Distribution of Total Aromatic Hydrocarbons - October 2002
Figure 6	Approximate Extent and Distribution of Tetrachloroethene - October 2002

2.0 WATER LEVEL MEASUREMENTS AND MAPPING

A synoptic round of water level measurements were recorded in monitoring and recovery wells by Gannett Fleming at the start of each monitoring event. The depth to water and water level elevation data are summarized in Table 1 in Tabs A through D. These data were used to create the water table, shallow potentiometric, and deep potentiometric zone groundwater flow maps shown on Figures 1, 2 and 3 in Tabs A through D. Each map shows the water level elevation contours, limiting flow lines, and the approximate areal extent of the volatile organic compound (VOC) plume.

Excluding wells MW-7A, MW-9A, and M-30A, which were dry during all four sampling rounds, water level elevations in the monitoring wells decreased an average of 2.51 feet during the annual monitoring period. Recovery well water level elevations decreased an average of 3.00 feet, except at RW-1, where the water level elevation increased 5.83 feet. There was limited recovery well downtime during 2002 due to repairs and power outages, and the system pumpage was sufficient to control the VOC plume. The annual pumpage data are summarized in Table 2 in Tabs A through D.

Regional groundwater flow at the water table and in the shallow and deep potentiometric zones is southeasterly, except in the capture zone area where the shallow and deep potentiometric groundwater flows toward the recovery wells. The GTF effluent is discharged to Recharge Basin #1, which causes localized water table mounding beneath the basin. The mounding has not affected the overall hydraulic gradient or flow direction over the area.

3.1 Volatile Organic Compound Plume

The VOC group is divided into three components: volatile halogenated hydrocarbons (VHOs) excluding tetrachloroethene, volatile aromatic hydrocarbons, and tetrachloroethene. Changes in chemical constituent concentrations between the first and fourth quarter sampling rounds are discussed below.

3.1.1 Volatile Halogenated Compounds

Twelve VHO compounds were detected during 2002. The location and monitoring round during which the highest concentration of each compound was found is listed below.

Compound	Concentration (ppb*)	Quarter	Location
1,1-Dichloroethene	0.63	Fourth	MW-10B
1,1-Dichloroethane	5.86	Third	MW-9D
1,2-Dichloroethane	3.44	Fourth	MW-10C
1,1,1-Trichloroethane	3.12	Fourth	MW-10B
Chloroethane	6.12	Third	MW-9D
Chloroform	1.12	Fourth	MW-10C
cis-1,2-Dichloroethene	6.67	Third	MW-9D
Dichlorodifluoromethane	5.5	Third	MW-9D
Trichloroethylene	48.8	First	MW-7B
Trichlorofluoromethane	0.95	Third	MW-9D
Vinyl chloride	2.73	Third	MW-9D
cis- 1,3-Dichloropropene	0.52	Third	MW-9D

*ppb – parts per billion

Total VHO concentrations decreased at monitoring wells MW-9D (50 to 30.91 ppb [compared to third quarter of 2001]), OBS-1 (6.04 to 0.58 ppb), MW-6B (1.71 to 0.00 ppb), and MW-7B (49.74 to 24.71 ppb) but increased at MW-8A (1.18 to 1.61 ppb). VHO concentrations remained at less than the laboratory reporting limit at wells M-30B-R, MW-5B, -6A, -6C, -6E, -6F, -8B, -9B,-9C, -11A,

and -11B during the first and fourth quarter sampling rounds. Figure 4 in Tabs A through D shows the distribution of VHOs during the 2002 monitoring period.

3.1.2 Aromatic Hydrocarbons

Five aromatic hydrocarbons were detected during the 2002 monitoring period. The location and monitoring round during which the highest concentration of each compound was found is listed below.

Compound	Concentration (ppb)	Quarter	Location
Benzene	9.71	Third	MW-9D
Chlorobenzene	9.23	First	MW-6B
1,2-Dichlorobenzene	3.5	Second	MW-6B
1,4-Dichlorobenzene	7.15	Second	MW-6B
o-xylene	5.26	Third	MW-9D
toluene	7.16	First	MW-6E

Aromatic hydrocarbon concentrations decreased at wells M-30B-R (0.73 to 0.00 ppb), MW-5B (5.13 to 0.00 ppb), MW-6B (28.2 to 4.69 ppb), MW-6C (10.68 to 6.29 ppb), MW-6E (8.17 to 2.24 ppb), MW-8A (2.42 to 0.00 ppb), MW-8B (1.55 to 0.7 ppb), MW-9C (0.88 to 0.00 ppb), MW-9D (26.8 to 16.76 ppb [compared to third quarter 2000]), and OBS-1 (8.33 to 2.55 ppb). Aromatic hydrocarbons concentrations remained at less than the laboratory reporting limit at wells MW-6A, -6F, -7B, -9B,-11A, and -11B during the first and fourth quarter sampling rounds. Figure 5 in Tabs A through D shows the distribution of aromatic hydrocarbons during the 2002 monitoring period.

3.1.3 Tetrachloroethene

The location and monitoring round during which the highest concentration of tetrachloroethene (PCE) was found is listed below.

Compound	Concentration (ppb)	Quarter	Location
PCE	190	First	MW-7B

PCE concentrations decreased at monitoring wells MW-7B (190 to 113 ppb), MW-8A (32.6 to 24.5 ppb), and OBS-1 (5.22 to 0.56 ppb) and increased at monitoring well MW-9D (2.3 to 2.45 ppb [compared to third quarter 2000]). PCE was not found at a concentration exceeding the laboratory reporting limit in the samples from M-30B-R, MW-5B, -6A, -6B, -6C, -6E, -6F, -8B, -9B, -9C, -11A, and -11B, during the first and fourth quarter sampling rounds. Figure 6 in Tabs A through D shows the distribution of tetrachloroethene during the 2002 monitoring period.

3.2 Inorganic Compound Plume

The 2002 inorganic compound data do not indicate significant change in the extent and concentration of leachate parameters over time. The highest leachate parameter concentrations were found in the samples from wells MW-6B, MW-6C, and MW-6E.

7. VHOs were not detected at concentrations exceeding the laboratory detection limits at well MW-6C during the monitoring period. VHOs were last detected at this well during the fourth quarter 2001 sampling round.

8. VHOs were not detected at concentrations exceeding the laboratory detection limits at well MW-11A during the 2002 monitoring period. VHOs were last detected at this well during the third quarter 2000 sampling round.

5.0 RECOMMENDATIONS

1. Continue the quarterly groundwater monitoring program to track changes in water quality conditions over time and to assess the groundwater remediation system effectiveness.

2. Continue to evaluate trends in water levels and assess the need to replace monitoring wells which may become dry because the water table declined below the well screens, and reinstall pumps at greater depths because the water table declined below the pump intake.

3. Continue to evaluate VHO concentration trends at wells MW-6C and MW-11A during subsequent monitoring events.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - FEBRUARY 18, 2002

PERIOD: From 10/01/2001 thru 03/31/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
EW-01A	10/1/2001	130.09	00:00	68.32	NA	61.77
EW-01A	2/18/2002	130.09	00:00	69.62	-1.30	60.47
EW-01B	10/1/2001	130.65	00:00	68.84	NA	61.81
EW-01B	2/18/2002	130.65	00:00	70.26	-1.42	60.39
EW-01C	10/1/2001	130.60	00:00	68.50	NA	62.10
EW-01C	2/18/2002	130.60	00:00	69.99	-1.49	60.61
EW-03A	10/1/2001	159.24	00:00	99.91	NA	59.33
EW-03A	2/18/2002	159.24	00:00	101.81	-1.90	57.43
EW-03B	10/1/2001	159.36	00:00	99.98	NA	59.38
EW-03B	2/18/2002	159.36	00:00	101.84	-1.86	57.52
EW-03C	10/1/2001	159.25	00:00	99.85	NA	59.40
EW-03C	2/18/2002	159.25	00:00	101.82	-1.97	57.43
LF-1	10/1/2001	111.40	00:00	49.65	NA	61.75
LF-1	2/18/2002	111.40	00:00	50.01	-0.36	61.39
LF-2	10/1/2001	118.70	00:00	56.62	NA	62.08
LF-2	2/18/2002	118.70	00:00	57.75	-1.13	60.95
LF-3	10/1/2001	126.50	00:00	60.26	NA	66.24
LF-3	2/18/2002	126.50	00:00	62.94	-2.68	63.56
LF-4	10/1/2001	149.93	00:00	84.40	NA	65.53
LF-4	2/18/2002	149.93	00:00	86.05	-1.65	63.88
M-29A-R	10/1/2001	157.50	00:00	93.64	NA	63.86
M-29A-R	2/18/2002	157.50	00:00	97.83	-4.19	59.67
M-29B	10/1/2001	157.41	00:00	91.81	NA	65.60
M-29B	2/18/2002	157.41	00:00	93.83	-2.02	63.58
M-30A	10/1/2001	151.20	00:00	85.72	NA	65.48
M-30A	2/18/2002	151.20	00:00	D	NA	NA
M-30B-R	10/1/2001	154.51	00:00	89.49	NA	65.02
M-30B-R	2/18/2002	154.51	00:00	91.30	-1.81	63.21
MW-05A	10/1/2001	137.13	00:00	77.04	NA	60.09
MW-05A	2/18/2002	137.13	00:00	77.44	-0.40	59.69
MW-05B	10/1/2001	138.43	00:00	76.33	NA	62.10
MW-05B	2/18/2002	138.43	00:00	78.71	-2.38	59.72
MW-06A	10/1/2001	160.24	00:00	101.09	NA	59.15

D - Dry
All RWs were pumping during the Oct. and Feb. rounds.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - FEBRUARY 18, 2002

PERIOD: From 10/01/2001 thru 03/31/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-06A	2/18/2002	160.24	00:00	D	NA	NA
MW-06B	10/1/2001	160.39	00:00	100.45	NA	59.94
MW-06B	2/18/2002	160.39	00:00	101.18	-0.73	59.21
MW-06C	10/1/2001	159.99	00:00	100.01	NA	59.98
MW-06C	2/18/2002	159.99	00:00	103.03	-3.02	56.96
MW-06D	10/1/2001	160.39	00:00	100.23	NA	60.16
MW-06D	2/18/2002	160.39	00:00	102.44	-2.21	57.95
MW-06E	10/1/2001	160.88	00:00	100.87	NA	60.01
MW-06E	2/18/2002	160.88	00:00	101.85	-0.98	59.03
MW-06F	10/1/2001	159.88	00:00	99.92	NA	59.96
MW-06F	2/18/2002	159.88	00:00	102.35	-2.43	57.53
MW-07A	10/1/2001	148.44	00:00	91.48	NA	56.96
MW-07A	2/18/2002	148.44	00:00	D	NA	NA
MW-07B	10/1/2001	147.94	00:00	92.43	NA	55.51
MW-07B	2/18/2002	147.94	00:00	94.35	-1.92	53.59
MW-08A	10/1/2001	134.94	00:00	74.52	NA	60.42
MW-08A	2/18/2002	134.94	00:00	75.59	-1.07	59.35
MW-08B	10/1/2001	134.24	00:00	74.35	NA	59.89
MW-08B	2/18/2002	134.24	00:00	74.52	-0.17	59.72
MW-08C	10/1/2001	135.72	00:00	74.09	NA	61.63
MW-08C	2/18/2002	135.72	00:00	75.75	-1.66	59.97
MW-09A	10/1/2001	153.35	00:00	D	NA	NA
MW-09A	2/18/2002	153.35	00:00	D	NA	NA
MW-09B	10/1/2001	153.28	00:00	96.48	NA	56.80
MW-09B	2/18/2002	153.28	00:00	98.06	-1.58	55.22
MW-09C	10/1/2001	153.53	00:00	97.82	NA	55.71
MW-09C	2/18/2002	153.53	00:00	99.25	-1.43	54.28
MW-09D	10/1/2001	152.95	00:00	96.25	NA	56.70
MW-09D	2/18/2002	152.95	00:00	97.90	-1.65	55.05
MW-10A	10/1/2001	161.28	00:00	100.75	NA	60.53
MW-10A	2/18/2002	161.28	00:00	102.55	-1.80	58.73
MW-10B	10/1/2001	161.12	00:00	101.00	NA	60.12
MW-10B	2/18/2002	161.12	00:00	102.76	-1.76	58.36

D - Dry
All RWs were pumping during the Oct. and Feb. rounds.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - FEBRUARY 18, 2002

PERIOD: From 10/01/2001 thru 03/31/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-10C	10/1/2001	160.27	00:00	100.05	NA	60.22
MW-10C	2/18/2002	160.27	00:00	101.85	-1.80	58.42
MW-10D	10/1/2001	161.17	00:00	101.05	NA	60.12
MW-10D	2/18/2002	161.17	00:00	102.72	-1.67	58.45
MW-11A	10/1/2001	80.19	00:00	27.61	NA	52.58
MW-11A	2/18/2002	80.19	00:00	29.79	-2.18	50.40
MW-11B	10/1/2001	79.91	00:00	27.43	NA	52.48
MW-11B	2/18/2002	79.91	00:00	29.70	-2.27	50.21
N-9980	10/1/2001	80.46	00:00	34.02	NA	46.44
N-9980	2/18/2002	80.46	00:00	35.39	-1.37	45.07
OBS-1	10/1/2001	110.61	00:00	53.93	NA	56.68
OBS-1	2/18/2002	110.61	00:00	55.36	-1.43	55.25
OBS-2	10/1/2001	105.26	00:00	50.05	NA	55.21
OBS-2	2/18/2002	105.26	00:00	51.71	-1.66	53.55
RW-01	10/1/2001	110.94	00:00	62.94	NA	48.00
RW-01	2/18/2002	110.94	00:00	63.13	-0.19	47.81
RW-02	10/1/2001	145.31	00:00	98.72	NA	46.59
RW-02	2/18/2002	145.31	00:00	100.27	-1.55	45.04
RW-03	10/1/2001	120.92	00:00	76.63	NA	44.29
RW-03	2/18/2002	120.92	00:00	78.37	-1.74	42.55
RW-04	10/1/2001	144.82	00:00	95.27	NA	49.55
RW-04	2/18/2002	144.82	00:00	98.42	-3.15	46.40
RW-05	10/1/2001	149.74	00:00	99.70	NA	50.04
RW-05	2/18/2002	149.74	00:00	101.14	-1.44	48.60
TW-1	10/1/2001	121.12	00:00	54.98	NA	66.14
TW-1	2/18/2002	121.12	00:00	D	NA	NA
TW-2	10/1/2001	117.52	00:00	55.38	NA	62.14
TW-2	2/18/2002	117.52	00:00	58.71	-3.33	58.81
TW-3-R	10/1/2001	133.93	00:00	72.28	NA	61.65
TW-3-R	2/18/2002	133.93	00:00	75.54	-3.26	58.39

D - Dry
All RWs were pumping during the Oct. and Feb. rounds.

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
OLD BETHPAGE, NEW YORK

TABLE 2

GROUNDWATER REMEDIATION SYSTEM PUMPAGE RECORDS

JANUARY THROUGH MARCH 2002

DATE	ESTIMATED AVERAGE SYSTEM FLOW (GPM)	COMMENTS
1/1 - 1/8	1,045	GTF on-line.
1/9	912	GTF off-line 2 hrs.
1/10 - 1/14	1,005	GTF on-line.
1/15	632	GTF off-line 7 hrs.
1/16 - 1/26	1,018	GTF on-line.
1/27	929	GTF off-line 1 hr.
1/28 - 1/31	1,050	GTF on-line.
2/1 - 2/28	1,018	GTF on-line.
3/1 - 3/12	1,022	GTF on-line.
3/13	889	GTF off-line 1 hr.
3/14 - 3/31	1,034	GTF on-line.
Average System Flow:	1,017	

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
VOLATILE HALOGENATED HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 02/20/2002 Primary	MW-05B 02/21/2002 Primary	MW-06B 02/21/2002 Primary	MW-06B 02/21/2002 Duplicate 1
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	1.71	1.11
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	1.71	1.11

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
VOLATILE HALOGENATED HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 02/21/2002 Primary	MW-06E 02/21/2002 Primary	MW-06F 02/21/2002 Primary	MW-07B 02/20/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	0.94
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	48.8
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	49.74

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
VOLATILE HALOGENATED HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-08A 02/22/2002 Primary	MW-08B 02/22/2002 Primary	MW-09B 02/20/2002 Primary	MW-09C 02/20/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	1.18	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	1.18	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
VOLATILE HALOGENATED HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-11A 02/20/2002 Primary	MW-11B 02/20/2002 Primary	OBS-1 02/22/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	4.23
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	0.86
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	0.95
Sum of Constituents	(ug/l)	0.00	0.00	6.04

—=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
VOLATILE HALOGENATED HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 02/22/2002	TRIP BLANK 02/20/2002	TRIP BLANK 02/21/2002	TRIP BLANK 02/22/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	2.17	<0.5	11.6
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	2.17	0.00	11.60

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
AROMATIC HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 02/20/2002 Primary	MW-05B 02/21/2002 Primary	MW-06B 02/21/2002 Primary	MW-06B 02/21/2002 Duplicate 1	MW-06C 02/21/2002 Primary	MW-06E 02/21/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	2.95	2.17	1.04	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	6.43	5.14	3.68	<0.5
Benzene	(ug/l)	<0.5	<0.5	5.48	5.2	0.97	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	9.23	8.47	1.77	1.01
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	2.92	3.06	2.29	<0.5
Toluene	(ug/l)	0.73	5.13	1.19	0.63	0.93	7.16
Sum of Constituents	(ug/l)	0.73	5.13	28.20	24.67	10.68	8.17

—=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
AROMATIC HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06F 02/21/2002 Primary	MW-07B 02/20/2002 Primary	MW-08A 02/22/2002 Primary	MW-08B 02/22/2002 Primary	MW-09B 02/20/2002 Primary	MW-09C 02/20/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	2.42	1.55	<0.5	0.88
Sum of Constituents	(ug/l)	0.00	0.00	2.42	1.55	0.00	0.88

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
AROMATIC HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-11A 02/20/2002 Primary	MW-11B 02/20/2002 Primary	OBS-1 02/22/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	0.65
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	1.23
Benzene	(ug/l)	<0.5	<0.5	5.2
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	0.58
Toluene	(ug/l)	<0.5	<0.5	0.67
Sum of Constituents	(ug/l)	0.00	0.00	8.33

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
AROMATIC HYDROCARBONS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 02/22/2002	TRIP BLANK 02/20/2002	TRIP BLANK 02/21/2002	TRIP BLANK 02/22/2002
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TETRACHLOROETHYLENE

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06B	MW-06B	MW-06C	MW-06E
	DATE	02/20/2002	02/21/2002	02/21/2002	02/21/2002	02/21/2002	02/21/2002
	RESULT TYPE	Primary	Primary	Primary	Duplicate 1	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00	0.00	0.00

—=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TETRACHLOROETHYLENE

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-06F	MW-07B	MW-08A	MW-08B	MW-09B	MW-09C
	DATE	02/21/2002	02/20/2002	02/22/2002	02/22/2002	02/20/2002	02/20/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	190	32.6	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	190.00	32.60	0.00	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TETRACHLOROETHYLENE

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-11A	MW-11B	OBS-1
	DATE	02/20/2002	02/20/2002	02/22/2002
	RESULT TYPE	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	5.22
Sum of Constituents	(ug/l)	0.00	0.00	5.22

—=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TETRACHLOROETHYLENE

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 02/22/2002	TRIP BLANK 02/20/2002	TRIP BLANK 02/21/2002	TRIP BLANK 02/22/2002
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
OLD BETHPAGE, NEW YORK

TABLE 6

RECOVERY WELL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS
FIRST QUARTER SAMPLING ROUND - FEBRUARY 2002

SAMPLE DESIGNATION: SAMPLE COLLECTION DATE:	RW-1 2/26/02	RW-2 2/26/02	RW-3 2/26/02	RW-4 2/26/02	RW-5 2/26/02
Benzene	0	0	0.79	0	0
Bromodichloromethane	0	0	0	0	0
Bromoform	0	0	0	0	0
Carbon tetrachloride	0	0	0	0	0
Chlorobenzene	0	0	0.69	0	0
Chlorodibromomethane	0	0	0	0	0
Chloroethane	0	0	0	0	0
Chloroform	0	0	0	1.22	1.78
o,p-Dichlorobenzene	1.2	0.83	1.16	0	0
m,o,p-Dichlorobenzene	1.2	0.83	1.16	0	0
1,1-Dichloroethane	0.75	0.65	1.98	0.72	0.71
1,2-Dichloroethane	0	0	0	0.95	2.78
1,1-Dichloroethene	0	0	0	2.03	1.57
cis-1,2-Dichloroethene	1.37	1.16	9.12	13.33	30.67
trans-1,2-Dichloroethene	0	0	0	0	0
1,2-Dichloropropane	0	0	0	0	0
Ethylbenzene	0	0	0	0	0
Methylene chloride	0	0	0	0	0
Tetrachloroethene	0	0	25.43	43.27	339.72
Toluene	0	0	0	0	0
1,1,1-Trichloroethane	0	0	0	5.23	4.41
Trichloroethylene	0.91	0	4.05	86	135.56
Vinyl chloride	0	0	0.72	0	0
o-Xylene	0	0	0	0	0
m+p-Xylene	0	0	0	0	0
Xylenes (total)	0	0	0	0	0
Dichlorodifluoromethane	0	0	0	0	0
Isopropylbenzene	0	0	0	0	0
n-Butylbenzene	0	0	0	0	0
tert-Butylbenzene	0	0	0	0	0
Total VOCs	4.23	2.64	43.94	152.75	517.2

Notes:
All concentrations in ug/l.
0 - Not detected at a concentration exceeding the method detection limit.

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 02/20/2002 Primary	MW-05B 02/21/2002 Primary	MW-06B 02/21/2002 Primary	MW-06B 02/21/2002 Duplicate 1
Alkalinity	(mg/l)	18.0	43.8	1040	1050
Aluminum	(mg/l)	1.09	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	0.51	0.551	129	132
Barium	(mg/l)	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	18.0	43.8	1040	1050
Calcium	(mg/l)	15.5	9.54	30.0	28.2
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	113	92.1	377	364
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	2.61	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness	(mg/l)	68.0	68.0	220	200
Iron	(mg/l)	1.87	0.22	28.5	26.8
Lead	(ug/l)	<5.00	<5.00	5.57	<5.00
Magnesium	(mg/l)	6.98	10.5	27.7	26.0
Manganese	(mg/l)	0.03	2.49	0.33	0.32
Mercury	(ug/l)	<0.2	<0.2	<0.2	<0.2
Nickel	(mg/l)	3.94	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	3.49	<0.1	<0.1	<0.1
Potassium	(mg/l)	8.28	10.4	140	136
Sodium	(mg/l)	55.9	46.4	339	326
Sulfate	(mg/l)	37.8	21.0	5.70	5.30
Total Dissolved Solids	(mg/l)	231	19.0	1240	1170
Total Kjeldahl nitrogen (as N)	(mg/l)	0.76	0.474	141	153
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050	0.0071
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 02/21/2002 Primary	MW-06E 02/21/2002 Primary	MW-06F 02/21/2002 Primary	MW-07B 02/20/2002 Primary
Alkalinity	(mg/l)	740	120	<1	3.20
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	65.8	24.2	0.150	<0.1
Barium	(mg/l)	<0.20	0.23	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	740	120	<1	3.20
Calcium	(mg/l)	54.1	29.9	29.8	3.95
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	511	155	159	25.0
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness	(mg/l)	220	120	120	20.0
Iron	(mg/l)	10.1	1.52	0.24	0.32
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	14.9	14.1	11.9	2.09
Manganese	(mg/l)	0.14	0.72	0.07	0.04
Mercury	(ug/l)	<0.2	<0.2	<0.2	<0.2
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	<0.1	<0.1	0.49	2.56
Potassium	(mg/l)	116	37.4	2.88	0.87
Sodium	(mg/l)	466	59.6	48.6	13.4
Sulfate	(mg/l)	51.0	27.5	<5	<5
Total Dissolved Solids	(mg/l)	1320	364	1330	71.0
Total Kjeldahl nitrogen (as N)	(mg/l)	67.7	21.6	0.240	<0.1 J
Total Phenols	(mg/l)	<0.0050 J	<0.0050	<0.0050	<0.0050
Zinc	(mg/l)	0.03	0.03	0.04	<0.02

The following qualifier(s) exist: Expert: J —=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-08A 02/22/2002 Primary	MW-08B 02/22/2002 Primary	MW-09B 02/20/2002 Primary	MW-09C 02/20/2002 Primary
Alkalinity	(mg/l)	3.80	<1	9.90	73.2
Aluminum	(mg/l)	<0.20	<0.20	38.1	<0.20
Ammonia (as N)	(mg/l)	<0.1	1.73	0.850	14.9
Barium	(mg/l)	<0.20	0.32	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	3.80	<1	9.90	73.2
Calcium	(mg/l)	4.47	17.9	7.07	1.53
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	45.0	153	22.2	84.7
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness	(mg/l)	22.0	104	34.0	13.0
Iron	(mg/l)	0.68	0.15	0.04	0.16
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	3.33	14.7	3.83	2.4
Manganese	(mg/l)	0.20	0.51	0.07	0.05
Mercury	(ug/l)	<0.2	<0.2	<0.2	0.28
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	6.13	0.17	4.96	0.17
Potassium	(mg/l)	26.9	16.0	5.19	23.8
Sodium	(mg/l)	36.9	44.2	16.1	52.7
Sulfate	(mg/l)	30.4	8.80	17.4	18.8
Total Dissolved Solids	(mg/l)	201	360	318	172
Total Kjeldahl nitrogen (as N)	(mg/l)	<0.1 J	1.62	0.981	16.6
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050	<0.0050
Zinc	(mg/l)	0.03	0.07	<0.02	<0.02

The following qualifier(s) exist: Expert: J ---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-11A 02/20/2002 Primary	MW-11B 02/20/2002 Primary	OBS-1 02/22/2002 Primary
Alkalinity	(mg/l)	1.30	1.40	52.3
Aluminum	(mg/l)	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	<0.1	<0.1	2.85
Barium	(mg/l)	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	1.30	1.40	52.3
Calcium	(mg/l)	3.90	1.09	16.8
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1
Chloride	(mg/l)	6.46	4.25	121
Chromium	(mg/l)	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10
Hardness	(mg/l)	17.0	7.00	88.0
Iron	(mg/l)	0.06	<0.02	0.23
Lead	(ug/l)	<5.00	<5.00	<5.00
Magnesium	(mg/l)	2.10	0.50	13.2
Manganese	(mg/l)	<0.02	<0.02	0.92
Mercury	(ug/l)	<0.2	<0.2	<0.2
Nickel	(mg/l)	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	4.66	<1 J	0.25
Potassium	(mg/l)	1.03	0.52	7.58
Sodium	(mg/l)	6.03	3.19	78.1
Sulfate	(mg/l)	<5	<5	56.8
Total Dissolved Solids	(mg/l)	42.0	33.0	371
Total Kjeldahl nitrogen (as N)	(mg/l)	<0.1	0.150	2.35
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050
Zinc	(mg/l)	<0.02	<0.02	<0.02

The following qualifier(s) exist: Expert: J ---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 02/22/2002
Alkalinity	(mg/l)	1.00
Aluminum	(mg/l)	<0.20
Ammonia (as N)	(mg/l)	<0.1
Barium	(mg/l)	<0.20
Bicarbonate (as CaCO3)	(mg/l)	<1
Calcium	(mg/l)	<0.20
Carbonate (as CaCO3)	(mg/l)	<1
Chloride	(mg/l)	<2
Chromium	(mg/l)	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02
Copper	(mg/l)	<0.02
Cyanide	(ug/l)	<10
Hardness	(mg/l)	<5
Iron	(mg/l)	<0.02
Lead	(ug/l)	<5.00
Magnesium	(mg/l)	<0.20
Manganese	(mg/l)	<0.02
Mercury	(ug/l)	<0.2
Nickel	(mg/l)	<0.04
Nitrate (as N)	(mg/l)	<0.1
Potassium	(mg/l)	<0.02
Sodium	(mg/l)	<0.094
Sulfate	(mg/l)	<5
Total Dissolved Solids	(mg/l)	<10
Total Kjeldahl nitrogen (as N)	(mg/l)	<0.1
Total Phenols	(mg/l)	<0.0050
Zinc	(mg/l)	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06B	MW-06B	MW-06C	MW-06E
	DATE	02/20/2002	02/21/2002	02/21/2002	02/21/2002	02/21/2002	02/21/2002
	RESULT TYPE	Primary	Primary	Primary	Duplicate 1	Primary	Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	<0.20	0.20
Calcium (Dissolved)	(mg/l)	15.6	9.86	30.2	30.3	46.9	26.6
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	<0.02	0.11	0.45	0.44	0.36	0.87
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	7.05	10.9	28.4	28.4	13.1	12.5
Manganese (Dissolved)	(mg/l)	<0.02	2.55	0.32	0.31	0.11	0.64
Mercury (Dissolved)	(ug/l)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	8.38	10.5	144	144	99.1	33.2
Sodium (Dissolved)	(mg/l)	56.4	47.3	347	348	401	53.3
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	0.020	0.03

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06F 02/21/2002 Primary	MW-07B 02/20/2002 Primary	MW-08A 02/22/2002 Primary	MW-08B 02/22/2002 Primary	MW-09B 02/20/2002 Primary	MW-09C 02/20/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	0.27	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	28.3	4.02	4.81	15.8	6.94	1.55
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	0.04	5.59
Iron (Dissolved)	(mg/l)	0.10	<0.02	<0.02	0.03	<0.02	<0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	11.3	2.14	3.66	12.9	3.78	2.46
Manganese (Dissolved)	(mg/l)	0.06	0.04	0.22	0.45	0.07	0.05
Mercury (Dissolved)	(ug/l)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	2.763	0.89	26.9	13.8	5.37	24.3
Sodium (Dissolved)	(mg/l)	46.5	13.8	26.8	38.5	16.7	53.2
Zinc (Dissolved)	(mg/l)	0.03	<0.02	0.04	0.08	<0.02	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-11A	MW-11B	OBS-1
	DATE	02/20/2002	02/21/2002	02/22/2002
	RESULT TYPE	Primary	Primary	Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	3.35	1.27	15.2
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.02	<0.02	<0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	1.83	0.59	11.9
Manganese (Dissolved)	(mg/l)	<0.02	0.02	0.83
Mercury (Dissolved)	(ug/l)	<0.2	<0.2	<0.2
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	0.91	0.62	7.06
Sodium (Dissolved)	(mg/l)	5.31	3.64	70.4
Zinc (Dissolved)	(mg/l)	<0.02	0.04	<0.02

—=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - FEBRUARY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 01/01/2002 thru 03/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 02/22/2002
Aluminum (Dissolved)	(mg/l)	<0.20
Barium (Dissolved)	(mg/l)	<0.20
Calcium (Dissolved)	(mg/l)	<0.20
Chromium (Dissolved)	(mg/l)	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02
Copper (Dissolved)	(mg/l)	<0.02
Iron (Dissolved)	(mg/l)	<0.02
Lead (Dissolved)	(ug/l)	<5.00
Magnesium (Dissolved)	(mg/l)	<0.20
Manganese (Dissolved)	(mg/l)	<0.02
Mercury (Dissolved)	(ug/l)	<0.2
Nickel (Dissolved)	(mg/l)	<0.04
Potassium (Dissolved)	(mg/l)	<0.02
Sodium (Dissolved)	(mg/l)	<0.094
Zinc (Dissolved)	(mg/l)	<0.02

—=Not analyzed

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - APRIL 8, 2002

PERIOD: From 01/01/2002 thru 06/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
EW-02A	4/8/2002	157.14	00:00	98.25	NA	58.89
EW-02B	4/8/2002	157.61	00:00	98.52	NA	59.09
EW-02C	4/8/2002	157.54	00:00	98.63	NA	58.91
EW-03A	2/18/2002	159.24	00:00	101.81	NA	57.43
EW-03A	4/8/2002	159.24	00:00	102.21	-0.40	57.03
EW-03B	2/18/2002	159.36	00:00	101.84	NA	57.52
EW-03B	4/8/2002	159.36	00:00	102.30	-0.46	57.06
EW-03C	2/18/2002	159.25	00:00	101.82	NA	57.43
EW-03C	4/8/2002	159.25	00:00	102.17	-0.35	57.08
LF-1	2/18/2002	111.40	00:00	50.01	NA	61.39
LF-1	4/8/2002	111.40	00:00	50.29	-0.28	61.11
LF-2	2/18/2002	118.70	00:00	57.75	NA	60.95
LF-2	4/8/2002	118.70	00:00	58.11	-0.36	60.59
LF-3	2/18/2002	126.50	00:00	62.94	NA	63.56
LF-3	4/8/2002	126.50	00:00	63.44	-0.50	63.06
LF-4	2/18/2002	149.93	00:00	86.05	NA	63.88
LF-4	4/8/2002	149.93	00:00	86.34	-0.29	63.59
M-29A-R	2/18/2002	157.50	00:00	97.83	NA	59.67
M-29A-R	4/8/2002	157.50	00:00	96.15	1.68	61.35
M-29B	2/18/2002	157.41	00:00	93.83	NA	63.58
M-29B	4/8/2002	157.41	00:00	D	NA	NA
M-30A	2/18/2002	151.20	00:00	D	NA	NA
M-30A	4/8/2002	151.20	00:00	D	NA	NA
M-30B-R	2/18/2002	154.51	00:00	91.30	NA	63.21
M-30B-R	4/8/2002	154.51	00:00	91.80	-0.50	62.71
MW-05A	2/18/2002	137.13	00:00	77.44	NA	59.69
MW-05A	4/8/2002	137.13	00:00	77.49	-0.05	59.64
MW-05B	2/18/2002	138.43	00:00	78.71	NA	59.72
MW-05B	4/8/2002	138.43	00:00	78.80	-0.09	59.63
MW-06A	2/18/2002	160.24	00:00	D	NA	NA
MW-06A	4/8/2002	160.24	00:00	101.20	-101.20	59.04
MW-06B	2/18/2002	160.39	00:00	101.18	NA	59.21

D - Dry
All RWs were pumping during the Feb. and Apr. rounds.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - APRIL 8, 2002

PERIOD: From 01/01/2002 thru 06/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-06B	4/8/2002	160.39	00:00	101.45	-0.27	58.94
MW-06C	2/18/2002	159.99	00:00	103.03	NA	56.96
MW-06C	4/8/2002	159.99	00:00	100.90	2.13	59.09
MW-06D	2/18/2002	160.39	00:00	102.44	NA	57.95
MW-06D	4/8/2002	160.39	00:00	101.38	1.06	59.01
MW-06E	2/18/2002	160.88	00:00	101.85	NA	59.03
MW-06E	4/8/2002	160.88	00:00	102.10	-0.25	58.78
MW-06F	2/18/2002	159.88	00:00	102.35	NA	57.53
MW-06F	4/8/2002	159.88	00:00	101.46	0.89	58.42
MW-07A	2/18/2002	148.44	00:00	D	NA	NA
MW-07A	4/8/2002	148.44	00:00	D	NA	NA
MW-07B	2/18/2002	147.94	00:00	94.35	NA	53.59
MW-07B	4/8/2002	147.94	00:00	94.70	-0.35	53.24
MW-08A	2/18/2002	134.94	00:00	75.59	NA	59.35
MW-08A	4/8/2002	134.94	00:00	75.95	-0.36	58.99
MW-08B	2/18/2002	134.24	00:00	74.52	NA	59.72
MW-08B	4/8/2002	134.24	00:00	75.02	-0.50	59.22
MW-08C	2/18/2002	135.72	00:00	75.75	NA	59.97
MW-08C	4/8/2002	135.72	00:00	75.96	-0.21	59.76
MW-09A	2/18/2002	153.35	00:00	D	NA	NA
MW-09A	4/8/2002	153.35	00:00	D	NA	NA
MW-09B	2/18/2002	153.28	00:00	98.06	NA	55.22
MW-09B	4/8/2002	153.28	00:00	98.44	-0.38	54.84
MW-09C	2/18/2002	153.53	00:00	99.25	NA	54.28
MW-09C	4/8/2002	153.53	00:00	99.61	-0.36	53.92
MW-09D	2/18/2002	152.95	00:00	97.90	NA	55.05
MW-09D	4/8/2002	152.95	00:00	98.20	-0.30	54.75
MW-10A	2/18/2002	161.28	00:00	102.55	NA	58.73
MW-10A	4/8/2002	161.28	00:00	102.95	-0.40	58.33
MW-10B	2/18/2002	161.12	00:00	102.76	NA	58.36
MW-10B	4/8/2002	161.12	00:00	103.10	-0.34	58.02
MW-10C	2/18/2002	160.27	00:00	101.85	NA	58.42
MW-10C	4/8/2002	160.27	00:00	102.16	-0.31	58.11

D - Dry
All RWs were pumping during the Feb. and Apr. rounds.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - APRIL 8, 2002

PERIOD: From 01/01/2002 thru 06/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-10D	2/18/2002	161.17	00:00	102.72	NA	58.45
MW-10D	4/8/2002	161.17	00:00	102.98	-0.26	58.19
MW-11A	2/18/2002	80.19	00:00	29.79	NA	50.40
MW-11A	4/8/2002	80.19	00:00	31.10	-1.31	49.09
MW-11B	2/18/2002	79.91	00:00	29.70	NA	50.21
MW-11B	4/8/2002	79.91	00:00	30.00	-0.30	49.91
N-9980	2/18/2002	80.46	00:00	35.39	NA	45.07
N-9980	4/8/2002	80.46	00:00	35.41	-0.02	45.05
OBS-1	2/18/2002	110.61	00:00	55.36	NA	55.25
OBS-1	4/8/2002	110.61	00:00	56.25	-0.89	54.36
OBS-2	2/18/2002	105.26	00:00	51.71	NA	53.55
OBS-2	4/8/2002	105.26	00:00	52.06	-0.35	53.20
RW-01	2/18/2002	110.94	00:00	63.13	NA	47.81
RW-01	4/8/2002	110.94	00:00	63.46	-0.33	47.48
RW-02	2/18/2002	145.31	00:00	100.27	NA	45.04
RW-02	4/8/2002	145.31	00:00	100.81	-0.54	44.50
RW-03	2/18/2002	120.92	00:00	78.37	NA	42.55
RW-03	4/8/2002	120.92	00:00	78.50	-0.13	42.42
RW-04	2/18/2002	144.82	00:00	98.42	NA	46.40
RW-04	4/8/2002	144.82	00:00	97.10	1.32	47.72
RW-05	2/18/2002	149.74	00:00	101.14	NA	48.60
RW-05	4/8/2002	149.74	00:00	101.50	-0.36	48.24
TW-1	2/18/2002	121.12	00:00	D	NA	NA
TW-1	4/8/2002	121.12	00:00	56.69	-56.69	64.43
TW-2	2/18/2002	117.52	00:00	58.71	NA	58.81
TW-2	4/8/2002	117.52	00:00	57.04	1.67	60.48
TW-3-R	2/18/2002	133.93	00:00	75.54	NA	58.39
TW-3-R	4/8/2002	133.93	00:00	73.58	1.96	60.35

D - Dry
All RWs were pumping during the Feb. and Apr. rounds.

TABLE 2

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER REMEDIATION SYSTEM PUMPAGE RECORDS

APRIL THROUGH JUNE 2002

DATE	ESTIMATED AVERAGE SYSTEM FLOW (GPM)	COMMENTS
4/1 - 5/23	1,008	GTF on-line.
5/24	973	GTF off-line 1 hr.
5/25 - 5/26	1,010	GTF on-line.
5/27	907	RW-1 off-line 23 hrs.
5/28	876	RW-1 off-line 10 hrs. RW-5 off-line 6 hrs. GTF off-line 0.5 hrs.
5/29 - 6/19	886	RW-5 off line.
6/20	830	RW-2 off-line 16 hrs. RW-5 off-line 6 hrs. GTF off-line 2 hrs.
6/21 - 6/25	923	RW-2 off-line.
6/26	852	RW-1 off-line 5 hrs. RW-2 off line. RW-3 off-line 5 hrs.
6/27	752	RW-1 & RW-2 off-line 10 hrs. RW-3 off-line
6/28	831	RW-1 off-line 10 hrs. RW-3 off line
6/29 - 6/30	915	RW-3 off-line.
Average System Flow - 950 GPM		

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 04/09/2002 Primary	MW-05B 04/10/2002 Primary	MW-06A 04/10/2002 Primary	MW-06B 04/10/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 04/10/2002 Primary	MW-06C 04/10/2002 Duplicate 1	MW-06E 04/10/2002 Primary	MW-06F 04/10/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 04/09/2002 Primary	MW-08A 04/11/2002 Primary	MW-08B 04/11/2002 Primary	MW-09B 04/09/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	30	0.77	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	30.00	0.77	0.00	0.00

—=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 04/09/2002 Primary	MW-11A 04/09/2002 Primary	MW-11B 04/09/2002 Primary	OBS-1 04/11/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	5.6
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	0.78
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	1.08
Sum of Constituents	(ug/l)	0.00	0.00	0.00	7.46

—=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 04/11/2002	TRIP BLANK 04/09/2002	TRIP BLANK 04/10/2002	TRIP BLANK 04/11/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
AROMATIC HYDROCARBONS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 04/09/2002 Primary	MW-05B 04/10/2002 Primary	MW-06A 04/10/2002 Primary	MW-06B 04/10/2002 Primary	MW-06C 04/10/2002 Primary	MW-06C 04/10/2002 Duplicate 1
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	3.5	2.89	2.36
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	7.15	6.03	5.3
Benzene	(ug/l)	<0.5	<0.5	<0.5	4.23	2.45	2.29
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	7.36	4.97	4.6
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	1.06	<0.5	1.73	1.52	0.63
Toluene	(ug/l)	<0.5	0.86	<0.5	3.2	0.93	<0.5
Sum of Constituents	(ug/l)	0.00	1.92	0.00	27.17	18.79	15.18

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
AROMATIC HYDROCARBONS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06E 04/10/2002 Primary	MW-06F 04/10/2002 Primary	MW-07B 04/09/2002 Primary	MW-08A 04/11/2002 Primary	MW-08B 04/11/2002 Primary	MW-09B 04/09/2002 Primary
1,2-Dichlorobenzene	(ug/l)	0.61	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	2.07	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	2.92	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	0.7	<0.5	<0.5	<0.5	1.07	<0.5
Sum of Constituents	(ug/l)	6.30	0.00	0.00	0.00	1.07	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
AROMATIC HYDROCARBONS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 04/09/2002 Primary	MW-11A 04/09/2002 Primary	MW-11B 04/09/2002 Primary	OBS-1 04/11/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	1.25
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	2.04
Benzene	(ug/l)	<0.5	<0.5	<0.5	8.38
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	0.75
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	0.88	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.88	0.00	0.00	12.42

—=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
AROMATIC HYDROCARBONS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 04/11/2002	TRIP BLANK 04/09/2002	TRIP BLANK 04/10/2002	TRIP BLANK 04/11/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TETRACHLOROETHYLENE

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06A	MW-06B	MW-06C	MW-06C
	DATE	04/09/2002	04/10/2002	04/10/2002	04/10/2002	04/10/2002	04/10/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Duplicate 1
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00	0.00	0.00

—=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TETRACHLOROETHYLENE

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-06E	MW-06F	MW-07B	MW-08A	MW-08B	MW-09B
	DATE	04/10/2002	04/10/2002	04/09/2002	04/11/2002	04/11/2002	04/09/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	161	20.69	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	161.00	20.69	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TETRACHLOROETHYLENE

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-09C	MW-11A	MW-11B	OBS-1
	DATE	04/09/2002	04/09/2002	04/09/2002	04/11/2002
	RESULT TYPE	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	5.02
Sum of Constituents	(ug/l)	0.00	0.00	0.00	5.02

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TETRACHLOROETHYLENE

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 04/11/2002	TRIP BLANK 04/09/2002	TRIP BLANK 04/10/2002	TRIP BLANK 04/11/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

SECOND QUARTER RECOVERY WELL SAMPLING RESULTS - APRIL 2002
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION:	RW-1	RW-2	RW-3	RW-4	RW-5
SAMPLE COLLECTION DATE:	4/9/2002	4/9/2002	4/9/2002	4/9/2002	4/9/2002
Benzene	0	0.64	1.18	0	0
Bromodichloromethane	0	0	0	0	0
Bromoform	0	0	0	0	0
Carbon tetrachloride	0	0	0	0	0
Chlorobenzene	0.72	0.66	1.12	0	0
Chlorodibromomethane	0	0	0	0	0
Chloroethane	0	0	0	0	0
Chloroform	0	0	0	2.67	0
o,p-Dichlorobenzene	2.47	1.71	2.86	0	0.94
m,o,p-Dichlorobenzene	2.47	1.71	2.86	0	0.94
1,1-Dichloroethane	0.51	0	1.99	0.87	0.96
1,2-Dichloroethane	0	0	0	0.71	3.3
1,1-Dichloroethene	0	0	0	1.67	1.59
cis-1,2-Dichloroethene	1.24	1.42	9.09	15.64	35.66
trans-1,2-Dichloroethene	0	0	0	0	0
1,2-Dichloropropane	0	0	0	0	0
Ethylbenzene	0	0	0	0	0
Methylene chloride	0	0	0	0	0
Tetrachloroethene	0	0	25.25	59.32	331.31
Toluene	0	0	0	0	0
1,1,1-Trichloroethane	0	0	0	7.45	8.37
Trichloroethylene	0	0	4.12	81.07	115.63
Vinyl chloride	0	0	0	0	0
o-Xylene	0	0	0	0	0
m+p-Xylene	0	0	0	0	0
Xylenes (total)	0	0	0	0	0
Dichlorodifluoromethane	0	0	0	0	0
Isopropylbenzene	0	0	0	0	0
n-Butylbenzene	0	0	0	0	0
tert-Butylbenzene	0	0	0	0	0
Total VOCs	4.94	4.43	45.61	169.4	497.76

Notes:

All concentrations in ug/l.

0 - Not detected at a concentration exceeding the method detection limit.

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 04/09/2002 Primary	MW-05B 04/10/2002 Primary	MW-06A 04/10/2002 Primary	MW-06B 04/10/2002 Primary
Alkalinity	(mg/l)	20.2	48.2	5.7	938
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	0.83	1.39	<0.1	120
Barium	(mg/l)	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	20.2	48.2	5.7	938
Calcium	(mg/l)	16.1	8.75	1.20	21.2
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	85.9	57.5	6.5	333
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness (as CaCO3)	(mg/l)	72.0	64.0	6.0	140
Iron	(mg/l)	0.05	0.33	0.13	20.3
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	7.68	9.78	0.99	20.0
Manganese	(mg/l)	0.03	2.74	0.07	0.23
Mercury	(ug/l)	<0.20	<0.20	<0.20	<0.20
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	3.33	<0.1	1.29	<0.1
Potassium	(mg/l)	8.83	13.3	2.54	124
Sodium	(mg/l)	57.3	44.2	10.3	311
Sulfate	(mg/l)	30.9	16.9	6.5	6.4
Total Dissolved Solids	(mg/l)	336	208	44	1060
Total Kjeldahl nitrogen (as N)	(mg/l)	0.90	1.58	<0.1	111
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050	0.0084
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 04/10/2002 Primary	MW-06C 04/10/2002 Duplicate 1	MW-06E 04/10/2002 Primary	MW-06F 04/10/2002 Primary
Alkalinity	(mg/l)	820	811	177	<1
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	82.6	84.2	25.8	0.15
Barium	(mg/l)	<0.20	<0.20	0.21	<0.20
Bicarbonate (as CaCO3)	(mg/l)	820	811	177	<1
Calcium	(mg/l)	37.9	37.7	26.7	29.7
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	287	279	125	142
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness (as CaCO3)	(mg/l)	136	132	120	120
Iron	(mg/l)	7.85	7.84	2.79	0.08
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	11.9	11.8	14.5	12.1
Manganese	(mg/l)	0.12	0.12	0.81	0.06
Mercury	(ug/l)	<0.20	<0.20	<0.20	0.23
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	<0.1	<0.1	<0.1	0.51
Potassium	(mg/l)	99.5	99.0	39.9	2.92
Sodium	(mg/l)	299	297	57.9	50.4
Sulfate	(mg/l)	12.3	11.7	25.2	<5
Total Dissolved Solids	(mg/l)	1050	89	422	450
Total Kjeldahl nitrogen (as N)	(mg/l)	80.5	80.5	21.4	0.36
Total Phenols	(mg/l)	0.0054	0.0054	<0.0050	<0.0050
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 04/09/2002 Primary	MW-08A 04/11/2002 Primary	MW-08B 04/11/2002 Primary	MW-09B 04/09/2002 Primary
Alkalinity	(mg/l)	3.2	3.8	<1	12.8
Aluminum	(mg/l)	<0.20	68.3	110	<0.20
Ammonia (as N)	(mg/l)	<0.1	<0.1	1.80	1.91
Barium	(mg/l)	<0.20	<0.20	0.32	<0.20
Bicarbonate (as CaCO3)	(mg/l)	3.2	3.8	<1	12.8
Calcium	(mg/l)	4.49	4.06	18.1	7.77
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	27.6	40.7	148	35.2
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness (as CaCO3)	(mg/l)	22.0	22.0	112	36.0
Iron	(mg/l)	0.02	0.15	0.11	<0.02
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	2.42	3.27	14.6	4.76
Manganese	(mg/l)	0.04	0.22	0.49	0.08
Mercury	(ug/l)	<0.20	<0.20	0.32	<0.20
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	2.55	5.63	0.17	5.18
Potassium	(mg/l)	0.95	24.9	16.9	6.68
Sodium	(mg/l)	14.5	24.7	48.2	23.2
Sulfate	(mg/l)	<5	23.6	342	16.0
Total Dissolved Solids	(mg/l)	101	191	384	162
Total Kjeldahl nitrogen (as N)	(mg/l)	<0.1	<0.1	1.85	2.01
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050	<0.0050
Zinc	(mg/l)	<0.02	<0.02	0.07	<0.02

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 04/09/2002 Primary	MW-11A 04/09/2002 Primary	MW-11B 04/09/2002 Primary	OBS-1 04/11/2002 Primary
Alkalinity	(mg/l)	72.0	1.3	1.0	53.9
Aluminum	(mg/l)	<0.20	<0.20	<0.20	30.6
Ammonia (as N)	(mg/l)	13.1	<0.1	<0.1	2.55
Barium	(mg/l)	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	71.7	1.3	1.0	53.9
Calcium	(mg/l)	1.81	3.7	1.19	18.2
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	65.4	5.9	3.45	102
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Hardness (as CaCO3)	(mg/l)	20.0	15.0	6.0	92.0
Iron	(mg/l)	0.13	<0.02	<0.02	0.04
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	3.16	2.07	0.56	12.2
Manganese	(mg/l)	0.06	<0.02	<0.02	1.07
Mercury	(ug/l)	<0.20	<0.20	<0.20	<0.20
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	(mg/l)	<1	4.34	1.05	0.11
Potassium	(mg/l)	26.2	1.00	0.57	8.06
Sodium	(mg/l)	53.1	5.47	3.38	85.0
Sulfate	(mg/l)	11.3	<5	<5	54.0
Total Dissolved Solids	(mg/l)	194	89	46	365
Total Kjeldahl nitrogen (as N)	(mg/l)	13.4	<0.1	<0.1	2.87
Total Phenols	(mg/l)	<0.0050	<0.0050	<0.0050	<0.0050
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 04/11/2002
Alkalinity	(mg/l)	<1
Aluminum	(mg/l)	25.9
Ammonia (as N)	(mg/l)	<0.1
Barium	(mg/l)	<0.20
Bicarbonate (as CaCO3)	(mg/l)	<1
Calcium	(mg/l)	<0.20
Carbonate (as CaCO3)	(mg/l)	<1
Chloride	(mg/l)	<2
Chromium	(mg/l)	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02
Copper	(mg/l)	<0.02
Cyanide	(ug/l)	<10
Hardness (as CaCO3)	(mg/l)	<5
Iron	(mg/l)	<0.02
Lead	(ug/l)	<5.00
Magnesium	(mg/l)	<0.20
Manganese	(mg/l)	<0.02
Mercury	(ug/l)	<0.20
Nickel	(mg/l)	<0.04
Nitrate (as N)	(mg/l)	<0.1
Potassium	(mg/l)	<0.20
Sodium	(mg/l)	<0.20
Sulfate	(mg/l)	<5
Total Dissolved Solids	(mg/l)	<10
Total Kjeldahl nitrogen (as N)	(mg/l)	<0.1
Total Phenols	(mg/l)	<0.0050
Zinc	(mg/l)	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
FILTERED METALS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06A	MW-06B	MW-06C	MW-06C
	DATE	04/09/2002	04/10/2002	04/10/2002	04/10/2002	04/10/2002	04/10/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Duplicate 1
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	16.5	7.77	1.03	17.9	37.3	36.4
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.03	<0.02	<0.02	0.09	0.10	0.09
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	7.97	8.73	0.86	17.3	11.8	11.5
Manganese (Dissolved)	(mg/l)	0.02	2.43	0.04	0.18	0.11	0.11
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	9.36	11.7	2.26	106	102	99.3
Sodium (Dissolved)	(mg/l)	59.4	40.7	9.27	278	308	301
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
FILTERED METALS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06E 04/10/2002 Primary	MW-06F 04/10/2002 Primary	MW-07B 04/09/2002 Primary	MW-08A 04/11/2002 Primary	MW-08B 04/11/2002 Primary	MW-09B 04/09/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	37.8	87.2	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20	0.34	<0.20
Calcium (Dissolved)	(mg/l)	24.7	27.4	4.04	4.02	19.2	7.27
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02	<0.02	0.03
Iron (Dissolved)	(mg/l)	0.41	0.08	<0.02	<0.02	0.09	<0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	13.7	11.2	2.22	3.22	15.5	4.52
Manganese (Dissolved)	(mg/l)	0.76	0.06	0.04	0.22	0.51	0.07
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	37.7	2.66	0.86	25.4	18.1	6.18
Sodium (Dissolved)	(mg/l)	56.0	47.7	13.4	25.3	51.5	22.2
Zinc (Dissolved)	(mg/l)	<0.02	0.02	<0.02	0.02	0.07	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
FILTERED METALS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 04/09/2002 Primary	MW-11A 04/09/2002 Primary	MW-11B 04/09/2002 Primary	OBS-1 04/11/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	1.63	3.47	1.11	17.6
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.02	<0.02	<0.02	0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	2.87	1.95	0.53	11.9
Manganese (Dissolved)	(mg/l)	0.05	<0.02	<0.02	1.03
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	23.1	0.95	0.54	7.98
Sodium (Dissolved)	(mg/l)	49.2	5.28	3.26	83.6
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02

—=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - APRIL 2002
FILTERED METALS

PERIOD: From 04/01/2002 thru 06/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 04/11/2002
Aluminum (Dissolved)	(mg/l)	<0.20
Barium (Dissolved)	(mg/l)	<0.20
Calcium (Dissolved)	(mg/l)	<0.20
Chromium (Dissolved)	(mg/l)	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02
Copper (Dissolved)	(mg/l)	<0.02
Iron (Dissolved)	(mg/l)	<0.02
Lead (Dissolved)	(ug/l)	<5.00
Magnesium (Dissolved)	(mg/l)	<0.20
Manganese (Dissolved)	(mg/l)	<0.02
Mercury (Dissolved)	(ug/l)	<0.20
Nickel (Dissolved)	(mg/l)	<0.04
Potassium (Dissolved)	(mg/l)	<0.20
Sodium (Dissolved)	(mg/l)	0.29
Zinc (Dissolved)	(mg/l)	<0.02

---=Not analyzed

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JULY 1, 2002

PERIOD: From 04/01/2002 thru 09/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
EW-02A	4/8/2002	157.14	00:00	98.25	NA	58.89
EW-02A	7/1/2002	157.14	00:00	99.28	-1.03	57.86
EW-02B	4/8/2002	157.61	00:00	98.52	NA	59.09
EW-02B	7/1/2002	157.61	00:00	99.47	-0.95	58.14
EW-02C	4/8/2002	157.54	00:00	98.63	NA	58.91
EW-02C	7/1/2002	157.54	00:00	99.58	-0.95	57.96
EW-03A	4/8/2002	159.24	00:00	102.21	NA	57.03
EW-03A	7/1/2002	159.24	00:00	102.82	-0.61	56.42
EW-03B	4/8/2002	159.36	00:00	102.30	NA	57.06
EW-03B	7/1/2002	159.36	00:00	103.04	-0.74	56.32
EW-03C	4/8/2002	159.25	00:00	102.17	NA	57.08
EW-03C	7/1/2002	159.25	00:00	102.90	-0.73	56.35
LF-1	4/8/2002	111.40	00:00	50.29	NA	61.11
LF-1	7/1/2002	111.40	00:00	51.55	-1.26	59.85
LF-2	4/8/2002	118.70	00:00	58.11	NA	60.59
LF-2	7/1/2002	118.70	00:00	O	NA	NA
LF-3	4/8/2002	126.50	00:00	63.44	NA	63.06
LF-3	7/1/2002	126.50	00:00	64.49	-1.05	62.01
LF-4	4/8/2002	149.93	00:00	86.34	NA	63.59
LF-4	7/1/2002	149.93	00:00	87.61	-1.27	62.32
M-29A-R	4/8/2002	157.50	00:00	96.15	NA	61.35
M-29A-R	7/1/2002	157.50	00:00	97.13	-0.98	60.37
M-29B	4/8/2002	157.41	00:00	D	NA	NA
M-29B	7/1/2002	157.41	00:00	D	NA	NA
M-30A	4/8/2002	151.20	00:00	D	NA	NA
M-30A	7/1/2002	151.20	00:00	D	NA	NA
M-30B-R	4/8/2002	154.51	00:00	91.80	NA	62.71
M-30B-R	7/1/2002	154.51	00:00	92.85	-1.05	61.66
MW-05A	4/8/2002	137.13	00:00	77.49	NA	59.64
MW-05A	7/1/2002	137.13	00:00	78.36	-0.87	58.77
MW-05B	4/8/2002	138.43	00:00	78.80	NA	59.63
MW-05B	7/1/2002	138.43	00:00	79.67	-0.87	58.76
MW-06A	4/8/2002	160.24	00:00	101.20	NA	59.04

D - Dry O - Obstructed with bee's nest
RW-03 was not pumping during July 2002 round.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JULY 1, 2002

PERIOD: From 04/01/2002 thru 09/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-06A	7/1/2002	160.24	00:00	102.30	-1.10	57.94
MW-06B	4/8/2002	160.39	00:00	101.45	NA	58.94
MW-06B	7/1/2002	160.39	00:00	102.59	-1.14	57.80
MW-06C	4/8/2002	159.99	00:00	100.90	NA	59.09
MW-06C	7/1/2002	159.99	00:00	101.98	-1.08	58.01
MW-06D	4/8/2002	160.39	00:00	101.38	NA	59.01
MW-06D	7/1/2002	160.39	00:00	102.42	-1.04	57.97
MW-06E	4/8/2002	160.88	00:00	102.10	NA	58.78
MW-06E	7/1/2002	160.88	00:00	103.31	-1.21	57.57
MW-06F	4/8/2002	159.88	00:00	101.46	NA	58.42
MW-06F	7/1/2002	159.88	00:00	102.66	-1.20	57.22
MW-07A	4/8/2002	148.44	00:00	D	NA	NA
MW-07A	7/1/2002	148.44	00:00	D	NA	NA
MW-07B	4/8/2002	147.94	00:00	94.70	NA	53.24
MW-07B	7/1/2002	147.94	00:00	94.83	-0.13	53.11
MW-08A	4/8/2002	134.94	00:00	75.95	NA	58.99
MW-08A	7/1/2002	134.94	00:00	76.52	-0.57	58.42
MW-08B	4/8/2002	134.24	00:00	75.02	NA	59.22
MW-08B	7/1/2002	134.24	00:00	75.80	-0.78	58.44
MW-08C	4/8/2002	135.72	00:00	75.96	NA	59.76
MW-08C	7/1/2002	135.72	00:00	77.09	-1.13	58.63
MW-09A	4/8/2002	153.35	00:00	D	NA	NA
MW-09A	7/1/2002	153.35	00:00	D	NA	NA
MW-09B	4/8/2002	153.28	00:00	98.44	NA	54.84
MW-09B	7/1/2002	153.28	00:00	99.05	-0.61	54.23
MW-09C	4/8/2002	153.53	00:00	99.61	NA	53.92
MW-09C	7/1/2002	153.53	00:00	100.08	-0.47	53.45
MW-09D	4/8/2002	152.95	00:00	98.20	NA	54.75
MW-09D	7/1/2002	152.95	00:00	99.07	-0.87	53.88
MW-10A	4/8/2002	161.28	00:00	102.95	NA	58.33
MW-10A	7/1/2002	161.28	00:00	103.42	-0.47	57.86
MW-10B	4/8/2002	161.12	00:00	103.10	NA	58.02
MW-10B	7/1/2002	161.12	00:00	103.96	-0.86	57.16

D - Dry O - Obstructed with bee's nest
RW-03 was not pumping during July 2002 round.

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JULY 1, 2002

PERIOD: From 04/01/2002 thru 09/30/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-10C	4/8/2002	160.27	00:00	102.16	NA	58.11
MW-10C	7/1/2002	160.27	00:00	103.12	-0.96	57.15
MW-10D	4/8/2002	161.17	00:00	102.98	NA	58.19
MW-10D	7/1/2002	161.17	00:00	104.21	-1.23	56.96
MW-11A	4/8/2002	80.19	00:00	31.10	NA	49.09
MW-11A	7/1/2002	80.19	00:00	30.32	0.78	49.87
MW-11B	4/8/2002	79.91	00:00	30.00	NA	49.91
MW-11B	7/1/2002	79.91	00:00	30.21	-0.21	49.70
N-9980	4/8/2002	80.46	00:00	35.41	NA	45.05
N-9980	7/1/2002	80.46	00:00	36.63	-1.22	43.83
OBS-1	4/8/2002	110.61	00:00	56.25	NA	54.36
OBS-1	7/1/2002	110.61	00:00	57.04	-0.79	53.57
OBS-2	4/8/2002	105.26	00:00	52.06	NA	53.20
OBS-2	7/1/2002	105.26	00:00	52.73	-0.67	52.53
RW-01	4/8/2002	110.94	00:00	63.46	NA	47.48
RW-01	7/1/2002	110.94	00:00	64.93	-1.47	46.01
RW-02	4/8/2002	145.31	00:00	100.81	NA	44.50
RW-02	7/1/2002	145.31	00:00	103.10	-2.29	42.21
RW-03	4/8/2002	120.92	00:00	78.50	NA	42.42
RW-03	7/1/2002	120.92	00:00	66.90	11.60	54.02
RW-04	4/8/2002	144.82	00:00	97.10	NA	47.72
RW-04	7/1/2002	144.82	00:00	98.33	-1.23	46.49
RW-05	4/8/2002	149.74	00:00	101.50	NA	48.24
RW-05	7/1/2002	149.74	00:00	103.24	-1.74	46.50
TW-1	4/8/2002	121.12	00:00	56.69	NA	64.43
TW-1	7/1/2002	121.12	00:00	56.84	-0.15	64.28
TW-2	4/8/2002	117.52	00:00	57.04	NA	60.48
TW-2	7/1/2002	117.52	00:00	58.07	-1.03	59.45
TW-3-R	4/8/2002	133.93	00:00	73.58	NA	60.35
TW-3-R	7/1/2002	133.93	00:00	74.64	-1.06	59.29

D - Dry O - Obstructed with bee's nest
RW-03 was not pumping during July 2002 round.

TABLE 2

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER REMEDIATION SYSTEM PUMPAGE RECORDS

JULY THROUGH SEPTEMBER 2002

DATE	ESTIMATED AVERAGE SYSTEM FLOW (GPM)	COMMENTS
7/1 - 7/7	932	RE-3 off-line for repairs.
7/8	812	RW-3 off-line for repairs, RW-2 and RW-4 off-line 6 hrs.
7/9 - 7/19	934	RW-3 off-line.
7/20	916	RW-3 off-line 23 hrs., GTF off-line 1 hr.
7/21 - 7/30	923	RW-3 off-line.
8/1 - 8/11	959	RW-3 off-line.
8/12	903	RW-3 off-line, RW-4 off-line 7 hrs.
8/13 - 8/21	954	RW-3 off-line, GTF off-line 0.25 hr.
8/22	884	RW-3 off-line.
8/23	726	RW-3 off-line 21 hrs., GTF off-line 5 hrs.
8/24	909	RW-3 off-line 23 hrs., GTF off-line 1 hr.
8/25 - 8/31	911	RW-3 off-line.
9/1 - 9/13	948	RW-3 off-line.
9/14	905	RW-3 off-line 23 hrs., GTF off-line 1 hr.
9/15 - 9/27	916	RW-3 off-line.
9/28	118	RW-1, 2, 3, & 4 off-line, RW-5 off-line 13 hrs.
9/29	0	GTF off-line.
9/30	532	RW-3 off-line 14hrs., GTF off-line 10 hrs.
Average System Flow - 906 GPM		

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 07/02/2002 Primary	MW-05B 07/08/2002 Primary	MW-06A 07/03/2002 Primary	MW-06B 07/03/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 07/03/2002 Primary	MW-06E 07/03/2002 Primary	MW-06F 07/03/2002 Primary	MW-06F 07/03/2002 Duplicate 1
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 07/02/2002 Primary	MW-08A 07/03/2002 Primary	MW-08B 07/03/2002 Primary	MW-09B 07/02/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	0.98	0.67	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	37.5	1.26	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	38.48	1.93	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 07/02/2002 Primary	MW-09D 07/02/2002 Primary	MW-11A 07/02/2002 Primary	MW-11B 07/03/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	0.81	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	5.86	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	6.12	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	6.67	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	0.52	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	5.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	1.75	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	0.95	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	2.73	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	30.91	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OBS-1 07/08/2002 Primary	OBS-2 07/02/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	2.31	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5
Sum of Constituents	(ug/l)	2.31	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	TRIP BLANK 07/02/2002	TRIP BLANK 07/03/2002	TRIP BLANK 07/08/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
AROMATIC HYDROCARBONS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06A	MW-06B	MW-06C	MW-06E
	DATE	07/02/2002	07/08/2002	07/03/2002	07/03/2002	07/03/2002	07/03/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	0.77	0.57	0.63
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	1.79	1.44	0.67
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	1.08	0.91	2.48
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	1.13	<0.5	0.53
Sum of Constituents	(ug/l)	0.00	0.00	0.00	4.77	2.92	4.31

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
AROMATIC HYDROCARBONS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06F 07/03/2002 Primary	MW-06F 07/03/2002 Duplicate 1	MW-07B 07/02/2002 Primary	MW-08A 07/03/2002 Primary	MW-08B 07/03/2002 Primary	MW-09B 07/02/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
AROMATIC HYDROCARBONS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 07/02/2002 Primary	MW-09D 07/02/2002 Primary	MW-11A 07/02/2002 Primary	MW-11B 07/03/2002 Primary	OBS-1 07/08/2002 Primary	OBS-2 07/02/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	0.86	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	1.07	<0.5
Benzene	(ug/l)	<0.5	9.71	<0.5	<0.5	3.01	<0.5
Chlorobenzene	(ug/l)	<0.5	1.79	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	5.26	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	16.76	0.00	0.00	4.94	0.00

—=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
AROMATIC HYDROCARBONS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	TRIP BLANK 07/02/2002	TRIP BLANK 07/03/2002	TRIP BLANK 07/08/2002
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06A	MW-06B	MW-06C	MW-06E
	DATE	07/02/2002	07/08/2002	07/03/2002	07/03/2002	07/03/2002	07/03/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00	0.00	0.00

—=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-06F	MW-06F	MW-07B	MW-08A	MW-08B	MW-09B
	DATE	07/03/2002	07/03/2002	07/02/2002	07/03/2002	07/03/2002	07/02/2002
	RESULT TYPE	Primary	Duplicate 1	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	158	31.38	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	158.00	31.38	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 07/02/2002 Primary	MW-09D 07/02/2002 Primary	MW-11A 07/02/2002 Primary	MW-11B 07/03/2002 Primary	OBS-1 07/08/2002 Primary	OBS-2 07/02/2002 Primary
Tetrachloroethylene	(ug/l)	<0.5	2.45	<0.5	<0.5	1.92	<0.5
Sum of Constituents	(ug/l)	0.00	2.45	0.00	0.00	1.92	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	TRIP BLANK 07/02/2002	TRIP BLANK 07/03/2002	TRIP BLANK 07/08/2002
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00

—=Not analyzed

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

THIRD QUARTER RECOVERY WELL SAMPLING RESULTS - JULY 2002
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: SAMPLE COLLECTION DATE:	RW-1 7/4/2002	RW-2 7/4/2002	RW-3 6/20/2002	RW-4 7/4/2002	RW-5 7/4/2002
Benzene	0	0.68	1.31	0	0
Bromodichloromethane	0	0	0	0	0
Bromoform	0	0	0	0	0
Carbon tetrachloride	0	0	0	0	0
Chlorobenzene	0.64	0.59	1.11	0	0
Chlorodibromomethane	0	0	0	0	0
Chloroethane	0	0	0	0	0
Chloroform	0	0	0	0.86	0
o,p-Dichlorobenzene	2.22	1.68	2.99	0	0.77
m,o,p-Dichlorobenzene	2.22	1.68	2.99	0	0.77
1,1-Dichloroethane	0	0	1.76	0.64	1.08
1,2-Dichloroethane	0	0	0	0.68	2.38
1,1-Dichloroethene	0	0	0	2.13	3.44
cis-1,2-Dichloroethene	1.74	1.86	8.57	23.57	70.29
trans-1,2-Dichloroethene	0	0	0	0	0
1,2-Dichloropropane	0	0	0	0	0
Ethylbenzene	0	0	0	0	0
Methylene chloride	0	0	0	0	0
Tetrachloroethene	0	0	29.96	76.74	358.29
Toluene	0	0	0	0	0
1,1,1-Trichloroethane	0	0	0.53	4.8	6.5
Trichloroethylene	0	0	5.13	101.29	132.77
Vinyl chloride	0	0	0	0	0
o-Xylene	0	0	0	0	0
m+p-Xylene	0	0	0	0	0
Xylenes (total)	0	0	0	0	0
Dichlorodifluoromethane	0	0	0	0	0
Isopropylbenzene	0	0	0	0	0
n-Butylbenzene	0	0	0	0	0
tert-Butylbenzene	0	0	0	0	0
Total VOCs	4.6	4.81	51.36	210.71	575.52

Notes:
All concentrations in ug/l.
0 - Not detected at a concentration exceeding the method detection limit.

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LF-1 07/03/2002 Primary	M-30B-R 07/02/2002 Primary	MW-05B 07/08/2002 Primary	MW-06A 07/03/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	164	21.3	46.1	1.6
Aluminum	(mg/l)	—	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	<2	1.05	3.59	<0.1
Barium	(mg/l)	—	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	164	21.3	46.1	1.6
Calcium	(mg/l)	—	17.2	9.44	8.68
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	188	87.9	94.0	72.0
Chromium	(mg/l)	—	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	—	<0.02	<0.02	<0.02
Copper	(mg/l)	—	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	—	0.19	0.18	1.45
Lead	(ug/l)	—	<5.0	<5.0	10.7
Magnesium	(mg/l)	—	8.49	10.4	6.96
Manganese	(mg/l)	—	0.03	4.07	0.51
Mercury	(ug/l)	—	<0.20	<0.20	<0.20
Nickel	(mg/l)	—	<0.04	<0.04	<0.04
Nitrate	(mg/l)	<0.00010	5.09	<0.1	1.60
Nitrogen, Kjeldahl, total (as N)	(mg/l)	17.8	1.27	3.21	0.84
Potassium	(mg/l)	—	8.43	14.6	7.11
Sodium	(mg/l)	—	52.7	47.2	25.3
Sulfate	(mg/l)	16.1	29.7	15.8	<5
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	—	<0.02	<0.02	0.04
Hardness	(mg/l)	140	72.0	72.0	56.0
Total Dissolved Solids	(mg/l)	458	228	258	196

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06B 07/03/2002 Primary	MW-06C 07/03/2002 Primary	MW-06E 07/03/2002 Primary	MW-06F 07/03/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	228	218	196	<1
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	<5	2.02	<5	0.22
Barium	(mg/l)	<0.20	<0.20	0.22	<0.20
Bicarbonate (as CaCO3)	(mg/l)	228	218	195	<1
Calcium	(mg/l)	6.06	9.56	32.7	34.0
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	149	127	199	184
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	4.93	2.06	9.55	0.09
Lead	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium	(mg/l)	5.12	3.14	23.2	13.7
Manganese	(mg/l)	0.06	0.03	1.50	0.07
Mercury	(ug/l)	<0.20	<0.20	<0.20	0.41
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate	(mg/l)	<0.1	<0.1	<0.1	0.33
Nitrogen, Kjeldahl, total (as N)	(mg/l)	52.8	37.9	33.5	0.24
Potassium	(mg/l)	48.4	38.5	40.9	2.83
Sodium	(mg/l)	93.3	93.6	75.3	47.3
Sulfate	(mg/l)	12.3	20.7	34.6	<5
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	<0.02	<0.02	0.03	0.02
Hardness	(mg/l)	32.0	44.0	168	128
Total Dissolved Solids	(mg/l)	408	369	481	492

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06F 07/03/2002 Duplicate 1	MW-07B 07/02/2002 Primary	MW-08A 07/03/2002 Primary	MW-08B 07/03/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	<1	2.6	5.2	<1
Aluminum	(mg/l)	<0.20	<0.20	613	<0.20
Ammonia (as N)	(mg/l)	0.19	<0.1	<0.1	1.79
Barium	(mg/l)	<0.20	<0.20	<0.20	0.34
Bicarbonate (as CaCO3)	(mg/l)	<1	2.6	5.2	<1
Calcium	(mg/l)	35.1	4.28	7.73	22.0
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	175	25.6	72.4	182
Chromium	(mg/l)	<0.01	<0.01	<0.01	0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	0.07	0.04	6.22	0.17
Lead	(ug/l)	<5.0	<5.0	35.4	<5.0
Magnesium	(mg/l)	14.1	2.28	6.33	16.1
Manganese	(mg/l)	0.07	0.04	0.55	0.55
Mercury	(ug/l)	0.40	<0.20	0.48	<0.20
Nickel	(mg/l)	<0.04	<0.04	<0.04	0.04
Nitrate	(mg/l)	0.32	2.80	9.03	0.12
Nitrogen, Kjeldahl, total (as N)	(mg/l)	0.54	0.26	0.80	1.66
Potassium	(mg/l)	2.94	0.86	33.8	17.8
Sodium	(mg/l)	48.9	14.4	38.8	53.8
Sulfate	(mg/l)	<5	<5	31.3	7.6
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	0.02	<0.02	0.05	0.09
Hardness	(mg/l)	136	24.0	44.0	112
Total Dissolved Solids	(mg/l)	470	100	257	454

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09B 07/02/2002 Primary	MW-09C 07/02/2002 Primary	MW-09D 07/02/2002 Primary	MW-11A 07/01/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	11.0	68.9	<1	1.2
Aluminum	(mg/l)	<0.20	<0.20	0.90	<0.20
Ammonia (as N)	(mg/l)	1.73	1.41	1.89	<0.1
Barium	(mg/l)	<0.20	<0.20	0.29	<0.20
Bicarbonate (as CaCO3)	(mg/l)	11.0	68.9	<1	1.2
Calcium	(mg/l)	7.06	2.22	24.9	3.58
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	26.6	85.6	281	6.5
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	<0.02	0.16	1.20	0.08
Lead	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium	(mg/l)	4.42	3.84	18.3	2.02
Manganese	(mg/l)	0.08	0.08	0.16	<0.02
Mercury	(ug/l)	<0.20	<0.20	3.2	<0.20
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate	(mg/l)	4.34	<0.1	<0.1	4.40
Nitrogen, Kjeldahl, total (as N)	(mg/l)	1.94	14.7	2.89	0.29
Potassium	(mg/l)	6.18	27.3	4.79	1.03
Sodium	(mg/l)	18.2	52.6	103	5.28
Sulfate	(mg/l)	15.4	11.9	<5	<5
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	<0.02	<0.02	0.09	<0.02
Hardness	(mg/l)	48.0	26.0	136	20.0
Total Dissolved Solids	(mg/l)	123	191	536	57

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-11B 07/03/2002 Primary	OBS-1 07/08/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	1.0	55.7
Aluminum	(mg/l)	<0.20	<0.20
Ammonia (as N)	(mg/l)	<0.1	3.68
Barium	(mg/l)	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	<1	55.7
Calcium	(mg/l)	1.28	12.8
Carbonate (as CaCO3)	(mg/l)	<1	<1
Chloride	(mg/l)	3.6	119
Chromium	(mg/l)	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02
Cyanide	(ug/l)	<10	<10
Iron	(mg/l)	<0.02	0.06
Lead	(ug/l)	<5.0	<5.0
Magnesium	(mg/l)	0.61	9.66
Manganese	(mg/l)	<0.02	0.83
Mercury	(ug/l)	<0.20	<0.20
Nickel	(mg/l)	<0.04	<0.04
Nitrate	(mg/l)	0.87	0.18
Nitrogen, Kjeldahl, total (as N)	(mg/l)	<0.1	3.35
Potassium	(mg/l)	0.57	7.65
Sodium	(mg/l)	3.19	74.4
Sulfate	(mg/l)	<5	39.0
Total Phenols	(ug/l)	<5	<5
Zinc	(mg/l)	<0.02	<0.02
Hardness	(mg/l)	8.0	68.0
Total Dissolved Solids	(mg/l)	45	289

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 07/02/2002
Alkalinity (as CaCO3)	(mg/l)	<1
Aluminum	(mg/l)	<0.20
Ammonia (as N)	(mg/l)	<0.1
Barium	(mg/l)	<0.20
Bicarbonate (as CaCO3)	(mg/l)	<1
Calcium	(mg/l)	<0.20
Carbonate (as CaCO3)	(mg/l)	<1
Chloride	(mg/l)	<2
Chromium	(mg/l)	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02
Copper	(mg/l)	<0.02
Cyanide	(ug/l)	<10
Hardness	(mg/l)	8.0
Iron	(mg/l)	<0.02
Lead	(ug/l)	<5.0
Magnesium	(mg/l)	<0.20
Manganese	(mg/l)	<0.02
Mercury	(ug/l)	<0.20
Nickel	(mg/l)	<0.04
Nitrate	(mg/l)	<0.1
Nitrogen, Kjeldahl, total (as N)	(mg/l)	0.15
Potassium	(mg/l)	<0.20
Sodium	(mg/l)	<0.20
Sulfate	(mg/l)	<5
Total Dissolved Solids	(mg/l)	<10
Total Phenols	(ug/l)	<5
Zinc	(mg/l)	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 07/02/2002 Primary	MW-05B 07/08/2002 Primary	MW-06A 07/03/2002 Primary	MW-06B 07/03/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	15.6	9.88	7.89	5.26
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	<0.02	0.14	<0.02	0.29
Lead (Dissolved)	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium (Dissolved)	(mg/l)	7.56	10.8	6.42	4.46
Manganese (Dissolved)	(mg/l)	0.03	4.20	0.32	0.05
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	8.44	15.4	7.95	47.2
Sodium (Dissolved)	(mg/l)	51.6	49.3	26.4	88.6
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	0.03	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06C 07/03/2002 Primary	MW-06E 07/03/2002 Primary	MW-06F 07/03/2002 Primary	MW-06F 07/03/2002 Duplicate 1
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	0.23	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	8.95	31.6	30.8	31.2
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.03	4.83	0.08	0.05
Lead (Dissolved)	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium (Dissolved)	(mg/l)	2.92	22.7	12.4	12.5
Manganese (Dissolved)	(mg/l)	0.03	1.51	0.07	0.07
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	0.27	0.21
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	40.5	46.6	2.98	2.98
Sodium (Dissolved)	(mg/l)	95.0	82.4	47.4	47.4
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 07/02/2002 Primary	MW-08A 07/03/2002 Primary	MW-08B 07/03/2002 Primary	MW-09B 07/02/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	0.35	<0.20
Calcium (Dissolved)	(mg/l)	4.35	6.79	20.5	6.85
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	<0.02	<0.02	0.06	<0.02
Lead (Dissolved)	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium (Dissolved)	(mg/l)	2.28	5.74	14.9	4.21
Manganese (Dissolved)	(mg/l)	0.04	0.49	0.52	0.08
Mercury (Dissolved)	(ug/l)	<0.20	<0.20	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	0.94	36.5	19.0	6.00
Sodium (Dissolved)	(mg/l)	13.8	40.9	55.1	17.8
Zinc (Dissolved)	(mg/l)	<0.02	0.03	0.08	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 07/02/2002 Primary	MW-09D 07/02/2002 Primary	MW-11A 07/01/2002 Primary	MW-11B 07/03/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	0.86	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	0.29	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	2.11	22.5	3.61	1.17
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	<0.02	1.09	<0.02	<0.02
Lead (Dissolved)	(ug/l)	<5.0	<5.0	<5.0	<5.0
Magnesium (Dissolved)	(mg/l)	3.55	16.6	1.98	0.58
Manganese (Dissolved)	(mg/l)	0.08	0.15	<0.02	<0.02
Mercury (Dissolved)	(ug/l)	<0.20	2.8	<0.20	<0.20
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	25.0	4.97	0.97	0.64
Sodium (Dissolved)	(mg/l)	49.0	102	5.33	3.31
Zinc (Dissolved)	(mg/l)	<0.02	0.08	<0.02	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OBS-1 07/08/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20
Barium (Dissolved)	(mg/l)	<0.20
Calcium (Dissolved)	(mg/l)	12.1
Chromium (Dissolved)	(mg/l)	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02
Copper (Dissolved)	(mg/l)	<0.02
Iron (Dissolved)	(mg/l)	0.04
Lead (Dissolved)	(ug/l)	<5.0
Magnesium (Dissolved)	(mg/l)	9.12
Manganese (Dissolved)	(mg/l)	0.79
Mercury (Dissolved)	(ug/l)	<0.20
Nickel (Dissolved)	(mg/l)	<0.04
Potassium (Dissolved)	(mg/l)	7.46
Sodium (Dissolved)	(mg/l)	71.4
Zinc (Dissolved)	(mg/l)	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - JULY 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 07/01/2002 thru 09/30/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 07/02/2002
Aluminum (Dissolved)	(mg/l)	<0.20
Barium (Dissolved)	(mg/l)	<0.20
Calcium (Dissolved)	(mg/l)	<0.20
Chromium (Dissolved)	(mg/l)	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02
Copper (Dissolved)	(mg/l)	<0.02
Iron (Dissolved)	(mg/l)	<0.02
Lead (Dissolved)	(ug/l)	<5.0
Magnesium (Dissolved)	(mg/l)	<0.20
Manganese (Dissolved)	(mg/l)	<0.02
Mercury (Dissolved)	(ug/l)	<0.20
Nickel (Dissolved)	(mg/l)	<0.04
Potassium (Dissolved)	(mg/l)	<0.20
Sodium (Dissolved)	(mg/l)	0.45
Zinc (Dissolved)	(mg/l)	<0.02

---=Not analyzed

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - OCTOBER 21, 2002

PERIOD: From 07/01/2002 thru 12/31/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-06A	10/21/2002	160.24	00:00	103.91	-1.61	56.33
MW-06B	7/1/2002	160.39	00:00	102.59	NA	57.80
MW-06B	10/21/2002	160.39	00:00	104.16	-1.57	56.23
MW-06C	7/1/2002	159.99	00:00	101.98	NA	58.01
MW-06C	10/21/2002	159.99	00:00	104.71	-2.73	55.28
MW-06D	7/1/2002	160.39	00:00	102.42	NA	57.97
MW-06D	10/21/2002	160.39	00:00	104.02	-1.60	56.37
MW-06E	7/1/2002	160.88	00:00	103.31	NA	57.57
MW-06E	10/21/2002	160.88	00:00	103.62	-0.31	57.26
MW-06F	7/1/2002	159.88	00:00	102.66	NA	57.22
MW-06F	10/21/2002	159.88	00:00	103.92	-1.26	55.96
MW-07A	7/1/2002	148.44	00:00	D	NA	NA
MW-07A	10/21/2002	148.44	00:00	D	NA	NA
MW-07B	7/1/2002	147.94	00:00	94.83	NA	53.11
MW-07B	10/21/2002	147.94	00:00	97.23	-2.40	50.71
MW-08A	7/1/2002	134.94	00:00	76.52	NA	58.42
MW-08A	10/21/2002	134.94	00:00	78.98	-2.46	55.96
MW-08B	7/1/2002	134.24	00:00	75.80	NA	58.44
MW-08B	10/21/2002	134.24	00:00	77.49	-1.69	56.75
MW-08C	7/1/2002	135.72	00:00	77.09	NA	58.63
MW-08C	10/21/2002	135.72	00:00	78.41	-1.32	57.31
MW-09A	7/1/2002	153.35	00:00	D	NA	NA
MW-09A	10/21/2002	153.35	00:00	D	NA	NA
MW-09B	7/1/2002	153.28	00:00	99.05	NA	54.23
MW-09B	10/21/2002	153.28	00:00	101.76	-2.71	51.52
MW-09C	7/1/2002	153.53	00:00	100.08	NA	53.45
MW-09C	10/21/2002	153.53	00:00	102.25	-2.17	51.28
MW-09D	7/1/2002	152.95	00:00	99.07	NA	53.88
MW-09D	10/21/2002	152.95	00:00	100.09	-1.02	52.86
MW-10A	7/1/2002	161.28	00:00	103.42	NA	57.86
MW-10A	10/21/2002	161.28	00:00	105.77	-2.35	55.51
MW-10B	7/1/2002	161.12	00:00	103.96	NA	57.16
MW-10B	10/21/2002	161.12	00:00	105.40	-1.44	55.72

RW-03 was not pumping during July 2002 round.
D-Dry A-Obstructed with bee's nest NA-Not Applicable

TABLE 1
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - OCTOBER 21, 2002

PERIOD: From 07/01/2002 thru 12/31/2002 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
MW-10C	7/1/2002	160.27	00:00	103.12	NA	57.15
MW-10C	10/21/2002	160.27	00:00	104.23	-1.11	56.04
MW-10D	7/1/2002	161.17	00:00	104.21	NA	56.96
MW-10D	10/21/2002	161.17	00:00	105.75	-1.54	55.42
MW-11A	7/1/2002	80.19	00:00	30.32	NA	49.87
MW-11A	10/21/2002	80.19	00:00	30.52	-0.20	49.67
MW-11B	7/1/2002	79.91	00:00	30.21	NA	49.70
MW-11B	10/21/2002	79.91	00:00	30.43	-0.22	49.48
N-9980	7/1/2002	80.46	00:00	36.63	NA	43.83
N-9980	10/21/2002	80.46	00:00	38.08	-1.45	42.38
OBS-1	7/1/2002	110.61	00:00	57.04	NA	53.57
OBS-1	10/21/2002	110.61	00:00	58.02	-0.98	52.59
OBS-2	7/1/2002	105.26	00:00	52.73	NA	52.53
OBS-2	10/21/2002	105.26	00:00	53.81	-1.08	51.45
RW-01	7/1/2002	110.94	00:00	64.93	NA	46.01
RW-01	10/21/2002	110.94	00:00	57.30	7.63	53.64
RW-02	7/1/2002	145.31	00:00	103.10	NA	42.21
RW-02	10/21/2002	145.31	00:00	104.37	-1.27	40.94
RW-03	7/1/2002	120.92	00:00	66.90	NA	54.02
RW-03	10/21/2002	120.92	00:00	81.23	-14.33	39.69
RW-04	7/1/2002	144.82	00:00	98.33	NA	46.49
RW-04	10/21/2002	144.82	00:00	99.83	-1.50	44.99
RW-05	7/1/2002	149.74	00:00	103.24	NA	46.50
RW-05	10/21/2002	149.74	00:00	104.78	-1.54	44.96
TW-1	7/1/2002	121.12	00:00	56.84	NA	64.28
TW-1	10/21/2002	121.12	00:00	54.48	2.36	66.64
TW-2	7/1/2002	117.52	00:00	58.07	NA	59.45
TW-2	10/21/2002	117.52	00:00	59.92	-1.85	57.60
TW-3-R	7/1/2002	133.93	00:00	74.64	NA	59.29
TW-3-R	10/21/2002	133.93	00:00	76.54	-1.90	57.39

RW-03 was not pumping during July 2002 round.
D-Dry A-Obstructed with bee's nest NA-Not Applicable

TABLE 2

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER REMEDIATION SYSTEM PUMPAGE RECORDS

OCTOBER THROUGH DECEMBER 2002

DATE	ESTIMATED AVERAGE SYSTEM FLOW (GPM)	COMMENTS
10/1	690	RW-1 offline 13 hrs., RW-2 offline 7 hrs., RW-3 offline all day
		GTF offline 3 hrs.
10/2	614	RW-1 and RW-3 offline, RW-2 offline 14 hrs.
10/3	318	RW-1 and RW-3 offline 16 hrs., RW-2 offline 13 hrs.,
		GTF offline 10 hrs.
10/4-10/10	0	GTF offline for repairs
10/11	347	GTF offline 13 hrs., RW-1 and RW-2 offline 11 hrs.
10/12-10/15	806	RW-1 and RW-2 offline
10/16	831	RW-1 offline, RW-2 offline 8 hrs.
10/17-10/19	941	RW-1 offline
10/20	821	RW-1 offlline 23 hrs., GTF offline 1 hr.
10/21-12/31	940	RW-1 offline
Average System Flow - 840 GPM		

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 10/22/2002 Primary	MW-05B 10/23/2002 Primary	MW-06A 10/23/2002 Primary	MW-06B 10/23/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06B 10/23/2002 Duplicate 1	MW-06C 10/23/2002 Primary	MW-06E 10/23/2002 Primary	MW-06F 10/23/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

—=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 10/22/2002 Primary	MW-08A 10/23/2002 Primary	MW-08B 10/24/2002 Primary	MW-09B 10/22/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	1.11	0.59	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	23.6	1.02	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	24.71	1.61	0.00	0.00

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 10/22/2002 Primary	MW-10B 10/24/2002 Primary	MW-10C 10/24/2002 Primary	MW-11A 10/22/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	3.12	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	0.63	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	3.44	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	0.71	1.12	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	1.34	5.79	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	2.89	1.33	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	8.69	11.68	0.00

—=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-11B 10/24/2002 Primary	OBS-1 10/23/2002 Primary
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	0.58
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.58

---=Not analyzed

TABLE 3
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
VOLATILE HALOGENATED ORGANICS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 10/22/2002	TRIP BLANK 10/22/2002	TRIP BLANK 10/23/2002	TRIP BLANK 10/24/2002
1,1,1-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	(ug/l)	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromoform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Bromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloroform	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Methylene chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	(ug/l)	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
AROMATIC HYDROCARBONS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 10/22/2002 Primary	MW-05B 10/23/2002 Primary	MW-06A 10/23/2002 Primary	MW-06B 10/23/2002 Primary	MW-06B 10/23/2002 Duplicate 1	MW-06C 10/23/2002 Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	0.94	0.73	1.09
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	1.98	1.8	2.62
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	0.68
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	1.77	1.46	1.9
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	4.69	3.99	6.29

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
AROMATIC HYDROCARBONS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06E 10/23/2002 Primary	MW-06F 10/23/2002 Primary	MW-07B 10/22/2002 Primary	MW-08A 10/23/2002 Primary	MW-08B 10/24/2002 Primary	MW-09B 10/22/2002 Primary
1,2-Dichlorobenzene	(ug/l)	0.66	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	0.67	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	0.91	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5	0.7	<0.5
Sum of Constituents	(ug/l)	2.24	0.00	0.00	0.00	0.70	0.00

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
AROMATIC HYDROCARBONS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-09C	MW-10B	MW-10C	MW-11A	MW-11B	OBS-1
	DATE	10/22/2002	10/24/2002	10/24/2002	10/22/2002	10/24/2002	10/23/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	0.54
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	1.31
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00	0.00	2.55

---=Not analyzed

TABLE 4
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
AROMATIC HYDROCARBONS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 10/22/2002	TRIP BLANK 10/22/2002	TRIP BLANK 10/23/2002	TRIP BLANK 10/24/2002
1,2-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Benzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	(ug/l)	<0.5	<0.5	<0.5	<0.5
m/p-xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
o-Xylene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Toluene	(ug/l)	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	M-30B-R	MW-05B	MW-06A	MW-06B	MW-06B	MW-06C
	DATE	10/22/2002	10/23/2002	10/23/2002	10/23/2002	10/23/2002	10/23/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Duplicate 1	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-06E	MW-06F	MW-07B	MW-08A	MW-08B	MW-09B
	DATE	10/23/2002	10/23/2002	10/22/2002	10/23/2002	10/24/2002	10/22/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	<0.5	113	24.5	<0.5	<0.5

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MW-09C	MW-10B	MW-10C	MW-11A	MW-11B	OBS-1
	DATE	10/22/2002	10/24/2002	10/24/2002	10/22/2002	10/24/2002	10/23/2002
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Tetrachloroethylene	(ug/l)	<0.5	2.43	<0.5	<0.5	<0.5	0.56

---=Not analyzed

TABLE 5
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TETRACHLOROETHYLENE (PCE)

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 10/22/2002	TRIP BLANK 10/22/2002	TRIP BLANK 10/23/2002	TRIP BLANK 10/24/2002
Tetrachloroethylene	(ug/l)	<0.5	<0.5	<0.5	<0.5

---=Not analyzed

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

FOURTH QUARTER RECOVERY WELL SAMPLING RESULTS - OCTOBER 2002
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION:	RW-1	RW-2	RW-3	RW-4	RW-5
SAMPLE COLLECTION DATE:	10/10/02	10/10/02	10/10/02	10/10/02	10/10/02
Benzene	0	0	0	0	0
Bromodichloromethane	0	0	0	0	0
Bromoform	0	0	0	0	0
Carbon tetrachloride	0	0	0	0	0
Chlorobenzene	0	0	0	0	0
Chlorodibromomethane	0	0	0	0	0
Chloroethane	0	0	0	0	0
Chloroform	0	0	0	1.14	0.58
o,p-Dichlorobenzene	0	0	0	1.26	0
m,o,p-Dichlorobenzene	0	0	0	1.26	0
1,1-Dichloroethane	0	0	0	0	0.99
1,2-Dichloroethane	0	0	0	0	3.51
1,1-Dichloroethene	0	0	0	1.54	3.12
:is-1,2-Dichloroethene	0	0	0	20.58	19.93
rans-1,2-Dichloroethene	0	0	0	0	0
,2-Dichloropropane	0	0	0	0	0
:thylbenzene	0	0	0	0	0
Aethylene chloride	0	0	0	0	0
'etrachloroethene	0	0	0	195.4	190.09
'oluene	0	0	0	0	0
,1,1-Trichloroethane	0	0	0	4.64	7.46
richloroethylene	0	0	0	27.29	259.47
inyl chloride	0	0	0	0	0
-Xylene	0	0	0	0	0
+p-Xylene	0	0	0	0	0
ylenes (total)	0	0	0	0	0
ichlorodifluoromethane	0	0	0	0	0
opropylbenzene	0	0	0	0	0
Butylbenzene	0	0	0	0	0
t-Butylbenzene	0	0	0	0	0
tal VOCs	0	0	0	251.85	485.15

tes:

concentrations in ug/l.

Not detected at a concentration exceeding the method detection limit.

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	LF-1 10/23/2002 Primary	M-30B-R 10/22/2002 Primary	MW-05B 10/23/2002 Primary	MW-06A 10/23/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	217	23.8	47.6	5.10
Aluminum	(mg/l)	---	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	27.7	---	3.42	0.885
Barium	(mg/l)	---	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	92.0	23.5	92.0	92.0
Calcium	(mg/l)	---	11.4	9.13	7.45
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	198	58.0	88.9	88.9
Chromium	(mg/l)	---	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	---	<0.02	<0.02	<0.02
Copper	(mg/l)	---	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	---	<0.02	0.16	1.27
Lead	(ug/l)	---	<5.00	<5.00	6.88
Magnesium	(mg/l)	---	5.3	9.33	5.55
Manganese	(mg/l)	---	0.02	4.39	0.35
Mercury	(ug/l)	---	<0.1	<0.1	(0.020)
Nickel	(mg/l)	---	<0.04	<0.04	<0.04
Nitrate	(mg/l)	<0.1	7.56	<0.1	5.35
Nitrogen, Kjeldahl, total (as N)	(mg/l)	27.5	1.08	3.40	0.907
Potassium	(mg/l)	---	6.39	12.9	5.83
Sodium	(mg/l)	---	42.2	47.0	53.6
Sulfate	(mg/l)	26.1	30.5	20.4	13.1
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	---	<0.02	<0.02	0.26
Hardness	(mg/l)	110	56.0	120	24.0
Total Dissolved Solids	(mg/l)	693	270	363	290

()=Less than Reporting Limit ---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06B 10/23/2002 Primary	MW-06B 10/23/2002 Duplicate 1	MW-06C 10/23/2002 Primary	MW-06E 10/23/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	283	278	412	107
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	56.8	57.5	58.5	17.6
Barium	(mg/l)	<0.20	<0.20	<0.20	0.21
Bicarbonate (as CaCO3)	(mg/l)	92.0	92.0	92.0	92.0
Calcium	(mg/l)	5.78	5.92	24.0	28.0
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	145	145	170	174
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	4.36	5.4	5.1	5.55
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	4.66	4.81	8.12	15.3
Manganese	(mg/l)	0.06	0.07	0.08	1.03
Mercury	(ug/l)	<0.1	<0.1	<0.1	<0.1
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate	(mg/l)	<0.1	<0.1	<0.1	<0.1
Nitrogen, Kjeldahl, total (as N)	(mg/l)	61.2	61.5	58.8	19.1
Potassium	(mg/l)	49.7	50.5	60.9	29.7
Sodium	(mg/l)	94.1	96.0	155	66.4
Sulfate	(mg/l)	22.3	29.1	29.4	21.3
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02
Hardness	(mg/l)	37.0	48.0	120	150
Total Dissolved Solids	(mg/l)	740	743	867	669

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06F 10/23/2002 Primary	MW-07B 10/22/2002 Primary	MW-08A 10/23/2002 Primary	MW-08B 10/24/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	<1	3.50	20.8	<1
Aluminum	(mg/l)	<0.20	<0.20	1.9	<0.20
Ammonia (as N)	(mg/l)	0.102	<0.1	<0.1	<0.1
Barium	(mg/l)	0.21	<0.20	<0.20	0.58
Bicarbonate (as CaCO3)	(mg/l)	92.0	217	92.0	92.0
Calcium	(mg/l)	35.4	4.15	5.08	35.9
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	192	23.8	78.4	3.83
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	0.17	0.02	5.59	0.08
Lead	(ug/l)	<5.00	<5.00	30.8	<5.00
Magnesium	(mg/l)	13.9	2.12	4.35	22.4
Manganese	(mg/l)	0.07	0.04	0.42	0.71
Mercury	(ug/l)	0.25	<0.1	1.3	0.81
Nickel	(mg/l)	<0.04	<0.04	<0.04	0.51
Nitrate	(mg/l)	0.250	2.72	9.84	0.834
Nitrogen, Kjeldahl, total (as N)	(mg/l)	0.230	0.102	0.604	2.27
Potassium	(mg/l)	3.18	0.86	34.8	25.7
Sodium	(mg/l)	52.4	13.2	44.2	104
Sulfate	(mg/l)	<5	<5	265	<5
Total Phenols	(ug/l)	<5	<5	<5	<5
Zinc	(mg/l)	0.22	<0.02	0.31	0.12
Hardness	(mg/l)	140	18.0	30.0	190
Total Dissolved Solids	(mg/l)	402	79.0	300	38.0

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09B 10/22/2002 Primary	MW-09C 10/22/2002 Primary	MW-11A 10/22/2002 Primary	MW-11B 10/24/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	8.60	72.6	1.80	1.50
Aluminum	(mg/l)	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	(mg/l)	0.253	16.9	<0.1	<0.1
Barium	(mg/l)	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	(mg/l)	92.0	217	23.9	92.0
Calcium	(mg/l)	6.25	2.03	3.54	1.17
Carbonate (as CaCO3)	(mg/l)	<1	<1	<1	<1
Chloride	(mg/l)	14.0	90.3	6.79	3.99
Chromium	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper	(mg/l)	<0.02	<0.02	<0.02	<0.02
Cyanide	(ug/l)	<10	<10	<10	<10
Iron	(mg/l)	41	0.10	<0.02	<0.02
Lead	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium	(mg/l)	3.45	3.19	1.88	0.54
Manganese	(mg/l)	0.08	0.07	<0.02	<0.02
Mercury	(ug/l)	<0.1	(0.072)	<0.1	<0.1
Nickel	(mg/l)	<0.04	<0.04	<0.04	<0.04
Nitrate	(mg/l)	4.10	<0.1	4.31	0.831
Nitrogen, Kjeldahl, total (as N)	(mg/l)	0.440	16.3	0.160	0.203
Potassium	(mg/l)	3.98	25.0	0.92	0.56
Sodium	(mg/l)	9.08	51.6	5.18	34.5
Sulfate	(mg/l)	<5	16.0	<5	<5
Total Phenols	(ug/l)	<5	<5	<10	<5
Zinc	(mg/l)	<0.02	<0.02	<0.02	<0.02
Hardness	(mg/l)	34.0	40.0	17.0	5.00
Total Dissolved Solids	(mg/l)	80.0	211	40.0	24.0

()=Less than Reporting Limit ---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OBS-1 10/23/2002 Primary
Alkalinity (as CaCO3)	(mg/l)	38.8
Aluminum	(mg/l)	<0.20
Ammonia (as N)	(mg/l)	5.92
Barium	(mg/l)	<0.20
Bicarbonate (as CaCO3)	(mg/l)	92.0
Calcium	(mg/l)	12.5
Carbonate (as CaCO3)	(mg/l)	<1
Chloride	(mg/l)	114
Chromium	(mg/l)	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02
Copper	(mg/l)	<0.02
Cyanide	(ug/l)	<10
Iron	(mg/l)	0.03
Lead	(ug/l)	<5.00
Magnesium	(mg/l)	8.62
Manganese	(mg/l)	0.76
Mercury	(ug/l)	<0.1
Nickel	(mg/l)	<0.04
Nitrate	(mg/l)	1.03
Nitrogen, Kjeldahl, total (as N)	(mg/l)	5.67
Potassium	(mg/l)	8.58
Sodium	(mg/l)	64.3
Sulfate	(mg/l)	36.6
Total Phenols	(ug/l)	<5
Zinc	(mg/l)	<0.02
Hardness	(mg/l)	140
Total Dissolved Solids	(mg/l)	329

---=Not analyzed

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 10/22/2002
Alkalinity (as CaCO3)	(mg/l)	<1
Aluminum	(mg/l)	<0.20
Ammonia (as N)	(mg/l)	<0.1
Barium	(mg/l)	<0.20
Bicarbonate (as CaCO3)	(mg/l)	23.5
Calcium	(mg/l)	127
Carbonate (as CaCO3)	(mg/l)	<1
Chloride	(mg/l)	<2
Chromium	(mg/l)	<0.01
Chromium (Hexavalent)	(mg/l)	<0.02
Copper	(mg/l)	<0.02
Cyanide	(ug/l)	<10
Iron	(mg/l)	<0.02
Lead	(ug/l)	<5.00
Magnesium	(mg/l)	<0.20
Manganese	(mg/l)	<0.02
Mercury	(ug/l)	<0.1
Nickel	(mg/l)	<0.04
Nitrate	(mg/l)	<0.1
Nitrogen, Kjeldahl, total (as N)	(mg/l)	<0.1
Potassium	(mg/l)	<0.2
Sodium	(mg/l)	<0.2
Sulfate	(mg/l)	15.0
Total Phenols	(ug/l)	<5
Zinc	(mg/l)	<0.02
Hardness	(mg/l)	7.00
Total Dissolved Solids	(mg/l)	<10

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	M-30B-R 10/22/2002 Primary	MW-05B 10/23/2002 Primary	MW-06A 10/23/2002 Primary	MW-06B 10/23/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	11.3	9.19	6.85	5.86
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.03	<0.02	<0.02	0.06
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	5.23	9.36	4.98	4.71
Manganese (Dissolved)	(mg/l)	0.02	4.4	0.16	0.06
Mercury (Dissolved)	(ug/l)	<0.1	<0.1	<0.1	<0.1
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	6.26	13.3	5.28	48.3
Sodium (Dissolved)	(mg/l)	41.9	47.9	48.9	92.1
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	0.33	<0.02

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-06B 10/23/2002 Duplicate 1	MW-06C 10/23/2002 Primary	MW-06E 10/23/2002 Primary	MW-06F 10/23/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Calcium (Dissolved)	(mg/l)	6.44	25.1	23.2	30.6
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	0.03	0.04	<0.02	0.04
Iron (Dissolved)	(mg/l)	0.03	0.06	0.96	0.06
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	5.11	8.56	12.6	11.9
Manganese (Dissolved)	(mg/l)	0.05	0.08	0.85	0.06
Mercury (Dissolved)	(ug/l)	<0.1	<0.1	<0.1	0.45
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	<0.04	<0.04
Potassium (Dissolved)	(mg/l)	52.1	63.8	24.1	2.99
Sodium (Dissolved)	(mg/l)	99.8	163	55.0	45.8
Zinc (Dissolved)	(mg/l)	<0.02	0.28	<0.02	0.41

---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-07B 10/22/2002 Primary	MW-08A 10/23/2002 Primary	MW-08B 10/24/2002 Primary	MW-09B 10/22/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	0.52	<0.20
Calcium (Dissolved)	(mg/l)	3.71	5.11	34.1	6.78
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	0.03	0.03	<0.02	<0.02
Iron (Dissolved)	(mg/l)	0.15	<0.02	<0.02	<0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	1.88	4.29	21.4	3.78
Manganese (Dissolved)	(mg/l)	0.04	0.37	0.66	0.09
Mercury (Dissolved)	(ug/l)	<0.1	<0.1	(0.029)	<0.1
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	0.47	<0.04
Potassium (Dissolved)	(mg/l)	0.78	37.9	23.4	4.76
Sodium (Dissolved)	(mg/l)	11.7	49.3	96.6	11.1
Zinc (Dissolved)	(mg/l)	0.23	0.39	0.12	<0.02

()=Less than Reporting Limit ---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	MW-09C 10/22/2002 Primary	MW-11A 10/22/2002 Primary	MW-11B 10/24/2002 Primary	OBS-1 10/23/2002 Primary
Aluminum (Dissolved)	(mg/l)	<0.20	<0.20	<0.20	<0.20
Barium (Dissolved)	(mg/l)	<0.20	<0.20	0.46	<0.20
Calcium (Dissolved)	(mg/l)	1.9	3.3	30.2	12.4
Chromium (Dissolved)	(mg/l)	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Copper (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Iron (Dissolved)	(mg/l)	<0.02	<0.02	<0.02	<0.02
Lead (Dissolved)	(ug/l)	<5.00	<5.00	<5.00	<5.00
Magnesium (Dissolved)	(mg/l)	2.89	1.69	18.9	8.64
Manganese (Dissolved)	(mg/l)	0.06	<0.02	0.59	0.81
Mercury (Dissolved)	(ug/l)	<0.1	<0.1	(0.035)	<0.1
Nickel (Dissolved)	(mg/l)	<0.04	<0.04	0.43	<0.04
Potassium (Dissolved)	(mg/l)	22.1	0.89	20.4	8.63
Sodium (Dissolved)	(mg/l)	46.3	5.5	85.2	64.0
Zinc (Dissolved)	(mg/l)	<0.02	<0.02	0.11	<0.02

()=Less than Reporting Limit ---=Not analyzed

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL

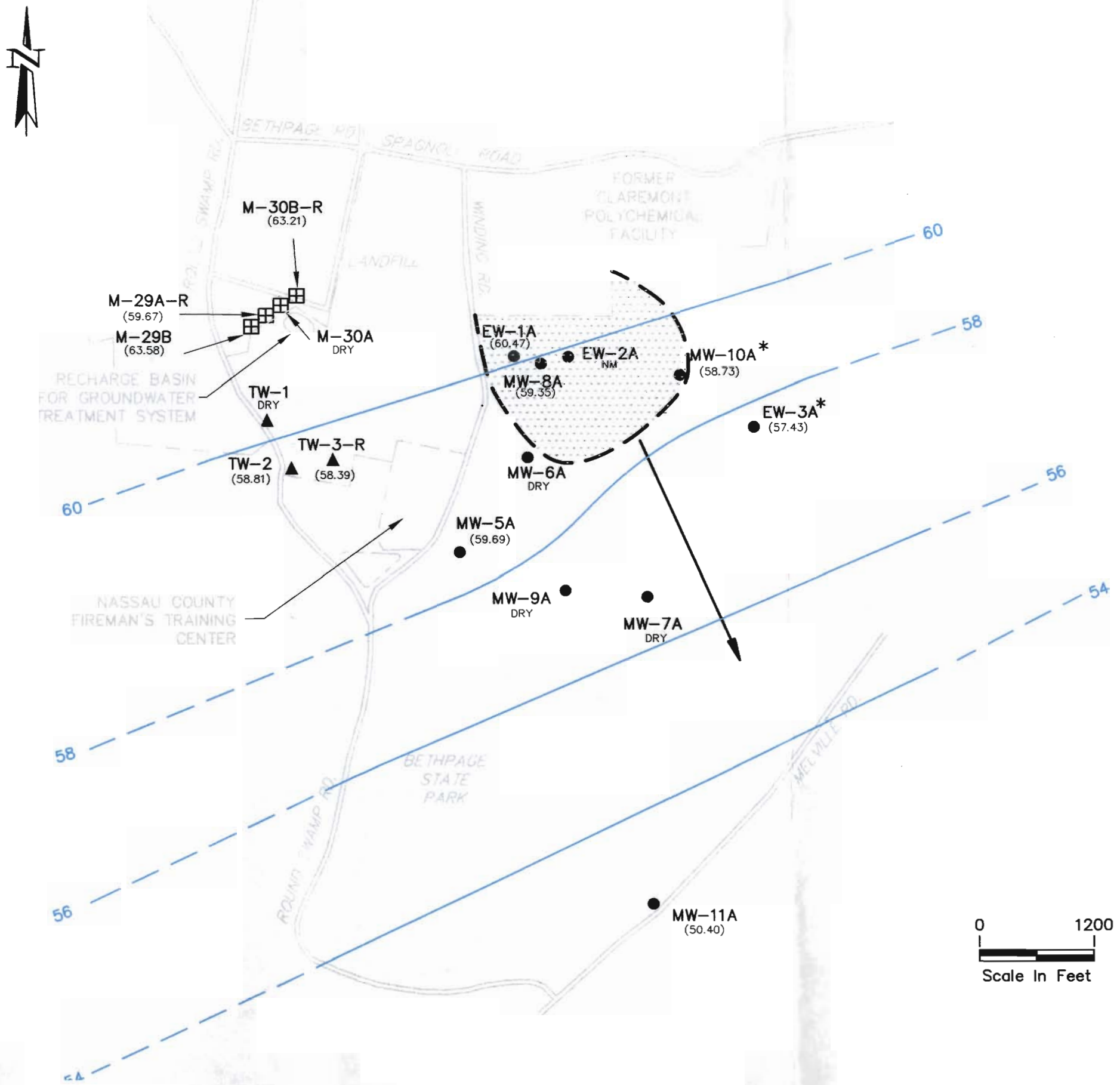
GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2002
DISSOLVED (FILTERED) METALS

PERIOD: From 10/01/2002 thru 12/31/2002 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FIELD BLANK 10/22/2002
Aluminum (Dissolved)	(mg/l)	<0.20
Barium (Dissolved)	(mg/l)	<0.20
Calcium (Dissolved)	(mg/l)	190
Chromium (Dissolved)	(mg/l)	<0.01
Chromium (Hexavalent) (Dissolved)	(mg/l)	<0.02
Copper (Dissolved)	(mg/l)	<0.02
Iron (Dissolved)	(mg/l)	<0.02
Lead (Dissolved)	(ug/l)	<5.00
Magnesium (Dissolved)	(mg/l)	<0.20
Manganese (Dissolved)	(mg/l)	<0.02
Mercury (Dissolved)	(ug/l)	<0.1
Nickel (Dissolved)	(mg/l)	<0.04
Potassium (Dissolved)	(mg/l)	<0.2
Sodium (Dissolved)	(mg/l)	0.27
Zinc (Dissolved)	(mg/l)	<0.02

---=Not analyzed

[redacted]
FIGURE 1



LEGEND

- MW-5A (62.42) ● — *Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
- TW-2 ▲ — *Phase II Extension Well*
- M-29A ⊞ — *Upgradient Well*
- ——— — — ——— — *Property Boundary*
- ——→ — *Groundwater Flow Direction*
- 60 ——— — *Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
- ⬭ — *Approximate Areal Extent Of The VOC Plume In Water Table Wells – February 2002*
- * — *Plume Extent Based On Third Quarter 1998 Data.*
- NM — *Not Measured*

0 1200
Scale In Feet

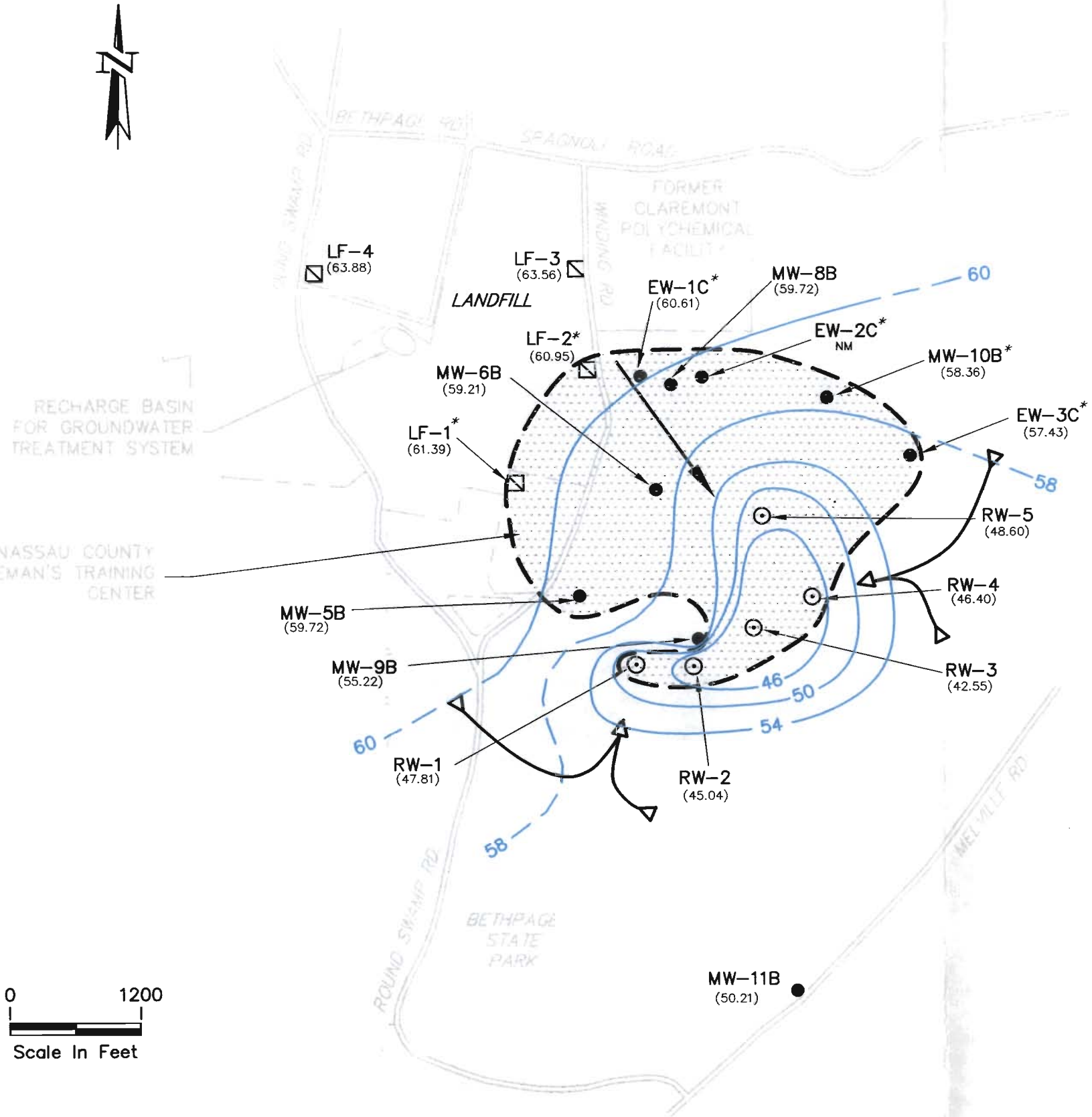
WATER TABLE FLOW MAP FEBRUARY 18, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852A
050802

Gannett Fleming

FIGURE 2



LEGEND

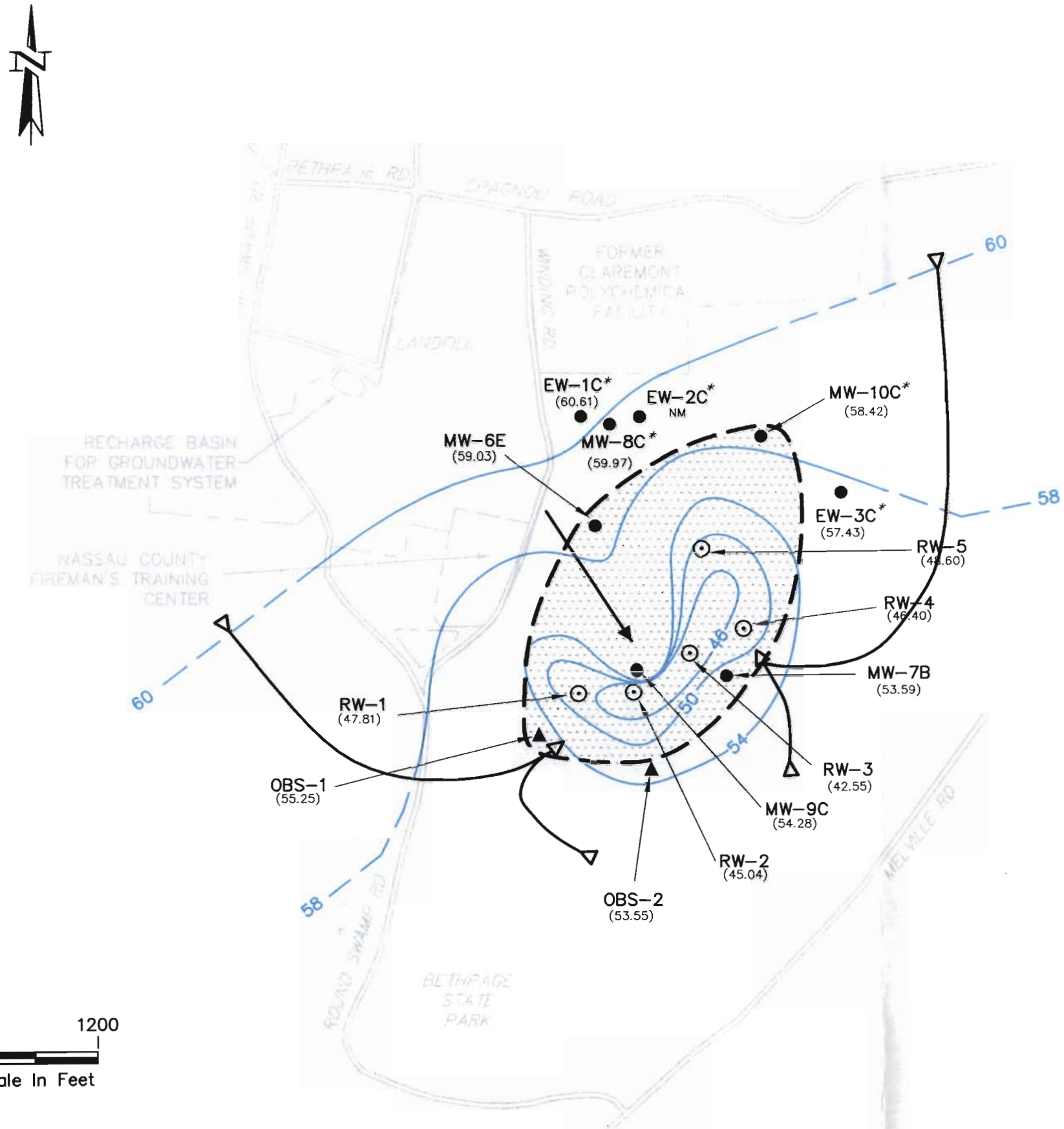
MW–5B (62.45) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–5 ⊙	*Recovery Well*
LF–2 ▨	*Phase III Well*
◁——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zones*
——→	*Groundwater Flow Direction*
60 ——	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
	Property Boundary
⬭	*Approximate Areal Extent Of The VOC Plume In Shallow Potentiometric Zone February 2002.*
*	*Plume Extent Based On Third Quarter 1998 Data.*
NM	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP FEBRUARY 18, 2002

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN39852B
050602



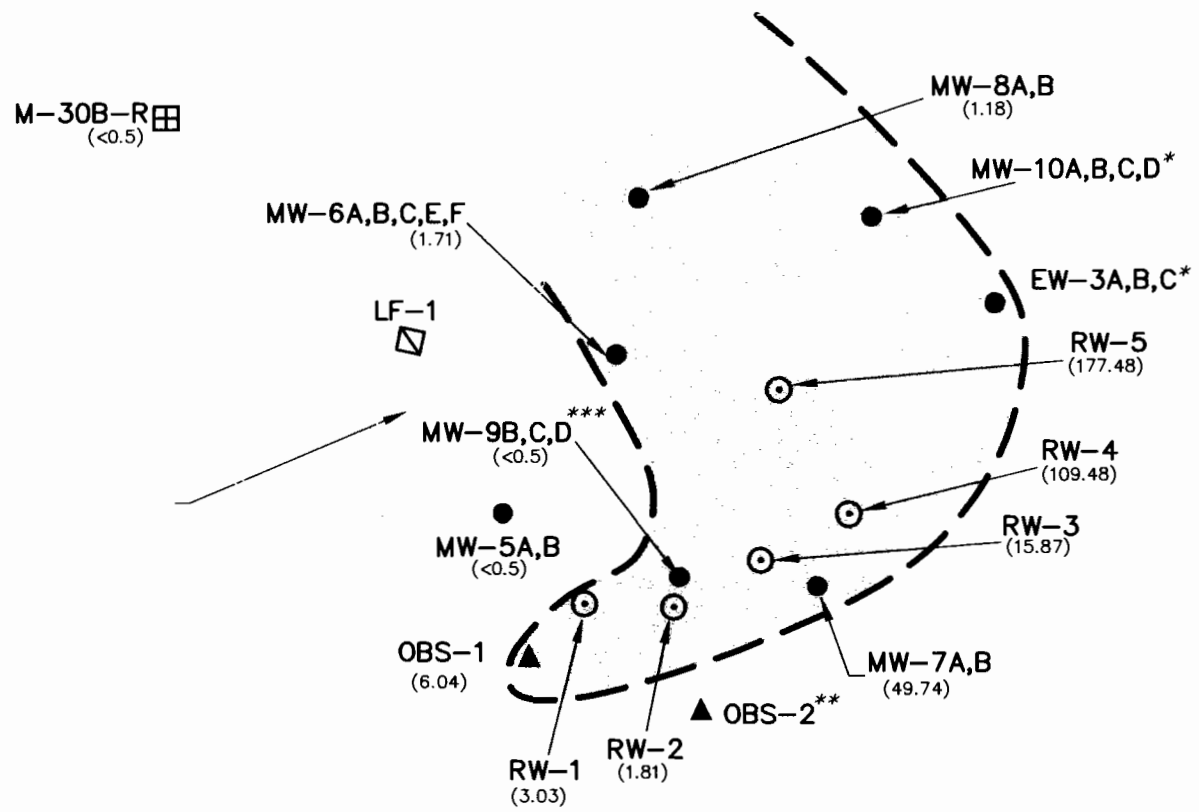
LEGEND

MW–8C (63.61) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–4 ⊙	*Recovery Well*
OBS–2 ▲	*Phase II Extension Well*
	Property Boundary
→	*Limiting Flow Lines Depicting Estimated Effective Capture Zone*
→	*Groundwater Flow Direction*
60	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
	Approximate Areal Extent Of The VOC Plume In The Deep Potentiometric Zone – February 2002
*	*Plume Extent Based On Third Quarter 1998 Data*
NM	*Not Measured*

DEEP POTENTIOMETRIC FLOW MAP FEBRUARY 18, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852C
050602



0 1200
Scale In Feet

Sn38952F
042602

LEGEND

MW-5B (<0.5) ●	*Monitoring Well Location And Total Volatile Halogenated Organics Concentration, ppb*
RW-5 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
LF-1 ⧄	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
⬭	*Approximate Areal Extent Of The Volatile Halogenated Organic Plume*

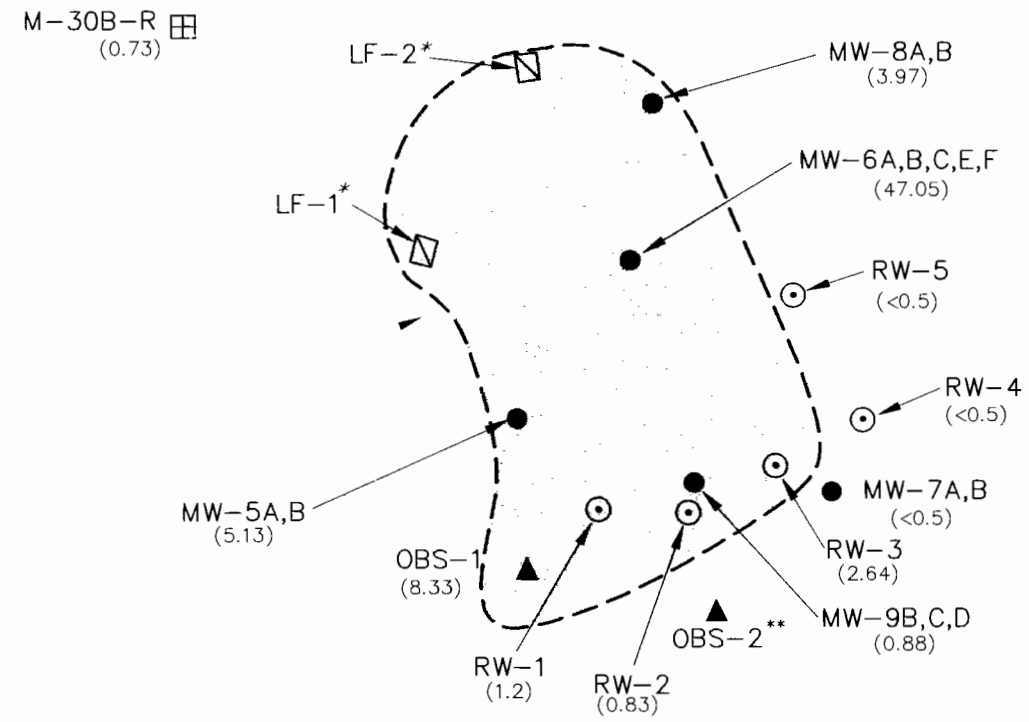
NOTE

Plume Contour Is Based On Total Volatile Halogenated Organics Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*
** *Plume Extent Based On Third Quarter 2000 Data.*
*** *Plume Extent Based On Third Quarter 2001 Data.*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS FERUARY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



0 1200
Scale In Feet

SN39852E
042602

LEGEND

MW-5B (<1) ●	*Monitoring Well Location And Total Aromatic Hydrocarbon Concentration, ppb*
RW-4 ⊙	*Recovery Well*
OBS-1 ▲	*Phase II Extension Well*
LF-1 ⧅	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
⬭	*Approximate Areal Extent Of The Aromatic Hydrocarbon Plume*

NOTE

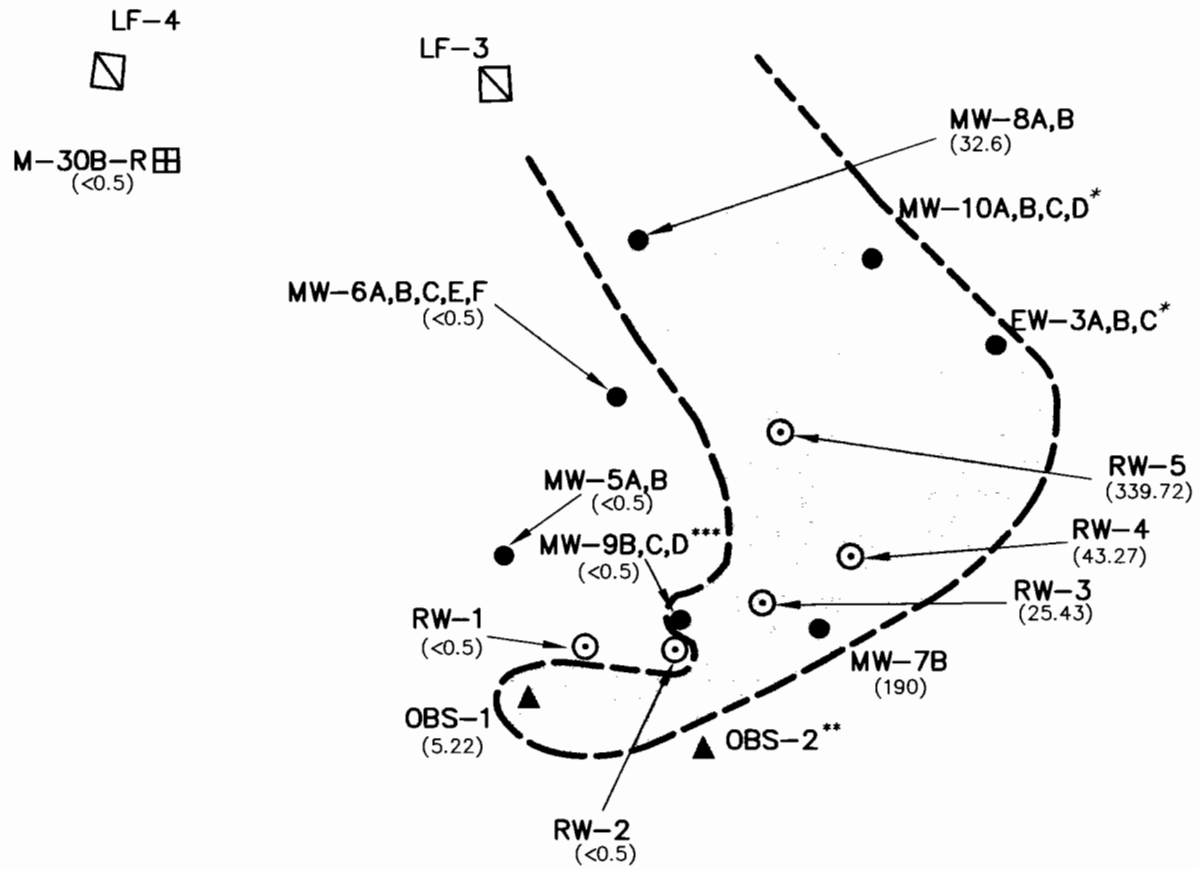
Plume Contour Is Based On Total Aromatic Hydrocarbon Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quater 1998 Data*

** *Plume Extent Based On Third Quater 2000 Data*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL AROMATIC HYDROCARBONS FEBRUARY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



0 1200
Scale In Feet

LEGEND

- MW-5B (<0.5) ● — *Monitoring Well Location And Tetrachloroethene Concentration, ppb*
- RW-4 ⊙ — *Recovery Well*
- OBS-1 ▲ — *Phase II Extension Well*
- LF-3 ⧄ — *Phase III Well*
- M-30B-R ⊞ — *Upgradient Well*
- *Property Boundary*
- *Approximate Areal Extent Of The Tetrachloroethene Plume*

NOTE

Plume Contour Is Based On Tetrachloroethene Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*

** *Plume Extent Based On Third Quarter 2000 Data.*

*** *Plume Extent Based On Third Quarter 2001 Data.*

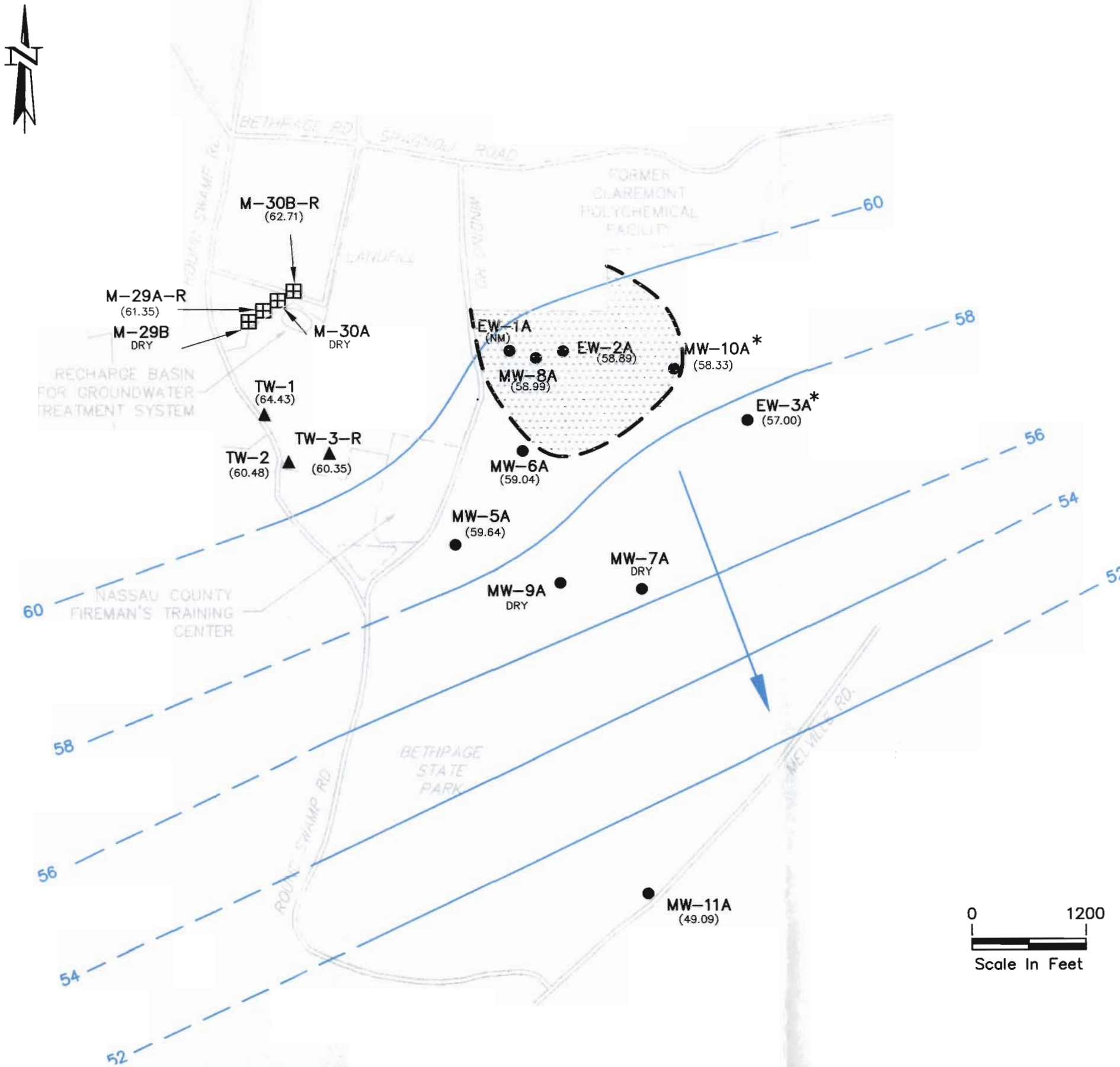
APPROXIMATE EXTENT AND DISTRIBUTION OF TETRACHLOROETHENE FEBRUARY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

39852D
2602

Gannett Fleming

FIGURE 1



LEGEND

MW-5A (62.42) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
TW-2 ▲	*Phase II Extension Well*
M-29A ⊞	*Upgradient Well*
	Property Boundary
	Groundwater Flow Direction
60	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
	Approximate Areal Extent Of The VOC Plume In Water Table Wells – April 2002
*	*Plume Extent Based On Third Quarter 1998 Data.*
NM	*Not Measured*

0 1200

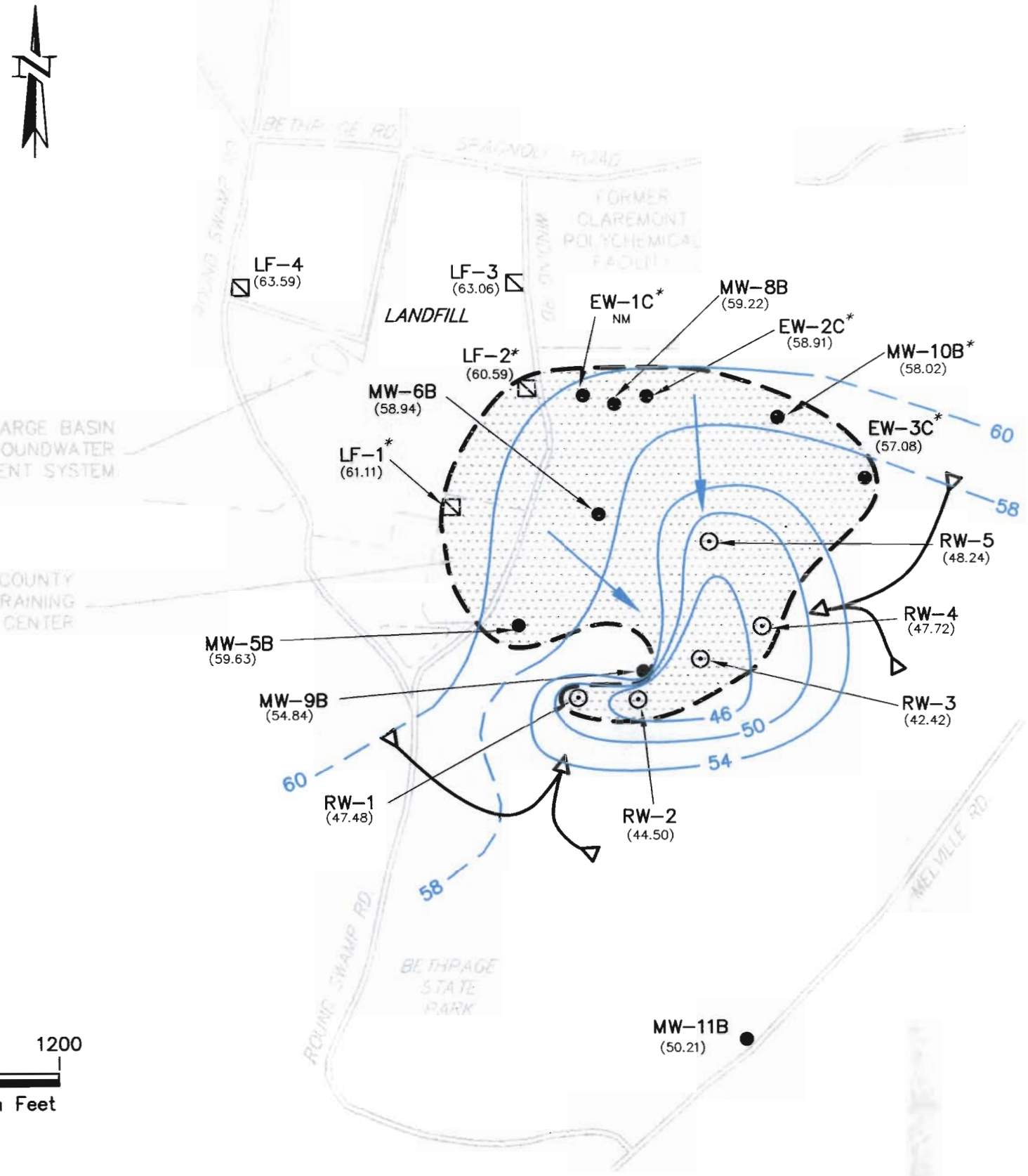
Scale In Feet

WATER TABLE FLOW MAP APRIL 8, 2002

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN39852G
073002



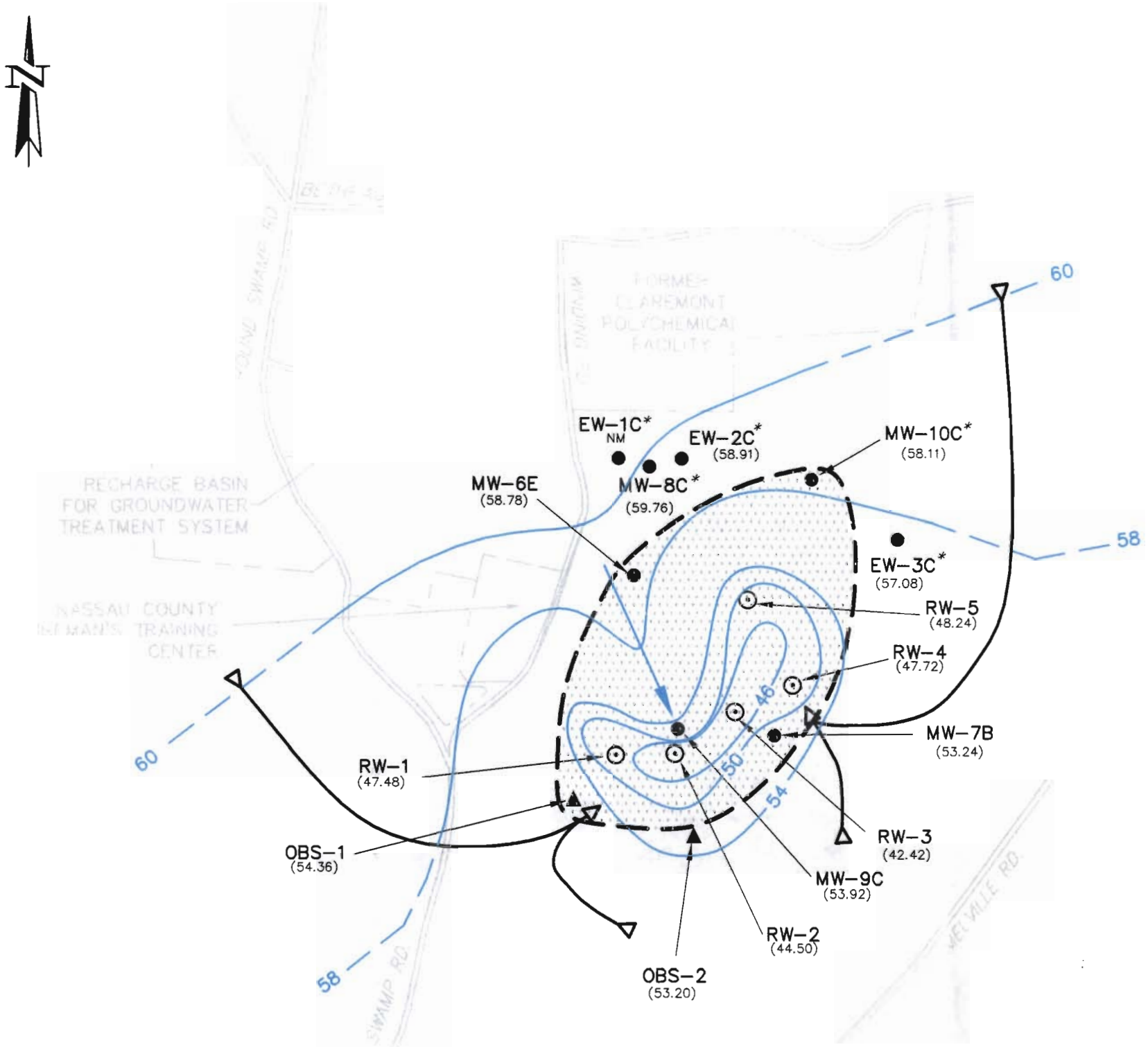
LEGEND

MW–5B (62.45) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–5 ⊙	*Recovery Well*
LF–2 ⧅	*Phase III Well*
◁——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zones*
——→	*Groundwater Flow Direction*
60 ——	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
- - - -	*Property Boundary*
⬭	*Approximate Areal Extent Of The VOC Plume In Shallow Potentiometric Zone April 2002.*
*	*Plume Extent Based On Third Quarter 1998 Data.*
NM	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP
APRIL 8, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852H
073002



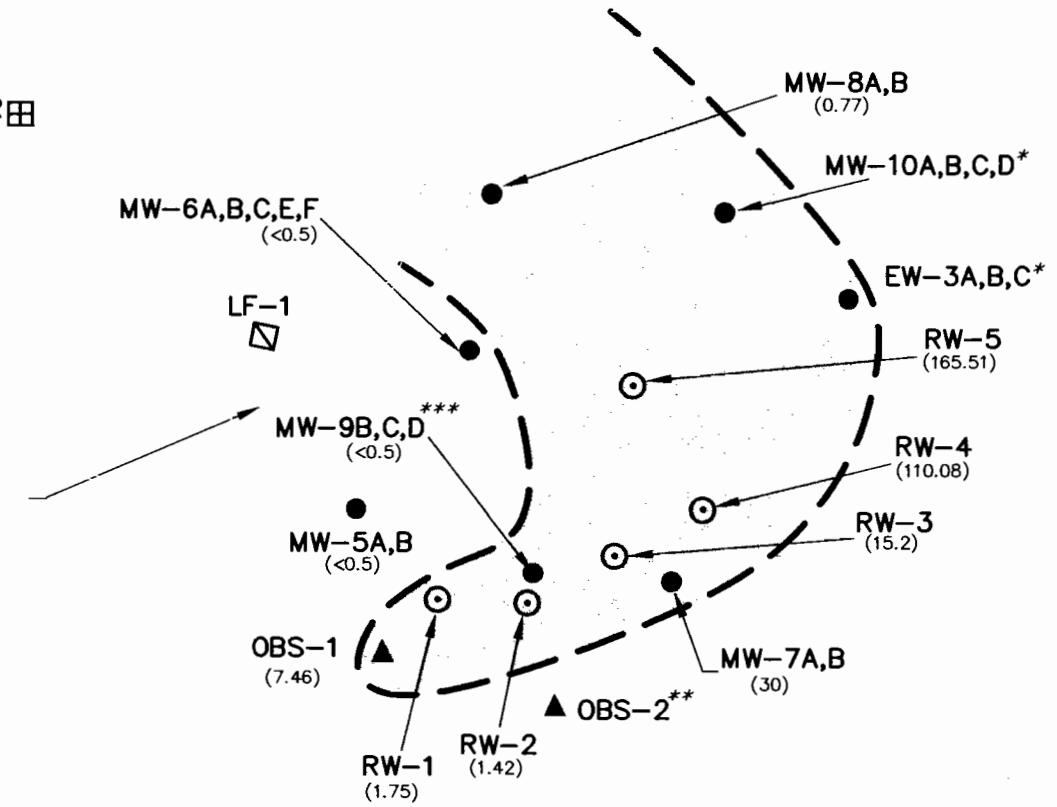
0 1200
Scale In Feet

LEGEND

MW-8C (63.61) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW-4 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
	Property Boundary
→	*Limiting Flow Lines Depicting Estimated Effective Capture Zone*
→	*Groundwater Flow Direction*
60	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
⬭	*Approximate Areal Extent Of The VOC Plume In The Deep Potentiometric Zone – April 2002*
*	*Plume Extent Based On Third Quarter 1998 Data*
NM	*Not Measured*

DEEP POTENTIOMETRIC FLOW MAP APRIL 8, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



LEGEND

MW-5B (<0.5) ●	*Monitoring Well Location And Total Volatile Halogenated Organics Concentration, ppb*
RW-5 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
LF-1 ⧄	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
⬭	*Approximate Areal Extent Of The Volatile Halogenated Organic Plume*

NOTE

Plume Contour Is Based On Total Volatile Halogenated Organics Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*
** *Plume Extent Based On Third Quarter 2000 Data.*
*** *Plume Extent Based On Third Quarter 2001 Data.*

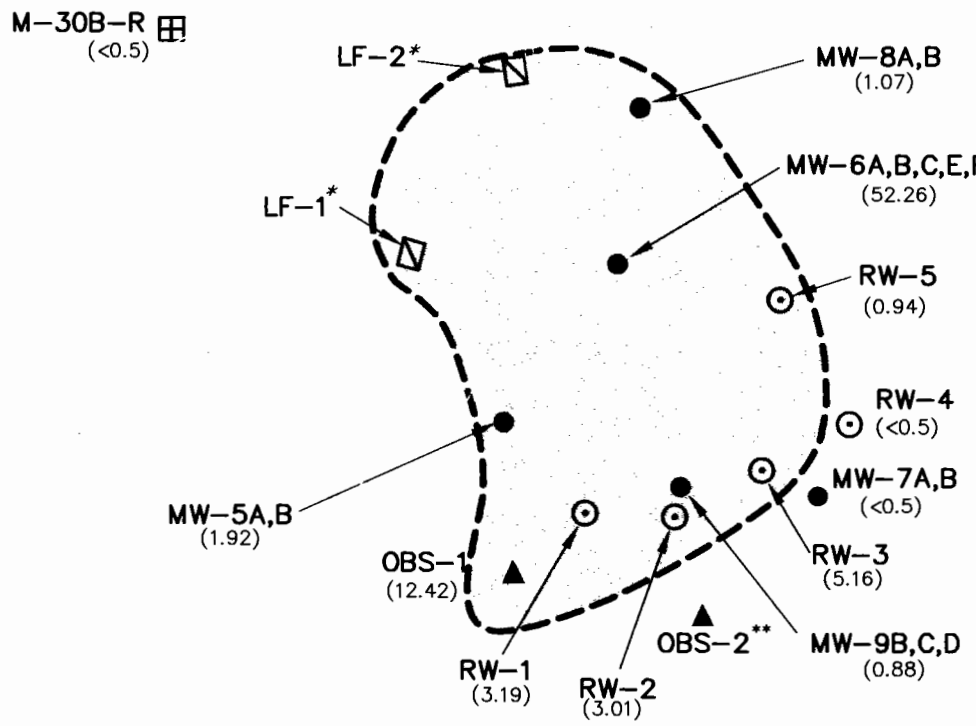
APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS APRIL 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

n38952L
73002

Gannett Fleming

FIGURE 5



0 1200

Scale In Feet

LEGEND

MW-5B (<1) — *Monitoring Well Location And Total Aromatic Hydrocarbon Concentration, ppb*

RW-4 — *Recovery Well*

OBS-1 — *Phase II Extension Well*

LF-1 — *Phase III Well*

M-30B-R — *Upgradient Well*

Property Boundary

Approximate Areal Extent Of The Aromatic Hydrocarbon Plume

NOTE

Plume Contour Is Based On Total Aromatic Hydrocarbon Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quater 1998 Data*

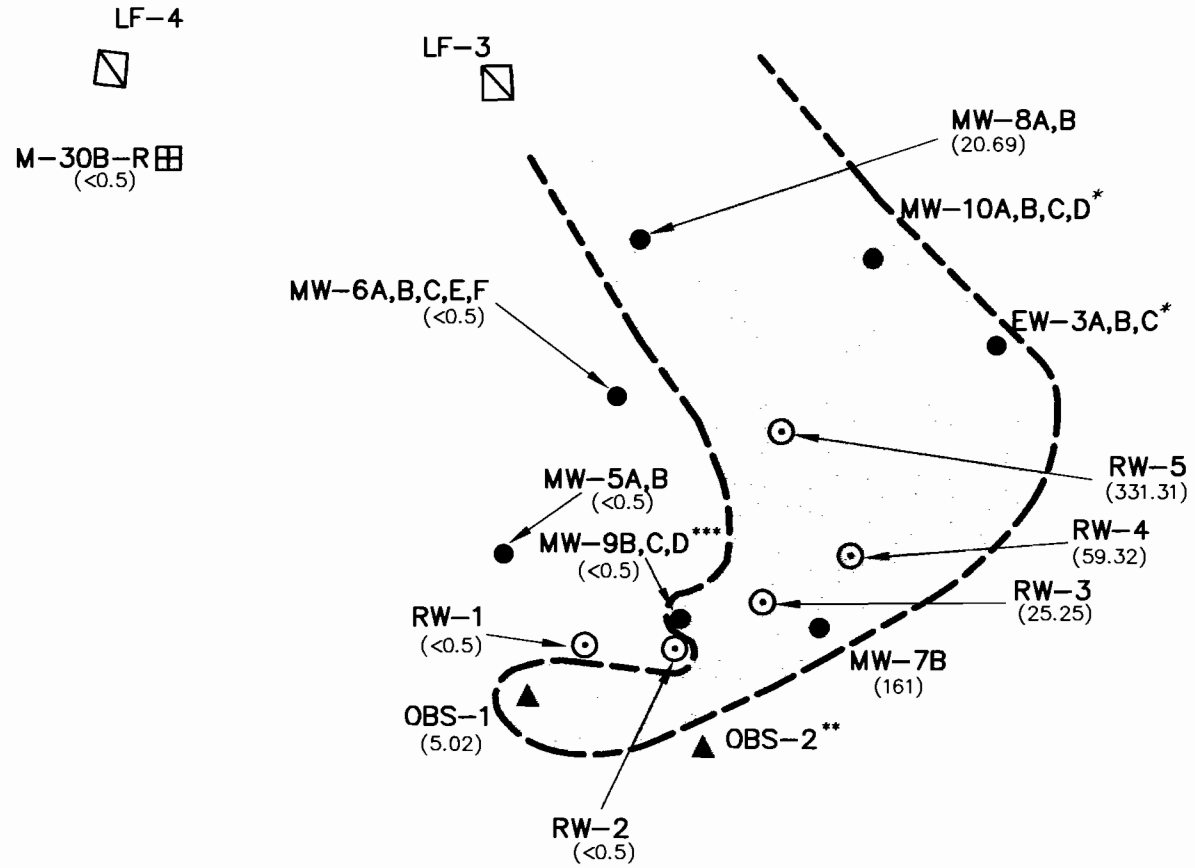
** *Plume Extent Based On Third Quater 2000 Data*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL AROMATIC HYDROCARBONS APRIL 2002

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

39852K
002



LEGEND

MW-5B (<0.5) ●	*Monitoring Well Location And Tetrachloroethene Concentration, ppb*
RW-4 ⊙	*Recovery Well*
OBS-1 ▲	*Phase II Extension Well*
LF-3 ⧄	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
⬭	*Approximate Areal Extent Of The Tetrachloroethene Plume*

NOTE

Plume Contour Is Based On Tetrachloroethene Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*

** *Plume Extent Based On Third Quarter 2000 Data.*

*** *Plume Extent Based On Third Quarter 2001 Data.*

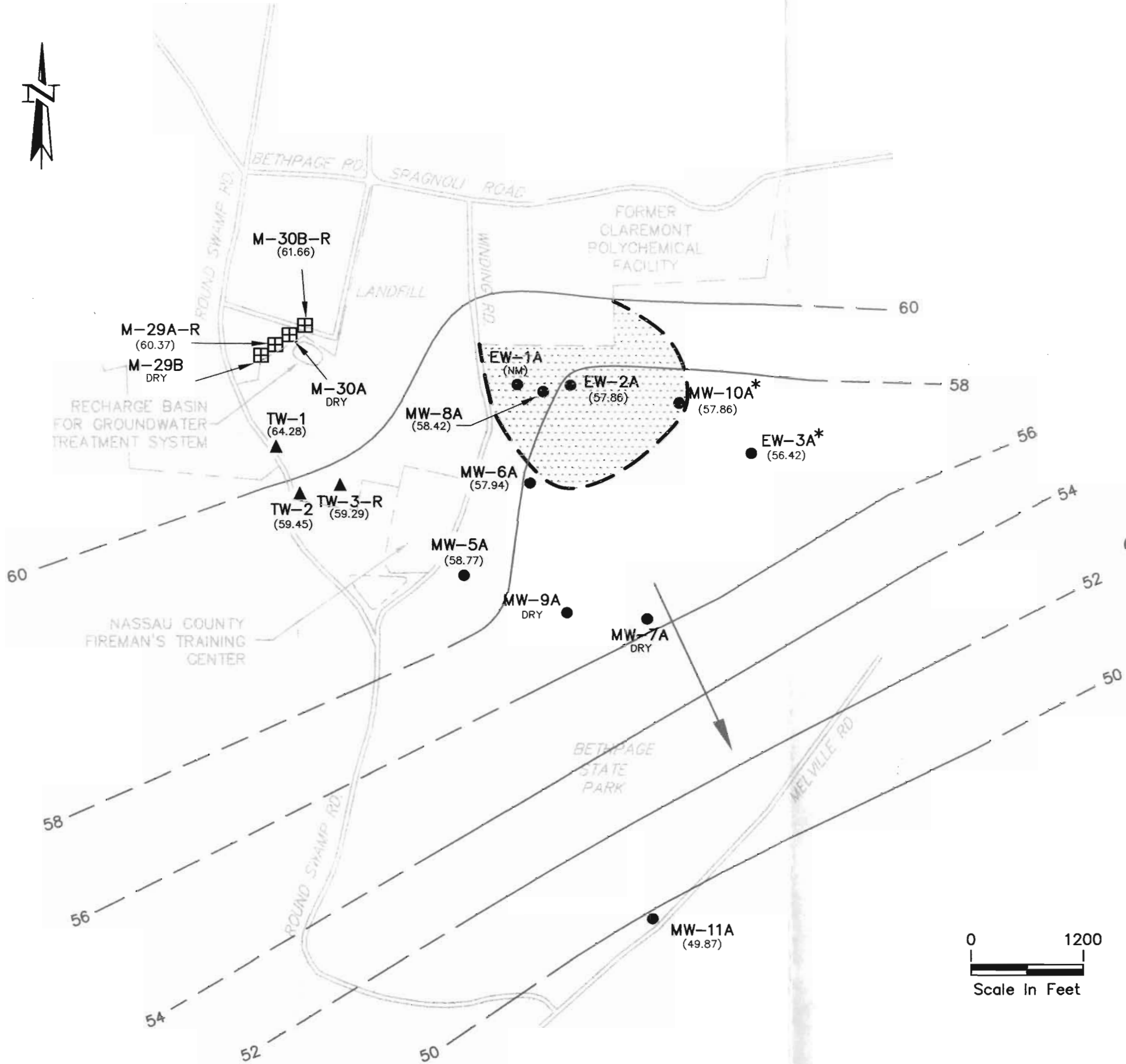
APPROXIMATE EXTENT AND DISTRIBUTION OF TETRACHLOROETHENE APRIL 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

39852J
3002

Gannett Fleming

FIGURE 1



LEGEND

MW-5A (62.42) ● — *Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*

TW-2 ▲ — *Phase II Extension Well*

M-29A ⊞ — *Upgradient Well*

Property Boundary

Groundwater Flow Direction

60 — *Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*

Approximate Areal Extent Of The VOC Plume In Water Table Wells – July 2002

* *Plume Extent Based On Third Quarter 1998 Data.*

NM *Not Measured*

WATER TABLE FLOW MAP JULY 1, 2002

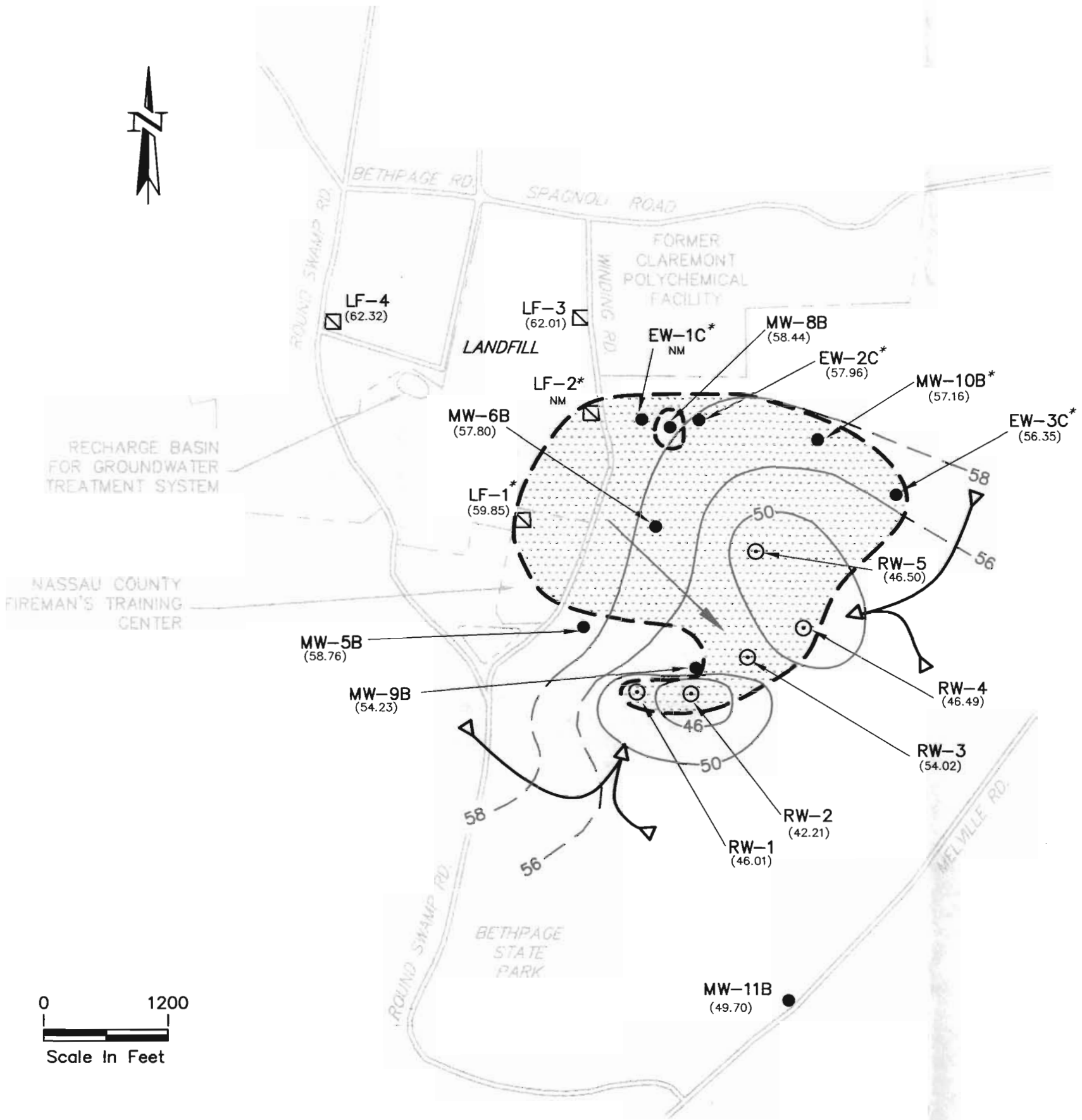
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN39852M
D80202

Gannett Fleming

FIGURE 2



LEGEND

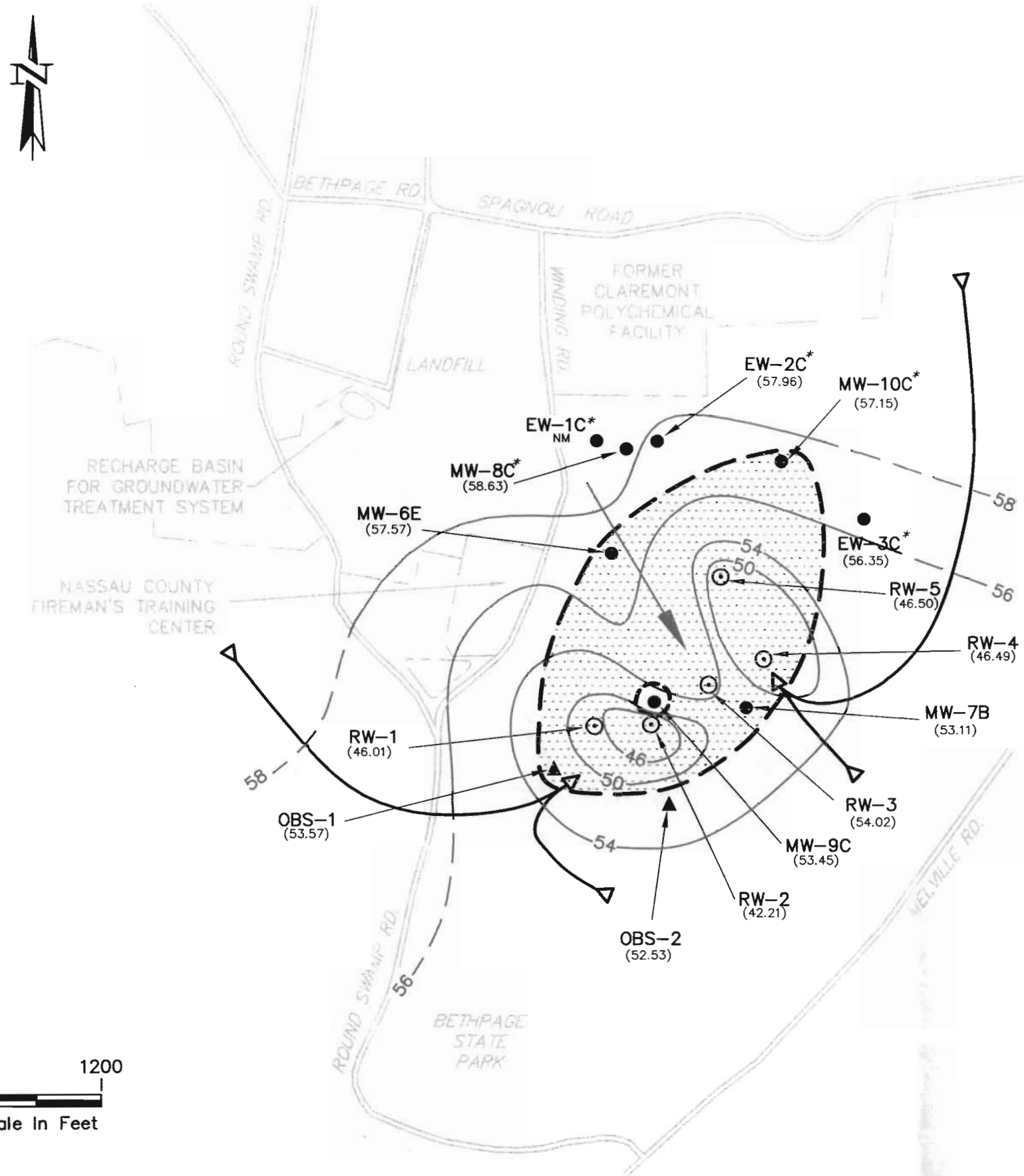
MW–5B (62.45) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–5 ⊙	*Recovery Well*
LF–2 ⊠	*Phase III Well*
▷——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zones*
——→	*Groundwater Flow Direction*
60 ——	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
- - - -	*Property Boundary*
⬭	*Approximate Areal Extent Of The VOC Plume In Shallow Potentiometric Zone July 2002.*
*	*Plume Extent Based On Third Quarter 1998 Data.*
NM	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP JULY 1, 2002

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN39852N
101402



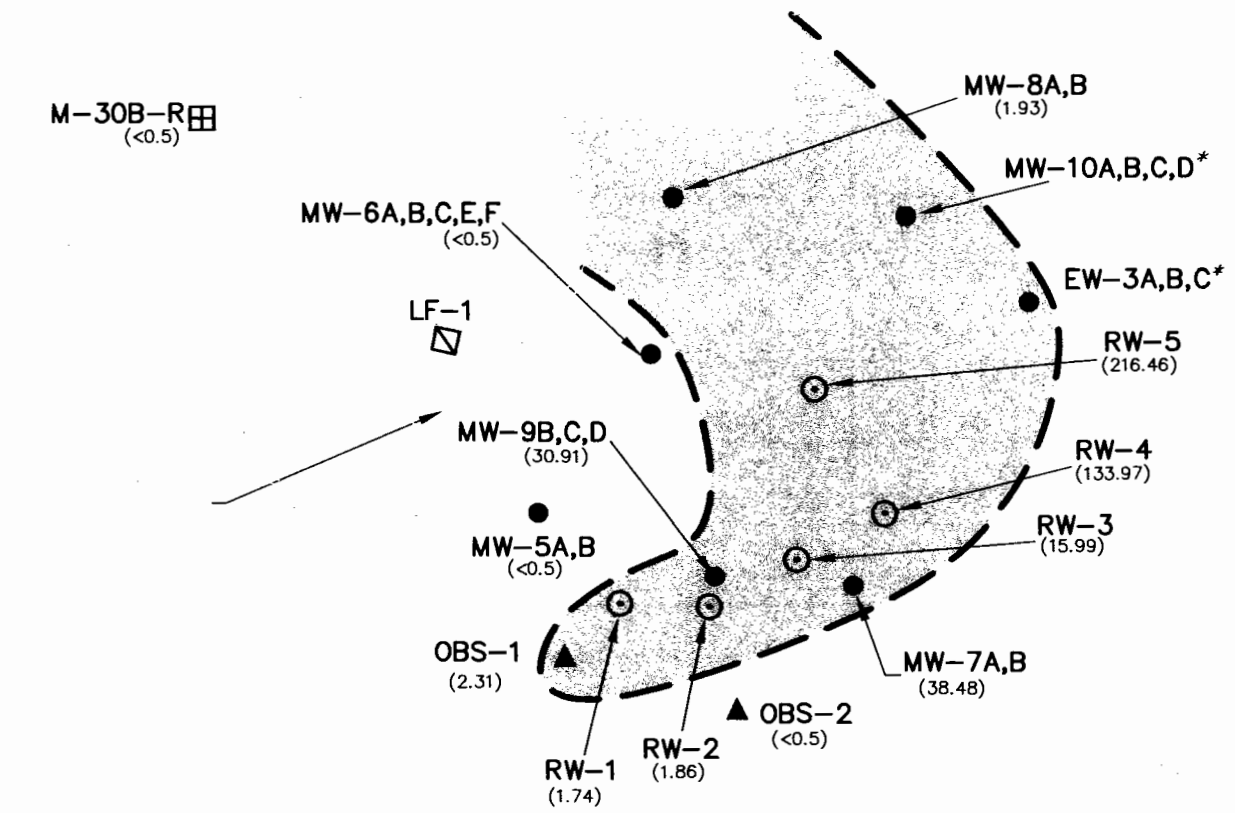
LEGEND

MW-8C (63.61) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW-4 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
- - - - -	*Property Boundary*
▷——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zone*
——→	*Groundwater Flow Direction*
60 ——	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
⬭	*Approximate Areal Extent Of The VOC Plume In The Deep Potentiometric Zone – July 2002*
*	*Plume Extent Based On Third Quarter 1998 Data*
NM	*Not Measured*

DEEP POTENTIOMETRIC FLOW MAP JULY 1, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

N39852P
01402



n38952S
80202

LEGEND

MW-5B (<0.5) ●	*Monitoring Well Location And Total Volatile Halogenated Organics Concentration, ppb*
RW-5 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
LF-1 ⧄	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
	Approximate Areal Extent Of The Volatile Halogenated Organic Plume

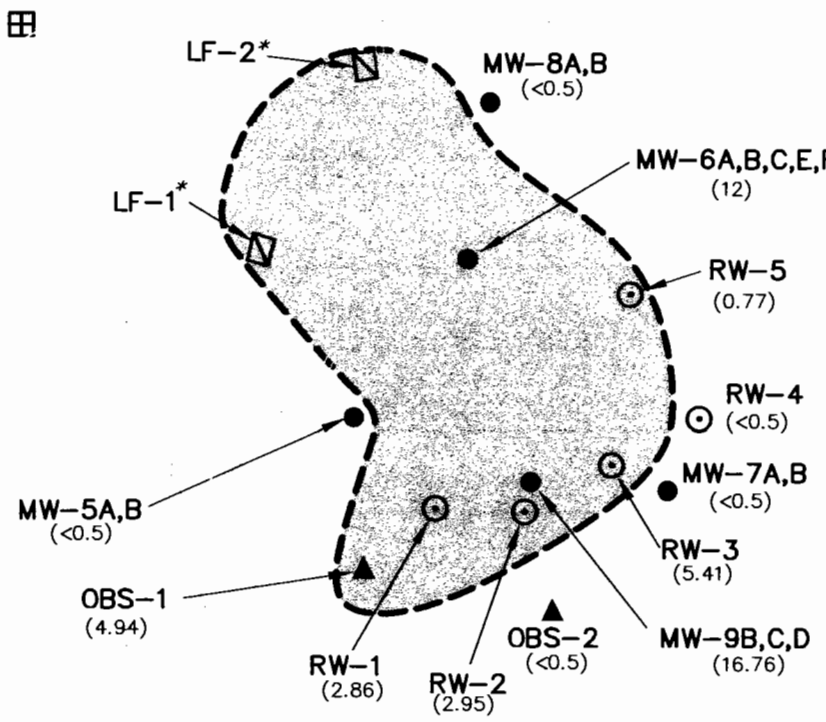
NOTE

Plume Contour Is Based On Total Volatile Halogenated Organics Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS JULY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



0 1200
Scale In Feet

N39852R
80202

LEGEND

- MW-5B (<1) ● — *Monitoring Well Location And Total Aromatic Hydrocarbon Concentration, ppb*
- RW-4 ⊙ — *Recovery Well*
- OBS-1 ▲ — *Phase II Extension Well*
- LF-1 ⧄ — *Phase III Well*
- M-30B-R ⊞ — *Upgradient Well*
- *Property Boundary*
- *Approximate Areal Extent Of The Aromatic Hydrocarbon Plume*

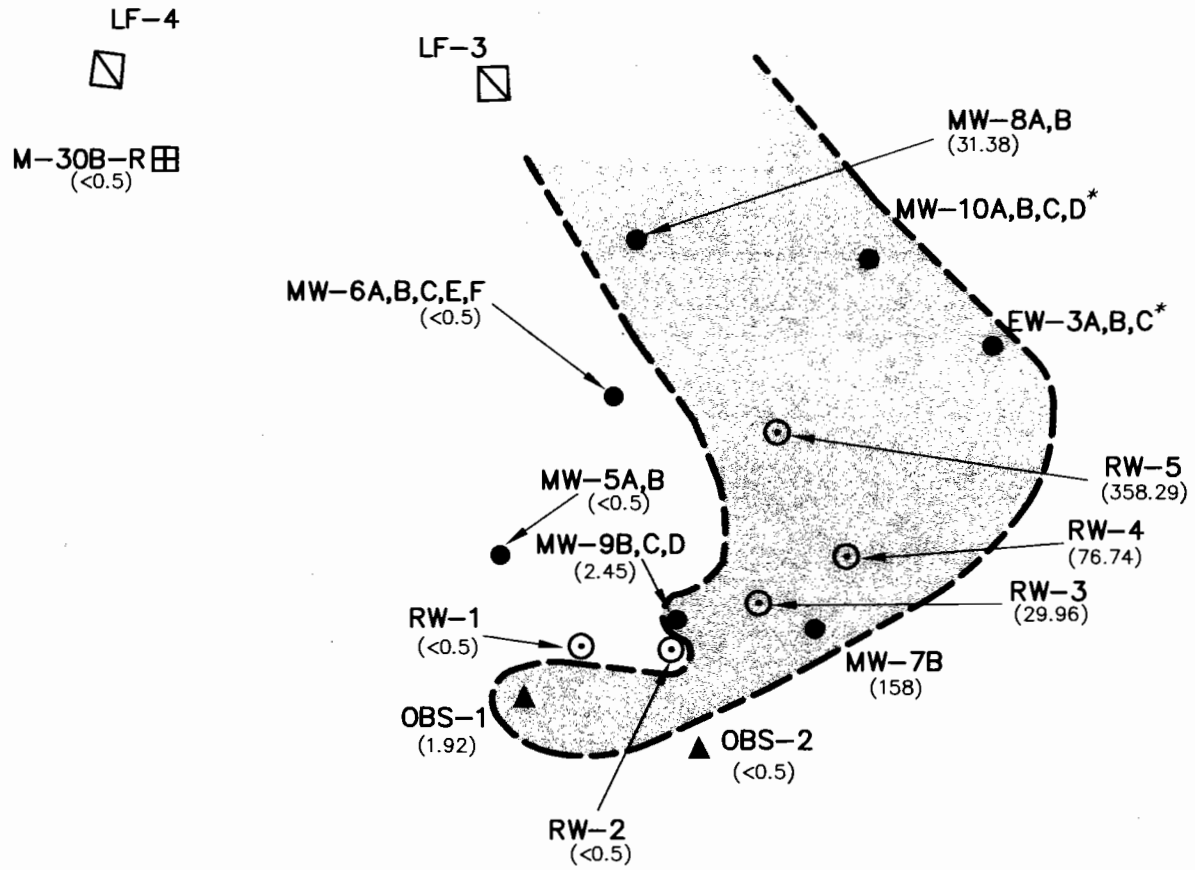
NOTE

Plume Contour Is Based On Total Aromatic Hydrocarbon Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quater 1998 Data*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL AROMATIC HYDROCARBONS JULY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



LEGEND

- MW-5B (<0.5) ● — *Monitoring Well Location And Tetrachloroethene Concentration, ppb*
- RW-4 ⊙ — *Recovery Well*
- OBS-1 ▲ — *Phase II Extension Well*
- LF-3 ⧄ — *Phase III Well*
- M-30B-R ⊞ — *Upgradient Well*
- *Property Boundary*
- *Approximate Areal Extent Of The Tetrachloroethene Plume*

NOTE

Plume Contour Is Based On Tetrachloroethene Concentrations In The Monitoring And Recovery Wells.

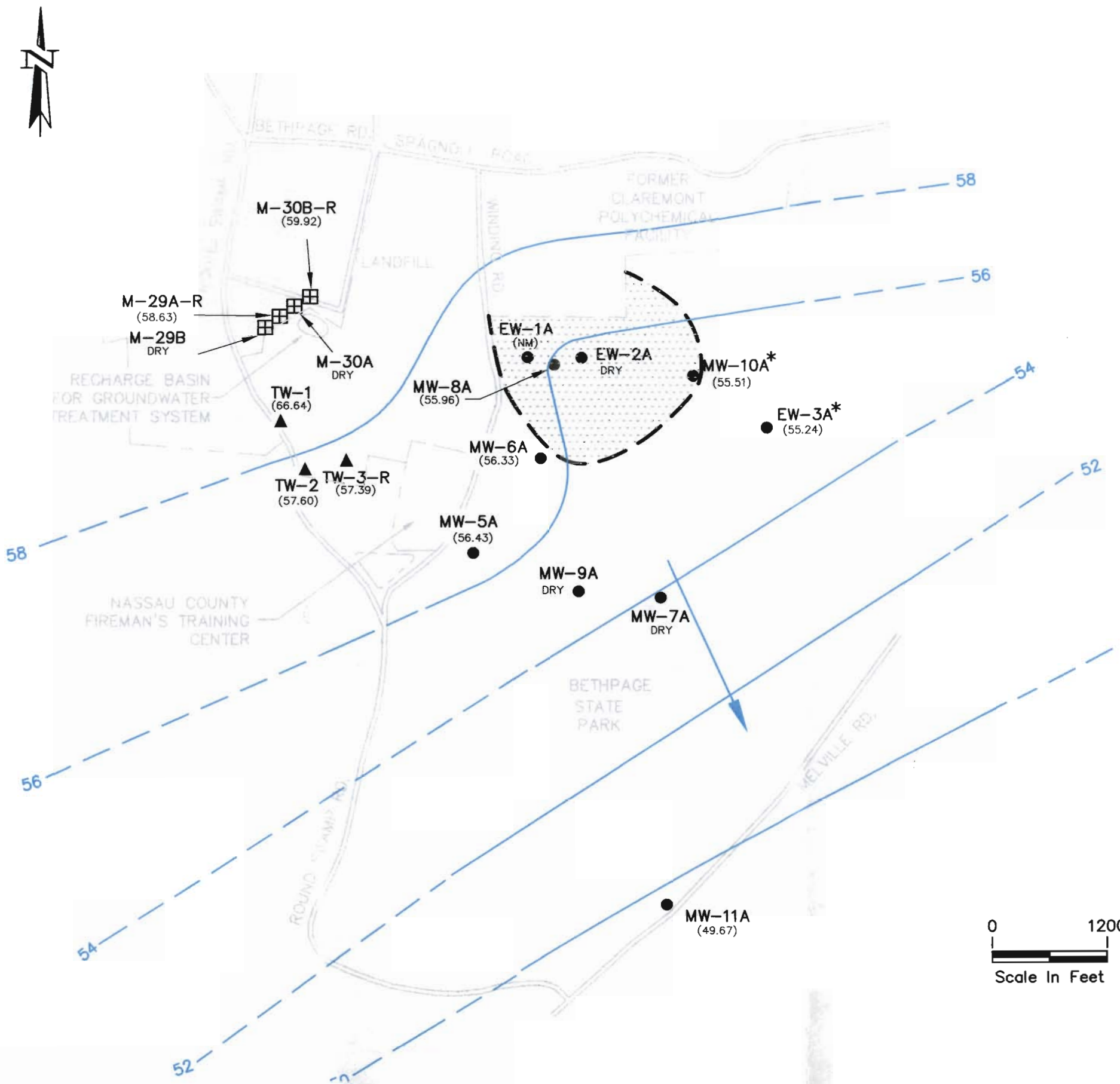
* *Plume Extent Based On Third Quarter 1998 Data.*

APPROXIMATE EXTENT AND DISTRIBUTION OF TETRACHLOROETHENE JULY 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

398520
0202

FIGURE 1



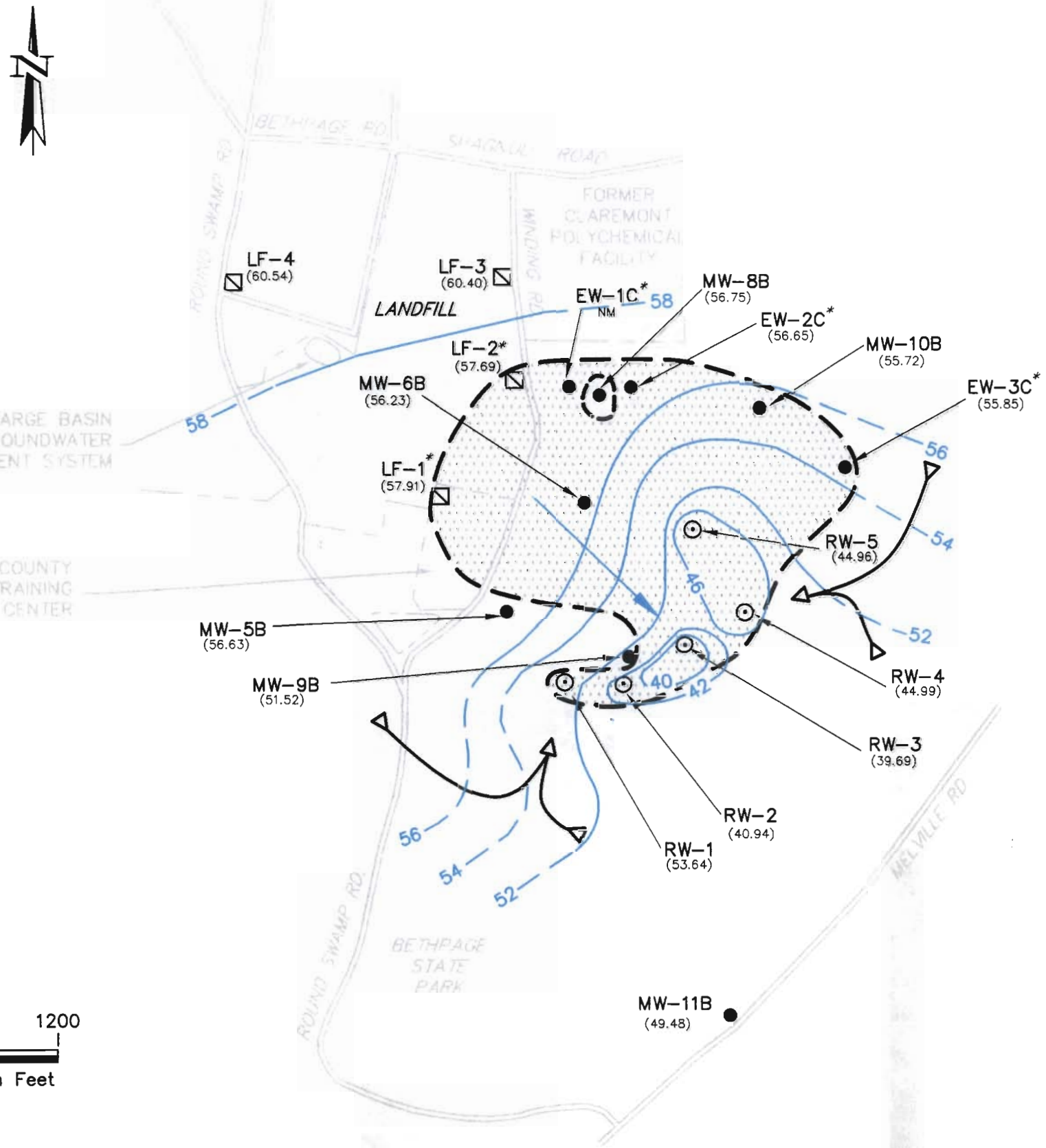
LEGEND

- MW-5A (56.43) ● — *Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
- TW-2 ▲ — *Phase II Extension Well*
- M-29A ⊞ — *Upgradient Well*
- *Property Boundary*
- *Groundwater Flow Direction*
- 56 — *Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
- *Approximate Areal Extent Of The VOC Plume In Water Table Wells – October 2002*
- * *Plume Extent Based On Third Quarter 1998 Data.*
- NM *Not Measured*

WATER TABLE FLOW MAP OCTOBER 21, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852T
011003



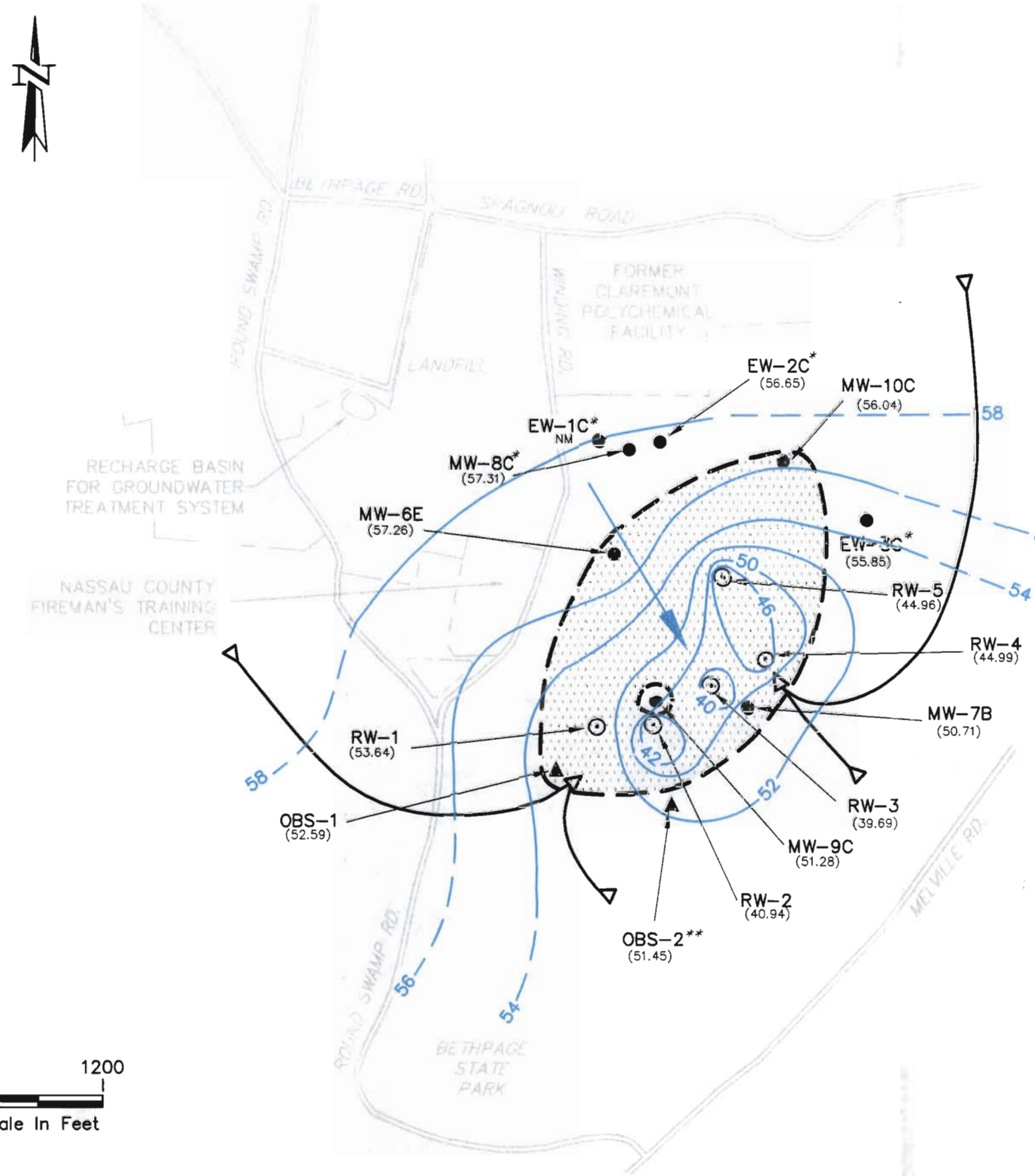
LEGEND

MW–5B (56.63) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–5 ⊙	*Recovery Well*
LF–2 ▨	*Phase III Well*
▷——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zones*
——→	*Groundwater Flow Direction*
56 ——	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
	Property Boundary
⬭	*Approximate Areal Extent Of The VOC Plume In Shallow Potentiometric Zone October 2002.*
*	*Plume Extent Based On Third Quarter 1998 Data.*
NM	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP OCTOBER 21, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852U
011303



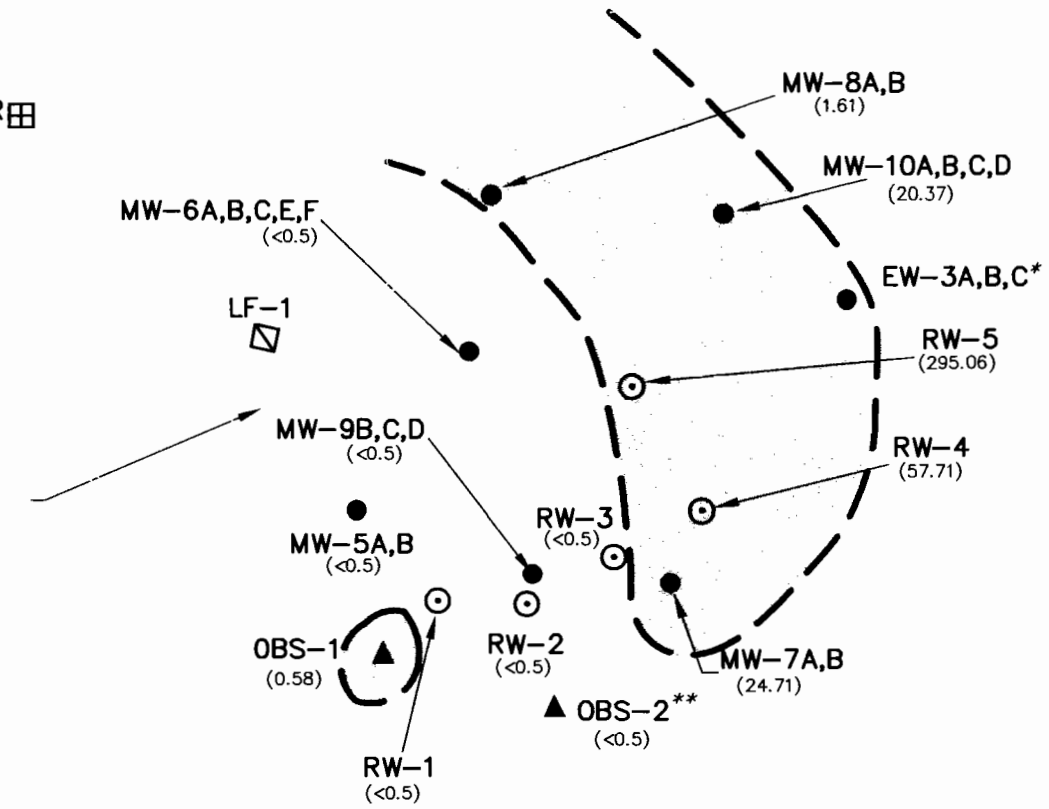
LEGEND

MW-8C (57.31) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW-4 ⊙	*Recovery Well*
OBS-2 ▲	*Phase II Extension Well*
	Property Boundary
	Limiting Flow Lines Depicting Estimated Effective Capture Zone
	Groundwater Flow Direction
56	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
	Approximate Areal Extent Of The VOC Plume In The Deep Potentiometric Zone – October 2002
*	*Plume Extent Based On Third Quarter 1998 Data*
**	*Plume Extent Based On Third Quarter 2002 Data*
NM	*Not Measured*

DEEP POTENTIOMETRIC FLOW MAP OCTOBER 21, 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN39852V
011303



0 1200
Scale In Feet

n38952W
11303

LEGEND

MW-5B (<0.5) ● *Monitoring Well Location And Total Volatile Halogenated Organics Concentration, ppb*

RW-5 ⊙ *Recovery Well*

OBS-2 ▲ *Phase II Extension Well*

LF-1 ⧄ *Phase III Well*

M-30B-R ⊞ *Upgradient Well*

Property Boundary

Approximate Areal Extent Of The Volatile Halogenated Organic Plume

NOTE

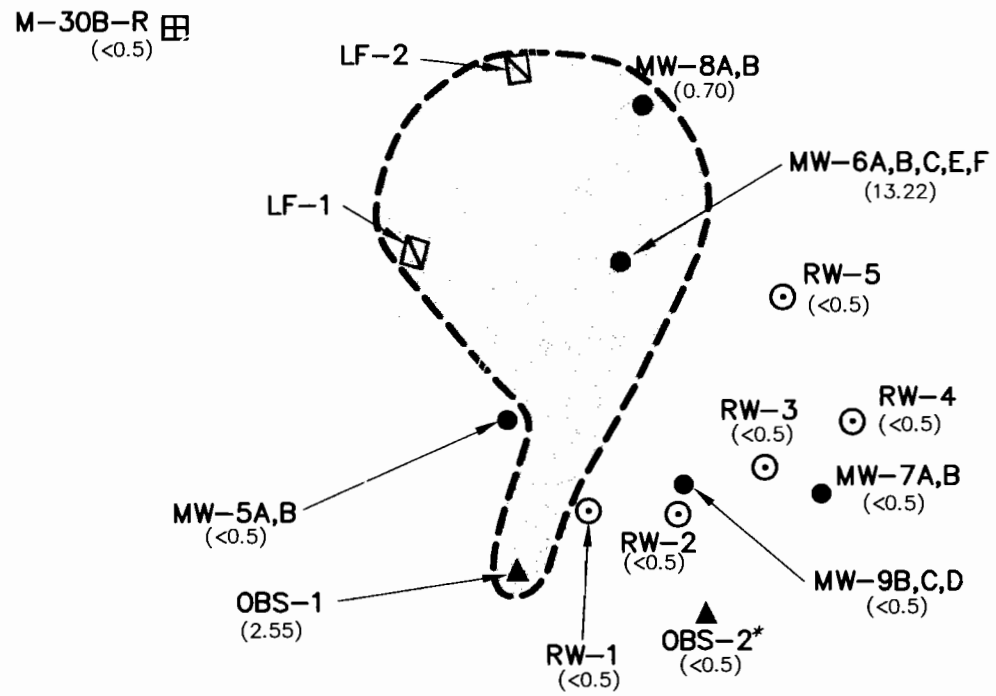
Plume Contour Is Based On Total Volatile Halogenated Organics Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*

** *Plume Extent Based On Third Quarter 2002 Data.*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS OCTOBER 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



0 1200
Scale In Feet

SN39852X
011303

LEGEND

MW-5B (<0.5) ● *Monitoring Well Location And Total Aromatic Hydrocarbon Concentration, ppb*

RW-4 ⊙ *Recovery Well*

OBS-1 ▲ *Phase II Extension Well*

LF-1 ⧄ *Phase III Well*

M-30B-R ⊞ *Upgradient Well*

Property Boundary

Approximate Areal Extent Of The Aromatic Hydrocarbon Plume

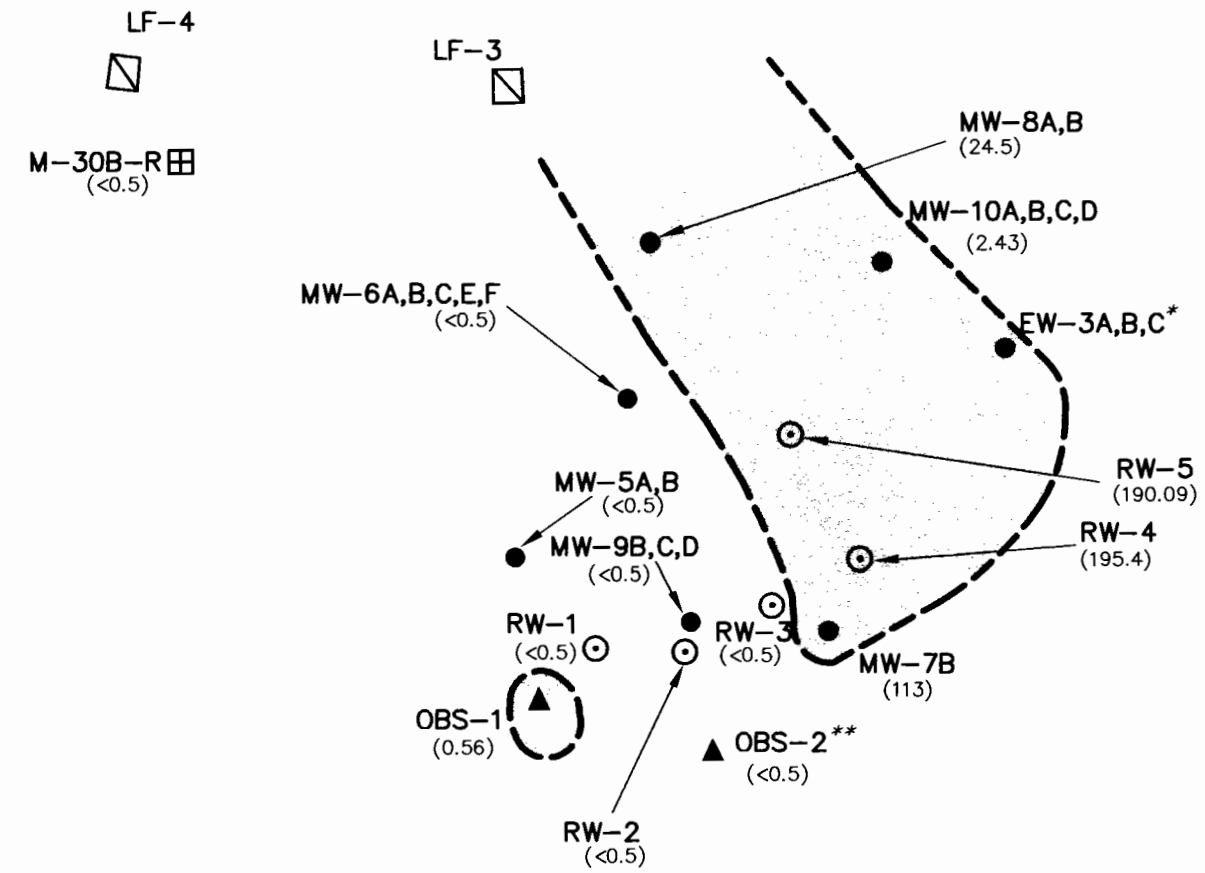
NOTE

Plume Contour Is Based On Total Aromatic Hydrocarbon Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quater 2002 Data*

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL AROMATIC HYDROCARBONS OCTOBER 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



LEGEND

MW-5B (<0.5) ●	*Monitoring Well Location And Tetrachloroethene Concentration, ppb*
RW-4 ⊙	*Recovery Well*
OBS-1 ▲	*Phase II Extension Well*
LF-3 ⧄	*Phase III Well*
M-30B-R ⊞	*Upgradient Well*
	Property Boundary
⬭	*Approximate Areal Extent Of The Tetrachloroethene Plume*

NOTE

Plume Contour Is Based On Tetrachloroethene Concentrations In The Monitoring And Recovery Wells.

* *Plume Extent Based On Third Quarter 1998 Data.*

** *Plume Extent Based On Third Quarter 2002 Data.*

APPROXIMATE EXTENT AND DISTRIBUTION OF TETRACHLOROETHENE OCTOBER 2002

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

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