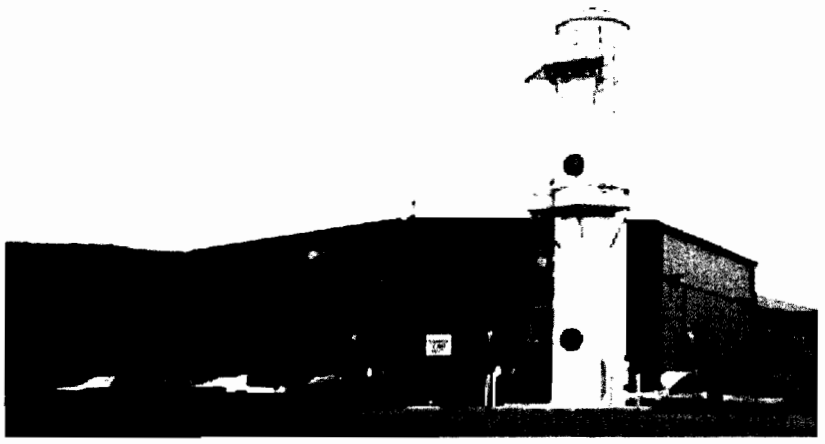
2006 ANNUAL SUMMARY REPORT

Old Bethpage
Solid Waste Disposal Complex
Groundwater Treatment Facility

TOWN OF OYSTER BAY

DEPARTMENT OF PUBLIC WORKS
SYOSSET, NEW YORK 11791

April 2007



LOCKWOOD
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SYOSSET, NEW YORK 11791

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OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
GROUNDWATER TREATMENT FACILITY

TOWN OF OYSTER BAY
DEPARTMENT OF PUBLIC WORKS

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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 2006, 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 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 2006, and provides recommendations based on the current findings. Appendices A, B and C contain a well location map, and the other consultants' annual summary reports for the ambient air/soil gas and groundwater 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, 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 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. (now known as Arcadis), 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. A total of fifty-three (53) 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 fifty-eight (58) quarterly rounds have been completed to date.

The following hydraulic and groundwater quality monitoring activities were completed during 2006 in fulfillment of Consent Decree requirements:

- four rounds of quarterly water-level measurements, collected on March 27, May 22, July 17, and October 10, 2006, respectively; and

- four rounds of quarterly groundwater quality samples, collected on March 28-30, May 23-25, July 18-20, and October 11-13, 2006, 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 Cluster EW-2 during 2006.

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, and voluntarily for VOCs. In addition, in keeping with a prior recommendation, during the third quarter round, Well MW-9D was sampled for all parameters to provide current groundwater quality information for the deep potentiometric zone of the aquifer at this location downgradient of the Landfill and upgradient of the Town's recovery wellfield. Also, during the third quarter round, Well OBS-2 was sampled for VOCs to provide current data for the deep potentiometric zone of the aquifer at this location downgradient of the Town's recovery wellfield. Also during 2006, split samples were collected from various Claremont Site wells sampled quarterly by the USEPA.

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 amended in 2004. 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 2006. 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 warranted, 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.

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	3.20E+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.

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 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 March 16-17, June 27-28, September 18-19 and November 29-30, 2006, 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 2006 took place on October 13th. The results were reported in the 2006 Fourth Quarter 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, Town representatives enter 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 2006, 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 Town enters all data into an Excel-based program for further review and interpretation, and prints out computer-generated tables for inclusion in the quarterly reports. The results for 2006 were included in 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 also entered into an Excel-based program for inclusion in the quarterly reports. The results for 2006 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 2006 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 2006 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. Typically, one or two VOCs slightly exceeded the limits each quarter. However, previous dispersion modeling has shown that such concentrations do not result in air quality impacts at the downwind property boundary. Therefore, additional dispersion modeling was not performed in 2006. 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 2006 quarterly ambient air and soil-gas quality monitoring rounds were performed on March 16-17, June 27-28, September 18-19 and November 29-30, 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 2006 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 provided in Appendix B of this report.

3.5.2 Thermal Oxidizer Stack Emissions Monitoring

The annual thermal oxidizer stack emissions test was performed on October 13, 2006. 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 demonstrate the degree of VOC destruction achieved by the equipment. The consultant's report for this test was submitted previously as Appendix H of the 2006 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 2006:

- four rounds of quarterly water-level measurements, collected on March 27, May 22, July 17, and October 10, 2006, respectively; and
- four rounds of quarterly groundwater quality samples collected on March 28-30, May 23-25, July 18-20, and October 11-13, 2006, respectively.

The results from each monitoring round were submitted as Appendix G of each quarterly report. The consultant's annual summary report for 2006 is reproduced in Appendix C of this report.

4.1.1 Field Sampling Protocols

Except as noted in the quarterly monitoring reports, the field sampling protocols used during each 2006 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 2006 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 2006 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 and TW-2);
- 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 Cluster EW-2.

With the exception of Well MW-9A, which was dry during the first two quarterly monitoring rounds; and Well OBS-2, which was damaged someime between the third and fourth quarterly monitoring rounds, all of the monitoring wells specified in the

Consent Decree were measured during each of the hydraulic monitoring rounds performed during 2006. Static water levels were measured to the nearest 0.01-foot with an electronic water-level meter. The water-level data collected during 2006 are summarized in Table 1 of Appendix C.

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 water table, shallow potentiometric and deep potentiometric surface maps. These maps for 2006 are provided in Appendix A of Appendix C. The approximate areal extent of the total VOC plume (based on the 2006 data) and the limiting flow lines of the effective capture zone are also shown on these maps.

4.2.1 Overview of 2006 Water-Level Data

As shown in Table 1 of Appendix C, during 2006, water-level elevations exhibited a primarily decreasing across the site in all three aquifer zones. The magnitude of the decrease averaged approximately –1.25 feet and was similar for all three aquifer zones. The site-wide decrease in water-level elevations during 2006 is attributed to below normal recharge from precpitation.

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 2006 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 difference in water-level elevation between upgradient Well LF-4 and downgradient Well MW-11A (approximately 13.6 feet) and the distance between the wells (8,100 feet), the horizontal hydraulic gradient in the shallow potentiometric zone is approximately 0.0017. 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 1 of Appendix C 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. Specifically, 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 Clusters MW-6 and MW-9), 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 often exists at Well Cluster MW-10, indicating that the Town's recovery wellfield appears to be influencing groundwater flow patterns at this location.

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 influence 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 and screened at the same general depth interval.

Review of the various water-level maps in Appendix A of Appendix C indicates that the overall size and position of the capture zone remained consistent during 2006, although some variation was noted from quarter to quarter. The GTF maintained an average on-line performance of 97.5 percent during 2006, and remediated approximately 485 million gallons of groundwater at an average influent flow rate of 1.33 MGD. Moreover, the quarterly water-level maps shown in Appendix A of Appendix C indicate that the full extent of the Landfill's VOC plume was being captured during 2006.

4.3 Groundwater Quality and Quarterly Monitoring

In fulfillment of Consent Decree requirements, four rounds of quarterly groundwater sampling were conducted on March 28-30, May 23-25, July 18-20, and October 11-13, 2006, 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 indicators listed in Table 4. The only exceptions were the samples from Well LF-1, which were analyzed for leachate indicators only, per Consent Decree requirements, and voluntarily for VOCs. In keeping with a previous recommendation, Well MW-9D was sampled for all parameters during the third quarter 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. Moreover, Well OBS-2, which is located downgradient of the Town's recovery wellfield and also screened in the deep potentiometric zone of the aquifer, was sampled for VOCs during the third quarter monitoring round.

Split samples were also obtained from other Town wells and Claremont Site wells that are sampled on a quarterly basis by the USEPA, and analyzed for VOCs. The results of these split samples were forwarded to the USEPA and were utilized in preparing the plume-related maps in Appendix C, but are not discussed in detail in this report.

The analytical results from each quarterly monitoring round are summarized in Tables 3 through 5 and Appendix B of Appendix C. The certified laboratory data reports were included in Appendix G of the respective quarterly reports. No significant artifact compounds or blank contaminants were reported during any of the 2006 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 2006 quarterly monitoring rounds were evaluated on the basis of their observed 2006 ranges, and comparison to pre-2006 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 2006 VOC data are presented as the minimum, maximum and average concentrations detected, rather than as specific results for each quarter. The pre-2006 VOC data are presented as average concentrations for both 2005 and the combined period from 1992-2005, 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 2006, Well OBS-1 was sampled during all four quarterly monitoring rounds. Well OBS-1 has been sampled during 47 of the 58 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. Well OBS-2 was not sampled as a substitute well during 2002, and was sampled for VOCs only during the third quarter monitoring rounds performed since 2003. Therefore, the historical results for Well OBS-2 are not discussed in detail in this report.

Well MW-9D has been sampled nine times since start-up of the GTF, specifically during the third quarter rounds from 1998 through 2006, and during 2005 it was only sampled for VOCs. The ranges and averages given for Well MW-9D are based on the available data for this well.

Well LF-1 has only been sampled for VOCs on a regular basis since 2004 and the VOC summary tables below reflect this.

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. Summary plume maps depicting the approximate areal extent of these VOC groupings during 2006 based on the combined results from the 2006 monitoring rounds are provided in Figures 1 through 3 in Appendix C.

4.3.1 Analysis of 2006 Total VOC Data

VOCs were detected in 15 of the 18 wells sampled for VOCs during 2006, including 13 of the 16 wells sampled quarterly (Wells MW-5B, MW-6A, MW-6B, MW-6C, MW-6E, MF-6F, MW-7B, MW-8A, MW-8B, MW-11A, MW-11B, OBS-1 and LF-1) and Wells MW-9D and OBS-2, which were sampled during the third quarter round. Except for Wells MW-9B and MW-9C, which were non-detectable for VOCs during 2006, but contained low concentratons of VOCs during the second quarter 2005 monitoring round, these are the same wells in which VOCs were detected last year. Moreover, in addition to Wells MW-10B, MW-10C and MW-10C, and Claremont Well Cluster EW-3, in which VOCs were detected in the split samples obtained during 2006, these are the wells in which VOCs have historically been detected.

The nature and extent of the total VOC detections in the wells sampled during 2006 is summarized, and contrasted against previous data, in the following table:

TOTAL VOC CONCENTRATIONS IN 2006 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2006 (Max.)	Range (Avg.)	2005 Average	1992-2005 Average	Baseline 1991 Data
MW-5B	ND	0.4	0.2	0.8	4.1	17
MW-6A	ND	0.6	0.2	0.5	0.5	2.0
MW-6B	6.3	18	13	26	18	105
MW-6C	ND	4.3	2.1	5.3	7.7	31
MW-6E	3.1	4.4	3.6	4.2	6.2	53
MW-6F	ND	2.9	0.7	0.3	0.1	ND
MW-7B	571	719	627	631	174	157
MW-8A	10	27	17	25	254	507
MW-8B	0.8	2.4	1.6	1.2	3.8	43
MW-9D	63	63	63	58	68	ND
MW-11A	1.7	3.8	2.4	1.1	0.5	ND
MW-11B	ND	1.7	0.4	0.1	0.1	ND
OBS-1	6.9	14	10	7.7	91	156
OBS-2	0.3	0.3	0.3	1.5	9.0	8.0
LF-1	ND	1.2	0.5	3.2	3.1	16

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

As indicated by the above table, although VOCs were detected in Wells MW-5B, MW-6A, MW-6F and MW-11B during 2006, the detections were limited to sporadic, low concentrations during one or two monitoring rounds. These total VOC detections are not considered significant, and therefore are not discussed in detail in this report.

With respect to the other wells sampled on a quarterly basis, VOCs were generally detected in each well, every quarter. The only exceptions were Wells MW-6C and LF-1, which were non-detectable for VOCs during the third and fourth quarter monitoring rounds, respectively. With the exception of Wells MW-6E, MW-8A and MW-11A, in which total VOC concentrations remained relatively constant during 2006, and Well MW-7B, in which total VOC concentrations increased during 2006; overall, the wells sampled quarterly exhibited decreasing trends in total VOC concentrations during 2006.

With respect to the eight wells sampled quarterly in which VOCs were consistently detected during 2006, relative to the 2005 averages, the 2006 average concentrations were lower or similar (i.e, within a few ppb) in all eight wells. This finding is consistent with the gradual temporal decrease in groundwater total VOC concentrations since start-up of the GTF.

The significantly higher total VOC concentrations detected in Well MW-7B relative to the other wells are consistent with the marked increase in total VOC concentrations observed in this well since 2001. This increase is attributed to a westward shift in the position of the total VOC plume associated with Recovery Well RW-5 being off-line for repairs during the period from May 2000 through June 2001.

With respect to the third quarter 2006 results for Wells MW-9D and OBS-2, the slightly higher total VOC concentration in Well MW-9D, compared to the third quarter 2005 results, is attributed to temporal variation in the concentration of the total VOC plume at this location. Moreover, the fact that the total VOC concentration detected in Well MW-9D this year is similar in magnitude to last year's result indicates that the deeper portion of the Landfill VOC plume is continuing to migrate past this location toward the Town's recovery wellfield. In contrast, the continued detection of trace levels of total VOCs in Well OBS-2, which is screened in the deep potentiometric zone downgradient of the Town's recovery wellfield, again this year indicates continued capture of the deeper portion of the VOC plume by the Town's recovery wellfield.

Comparison of the 2006 average total VOC concentrations to the 1992-2005 averages indicates that the 2006 average total VOC concentrations are lower or similar for all wells except Well MW-7B and MW-11A. The temporal decreases in average total VOC concentration observed for the majority of the wells are consistent with the overall temporal decrease in groundwater VOC concentrations that has been observed since start-up of the GTF. Previously, a decreasing trend was also observed for Well MW-9C, which is currently non-detectable for VOCs.

The fact that the 2006 average for Well MW-7B is higher than the 1992-2005 average for this well is due to the increase in total VOC concentrations detected in this well since 2001. As noted above, this increase is attributed to a westward shift in the position of the total VOC plume. Prior to 2001, total VOC concentrations in Well MW-7B showed a fluctuating but generally decreasing trend. The fact that the 2006 average for Well MW-

11A is slightly higher than the 1992-2005 average for this well is because this well was non-detectable for VOCs until the second quarter 1998 monitoring round. Since then, low concentrations of total VOCs have been detected sporadically in Well MW11A.

Compared to the baseline 1991 data, the 2006 average total VOC concentrations were lower or similar for all wells except Wells MW-7B, MW-9D and MW-11A. The relative increase in Well MW-7B is attributed to the westward shift in the position of the plume noted above. The relative increase in Well MW-9D is attributed to downgradient migration of the deeper portion of the Landfill VOC plume toward the Town's recovery wellfield subsequent to start-up of the GTF. The relative increase in Well MW-11A merely reflects the fact that this well was non-detectable for VOCs during the 1991 baseline monitoring round.

The various figures in Appendix A 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. 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 Well Clusters MW-10 and EW-3 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 the immediate vicinity of the Town's recovery wellfield.

Apart from the portion of the plume in the vicinity of Well Clusters MW-10 and EW-3, 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 remediation.

The Consent Decree specifies a Groundwater Aquifer Requirement of 100 ppb for total VOCs. During 2006, this limit was exceeded in Well MW-7B during all four quarters. Previously, this limit has also exceeded in Wells MW-8A, MW-9D and OBS-1. These are the wells that have historically exceeded this limit. Except for Well MW-7B, in which total VOC concentrations have been generally increasing since 2001, the magnitudes of these exceedances have been gradually decreasing since start-up of the GTF.

4.3.2 Analysis of 2006 VHO Data

VHOs were detected in 10 of the 15 wells in which VOCs were detected during 2006, including nine of the wells sampled quarterly (Wells MW-5B, MW-6A, MW-6C, MW-6E, MW-7B, MW-8A, MW-8B, MW-11A and OBS-1) and Wells MW-9D and OBS-2, which were sampled during the third quarter round. Except for Wells MW-5B, MW-6A, MW-6E and MW-8B, which were non-detctable for VHOs during 2005; and Well MW-6B, in which a low concentration of total VHOs was detected during the first quarter of 2005, these are the same wells VHOs were detected in last year. Moreover, in addition to Well MW-9C, these are the wells in which VHOs have been detected during quarterly monitoring.

Total VHO concentrations in Wells MW-5B, MW-6A, MW-6E, MW-6F and MW-8B were limited to single low detections ranging from 0.4 to 1.6 ppb during the first quarter 2006 monitoring round. These wells were non-detectable for VHOs during the remaining three 2006 monitoring rounds. Similarly, total VHOs were only detected at an estimated concentration of 0.3 ppb in Well OBS-2. These sporadic, low total VHO detections are not considered to be significant, and therefore are not discussed in detail in this report.

The distribution of the significant total VHO detections in the wells sampled during 2006 is summarized, and contrasted against previous data, in the following table:

TOTAL VHO CONCENTRATIONS IN 2006 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2006 (Max.)	Range (Avg.)	2005 Average	1992-2005 Average	Baseline 1991 Data
MW-7B	488	658	562	495	57	17
MW-8A	ND	1.5	1.0	2.0	106	65
MW-9D	42	42	42	32	38	ND
MW-11A	1.4	2.9	2.0	0.6	0.5	ND
OBS-1	4.3	7.5	5.5	3.4	40	18

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

During 2006, the general pattern of total VHO concentrations in the 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 these wells during 2006. 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.

Note that, relative to the 2005 and 1992-2005 average concentrations, and the 1991 baseline concentrations, the 2006 average concentrations were lower or similar for all wells except Wells MW-7B and MW-9D. 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. The temporal increase in total VHO concentrations in Well MW-7B is attributed to the westward shift in the position of the VOC plume noted above. The increase in the "average" total VHO concentration in Well MW-9D during 2006 relative to the 1992 through 2005 average, and the 1991 baseline concentration of non-detectable, is attributed to temporal variation in groundwater quality at this location, and migration of the deeper portion of the VHO plume past this location toward the Town's recovery wellfield subsequent to start-up of the GTF.

Figure 1 in Appendix C shows the approximate areal extent of total VHOs in groundwater based on the combined results from the 2006 monitoring rounds. As shown, the current dimensions of the VHO plume are generally comparable to earlier findings. 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. Also note that the VHO plume shown in Figure 1 of Appendix C extends south to Well MW-11A, however, this is based on the low (1-3 ppb) levels of total VHOs detected in this well during 2006, which may represent backgound groundwater VHO concentrations at this location.

A total of 12 specific VHO compounds was detected in the quarterly groundwater samples collected during 2006. Nine of these VHOs (chloroform, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene and vinyl chloride) were detected in at least one of the wells sampled quarterly. These are generally the VHOs

that have been detected in groundwater on a regular basis. Three additional VHOs (chloroethane, trans-1,2-dichloroethene and methylene chloride) were detected only in the sample collected from Well MW-9D during the third quarter round.

The VHO compound detected in groundwater during 2006 are summarized below:

VHO COMPOUNDS DETECTED IN 2006 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2006 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
Chloroethane	1/17	6.0	6.0	6.0	5.0
Chloroform	4/17	2.0	3.3	2.7	7.0
Dichlorodifluoromethane	2/17	0.5	13	6.8	5.0
1,1-Dichloroethane	5/17	0.2	5.5	1.3	5.0
1,2-Dichloroethane	2/17	0.5	0.8	0.7	0.6
1,1-Dichloroethene	5/17	4.8	10	7.3	5.0
cis- 1,2-Dichloroethene	13/17	0.7	46	11	5.0
trans-1,2-Dichloroethane	1/17	0.2	0.2	0.2	5.0
Methylene chloride	1/17	0.3	0.3	0.3	5.0
1,1,1-Trichloroethane	5/17	0.6	14.6	9.9	5.0
Trichloroethene	16/17	0.5	583	128	5.0
Vinyl chloride	2/17	1.9	2.0	2.0	2.0

* all concentrations in ppb.
** frequency each compound was detected in the 17 well samples in which VHOs were detected.
*** see Table 1.

As indicated in the above table, of the 12 VHOs detected during 2006, most were detected sporadically and at relatively low concentrations lower than the groundwater standards. Only two VHOs, cis-1,2-dichloroethene and trichloroethene, were detected in the majority of the samples in which VHOs were detected. The majority of the VHO detections, and the highest concentrations of each VHO, occurred in the samples from Wells MW-7B and MW-9D. VHO concentrations in the other wells were limited to one to four VHOs at low concentrations lower than the groundwater standards.

4.3.3 Analysis of 2006 Aromatic Hydrocarbon Data

Aromatic hydrocarbons were detected in 11 of the 15 wells in which VOCs were detected during 2006, including ten of the wells sampled quarterly (Wells MW-5B, MW-6B, MW-6C, MW-6E, MW-6F, MW-8A, MW-8B, MW-11B, OBS-1 and LF-1), and Well MW-9D, which was sampled during the third quarter monitoring round. Except for Wells MW-5A, MW-6F, MW-8A, MW-8B and MW-11B, which were non-detectable for aromatic hydrocarbons in 2005; and Well MW-6A, which was non-detectable for aromatic hydrocarbons this year but contained a trace (0.7 ppb) total aromatic hydrocarbon concentration during the first quarter 2005 monitoring round, these are the same wells in which aromatic hydrocarbons were detected last year. Moreover, in addition to Wells 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 Well LF-2 during the expanded third quarter 1998 monitoring round.

It should be noted that the sporadic low aromatic hydrocarbon detections in Wells MW-5B, MW-6A, MW-6F, MW-8B and MW-11B are not considered to be significant, and therefore are not discussed in detail in this report.

The distribution of significant total aromatic hydrocarbon detections in groundwater during 2006 is summarized, and contrasted against previous data, in the table below:

TOTAL AROMATIC HYDROCARBONS IN 2006 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2006 (Max.)	Range (Avg.)	2005 Average	1992-2005 Average	Baseline 1991 Data
MW-6B	6.3	18	13	25	17	48
MW-6C	ND	2.7	1.7	3.5	6.9	30
MW-6E	2.4	4.4	3.3	3.8	4.6	37
MW-9D	19	19	19	16	24	ND
OBS-1	1.5	6.0	3.6	2.4	46	110
LF-1	ND	1.2	0.5	1.7	2.4	12

* all concentrations in ppb, ND = not detectable.

During 2006, 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 2006.

Referring to the above table, note that relative to both the 2005 average concentrations and the 1992-2005 average concentrations, the 2006 average concentrations are lower, or similar (i.e., within a few ppb), for all six wells. This finding is consistent with the site-wide temporal decrease in groundwater aromatic hydrocarbon concentrations that has been observed since start-up of the GTF.

Comparison of the 2006 average concentrations to the 1991 baseline data indicates decreases for all wells except Well MW-9D, which increased from non-detectable in 1991 to 19 ppb in 2006. As noted previously, this increase reflects downgradient migration of the deeper portion of the Landfill VOC plume at this location towards the Town's recovery wellfield subsequent to start-up of the GTF.

Figure 2 in Appendix C shows the approximate areal extent of the aromatic hydrocarbon plume based on the combined results from the 2006 quarterly monitoring rounds. Comparison of this figure 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 nine aromatic hydrocarbon species were detected during 2006: benzene, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, isopropylbenzene, toluene, m&p-xylene and o-xylene. In general, these are the aromatic hydrocarbon species that have historically been detected in groundwater.

The specific aromatic hydrocarbon compounds detected in groundwater in 2006 are summarized below:

AROMATIC HYDROCARBONS DETECTED IN 2006 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2006 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
Benzene	12/19	0.3	7.0	2.2	1
Chlorobenzene	15/19	0.3	4.9	1.4	5
1,2-Dichlorobenzene	3/19	1.5	2.1	1.9	3
1,3-dichlorobenzene	6/19	0.3	2.1	1.1	3
1,4-dichlorobenzene	17/19	0.6	6.5	2.2	3
Isopropylbenzene	2/19	0.4	0.4	0.4	5
Toluene	1/19	0.6	0.6	0.6	5
M&p-Xylene	4/19	0.6	0.6	0.6	10
O-Xylene	1/19	0.2	3.0	1.	5

* all concentrations in parts per billion (ppb).
** frequency each compound was detected in the 20 samples in which aromatic hydrocarbons were detected.
*** see Table 2.

Benzene was detected in Wells MW-6B, MW-6E, MW-9D and OBS-1. The highest concentrations of benzene were detected in Well MW-9D, followed by Wells MW-6B and OBS-1, and all of the benzene detections in these three wells were higher than the groundwater standard. Benzene was also detected in Well MW-6E, but only at low concentrations. Chlorobenzene was detected in all of the wells in which aromatic hydrocarbons were detected. The highest concentrations of chlorobenzene were detected in Well MW-6B, but all were lower than the groundwater standard. 1,2- and 1,3- Dichlorobenzene were each detected sporadically at similar low concentrations in Wells MW-6B, MW-6E and MW-9D. 1,4-dichlorobenzene was detected in all of the wells in which aromatic hydrocarbons were detected. The highest concentrations of 1,4-dichlorobenzene were detected in Well MW-6B, and the concentrations detected in this well during the first and second quarter rounds were higher than the groundwater standard. Iosprpylbenzene was only detected at low (<0.5 ppb) concentrations in the fourth quarter samples from Wells MW-6B and MW-6E. Toluene and m+p xylene were only detected at a low (0.6 ppb) concentrations in the second quarter sample from Well MW-6B. The highest concentration of o-xylene was detected in Well MW-9D. The other

detections of xylene were low levels in the first quarter samples from Wells MW-6B, MW-6E and OBS-1.

Overall, aromatic hydrocarbons were detected most frequently and at the highest concentrations in Wells MW-6B, MW-6E, MW-9D and OBS-1. The exceedances of the groundwater standards occurred in Wells MW-6B (benzene all four quarters, 1,4-dichlorobenzene first and second quarters), MW-9D (benzene) and OBS-1 (benzene first, second and third quarters). No exceedances for aromatic hydrocarbons occurred in Wells MW-6C, MW-6E or LF-1 in 2006.

.

4.3.4 Analysis of 2006 Tetrachloroethene Data

Tetrachloroethene was detected in Wells MW-7B, MW-8A, MW-8B and OBS-1 during all four 2006 quarterly monitoring rounds; at trace levels in Well MW-11A during the first, second and third quarter monitoring rounds, at a trace level in Well MW-6A during the first quarter monitoring round, and in the sample collected from Well MW-9D during the third quarter monitoring round. Except for Wells MW-6A and MW-11A, which were non-detectable for tetrachloroethene during 2005, these are the same wells in which tetrachloroethene was detected last year.

The highest concentrations of tetrachloroethene were detected in Wells MW-7B (61-80 ppb) and MW-8A (10-22 ppb), and all of the tetrachloroethene detections in these two wells were higher than the 5-ppb groundwater standard. Much lower concentrations were detected in Wells MW-6A (0.2 ppb), MW-9D (1.8 ppb), MW-11A (0.3-0.9 ppb) and OBS-1 (1.0-1.5 ppb). Compared to last year's data, on average, tetrachloroethene concentrations decreased in Wells MW-7B, MW-8A, MW-9D and MW-11A, and remained essentially unchanged in Wells MW-8B and OBS-1. These differences are attributed to temporal variation in the concentration of the tetrachloroethene plume at each wells' location.

Based on comparison to the 1992-2005 data, groundwater tetrachloroethene levels have shown gradually decreasing trends since start-up of the GTF.

Figure 3 in Appendix C shows the approximate areal extent of the tetrachloroethene plume based on the combined results from the 2006 quarterly monitoring rounds. 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. The plume boundary is also drawn around Well MW-11A based on the low levels of tetrachloroethene found in this well during 2006. It should be noted, however, that previously this well has been non-detectable for tetrachloroethene and the current results may not reflect groundwater tetrachloroethene as a whole.

Apart from the inclusion of Well MW-11A, the current extent of the tetrachloroethene plume is consistent with that shown by pre-2006 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 3 of Appendix C to more accurately reflect the distribution of tetrachloroethene in groundwater.

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 provided in Appendix A of Appendix C. The outlines (shaded areas) represent the approximate areal extent of the total VOC plume based on the findings of the respective 2006 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 2005 data.

4.3.6 Analysis of 2006 Inorganic Data

Inorganic data collected during the 2006 quarterly monitoring rounds are summarized in Tables 7 and 8 of Appendix C. Overall, the distribution of leachate indicators in the aquifer remained relatively constant during 2006, and was similar to that of previous quarterly monitoring efforts and the 1991 baseline sampling round. However, 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. Moreover, certain leachate indicators continued to be detected in Wells MW-8A and MW-8B on a regular basis during 2006. 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 2006 was evaluated based on the nature and occurrence of exceedances of the Groundwater Aquifer Requirements listed in Table 2. During 2006, exceedances were noted for ammonia, chloride, iron, manganese, mercury (Well MW-9D only), phenols (Well MW-6B only), sodium, and total dissolved solids. Exceedances occurred in Wells MW-5B, MW-6A, MW-6B, MW-6C, MW-6E, MW-6F, 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. No exceedances occurred in downgradient Wells MW-7B, MW-11A and MW-11B.

4.4 Hydraulic Evaluation of the Groundwater Remediation System

4.4.1 Effective Capture Zone

The various figures provided in Appendix A 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 2006 quarterly monitoring rounds. In addition, the limiting flow lines depicting the capture zone are shown on the shallow and deep potentiometric surface maps.

The GTF maintained an on-line performance of 97.5 during 2006. As a result, the capture zone of the recovery wellfield was developed to its maximum extent at the time of each quarterly hydraulic monitoring round. Analysis of the limiting flow lines in the various figures in Appendix A of Appendix C indicates that the Landfill VOC plume was being captured during 2006.

Review of the 2006 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, 2006, 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.

During 2006, water level elevations exhibited decreasing trends site-wide, and decreased markedly between the third and fourth quarter monitoring rounds. The magnitude of the decrease averaged approximately –1.25 feet for all three aquifer zones. The site-wide decrease in water-level elevations during 2006 is attributed to below-normal recharge from precipitation. The marked decreases in water-level elevations between the third and fourth quarter monitoring rounds is attributed to the fact that essentially no recharge from precipitation occurred during preceding finve months of 2006. Drawdown in the capture zone during 2006 was approximately 16 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 the figures in Appendix A of Appendix C, the average facility flow of 1.33 MGD (see Section 6.0) during 2006 has adequately maintained hydraulic control over the Landfill VOC plume. Furthermore, control of the VOC plume has been maintained during the fifty-nine

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 2006, the mounding effects associated with the various recharge basins were not as pronounced due to the fairly even distribution of recharge over the first quarter of the year, 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 2006 was evaluated based on the information regarding total system pumpage and individual recovery well flow presented in the quarterly monitoring reports. During 2006, the average daily combined pumpage from the five recovery wells was 1.33 MGD. System flow was primarily affected by Recovery Well RW-1 being off-line for repair during the first half of October. There was also limited downtime due to maintenance and repair of the various treatment system appurtenances. Quarterly pumpage records and system flow data for 2006 were summarized by LKB and reproduced in Table 2 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 2006. The results were compared to the stack discharge limits established by the Consent Decree. The results from this comparison indicated that the concentrations of two to three VOCs were slightly higher than the limits during all four quarters of 2006. However, previous dispersion modeling of similar low concentrations has consistently shown that these concentrations of these VOCs do not result in exceedances of the NYSDEC Air Guide No. 1 Short-Term or Annual Guideline Concentrations (SGCs and AGCs, respectively) at the downwind property boundary. Therefore, additional dispersion modeling was not warranted during 2006.

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 approximately 97.5 percent during 2006. Approximately 485 million gallons of groundwater were pumped, treated and recharged, at an average daily flow rate of 1.33 MGD (Figure 1).

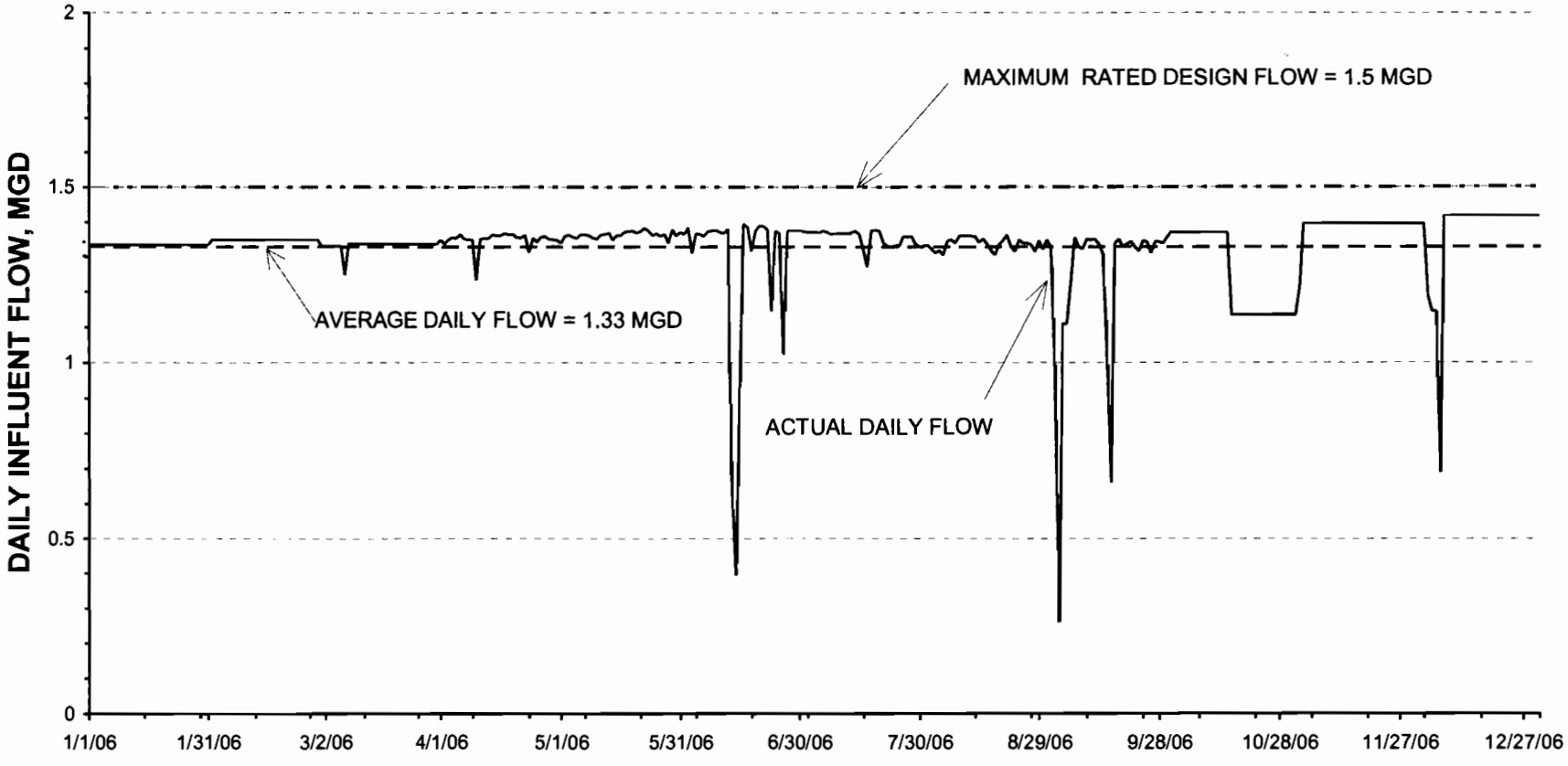
The GTF's performance on a quarterly basis is summarized below:

Reporting Period	On-Line Performance (%)	Avg. Daily Flow (MGD)	Total Flow (MG)
1st Quarter of 2006	100	1.34	121
2nd Quarter of 2006	98	1.33	121
3rd Quarter of 2006	97.5	1.31	120.5
4th Quarter of 2006	94.4	1.33	122

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 2006 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 2006 was 1,155.5 hours.

As shown in Figure 1, the majority of the downtime occurred during the third and fourth quarters. It was associated with routine maintenance and repair of the various treatment system appurtenances.

TEMPORAL VARIATION IN FACILITY INFLUENT FLOW



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 1

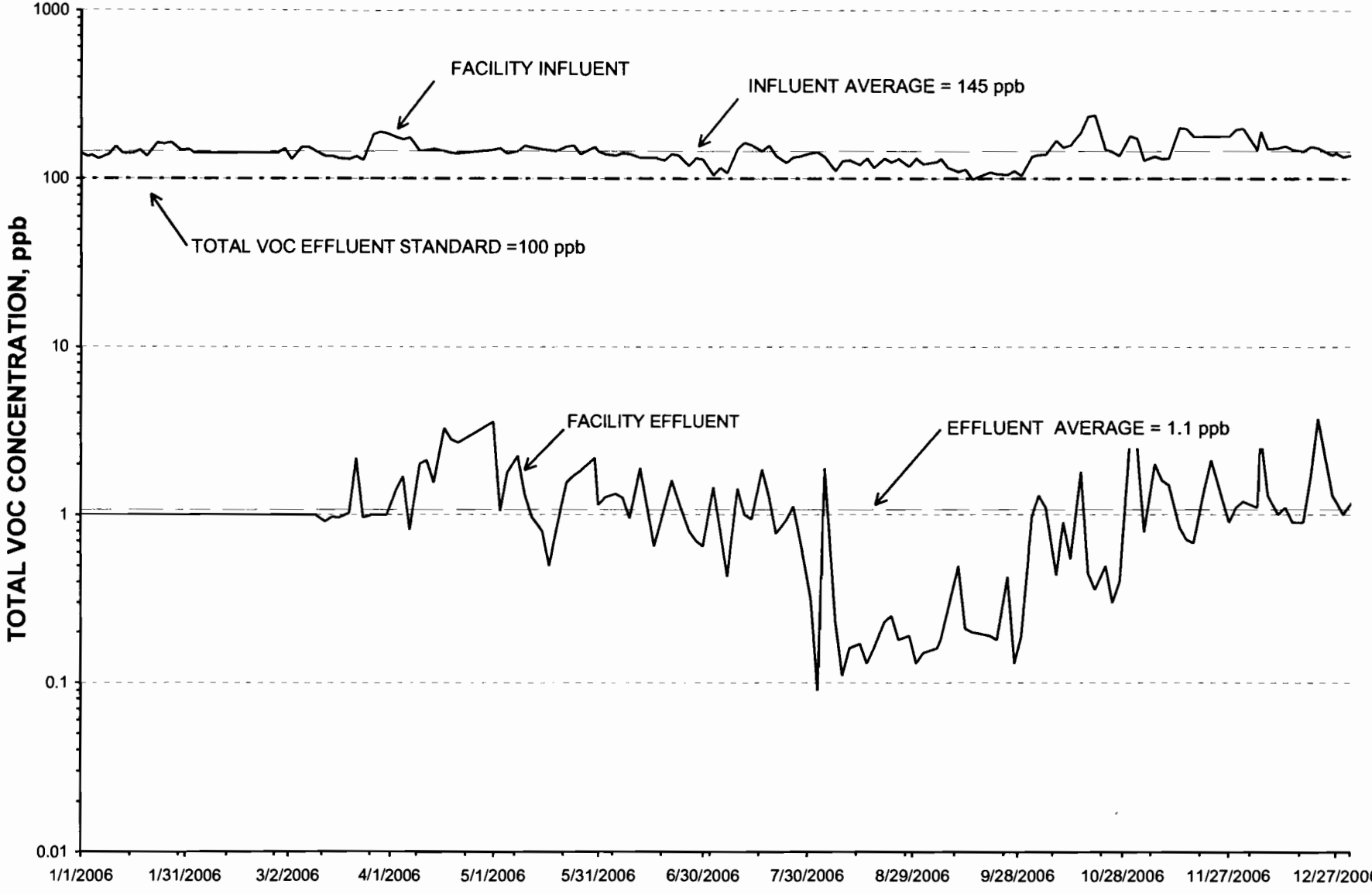
Based on the Town laboratory's data, which were quality checked with the monthly SPDES analyses, during 2006, the total VOC concentration of the GTF influent averaged 145 ppb and the total VOC concentration of the effluent averaged 1.1 ppb (Figure 2). The total VOC concentration of the GTF remained relatively constant during 2006. The relative proportions of the individual VOC species comprising the influent also remained consistent during 2006 (Figure 3).

With respect to the individual recovery wells, total VOC concentrations fluctuated during the year, but overall exhibited slightly decreasing trends during 2006 (Figure 4). The short-term increases in concentration primarily followed the time periods when the GTF was off-line, and as such are attributed to the recovery of relatively undiluted plume water that migrated past the recovery wellfield during the downtime periods. The subsequent decrease in VOC concentrations reflects re-establishment of the capture zone and the associated recovery of uncontaminated groundwater on the downgradient side of the recovery wellfield.

The treatment efficiency of the GTF air stripper averaged 99.3 percent during 2006 (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 part of regular maintenance.

The VOC results from the 12 monthly SPDES effluent samples collected during 2006 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.

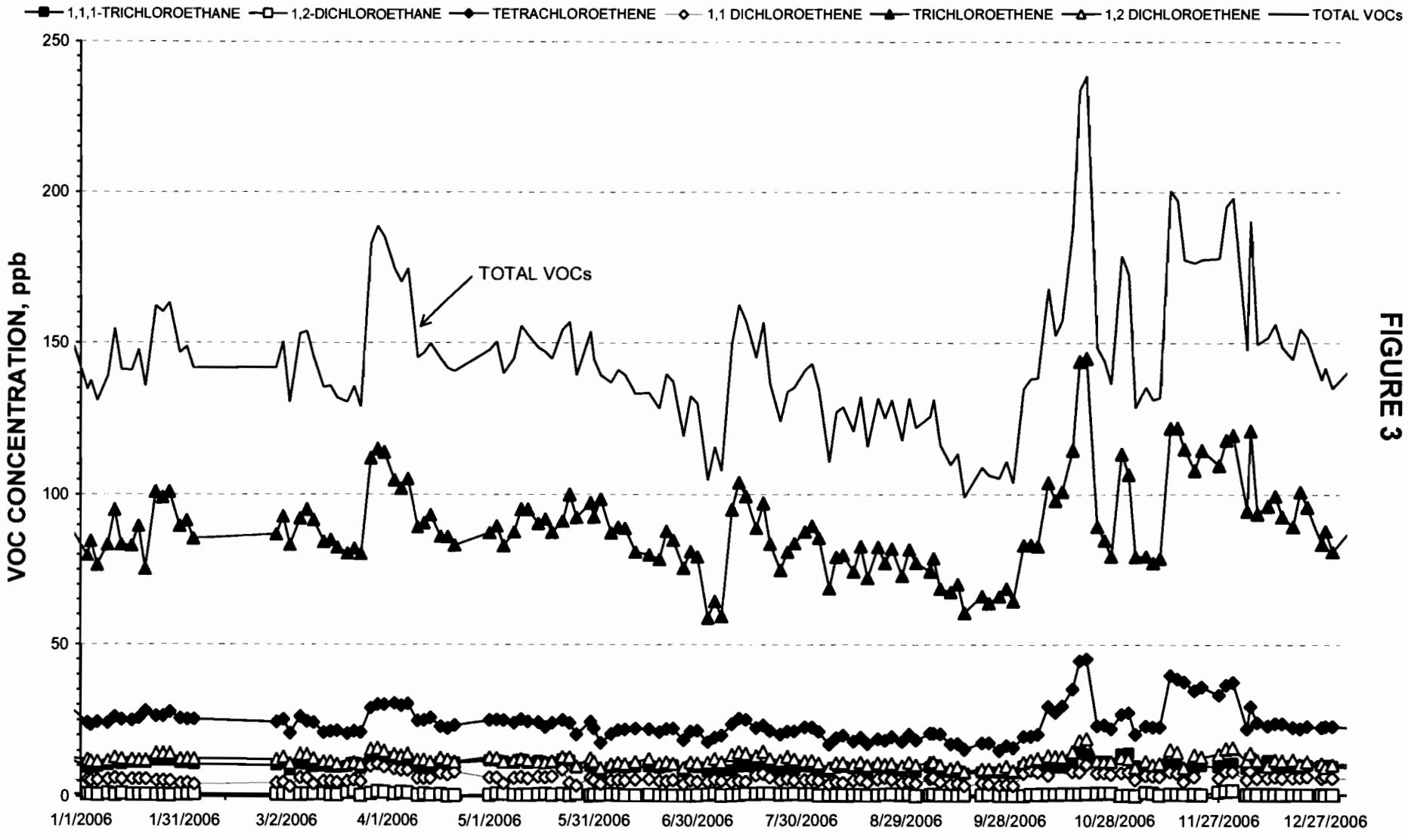
TEMPORAL COMPARISON OF INFLUENT/EFFLUENT TOTAL VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 2

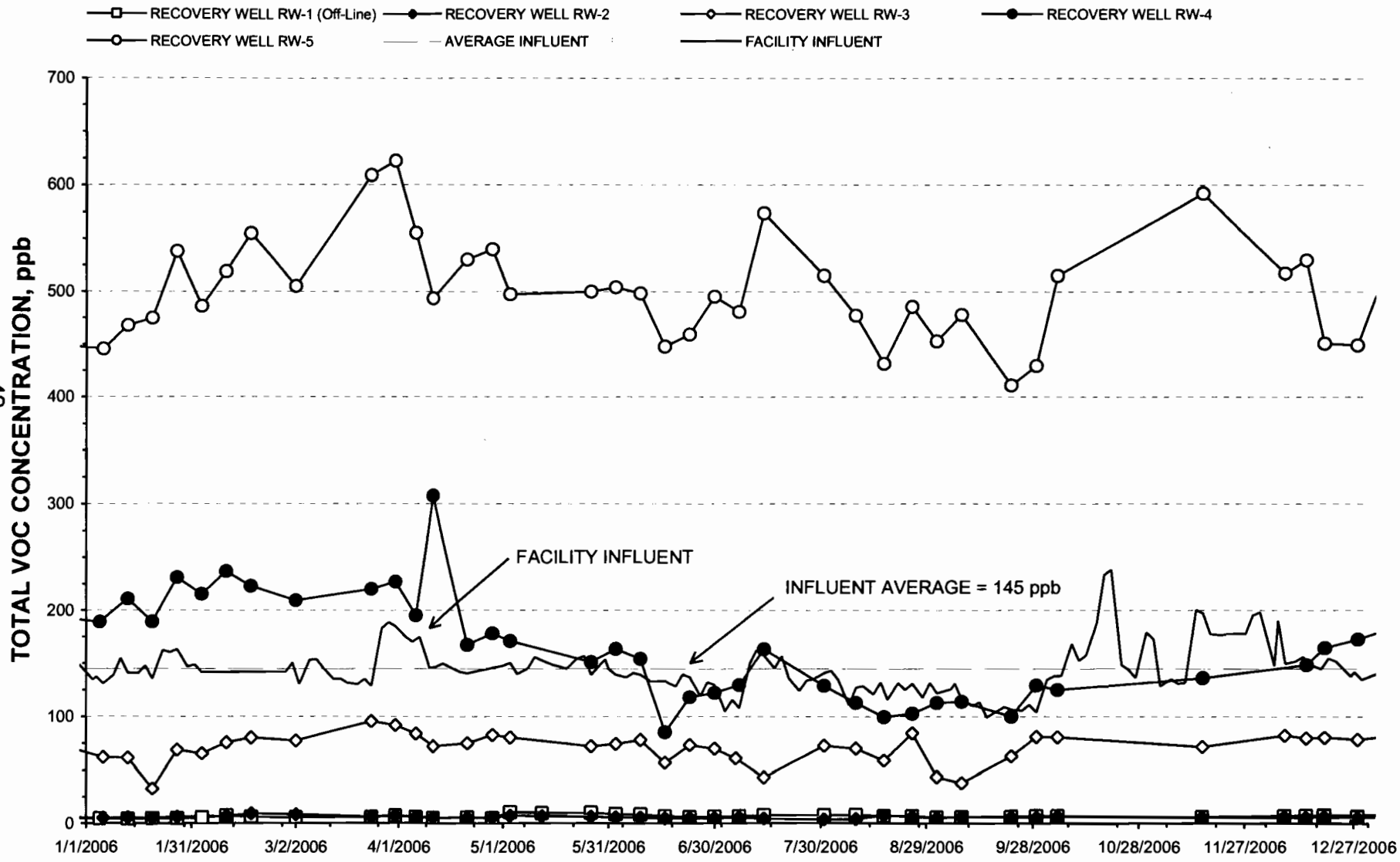
TEMPORAL VARIATION IN FACILITY INFLUENT VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 3

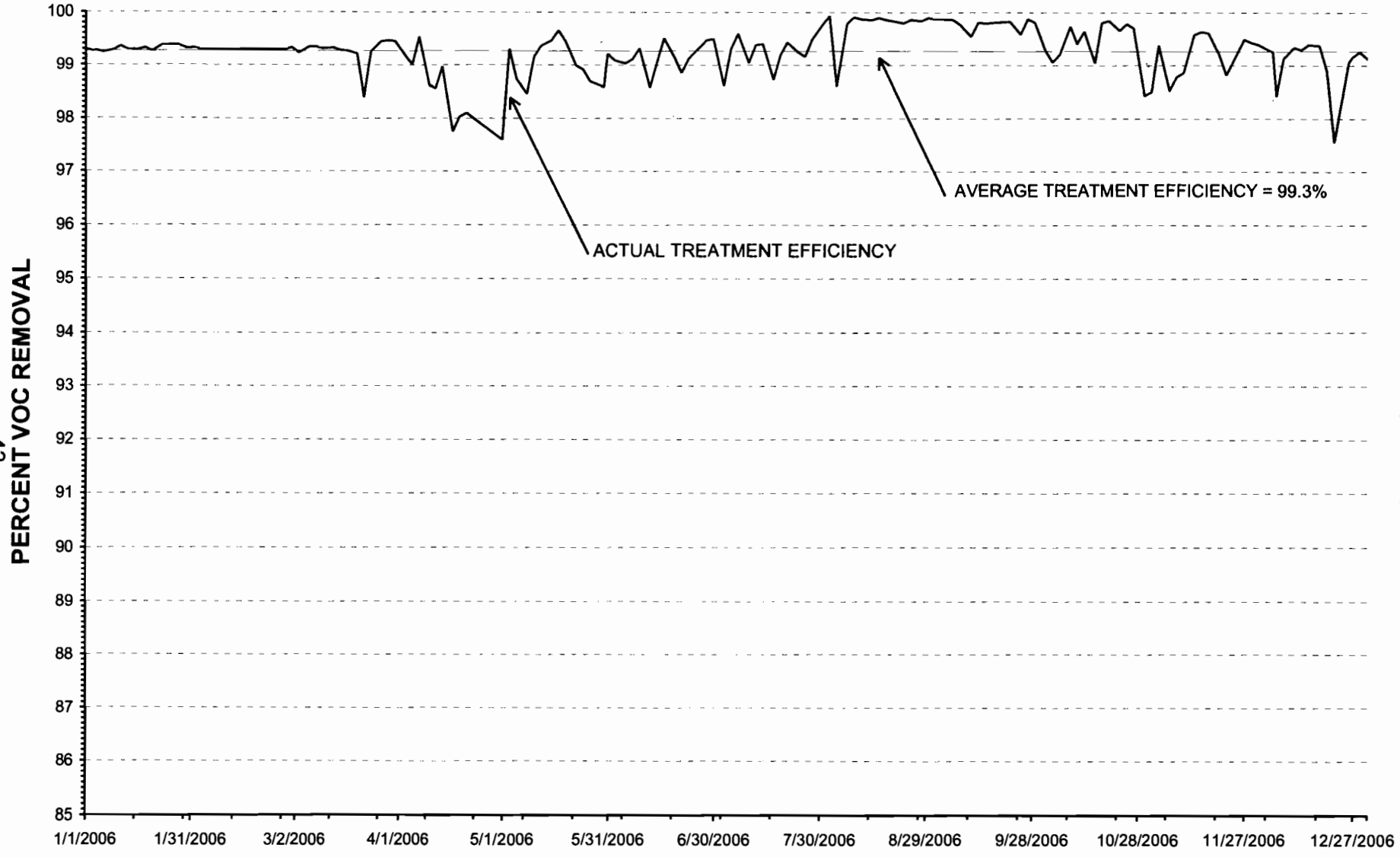
TEMPORAL VARIATION IN WELLFIELD TOTAL VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 4

TEMPORAL VARIATION IN TREATMENT EFFICIENCY



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 5

Therefore, based on the results from the SPDES monitoring and self-monitoring performed during 2006, no additional treatment units are required to remove VOCs from the GTF effluent since all Consent Decree limits continue to be satisfied.

The inorganic and leachate indicator parameter results from the 12 monthly SPDES effluent samples collected during 2006 indicate that with the exception of ammonia and manganese, 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 and/or manganese concentration of the GTF effluent was often higher than the limits specified in Table 2. 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 or manganese. Biological assimilation of nitrogen in the recharge basin may account for its absence in the shallow groundwater near the recharge basin. Morevoer, the manganese concentration of the influent is decreasing over time.

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 2006 air stripper stack emission monitoring results (Section 5.0) indicates that the concentrations of two to three VOCs slightly exceeded the Consent Decree stack discharge limits during each monitoring quarter. However, previous dispersion modeling of similar concentrations of these VOCs has shown that they do not result in exceedances of the NYSDEC SGCs and AGCs at the downwind property line. 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 2006 and summarized graphically in Figure 6.

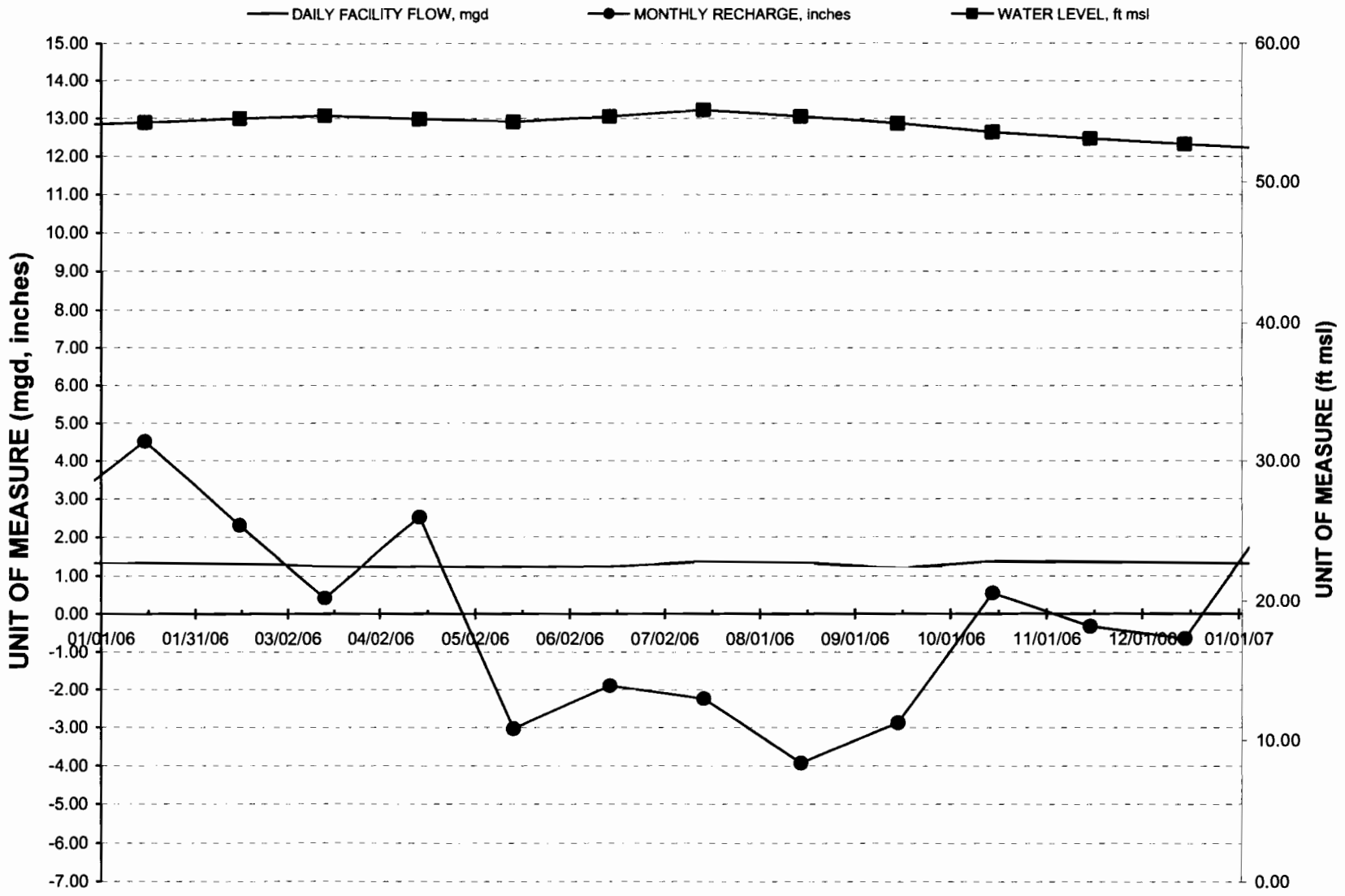
Facility flow data were compiled from the "Daily Operations Reports" and are presented in Figure 6 as the average flow for the days on which the hydraulic monitoring rounds were conducted. Recharge was estimated as the monthly precipitation corrected for evapotranspiration. Precipitation data were obtained 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 lack of recharge during the second and third quarters of 2006, also influences 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.

As discussed previously in Section 4.4.1, analysis of the limiting flow lines and plume boundaries for the 2006 data indicates that hydraulic control of the Landfill VOC plume was maintained during all four operating quarters. Moreover, as shown in the various figures contained in Appendix A of Appendix C, the capture zone was sufficient to maintain hydraulic control of the Landfill VOC plume. Overall, the configuration of the capture zone was comparable to previous operating years.

CORRELATION OF RECOVERY WELL AND HYDRAULIC DATA



FIRST QUARTER 2006 THROUGH FOURTH QUARTER 2006

TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 6

6.1.3 Variation in Wellfield VOC Concentrations

During 2006, 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 all five recovery wells fluctuated during the year, but overall exhibited slightly decreasing trends.

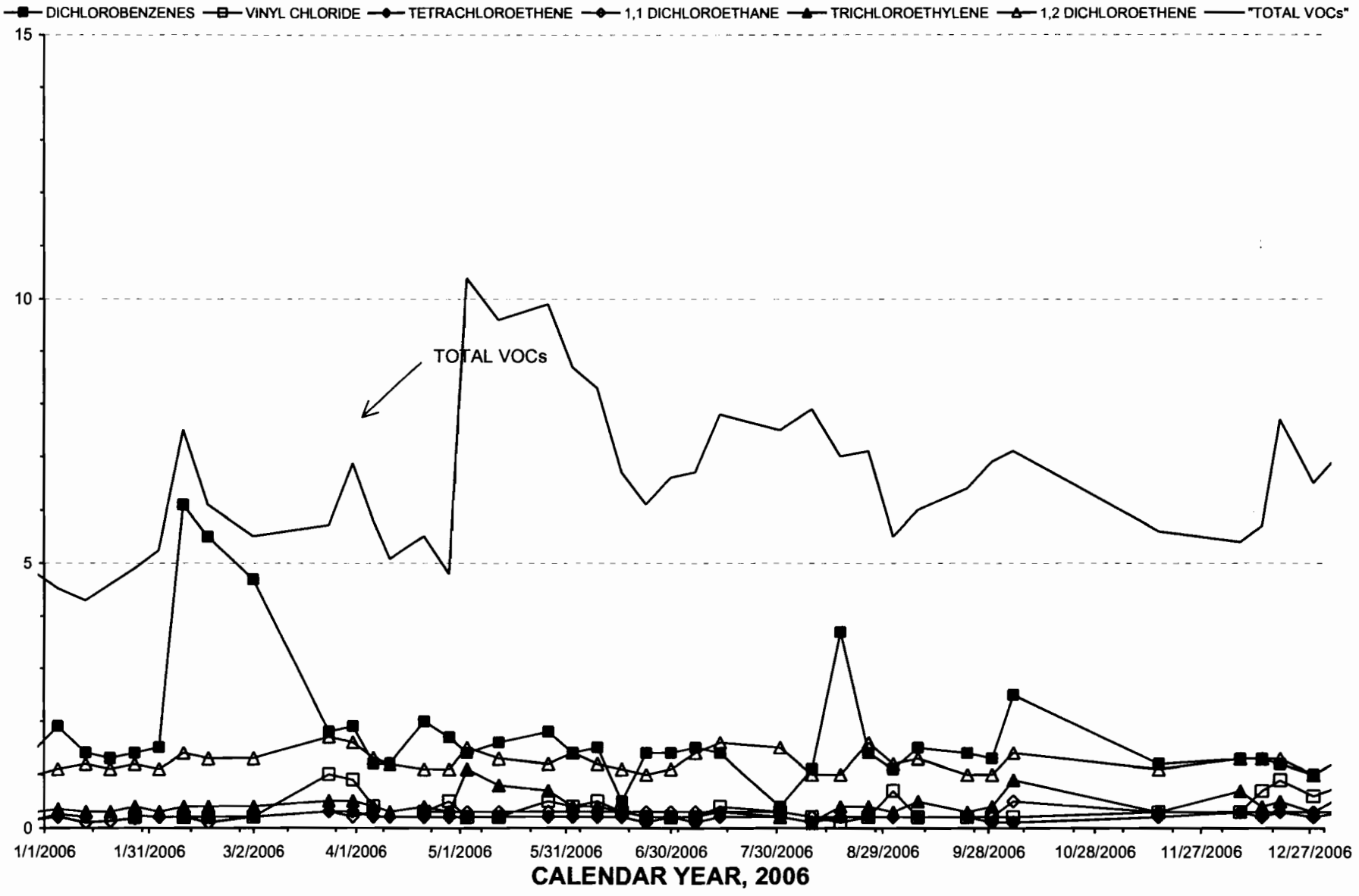
As shown in Figures 7 through 11, the trends in total VOC concentration for Recovery Wells RW-1 and RW-2 can be attributed to a variety of VHOs, whereas the trend for Recovery Well RW-3 is associated primarily with three compounds: 1,2-dichloroethene, tetrachloroethene and tricloroethene. The trends for Recovery Wells RW-4 and RW-5 are associated primarily with two compounds: trichloroethene and 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.

The current distribution of VOCs in groundwater, based on the 2006 quarterly monitoring data, is also consistent with this information. Specifically, much higher concentrations of tetrachloroethene, trichloroethene and several other 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.

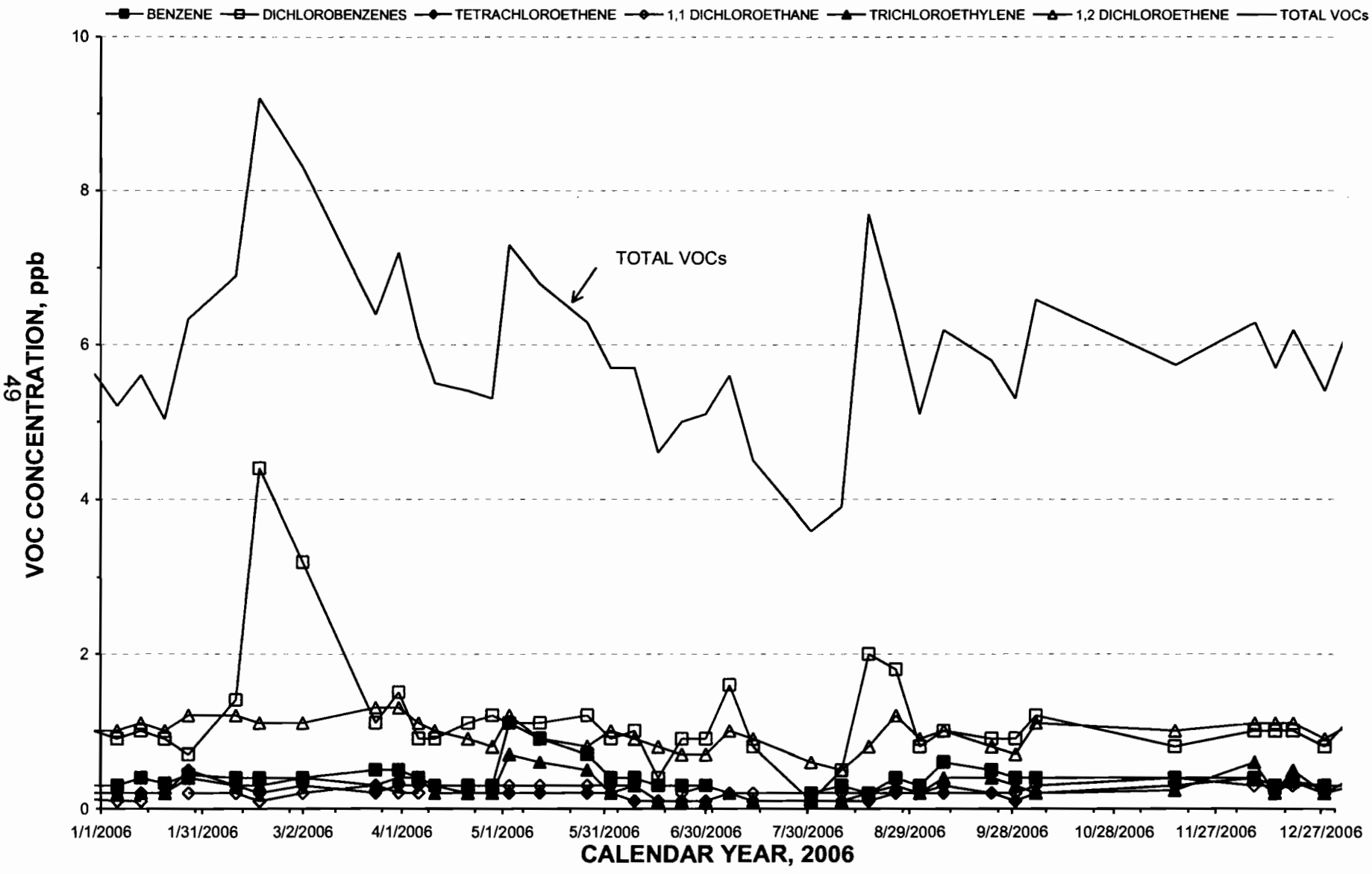
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-1



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 7

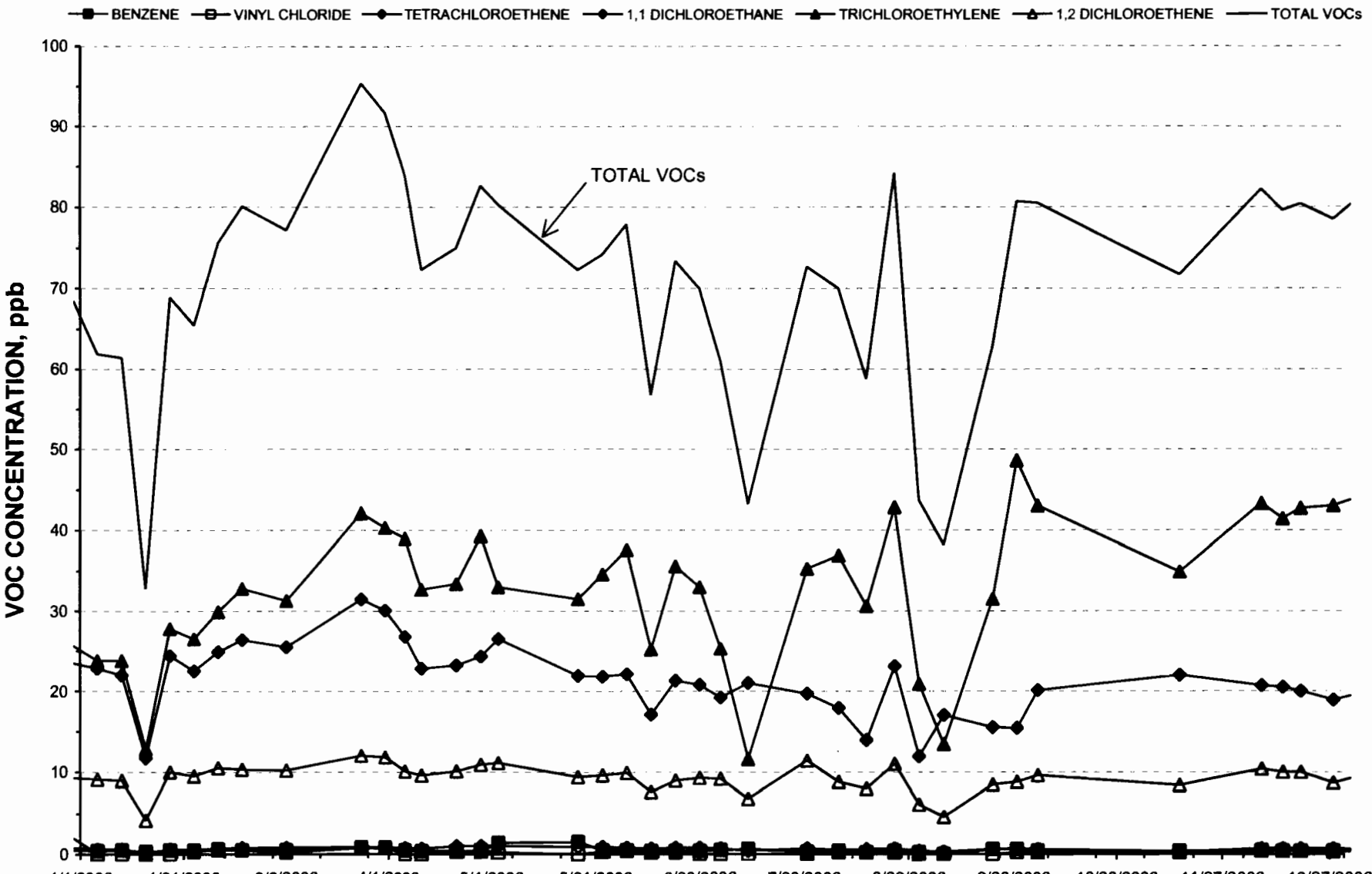
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-2



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 8

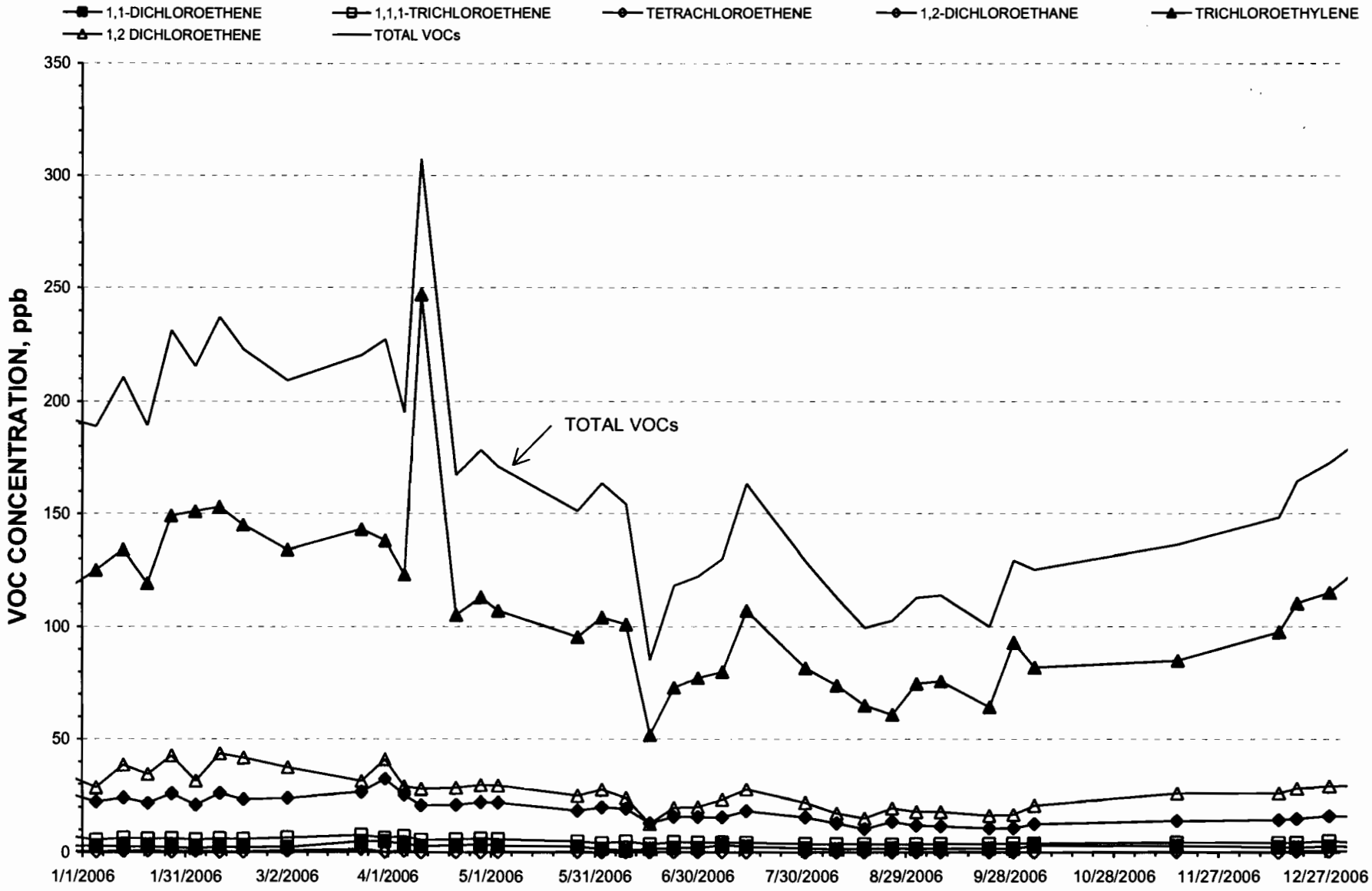
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-3



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 9

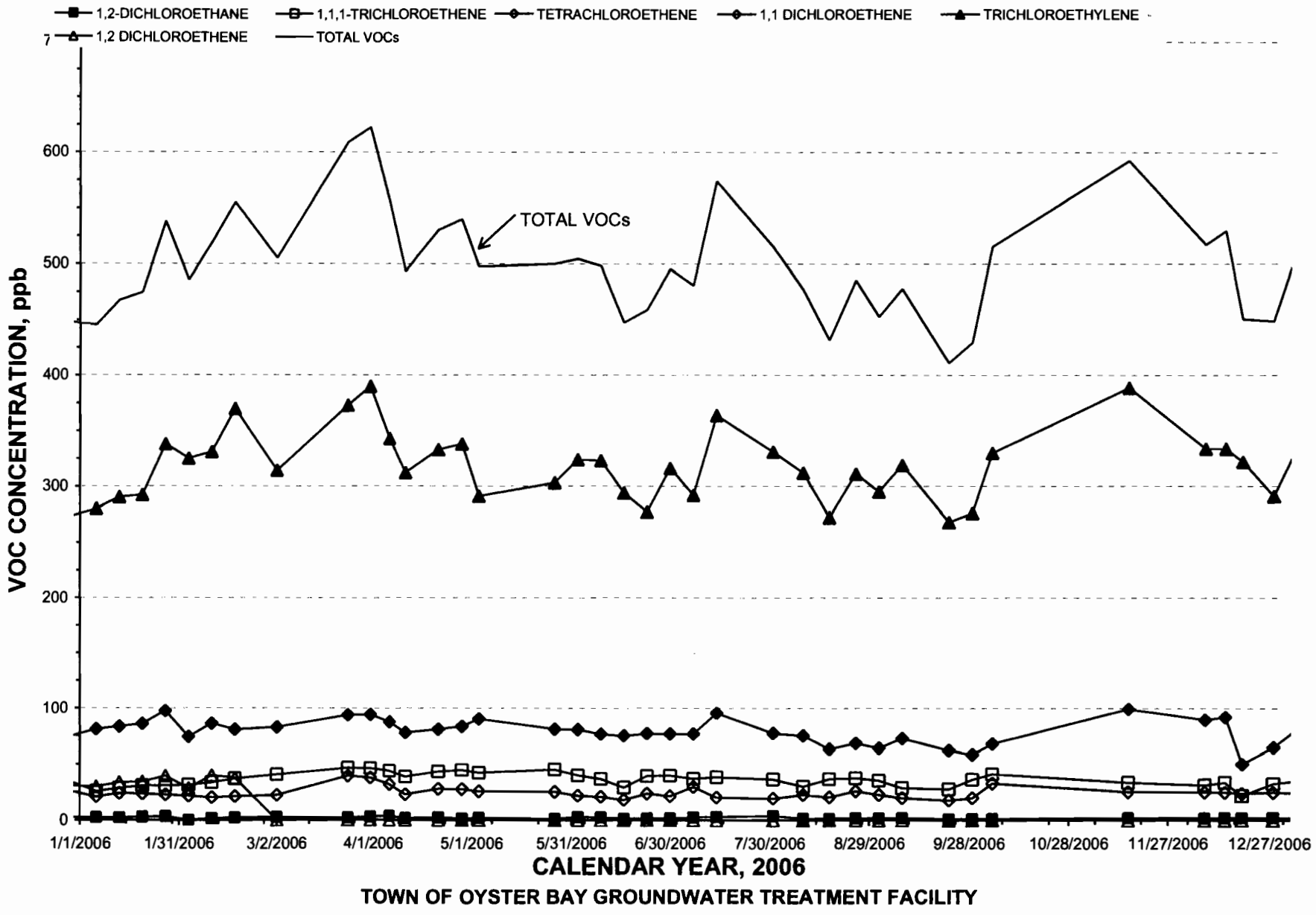
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-4



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 10

TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-5



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 11

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, significant concentrations of VHOs were not detected in the water-table zone monitoring well (Well MW-6A) during 2006.

The Claremont Site is located directly upgradient of Well Cluster MW-8, at the northerly end of what has historically 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.

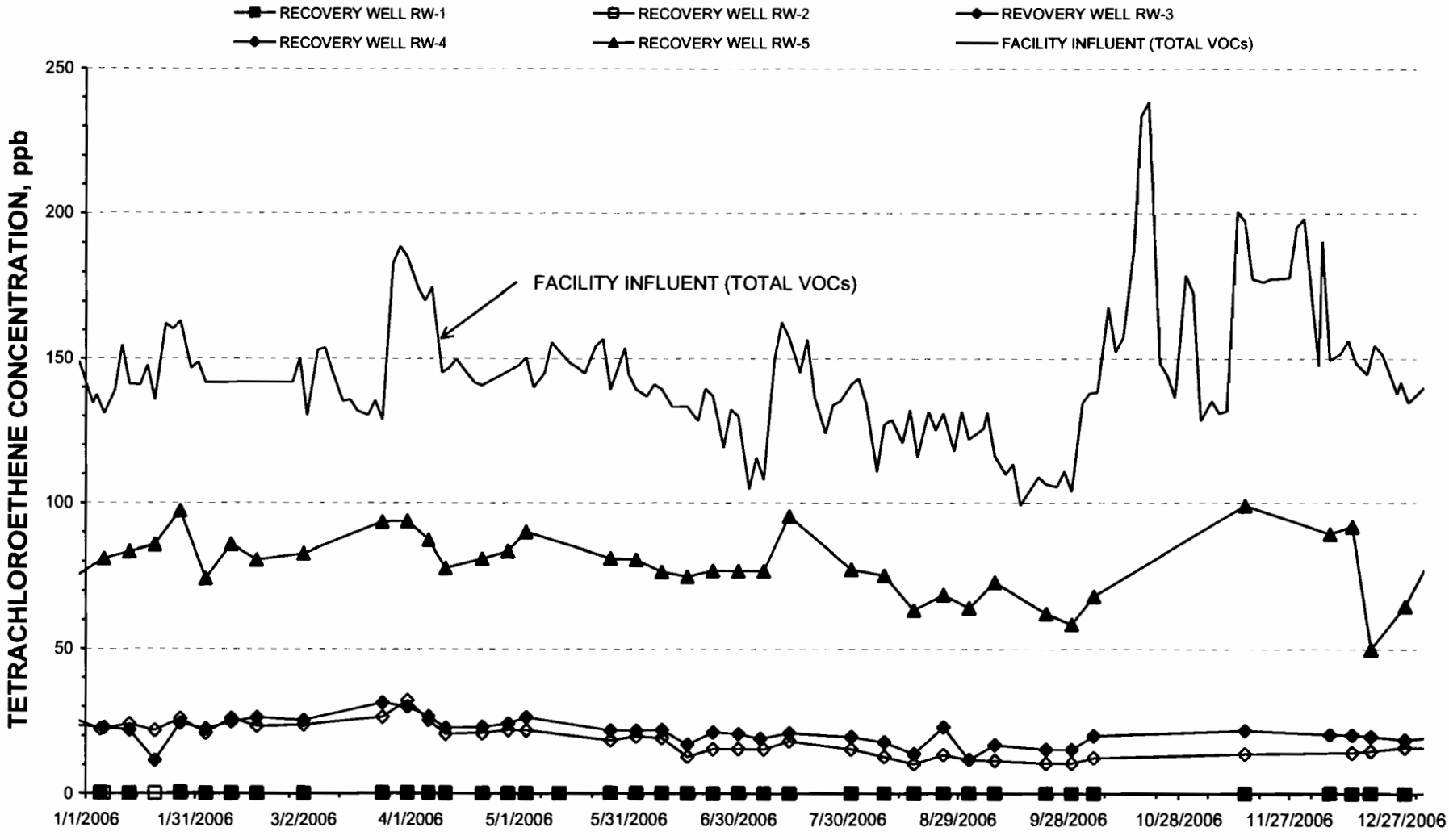
With respect to the Town's recovery wellfield, the Claremont Site is located closest to, and hydraulically upgradient from, Recovery Well RW-5, and at increasing distance from Recovery Wells RW-4, RW-3, etc. The detected concentrations of tetrachloroethene, trichloroethene and several other VHO compounds, 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 2006.

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.

6.1.5 Overview of Other Monitoring Program Results

The results from the ambient air and soil-gas quality monitoring performed during 2006 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.

TEMPORAL VARIATION IN WELLFIELD TETRACHLOROETHENE CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 12

6.2 Recommendations

6.2.1 Groundwater Treatment Facility

Under the current operating conditions, the analytical results compiled during 2006 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 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 the available Claremont Site Well Clusters located nearest to the Town's recovery wellfield 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 2006 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-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.

Well OBS-2 was damaged sometime between the third and fourth quarter monitoring rounds, and consequently cannot be monitored. Although the Town's Consent Decree does not require this well to be monitored on a quarterly basis during operation of the GTF, this well is sampled annually for VOCs because it is located downgradient of the Town's recovery wellfield and is screened in the deep potentiometric zone where the recovery wells are screened, and thus provides useful information on groundwater quality conditions. Moreover, monitoring of this well will be required in the future during to demonstrate compliance with the termination criteria in the Consent Decree. Therefore, it is recommended that this well be repaired, or replaced in kind.

From time to time, individual recovery wells are off-line for maintenance or repair. It is recommended that samples be collected from these recovery wells when they are turned back on. These samples may be relatively unaffected by dilution from downgradient non-plume groundwater and thereby provide useful information on VOC concentrations in the plume upgradient of the recovery wells. These samples will be collected as part of the weekly recovery well sampling effort and analyzed for VOCs at the Town's on-site laboratory.

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 assessing 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

2006 Annual Summary Report

RTP Environmental Associates, Inc.
March 2007

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

2006 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

March 2007

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

2006 Annual Summary

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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 2006 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 2006 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 2006 monitoring efforts.

The OBSWDC is located in the Town of Oyster Bay, New York. The OBSWDC is comprised of a landfill, inactive 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 emitting 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 are located along the western and southern perimeters of the capped landfill and they are 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 gas collection well 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. In early 2001, the contractor who was mining gas from the landfill for energy production suspended operations due to low recovery rates of landfill gas. These activities have restricted or mitigated the release of gas from the landfill and thereby reduced landfill gas and associated air pollutant emissions from this site.

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 2006 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 typically take place during periods of steady or falling atmospheric pressure. These periods would coincide with the greatest potential for releases of VOCs from the landfill. For 2006, three (3) of the four (4) quarterly tests were conducted during periods of steady or falling atmospheric pressure. The pressure for the first quarter event overall rose slightly 0.04 inches of mercury during the test. Sampling for each quarterly test occurred over a consecutive 24-hour period. Occasionally a test will be performed during steady to rising atmospheric pressure conditions to test ambient concentrations during rising pressure when landfill emissions are expected to be lower.

Table 2.1 provides the months during which the quarterly test efforts for each year of the sampling program were conducted. Monitoring for the 2006 sampling program, which is evaluated herein, occurred in March, June, September and November 2006.

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 (TICs) being detected.

Several changes to the TCL and analytical procedures had been made for the 1997 program and these changes apply to the 2006 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, (50 ng for one compound) 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.

TABLE 2.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

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
2003	March	May	August	December
2004	March	June	August	November
2005	March	June	August	November
2006	March	June	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

2006 PROGRAM TARGET COMPOUND LIST
AND NYSDEC AMBIENT AIR GUIDELINE CONCENTRATIONS

CHEMICAL NAME	CAS NUMBER	AIRS CODE	24 HOUR SGC ug/m³	W (SCG)	AGC ug/m³	W (ACG)	T	CODES 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acetone	00067-64-1	4	180,000	Z	28,000	T	L				I											
Benzaldehyde	00100-52-7	4	----		0.10	d																
Benzene	00071-43-2	4	1,300	D	0.13	E	H	U		H	A											
Bromodichloromethane	00075-27-4	4	---		0.02	D	H	U														
Bromoform	00075-25-2	4	---		0.91	E	M	U		H	I											
Bromomethane	00074-83-9	4	3,900	D	5.0	E	M			H	I											
2-Butanone	00078-93-3	4	59,000	D	5,000	E	M			H												
Carbon Disulfide	00075-15-0	6	6,200	D	700	E	M			H												
Carbon Tetrachloride	00056-23-5	4	1,900	D	0.067	E	H	U		H	B											
Chlorobenzene	00108-90-7	4	---		110	T	M			H	I											
Chloroethane	00075-00-3	4	---		10,000	E	L			H	I											
Chloroethyl Vinyl Ether	00110-75-8		----		0.10	d																
Chloroform	00067-66-3	4	150	D	0.043	E	M	U		H	I											
Chloromethane	00074-87-3	4	22,000	D	90	E	M			H	I											
Decane	00124-18-5	4	---		200	A	M										R					
Dibromochloromethane	00124-48-1	4	---		0.10	d	M															
1,2-Dichlorobenzene (o)	00095-50-1	4	30,000	Z	360	T	M				I											
1,3-Dichlorobenzene (m)	00541-73-1	4	30,000	A	360	A	M										R	R				
1,4-Dichlorobenzene (p)	00106-46-7	4	---		0.09	D	M	U		H	I											
1,1-Dichloroethane	00075-34-3	4	---		0.63	D	L	U		H	I											
1,2-Dichloroethane	00107-06-2	4	---		0.038	E	M	U		H	I											
1,1-Dichloroethene	00075-35-4	4	---		70	D	M			H	I											
cis-1,2-Dichloroethene	156-59-2	4	---		1,900	T	M															
trans-1,2-Dichloroethene	156-60-5	4	----		1,900	T	M															
1,2-Dichloropropane	00078-87-5	4	51,000	Z	4.0	E	M			H	I											
1,3-Dichloropropene,cis & trans isomers	00542-75-6	4	---		0.25	E		U		H	I											
Ethylbenzene	00100-41-4	4	54,000	Z	1,000	E	M			H	I											
2/4 Ethyltoluene (total)	611-14-3/622-96-8				0.10	d																
Freon 13	00075-72-9	4	560,000	A	---	X	L										R					
2-Hexanone	00591-78-6	4	4,000	Z	48	T																
Methylene Chloride	00075-09-2	6	14,000	D	2.10	E	M	U		H	I											
4-Methyl-2-Pentanone	00108-10-1	4	31,000	Z	3,000	E	M			H												
Styrene	00100-42-5	4	17,000	D	1,000	E	M			H	I											
1,1,2,2-Tetrachloroethane	00079-34-5	4	---		0.02	E	M	U		H	I											
Tetrachloroethene	00127-18-4	4	1,000	H	1.0	H	M	U		H	I											
Toluene	00108-88-3	4	37,000	D	400	E	L			H	I											
1,1,1-Trichloroethane	00071-55-6	6	68,000	D	1,000	D	L			H	I											
1,1,2-Trichloroethane	00079-00-5	4	---		1.40	D	M			H	I											
Trichloroethene	00079-01-6	4	54,000	Z	0.50	D	M	U		H	I											
Trichlorofluoromethane	00075-69-4	6	560,000	Y	---	X	L				C	I										
Vinyl Chloride	00075-01-4	4	180,000	D	0.11	E	H	U		H	A											
Xylenes (Total)	01330-20-7	4	4,300	D	100	E	M			H	I											

TABLE 2.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

PROGRAM TARGET COMPOUND LIST
AND NYSDEC AMBIENT AIR GUIDELINE CONCENTRATIONS

NOTES:

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.

- AGC/SGC last revised December 2003 and are still current as of February 2007.

During the 2003 monitoring program the designation of decane was changed from an additional TIC to a targeted TIC on the TCL. This change first became effective in the 2003 fourth quarter testing effort.

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. Revisions of the Air Guide-1 AGS/SGS values were released by the NYSDEC on July 12, 2000. These updated values had been in the quarterly and annual reports from 2001 through 2003. Additional revisions were made to the NYSDEC Air Guide-1 on December 22, 2003. Any changes in guidelines were incorporated in the quarterly reports for the years that followed, as well as this 2006 annual summary report. The quoted values represent NYSDEC guidelines as of January 2007.

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 are taken at an upwind location and three (3) samples are 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 2006 Ambient Air Quality Data

Ambient air quality levels were monitored for each 24-hour sampling period at three (3) sampling locations during the 2006 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. The EPA reference sampling method was modified to account for site conditions and monitoring requirements. The sampling locations specified in the Consent Decree were adjusted slightly to account for expected meteorological conditions during the 24-hour sampling period. Collocated samples were used as precision checks and in a screening procedure to assure inaccurately measured 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.

Two Tenax/Anasorb® sorbent cartridges were used in collocated ambient samplers U2 and D2, rather than the traditional one Tenax and one Tenax/Anasorb® combination used for collocated samples U1 and D1 (EPA Reference Method 0030). This approach was used in order to compare analytical results from the two different cartridge configurations at the collocated ambient samplers to determine if compound breakthrough was occurring and to ascertain how well the compounds were binding to each sorbent used in the cartridge (Tenax and Anasorb®). Based on the results of the split samples (U2, D2 and D3), it does appear that some contaminant breakthrough had occurred through the front (all Tenax) cartridges in the third and fourth quarterly efforts in 2006.

The results from ambient air samples during the 2006 quarterly monitoring efforts were somewhat inconsistent. The ambient results during the quarterly tests appeared to have some differences in collocated samplers, where compounds varied significantly. During each quarterly effort, at least one of the samplers was unable to run for the intended 1,440 minutes due to flow faults, battery and/or connector failures which could account for the difference in concentrations. Dilution associated with clean air during the rest of the run time could also address some inconsistent constituents detected in collocated samplers.

The sampling duration of the second quarter sampling event was shortened slightly due to precipitation. A precipitation event (rain) occurred during the final hours of the second quarter effort and interrupted the sampling event. Precipitation was fairly light during the first hour but increased in intensity after the sampling was terminated and none of the samplers were able to run for the fully intended period; however, sampling volumes and sampling duration were deemed sufficient enough to yield valid air concentrations. Also, during the fourth quarter sampling effort, the total sample volumes for most of the samplers were low, which may have been due to a fog event which tends to reduce sample volumes.

Table 2.3 provides data for the 2006 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

TABLE 2.3

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM QUARTERLY 24-HOUR DOWNWIND AMBIENT AIR VOST SAMPLE RESULTS
2006 Annual Summary

Quarterly I.D. Sample Identification	1st D1	2nd D1	3rd D1	4th D1	ANNUAL AVERAGE MAX DOWNWIND VALUE	CURRENT AGC	24 HOUR SGC
Lower Quantitation Limit (ug/m^3)	0.0417	0.0376	0.0234	0.0340	0.0342	---	---
Practical Quantitation Limit (ug/m^3)	0.0333	0.0301	0.0748	0.0544	0.0481	---	---
Target TIC Lower Quantitation Limit (ug/m^3)	0.2083	0.1880	0.1168	0.1701	0.1708	---	---
Constituent/Units	($ug/std\text{-}m^3$)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Acetone*	2.17E+00	1.99E+00	2.48E+00	7.14E-01	1.84E+00	28,000	180,000
Benzaldehyde**	4.35E-01	5.31E-01			4.84E-01	0.10	----
Benzene	8.17E-01	2.11E-01	2.48E+00	< 8.33E-01	1.08E+00	0.13	1,300
Bromodichloromethane						0.02	---
Bromoform*	< 2.58E-01				1.04E-01	0.91	---
Bromomethane						5.0	3,900
2-Butanone*	1.61E+00	7.78E-01	8.41E-01	< 4.69E-01	9.25E-01	5,000	59,000
Carbon Disulfide				< 3.74E-02	3.50E-02	700	6,200
Carbon Tetrachloride	8.79E-01	9.06E-01	9.88E-01	9.35E-01	9.02E-01	0.067	1,900
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether**	2.50E-01	2.26E-01		7.43E-02	1.59E-01	0.10	----
Chloroform	< 1.17E-01	6.39E-02	1.82E-01	1.90E-01	1.38E-01	0.043	150
Chloromethane	< 1.42E-01	1.99E-01	1.07E-01	1.60E-01	< 1.52E-01	90	22,000
Dibromochloromethane	< 5.42E-02				3.73E-02	0.10	---
1,2-Dichlorobenzene (o)						360	30,000
1,3-Dichlorobenzene (m)						360	30,000
1,4-Dichlorobenzene (p)	1.38E-01	6.39E-02	1.17E-01	1.02E-01	1.05E-01	0.09	---
1,1-Dichloroethane						0.63	---
1,2-Dichloroethane						0.038	---
1,1-Dichloroethene						70	---
cis-1,2-Dichloroethene						1,900	---
trans-1,2-Dichloroethene						1,900	----
1,2-Dichloropropane						4.0	51,000
1,3-Dichloropropene, cis & trans isomers						0.25	---
Ethylbenzene	< 2.79E-01	< 1.32E-01	3.13E-01	< 2.48E-01	2.43E-01	1,000	54,000
2/4-Ethyltoluene (total)	< 6.04E-01	< 2.82E-01	5.14E-01	< 4.25E-01	4.56E-01	0.10	
Freon 13**						---	560,000
2-Hexanone*	< 7.92E-01				2.38E-01	48	4,000
Methylene Chloride	4.04E-01	1.80E-01	2.06E+00	2.86E-01	7.32E-01	2.10	14,000
4-Methyl-2-Pentanone*	< 5.00E-01				1.65E-01	3,000	31,000
Styrene			7.01E-02		4.58E-02	1,000	17,000
1,1,2,2-Tetrachloroethane	< 4.29E-01				1.31E-01	0.02	---
Tetrachloroethene	< 3.71E-01	< 1.32E-01	3.08E-01	< 3.57E-01	2.92E-01	1.0	1,000
Toluene	1.71E+00	7.52E-01	1.73E+00	< 1.38E+00	1.39E+00	400	37,000
1,1,1-Trichloroethane	1.75E-01	1.39E-01	1.45E-01	< 1.33E-01	1.48E-01	1,000	68,000
1,1,2-Trichloroethane						1.40	---
Trichloroethene	< 2.92E-01	< 6.39E-02	3.74E-02	< 7.48E-02	1.17E-01	0.50	54,000
Trichlorofluoromethane	1.30E+00	2.44E+00	6.54E+00	4.93E+00	3.80E+00	---	560,000
Vinyl Chloride						0.11	180,000
Xylenes (Total)	< 1.31E+00	< 5.08E-01	1.07E+00	< 9.01E-01	9.49E-01	100	4,300
Decane**	< 3.13E-01	< 1.62E-01	1.40E-01	< 1.87E-01	2.00E-01	200	---

TABLE 2.3
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM QUARTERLY 24-HOUR DOWNWIND AMBIENT AIR VOST SAMPLE RESULTS FOR ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS
2006 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification	D1	D1	D1	D1	MAX DOWNWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.104	0.094	0.234	0.170	0.150	---	---
Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
2-Methyl-1 propene						0.10	---
2-Methyl-pentane	< 1.33E+00		1.40E+00	< 1.24E+00	< 1.02E+00	4,200	350,000
3-Methyl-pentane				< 9.35E-01			
(DEL) Branched Alkane	6.25E+00	5.34E+00			< 3.00E+00	---	---
C3 subst. Benzene	< 5.05E-01			< 4.05E-01	< 3.09E-01	0.13	1,300
2-Methyl-butane	< 8.74E-01		2.66E+00	1.60E+00	< 1.31E+00	42,000	---
alpha-Pinene isomer (12.03-13.04)			4.77E+00		< 1.28E+00	---	---
2-Methyl-hexane				< 7.65E-01	< 2.99E-01	---	---
Hexane	< 5.79E-01		1.87E+00	< 1.41E+00	< 9.88E-01	200	---
Undecane (plus unknowns)		< 7.14E-01			< 3.05E-01	---	---
Isobutane	< 1.17E+00	< 9.21E-01		< 1.17E+00	< 8.74E-01	45,000	---
Dichlorodifluoromethane	< 1.17E+00	< 2.37E+00	6.54E+00	< 4.85E+00	< 3.73E+00	12,000	---
1,1-Dichloro-1-fluoroethane			1.92E+00	< 6.29E-01	< 6.87E-01	---	---
Butane	< 1.05E+00	< 9.21E-01		< 1.55E+00	< 9.39E-01	45,000	---
Unknown (RT: 1.42-14.23)	< 2.08E+00	< 2.05E+00			< 1.13E+00	---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu (Freon 113)	< 5.05E-01			< 7.65E-01	< 3.99E-01	180,000	960,000
Nonanal		< 4.51E-01					
1,3-Pentadiene, (E)-		< 8.65E-01				---	---

Notes:

* 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.

- All values are reported in micrograms per standard cubic meter ($ug/std\text{-}m^3$) 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.
  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 December 2003 and still current as of February 2007) 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.

eight (8) TCL constituents consistently exceeded or potentially exceeded the level of their respective current AGCs specified by the NYSDEC during the quarterly tests. However, an annual average exeedance does not necessarily suggest that guideline values were exceeded by each quarterly test effort. In addition, one (1) TIC constituent exceeded the level of its AGC. No Target or Tentatively Identified compounds exceeded their respective SGC values.

Table 2.4 presents the 2006, 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 air quality concentration. Of the annual average background (upwind) concentrations presented in Table 2.4, five (5) TCL constituents exceeded the level of the current NYSDEC AGCs during all quarterly tests. However, none of the TICs identified at either of the upwind sites exceeded the level of their respective AGC. Further, no Target or Tentatively Identified Compounds exceeded their respective SGC values.

Separate condensate samples were retrieved from the condensers of all ambient samplers during the second quarter sampling effort as well as from two samplers during the third quarter sampling effort. The condensate from each condenser was drained into a clean glass vial, topped with organic free water, labeled and sent to the laboratory for analysis. The results from the condensate sampled showed no presence of constituents, and therefore, the condensate samples were not reported to maintain undiluted sample results.

Trip and field blank air samples were submitted to assure that there was no media contamination prior to or during the quarterly monitoring efforts. However, several compounds were detected throughout the quarterly sampling efforts with varying concentrations and retention times. Acetone and methylene chloride are known lab contaminants and are assumed to be the cause of their presence in these samples. Their concentrations and confirmation testing methods will be monitored for the 2007 sampling efforts to mitigate the cause of the contaminants.

As a means of providing a conservative estimate of the potential impacts from OBSWDC emissions, the difference between the minimum annual average upwind values and maximum downwind values are

TABLE 2.4

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MINIMUM QUARTERLY 24-HOUR UPWIND AMBIENT AIR VOST SAMPLE RESULTS
2006 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U1	U1	U2	U1	MIN UPWIND VALUE	AGC	SGC
Lower Quantitation Limit (ug/m3)	0.0130	0.0184	0.0418	0.0304	0.026	---	---
Practical Quantitation Limit (ug/m3)	0.0208	0.0294	0.0669	0.0486	0.048	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.0649	0.0919	0.2092	0.1520	0.151	---	---
Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
Acetone*	1.19E+00	9.19E-01	< 1.25E+00	6.14E-01	< 9.94E-01	28,000	180,000
Benzaldehyde**						0.10	----
Benzene	**8.57E-01**	**1.88E+00**	**< 7.74E-01**	**< 3.50E-01**	**< 9.64E-01**	0.13	1,300
Bromodichloromethane						0.02	---
Bromoform*						0.91	---
Bromomethane						5.0	3,900
2-Butanone*	8.57E-01	3.35E-01	< 5.77E-01	< 1.79E-01	< 4.87E-01	5,000	59,000
Carbon Disulfide				< 3.34E-02	< 2.67E-02	700	6,200
Carbon Tetrachloride	**7.53E-01**	**7.72E-01**	**< 5.65E-01**	**4.01E-01**	**< 6.23E-01**	0.067	1,900
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether**						0.10	----
Chloroform	**1.01E-01**	**4.78E-02**	**< 7.53E-02**	**7.29E-02**	**< 7.43E-02**	0.043	150
Chloromethane	5.71E-02	1.18E-01	< 7.11E-02	1.25E-01	< 9.26E-02	90	22,000
Dibromochloromethane	1.30E-02				< 2.59E-02	0.10	---
1,2-Dichlorobenzene (o)						360	30,000
1,3-Dichlorobenzene (m)						360	30,000
1,4-Dichlorobenzene (p)	**2.55E-01**	6.62E-02	**< 9.62E-02**	< 5.17E-02	**< 1.17E-01**	0.09	---
1,1-Dichloroethane						0.63	---
1,2-Dichloroethane						0.038	---
1,1-Dichloroethene						70	---
cis-1,2-Dichloroethene						1,900	---
trans-1,2-Dichloroethene						1,900	----
1,2-Dichloropropane						4.0	51,000
1,3-Dichloropropene, cis & trans isomers						0.25	---
Ethylbenzene	2.86E-01	1.10E-01	< 3.14E-01	< 1.09E-01	< 2.05E-01	1,000	54,000
2/4-Ethyltoluene (total)	**5.97E-01**	**2.83E-01**	**< 4.81E-01**	**< 1.76E-01**	**< 3.84E-01**	0.10	
Freon 13**						---	560,000
2-Hexanone*						48	4,000
Methylene Chloride	2.26E-01	5.51E-02	2.38E-01	3.01E-01	2.05E-01	2.10	14,000
4-Methyl-2-Pentanone*						3,000	31,000
Styrene				< 3.04E-02	< 2.59E-02	1,000	17,000
1,1,2,2-Tetrachloroethane						0.02	---
Tetrachloroethene	3.12E-01	1.40E-01	< 3.56E-01	< 1.55E-01	< 2.41E-01	1.0	1,000
Toluene	1.56E+00	9.19E-01	< 1.61E+00	5.71E-01	< 1.16E+00	400	37,000
1,1,1-Trichloroethane	1.56E-01	1.10E-01	< 1.00E-01	6.69E-02	< 1.08E-01	1,000	68,000
1,1,2-Trichloroethane						1.40	---
Trichloroethene	2.52E-01			< 3.34E-02	< 8.64E-02	0.50	54,000
Trichlorofluoromethane	8.31E-01	1.58E+00	1.63E+00	3.16E+00	1.80E+00	---	560,000
Vinyl Chloride						0.11	180,000
Xylenes (Total)	1.38E+00	4.78E-01	< 1.11E+00	< 3.80E-01	< 8.36E-01	100	4,300
Decane**	2.60E-01	3.31E-01			< 1.66E-01	200	---

TABLE 2.4
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MINIMUM QUARTERLY 24-HOUR DOWNWIND AMBIENT AIR VOST SAMPLE RESULTS FOR ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS
2006 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U1	U1	U2	U1	MIN UPWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.065	0.092	0.209	0.152	0.130	---	---
Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
2-Methyl-pentane	9.09E-01		8.03E-01	6.26E-01	< 6.07E-01	4,200	350,000
(DEL) Branched Alkane (Total)	8.05E-01	3.38E+00	2.44E+00		< 1.69E+00	---	---
2-Methyl-butane	1.06E+00		1.13E+00	1.64E+00	< 9.80E-01	42,000	---
Hexane	7.79E-01		< 6.90E-01	< 4.41E-01	5.00E-01	200	---
Pentadiene isomer			< 1.03E+00		3.35E-01	270	---
Isobutane	9.87E-01		< 6.07E-01	1.28E+00	< 7.41E-01	45,000	---
Dichlorodifluoromethane	2.05E+00		< 1.19E+00	1.49E+00	< 1.21E+00	12,000	---
1,1-difluoroethane		2.76E+00			7.97E-01	40,000	---
Butane	9.61E-01			1.67E+00	< 7.33E-01	45,000	---
Nonanal		7.72E-01			< 3.00E-01	---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu (Freon 113)				< 8.36E-01	< 3.01E-01	180,000	960,000
Dodecane		6.99E-01				---	---

Notes:

* 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.

- All values are reported in micrograms per standard cubic meter ($ug/std\text{-}m^3$) 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.
  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 December 2003 and still current as of February 2007) 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.

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. In addition, the MDL of the upwind sample was not subtracted from the result to maximize potential impacts. As shown in Table 2.5, the results indicate that five (5) TCL constituents, benzaldehyde, carbon tetrachloride, chloroethyl vinyl ether, chloroform and 1,1,2,2-tetrachloroethane potentially impacted the ambient air quality at a concentration that exceeds the level of their current AGC values. If an estimate is calculated using all upwind and downwind data, the net impacts downwind of the landfill will be below values documented in Table 2.5. Again, Table 2.5 data provides a consecutive, worst-case scenario. Three other compounds, benzene, 1,4-dichlorobenzene (p) and 2/4-ethyltoluene (total), exceeded AGC guideline values for downwind and upwind impact values respectively; however once upwind was subtracted from the downwind to determine net impact the values no longer exceeded their respective ambient guideline value. All other TCL constituents identified in the annual averages have differential downwind impact values that are below their respective AGCs.

In terms of the relative impact of the landfill, it deserves repeating that because minimum 2006 upwind sample concentrations were subtracted from maximum 2006 downwind sample concentrations, the ambient air impact analysis presented within this report takes a conservative approach rather than simply comparing 2006 average upwind concentrations with 2006 average downwind concentrations.

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 2006 monitoring program are presented in Appendix A. In all cases, no measured concentrations exceeded this respective short-term guideline value.

TABLE 2.5

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

CONSERVATIVE ESTIMATION OF POTENTIAL IMPACTS

Quarterly I.D.	ANNUAL AVERAGE	ANNUAL AVERAGE	MAX DOWNWIND -	CURRENT
Sample Identification	MAX DOWNWIND VALUE	MIN UPWIND VALUE	MIN UPWIND VALUE	AGC
Lower Quantitation Limit (ug/m3)	0.0342	0.0259	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.0481	0.0483	---	---
Practical Quantitation Limit (ug/m3)	0.1708	0.1510	---	---
Constituent/Units	**(ug/m^3)**	**(ug/m^3)**	**(ug/m^3)**	**(ug/m^3)**
Acetone*	1.84E+00	< 9.94E-01	8.44E-01	28,000
Benzaldehyde**	**4.04E+00**		**4.04E+00**	0.10
Benzene	**1.08E+00**	**< 9.64E-01**	1.20E-01	0.13
Bromodichloromethane				0.02
Bromoform*	1.04E-01		1.04E-01	0.91
Bromomethane				5.0
2-Butanone*	9.25E-01	< 4.87E-01	4.38E-01	5,000
Carbon Disulfide	3.50E-02	< 2.67E-02	8.35E-03	700
Carbon Tetrachloride	**9.02E-01**	**< 6.23E-01**	**2.79E-01**	0.067
Chlorobenzene				110
Chloroethane				10,000
Chloroethyl Vinyl Ether**	**1.59E-01**		**1.59E-01**	0.10
Chloroform	**1.38E-01**	**< 7.43E-02**	**6.40E-02**	0.043
Chloromethane	< 1.52E-01	< 9.26E-02	5.94E-02	90
Dibromochloromethane	3.73E-02	< 2.59E-02	1.14E-02	0.10
1,2-Dichlorobenzene (o)				360
1,3-Dichlorobenzene (m)				360
1,4-Dichlorobenzene (p)	**1.05E-01**	**< 1.17E-01**	-1.21E-02	0.09
1,1-Dichloroethane				0.63
1,2-Dichloroethane				0.038
1,1-Dichloroethene				70
cis-1,2-Dichloroethene				1,900
trans-1,2-Dichloroethene				1,900
1,2-Dichloropropane				4.0
1,3-Dichloropropene, cis & trans isomers				0.25
Ethylbenzene	2.43E-01	< 2.05E-01	3.82E-02	1,000
2/4-Ethyltoluene (total)	**4.56E-01**	**< 3.84E-01**	7.18E-02	0.10
Freon 13**				---
2-Hexanone*	2.38E-01		2.38E-01	48
Methylene Chloride	7.32E-01	2.05E-01	5.26E-01	2.10
4-Methyl-2-Pentanone*	1.65E-01		1.65E-01	3,000
Styrene	4.58E-02	< 2.59E-02	1.99E-02	1,000
1,1,2,2-Tetrachloroethane	**1.31E-01**		**1.31E-01**	0.02
Tetrachloroethene	2.92E-01	< 2.41E-01	5.15E-02	1.0
Toluene	1.39E+00	< 1.16E+00	2.27E-01	400
1,1,1-Trichloroethane	1.48E-01	< 1.08E-01	3.95E-02	1,000
1,1,2-Trichloroethane				1.40
Trichloroethene	1.17E-01	< 8.64E-02	3.05E-02	0.50
Trichlorofluoromethane	3.80E+00	1.80E+00	2.00E+00	---
Vinyl Chloride				0.11
Xylenes (Total)	9.49E-01	< 8.36E-01	1.13E-01	100
Decane**	< 1.52E-01	< 9.26E-02	5.94E-02	200

NOTES:

* 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.

- 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.
  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 December 2003 and still current as of February 2007) 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.

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 sixteen years, several changes have been made 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 2006 and in 2005 (as well as results from previous years) confirm that benzene, carbon tetrachloride, chloroform and 2/4-ethyltoluene (previously reported as ethyl-methyl benzene) concentrations consistently exceed the level of the NYSDEC ambient annual guideline values at both upwind and downwind locations. Since the decane AGC guideline value was revised upward in December 2003, it has not and is unlikely that decane will exceed its new AGC value during future quarterly monitoring efforts. Benzaldehyde, chloroethyl vinyl ether and 1,1,2,2-tetracholorethane were present in very low concentrations in the downwind samples during the 2004 tests, but not seen during the 2005 tests. For 2006, these three compounds have re-appeared and were in exceedance of their respective AGC guideline values during the quarterly monitoring efforts. These compounds seem to appear in low quantities from time to time. Based on discussions with the laboratory that analyzes the samples, benzaldehyde is sometimes detected because of coeluting compounds that interfere with the identification and quantification of benzaldehyde, and unfortunately, there is no easy way to avoid this interference. In addition, tetrachloroethene, trichloroethene and 1,4-dichlorobenzene were in excess of their respective AGC guideline values in both upwind and downwind samples during 2006. These compounds are normally detected during quarterly sampling, although usually in slightly lower concentrations.

Several compounds observed in upwind and downwind samples during the first two years of monitoring appear at slightly higher concentration values when comparing 2005 and 2006 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 as the landfill ages. Furthermore, the 2006 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 2006 Soil Gas VOC Concentration Data

The 2006 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 2006 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 maximum soil gas VOC concentrations for each quarter. Since the third quarterly test of 2003 (August), no tests were conducted at soil gas well M21 due to the construction of a retaining wall along Claremont Road making the well inaccessible. Also, during the second quarter test of 2006, wells M4 and M6 were also inaccessible due to construction activities along Winding Road. Soil gas well M3 directly across the street was sampled in lieu of M4; however, no substitution was available for soil gas well M6. 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 seven (7) compounds averaged higher than their respective AGC value.

Individually, M6 provides the maximum total VOC concentration out of all the soil gas wells analyzed during the 2006 quarterly monitoring efforts. Due to construction on Winding Road, sampling was not performed at soil gas well M6 during the second quarter event. M39 demonstrated the highest VOC concentrations for the second quarter sampling effort. It is unknown whether M6 may have surpassed all other compounds for all four quarters of 2006 sampling; however, it consistently detected the highest total VOC concentration values in all other quarters it was sampled in 2006. The number of soil gas wells containing target compound constituents that had exceeded the level of their respective AGCs were similar throughout the four 2006 quarterly tests. No additional TIC compounds exceeded their respective AGC value from the selected soil gas wells. Since the soil gas values are not ambient air values, they cannot be directly compared to NYSDEC AGC/SGC ambient guidelines; although, the measured ten-minute concentrations for several compounds are in excess of the levels of annual ambient air guideline values specified. No soil gas concentrations were measured in excess of NYSDEC SGC guidelines during 2006. 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.

The 2006 soil gas VOST sample results for cluster well M9, including wells M9(10'), M9(20'), M9(30') and M9(40') varied in certain constituent concentrations at the different well depth for all four quarterly

TABLE 2.6

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM SOIL GAS VOC SAMPLE RESULTS FROM 2006

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M6	M39	M6	M6	---	AGC
Lower Quantitation Limit (LQL)	0.478	0.467	0.509	0.482	0.476	---
Practical Quantitation Limit (PQL)	0.765	0.747	0.815	0.771	0.76	---
Targeted TIC LQL	2.39	2.33	2.55	2.41	2.42	---
Constituent/Units	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)
Acetone**	4.11E+01	2.15E+01	6.82E+00	3.47E+00	1.82E+01	28,000
Benzaldehyde* **	**1.91E+02**		**2.04E+02**		**9.99E+01**	0.10
Benzene			**5.09E-01**		**1.04E+00**	0.13
Bromodichloromethane						0.02
Bromoform**						0.91
Bromomethane						5.0
2-Butanone**	3.06E+01				8.23E+00	5,000
Carbon Disulfide						700
Carbon Tetrachloride						0.067
Chlorobenzene						110
Chloroethane						10,000
Chloroethyl Vinyl Ether***						0.10
Chloroform	**6.41E+00**	**1.03E+00**	**5.09E+00**	**6.08E+00**	**5.99E+00**	0.043
Chloromethane						90
Dibromochloromethane						0.10
1,2-Dichlorobenzene (o)						360
1,3-Dichlorobenzene (m)						360
1,4-Dichlorobenzene (p)						0.09
1,1-Dichloroethane						0.63
1,2-Dichloroethane						0.038
1,1-Dichloroethene						70
cis-1,2-Dichloroethene						1,900
trans-1,2-Dichloroethene						1,900
1,2-Dichloropropane						4.0
1,3-Dichloropropene, cis & trans isomers						0.25
Ethylbenzene						1,000
2/4-Ethyltoluene (total)						0.10
Freon 13***						---
2-Hexanone**	7.27E+00				2.40E+00	48
Methylene Chloride	5.74E-01		**3.56E+00**	**2.70E+00**	1.85E+00	2.10
4-Methyl-2-Pentanone**	5.54E+00	8.87E+00			4.00E+00	3,000
Styrene						1,000
1,1,2,2-Tetrachloroethane	**1.72E+00**				**2.10E+00**	0.02
Tetrachloroethene		**5.51E+01**	**2.44E+00**	8.68E-01	**1.13E+00**	1.0
Toluene				7.71E-01	1.14E+00	400
1,1,1-Trichloroethane						1,000
1,1,2-Trichloroethane						1.40
Trichloroethene		4.67E-01			**1.55E+00**	0.50
Trichlorofluoromethane	9.56E-01	1.59E+00	2.55E+01	5.98E+01	2.18E+01	---
Vinyl Chloride						0.11
Xylenes (Total)						100
Decane***						200

TABLE 2.6
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM SOIL GAS VOC SAMPLE RESULTS FROM 2005
ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

Quarterly	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M6	M39	M6	M6	---	AGC
Additional TIC LQL	2.39	2.33	2.55	2.41	2.42	---

Constituent/Units	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
2-Methyl-1 propene			4.28E+00			0.1
2-Methoxy-2-Methyl-propane		3.55E+01				---
(DEL) Branched Alkane (Total)	9.37E+00					---
Hexane				2.70E+00		200
Undecane (plus unknowns)	3.15E+00	7.94E+01				---
Dichlorodifluoromethane	2.49E+00	6.07E+00	1.53E+01	1.45E+01		12,000
1,2-Dichloro-1-fluoroethane				3.18E+00		25,000
Unknown (RT: 1.42-15.04)		< 1.21E+03				---
Dichlorotetrafluoroethane		< 7.40E+00		4.44E+01		17,000
Ethane, 1,1,2-trichloro-1,2,2-triflu			5.40E+01			180,000

NOTES:

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

** 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.

- All values are reported in micrograms per standard cubic meter ($ug/std\text{-}m^3$) 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.
  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 December 2003 and still current as of February 2007) 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.

tests. In past years, constituent concentrations have increased with well depths which may be attributed to groundwater conditions at this location. However, this trend was not as pronounced as in previous years.

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 sixteen 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. In general, these soil gas VOC concentration exceedances increased in number from 1992 through 1997. Since 1997, the number and magnitudes of the exceedances has remained similar for each test year, specifically the compounds benzene, carbon tetrachloride, chloroform, tetrachloroethene and trichloroethene consistently exceeded the level their respective NYSDEC ambient annual guideline values. It is critical to note that the subsurface soil gas data were only ten minute samples which are not directly comparable to NYSDEC annual or short-term 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 2006 Soil Gas Pressure Measurements

Soil gas pressure measurements were made during the 2006 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.

Soil gas pressure readings during 2006 were zero or negative with the exception of the third quarter effort, where some soil gas pressures were slightly positive. These results indicate that the landfill gas control system was operating according to its design in 2006. The summary of soil gas pressure readings for the quarterly tests are provided in Appendix C.

3.0 SUMMARY AND CONCLUSIONS

In summary, the 2006 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 Consent Decree. The data indicates that several compounds, most notably benzene, carbon tetrachloride, chloroform, 1,4-dichlorobenzene and 2/4-ethyltoluene 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.

In addition, compounds benzaldehyde, chloroethyl vinyl ether and 1,1,2,2-tetrachloroethane exceeded their respective NYSDEC annual guideline values; however they were only measured in exceedance of the guidelines at locations downwind of the landfill.

Once the average minimum upwind VOC concentrations (background levels) are subtracted from the peak downwind VOC concentration levels, only carbon tetrachloride and chloroform, when adjusted for background levels, exceeded the level of the guideline value downwind of the landfill.

Representative upwind and downwind values have been used in estimating air quality impacts associated with releases from the landfill are intentionally conservative. Moreover, it should be noted that quarterly monitoring occurred during generally 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 neighboring emission sources increases.

A database is being developed for both an uncapped and a capped landfill. Since capping was completed, the data collected continues to show for a limited set of compounds exceedances 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 and decane, which were not on the initial list of target compounds but were measured in excess of the current State annual guideline concentration both upwind and downwind

of the OBSWDC in the past. Hexachloroethane, an additional TIC was again found during the 2006 quarterly sampling efforts but was detected only in one upwind sample during the second quarter monitoring event. Hexachloroethane was also detected during the 2003, 2004 and 2005 quarterly tests. Prior to this, hexachloroethane was last detected during the 2001 third quarter effort before being detected during the fourth quarter of 2002. Since this compound is detected from time to time in the vicinity of the OBSWDC, the source(s) are currently unknown. 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 2006 study upwind and downwind of the facility for most compounds appear to be similar to VOC concentrations detected during previous years. However, the ambient results during the 2006 quarterly tests appeared to have a few unmatched constituents in collocated samplers. Several potential causes for this finding have been postulated but none have been proven conclusively.

Where the conservative net differences between the upwind and downwind sample exceed the NYSDEC AGC, the level of exceedances is fairly limited. Based on this test data, the Old Bethpage Solid Waste Disposal Complex appears to have a limited 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

2006 ANNUAL SUMMARY REPORT

2006 QUARTERLY AMBIENT AIR CONCENTRATION DATA

TABLE 4.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FIRST QUARTER 2006

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION*	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
LOWER QUANTITATION LIMIT (LQL)	0.0130	0.0246	0.0417	0.0269	0.0246	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0208	0.0394	0.0333	0.0430	0.0393	8	8		
TARGETED TIC LQL	0.0649	0.1232	0.2083	0.1344	0.123	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**	1.19E+00	7.49E-01	2.17E+00	9.14E-01	9.09E-01	11		28,000	180,000
Benzaldehyde***			< 8.35E+00	< 1.21E+00				0.10	----
Benzene	8.57E-01	< 6.53E-01	8.17E-01	< 5.78E-01	7.35E-01			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform**			< 2.58E-01					0.90	---
Bromomethane								5.00	3,900
2-Butanone**	8.57E-01	5.91E-01	1.61E+00	9.14E-01	7.71E-01			5,000	59,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	7.53E-01	< 4.31E-01	8.79E-01	< 4.70E-01	7.40E-01			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether***			2.50E-01	< 1.85E-01				0.10	----
Chloroform	1.01E-01	< 6.65E-02	1.17E-01	< 6.45E-02	9.83E-02			0.043	150
Chloromethane	5.71E-02	1.08E-01	< 1.42E-01	9.68E-02	< 6.14E-02			90	22,000
Dibromochloromethane	1.30E-02		< 5.42E-02	< 3.76E-02				0.10	---
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	2.55E-01	< 2.59E-01	1.38E-01	9.14E-02	< 8.85E-02			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane				< 2.96E-02				0.038	---
1,1-Dichloroethene		< 3.20E-02						70.00	---
cis-1,2-Dichloroethene								1,900	---
trans-1,2-Dichloroethene								1,900	----
1,2-Dichloropropane								4.00	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	2.86E-01	< 2.83E-01	< 2.79E-01	< 2.23E-01	< 2.29E-01			1,000	54,000
2/4-Ethyltoluene (total)	5.97E-01	< 6.53E-01	< 6.04E-01	< 4.70E-01	< 4.79E-01			0.10	----
Freon 13***								---	560,000
2-Hexanone**			< 7.92E-01	< 3.63E-01				48	4,000
Methylene Chloride	2.26E-01	2.56E-01	4.04E-01	2.88E-01	4.20E-01	7		2.10	14,000
4-Methyl-2-Pentanone**			< 5.00E-01	< 3.36E-01				3,000	31,000
Styrene								1,000	17,000
1,1,2,2-Tetrachloroethane			< 4.29E-01	< 2.80E-01				0.02	---
Tetrachloroethene	3.12E-01	< 3.33E-01	< 3.71E-01	< 3.09E-01	< 4.05E-01			1.00	1,000
Toluene	1.56E+00	1.58E+00	1.71E+00	1.28E+00	1.33E+00			400	37,000
1,1,1-Trichloroethane	1.56E-01	< 9.61E-02	1.75E-01	< 1.02E-01	1.70E-01			1,000	68,000
1,1,2-Trichloroethane				< 6.99E-02				1.40	---
Trichloroethene	2.52E-01	< 2.49E-01	< 2.92E-01	< 2.58E-01	4.45E-01			0.50	54,000
Trichlorofluoromethane	8.31E-01	8.79E-01	1.30E+00	8.33E-01	8.87E-01			---	560,000
Vinyl Chloride								0.11	180,000.0
Xylenes (Total)	1.38E+00	< 1.39E+00	< 1.31E+00	< 1.01E+00	< 1.09E+00			100	4,300
Decane***	2.60E-01	< 3.08E-01	< 3.13E-01	< 3.09E-01	< 3.56E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FIRST QUARTER 2006

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION (I)	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.065	0.123	0.104	0.134	0.123	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	9.09E-01		< 1.33E+00		< 5.04E-01			4,200	350,000
(DEL) Branched Alkane (Total)	8.05E-01	< 2.06E+00	6.25E+00	< 1.94E+00	1.21E+00			---	---
C3 subst. Benzene		< 5.05E-01		< 4.70E-01	< 4.30E-01			0.13	1,300
2-Methyl-butane	1.06E+00	< 8.74E-01	< 1.38E+00	< 6.05E-01	9.09E-01			42,000	---
2-Methyl-hexane			< 5.83E-01		< 3.56E-01			---	---
Hexane	7.79E-01	< 5.79E-01	< 1.29E+00	< 5.24E-01	< 6.27E-01			200	---
Isobutane	9.87E-01	< 1.17E+00	< 1.02E+00	< 7.66E-01	< 8.48E-01			45,000	---
Dichlorodifluoromethane	2.05E+00	< 1.71E+00		< 2.16E+00	< 2.52E+00			12,000	---
Butane	9.61E-01	< 1.05E+00	< 1.02E+00	< 7.12E-01	< 7.99E-01			45,000	---
Unknown (RT: 1.42-13.97)		< 2.08E+00	< 2.27E+00	< 8.20E-01				---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu		< 5.05E-01		< 4.17E-01				180,000	960,000
Octane					< 3.56E-01			3,300	---

NOTES:

* See Figure 2.1 for ambient air 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 December 2003 and still current as of April 2006) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the western OBSWDC property boundary, approximately 50 feet west of Discharge Basin No. 1.

D1/D2: Ambient downwind samplers collocated in the southeast corner of the landfill boundary on the landfill access road, just northwest of the Fireman's Training Center.

D3: Ambient downwind sampler located near the first footbridge on the eastern side of the landfill, approximately 25 feet west of Winding Road.

TB1: No Trip Blanks were analyzed due to clean field blank results.

- 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of April 2006) 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 2006

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION[1]	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC[4]
LOWER QUANTITATION LIMIT (LQL)	0.0184	0.0377	0.0376	0.0418	0.0386	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0294	0.0604	0.0301	0.0669	0.0618	8	8		
TARGETED TIC LQL	0.0919	0.1887	0.1880	0.2092	0.193	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[2]	9.19E-01	9.92E-01	1.99E+00	< 6.19E-01	1.04E+00			28,000	180,000
Benzaldehyde[3]			**< 7.54E+00**					0.10	----
Benzene	**1.88E+00**	**< 1.79E+00**	**2.11E-01**	**< 1.72E-01**	**8.80E-01**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]								0.90	---
Bromomethane								5.00	3,900
2-Butanone[2]	3.35E-01		7.78E-01					5,000	59,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	**7.72E-01**	**5.85E-01**	**9.06E-01**	**6.23E-01**	**6.91E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]			**2.26E-01**					0.10	----
Chloroform	**4.78E-02**	**< 5.28E-02**	**< 6.39E-02**	**< 5.44E-02**	**9.65E-02**			0.043	150
Chloromethane	1.18E-01	< 1.17E-01	1.99E-01	< 1.38E-01	< 1.31E-01			90	22,000
Dibromochloromethane					< 4.63E-02			0.10	---
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	6.62E-02	**< 1.17E-01**	6.39E-02	< 6.69E-02	< 5.41E-02			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene								70.00	---
cis-1,2-Dichloroethene								1,900	---
trans-1,2-Dichloroethene								1,900	----
1,2-Dichloropropane								4.00	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	1.10E-01	< 1.32E-01	< 1.32E-01	< 1.26E-01	< 3.71E-01			1,000	54,000
2/4-Ethyltoluene (total)	**2.83E-01**	**< 3.62E-01**	**< 2.82E-01**	**< 2.85E-01**	**< 9.46E-01**			0.10	----
Freon 13[3]								---	560,000
2-Hexanone[2]								48	4,000
Methylene Chloride	5.51E-02	< 6.42E-02	1.80E-01	7.11E-02	9.27E-02	5		2.10	14,000
4-Methyl-2-Pentanone[2]								3,000	31,000
Styrene								1,000	17,000
1,1,2,2-Tetrachloroethane								0.02	---
Tetrachloroethene	1.40E-01	< 1.55E-01	< 1.32E-01	< 1.13E-01	< 1.12E-01			1.00	1,000
Toluene	9.19E-01	< 1.00E+00	7.52E-01	< 6.49E-01	< 1.72E+00			400	37,000
1,1,1-Trichloroethane	1.10E-01	< 8.30E-02	1.39E-01	< 1.05E-01	< 1.04E-01			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene			< 6.39E-02	< 6.69E-02				0.50	54,000
Trichlorofluoromethane	1.58E+00	1.36E+00	2.44E+00	1.88E+00	1.38E+00			---	560,000
Vinyl Chloride								0.11	180,000.0
Xylenes (Total)	4.78E-01	< 5.09E-01	< 5.08E-01	< 4.39E-01	< 1.64E+00			100	4,300
Decane[3]	3.31E-01	< 4.42E-01	< 1.62E-01	< 2.80E-01	< 7.92E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

SECOND QUARTER 2006

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	0.092	0.189	0.094	0.209	0.193	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			4,200	350,000
(DEL) Branched Alkane (Total)	3.38E+00	3.70E+00	5.34E+00	1.52E+00	1.81E+00			---	---
C3 subst. Benzene				< 4.31E-01	< 9.46E-01			0.13	1,300
2-Methyl-hexane					< 7.92E-01			---	---
Hexane			< 7.14E-01		< 1.37E+00			200	---
Isobutane			< 9.21E-01					45,000	---
Dichlorodifluoromethane		< 2.21E+00	< 2.37E+00	< 2.62E+00	< 2.68E+00			12,000	---
Butane			< 9.21E-01					45,000	---
Hexachloroethane		< 9.25E-01						2.5E-01	---
Unknown alkene (RT: 3.33-3.34)					< 4.75E-01			---	---
Unknown (RT: 1.43-15.04)			< 2.05E+00		< 3.36E-01			---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu				< 2.34E-01				---	---
Decanal				< 4.35E-01				---	---
Nonanal	7.72E-01	< 1.23E+00	< 4.51E-01	< 6.07E-01				---	---
(DEL) Straight-chain Alkane		< 9.25E-01		< 3.01E-01				---	---
Dodecane	6.99E-01	< 1.45E+00		< 4.48E-01	< 9.85E-01			---	---
Ethane, 1,1-difluoro-	2.76E+00			< 7.74E-01				---	---
1,3-Pentadiene, (E)-		< 1.19E+00	< 8.65E-01	< 1.15E+00	< 1.25E+00			---	---
Octanal			< 7.52E-01					---	---

NOTES:

[1] See Figure 2.1 for ambient air sampling locations.

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

[3] 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.

[4] This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised December 2003 and still current as of September 2006) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the 15th hole fairway of the Bethpage State Park Black Golf Course approximately 150 feet

D1/D2: Ambient downwind sampler located approximately 50 feet east of the landfill access road on the northwest slope of the landfill. just northwest of the Fireman's Training Center.

D3: Ambient downwind samplers collocated in the southeast corner of the landfill boundary on the landfill access road,

TB1: No Trip Blanks were analyzed due to clean field blank results.

- 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

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 December 2003 and still current as of September 2006) 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 2006

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION[1]	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC[4]
LOWER QUANTITATION LIMIT (LQL)	0.0160	0.0418	0.0234	0.0299	0.0299	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0256	0.0669	0.0748	0.0478	0.0479	8	8		
TARGETED TIC LQL	0.0799	0.2092	0.1168	0.1493	0.150	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[2]	1.53E+00	< 1.25E+00	2.48E+00	2.39E+00	1.80E+00			28,000	180,000
Benzaldehyde[3]				**< 1.94E+00**				0.10	----
Benzene	**6.71E-01**	**< 7.74E-01**	**2.48E+00**	**< 1.81E+00**	**9.07E-01**	8	8	0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]	3.51E-02			< 1.22E-01				0.90	---
Bromomethane								5.00	3,900
2-Butanone[2]	4.47E-01	< 5.77E-01	8.41E-01	1.31E+00	< 7.43E-01			5,000	59,000
Carbon Disulfide	7.35E-02							700	6,200
Carbon Tetrachloride	**7.35E-01**	**< 5.65E-01**	**8.88E-01**	**6.51E-01**	**7.51E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]								0.10	----
Chloroform	**1.25E-01**	**< 7.53E-02**	**1.82E-01**	**< 1.01E-01**	**9.28E-02**			0.043	150
Chloromethane	4.15E-02	< 7.11E-02	1.07E-01	< 5.97E-02	< 9.28E-02			90	22,000
Dibromochloromethane								0.10	---
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	7.67E-02	**< 9.62E-02**	**1.17E-01**	**< 1.04E-01**	**< 7.34E-01**			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene								70.00	---
cis-1,2-Dichloroethene								1,900	---
trans-1,2-Dichloroethene								1,900	----
1,2-Dichloropropane								4.00	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	2.33E-01	< 3.14E-01	3.13E-01	< 2.66E-01	< 7.78E-02			1,000	54,000
2/4-Ethyltoluene (total)	**4.15E-01**	**< 4.81E-01**	**5.14E-01**	**< 4.33E-01**	< 5.09E-02			0.10	----
Freon 13[3]								---	560,000
2-Hexanone[2]				< 7.31E-01				48	4,000
Methylene Chloride	1.76E-01	2.38E-01	2.06E+00	1.40E-01	2.66E-01	24	14	2.10	14,000
4-Methyl-2-Pentanone[2]				< 4.63E-01				3,000	31,000
Styrene			7.01E-02		< 2.99E-02			1,000	17,000
1,1,2,2-Tetrachloroethane				**< 2.75E-01**				0.02	---
Tetrachloroethene	2.78E-01	< 3.56E-01	3.08E-01	< 3.07E-01	< 2.19E-01			1.00	1,000
Toluene	1.21E+00	< 1.61E+00	1.73E+00	< 1.57E+00	1.11E+00			400	37,000
1,1,1-Trichloroethane		< 1.00E-01	1.45E-01	< 1.10E-01	< 1.23E-01			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene			3.74E-02	< 4.18E-02	< 3.59E-02			0.50	54,000
Trichlorofluoromethane	2.20E+00	1.63E+00	6.54E+00	2.27E+00	1.65E+00	320	220	---	560,000
Vinyl Chloride								0.11	180,000.0
Xylenes (Total)	8.95E-01	< 1.11E+00	1.07E+00	< 9.40E-01	< 2.28E-01			100	4,300
Decane[3]	9.27E-02		1.40E-01	< 2.54E-01	< 1.95E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

THIRD QUARTER 2006

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	0.080	0.209	0.234	0.149	0.150	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-1 propene	1.37E+00				< 9.73E-01			---	---
2-Methyl-pentane	1.53E+00	8.03E-01	1.40E+00		< 6.14E-01			---	---
(DEL) Branched Alkane (Total)	1.25E+00	2.44E+00		8.12E-01	1.39E+00			---	---
Pentadiene isomer		< 1.03E+00			< 5.84E-01			---	---
C4 subst. Benzene				< 8.81E-01				0.13	1,300
C3 subst. Benzene				< 6.72E-01				0.13	1,300
2-Methyl-butane	1.85E+00	1.13E+00	2.66E+00	< 4.33E-01	< 1.09E+00			4,200	---
Hexane	1.31E+00	< 6.90E-01	1.87E+00		< 7.04E-01			200	---
alpha-Pinene isomer (12.03-13.04)			4.77E+00	< 3.51E+00				---	---
Isobutane		< 6.07E-01			< 1.06E+00			45,000	---
Dichlorodifluoromethane		< 1.19E+00	6.54E+00	2.96E+00	< 1.03E+00			12,000	---
1,1-Dichloro-1-fluoroethane			1.92E+00					100	---
Unknown alkane (RT: 1.75-2.74)				< 8.03E-01				---	---
Unknown (RT: 1.31-14.56)				< 2.36E-01				---	---
D-Limonene					< 5.54E-01			0.10	---
1,3-Pentadiene, (Z)-	1.47E+00							---	---
Nonanal	1.18E+00							---	---
Cyclopropane, ethylidene-				< 9.70E-01				---	---
1,3-Pentadiene, (E)-					< 6.44E-01			---	---
Unknown ester (RT: 3.98)				< 4.63E-01				---	---

NOTES:

[1] See Figure 2.1 for ambient air sampling locations.

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

[3] 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.

[4] This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised December 2003 and still current as of November 2006) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the 15th hole fairway of the Bethpage State Park Black Golf Course approximately 150 feet

D1/D2: Ambient downwind samplers located approximately 75 feet southwest of the southwestern corner of the RAP building.

D3: Ambient downwind sampler located approximately 100 feet east of the landfill haul road on the northwest side of the landfill.

TB1: No Trip Blanks were analyzed due to clean field blank results.

- 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of November 2006) 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 2006

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
;AMPLE IDENTIFICATION[1]	U1	U2	D1	D2	D3	FB3	TB1	AGC	SGC[4]
.OWER QUANTITATION LIMIT (LQL)	0.0304	0.0319	0.0340	0.0346	0.0322	5	5		
'RACTICAL QUANTITATION LIMIT (PQL)	0.0486	0.0511	0.0544	0.0554	0.0514	8	8		
TARGETED TIC LQL	0.1520	0.1597	0.1701	0.1730	0.161	25	25		
/OC 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)
\cetone[2]	6.14E-01	< 7.60E-01	7.14E-01	3.11E-01	8.36E-01	190	470	28,000	180,000
3enzaldehyde[3]								0.10	----
3enzene	**< 3.50E-01**		**< 8.33E-01**	**< 9.17E-01**	**< 7.23E-01**			0.13	1,300
3romodichloromethane								0.02	---
3romoform[2]					< 5.14E-02			0.91	---
3romomethane								5.00	3,900
!-Butanone[2]	< 1.79E-01	< 2.81E-01	< 4.69E-01	< 4.78E-01	< 3.79E-01			5,000	59,000
Carbon Disulfide	< 3.34E-02	< 3.51E-02	< 3.74E-02	< 3.81E-02	< 4.18E-02			700	6,200
Carbon Tetrachloride	**4.01E-01**	**< 1.76E-01**	**9.35E-01**	**< 8.48E-01**	**8.04E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]			**4.42E-02**					0.10	----
Chloroform	**7.29E-02**		**1.90E-01**	**< 1.52E-01**	**< 1.19E-01**			0.043	150
Chloromethane	1.25E-01	1.25E-01	1.60E-01	2.04E-01	1.19E-01			90	22,000
Dibromochloromethane								0.10	---
,2-Dichlorobenzene (o)						19		360	30,000
,3-Dichlorobenzene (m)						17		360	30,000
,4-Dichlorobenzene (p)	< 5.17E-02		**1.02E-01**	< 9.69E-02	< 8.68E-02	22		0.09	---
,1-Dichloroethane								0.63	---
,2-Dichloroethane								0.038	---
,1-Dichloroethene								70	---
:is-1,2-Dichloroethene								1,900	---
rans-1,2-Dichloroethene								1,900	----
,2-Dichloropropane								4.0	51,000
,3-Dichloropropene, cis & trans isomers								0.25	---
:thylbenzene	< 1.09E-01		< 2.48E-01	< 2.87E-01	< 2.12E-01			1,000	54,000
:/4-Ethyltoluene (total)	**< 1.76E-01**		**< 4.25E-01**	**< 4.67E-01**	**< 3.70E-01**			0.10	----
'reon 13[3]								---	560,000
!-Hexanone[2]								48	4,000
Methylene Chloride	3.01E-01	2.75E-01	2.86E-01	1.90E-01	3.12E-01	140	230	2.10	14,000
l-Methyl-2-Pentanone[2]								3,000	31,000
;tyrene	< 3.04E-02	< 3.51E-02					24	1,000	17,000
,1,2,2-Tetrachloroethane						8		0.02	---
'etrachloroethene	< 1.55E-01		< 3.57E-01	< 4.33E-01	< 3.05E-01			1.0	1,000
'oluene	5.71E-01	< 3.19E-02	< 1.38E+00	< 1.57E+00	1.14E+00	18	49	400	37,000
,1,1-Trichloroethane	6.69E-02	< 3.83E-02	< 1.33E-01	< 1.38E-01	< 1.35E-01			1,000	68,000
,1,2-Trichloroethane								1.40	---
'richloroethene	< 3.34E-02		< 7.48E-02	< 7.61E-02	< 6.75E-02			0.50	54,000
'richlorofluoromethane	3.16E+00	2.04E+00	4.93E+00	2.13E+00	2.64E+00	3300	7100	---	560,000
/inyl Chloride								0.11	180,000
{ylenes (Total)	< 3.80E-01		< 9.01E-01	< 1.09E+00	< 7.88E-01			100	4,300
)ecane[3]		< 2.01E-01	< 1.87E-01		< 2.03E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FOURTH QUARTER 2006

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	0.152	0.160	0.170	0.173	0.161	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-1 propene				< 5.02E-01				0.10	450,000
2-Methyl-pentane	6.26E-01	< 3.64E-01	< 1.24E+00		1.27E+00			4,200	350,000
3-Methyl-pentane			< 9.35E-01					---	---
Branched Alkane (Total)		< 1.79E-01			9.97E-01			---	---
Pentadiene isomer								---	---
C4 subst. Benzene								0.13	1,300
C3 subst. Benzene			< 4.05E-01	< 7.09E-01	< 3.54E-01			0.13	1,300
2-Methyl-butane	1.64E+00	1.12E+00	1.60E+00	< 2.84E-01	1.96E+00			42,000	---
1-Butene								---	---
1-Pentene				< 5.02E-01				---	---
Hexane	< 4.41E-01		< 1.41E+00		< 1.17E+00			200	---
Undecane								---	---
alpha-Pinene isomer (12.03-13.04)				< 5.02E-01				---	---
Isobutane	1.28E+00	1.18E+00	< 1.17E+00	< 4.67E-01	< 1.11E+00			45,000	---
Dichlorodifluoromethane	1.49E+00	2.31E+00	< 4.85E+00	< 6.66E+00	< 1.43E+00			12,000	---
1,1-Dichloro-1-fluoroethane			< 6.29E-01	< 3.08E-01				---	---
1-Chloro-1,1-difluoroethane								50,000	---
Cyclotrisiloxane, hexamethyl-								---	---
Unknown siloxane (RT: -13.96 - 13.97)		< 1.95E-01						---	---
Unknown alkane (RT: 1.74-2.00)				< 7.85E-01				---	---
Unknown (RT: 1.30 -14.02)								---	---
Dichlorotetrafluoroethane									
Ethane, 1,1,2-trichloro-1,2,2-triflu	< 8.36E-01	< 5.27E-01	< 7.65E-01	< 2.42E-01				180,000	960,000
Ethane, 1,2-dichloro-1-fluoro								---	---
Limonene								---	---
Chlorodifluoromethane								0.25	---
2-Methyl-Hexane			< 7.65E-01	< 5.71E-01	< 6.27E-01			3,300	---
Butane	1.67E+00	1.37E+00	< 1.55E+00		< 1.24E+00			45,000	---
Trichloromonofluoromethane								---	---
D-Limonene								0.10	---
Ethylene Oxide								---	---
Nonanal								---	---
Cyclopropane, ethylidene-									
Ethane, 1,1-difluoro-								40,000	---
Anthracene, 9,10-dihydro-9,10-bis(t								---	---
Cobalt, (2-methyl_eta_-3-propenyl)								---	---

NOTES:

[1] See Figure 2.1 for ambient air sampling locations.

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

[3] 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.

[4] This 24-hour guideline concentration was calculated by multiplying the current SGC value (last revised December 2003 and still current as of December 2006) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the 15th hole fairway of the Bethpage State Park Black Golf Course approximately 150 feet west of Round Swamp Rd.

D1/D2: Ambient downwind samplers collocated approximately 75 feet southwest of the southwestern corner of the RAP building just northwest of the Fireman's Training Center.

D3: Ambient downwind sampler located approximately 100 feet east of the landfill haul road on the northwest side of the landfill.

- 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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.
  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 December 2003 and still current as of December 2006) 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

2006 ANNUAL SUMMARY REPORT

2006 QUARTERLY SOIL GAS CONCENTRATION DATA

TABLE 4.2

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
FIRST QUARTER 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.467	0.466	0.473	0.951	0.478	0.475	0.478	0.945	0.476	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.747	0.745	0.757	1.521	0.765	0.760	0.765	1.512	0.76	---	---
TARGETED TIC LQL	2.33	2.33	2.37	4.75	2.39	2.37	2.39	4.73	2.38	---	---
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*	8.22E+00	5.31E+00	4.35E+00	5.42E+00	4.11E+01	1.90E+01	4.78E+01	9.26E+00	9.24E+00	28,000	180,000
Benzaldehyde**					**1.91E+02**		**1.91E+02**			0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5.00	3900
2-Butanone*					3.06E+01	2.28E+00	2.96E+01			5000	59,000
Carbon Disulfide								< 1.23E+00	8.57E-01	700	6200
Carbon Tetrachloride		**6.52E-01**	**6.62E-01**						**5.71E-01**	0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**2.15E+00**	**5.59E-01**	**8.51E-01**	**< 9.51E-01**	**6.41E+00**	**8.55E-01**	**9.56E-01**	**< 1.04E+00**		0.043	150
Chloromethane									4.76E-01	90.0	22,000
Dibromochloromethane			**6.62E-01**							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										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*					7.27E+00					48.0	4000
Methylene Chloride	1.31E+00	1.12E+00	1.14E+00	**5.89E+00**	5.74E-01			**1.31E+01**		2.10	14,000
4-Methyl-2-Pentanone*					5.54E+00					3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane					**1.72E+00**					0.017	---
Tetrachloroethene	**5.79E+00**	5.59E-01	6.62E-01	**< 3.14E+00**		**4.65E+00**	**6.21E+00**	**< 5.95E+00**	**1.24E+01**	1.00	1,000
Toluene	9.34E-01	5.59E-01				5.70E-01		< 1.04E+00	6.67E-01	400	37,000
1,1,1-Trichloroethane										1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene										0.50	54,000
Trichlorofluoromethane	1.40E+00	9.31E-01	1.04E+00	< 1.33E+00	9.56E-01	1.90E+00	1.53E+00	< 1.89E+00	2.48E+00	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS
FIRST QUARTER 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	2.33	2.33	2.37	4.75	2.39	2.37	2.39	4.73	2.38	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)
(DEL) Branched Alkane (Total)	4.49E+01	2.01E+01	1.04E+01		9.37E+00	1.23E+01	3.15E+00	< 4.91E+00		---	---
Undecane (plus unknowns)	8.22E+00	5.77E+00	3.41E+00		3.15E+00	3.70E+00				---	---
Dichlorodifluoromethane		3.17E+00	3.31E+00	< 5.51E+00	2.49E+00	3.23E+00	4.02E+00	< 7.18E+00	8.76E+00	12,000	---
1,1-Dichloro-1-fluoroethane	8.50E+00									---	---
Unknown siloxane										---	---
Dichlorotetrafluoroethane				< 5.13E+00				< 5.58E+00	1.52E+01	17,000	---
Nonanal										---	---
(DEL) Straight-chain Alkane							2.68E+00			---	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
FIRST QUARTER 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.462	0.465	-	0.466	0.457	0.456	0.455	0.466	0.463	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.739	0.744	-	0.746	0.731	0.73	0.727	0.746	0.741		
TARGETED TIC LQL	2.31	2.33	-	2.33	2.28	2.28	2.27	2.33	2.31		
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*	6.47E+00	6.60E+00		7.09E+00	3.38E+00	5.74E+00	1.82E+01	1.40E+01	1.67E+01	28,000	180,000
Benzaldehyde**										0.10	----
Benzene							**4.55E-01**			0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5.00	3900
2-Butanone*						1.00E+00	7.27E-01		2.96E+00	5000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride		**5.58E-01**		**7.46E-01**	**7.31E-01**	**7.29E-01**	**8.18E-01**	**7.46E-01**		0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**7.39E-01**	**8.37E-01**				**4.56E-01**				0.043	150
Chloromethane							6.36E-01			90.0	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										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	1.02E+00	9.30E-01		1.31E+00	9.13E-01	1.46E+00				2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane						**8.20E-01**				0.017	---
Tetrachloroethene	**2.50E+00**	**2.88E+00**		5.60E-01	5.48E-01	4.56E-01	5.45E-01		**1.57E+01**	1.00	1,000
Toluene										400	37,000
1,1,1-Trichloroethane										1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene										0.50	54,000
Trichlorofluoromethane	1.20E+00	1.58E+00		1.12E+00	1.00E+00	1.09E+00	1.09E+00	1.03E+00	1.30E+00	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

TABLE 4.2
(Concluded)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS
FIRST QUARTER 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.31	2.33	-	2.33	2.28	2.28	2.27	2.33	2.31	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)
(DEL) Branched Alkane (Total)							5.82E+00	1.16E+01		---	---
Undecane (plus unknowns)				1.03E+01				6.34E+00		---	---
Dichlorodifluoromethane	5.08E+00	3.26E+00		3.36E+00	3.29E+00	2.46E+00	3.18E+00	3.08E+00	2.69E+00	12,000	---
1,1-Dichloro-1-fluoroethane										---	---
Unknown siloxane						2.64E+00				---	---
Dichlorotetrafluoroethane										17,000	---
Nonanal							3.18E+00	2.61E+00		---	---
(DEL) Straight-chain Alkane										---	---

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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of April 2006) 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 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.467	0.476	0.475	0.962	---	0.479	0.484	0.961	0.480	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.748	0.762	0.760	1.540	---	0.767	0.774	1.537	0.77	---	---
TARGETED TIC LQL	2.34	2.38	2.38	4.81	---	2.40	2.42	4.80	2.40	---	---
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*	1.68E+01	8.19E+00	3.14E+00	< 1.04E+01		6.71E+00		< 1.83E+02		28,000	180,000
Benzaldehyde**							**1.94E+02**			0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*	**2.15E+00**									0.90	---
Bromomethane										5.00	3900
2-Butanone*	1.68E+01									5000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride										0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**1.87E+00**	**5.52E+00**	**2.38E+00**	**8.47E+00**		**6.71E-01**	**7.74E-01**	**< 5.38E+00**	**7.68E-01**	0.043	150
Chloromethane										90.0	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										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*	1.12E+01									48.0	4000
Methylene Chloride				< 1.06E+00				**1.54E+02**		2.10	14,000
4-Methyl-2-Pentanone*	9.25E+00									3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane	**3.46E+00**									0.017	---
Tetrachloroethene	**7.48E+00**		**2.76E+00**	**< 1.15E+01**		**8.92E+00**	**6.58E+00**	**< 1.14E+01**	**2.56E+01**	1.00	1,000
Toluene		6.67E-01								400	37,000
1,1,1-Trichloroethane										1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**1.68E+00**									0.50	54,000
Trichlorofluoromethane	1.21E+00	8.57E-01	9.51E-01	< 1.73E+00		3.07E+00	2.32E+00	< 1.68E+01	4.13E+00	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

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 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	2.34	2.38	2.38	4.81	---	2.40	2.42	4.80	2.40	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)
(DEL) Branched Alkane (Total)	2.34E+00									---	---
Hexane										200	---
Undecane (plus unknowns)										---	---
Decane										200	---
Acidic acid, methyl ester	3.55E+00									---	---
Isobutane										45,000	---
Dichlorodifluoromethane	3.27E+00	3.14E+00				6.42E+00	7.36E+00	< 1.49E+01	2.11E+01	12,000	---
1,1-Dichloro-1-fluoroethane	1.78E+01									---	---
1-Chloro-1-fluoroethene	6.36E+00									40,000	---
Butane										45,000	---
Unknown (RT: 1.43-15.04)	5.23E+00		2.95E+00	< 6.83E+00				< 1.21E+03		---	---
Dichlorotetrafluoroethane								< 7.40E+00	6.15E+01	17,000	---
Nonane										25,000	---
Acetophenone								**< 1.45E+02**		120	---
2-Tridecanone										---	---
Ethane, 1,1-difluoro-								< 2.07E+01		---	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
SECOND QUARTER 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.455	0.478	-	0.478	0.463	0.478	0.471	0.473	0.467		
PRACTICAL QUANTITATION LIMIT (PQL)	0.729	0.766	-	0.764	0.741	0.76	0.754	0.756	0.747		
TARGETED TIC LQL	2.28	2.39	-	2.39	2.32	2.39	2.36	2.36	2.33		
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*	7.29E+00	1.44E+01		2.39E+01	2.04E+01	2.68E+01	2.26E+01	1.23E+01	2.15E+01	28,000	180,000
Benzaldehyde**					**1.30E+01**					0.10	----
Benzene				**4.87E+01**						0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5.00	3900
2-Butanone*				8.69E+00						5000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride				**2.01E+01**						0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**6.19E+00**	**1.15E+01**		**1.24E+00**	**7.41E-01**	**7.65E-01**		**1.04E+00**	**1.03E+00**	0.043	150
Chloromethane				3.06E+00						90.0	22,000
Dibromochloromethane										0.10	---
1,2-Dichlorobenzene (o)										360	30,000
1,3-Dichlorobenzene (m)										360	30,000
1,4-Dichlorobenzene (p)				**1.72E+00**						0.09	---
1,1-Dichloroethane	**1.37E+00**									0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene				2.87E+00						1,000	54,000
2/4-Ethyltoluene (total)				**7.35E+00**						0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride				1.43E+00				1.70E+00		2.10	14,000
4-Methyl-2-Pentanone*					1.30E+01				8.87E+00	3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**1.63E+01**	**1.97E+01**		**3.63E+00**			**1.60E+00**	**2.27E+00**	**5.51E+01**	1.00	1,000
Toluene				2.39E+01				1.13E+00		400	37,000
1,1,1-Trichloroethane	8.20E-01			2.87E+00				6.62E-01		1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**1.28E+00**								4.67E-01	0.50	54,000
Trichlorofluoromethane	1.82E+00	2.30E+00		4.11E+01	1.02E+00	9.56E-01	9.43E-01	1.61E+00	1.59E+00	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)				1.24E+01						100	4,300
Decane**					1.30E+01					200	---

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 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.28	2.39	-	2.39	2.32	2.39	2.36	2.36	2.33	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)
(DEL) Branched Alkane (Total)					2.87E+01				3.55E+01	---	---
Hexane				4.30E+00						200	---
Undecane (plus unknowns)	1.82E+01	2.39E+01		5.16E+02	8.71E+00	1.24E+01	3.49E+01	5.39E+02	7.94E+01	---	---
Decane								6.62E+01		200	---
Acidic acid, methyl ester										---	---
Isobutane								2.36E+01		45,000	---
Dichlorodifluoromethane	2.82E+00			3.82E+00		3.35E+00	4.24E+00		6.07E+00	12,000	---
1,1-Dichloro-1-fluoroethane								5.20E+00		---	---
1-Chloro-1-fluoroethene										40,000	---
Butane								1.04E+01		45,000	---
Unknown (RT: 1.43-15.04)		2.68E+00			3.34E+00					---	---
Dichlorotetrafluoroethane										17,000	---
Nonane				9.55E+00				9.07E+00		25,000	---
Acetophenone										120	---
2-Tridecanone								6.81E+00		---	---
Ethane, 1,1-difluoro-								2.36E+01		---	---

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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of September 2006) 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 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.498	0.491	0.501	0.995	0.509	0.517	0.510	1.018	0.509	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.796	0.785	0.801	1.592	0.815	0.826	0.816	1.629	0.81	---	---
TARGETED TIC LQL	2.49	2.45	2.50	4.98	2.55	2.58	2.55	5.09	2.55	—	---
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+01	4.61E+00	4.70E+00	< 1.07E+01	6.82E+00	4.65E+00	1.02E+01	< 6.11E+00	1.12E+01	28,000	180,000
Benzaldehyde**					**2.04E+02**		**2.04E+02**			0.10	----
Benzene	**8.96E-01**	**9.81E-01**			**5.09E-01**	**7.23E-01**		**< 1.12E+00**		0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.90	---
Bromomethane										5.00	3900
2-Butanone*	3.98E+00									5000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride										0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**2.59E+00**		**5.31E+00**	**9.15E+00**	**5.09E+00**	**9.30E-01**	**1.22E+00**	**< 1.12E+00**	**7.13E-01**	0.043	150
Chloromethane										90.0	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										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	**6.17E+00**	**2.55E+00**	**2.20E+00**	**8.56E+01**	**3.56E+00**	**5.17E+00**	1.94E+00	**3.36E+00**	**3.36E+00**	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene	7.96E-01			< 1.09E+00						1,000	17,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**1.29E+01**		**5.71E+00**	**< 1.04E+01**	**2.44E+00**	**1.45E+01**	**1.43E+01**	**< 2.29E+01**	**4.89E+01**	1.00	1,000
Toluene	9.95E-01	4.91E-01		< 1.29E+00					7.13E-01	400	37,000
1,1,I-Trichloroethane										1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene										0.50	54,000
Trichlorofluoromethane	6.37E+01	2.06E+01	3.10E+01	3.38E+01	2.55E+01	3.82E+01	1.53E+01	1.68E+01	7.33E+01	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

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 2006

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
ADDITIONAL TIC LQL	2.49	2.45	2.50	4.98	2.55	2.58	2.55	5.09	2.55	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-1 propene					4.28E+00					---	---
Cyclohexanol, 5-Methyl-2-(1-methyle	9.95E+00									490	---
2-Methyl-butane	1.09E+01	5.99E+00				6.51E+00			1.12E+01	4,200	---
2-Butene										---	---
beta-Pinene isomer			4.40E+01							---	---
Hexane				< 1.02E+01					4.48E+00	200	---
Undecane (plus unknowns)										---	---
alpha-Pinene isomer (12.03-13.04)	6.67E+01		5.61E+01							---	---
Isobutane										45,000	---
Dichlorodifluoromethane		5.30E+00		< 2.64E+01	1.53E+01	1.24E+01	1.22E+01	< 2.19E+01	2.75E+01	12,000	---
1,1-Dichloro-1-fluoroethane	1.99E+01								5.91E+00	100	---
1-Chloro-1,1-difluoroethane			1.20E+01							40,000	---
Cyclotrisiloxane, hexamethyl-										---	---
Unknown siloxane (RT: 11.88-13.97)			1.03E+01							---	---
Unknown alkane (RT: 1.75-2.74)			4.40E+00	< 6.77E+00				< 5.09E+00		---	---
Unknown (RT: 1.31-14.56)			1.20E+01	< 1.01E+01		2.69E+00				---	---
Dichlorotetrafluoroethane				1.87E+02	5.40E+01		2.14E+01	4.94E+01	8.35E+01	17,000	---
Decanal										---	---
Limonene										0.10	---
Isopulegol	2.69E+01									---	---
6-Octenal,3,7-dimethyl-,(R)-	1.59E+02									---	---
Butane										45,000	---
Trichloromonofluoromethane										560,000	---
D-Limonene						**3.82E+00**				0.10	---
Ethane, 1,1-difluoro-										40,000	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
THIRD QUARTER 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.515	0.510	-	0.511	0.502	0.508	0.504	0.495	0.504		
PRACTICAL QUANTITATION LIMIT (PQL)	0.825	0.815	-	0.817	0.803	0.81	0.806	0.792	0.806		
TARGETED TIC LQL	2.58	2.55	-	2.55	2.51	2.54	2.52	2.48	2.52		
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*	2.58E+01	2.14E+01		2.35E+01		2.74E+01	2.32E+01	3.56E+01	3.53E+01	28,000	180,000
Benzaldehyde**		**1.02E+01**		**1.53E+01**	**1.31E+01**					0.10	----
Benzene	**9.28E-01**	**1.22E+00**		**9.19E-01**	**7.03E-01**	**8.12E-01**	**9.07E-01**	**7.92E-01**	**8.06E-01**	0.13	1300
Bromodichloromethane									**6.05E-01**	0.02	---
Bromoform*										0.90	---
Bromomethane										5.00	3900
2-Butanone*								5.94E+00		5000	59,000
Carbon Disulfide										700	6200
Carbon Tetrachloride								**4.95E-01**		0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**1.03E+01**	**1.02E+01**		**1.02E+00**	**1.61E+00**	**1.22E+00**	**6.05E-01**	**7.92E-01**	**6.85E+01**	0.043	150
Chloromethane										90.0	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	**2.37E+00**									0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	1.75E+00	8.15E-01		1.53E+00		9.14E-01		**5.74E+00**	8.06E-01	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene								5.94E-01		1,000	17,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**3.09E+01**	**4.69E+01**			5.02E-01		7.06E-01	**2.38E+00**	**5.24E+01**	1.00	1,000
Toluene	6.19E-01	1.02E+00		5.11E-01			7.06E-01	1.29E+00		400	37,000
1,1,1-Trichloroethane	6.19E+00	1.83E+00						2.18E+00	9.07E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**2.37E+00**									0.50	54,000
Trichlorofluoromethane	3.30E+01	2.55E+01		3.06E+01		1.42E+01	6.45E+00	5.64E+01	1.51E+01	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**		1.02E+01		1.53E+01	1.31E+01					200	---

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 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.58	2.55	-	2.55	2.51	2.54	2.52	2.48	2.52	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-1 propene	3.61E+00			2.86E+00		2.54E+00	3.43E+00			---	---
Cyclohexanol, 5-Methyl-2-(1-methyle										490	---
2-Methyl-butane	1.03E+01			9.70E+00				2.18E+01		4,200	---
2-Butene				3.68E+00						---	---
beta-Pinene isomer										---	---
Hexane	3.81E+00									200	---
Undecane (plus unknowns)								6.14E+01		---	---
alpha-Pinene isomer (12.03-13.04)										---	---
Isobutane								5.54E+01		45,000	---
Dichlorodifluoromethane		1.94E+01				5.18E+00	5.34E+00		5.85E+00	12,000	---
1,1-Dichloro-1-fluoroethane		1.53E+01						3.56E+01		100	---
1-Chloro-1,1-difluoroethane									6.45E+00	40,000	---
Cyclotrisiloxane, hexamethyl-						1.42E+01				---	---
Unknown siloxane (RT: 11.88-13.97)		7.34E+00					4.03E+00		1.41E+01	---	---
Unknown alkane (RT: 1.75-2.74)							3.43E+00		2.62E+00	---	---
Unknown (RT: 1.31-14.56)	1.43E+01	4.79E+00		5.52E+00	1.20E+01	8.93E+00		1.29E+01	1.11E+01	---	---
Dichlorotetrafluoroethane										17,000	---
Decanal		4.69E+00								---	---
Limonene				**3.58E+00**			**2.92E+00**			0.10	---
Isopulegol										---	---
6-Octenal,3,7-dimethyl-,(R)-										---	---
Butane								2.18E+01		45,000	---
Trichloromonofluoromethane					1.51E+01					560,000	---
D-Limonene		**8.15E+00**								0.10	---
Ethane, 1,1-difluoro-				6.54E+00				3.56E+01		40,000	---

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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of November 2006) 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 2006

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	0.481	0.984	0.482	0.484	0.486	0.974	0.484	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.766	0.768	0.770	1.575	0.771	0.774	0.777	1.558	0.78	---	---
TARGETED TIC LQL	2.39	2.40	2.41	4.92	2.41	2.42	2.43	4.87	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/m3)	(ug/m3)
Acetone*	3.45E+00	1.63E+01	2.21E+00	2.05E+01	3.47E+00	4.36E+00	2.33E+00	< 2.43E+00	4.26E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*	7.66E-01									5000	59,000
Carbon Disulfide				< 9.84E-01					4.84E-01	700	6200
Carbon Tetrachloride		**7.68E-01**								0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**1.53E+00**		**1.06E+00**	**< 1.18E+00**	**6.08E+00**	**8.71E-01**	**9.72E-01**	**< 1.36E+00**	**6.78E-01**	0.043	150
Chloromethane	7.66E-01	8.65E-01								90.0	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										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**							4.86E+00		7.27E+00	---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	**2.11E+00**	1.44E+00	1.73E+00	**< 2.76E+00**	**2.70E+00**	1.65E+00	1.26E+00	**5.65E+00**	9.69E-01	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**5.17E+00**	5.76E-01	**1.35E+00**	**< 5.51E+00**	8.68E-01	**7.74E+00**	**1.26E+01**	**< 2.97E+01**	**6.01E+01**	1.00	1,000
Toluene	7.66E-01	5.76E-01			7.71E-01	8.71E-01	8.75E-01			400	37,000
1,1,1-Trichloroethane									6.78E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	4.79E-01		**9.62E-01**						**5.81E-01**	0.50	54,000
Trichlorofluoromethane	3.83E+01	3.36E+01	3.85E+01	4.25E+01	5.98E+01	3.29E+01	1.65E+01	1.98E+01	2.13E+01	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

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 2006

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	2.41	4.92	2.41	2.42	2.43	4.87	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/m3)	(ug/m3)
2-Methyl-1 propene										0.1	---
2-Methyl-butane											---
Hexane					2.70E+00					200	---
Undecane										---	---
Dichlorodifluoromethane		9.03E+00	7.99E+00	1.54E+01	1.45E+01	1.36E+01	1.94E+01	3.15E+01	3.20E+01	12,000	---
1,1-Dichloro-1-fluoroethane	9.10E+00		2.60E+00		3.18E+00	8.03E+00	3.30E+00	< 6.04E+00		---	---
1-Chloro-1,1-difluoroethane			7.70E+00							40,000	---
Unknown siloxane (RT: -13.96 - 13.97)						4.74E+00	2.72E+00			---	---
Unknown (RT: 1.30 -14.02)	3.64E+00									---	---
Dichlorotetrafluoroethane				1.73E+02	4.44E+01	2.03E+01	4.96E+01	1.19E+02	1.55E+02	17,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu							3.60E+00	< 6.04E+00	1.07E+01	180,000	960,000
Ethane, 1,2-dichloro-1-fluoro									4.94E+00	25,000	---
Chlorodifluoromethane										---	---
Butane										560,000	---
Ethylene Oxide										---	---
Ethane, 1,1-difluoro-	3.64E+00									---	---
Anthracene, 9,10-dihydro-9,10-bis(t										---	---
Cobalt, (2-methyl_eta_-3-propenyl)										---	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
FOURTH QUARTER 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.477	0.470	-	0.466	0.473	0.465	0.469	0.463	0.467		
PRACTICAL QUANTITATION LIMIT (PQL)	0.763	0.752	-	0.746	0.757	0.74	0.751	0.741	0.748		
TARGETED TIC LQL	2.39	2.35	-	2.33	2.37	2.32	2.35	2.31	2.34		
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*	1.24E+01	6.39E+00		3.54E+00	5.20E+00	6.69E+00	7.70E+00	1.48E+01	5.33E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene							**4.69E-01**			0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*					1.61E+00					5000	59,000
Carbon Disulfide	4.77E-01			6.53E-01		6.51E-01	4.69E-01	5.56E-01	4.67E-01	700	6200
Carbon Tetrachloride				**7.46E-01**	**6.62E-01**	**5.58E-01**	**7.51E-01**	**8.33E-01**		0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**2.10E+00**	**1.41E+00**				**7.43E-01**			**1.40E+01**	0.043	150
Chloromethane				8.40E-01			1.50E+00			90.0	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	5.73E-01									0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										1,900	---
trans-1,2-Dichloroethene										1900	----
1,2-Dichloropropane										4.00	51,000
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	1.81E+00	5.64E-01		5.60E-01	1.42E+00	1.86E+00	1.60E+00	**3.98E+00**	1.59E+00	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane										0.017	---
Tetrachloroethene	**9.35E+00**	**4.98E+00**		7.46E-01	5.68E-01	6.51E-01		**1.76E+00**	**1.12E+01**	1.00	1,000
Toluene							7.51E-01	1.02E+00		400	37,000
1,1,1-Trichloroethane	1.62E+00							8.33E-01		1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**8.59E-01**							**5.56E-01**		0.50	54,000
Trichlorofluoromethane	2.29E+01	9.02E+00		5.69E+00	1.51E+01	2.32E+01	3.00E+01	4.72E+01	3.83E+01	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										200	---

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 2006

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.39	2.35	-	2.33	2.37	2.32	2.35	2.31	2.34	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-1 propene							2.72E+00			0.1	---
2-Methyl-butane								5.09E+00			---
Hexane										200	---
Undecane				3.08E+01						---	---
Dichlorodifluoromethane		1.60E+01		7.37E+00	5.49E+00				1.31E+01	12,000	---
1,1-Dichloro-1-fluoroethane				4.01E+00		3.16E+00		9.26E+00		---	---
1-Chloro-1,1-difluoroethane									4.86E+00	40,000	---
Unknown siloxane (RT: -13.96 - 13.97)								6.85E+00		---	---
Unknown (RT: 1.30 -14.02)										---	---
Dichlorotetrafluoroethane										17,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu										180,000	960,000
Ethane, 1,2-dichloro-1-fluoro										25,000	---
Chlorodifluoromethane	9.54E+00					7.34E+00	8.17E+00			---	---
Butane								7.41E+00		560,000	---
Ethylene Oxide									8.22E+01	---	---
Ethane, 1,1-difluoro-								2.50E+01		---	---
Anthracene, 9,10-dihydro-9,10-bis(t									3.27E+00	---	---
Cobalt, (2-methyl_eta_-3-propenyl)									2.90E+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 Chloroethylvinylether, Freon 13 and Decane). Benzaldehyde has a LQL 2 times the targeted TIC LQL.

  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 December 2003 and still current as of April 2006) 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

2006 ANNUAL SUMMARY REPORT

2006 QUARTERLY SOIL GAS PRESSURE DATA

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

FIRST QUARTER 2006

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	03/17/06	6:52 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P2	03/17/06	6:52 AM	PW1	NW corner of the landfill on Haul Road	20	0.00
P3	03/17/06	6:53 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P4	03/17/06	6:53 AM	PW1	NW corner of the landfill on Haul Road	20	0.00
P5	03/17/06	6:40 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	03/17/06	6:40 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.07
P7	03/17/06	6:41 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	03/17/06	6:41 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.06
P9	03/17/06	7:06 AM	PW3	Fireman's Training Center	10	-0.01
P10	03/17/06	7:06 AM	PW3	Fireman's Training Center	20	-0.10
P11	03/17/06	7:07 AM	PW3	Fireman's Training Center	10	0.00
P12	03/17/06	7:07 AM	PW3	Fireman's Training Center	20	-0.11

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

SECOND QUARTER 2006

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	06/28/06	3:32 PM	PW1	NW corner of the landfill on Haul Road	10	0.00
P2	06/28/06	3:32 PM	PW1	NW corner of the landfill on Haul Road	20	0.00
P3	06/28/06	3:32 PM	PW1	NW corner of the landfill on Haul Road	10	0.00
P4	06/28/06	3:32 PM	PW1	NW corner of the landfill on Haul Road	20	0.00
P5	06/28/06	3:44 PM	PW2	SE corner of the landfill NW of Well M2	10	-0.01
P6	06/28/06	3:44 PM	PW2	SE corner of the landfill NW of Well M2	20	-0.04
P7	06/28/06	3:45 PM	PW2	SE corner of the landfill NW of Well M2	10	-0.01
P8	06/28/06	3:45 PM	PW2	SE corner of the landfill NW of Well M2	20	-0.04
P9	06/28/06	3:20 PM	PW3	Fireman's Training Center	10	-0.02
P10	06/28/06	3:20 PM	PW3	Fireman's Training Center	20	-0.05
P11	06/28/06	3:20 PM	PW3	Fireman's Training Center	10	-0.02
P12	06/28/06	3:20 PM	PW3	Fireman's Training Center	20	-0.05

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

THIRD QUARTER 2006

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	09/19/06	8:04 AM	PW1	NW corner of the landfill on Haul Road	10	0.02
P2	09/19/06	8:04 AM	PW1	NW corner of the landfill on Haul Road	20	0.02
P3	09/19/06	8:05 AM	PW1	NW corner of the landfill on Haul Road	10	0.02
P4	09/19/06	8:05 AM	PW1	NW corner of the landfill on Haul Road	20	0.02
P5	09/19/06	7:54 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	09/19/06	7:54 AM	PW2	SE corner of the landfill NW of Well M2	20	0.00
P7	09/19/06	7:55 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	09/19/06	7:55 AM	PW2	SE corner of the landfill NW of Well M2	20	0.00
P9	09/19/06	7:40 AM	PW3	Fireman's Training Center	10	0.00
P10	09/19/06	7:40 AM	PW3	Fireman's Training Center	20	0.01
P11	09/19/06	7:41 AM	PW3	Fireman's Training Center	10	0.00
P12	09/19/06	7:41 AM	PW3	Fireman's Training Center	20	0.02

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.

TABLE 5.1

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF SOIL GAS PRESSURE TESTS

FOURTH QUARTER 2006

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	11/30/06	7:04 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P2	11/30/06	7:04 AM	PW1	NW corner of the landfill on Haul Road	20	-0.01
P3	11/30/06	7:05 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P4	11/30/06	7:05 AM	PW1	NW corner of the landfill on Haul Road	20	-0.01
P5	11/30/06	6:55 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	11/30/06	6:55 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.02
P7	11/30/06	6:56 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	11/30/06	6:56 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.02
P9	11/30/06	6:44 AM	PW3	Fireman's Training Center	10	0.00
P10	11/30/06	6:44 AM	PW3	Fireman's Training Center	20	0.00
P11	11/30/06	6:45 AM	PW3	Fireman's Training Center	10	0.00
P12	11/30/06	6:45 AM	PW3	Fireman's Training Center	20	0.00

NOTES:

- Measurements taken using a ten inch Dwyer inclined manometer.
- Leak checks were performed on manometer before testing each well.

APPENDIX C

ANNUAL SUMMARY
OLD BETHPAGE LANDFILL
QUARTERLY GROUNDWATER MONITORING PROGRAM
JANUARY THROUGH DECEMBER 2006

Gannett Fleming Engineers and Architects, P.C.
March 2007

OLD BETHPAGE LANDFILL

BETHPAGE, NEW YORK

ANNUAL SUMMARY
OLD BETHPAGE LANDFILL
QUARTERLY GROUNDWATER
MONITORING PROGRAM
JANUARY THROUGH DECEMBER 2006

PROJECT #46769

MARCH 2007

Office Location:

GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

480 Forest Avenue

Locust Valley, New York 11560

Office Contact:

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(516) 671-8440

Locations Nationwide

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1.0 INTRODUCTION

This report summarizes the groundwater monitoring activities for 2006 at the Old Bethpage Solid Waste Disposal Complex (OBSWDC). The 2006 monitoring period covers the thirteenth year of operation of the Old Bethpage Landfill Groundwater Treatment Facility (GTF). Quarterly groundwater monitoring was performed in accordance with the requirements of the Remedial Action Plan (RAP) in Appendix I of the 1988 Record of Decision issued by the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA).

The OBSWDC groundwater remediation system began operating on April 1, 1992. Geraghty & Miller, Inc. initiated monthly hydraulic monitoring approximately 30 days after system start-up, with the frequency reduced to quarterly beginning with the October 1993 round. The 2006 sampling program consisted of four synoptic rounds of water-level measurements to assess the effectiveness of the hydraulic control created by the recovery well network, and four rounds of groundwater sampling at 16 monitoring wells to track changes in groundwater quality over time. At the request of Lockwood, Kessler and Bartlett (LKB), monitoring well MW-9D was also sampled during the third quarter sampling round.

2.0 WATER-LEVEL MEASUREMENTS AND MAPPING

A synoptic round of water-level measurements was 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. These data were used to create the water table, shallow potentiometric, and deep potentiometric zone groundwater flow maps for each quarter as provided in Appendix A. Each map shows the water-level elevation contours, limiting flow lines, and the approximate aerial extent of the volatile organic compound (VOC) plume.

Water level elevations in the monitoring wells increased an average of 0.695 feet during the annual monitoring period. The recovery system was operating at its full capacity during 2006. The annual pumpage data are summarized in Table 2.

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.

3.0 GROUNDWATER SAMPLING AND CONTAMINANT DISTRIBUTION

Gannett Fleming sampled monitoring wells M-30B-R, MW-5B, MW-6A, MW-6B, MW-6C, MW-6E, MW-6F, MW-7B, MW-8A, MW-8B, MW-9B, MW-9C, MW-11A, MW-11B, OBS-1 and LF-1 in March, May, July and October 2006 in accordance with the *Protocols for Sampling Groundwater Under the Old Bethpage Solid Waste Disposal Complex Remedial Action Plan* prepared by Geraghty & Miller, Inc. Field blanks and field duplicates were collected by Gannett Fleming environmental scientists and analyzed for quality assurance/quality control (QA/QC) purposes. Trip blanks were prepared by the laboratory for QA/QC purposes. The samples collected for VOC analysis, were analyzed by the Town of Oyster Bay Environmental Laboratory as requested by LKB. Metals and leachate parameters in the samples were analyzed by H2M Laboratories. The quarterly analytical results are summarized in Tables 3 through 8. Raw laboratory data and well sampling logs are included in the quarterly reports prepared by Gannett Fleming.

Dedicated submersible pumps, a two-inch Grundfos pump, or a dedicated bailer were used to purge and sample the monitoring wells. All non-dedicated down well equipment was cleaned before use and after sampling each well by washing with laboratory-grade detergent solution and rinsing with potable water to minimize the possibility of cross contamination.

Recovery well analytical data, provided quarterly by the Town of Oyster Bay Department of Public Works, are summarized in Table 6. The monitoring well and recovery well databases were combined to create the plume maps shown on Figures 1 through 3.

3.1 Volatile Organic Compound Plume

The VOCs are divided into three groups: volatile halogenated hydrocarbons (VHOs), volatile aromatic hydrocarbons, and tetrachloroethene (PCE). 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 2006. The location and monitoring round during which the highest concentration of each compound was found are listed below.

Compound	Peak Concentration (ppb*)	Quarter	Location
1,1-Dichloroethane	5.50	Third	MW-9D
1,1-Dichloroethene	10.20	Fourth	MW-7B
1,1,1-Trichloroethane	14.60	Fourth	MW-7B
1,2-Dichloroethane	0.5	Third	MW-9D
Methylene Chloride	0.3	Third	MW-9D
Chloroethane	6.0	Third	MW-9D
Chloroform	3.3	Fourth	MW-7B
cis-1,2-Dichloroethene	46.40	Fourth	MW-7B
Dichlorodifluoromethane	13.0	Third	MW-9D
trans-1,2-Dichloroethene	1.3	First	MW-6C
Trichloroethylene	583.0	Fourth	MW-7B
Vinyl chloride	2.0	First	OBS-1

*ppb – parts per billion

Total VHO concentrations decreased in monitoring wells MW-5B (0.40 to non-detect), MW-6A (0.40 to non-detect), MW-6C (1.6 to non-detect), MW-6E (0.40 to non-detect), MW-8B (0.60 to non-detect), MW-11A (2.90 to 2.10 ppb) and OBS-1 (7.50 to 4.40 ppb), but increased in MW-7B (503.60 to 657.50 ppb), MW-8A (1.20 to 1.30 ppb), MW- 9D (31.5 to 42.20 ppb) compared to third quarter of 2005. VHO concentrations remained at less than the laboratory reporting limit in wells LF-1, M-30B-R, MW-6B, MW-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds.

For the year, concentrations of volatile halogenated compounds remained low in the water table and shallow potentiometric zone. In the deep potentiometric zone, an elevated trichloroethylene concentration of 458.00 ppb in monitoring well MW-7B was detected during the first quarter

monitoring round. Trichloroethylene increased in MW-7B to 583.00 ppb by the fourth quarter monitoring round.

Figure 1 shows the distribution of VHOs during 2006. Concentrations of total volatile halogenated compounds in each potentiometric zone are shown in Figures 1 through 3 in Appendix B.

3.1.2 Aromatic Hydrocarbons

Eleven aromatic hydrocarbons were detected during the 2006 monitoring period. The location and monitoring round during which the highest concentration of each compound was found are listed below.

Compound	Peak Concentration (ppb*)	Quarter	Location
Benzene	7.0	Third	MW-9D
Chlorobenzene	4.9	First	MW-6B
Ethylbenzene	0.7	Second	MW-6E DUP
1,2-Dichlorobenzene	2.1	Third	MW-9D
1,3-Dichlorobenzene	2.1	Third	MW-9D
1,4-Dichlorobenzene	2.3	Second	OBS-1
Isopropylbenzene	0.6	Fourth	MW-6C
o-xylene	3.0	Third	MW-9D
m/p-xylene	0.6	Second	MW-6B
tert-butylbenzene	0.3J	Fourth	MW-8A
Toluene	2.0	Fourth	MW-6F

*ppb – parts per billion

Aromatic hydrocarbon concentrations increased in wells MW-6E (2.4 to 3.0 ppb), MW-6F (non-detect to 2.90 ppb) and MW-9D (13.4 to 14.40 ppb) [compared to third quarter 2005]. Aromatic hydrocarbon concentrations decreased in wells LF-1 (1.0 to non-detect), MW-6B (14.80 to 5.90 ppb), MW-6C (2.40 to 2.20 ppb), MW-8B (0.60 to 0.50 ppb), MW-11B (1.70 to non-detect) and OBS-1 (4.80 to 1.50 ppb). Aromatic hydrocarbons concentrations remained at less than the

laboratory reporting limit in wells M-30B-R, MW-5B, MW-6A, MW-7B, MW-8A, MW-9B, MW-9C and MW-11A, during the first and fourth quarter sampling rounds.

Aromatic hydrocarbons concentrations were not detected or remained low at the water table. Aromatic hydrocarbon concentrations in the shallow and deep potentiometric zones generally decreased between the first and fourth quarter monitoring rounds.

Figure # 2 shows the distribution of aromatic hydrocarbons during 2006. Concentrations of total aromatic hydrocarbons in each potentiometric zone are shown in Figures 4 through 6 in Appendix B.

3.1.3 PCE

PCE was detected at the highest concentration of 80.3 parts per billion during the second quarter sampling round in well MW-7B.

PCE concentrations decreased in monitoring wells MW-6A (0.2 to non-detect), MW-7B (66.9 to 61.3 ppb), MW-8B (1.2 to 1.1 ppb), OBS-1 (1.5 to 1.0 ppb), MW-9D (2.6 to 1.8 ppb) [compared to third quarter 2005], and MW-11A (0.9 to non-detect) and increased in monitoring well MW-8A (16.7 to 22.3 ppb). PCE concentrations remained at less than the laboratory reporting limit in the samples from LF -1, M-30B-R, MW-05B, MW-6B, MW-6C, MW-6E, MW-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds.

At the water table depth, PCE was found only in MW-6A and MW-8A In the deep potentiometric zone, monitoring well MW-7B contained the highest concentration of PCE (80.3 ppb) during the Second quarter. The PCE concentrations in MW-7B were 66.9 ppb in the first quarter, 50.9 ppb in the third quarter, and 61.3 ppb in the fourth quarter monitoring round. The PCE concentrations in MW-8A and MW-7B exceed the New York State Water Quality Guidance Value of 5.0 ppb.

Figure 3 shows the distribution of PCE during 2006. Concentrations of PCE in each potentiometric zone are shown in Figures 7 through 9 in Appendix B.

3.2 Inorganic Compound Plume

The 2006 inorganic compound data show little change in the extent and concentration of leachate parameters over time. The highest leachate parameter concentrations were found in decreasing order in the samples from wells MW-6B, MW-6C and MW-6E.

4.0 FINDINGS AND CONCLUSIONS

1. The average system pumpage in 2006 appeared sufficient to control the VOC plume.

2. Localized water table mounding beneath Recharge Basin #1 was caused by the discharge of the GTF effluent to the basin.

3. Total VHO concentrations decreased in monitoring wells MW-5B, MW-6A, MW-6C, MW-6E, MW-8B, MW-11A and OBS-1, but increased in MW-7B, MW-8A and MW- 9D. VHO concentrations remained at less than the laboratory reporting limit in wells LF-1, M-30B-R, MW-6B, MW-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds.

4. Aromatic hydrocarbon concentrations increased in wells MW-6E, MW-6F and MW-9D. Aromatic hydrocarbon concentrations decreased in wells LF-1, MW-6B, MW-6C, MW-8B, MW-11B and OBS-1. Aromatic hydrocarbons concentrations remained at less than the laboratory reporting limit in wells M-30B-R, MW-5B, MW-6A, MW-7B, MW-8A, MW-9B, MW-9C and MW-11A, during the first and fourth quarter sampling rounds.

5. PCE concentrations decreased in monitoring wells MW-6A MW-7B, MW-8B, OBS-1, MW-9D, and MW-11A and increased in monitoring well MW-8A. PCE concentrations remained at less than the laboratory reporting limit in the samples from LF -1, M-30B-R, MW-5B, MW-6B, MW-6C, MW-6E, MW-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds.

6. The distribution and concentration of inorganic compounds show little change in the extent and concentration of leachate parameters during 2006.

5.0 RECOMMENDATIONS

1. Continued pumping to assure hydraulic control as per system design.

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

3. Continue to evaluate trends in water levels.

TABLES

TABLE 1

TOWN OF OYSTER BAY

OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JANUARY-DECEMBER 2006

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
EW-02A	3/27/2006	157.14	91.53		65.61
EW-02A	5/22/2006	157.14	91.22	0.31	65.92
EW-02A	7/17/2006	157.14	91.88	-0.66	65.26
EW-02A	10/10/2006	157.14	92.12	-0.24	65.02
EW-02B	3/27/2006	157.61	91.49		66.12
EW-02B	5/22/2006	157.61	91.78	-0.29	65.83
EW-02B	7/17/2006	157.61	91.62	0.16	65.99
EW-02B	10/10/2006	157.61	92.41	-0.79	65.20
EW-02C	3/27/2006	157.54	91.72		65.82
EW-02C	5/22/2006	157.54	92.40	-0.68	65.14
EW-02C	7/17/2006	157.54	91.65	0.75	65.89
EW-02C	10/10/2006	157.54	92.70	-1.05	64.84
LF-1	3/27/2006	111.40	43.91		67.49
LF-1	5/22/2006	111.40	44.10	-0.19	67.30
LF-1	7/17/2006	111.40	44.35	-0.25	67.05
LF-1	10/10/2006	111.40	45.75	-1.40	65.65
LF-2	3/27/2006	118.70	51.44		67.26
LF-2	5/22/2006	118.70	51.42	0.02	67.28
LF-2	7/17/2006	118.70	51.61	-0.19	67.09
LF-2	10/10/2006	118.70	52.66	-1.05	66.04
LF-3	3/27/2006	126.50	56.59		69.91
LF-3	5/22/2006	126.50	56.20	0.39	70.30
LF-3	7/17/2006	126.50	56.20	0.00	70.30
LF-3	10/10/2006	126.50	56.84	-0.64	69.66
LF-4	3/27/2006	149.93	78.86		71.07
LF-4	5/22/2006	149.93	88.95	-10.09	60.98
LF-4	7/17/2006	149.93	79.26	9.69	70.67
LF-4	10/10/2006	149.93	80.10	-0.84	69.83
M-29A-R	3/27/2006	157.50	D		N/A
M-29A-R	5/22/2006	157.50	88.52	N/A	68.98
M-29A-R	7/17/2006	157.50	88.83	-0.31	68.67
M-29A-R	10/10/2006	157.50	89.88	-1.05	67.62
M-29B	3/27/2006	157.41	86.48		70.93
M-29B	5/22/2006	157.41	86.64	-0.16	70.77
M-29B	7/17/2006	157.41	86.96	-0.32	70.45
M-29B	10/10/2006	157.41	81.59	5.37	75.82

MP Measuring Point (Typically Top of Casing)

MSL Mean Sea Level

TABLE 1

TOWN OF OYSTER BAY

OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JANUARY-DECEMBER 2006

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-30A	3/27/2006	151.20	80.18		71.02
MW-30A	5/22/2006	151.20	80.40	-0.22	70.80
MW-30A	7/17/2006	151.20	N/A	N/A	N/A
MW-30A	10/10/2006	151.20	N/A	N/A	N/A
M-30B-R	3/27/2006	154.51	84.10		70.41
M-30B-R	5/22/2006	154.51	84.20	-0.10	70.31
M-30B-R	7/17/2006	154.51	84.51	-0.31	70.00
M-30B-R	10/10/2006	154.51	85.50	-0.99	69.01
MW-05A	3/27/2006	137.13	71.10		66.03
MW-05A	5/22/2006	137.13	71.30	-0.20	65.83
MW-05A	7/17/2006	137.13	71.63	-0.33	65.50
MW-05A	10/10/2006	137.13	72.90	-1.27	64.23
MW-05B	3/27/2006	138.43	72.38		66.05
MW-05B	5/22/2006	138.43	72.58	-0.20	65.85
MW-05B	7/17/2006	138.43	73.79	-1.21	64.64
MW-05B	10/10/2006	138.43	74.18	-0.39	64.25
MW-06A	3/27/2006	160.24	94.55		65.69
MW-06A	5/22/2006	160.24	94.60	-0.05	65.64
MW-06A	7/17/2006	160.24	94.73	-0.13	65.51
MW-06A	10/10/2006	160.24	95.53	-0.80	64.71
MW-06B	3/27/2006	160.39	94.78		65.61
MW-06B	5/22/2006	160.39	94.91	-0.13	65.48
MW-06B	7/17/2006	160.39	95.17	-0.26	65.22
MW-06B	10/10/2006	160.39	96.20	-1.03	64.19
MW-06C	3/27/2006	159.99	94.29		65.70
MW-06C	5/22/2006	159.99	94.42	-0.13	65.57
MW-06C	7/17/2006	159.99	94.55	-0.13	65.44
MW-06C	10/10/2006	159.99	95.75	-1.20	64.24
MW-06D	3/27/2006	160.39	94.63		65.76
MW-06D	5/22/2006	160.39	94.86	-0.23	65.53
MW-06D	7/17/2006	160.39	94.88	-0.02	65.51
MW-06D	10/10/2006	160.39	96.05	-1.17	64.34
MW-06E	3/27/2006	160.88	95.35		65.53
MW-06E	5/22/2006	160.88	93.63	2.42	67.25
MW-06E	7/17/2006	160.88	95.64	-2.01	65.24
MW-06E	10/10/2006	160.88	96.90	-1.26	63.98

MP Measuring Point (Typically Top of Casing)

MSL Mean Sea Level

TABLE 1

TOWN OF OYSTER BAY

OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JANUARY-DECEMBER 2006

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-06F	3/27/2006	159.88	94.51		65.37
MW-06F	5/22/2006	159.88	94.61	-0.10	65.27
MW-06F	7/17/2006	159.88	94.86	-0.25	65.02
MW-06F	10/10/2006	159.88	95.99	-1.13	63.89
MW-07A	3/27/2006	148.44	85.68		62.76
MW-07A	5/22/2006	148.44	85.49	0.19	62.95
MW-07A	7/17/2006	148.44	85.18	0.31	63.26
MW-07A	10/10/2006	148.44	86.55	-1.37	61.89
MW-07B	3/27/2006	147.94	86.53		61.41
MW-07B	5/22/2006	147.94	86.40	0.13	61.54
MW-07B	7/17/2006	147.94	86.42	-0.02	61.52
MW-07B	10/10/2006	147.94	87.10	-0.68	60.84
MW-08A	3/27/2006	134.94	69.05		65.89
MW-08A	5/22/2006	134.94	69.20	-0.15	65.74
MW-08A	7/17/2006	134.94	69.10	0.10	65.84
MW-08A	10/10/2006	134.94	70.05	-0.95	64.89
MW-08B	3/27/2006	134.24	68.03		66.21
MW-08B	5/22/2006	134.24	68.36	-0.33	65.88
MW-08B	7/17/2006	134.24	67.77	0.59	66.47
MW-08B	10/10/2006	134.24	69.50	-1.73	64.74
MW-08C	3/27/2006	135.72	68.96		66.76
MW-08C	5/22/2006	135.72	69.11	-0.15	66.61
MW-08C	7/17/2006	135.72	69.11	0.00	66.61
MW-08C	10/10/2006	135.72	70.22	-1.11	65.50
MW-09A	3/27/2006	153.35	N/A		N/A
MW-09A	5/22/2006	153.35	N/A	N/A	N/A
MW-09A	7/17/2006	153.35	89.56	N/A	63.79
MW-09A	10/10/2006	153.35	90.90	-1.34	62.45
MW-09B	3/27/2006	153.28	90.69		62.59
MW-09B	5/22/2006	153.28	90.70	-0.01	62.58
MW-09B	7/17/2006	153.28	91.72	-1.02	61.56
MW-09B	10/10/2006	153.28	90.15	1.57	63.13
MW-09C	3/27/2006	153.53	91.80		61.73
MW-09C	5/22/2006	153.53	92.15	-2.00	61.38
MW-09C	7/17/2006	153.53	91.94	0.21	61.59
MW-09C	10/10/2006	153.53	92.39	-0.45	61.14

MP Measuring Point (Typically Top of Casing)

MSL Mean Sea Level

TABLE 1

TOWN OF OYSTER BAY

OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JANUARY-DECEMBER 2006

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-09D	3/27/2006	152.95	90.68		62.27
MW-09D	5/22/2006	152.95	90.90	-0.22	62.05
MW-09D	7/17/2006	152.95	90.90	0.00	62.05
MW-09D	10/10/2006	152.95	92.35	-1.45	60.60
MW-10A	3/27/2006	161.28	95.34		65.94
MW-10A	5/22/2006	161.28	95.35	-0.01	65.93
MW-10A	7/17/2006	161.28	93.96	1.39	67.32
MW-10A	10/10/2006	161.28	96.51	-2.55	64.77
MW-10B	3/27/2006	161.12	96.54		64.58
MW-10B	5/22/2006	161.12	95.65	0.89	65.47
MW-10B	7/17/2006	161.12	95.76	-0.11	65.36
MW-10B	10/10/2006	161.12	98.85	-3.09	62.27
MW-10C	3/27/2006	160.27	94.81		65.46
MW-10C	5/22/2006	160.27	94.94	-0.13	65.33
MW-10C	7/17/2006	160.27	96.12	-1.18	64.15
MW-10C	10/10/2006	160.27	96.00	0.12	64.27
MW-10D	3/27/2006	161.17	95.80		65.37
MW-10D	5/22/2006	161.17	95.82	-0.02	65.35
MW-10D	7/17/2006	161.17	95.98	-0.16	65.19
MW-10D	10/10/2006	161.17	97.18	-1.20	63.99
MW-11A	3/27/2006	80.19	22.33		57.86
MW-11A	5/22/2006	80.19	22.02	0.31	58.17
MW-11A	7/17/2006	80.19	21.73	0.29	58.46
MW-11A	10/10/2006	80.19	23.95	-2.22	56.24
MW-11B	3/27/2006	79.91	22.28		57.63
MW-11B	5/22/2006	79.91	22.09	0.19	57.82
MW-11B	7/17/2006	79.91	21.65	0.44	58.26
MW-11B	10/10/2006	79.91	23.80	-2.15	56.11
N-9980	3/27/2006	80.46	23.46		57.00
N-9980	5/22/2006	80.46	24.61	-1.15	55.85
N-9980	7/17/2006	80.46	24.16	0.45	56.30
N-9980	10/10/2006	80.46	24.83	-0.67	55.63
OBS-1	3/27/2006	110.61	48.12		62.49
OBS-1	5/22/2006	110.61	48.23	-0.11	62.38
OBS-1	7/17/2006	110.61	48.25	-0.02	62.36
OBS-1	10/10/2006	110.61	50.09	-1.84	60.52

MP Measuring Point (Typically Top of Casing)

MSL Mean Sea Level

TABLE 1

TOWN OF OYSTER BAY

OLD BETHPAGE LANDFILL

WATER LEVEL MEASUREMENTS - JANUARY-DECEMBER 2006

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
OBS-2	3/27/2006	105.26	45.23		60.03
OBS-2	5/22/2006	105.26	44.12	1.11	61.14
OBS-2	7/17/2006	105.26	43.98	0.14	61.28
OBS-2	10/10/2006	105.26	N/A	N/A	N/A
RW-01	3/27/2006	110.94	56.58		54.36
RW-01	5/22/2006	110.94	56.72	-0.14	54.22
RW-01	7/17/2006	110.94	54.77	1.95	56.17
RW-01	10/10/2006	110.94	56.32	-1.55	54.62
RW-02	3/27/2006	145.31	92.71		52.60
RW-02	5/22/2006	145.31	93.71	-1.00	51.60
RW-02	7/17/2006	145.31	94.34	-0.63	50.97
RW-02	10/10/2006	145.31	96.45	-2.11	48.86
RW-03	3/27/2006	120.92	69.85		51.07
RW-03	5/22/2006	120.92	69.85	0.00	51.07
RW-03	7/17/2006	120.92	69.01	0.84	51.91
RW-03	10/10/2006	120.92	71.00	-1.99	49.92
RW-04	3/27/2006	144.82	82.78		62.04
RW-04	5/22/2006	144.82	83.81	-1.03	61.01
RW-04	7/17/2006	144.82	82.75	1.06	62.07
RW-04	10/10/2006	144.82	83.89	-1.14	60.93
RW-05	3/27/2006	149.74	96.12		53.62
RW-05	5/22/2006	149.74	95.20	0.92	54.54
RW-05	7/17/2006	149.74	95.13	0.07	54.61
RW-05	10/10/2006	149.74	96.72	-1.59	53.02
TW-1	3/27/2006	121.12	50.69		70.43
TW-1	5/22/2006	121.12	50.97	-0.28	70.15
TW-1	7/17/2006	121.12	50.92	0.05	70.20
TW-1	10/10/2006	121.12	52.16	-1.24	68.96
TW-2	3/27/2006	117.52	49.72		67.80
TW-2	5/22/2006	117.52	49.85	-0.13	67.67
TW-2	7/17/2006	117.52	50.29	-0.44	67.23
TW-2	10/10/2006	117.52	51.24	-0.95	66.28
TW-3-R	3/27/2006	133.93	66.70		67.23
TW-3-R	5/22/2006	133.93	66.11	0.59	67.82
TW-3-R	7/17/2006	133.93	67.11	-1.00	66.82
TW-3-R	10/10/2006	133.93	68.22	-1.11	65.71

MP Measuring Point (Typically Top of Casing)

MSL Mean Sea Level

TABLE 2
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
GROUNDWATER REMEDIATION SYSTEM PUMPAGE RECORDS
JANUARY THROUGH DECEMBER 2006

Date(s)	Flow (gpm)	Remarks
First Quarter Average System Flow - 929		
1/1/06-1/31/06	927	GTF On-line.
2/1/06-2/28/06	936	GTF On-line.
3/1/06-3/6/06	924	GTF On-line.
03/07/06	867	GTF Off-line 1.5 hr. for maintenance.
3/8/06-3/31/06	928	GTF On-line.
Second Quarter Average System Flow - 924		
4/1/06-4/9/06	938	GTF on-line.
04/10/06	856	GTF off-line 2 hr. for repairs.
4/11/06-4/30/06	940	GTF on-line.
5/1/06-5/31/06	946	GTF on-line.
6/1//06-6/12/06	928	GTF on-line.
06/13/06	457	GTF off-line 5.5 hr., Wells RW-2, RW-3, RW-4 and RW-5 off-line 8 hr.
06/14/06	274	Well RW-1 off-line 5 hr., Well RW-2 off-line 10 hr., Wells RW-3, RW-4 and RW-5 off-line 16 hr., GTF off-line 6 hr.,
06/15/06	648	Well RW-1 off-line 9 hr., Wells RW-3, RW-4 and RW-5 off-line 11 hr.
6/16/06-6/22/06	955	GTF on-line.
06/23/06	795	GTF off-line 2.5 hr. due to construction on Winding Rd.
6/24/06-6/25/06	952	GTF on-line.
06/26/06	710	GTF off-line 7 hr. due to construction on Winding Rd.
6/27/06-6/30/06	955	GTF on-line
Third Quarter Average System Flow - 910		
7/1/06-7/15/06	951	GTF on-line.
07/16/06	916	Well RW-5 off-line 4 hr.
07/17/06	883	Well RW-5 0ff-line 8 hr.
7/18/06-9/1/06	930	GTF on-line.
9/2/06	690	GTF off-line 6 hr.
9/3/06	181	GTF off-line 18 hr., Well RW-3 off-line 6 hr.
9/4/06-9/5/06	770	Well RW-3 off-line.
9/6/06	856	Well RW-3 off-line 9 hr.
9/7/06-9/14/06	929	GTF on-line.
09/15/06	725	Wells RW-1, RW-2 and RW-3 off-line 7 hr.
09/16/06	458	Wells RW-1, RW-2 RW-3 and RW-4 off-line 16 hr.
9/17/06-9/30/06	929	GTF on-line.
Fourth Quarter Average System Flow - 925		
10/1/06 - 10/15/06	952	GTF on-line.
10/16/06 - 11/1/06	788	RW-1 off-line
11/02/06	845	RW-1 off-line 14 hrs.
11/3/06 - 12/3/06	970	GTF on-line.
12/4/06	825	RW-2 and RW-4 off-line 12 hrs.
12/5/06 - 12/6/06	795	RW-2 and RW-4 off-line
12/07/06	478	RW-2 and RW-4 off-line 12 hrs., GTF off-line 10 hrs.
12/8/06 - 12/31/06	985	GTF on-line.

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	LF-1	LF-1	LF-1	LF-1
DATE:	3/30/2006	5/25/2006	7/21/2006	10/13/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	M-30B-R	M-30B-R	M-30B-R	M-30B-R
DATE:	3/28/2006	5/23/2006	7/21/2006	10/11/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-05B	MW-05B	MW-05B	MW-05B
DATE:	3/29/2006	5/25/2006	7/20/2006	10/13/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	0.4J	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.4	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06A	MW-06A	MW-06A	MW-06A
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	0.4J	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.4	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06B	MW-06B	MW-06B	MW-06B
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06C	MW-06C	MW-06C	MW-06C
DATE:	3/29/2006	5/24/2006	7/20/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	0.3J	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	1.3	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	1.6	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP
DATE:	3/29/2006	3/29/2006	5/24/2006	5/24/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	0.2J	0.2J	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.2J	0.2J	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.4	0.4	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION: / DATE:	MW-06E 7/19/2006	MW-06E DUP 7/19/2006	MW-06E 10/12/2006	MW-06E DUP 10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	NA	NA	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	NA	NA	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	NA	NA	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	NA	NA	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	NA	NA	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06F	MW-06F	MW-06F	MW-06F
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION: / DATE:	MW-07B 3/30/2006	MW-07B 5/24/2006	MW-07B 7/18/2006	MW-07B 10/11/2006
1,1,1-Trichloroethane	10.6	10.6	13.0	14.6
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	8.5	4.8	5.8	10.2
1,2-Dichloroethane	0.8	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	3.2	2.4	2.0	3.3
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	22.0	24.0	30.3	46.4
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	458.0	446.0	548.0	583.0
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	503.6	487.8	599.1	657.5

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-08A	MW-08A	MW-08A	MW-08A
DATE:	3/29/2006	5/24/2006	7/20/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	1.2	1.5	<0.5	1.3
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	1.2	1.5	0.0	1.3

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	3/29/2006	5/24/2006	7/20/2006	10/12/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	0.4J	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	0.2J	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.6	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-09B	MW-09B	MW-09B	MW-09B
DATE:	3/30/2006	5/23/2006	7/18/2006	10/11/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	3/30/2006	5/23/2006	7/18/2006	10/11/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-11A	MW-11A	MW-11A	MW-11A
DATE:	3/28/2006	5/23/2006	7/18/2006	10/11/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	1.0	0.7	0.9	1.0
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	1.4	1.0	0.5	1.1
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	2.9	1.7	1.4	2.1

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-11B	MW-11B	MW-11B	MW-11B
DATE:	3/28/2006	5/23/2006	7/18/2006	10/11/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	OBS-1	OBS-1	OBS-1	OBS-1
DATE:	3/30/2006	5/25/2006	7/21/2006	10/13/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	NA	NA
1,1,2-Trichloroethane	<0.5	<0.5	NA	NA
1,1-Dichloroethane	0.2J	0.3J	<0.5	0.2J
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	NA	NA
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	NA	NA
cis-1,2-Dichloroethene	4.7	4.0	3.7	3.2
cis-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	<0.5	NA	NA
Trichloroethylene	0.6	1.5	0.6	1.0
Trichlorofluoromethane	<0.5	<0.5	NA	NA
Vinyl chloride	2.0	<0.5	<0.5	<0.5
Sum of Constituents	7.5	5.8	4.3	4.4

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-09D			
DATE:	7/18/2006			
1,1,1-Trichloroethane	0.6			
1,1,2,2-Tetrachloroethane	NA			
1,1,2-Trichloroethane	NA			
1,1-Dichloroethane	5.5			
1,1-Dichloroethene	7.0			
1,2-Dichloroethane	0.5			
1,2-Dichloropropane	<0.5			
Bromodichloromethane	<0.5			
Bromoform	<0.5			
Bromomethane	NA			
Carbon tetrachloride	<0.5			
Chlorodibromomethane	<0.5			
Chloroethane	6.0			
Chloroform	<0.5			
Chloromethane	NA			
cis-1,2-Dichloroethene	5.4			
cis-1,3-Dichloropropene	NA			
Dichlorodifluoromethane	13.0			
Methylene chloride	0.3J			
trans-1,2-Dichloroethene	0.2J			
trans-1,3-Dichloropropene	NA			
Trichloroethylene	1.8			
Trichlorofluoromethane	NA			
Vinyl chloride	1.9			
Sum of Constituents	42.2			

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	FIELD BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK
DATE:	5/24/2006	7/18/2006	10/13/2006	3/28/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	NA	NA	<0.5
1,1,2-Trichloroethane	<0.5	NA	NA	<0.5
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	1.9
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	NA	NA	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	NA	NA	<0.5
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	NA	NA	<0.5
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	2.4

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	5/23/2006	7/18/2006	10/11/2006	3/29/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	NA	NA	<0.5
1,1,2-Trichloroethane	<0.5	NA	NA	<0.5
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	NA	NA	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	NA	NA	<0.5
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	0.3J
trans-1,2-Dichloroethene	1.2	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	NA	NA	<0.5
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	1.2	0.0	0.0	0.3

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	5/24/2006	7/19/2006	10/12/2006	3/30/2006
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	NA	NA	<0.5
1,1,2-Trichloroethane	<0.5	NA	NA	<0.5
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	NA	NA	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	NA	NA	<0.5
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Dichlorodifluoromethane	1.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	0.4J
trans-1,2-Dichloroethene	0.9	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	<0.5	NA	NA	<0.5
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	NA	NA	<0.5
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	2.4	0.0	0.0	0.4

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION: / DATE:	TRIP BLANK 5/25/2006	TRIP BLANK 7/20/2006	TRIP BLANK 10/13/2006	
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	
1,1,2,2-Tetrachloroethane	<0.5	NA	NA	
1,1,2-Trichloroethane	<0.5	NA	NA	
1,1-Dichloroethane	<0.5	<0.5	<0.5	
1,1-Dichloroethene	<0.5	<0.5	<0.5	
1,2-Dichloroethane	<0.5	<0.5	<0.5	
1,2-Dichloropropane	<0.5	<0.5	<0.5	
Bromodichloromethane	<0.5	<0.5	<0.5	
Bromoform	<0.5	<0.5	<0.5	
Bromomethane	<0.5	NA	NA	
Carbon tetrachloride	<0.5	<0.5	<0.5	
Chlorodibromomethane	<0.5	<0.5	<0.5	
Chloroethane	<0.5	<0.5	<0.5	
Chloroform	<0.5	<0.5	<0.5	
Chloromethane	<0.5	NA	NA	
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	
cis-1,3-Dichloropropene	<0.5	NA	NA	
Dichlorodifluoromethane	<0.5	<0.5	<0.5	
Methylene chloride	<0.5	<0.5	<0.5	
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	
trans-1,3-Dichloropropene	<0.5	NA	NA	
Trichloroethylene	<0.5	<0.5	0.5	
Trichlorofluoromethane	<0.5	NA	NA	
Vinyl chloride	<0.5	<0.5	<0.5	
Sum of Constituents	0.0	0.0	0.5	

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	LF-1	LF-1	LF-1	LF-1	M-30B-R	M-30B-R	M-30B-R	M-30B-R
DATE:	3/30/2006	5/25/2006	7/21/2006	10/13/2006	3/28/2006	5/23/2006	7/21/2005	10/11/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.4J	<0.5	0.3J	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	1.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-05B	MW-05B	MW-05B	MW-05B	MW-06A	MW-06A	MW-06A	MW-06A
DATE:	3/29/2006	5/24/2006	7/20/2006	10/13/2006	3/29/2006	5/24/2006	7/19/2006	10/12/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	0.4	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06B	MW-06B	MW-06B	MW-06B	MW-06C	MW-06C	MW-06C	MW-06C
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006	3/29/2006	5/24/2006	7/20/2006	10/12/2006
1,2-Dichlorobenzene	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.2	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	6.5	5.8	1.5	3.4	1.9	1.6	<0.5	1.5
Benzene	2.7	5.5	1.6	1.3	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	4.9	3.8	3.0	1.2	0.5	<0.5	<0.5	0.3J
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	~~0.4J~~ 0 JG
Isopropylbenzene	<0.5	<0.5	<0.5	0.4J	<0.5	<0.5	<0.5	0.6
o-Xylene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	14.8	16.3	9.1	6.3	2.4	1.6	0.0	~~2.8~~ 2.4

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP
DATE:	3/29/2006	3/29/2006	5/24/2006	5/24/2006	7/19/2006	7/19/2006	10/12/2006	10/12/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	2.0	1.9	<0.5	<0.5
1,3-Dichlorobenzene	0.3	0.2	0.3	0.1	2.0	1.9	<0.5	<0.5
1,4-Dichlorobenzene	1.0	1.0	1.4	1.8	2.0	1.9	1.7	1.8
Benzene	0.3J	0.2J	0.8	0.8	0.4J	0.4J	0.5	0.5
Chlorobenzene	0.4J	0.5	0.7	<0.5	0.7	0.7	0.8	1.1
Ethylbenzene	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.4J	0.4J
o-Xylene	0.4J	0.4J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	2.4	2.3	3.2	3.4	7.1	6.8	3.4	3.8

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06F	MW-06F	MW-06F	MW-06F	MW-07B	MW-07B	MW-07B	MW-07B
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006	3/30/2006	5/24/2006	7/18/2006	10/11/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	0.3J	<0.5	0.6	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	0.3	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	0.3	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	~~2.0~~ B	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	~~2.9~~ 0.9J.	0.0	0.6	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-08A	MW-08A	MW-08A	MW-08A	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	3/29/2006	5/24/2006	7/20/2006	10/12/2006	3/29/2006	5/24/2006	7/20/2006	10/12/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	0.2J	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	0.2J	0.9	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.2J	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	0.3J	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Sum of Constituents	0.0	0.0	0.0	0.3	0.6	0.9	0.0	0.5

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-09B	MW-09B	MW-09B	MW-09B	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	3/30/2006	5/23/2006	7/18/2006	10/11/2006	3/30/2006	5/23/2006	7/18/2006	10/11/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-09D	MW-11A	MW-11A	MW-11A	MW-11A	MW-11B	MW-11B	MW-11B
DATE:	7/18/2006	3/28/2006	5/23/2006	7/18/2006	10/11/2006	3/28/2006	5/23/2006	7/18/2006
1,2-Dichlorobenzene	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	2.1	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5
1,4-Dichlorobenzene	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	7.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	3.0	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	14.4	0.0	0.0	0.0	0.0	1.7	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-11B	OBS-1	OBS-1	OBS-1	OBS-1
DATE:	10/11/2006	3/30/2006	5/25/2006	7/21/2006	10/13/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	2.1	2.3	<0.5	1.5
Benzene	<0.5	1.7	3.1	1.2	<0.5
Chlorobenzene	<0.5	0.8	<0.5	0.9	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	0.2J	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	4.8	5.4	2.1	1.5

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	FIELD BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	5/24/2006	7/21/2006	10/13/2006	3/28/2006	5/23/2006	7/18/2006	10/11/2006	3/29/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	5/24/2006	7/19/2006	10/12/2006	3/30/2006	5/25/2006	7/20/2006	10/13/2006
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TETRACHLOROETHENE

SAMPLE ID:	LF-1	LF-1	LF-1	LF-1	M-30B-R	M-30B-R	M-30B-R	M-30B-R
DATE:	3/30/2006	5/25/2006	7/21/2006	10/13/2006	3/28/2006	5/23/2006	7/21/2006	10/11/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SAMPLE ID:	MW-05B	MW-05B	MW-05B	MW-05B	MW-06A	MW-06A	MW-06A	MW-06A
DATE:	3/29/2006	5/25/2006	7/21/2006	10/13/2006	3/29/2006	5/24/2006	7/19/2006	10/12/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	0.2J	<0.5	<0.5	<0.5
SAMPLE ID:	MW-06B	MW-06B	MW-06B	MW-06B	MW-06C	MW-06C	MW-06C	MW-06C
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006	3/29/2006	5/24/2006	7/20/2006	10/12/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TETRACHLOROETHENE

SAMPLE ID:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP
DATE:	3/29/2006	3/29/2006	5/24/2006	5/24/2006	7/19/2006	7/19/2006	10/12/2006	10/12/2006
Tetrachloroethene	<0.5	0.2J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SAMPLE ID:	MW-06F	MW-06F	MW-06F	MW-06F	MW-07B	MW-07B	MW-07B	MW-07B
DATE:	3/29/2006	5/24/2006	7/19/2006	10/12/2006	3/30/2006	5/24/2006	7/18/2006	10/11/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	66.9	80.3	50.9	61.3
SAMPLE ID:	MW-08A	MW-08A	MW-08A	MW-08A	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	3/29/2006	5/24/2006	7/20/2006	10/12/2006	3/29/2006	5/24/2006	7/20/2006	10/12/2006
Tetrachloroethene	16.7	11.5	10.2	22.3	1.2	0.8	0.8	1.1

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TETRACHLOROETHENE

SAMPLE ID:	MW-09B	MW-09B	MW-09B	MW-09B	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	3/30/2006	5/23/2006	7/18/2006	10/11/2006	3/30/2006	5/23/2006	7/18/2006	10/11/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SAMPLE ID:	MW-09D	MW-11A	MW-11A	MW-11A	MW-11A	MW-11B	MW-11B	MW-11B
DATE:	7/18/2006	3/28/2006	5/23/2006	7/18/2006	10/11/2006	3/28/2006	5/23/2006	7/18/2006
Tetrachloroethene	1.8	0.9	0.3J	0.3J	<0.5	<0.5	<0.5	<0.5
SAMPLE ID:	MW-11B	OBS-1	OBS-1	OBS-1	OBS-1			
DATE:	10/11/2006	3/30/2006	5/25/2006	7/21/2006	10/13/2006			
Tetrachloroethene	<0.5	1.5	1.2	1.0	1.0			

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TETRACHLOROETHENE

SAMPLE ID:	FIELD BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	5/24/2006	7/20/2006	10/13/2006	3/28/2006	5/23/2006	7/19/2006	10/11/2006	3/29/2006
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SAMPLE ID:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	
DATE:	5/24/2006	7/20/2006	10/12/2006	3/30/2006	5/25/2006	7/20/2006	10/13/2006	
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.3J	

Notes:
All concentrations in micrograms per liter (µg/L).

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL RECOVERY WELL SAMPLING RESULTS - 2006
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION:	RW-1	RW-2	RW-3	RW-4	RW-5
DATE:	3/31/2006	3/31/2006	3/31/2006	3/31/2006	3/31/2006
Benzene	0.3J	0.5	**0.7**	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.8	0.7	0.6	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	0.1J	0.6	2.4	2.4
o,p-Dichlorobenzene	1.5	1.2	1.2	<0.5	<0.5
m,o,p-Dichlorobenzene	1.9	1.5	1.5	<0.5	<0.5
1,1-Dichloroethane	0.2J	0.2J	0.8	0.4J	2.7
1,2-Dichloroethane	<0.5	<0.5	<0.5	0.1J	2.8
1,1-Dichloroethene	<0.5	<0.5	1.1	4.7	**37.6**
cis-1,2-Dichloroethene	1.6	1.3	**11.8**	**40.9**	**45**
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	0.2J	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.3J	0.3J	**30.1**	**32.3**	**93.8**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.3	**6.3**	**46.2**
Trichloroethylene	<0.5	0.4J	**40.3**	**138**	**390**
Vinyl chloride	<0.5	<0.5	0.8	<0.5	<0.5
o-Xylene	0.2J	0.2J	<0.5	<0.5	<0.5
m+p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (total)	0.2J	0.2J	<0.5	<0.5	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Total VOCs	5.8	5.2	90.8	224.6	620.5

Notes:
All concentrations in micrograms per liter (µg/L).
Bold denotes concentration above NYSDEC Ambient Water Quality Standards

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL RECOVERY WELL SAMPLING RESULTS - 2006
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 5/17/2006	RW-2 5/17/2006	RW-3 5/17/2006	RW-4 5/17/2006	RW-5 5/17/2006
Benzene	0.6	<0.5	**1.1**	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	0.3J	0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	0.5	1.3	<0.5
o,p-Dichlorobenzene	1.3	0.9	1.6	<0.5	<0.5
m,o,p-Dichlorobenzene	1.3	0.9	1.6	<0.5	<0.5
1,1-Dichloroethane	0.3J	0.3J	0.9	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	0.6	2.4	**21.4**
cis-1,2-Dichloroethene	1.2	0.9	**9.7**	**26.8**	**35.0**
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.2J	<0.5	**23.1**	**21.5**	**87.0**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.6	**6.1**	**44.3**
Trichloroethylene	**0.8**	0.5	**33.6**	**108**	**311**
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (total)	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Total VOCs	5.4	2.9	73.2	166	499.0

Notes:
All concentrations in micrograms per liter (µg/L).
Bold denotes concentration above NYSDEC Ambient Water Quality Standards

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL RECOVERY WELL SAMPLING RESULTS - 2006
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 7/17/2006	RW-2 7/17/2006	RW-3 7/17/2006	RW-4 7/17/2006	RW-5 7/17/2006
Benzene	0.2J	0.2J	0.2J	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.6	0.6	0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5	<0.5
o,p-Dichlorobenzene	0.9	0.6	0.6	<0.5	<0.5
m,o,p-Dichlorobenzene	3.6	2.0	0.9	<0.5	<0.5
1,1-Dichloroethane	0.3J	0.2J	0.6	0.2J	2.5
1,2-Dichloroethane	<0.5	<0.5	0.2J	<0.5	1.2
1,1-Dichloroethene	<0.5	<0.5	0.4J	1.6	**20.5**
cis-1,2-Dichloroethene	1.1	0.8	**8.0**	**15.1**	**23.0**
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.2J	<0.5	**15.0**	**10.4**	**63.5**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.6	1.3	3.6	**28.7**
Trichloroethylene	0.7	0.2J	**25.0**	**65**	**272**
Vinyl chloride	<0.5	<0.5	0.2J	<0.5	<0.5
o-Xylene	**11.1**	1.8	<0.5	**34.4**	<0.5
m+p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (total)	**11.1**	1.8	<0.5	**34.4**	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Total VOCs	29.8	7.9	52.9	130.3	411.4

Notes:
All concentrations in micrograms per liter (µg/L).
Bold denotes concentration above NYSDEC Ambient Water Quality Standards

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL RECOVERY WELL SAMPLING RESULTS - 2006
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 10/5/2006	RW-2 10/5/2006	RW-3 10/5/2006	RW-4 10/5/2006	RW-5 10/5/2006
Benzene	**11.0**	0.3J	0.5	<0.5	<0.5
Bromodichloromethane	0.2J	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.8	0.5	0.7	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	0.4J	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	1.0	<0.5
o,p-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5
m,o,p-Dichlorobenzene	2.5	1.2	1.5	<0.5	<0.5
1,1-Dichloroethane	<0.5	0.3J	0.80	<0.5	1.9
1,2-Dichloroethane	0.3J	<0.5	0.3J	<0.5	0.9
1,1-Dichloroethene	<0.5	<0.5	0.8	2.8	**36.3**
cis-1,2-Dichloroethene	1.2	0.8	**9.6**	**20.6**	**39.4**
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.2J	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	<0.5	<0.5	**20.3**	**12.6**	**83.4**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.5	3.9	**41.2**
Trichloroethylene	0.6	<0.5	**36.1**	**63.6**	**264**
Vinyl chloride	<0.5	0.2J	0.2J	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (total)	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5
Total VOCs	16.8	3.7	72.3	105	467

Notes:
All concentrations in micrograms per liter (µg/L).
Bold denotes concentration above NYSDEC Ambient Water Quality Standards

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	LF-1 3/30/2006	LF-1 5/25/2006	LF-1 7/21/2006	LF-1 10/13/2006	M-30B-R 3/28/2006
Alkalinity	124	114	120	176	16.0
Aluminum	NA	<0.2	NA	NA	<0.2
Ammonia (as N)	23.1	15.5	11.9	36.5	<0.1 J
Barium	NA	<0.2	NA	NA	<0.2
Bicarbonate (as CaCO3)	124	114	120	176	16.0
Calcium	NA	10.1	NA	NA	13.1
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	125	131	164	176	51.3
Chromium	NA	<0.01	NA	NA	<0.01
Chromium (Hexavalent)	NA	<0.02	NA	NA	<0.02
Copper	NA	<0.02	NA	NA	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	90.0	100	100	88	75.0
Iron	NA	12.1	NA	NA	0.23
Lead	NA	<5.0	NA	NA	<5.0
Magnesium	NA	13.5	NA	NA	7.15
Manganese	NA	5.36	NA	NA	<0.02
Mercury	NA	<0.2	NA	NA	NA
Nickel	NA	<0.04	NA	NA	<0.04
Nitrate (as N)	<0.1	<0.1	<0.1	<0.1	5.46
Potassium	NA	19.4	NA	NA	5.63
Sodium	NA	77.4	NA	NA	25.2
Sulfate	29.2	29.7	28.8	25	14.2
Phenol	<0.005	<5.0	<5.0	<5.0	<0.005
Zinc	NA	<0.02	NA	NA	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	M-30B-R 5/23/2006	M-30B-R 7/21/2006	M-30B-R 10/11/2006	MW-05B 3/29/2006	MW-05B 5/25/2006
Alkalinity	17.2	15.0	15.1	36.1	38.0
Aluminum	<0.2	<0.2	1.45	<0.2	<0.2
Ammonia (as N)	<0.1	<0.1	<0.1	<0.1	<0.1
Barium	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	17.2	15.0	15.1	36.1	38.0
Calcium	14.0	12.7	9.16	12.6	11.7
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	43.8	45.5	29.5	92.6	91.1
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	72.0	52.0	40.0	88.0	79.0
Iron	0.1	<0.02	0.78	0.03	0.02
Lead	<5.0	<5.0	<5	<5.0	<5.0
Magnesium	7.41	7.17	5.28	8.63	7.55
Manganese	<0.02	<0.02	<0.02	5.78	5.4
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	5.28	5.18	5.4	0.55	1.46
Potassium	6.5	6.17	5.08	10.2	8.03
Sodium	25.4	26.4	26.4	56.4	53.0
Sulfate	22.2	17.7	17.1	25.3	27.6
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.02	<0.02	0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-05B 7/20/2006	MW-05B 10/13/2006	MW-06A 3/29/2006	MW-06A 5/24/2006	MW-06A 7/19/2006
Alkalinity	39.4	37.3	6.0	4.4	6.4
Aluminum	<0.2	<0.2	<0.2	0.23	0.72
Ammonia (as N)	<0.1	<0.1	0.44	0.39	0.22
Barium	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	39.4	37.3	6.0	4.3	6.4
Calcium	11.7	12.2	0.58	0.93	0.9
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	90.6	86.8	9.7	7.2	11.5
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	110.0	68.0	<5.0 J	5.0	8.0
Iron	0.02	0.17	0.1	0.2	1.33
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	8.35	8.87	0.84	0.97	1.17
Manganese	5.47	5.71	<0.02	0.03	0.02
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	2.34	1.76	0.68	0.5	0.97
Potassium	9.65	9.84	4.26	2.99	6.84
Sodium	57.0	62.9	8.37	8.1	8.78
Sulfate	26.6	23.2	<5.0	8.0	6.5
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06A 10/12/2006	MW-06B 3/29/2006	MW-06B 5/24/2006	MW-06B 7/19/2006	MW-06B 10/12/2006
Alkalinity	21.3	807.0	953.0	821.0	619.0
Aluminum	0.57	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	3.43	136.0	181.0	129.0	80.3
Barium	<0.2	<0.2	<0.20	<0.2	<0.20
Bicarbonate (as CaCO3)	21.3	806.0	950.0	819.0	619.0
Calcium	0.94	12.8	18.9	18.9	15.1
Carbonate (as CaCO3)	<1.0	<1.0 J	2.8	1.4	<1.0
Chloride	14.8	267.0	294.0	288.0	233.0
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	20	80	115	125	100
Iron	2.4	6.34	9.36	8.76	7.17
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	1.07	8.78	12.6	11.70	10.40
Manganese	0.03	0.05	0.08	0.07	0.06
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	2.41	<0.1	<0.1	<0.1	<0.1
Potassium	9.4	115	136	127	100
Sodium	17.6	261	307	288	281
Sulfate	8.7	8.1	7.0	7.0	14.3
Phenol	<5.0	<5.0	7.2	7.8	<5.0
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06C 3/29/2006	MW-06C 5/24/2006	MW-06C 7/20/2006	MW-06C 10/12/2006	MW-06E 3/29/2006
Alkalinity	526	543	528	596	64.7
Aluminum	<0.2	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	40.6	36.9	36.9	43.7	13.9
Barium	<0.2	<0.2	<0.2	<0.2	0.21
Bicarbonate (as CaCO3)	525	542	527	595	64.7
Calcium	34.6	36.0	39.7	40.4	28.9
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	306	281	312	339	191
Chromium	<0.01	<0.01	<0.01	<0.01	0.02
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	135	130	140	148	140
Iron	5.01	5.05	5.49	5.23	2.42
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	8.62	8.67	10.0	10.0	12.5
Manganese	0.07	0.07	0.07	0.08	0.63
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.1 J	<0.1	<0.1	<0.1	0.13
Potassium	68.5	61.9	69.6	76.3	27.6
Sodium	351	366	382	407	67.3
Sulfate	28.0	66.8	79.5	74.0	21.1
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	<0.02	<0.02	<0.02	0.04

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06EDUP 3/29/2006	MW-06E 5/24/2006	MW-06EDUP 5/24/2006	MW-06E 7/19/2006	MW-06EDUP 7/19/2006
Alkalinity	60.5	162.0	168.0	170.0	171.0
Aluminum	<0.2	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	13.1	26.8	28.3	29.0	29.0
Barium	0.2	0.2	<0.2	<0.2	0.2
Bicarbonate (as CaCO3)	60.5	162.0	168.0	170.0	170.0
Calcium	30.5	30.2	28.5	29.9	31.1
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	187.0	213.0	188.0	213.0	213.0
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	135.0	130.0	130.0	140.0	145.0
Iron	2.4	3.1	2.9	2.7	2.9
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	13.2	13.0	12.1	13.5	14.1
Manganese	0.7	0.7	0.7	0.7	0.7
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.1	<0.1	<0.1	<0.1	<0.1
Potassium	27.7	40.9	37.0	40.2	43.0
Sodium	68.4	96.0	88.6	101.0	105.0
Sulfate	20.7	18.9	19.3	19.4	20.3
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.0	0.0	0.0	0.0	0.0
					929.4

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06E 10/12/2006	MW-06EDUP 10/12/2006	MW-06F 3/29/2006	MW-06F 5/24/2006	MW-06F 7/19/2006
Alkalinity	264.0	248.0	<1.0	<1.0	<1.0
Aluminum	<0.2	<0.2	<0.2	<0.20	<0.2
Ammonia (as N)	46.5	43.8	0.2	0.2	0.2
Barium	<0.2	<0.2	<0.2	<0.20	<0.2
Bicarbonate (as CaCO3)	264.0	248.0	<1.0	<1.0	<1.0
Calcium	31.4	31.6	29.9	31.5	33.0
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	242.0	239.0	160.0	151.0	169.0
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	120.0	136.0	135.0	135.0	105.0
Iron	3.8	3.7	0.1	0.2	0.2
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	14.8	14.8	12.0	12.0	13.4
Manganese	0.7	0.7	0.1	0.1	0.1
Mercury	<0.2	<0.2	0.4	0.3	0.3
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.1	<0.1	0.5	0.5	0.5
Potassium	58.7	57.4	4.5	3.1	4.4
Sodium	139.0	136.0	45.5	46.3	53.4
Sulfate	19.7	19.6	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.0	0.0	0.0	0.0	0.0

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-6F 10/12/2006	MW-07B 3/30/2006	MW-07B 5/24/2006	MW-07B 7/18/2006	MW-07B 10/11/2006
Alkalinity	<1.0	1.3	3.2	3.0	<1.0
Aluminum	<0.20	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	0.1	<0.1	<0.1	<0.1	<0.1
Barium	<0.20	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	<1.0	1.3	3.1	3.1	<1.0
Calcium	30.6	4.8	4.9	4.8	4.8
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	167.0	20.2	21.6	20.8	18.8
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	0.0	0.1	0.1	0.1
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	128.0	26.0	30.0	25.0	22.0
Iron	0.2	<0.02	0.0	0.1	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	12.5	2.7	2.9	3.1	3.2
Manganese	0.1	0.0	0.1	0.1	0.0
Mercury	0.3	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.6	4.4	4.3	4.2	5.0
Potassium	3.5	1.2	1.0	1.9	1.4
Sodium	49.5	12.1	14.4	13.1	12.4
Sulfate	<5.0	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.0	0.0	0.0	0.0	0.1

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-08A 3/29/2006	MW-08A 5/24/2006	MW-08A 7/20/2006	MW-08A 10/12/2006	MW-08B 3/29/2006
Alkalinity	14.3	35.4	4.2	36.0	<1.0
Aluminum	<0.2	<0.2	0.3	0.3	<0.2
Ammonia (as N)	1.4	2.1	0.1	1.5	1.4
Barium	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	14.3	35.4	4.2	36.0	<1.0
Calcium	11.4	16.4	4.8	26.1	16.8
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	44.0	56.4	20.6	55.2	122.0
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	76.0	90.0	23.0	92.0	85.0
Iron	0.1	0.3	1.0	0.5	0.1
Lead	<5.0	<5.0	8.2	<5.0	<5.0
Magnesium	5.1	6.4	2.1	10.7	7.6
Manganese	0.1	0.1	0.1	0.1	0.9
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	5.8	1.1	3.0	10.1	1.7
Potassium	9.2	12.3	3.2	20.1	16.0
Sodium	34.0	37.8	9.3	56.2	55.2
Sulfate	20.4	29.3	10.6	36.7	33.2
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.0	<0.02	<0.02	<0.02	0.1

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-08B 5/24/2006	MW-08B 7/20/2006	MW-08B 10/12/2006	MW-09B 3/30/2006	MW-09B 5/23/2006
Alkalinity	<1.0	<1.0	<1.0	12.3	13.7
Aluminum	<0.2	<0.2	<0.2	<0.2	<0.20
Ammonia (as N)	1.5	1.3	1.2	1.0	1.1
Barium	<0.2	<0.2	<0.2	<0.2	<0.20
Bicarbonate (as CaCO3)	<1.0	<1.0	<1.0	12.3	13.7
Calcium	19.9	21.7	24.9	13.7	13.4
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	123.0	132.0	142.0	61.6	63.1
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	0.0	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	95.0	100.0	96.0	60.0	64.0
Iron	0.0	0.0	0.1	<0.02	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	8.6	9.8	10.7	5.6	5.7
Manganese	1.1	1.2	1.3	0.1	0.1
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.3	1.6	1.7	4.2	4.7
Potassium	15.7	18.7	19.4	6.9	7.9
Sodium	47.8	50.8	55.7	30.6	35.7
Sulfate	28.8	26.9	25.2	22.7	19.7
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.1	0.1	0.1	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09B 7/18/2006	MW-09B 10/11/2006	MW-09C 3/30/2006	MW-09C 5/23/2006	MW-09C 7/18/2006
Alkalinity	13.0	12.6	48.2	46.7	44.6
Aluminum	<0.2	<0.20	<0.2	<0.2	<0.2
Ammonia (as N)	0.9	0.6	9.1	9.7	9.5
Barium	<0.2	<0.20	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	12.9	12.6	48.2	46.7	44.6
Calcium	14.8	16.2	3.8	3.0	2.6
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	67.4	80.9	83.7	82.3	82.1
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	64.0	76.0	40.0	64.0	24.0
Iron	<0.02	<0.02	0.2	0.1	0.1
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	6.2	6.4	6.3	5.1	4.3
Manganese	0.1	0.1	0.1	0.1	0.1
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	4.4	4.9	0.1 J	<0.1	0.1
Potassium	8.3	8.4	20.0	21.7	20.9
Sodium	42.1	51.8	47.2	51.1	51.5
Sulfate	23.6	22.4	17.5	17.7	16.3
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	<0.02	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09C 10/11/2006	MW-09D 7/18/2006	MW-11A 3/28/2006	MW-11A 5/23/2006	MW-11A 7/18/2006
Alkalinity	36.7	<1.0	<1.0 J	<1.0	<1.0
Aluminum	<0.2	0.7	<0.2	<0.2	<0.2
Ammonia (as N)	6.0	1.5	<0.1	<0.1	<0.1
Barium	<0.2	1.3	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	36.7	<1.0	<1.0 J	<1.0	<1.0
Calcium	3.2	20.6	3.9	4.2	4.0
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	80.4	253.0	8.4	7.7	8.6
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	240.0	124.0	16.0	17.0	20.0
Iron	0.1	1.3	0.0	0.0	0.0
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	5.3	15.5	2.2	2.2	2.2
Manganese	0.1	0.2	<0.02	<0.02	<0.02
Mercury	<0.2	2.4	NA	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.4	<0.10	4.8	5.0	4.6
Potassium	18.5	6.3	1.2	1.3	2.4
Sodium	50.2	106.0	5.5	5.6	5.2
Sulfate	17.1	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.0	0.1	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-11A 10/11/2006	MW-11B 3/28/2006	MW-11B 5/23/2006	MW-11B 7/18/2006	MW-11B 10/11/2006
Alkalinity	<1.0	<1.0	1.3	1.3	<1.0
Aluminum	<0.2	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	<0.1	<0.1	<0.1	<0.1	<0.1
Barium	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	<1.0	<1.0	1.3	1.3	<1.0
Calcium	4.0	1.2	1.2	1.2	1.2
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	8.6	5.3	4.9	5.5	5.7
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	32.0	9.0	5.0	6.0	64.0
Iron	<0.02	0.0	0.0	0.0	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	2.3	0.6	0.6	0.6	0.6
Manganese	<0.02	<0.02	<0.02	<0.02	<0.02
Mercury	<0.2	NA	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	5.0	0.8	0.8	0.7	0.8
Potassium	1.3	0.7	0.7	2.0	0.8
Sodium	6.2	3.6	3.5	3.7	4.3
Sulfate	<5.0	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	0.0	<5.0	<5.0	<5.0
Zinc	0.1	<0.02	<0.02	<0.02	0.1

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	OBS-1 3/30/2006	OBS-1 5/25/2006	OBS-1 7/21/2006	OBS-1 10/13/2006	FB 3/30/2006
Alkalinity	87.2	81.4	75.0	63.1	<1.0
Aluminum	<0.2	<0.2	<0.2	<0.2	<0.2
Ammonia (as N)	6.0	6.1	6.0	5.3	<0.1 J
Barium	<0.2	<0.2	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	87.2	81.4	74.9	63.1	<1.0
Calcium	20.2	20.3	20.7	18.0	<0.2
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	97.8	94.5	99.5	99.0	<2.0
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	120.0	120.0	120.0	104.0	<5.0
Iron	0.1	0.1	0.1	0.3	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	14.8	15.3	17.2	14.0	<0.2
Manganese	1.2	1.1	1.2	1.2	<0.02
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.1	~	<0.10	0.1	<0.1 J
Potassium	10.0	9.3	10.8	9.3	<0.2
Sodium	75.5	76.4	79.1	84.2	<0.2
Sulfate	19.1	99.5	49.5	72.2	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	0.0	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	FB 5/24/2006	FB 7/20/2006	FB 10/13/2006
Alkalinity	<1.0	<1.0	<1.0
Aluminum	<0.2	<0.2	<0.2
Ammonia (as N)	<0.1	<0.1	<0.1
Barium	<0.2	<0.2	<0.2
Bicarbonate (as CaCO3)	<1.0	<1.0	<1.0
Calcium	<0.2	<0.2	<0.2
Carbonate (as CaCO3)	<1.0	<1.0	<1.0
Chloride	<2.0	<2.0	<2.0
Chromium	<0.01	<0.01	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0
Hardness as (CaCO3)	<5.0	<5.0	<5.0
Iron	<0.02	<0.02	<0.02
Lead	<5.0	<5.0	<5.0
Magnesium	<0.2	<0.2	<0.2
Manganese	<0.02	<0.02	<0.02
Mercury	<0.2	<0.2	<0.2
Nickel	<0.04	<0.04	<0.04
Nitrate (as N)	<0.1	<0.1	<0.1
Potassium	<0.2	0.9	<0.2
Sodium	<0.2	0.6	<0.2
Sulfate	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0
Zinc	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	M-30B-R 3/28/2006	M-30B-R 5/23/2006	M-30B-R 7/21/2006	M-30B-R 10/11/2006	MW-05B 3/29/2006
Aluminum		<0.2	<0.2	<0.2	<0.20	<0.2
Barium		<0.2	<0.2	<0.2	<0.20	<0.2
Calcium		13.0	13.4	13.2	9.3	12.1
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		0.0	0.0	<0.02	0.0	<0.02
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		7.1	7.2	7.4	5.3	8.3
Manganese		<0.02	<0.02	<0.02	<0.02	5.5
Mercury		NA	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		5.8	6.8	6.9	4.9	9.3
Sodium		25.3	25.5	25.7	26.2	55.4
Zinc		0.0	<0.02	<0.02	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-05B 5/25/2006	MW-05B 7/20/2006	MW-05B 10/13/2006	MW-06A 3/29/2006	MW-06A 5/24/2006
Aluminum		<0.2	<0.2	<0.20	<0.2	<0.2
Barium		<0.2	<0.2	<0.20	<0.2	<0.2
Calcium		12.2	11.8	11.2	0.7	0.7
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		0.0	<0.02	0.0	0.1	0.2
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		7.7	8.3	8.1	0.8	0.7
Manganese		5.5	5.5	5.0	<0.02	<0.02
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		8.2	9.5	9.8	3.4	2.8
Sodium		53.9	56.4	57.9	8.7	7.8
Zinc		0.0	<0.02	<0.02	0.0	0.0

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-06A 7/19/2006	MW-06A 10/12/2006	MW-06B 3/29/2006	MW-06B 5/24/2006	MW-06B 7/19/2006
Aluminum		<0.2	<0.20	<0.2	<0.2	<0.2
Barium		<0.2	<0.20	<0.2	<0.2	<0.2
Calcium		0.7	1.0	14.4	19.0	16.6
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	0.0	<0.02	<0.02
Iron		<0.02	0.0	0.8	0.1	0.1
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		1.0	1.0	9.0	12.6	11.2
Manganese		<0.02	0.0	0.0	0.1	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		6.0	9.8	115.0	138.0	126.0
Sodium		8.5	17.9	264.0	309.0	282.0
Zinc		<0.02	<0.02	<0.02	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-06B 10/12/2006	MW-06C 3/29/2006	MW-06C 5/24/2006	MW-06C 7/20/2006	MW-06C 10/12/2006
Aluminum		<0.20	<0.2	<0.2	<0.2	<0.2
Barium		<0.20	<0.2	<0.2	<0.2	<0.2
Calcium		14.6	34.0	35.5	38.1	41.5
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	0.0	<0.02	<0.02	<0.02
Iron		0.1	2.8	0.1	0.6	0.1
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		9.9	8.5	8.4	9.6	10.4
Manganese		0.1	0.1	0.1	0.1	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		95.7	66.9	60.8	65.9	82.6
Sodium		268.0	338.0	356.0	362.0	439.0
Zinc		<0.02	<0.02	<0.02	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-06E 3/29/2006	MW-06EDUP 3/29/2006	MW-06E 5/24/2006	MW-06EDUP 5/24/2006	MW-06E 7/19/2006
Aluminum		<0.2	60.5	<0.2	<0.2	<0.2
Barium		0.2	<0.2	<0.2	<0.2	<0.2
Calcium		30.8	13.1	29.9	28.3	29.9
Chromium		<0.01	0.2	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	60.5	<0.02	<0.02	<0.02
Copper		<0.02	30.5	<0.02	<0.02	<0.02
Iron		2.5	<1.0	2.1	2.1	2.4
Lead		<5.0	187.0	<5.0	<5.0	<5.0
Magnesium		13.5	<0.01	12.6	12.5	13.5
Manganese		0.7	<0.02	0.7	0.7	0.7
Mercury		<0.2	<0.02	<0.2	<0.2	<0.2
Nickel		<0.04	<10.0	<0.04	<0.04	<0.04
Potassium		31.1	135.0	37.6	36.7	42.2
Sodium		73.7	2.4	92.1	88.8	103.0
Zinc		0.0	<5.0	0.0	<0.02	0.0

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-06EDUP 7/19/2006	MW-06E 10/12/2006	MW-06EDUP 10/12/2006	MW-06F 3/29/2006	MW-06F 5/24/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		31.0	32.7	31.8	29.7	31.9
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		2.6	2.5	2.7	0.1	0.2
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		14.1	15.5	14.9	11.8	11.9
Manganese		0.7	0.8	0.7	0.1	0.1
Mercury		<0.2	<0.2	<0.2	0.4	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		42.7	62.0	54.8	4.4	4.4
Sodium		106.0	148.0	134.0	49.3	54.3
Zinc		0.0	0.0	0.0	0.0	0.0

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-06F 7/19/2006	MW-06F 10/12/2006	MW-07B 3/30/2006	MW-07B 5/24/2006	MW-07B 7/18/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		30.3	32.0	5.5	4.8	4.7
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	0.0	0.1	0.1
Iron		0.2	0.2	<0.02	0.0	0.0
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		12.3	13.0	2.9	3.0	3.0
Manganese		0.1	0.1	0.0	0.1	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		5.2	4.0	1.2	1.0	1.6
Sodium		51.2	52.3	12.1	14.6	12.9
Zinc		0.0	0.0	<0.02	0.0	0.0

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-07B 10/11/2006	MW-08A 3/29/2006	MW-08A 5/24/2006	MW-08A 7/20/2006	MW-08A 10/12/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		5.2	12.0	15.4	5.1	30.1
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		0.1	<0.02	<0.02	<0.02	<0.02
Iron		<0.02	0.1	<0.02	0.0	0.0
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		3.4	5.5	6.0	2.3	12.1
Manganese		0.0	0.1	0.1	0.1	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		1.5	9.9	11.7	3.6	22.1
Sodium		12.8	38.0	36.8	9.2	61.2
Zinc		0.0	0.0	0.1	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-08B 3/29/2006	MW-08B 5/24/2006	MW-08B 7/20/2006	MW-08B 10/12/2006	MW-09B 3/30/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		16.8	20.1	20.2	25.1	13.0
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		0.0	0.1	0.0	0.0	<0.02
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		7.7	8.6	9.5	10.7	5.3
Manganese		0.9	1.1	1.1	1.3	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		16.2	15.4	17.5	18.9	6.5
Sodium		57.3	48.2	49.2	54.9	28.9
Zinc		0.1	0.1	0.1	0.1	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-09B 5/23/2006	MW-09B 7/18/2006	MW-09B 10/11/2006	MW-09C 3/30/2006	MW-09C 5/23/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		13.8	14.3	15.7	3.7	3.0
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		0.0	<0.02	<0.02	<0.02	<0.02
Iron		0.0	<0.02	<0.02	<0.02	0.0
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		5.8	6.0	6.2	5.7	5.0
Manganese		0.1	0.1	0.1	0.1	0.1
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		7.9	8.6	8.0	19.2	21.8
Sodium		36.6	41.6	49.9	44.1	52.0
Zinc		0.0	<0.02	<0.02	0.0	<0.02

Notes:
NA - Not analyzed
.All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-09C 7/18/2006	MW-09C 10/11/2006	MW-09D 7/18/2006	MW-11A 3/28/2006	MW-11A 5/23/2006
Aluminum		<0.2	<0.2	0.7	<0.2	<0.2
Barium		<0.2	<0.2	0.3	<0.2	<0.2
Calcium		2.5	3.3	20.5	3.6	4.2
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		0.1	<0.02	1.3	0.0	<0.02
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		4.3	5.3	15.4	3.6	2.2
Manganese		0.1	0.1	0.2	<0.02	<0.02
Mercury		<0.2	<0.2	<0.2	NA	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		20.6	18.3	5.9	1.4	1.3
Sodium		51.7	50.9	105.0	5.3	5.6
Zinc		0.0	0.0	0.1	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-11A 7/18/2006	MW-11A 10/11/2006	MW-11B 3/28/2006	MW-11B 5/23/2006	MW-11B 7/18/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		3.9	4.3	1.1	1.3	1.2
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		<0.02	<0.02	<0.02	0.0	0.0
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		2.2	2.5	0.5	0.6	0.6
Manganese		<0.02	<0.02	<0.02	<0.02	0.0
Mercury		<0.2	<0.2	NA	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		2.3	1.4	0.8	0.8	2.2
Sodium		5.0	6.6	3.4	3.7	3.4
Zinc		<0.02	0.0	0.0	<0.02	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	MW-11B 10/11/2006	OBS-1 3/30/2006	OBS-1 5/25/2006	OBS-1 7/21/2006	OBS-1 10/13/2006
Aluminum		<0.2	<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2	<0.2
Calcium		1.4	19.4	20.5	19.9	17.9
Chromium		<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02	<0.02
Iron		<0.02	0.0	0.1	0.1	0.1
Lead		<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium		0.7	14.3	15.3	16.3	13.9
Manganese		<0.02	1.2	1.2	1.1	1.2
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04	<0.04
Potassium		0.8	9.8	9.3	10.2	11.1
Sodium		4.2	76.3	75.6	75.0	84.3
Zinc		0.1	<0.02	0.0	<0.02	<0.02

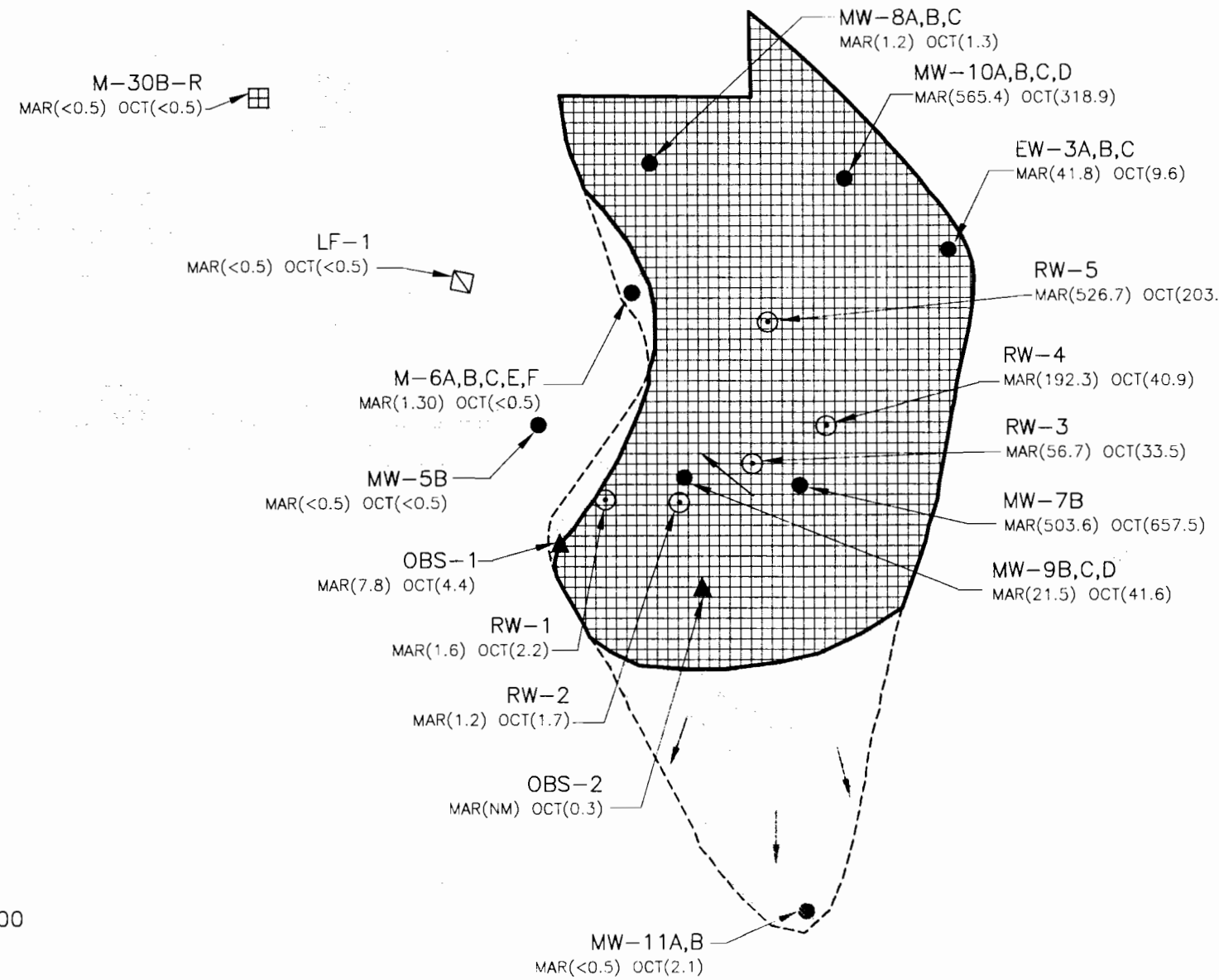
Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2006
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT	SITE DATE	Field Blank 3/30/2006	Field Blank 5/24/2006	Field Blank 7/20/2006	Field Blank 10/13/2006
Aluminum		<0.2	<0.2	<0.2	<0.2
Barium		<0.2	<0.2	<0.2	<0.2
Calcium		<0.2	<0.2	<0.2	<0.2
Chromium		<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)		<0.02	<0.02	<0.02	<0.02
Copper		<0.02	<0.02	<0.02	<0.02
Iron		<0.02	<0.02	<0.02	<0.02
Lead		<5.0	<5.0	<5.0	<5.0
Magnesium		<0.2	<0.2	<0.2	<0.2
Manganese		<0.02	<0.02	<0.02	<0.02
Mercury		<0.2	<0.2	<0.2	<0.2
Nickel		<0.04	<0.04	<0.04	<0.04
Potassium		<0.2	<0.2	0.8	<0.2
Sodium		<0.2	<0.2	2.1	0.5
Zinc		<0.02	<0.02	0.1	<0.02

Notes:
NA - Not analyzed
All concentrations are in milligrams per liter (mg/L)

FIGURES



S43311 A1-A06
030107

LEGEND

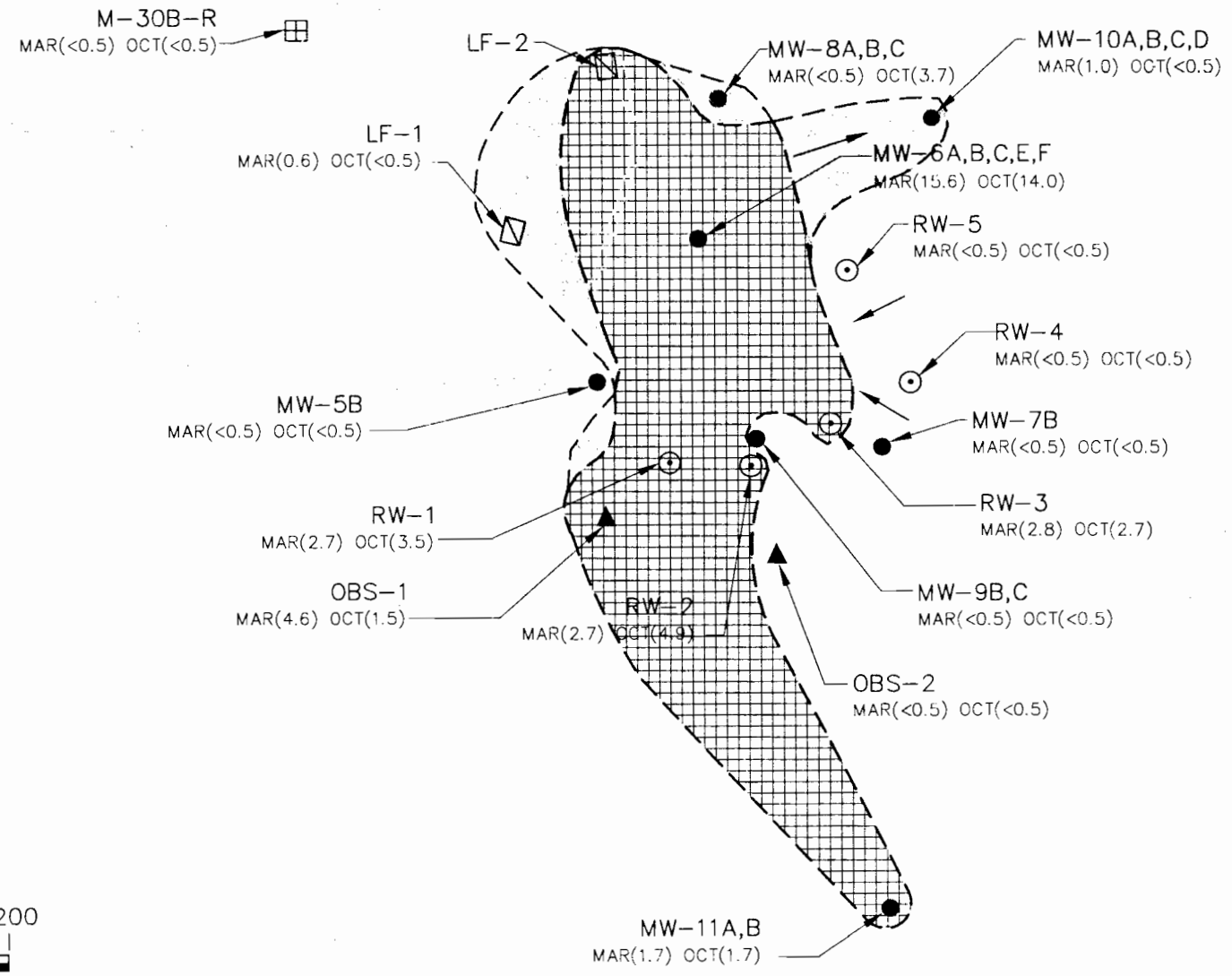
MW-5B ●	MONITORING WELL LOCATION AND TOTAL VOLATILE HALOGENATED ORGANICS CONCINTRATION, PPB
RW-4 ⊙	RECOVERY WELL
OBS-1 ▲	PHASE II EXTENSION WELL
LF-3 ⧅	PHASE III WELL
M-30B-R ⊞	UPGRADIENT WELL
(NM)	NOT MEASURED
	PROPERTY BOUNDARY
←	MIGRATION
	JANUARY 2006 APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS PLUME
	OCTOBER 2006 APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS PLUME
	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS FOR JANUARY AND OCTOBER OF 2006

NOTE:

PLUME CONTOUR IS BASED ON TOTAL VOLATILE HALOGENATED ORGANICS CONCENTRATIONS IN THE MONITORING AND RECOVERY WELLS. PLUM LIMITS BASED ON MOST RECENT AVAILABLE DATA AS NOTED.

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS ANNUAL 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



S43311 B2-A06
030107

LEGEND

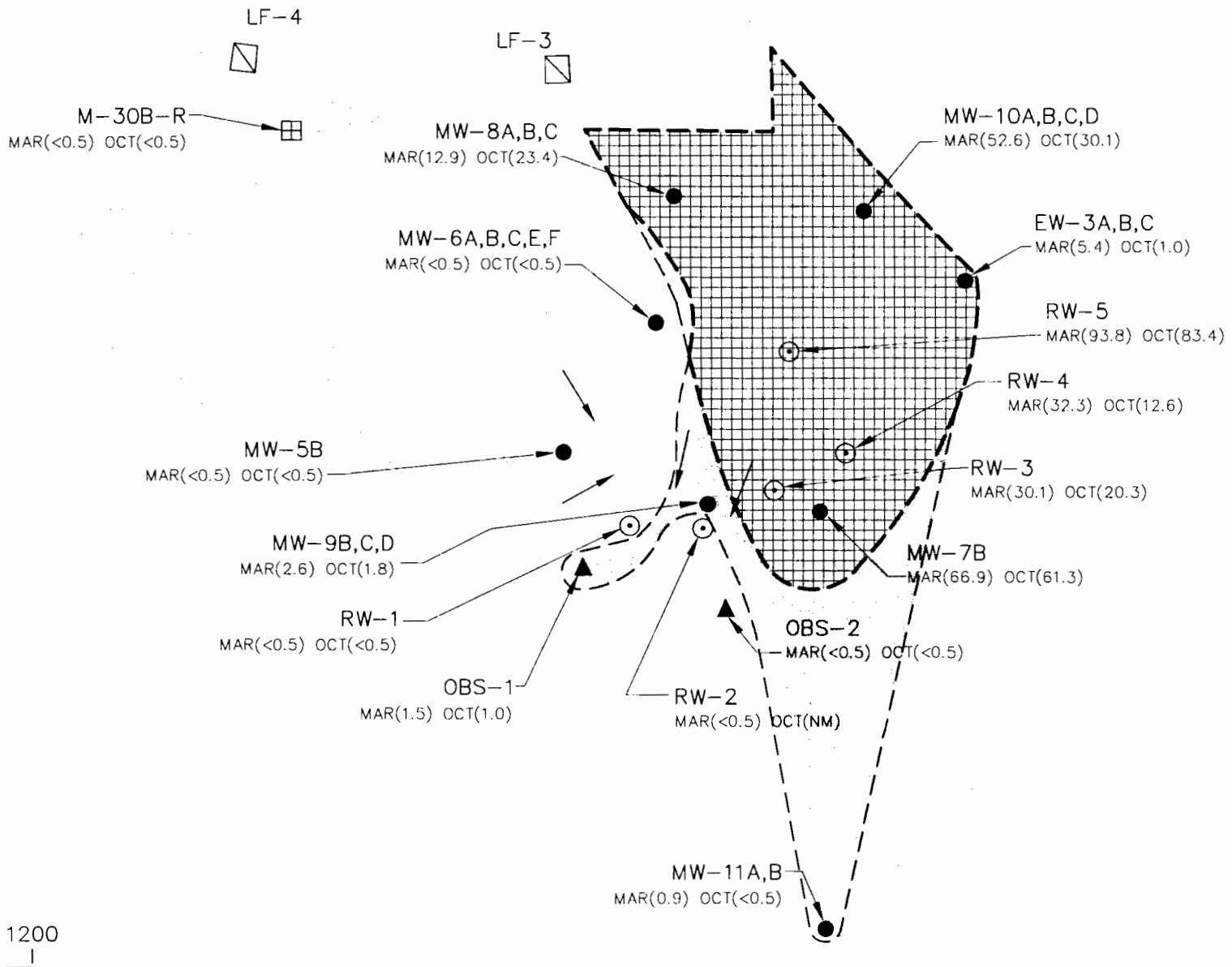
MW-5B ●	MONITORING WELL LOCATION AND TOTAL AROMATIC HYDROCARBON CONCENTRATION, PPB
RW-4 ⊙	RECOVERY WELL
OBS-1 ▲	PHASE II EXTENSION WELL
LF-3 ▨	PHASE III WELL
M-30B-R ⊞	UPGRADIENT WELL
(NM)	NOT MEASURED
	PROPERTY BOUNDARY
←	MIGRATION
⬭	JANUARY 2006 APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME
⬭	OCTOBER 2006 APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME
⬭	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME FOR JANUARY AND OCTOBER OF 2006

NOTE:

PLUME CONTOUR IS BASED ON TOTAL AROMATIC HYDROCARBON CONCENTRATIONS IN THE MONITORING AND RECOVERY WELLS. PLUM LIMITS BASED ON MOST RECENT AVAILABLE DATA AS NOTED.

APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL AROMATIC HYDROCARBONS ANNUAL 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY



S43311 C2-A06
030107

LEGEND

MW-5B ●	MONITORING WELL LOCATION AND TOTAL VOLATILE HALOGENATED ORGANICS CONCINTRATION, PPB
RW-4 ⊙	RECOVERY WELL
OBS-1 ▲	PHASE II EXTENSION WELL
LF-3 ▨	PHASE III WELL
M-30B-R ⊞	UPGRADIENT WELL
(NM)	NOT MEASURED
	PROPERTY BOUNDARY
←	MIGRATION
⬭	JANUARY 2006 APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME
⬭	OCTOBER 2006 APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME
⬭	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME FOR JANUARY AND OCTOBER OF 2006

NOTE:

PLUME CONTOUR IS BASED ON TOTAL TETRACHLOROETHENE CONCENTRATIONS IN THE MONITORING AND RECOVERY WELLS. PLUM LIMITS BASED ON MOST RECENT AVAILABLE DATA AS NOTED.

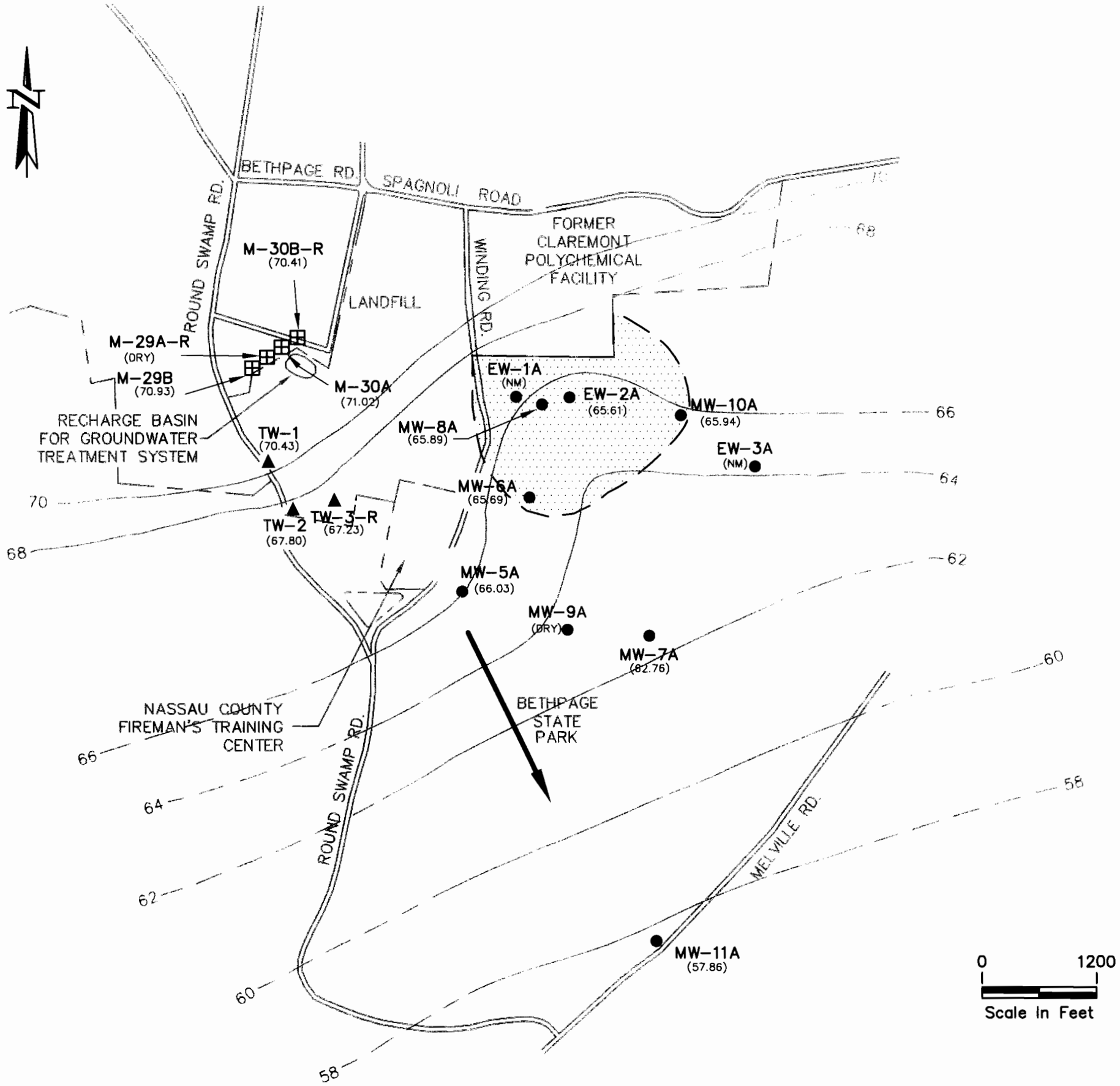
APPROXIMATE EXTENT AND DISTRIBUTION OF TETRACHLOROETHENE ANNUAL 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

APPENDIX A

Gannett Fleming

FIGURE 1



LEGEND

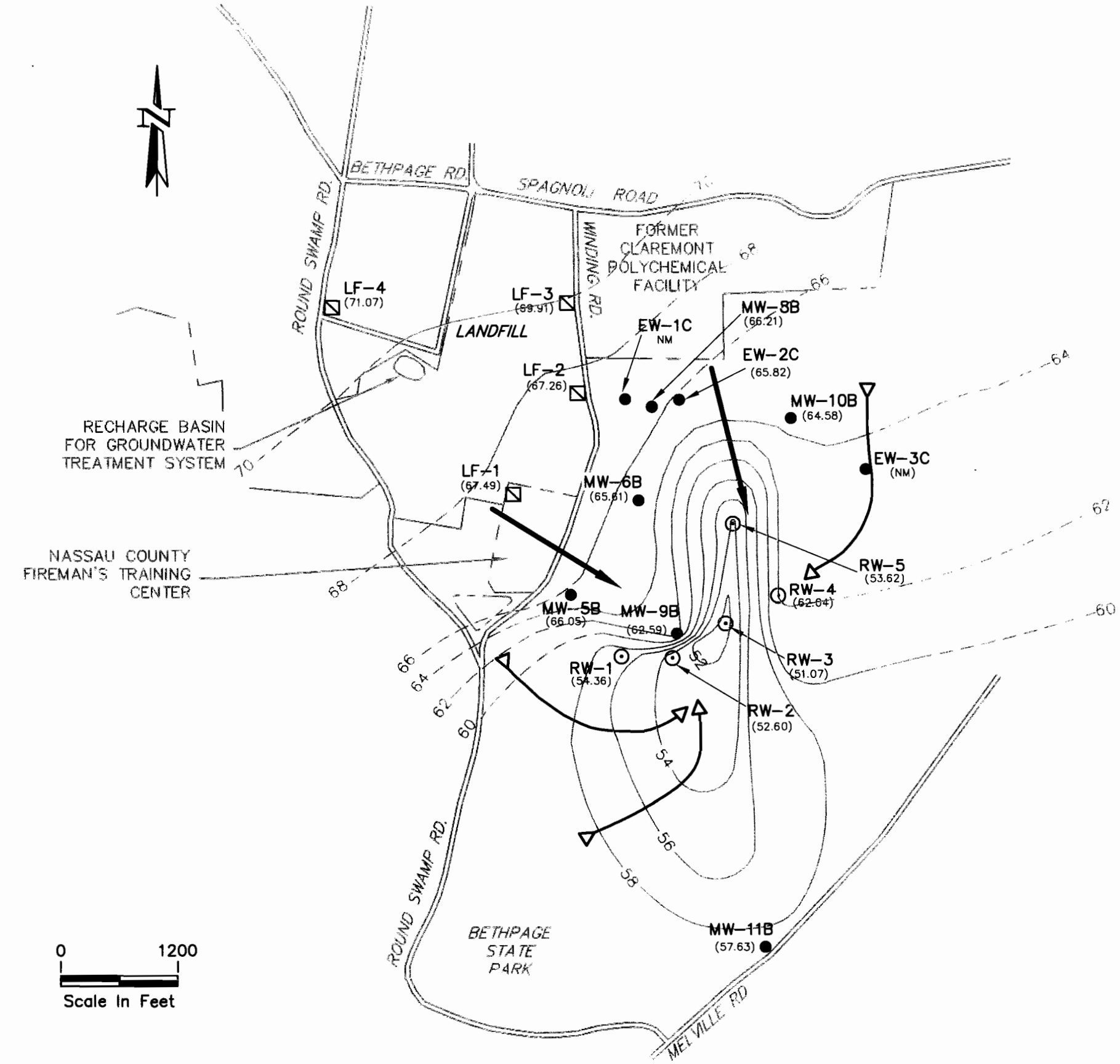
MW-5A ● (61.32)	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
TW-2 ▲	*Phase II Extension Well*
M-29A ⊞	*Upgradient Well*
— — — —	*Property Boundary*
▬▬▶	*Groundwater Flow Direction*
56	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
⬭	*Approximate Extent Of The VOC Plume In Water Table Wells – January 2005*
(NM)	*Not Measured*

WATER TABLE FLOW MAP MARCH 27, 2006

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311A
072006



LEGEND

MW-5B (60.85) ● — *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*

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

— — — — — — *Property Boundary*

Approximate Extent Of The VOC Plume In Shallow Potentiometric Zone January 2005.

(NM) — *Not Measured*

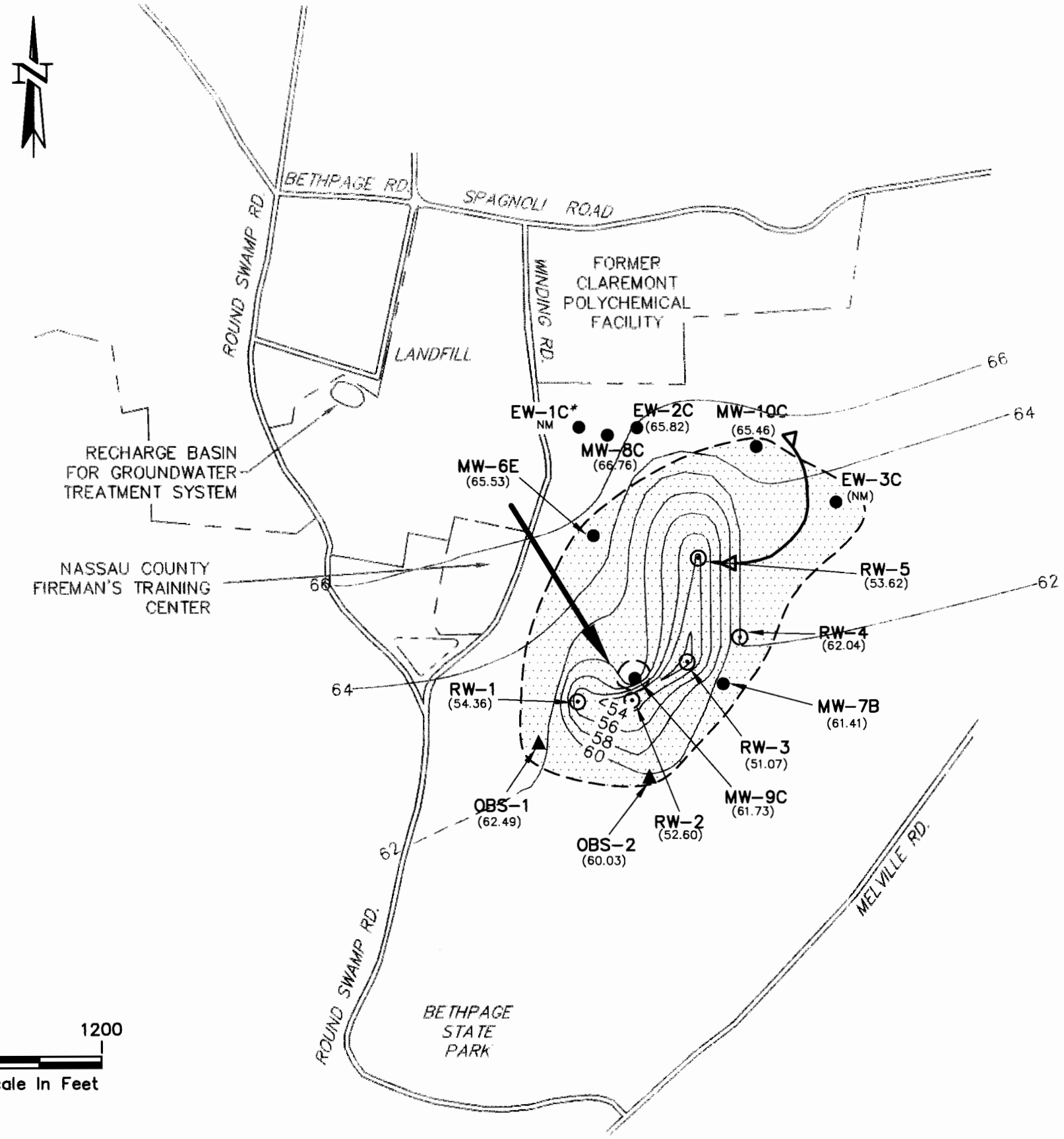
SHALLOW POTENTIOMETRIC FLOW MAP MARCH 27, 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311B
100606

Gannett Fleming

FIGURE 3



LEGEND

- MW-8C (49.22) ● — *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 Extent Of The VOC Plume In The Deep Potentiometric Zone – January 2005*
- (NM) — *Not Measured*
- * — *Plume Extent Based On Third Quarter 1998 Data*

DEEP POTENTIOMETRIC FLOW MAP MARCH 27, 2006

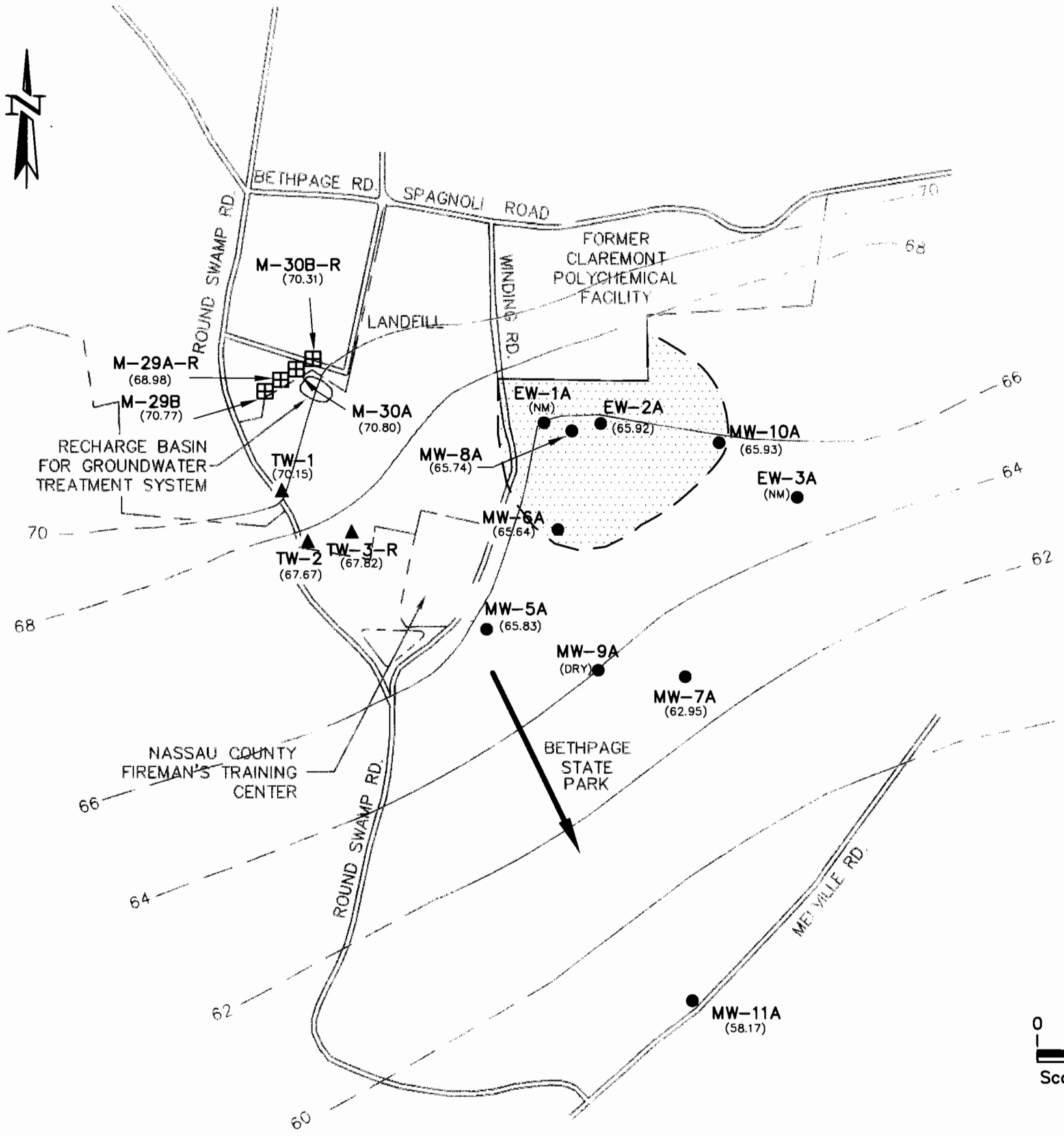
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311C
111506

Gannett Fleming

FIGURE 1



LEGEND

MW-5A (61.32) ●	*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*
66	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
⬭	*Approximate Extent Of The VOC Plume In Water Table Wells – January 2005*
(NM)	*Not Measured*

0 1200

Scale In Feet

WATER TABLE FLOW MAP MAY 22, 2006

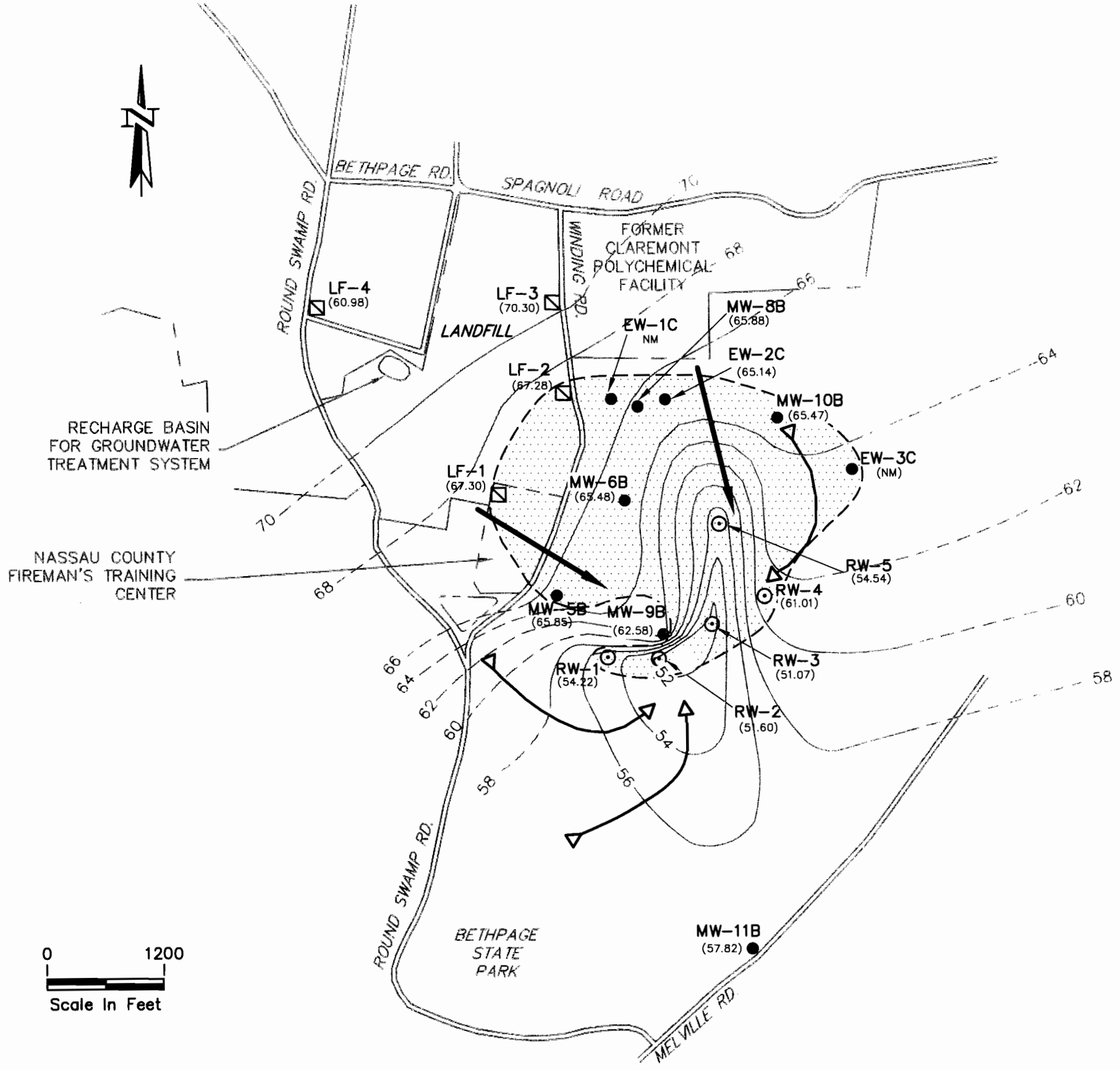
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311A
121506

Gannett Fleming

FIGURE 2



0 1200

Scale In Feet

LEGEND

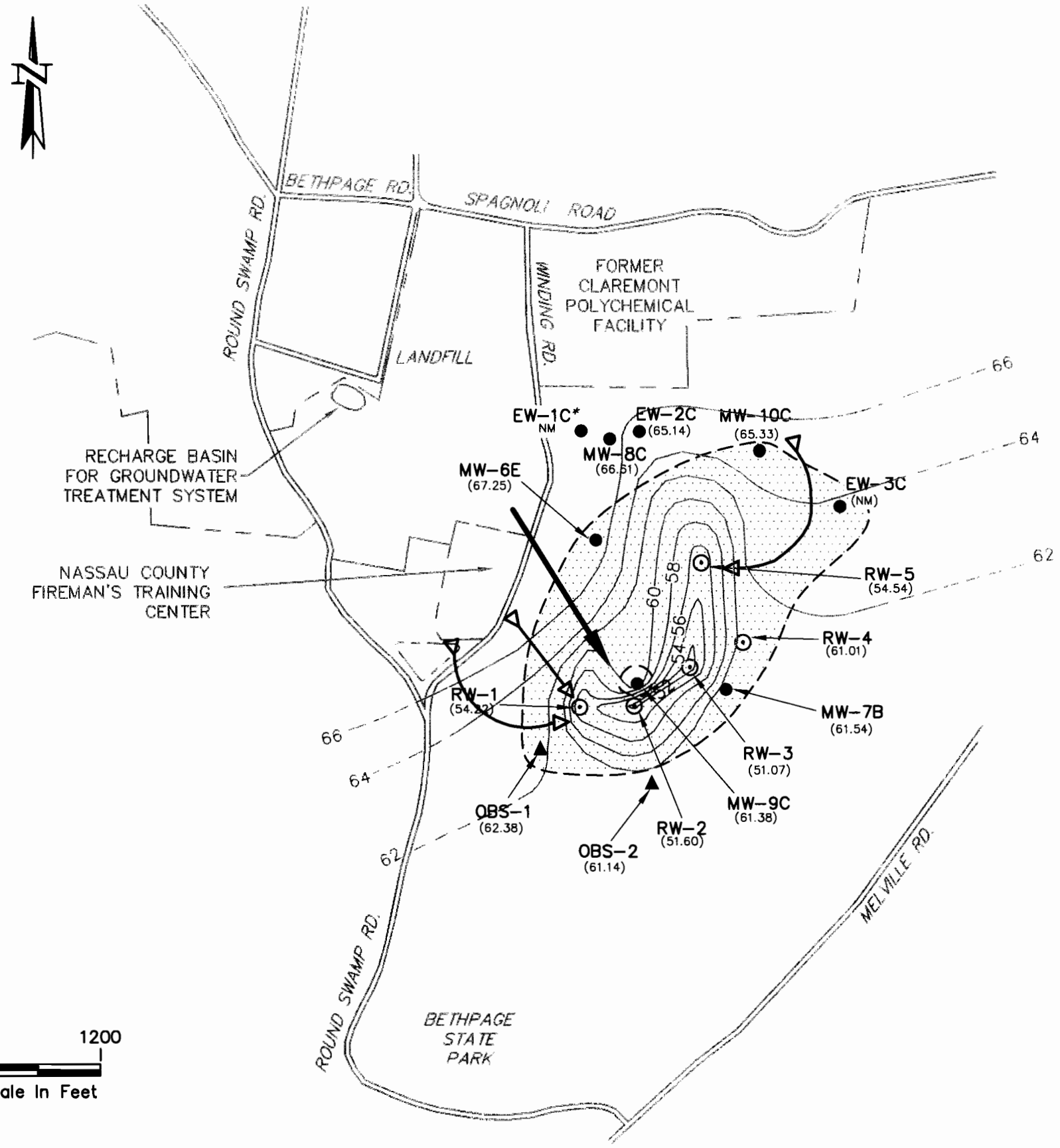
- MW-5B (60.85) ● — *Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
- RW-5 ⊙ — *Recovery Well*
- LF-2 ⧄ — *Phase III Well*
- ▷——▷ — *Limiting Flow Lines Depicting Estimated Effective Capture Zones*
- ——► — *Groundwater Flow Direction*
- *Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
- — — — — *Property Boundary*
- *Approximate Extent Of The VOC Plume In Shallow Potentiometric Zone January 2005.*
- *(NM) Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP MAY 22, 2006

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311B
111706



LEGEND

- MW-8C (49.22) ● — *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 Extent Of The VOC Plume In The Deep Potentiometric Zone – January 2005*
- *(NM)* — *Not Measured*
- * — *Plume Extent Based On Third Quarter 1998 Data*

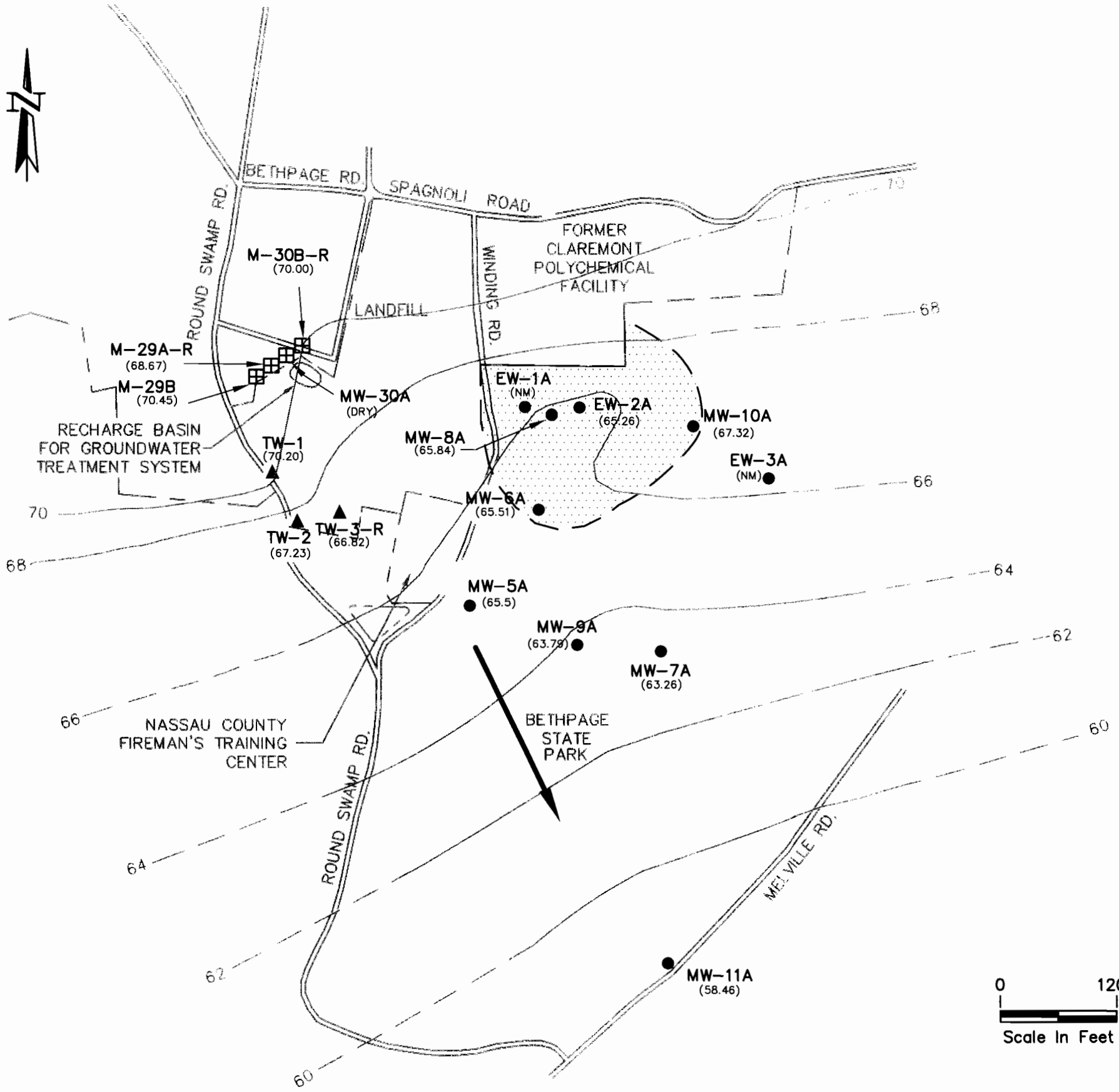
DEEP POTENTIOMETRIC FLOW MAP MAY 22, 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311C
121506

Gannett Fleming

FIGURE 1



LEGEND

MW-5A (61.32) ●	*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 Extent Of The VOC Plume In Water Table Wells – January 2005*
(NM)	*Not Measured*

0 1200

Scale In Feet

WATER TABLE FLOW MAP JULY 17, 2006

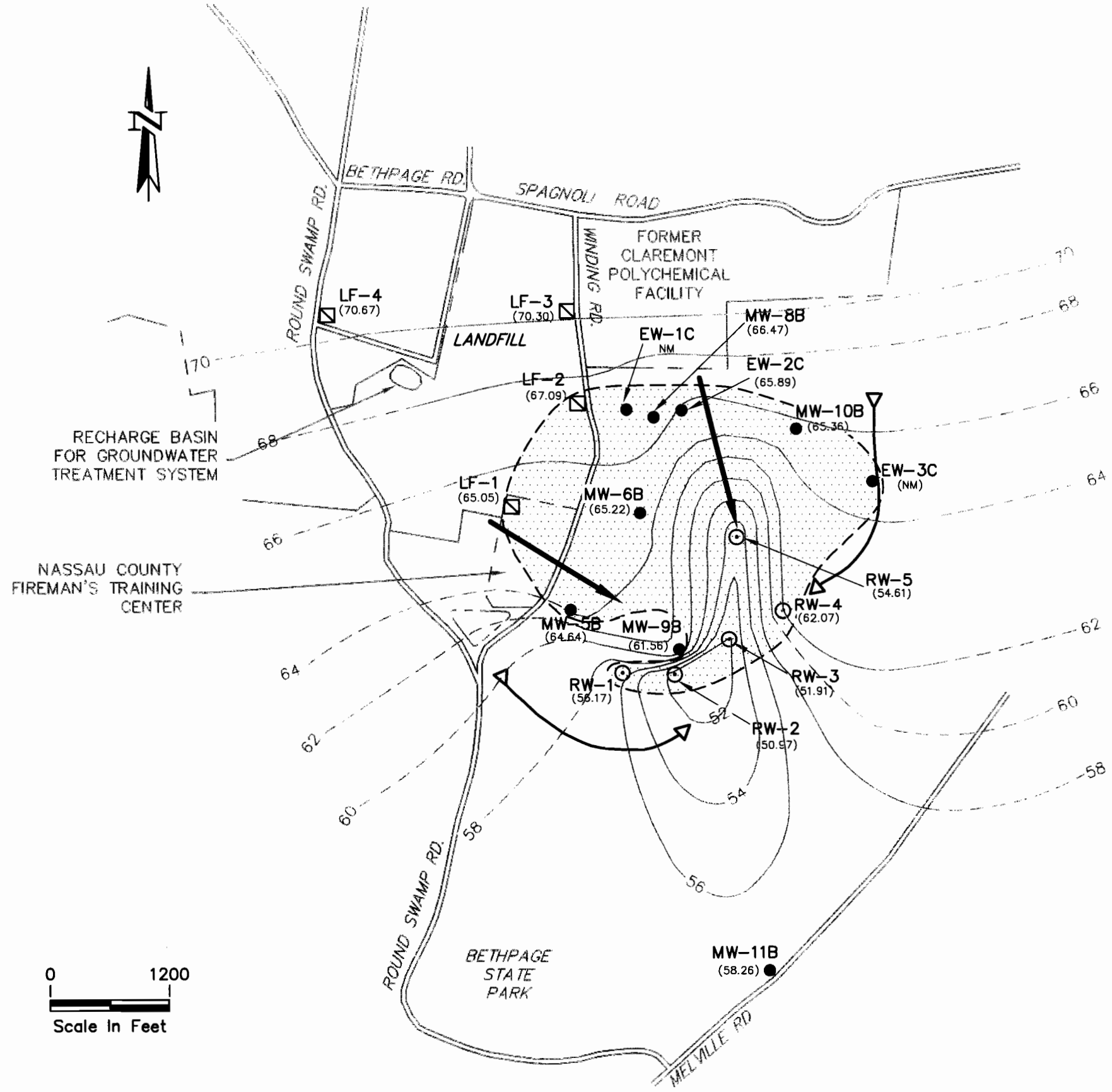
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311A
121106

Gannett Fleming

FIGURE 2



LEGEND

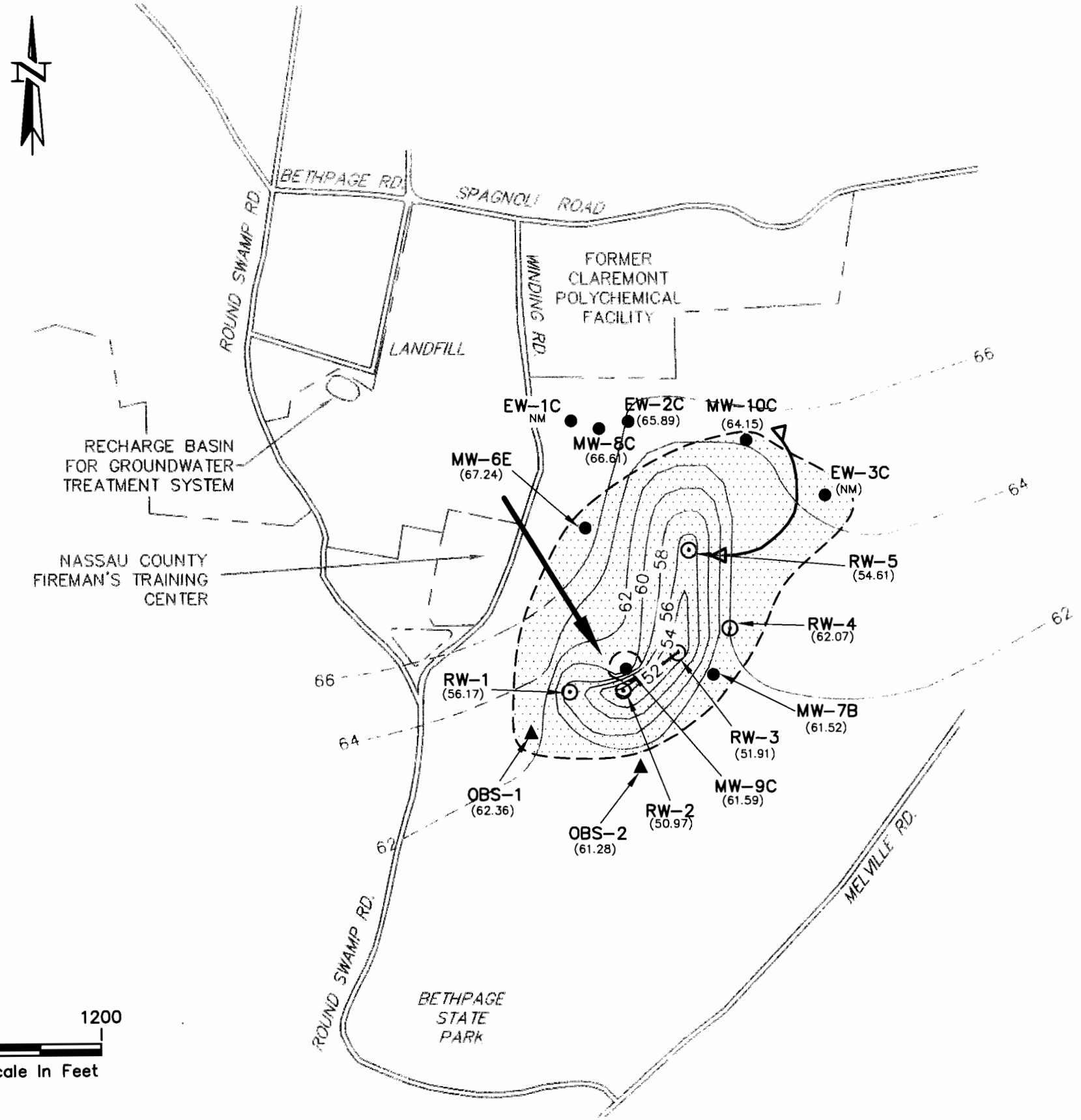
MW–5B (60.85) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
RW–5 ⊙	*Recovery Well*
LF–2 ⧅	*Phase III Well*
▷——▷	*Limiting Flow Lines Depicting Estimated Effective Capture Zones*
——→	*Groundwater Flow Direction*
56	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
— — —	*Property Boundary*
⬭	*Approximate Extent Of The VOC Plume In Shallow Potentiometric Zone January 2005.*
(NM)	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP JULY 17, 2006

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311B
012507



LEGEND

MW–8C (49.22) ●	*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 Extent Of The VOC Plume In The Deep Potentiometric Zone – January 2005
(NM)	*Not Measured*

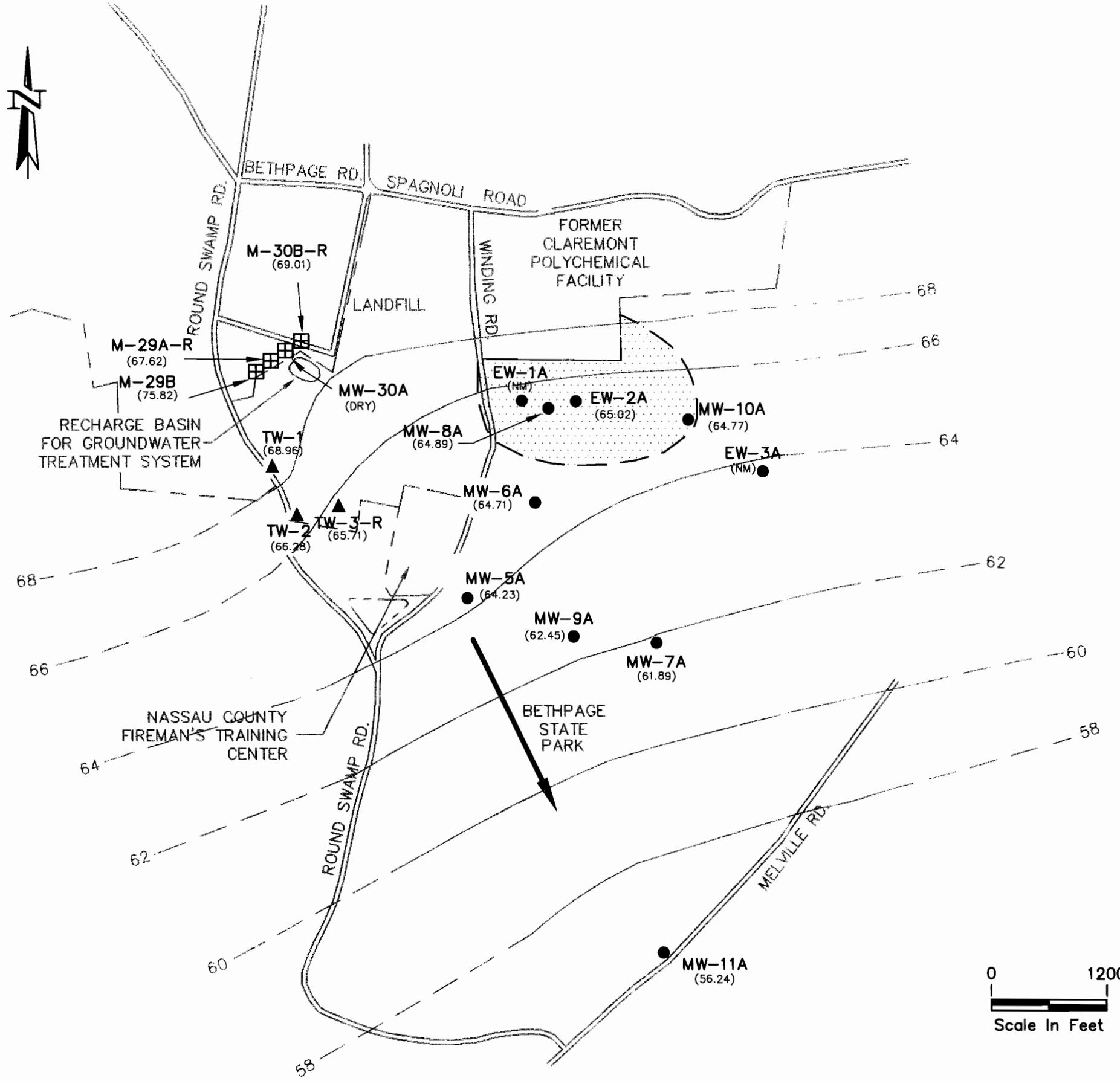
DEEP POTENTIOMETRIC FLOW MAP JULY 17, 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311C
012607

Gannett Fleming

FIGURE 1



LEGEND

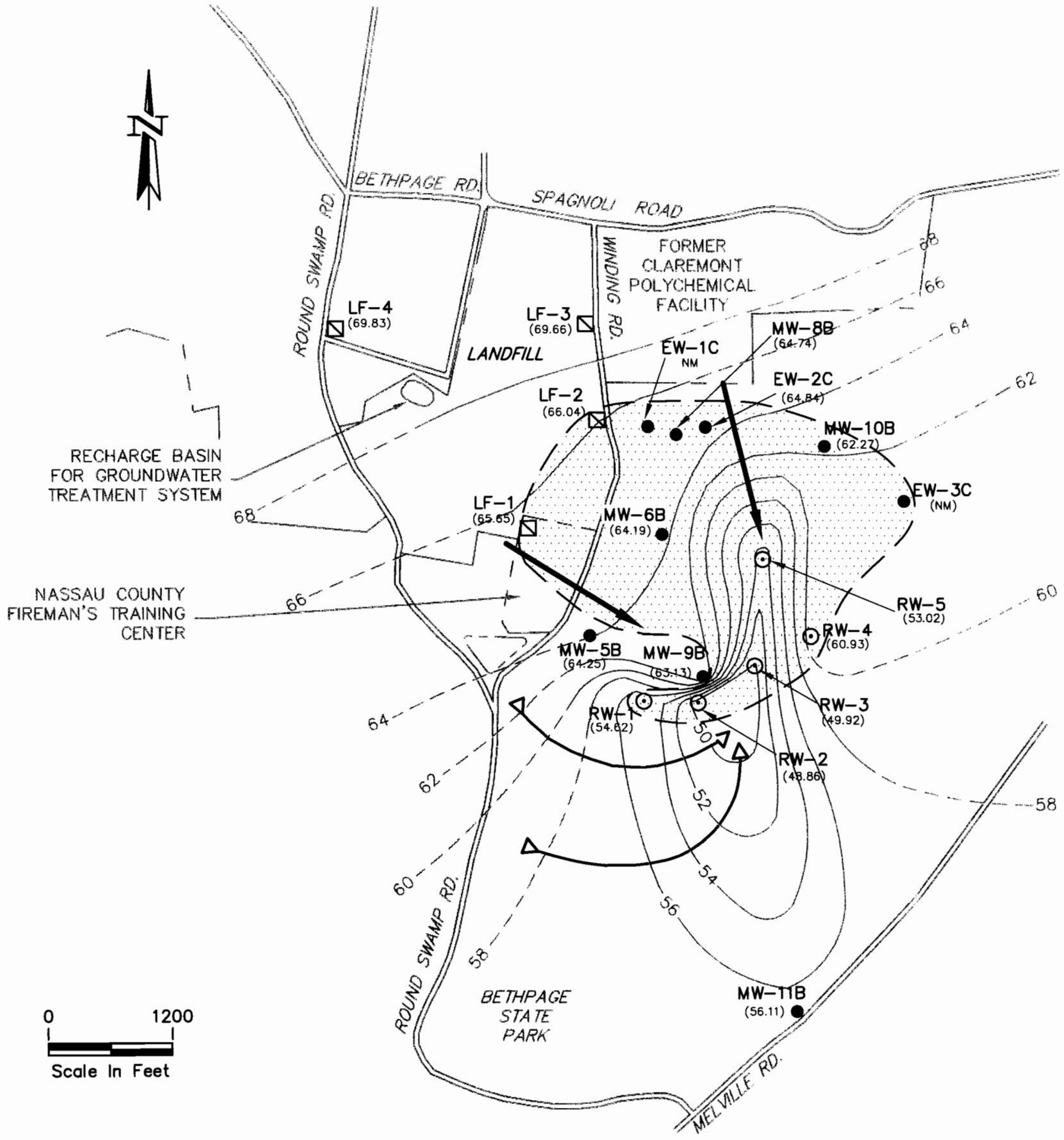
MW-5A (61.32) ●	*Monitoring Well Location And Designation Water Level Elevation In Feet Above Mean Sea Level*
TW-2 ▲	*Phase II Extension Well*
M-29A ⊞	*Upgradient Well*
- - - - - -	*Property Boundary*
➡	*Groundwater Flow Direction*
56	*Line Of Equal Elevation Of The Water Table In Feet Above Mean Sea Level (Dashed Where Inferred)*
⬭	*Approximate Extent Of The VOC Plume In Water Table Wells – October 2006*
(NM)	*Not Measured*

WATER TABLE FLOW MAP OCTOBER 10, 2006

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311A
032107



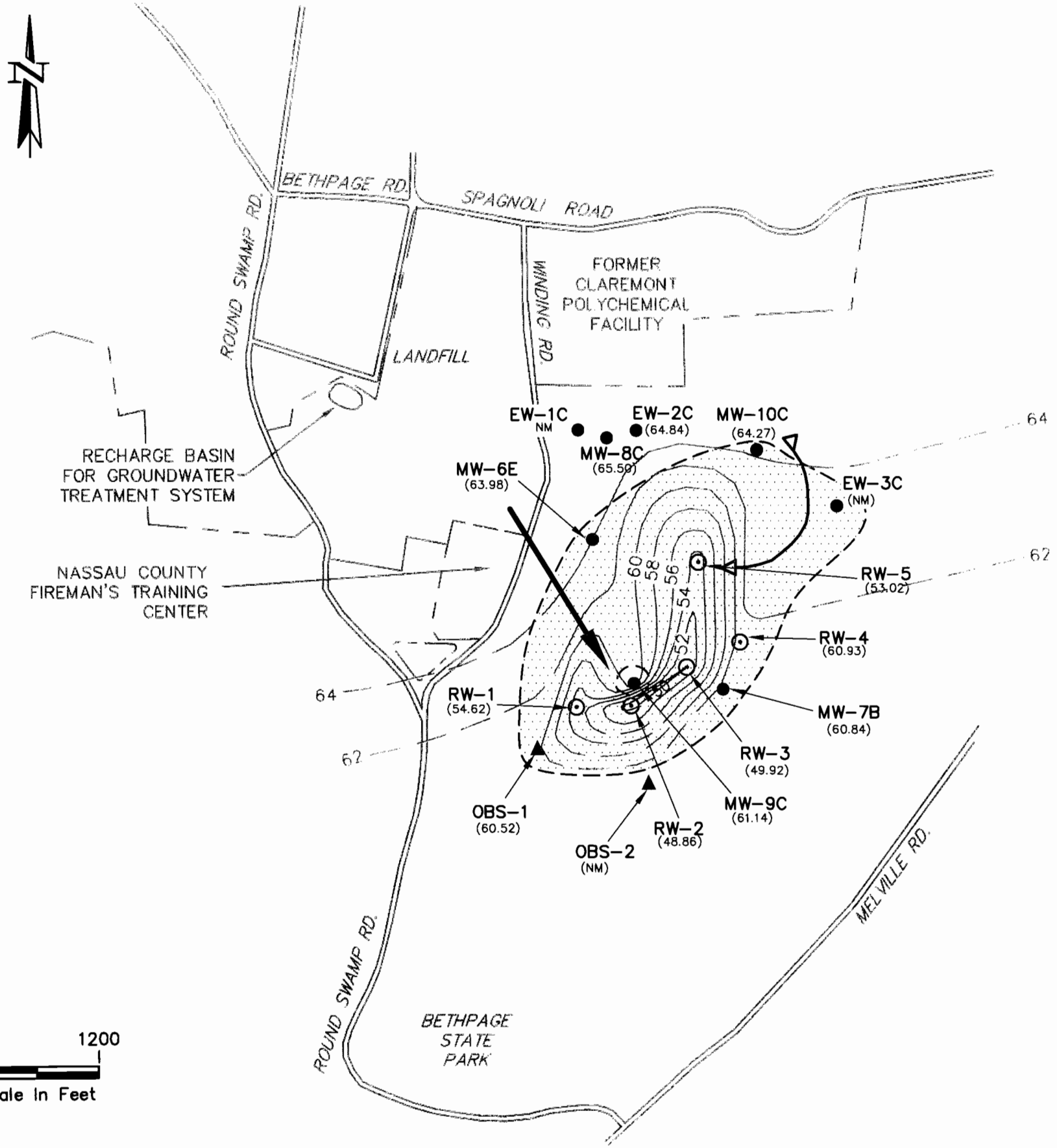
LEGEND

MW–5B (60.85) ●	*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 Extent Of The VOC Plume In Shallow Potentiometric Zone October 2006.*
(NM)	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP
OCTOBER 10, 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311B
032107



LEGEND

- MW-8C (49.22) ● — *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 Extent Of The VOC Plume In The Deep Potentiometric Zone – October 2006*
- *(NM)* — *Not Measured*

DEEP POTENTIOMETRIC FLOW MAP OCTOBER 10, 2006

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311C
032107

APPENDIX B

Figure 1. Total Volatile Halogenated Organics - Water Table

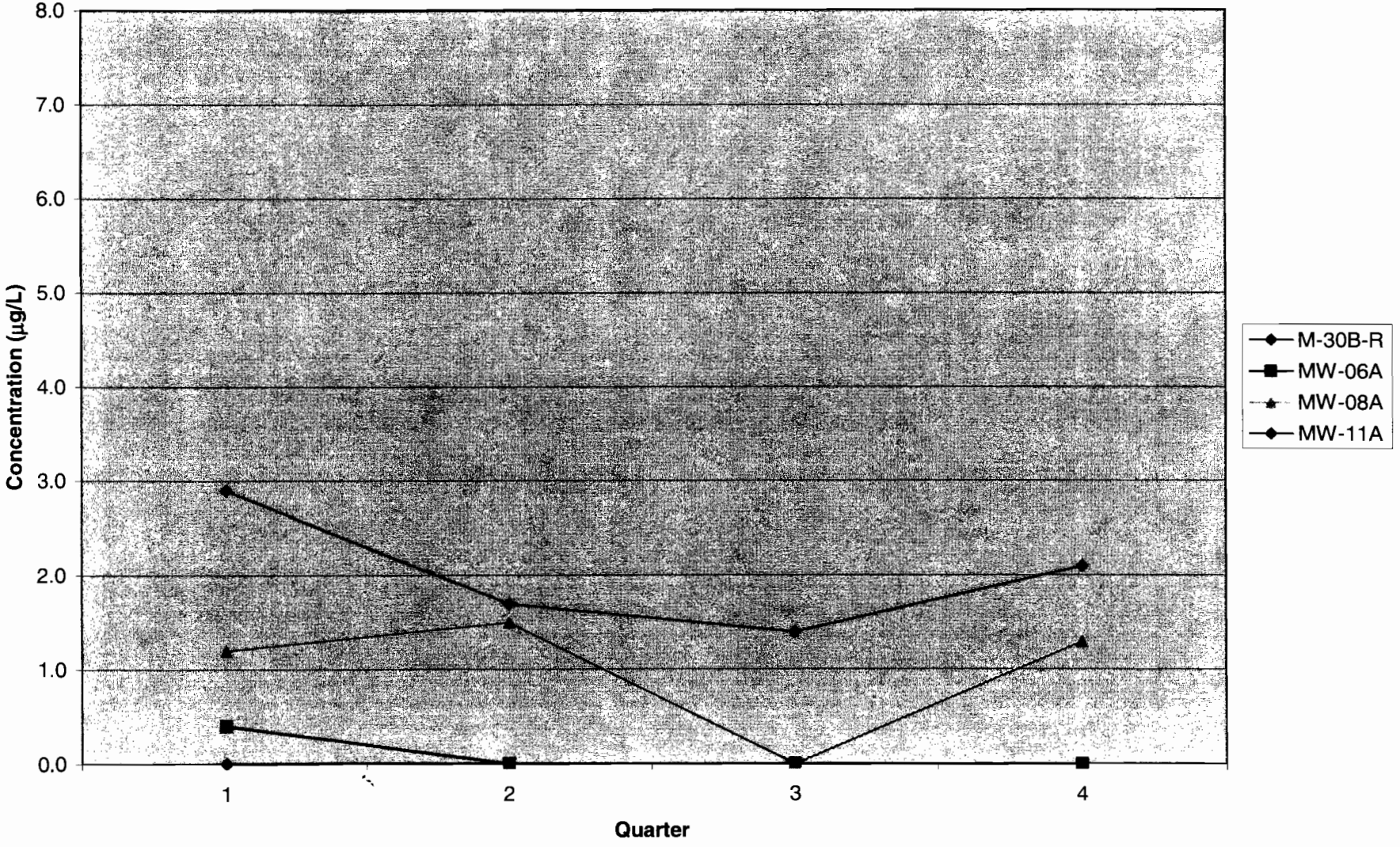


Figure 2. Total Volatile Halogenated Organics - Shallow Potentiometric Zone

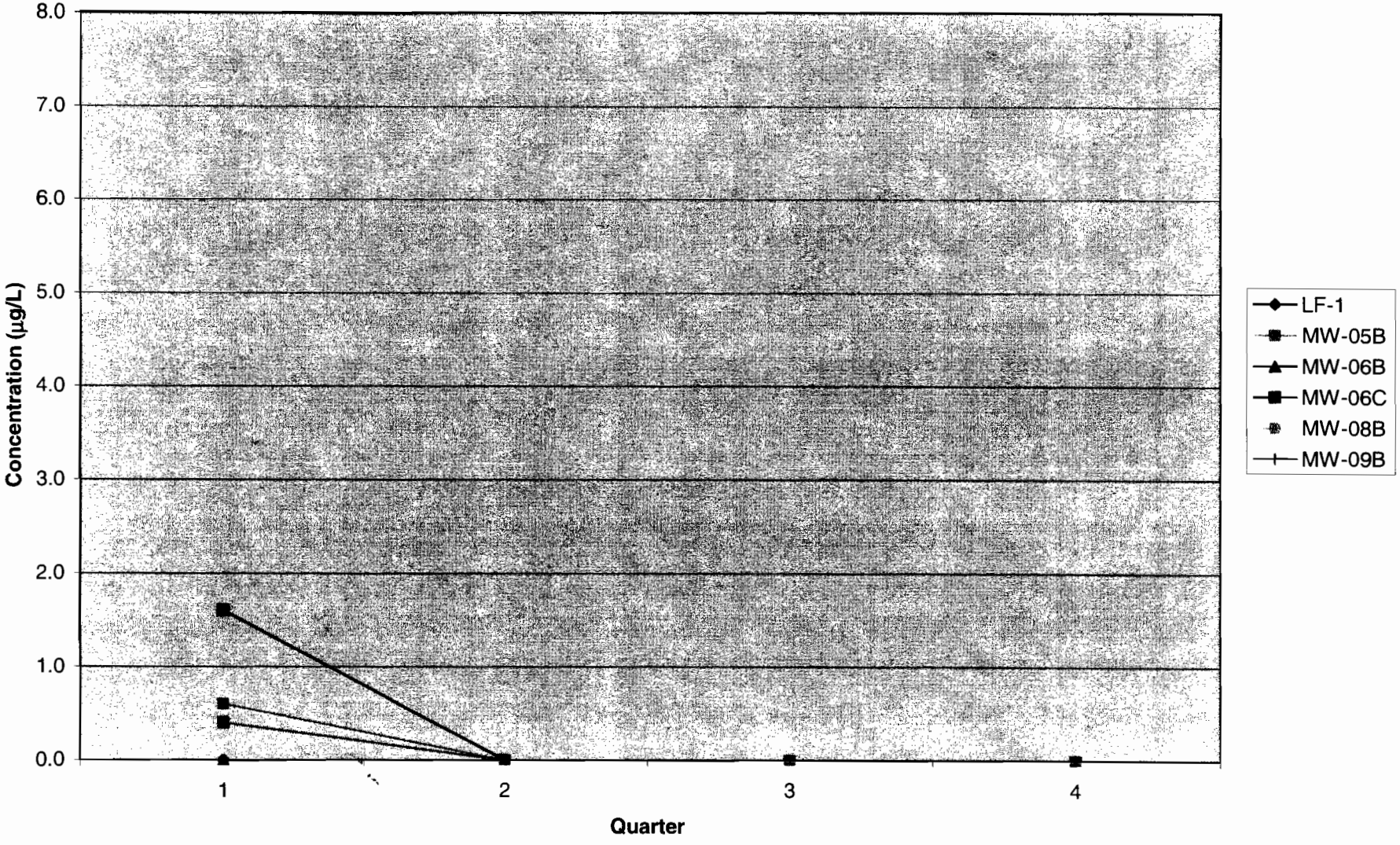


Figure 3. Total Volatile Halogenated Organics - Deep Potentiometric Zone

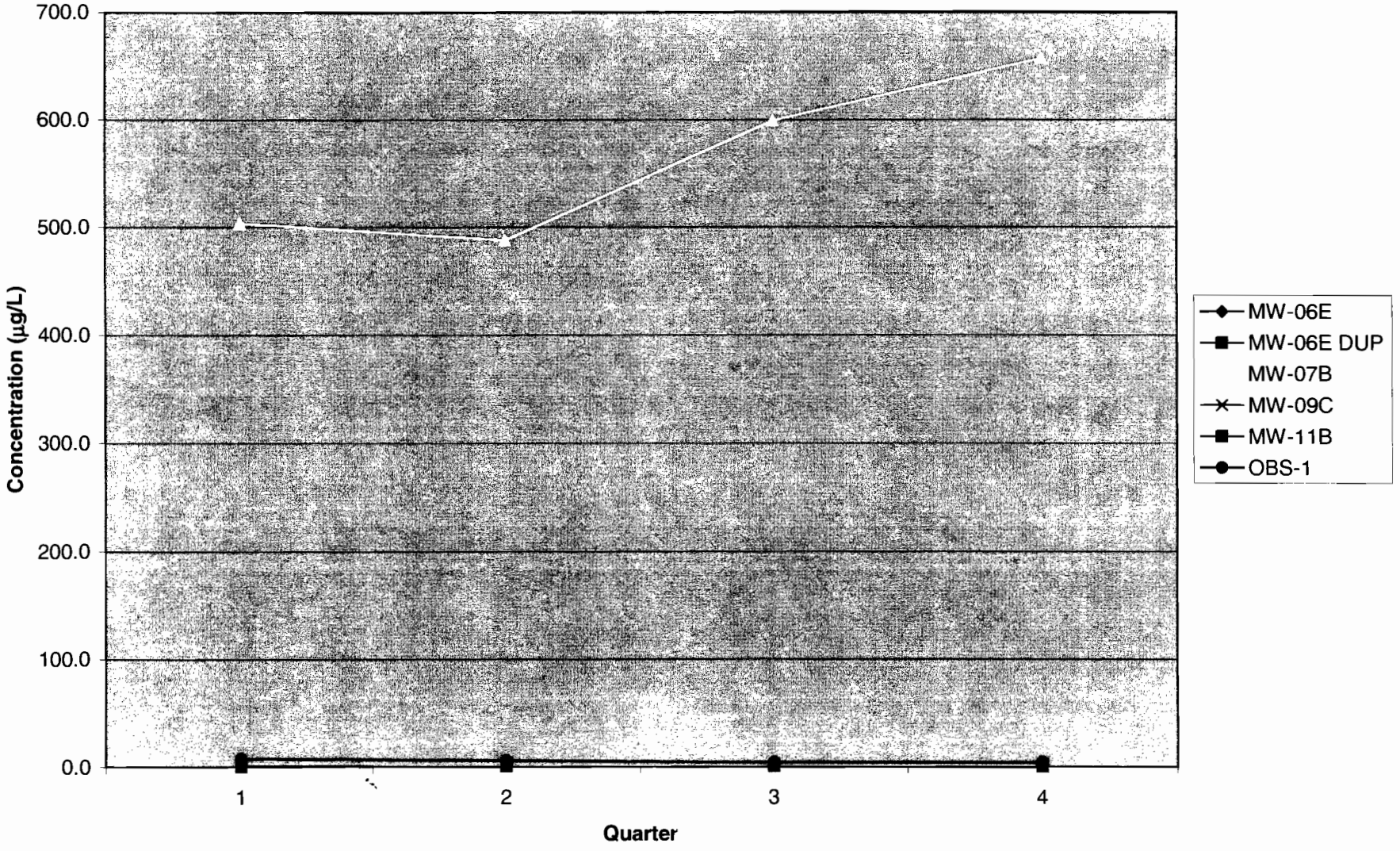


Figure 4. Total Aromatic Hydrocarbons - Water Table

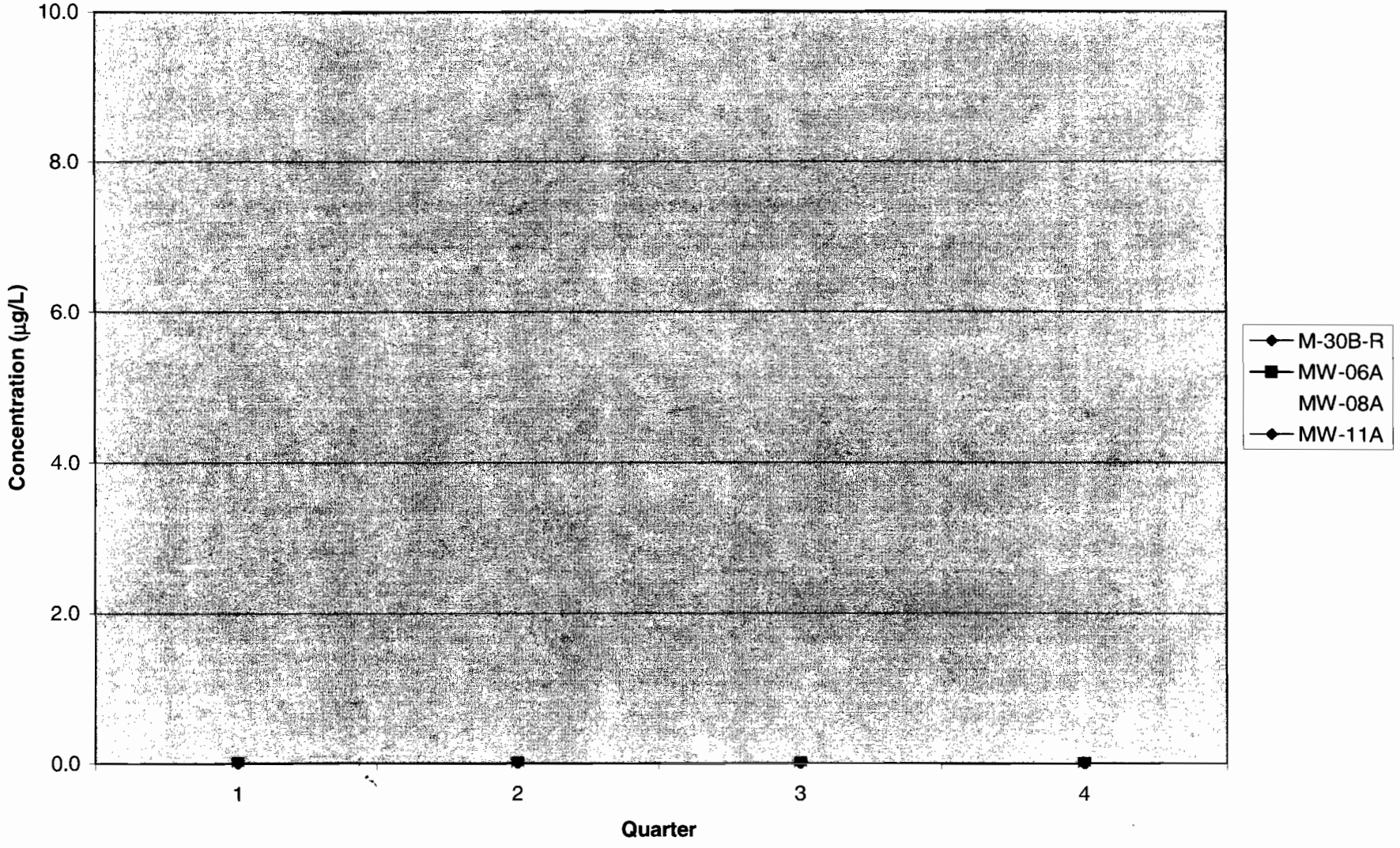


Figure 5. Total Aromatic Hydrocarbon Concentrations - Shallow Potentiometric Zone

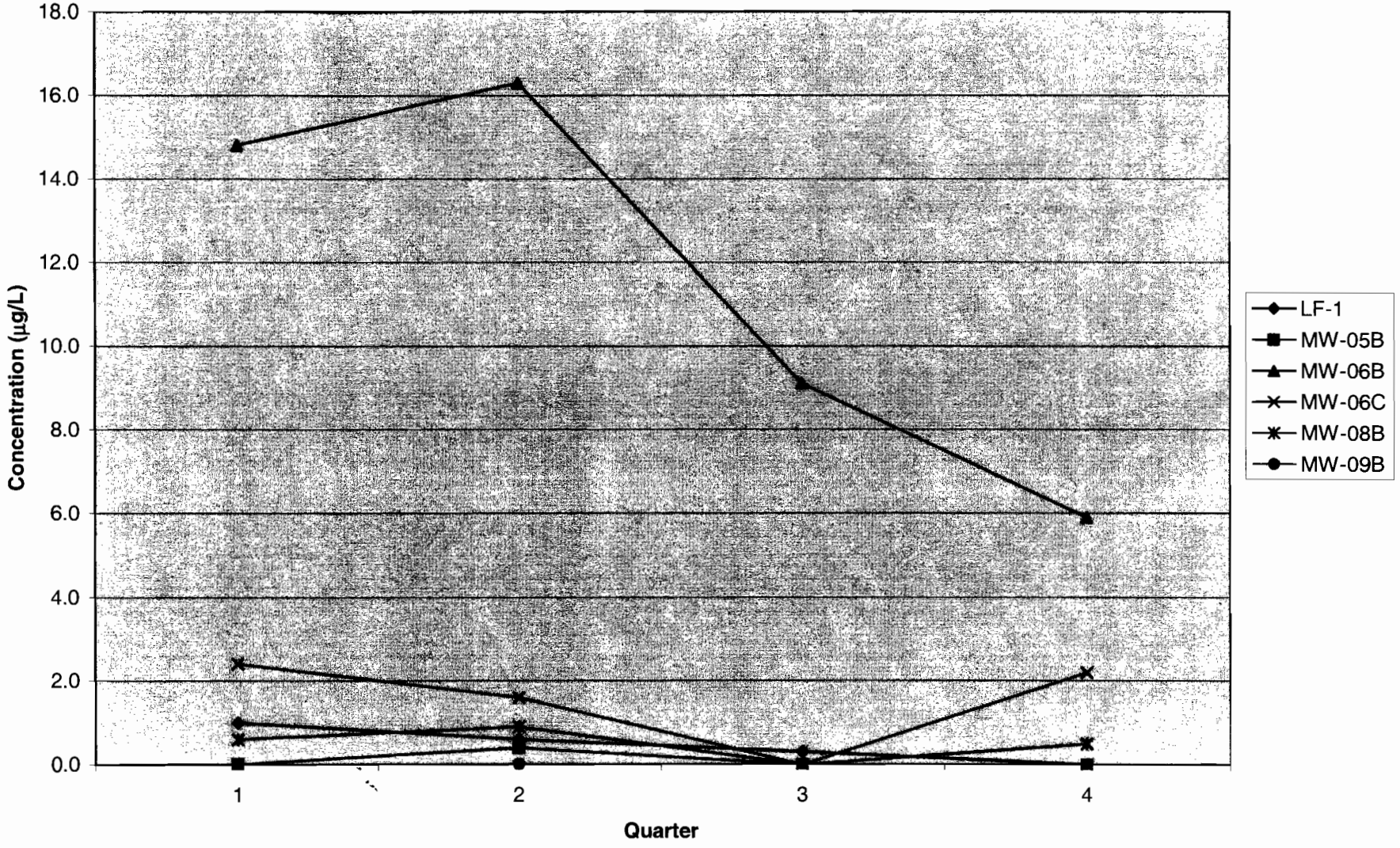


Figure 6. Total Aromatic Hydrocarbon Concentrations - Deep Potentiometric Zone

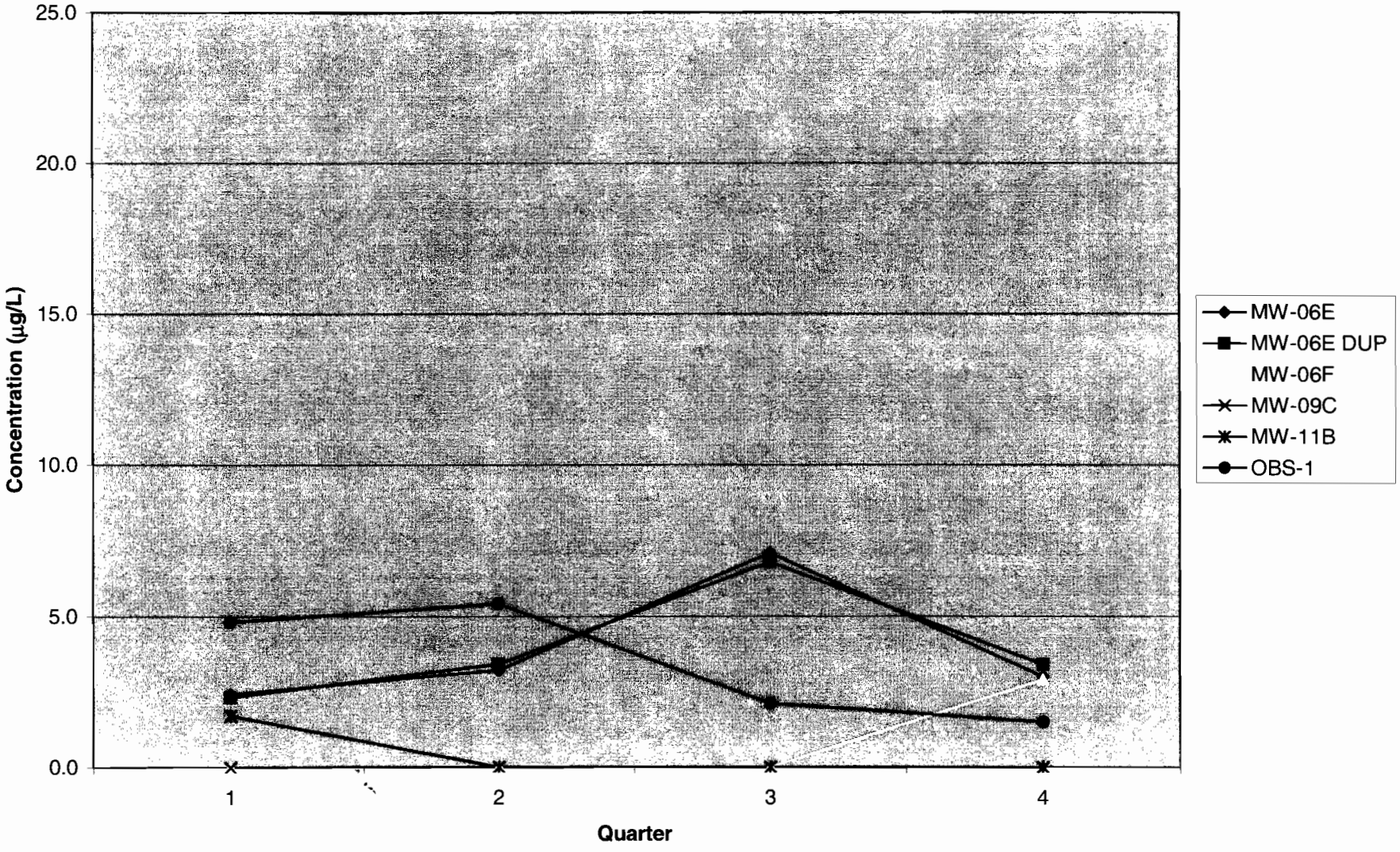


Figure 7. Tetrachloroethylene - Water Table

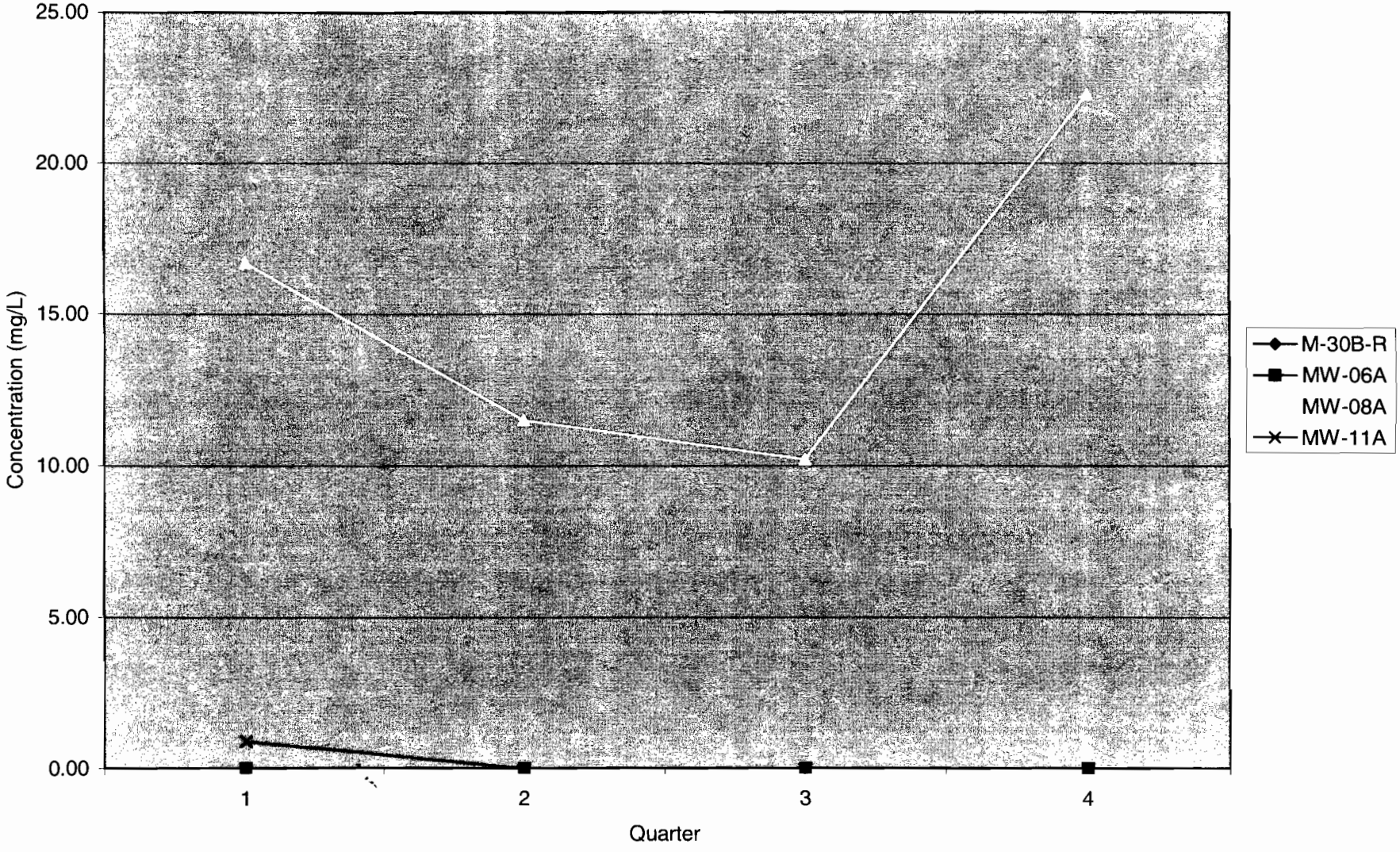


Figure 8. Tetrachloroethylene - Shallow Potentiometric Zone

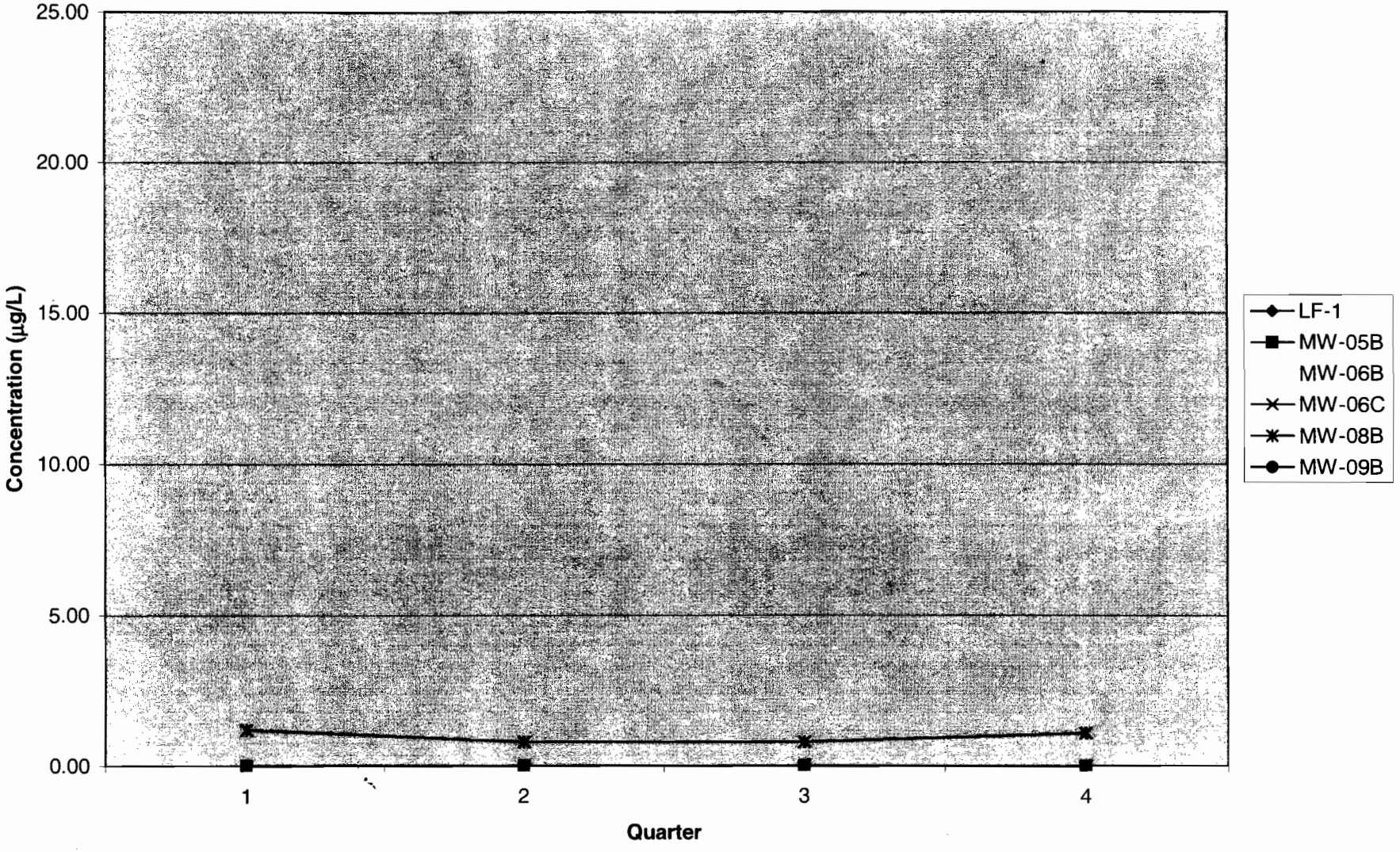


Figure 9. Tetrachloroethylene - Deep Potentiometric Zone