2007 ANNUAL SUMMARY REPORT

Old Bethpage
Solid Waste Disposal Complex
Groundwater Treatment Facility

TOWN OF OYSTER BAY
DEPARTMENT OF PUBLIC WORKS
SYOSSET, NEW YORK 11791

September 2009

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OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
GROUNDWATER TREATMENT FACILITY

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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, NY 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 2007, and is submitted in satisfaction of Consent Decree requirements. This report also provides basic information on the other components of the Remedial Action Plan performed during 2007.

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 2007, 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. Until the early to mid 1980s, waste was burned in two on-site incinerators, and the ash was landfilled on-site in the Old Bethpage Landfill (Landfill). Raw, and compacted and baled municipal solid waste, were also placed in the Landfill during periods of incinerator outages. The incinerators were shut down in the early to mid 1980s. From then, until landfilling ceased in April 1986, compacted and baled municipal solid waste was deposited in the Landfill. Since April 1986, the Town has shipped, offsite, all waste collected that was not recycled. Presently, site operations consist of the Town's scalehouse, solid waste transfer station, recycling program, clean fill disposal site, gas migration 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 volatile organic compound (VOC) plume associated with the Landfill;
- design and construct a Part 360 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 operation 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 61 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 66 quarterly rounds have been completed to date.

The following hydraulic and groundwater-quality monitoring activities were completed during 2007 in fulfillment of Consent Decree requirements:

- four rounds of quarterly water-level measurements, collected on January 16, April 16, July 16, and October 15, 2007, respectively; and

- four rounds of quarterly groundwater-quality samples, collected on January 17-19, April 17-19, July 19-20, and October 16-18, 2007, 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 2007.

The groundwater samples from all four quarterly sampling rounds were analyzed for the 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, per Consent Decree requirements, and voluntarily for VOCs. Well LF-1 was also sampled for inorganic parameters during the first quarter monitoring round.

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 2007, quarterly split-samples from selected Claremont Site wells and other Town monitoring wells were provided by the USEPA contractor for the Claremont Site and analyzed for VOCs at the Town's laboratory. The results from these additional samples were included in the quarterly monitoring reports.

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 SPDES monitoring of the GTF effluent on a monthly basis in April 1992 for the parameters listed in Tables 1 and 2, and continued during 2007. The town also performs monthly SPDES monitoring of the GTF influent for the VOCs listed in Table 1. A State-certified outside laboratory performs the 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 on-site environmental 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 recorded this information on an approximately hourly basis during 2007. The Town's on-site laboratory also monitors the GTF influent and effluent approximately three times per week, and groundwater at each recovery well on an approximately weekly basis for VOCs and selected inorganic parameters.

TABLE 1

VOLATILE ORGANIC COMPOUNDS (VOCs)
EFFLUENT LIMITATIONS

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

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

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

TABLE 2

INORGANIC EFFLUENT LIMITATIONS

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

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

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

TABLE 3

APPLICABLE AIR DISCHARGE REQUIREMENTS FOR AIR STRIPPING TREATMENT SYSTEM*

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

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

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 prescribed 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 April 18-19, July 24-25, September 18-19 and November 29-30, 2007, respectively. A New York State-certified outside laboratory performed these 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 2007 was performed on October 25th. The report was included the 2007 Fourth Quarter Report.

2.3.3 Requirement to Maintain Zero Percent Methane Migration

RAP Section H in the Consent Decree requires the Town to maintain zero percent methane gas migration at the Landfill boundary. To comply with this requirement, the Town installed an active gas collection system around the perimeter of the Landfill, and conducts an annual survey for landfill gas along the perimeter of the Landfill at intervals of approximately 50 feet utilizing a bar-hole punch and a combustible gas meter.

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 constructed for the GTF, 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 New York State Parks Department has constructed a pump station in this recharge basin, and since the spring of 2008 has been using a portion of the treated groundwater to irrigate the Bethpage State Park Golf Course. The Town also previously used 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. On an ongoing basis, the data are entered into an Excel database 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 VOC treatment efficiency of the GTF. During 2007, influent and effluent was sampled approximately three times per week and the recovery wells were sampled approximately once per week. The VOC data are entered into an Excel database for

further review and interpretation, and computer-generated tables and figures are produced for inclusion in the quarterly reports. The 2007 self-monitoring VOC data were included in Appendix C of each 2007 quarterly report.

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, effluent iron and manganese concentrations are monitored regularly to quantify the potential for 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 database for inclusion in the quarterly reports. The results for 2007 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 parameters analyses for 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. It should be noted that current analytical methods are utilized. The 2007 SPDES reports were submitted as Appendix E of the respective quarterly reports.

3.4.5 Air Stripper Stack Emissions Monitoring

During 2007, air stripper stack emissions were determined by LKB based on 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. Two to three 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 2007. The results from the air

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.

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 2007 quarterly ambient air and soil-gas quality monitoring rounds were performed on April 18-19, July 24-25, September 18-19 and November 29-30, respectively. The ambient air testing procedure involves the taking of simultaneous, measured samples for VOC analyses, at one upwind location and at two locations 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 2007 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 25, 2007. 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 2007 Fourth Quarter Report.

3.5.3 Zero Percent Methane Migration Survey

The 2007 zero percent methane migration survey was performed by Hazen & Sawyer during the fourth quarter, and confirmed that the zero percent landfill gas migration line is within the OBSWDC property line.

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 2007:

- four rounds of quarterly water-level measurements, collected on January 16, April 16, July 16, and October 15, 2007, respectively; and

- four rounds of quarterly groundwater quality samples, collected on January 17-19, April 17-19, July 19-20, and October 16-18, 2007, respectively.

The results from each monitoring round were submitted as Appendix G of each quarterly report. The consultant's annual summary report for 2007 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 2007 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 2007 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 2007 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 Well OBS-1;
- Recovery Wells RW-1 through RW-5;
- Upgradient/Recharge Basin Wells M-29A&B and M-30B;
- Replacement Wells M-29A-R, M-30B-R and TW-3-R; and
- Claremont Site Well Cluster EW-2.

Except for Well OBS-2, which was struck by State Park heavy equipment in late 2006 and cannot be located, and Recovery Wells RW-4 and RW-5 during the third and fourth quarter monitoring rounds, each of the wells specified in the Consent Decree were

measured during the hydraulic monitoring rounds performed during 2007. Static water levels were measured to the nearest 0.01-foot with an electronic water-level meter. The water-level data collected during 2007 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 2007 are provided in Appendix A of Appendix C of this report. The approximate areal extent of the total VOC plume (based on the 2007 data) is also shown on these maps.

4.2.1 Overview of 2007 Water-Level Data

As shown in Table 1 of Appendix C, during 2007, water-level elevations exhibited fluctuating but primarily increasing trends across the site, in all three aquifer zones. On average, in the monitoring wells not located adjacent to a recharge basin, water levels increased by an average of 0.66 feet during 2007 for all three aquifer zones. On a per aquifer zone basis, the magnitudes of the increases were slightly higher in the shallow and intermediates zones (0.86 feet), and slightly lower in the deep zone (0.53 feet). The site-wide increases in water-level elevations during 2007 are attributed to natural aquifer recharge from precipitation.

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 during 2007, with the exception of the radially inward flow within the effective capture zone of the Town's recovery welllfield. This groundwater flow direction is consistent with previous data, 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 Magothy aquifer.

Based on the difference between the average 2007 water-level elevations in Well LF-2 and Well MW-11A (approximately 10 feet) and the distance between the wells (6,000 feet), the horizontal hydraulic gradient near the middle of the aquifer is approximately 0.002. 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 long-term recharge patterns. 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 Town's recovery wellfield (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 flat to upward gradients are 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 not moving downward in the aquifer as it migrates downgradient at these locations. 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 are attributed to 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 the first three quarters of 2007, and then decreased during the second half of the fourth quarter due to

Recovery Wells RW-2 and RW-3 being off-line for repairs. The GTF maintained an average on-line performance of 92 percent during 2007, and remediated approximately 467 million gallons of groundwater at an average influent flow rate of 1.28 MGD. Based on the quarterly water-level maps shown in Appendix A of Appendix C, the Landfill VOC plume was being captured during all four quarters of 2007.

4.3 Groundwater Quality and Quarterly Monitoring

In fulfillment of Consent Decree requirements, four rounds of quarterly groundwater sampling were conducted on January 17-19, April 17-19, July 19-20, and October 16-18, 2007, respectively. As per Consent Decree requirements, the following 16 wells were sampled during each round, except as noted below:

Off-Site Wells:	MW-5B
	MW-6A, MW-6B, MW-6C, MW-6E and MW-6F
	MW-7B (first and second quarters only)
	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

Well MW-6E was could not be sampled during the third quarter 2007 monitoring round, and Well MW-7B could not be sampled during the third and fourth quarter 2007 monitoring rounds because their dedicated submersible pumps would not work. The Town has since removed the pumps so that these wells can be sampled using non-dedicated equipment.

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, per Consent Decree requirements, and voluntarily for VOCs. Well LF-1 was also sampled for inorganic parameters during the first quarter. In keeping with a previous recommendation, Well MW-9D was sampled for all parameters during the third quarter round to provide current data for base of the deep potentiometric

zone of the aquifer at this location downgradient of the Landfill and upgradient of the Town's recovery wellfield.

Quarterly split-samples were also obtained from the USEPA contractor for the Claremont Site for certain Claremont Site monitoring wells and other downgradient Town monitoring wells not sampled by the Town, and analyzed for VOCs at the Town laboratory. The results for these samples were included in each quarterly report, 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 actual laboratory data were provided in Appendix G of each quarterly report. No significant artifact compounds or blank contaminants were reported during the 2007 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 2007 quarterly monitoring rounds were evaluated on the basis of their observed 2007 ranges, and comparison to pre-2007 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 2007 VOC data are presented as the minimum, maximum and average concentrations detected, rather than as specific results for each quarter. The pre-2007 VOC data are presented as average concentrations for both 2006 and the combined period from 1992-2006, 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 for Well OBS-1 reflect only those quarters for which data are available. During 2007, Well OBS-1 was sampled during all four quarterly monitoring rounds. Well OBS-1 has been sampled during 55 of the 66 monitoring

rounds performed since start-up of the GTF. Well MW-9D has been sampled 10 times since start-up of the GTF, specifically during the third quarter rounds from 1998 through 2007. During 2005 it was only sampled for VOCs. Well LF-1 has been sampled for VOCs on a regular basis since 2004. The ranges and averages for these wells are based on the available data.

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 2007 based on the combined results from the 2007 monitoring rounds are provided in Figures 1 through 3 in Appendix C.

4.3.1 Analysis of 2007 Total VOC Data

VOCs were detected in 12 of the 17 downgradient wells sampled for VOCs during 2007, including 11 of the 15 wells sampled quarterly (Wells MW-6A, MW-6B, MW-6C, MW-6E, MW-7B, MW-8A, MW-8B, MW-9C, MW-11A, OBS-1 and LF-1), and Well MW-9D, which was sampled during the third quarter round.

Except for Wells MW-5B, MW-6F and MW-11B, which were non-detectable for VOCs during 2007 but contained low concentrations of total VOCs during at least one 2006 monitoring round; Well MW-9C, which was non-detectable for VOCs during 2006 but contained a low total VOC concentration during the first quarter of 2007; and Well OBS-2, which was not sampled during 2007 but contained a low total VOC concentration when it was last sampled during the third quarter of 2006, 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 are typically detected based on the split-samples obtained from the USEPA Contractor for the Claremont Site, these are the wells in which VOCs have historically been detected.

The nature and extent of the total VOC detections in the 16 downgradient wells sampled by the Town during 2007 per the Consent Decree are summarized, and contrasted against previous data, in the following table:

TOTAL VOC CONCENTRATIONS IN 2007 TOWN GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2007 (Max.)	Range (Avg.)	2006 Average	1992-2006 Average	Baseline 1991 Data
MW-5B	ND	ND	ND	0.2	3.9	17
MW-6A	ND	2.2	0.7	0.2	0.4	2.0
MW-6B	13.0	26.0	17.5	12.9	17.3	105
MW-6C	0.9	9.5	3.7	2.1	7.3	31
MW-6E**	2.2	5.8	3.6	3.6	6.0	53
MW-6F	ND	ND	ND	0.7	0.1	ND
MW-7B**	1,150	1,473	1,312	627	206	157
MW-8A	7.6	26.8	17.5	17.1	237	507
MW-8B	0.8	1.9	1.3	1.6	3.7	43
MW-9B	ND	ND	ND	ND	0.1	6.0
MW-9C	ND	0.2	0.1	ND	2.7	33.0
MW-9D**	32.3	32.3	32.3	63.0	67.6	ND
MW-11A	1.6	3.2	2.4	2.4	0.6	ND
MW-11B	ND	ND	ND	0.4	0.1	ND
OBS-1	5.9	12.5	8.0	10.4	83.7	156
LF-1	1.1	2.6	1.8	0.5	2.1	16.0

* All concentrations in parts per billion (ppb), ND = not detectable.
** Well MW-6E not sampled during third quarter. Well MW-7B not sampled during third and fourth quarters. Well MW-9D sampled during the third quarter only.

As indicated by the above table, VOCs were not detected in Wells MW-5B, MW-6F, MW-9B and MW-11B during 2007, and VOC detections in Wells MW-6A and MW-9C were limited to sporadic low concentrations. These sporadic low-level total VOC detections are not considered significant. Therefore the following discussion focuses on the wells in which VOCs were consistently detected during 2007.

With respect to the other wells sampled on a quarterly basis, VOCs were detected during every quarter that they were sampled. However, except for Wells MW-6C and MW-7B, which exhibited increasing trends, total VOC concentrations were relatively constant or decreasing in the wells in which VOCs were consistently detected.

Compared to the 2006 average total VOC concentrations, except for Wells MW-6B, MW-6C and MW-7B, which were higher, the 2007 average total VOC concentrations were similar or lower in the wells in which VOCs were consistently detected. Compared to the 1992-2006 average total VOC concentrations, except for Wells MW-6B and Well MW-7B, which were similar and higher, respectively, the 2007 average total VOC concentrations were lower in the wells in which VOCs were consistently detected.

Taken as a whole, these findings are consistent with the gradual temporal decrease in groundwater total VOC concentrations that has been observed since start-up of the GTF. The apparently increasing concentrations in Wells MW-6B and MW-6C during 2007 are consistent with the fluctuating groundwater-quality conditions observed at this location.

The significantly higher total VOC concentrations detected in Well MW-7B during the first two quarters of 2007 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 Claremont Site portion 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.

The third quarter 2007 total VOC concentration in Well MW-9D was significantly lower than the third quarter 2006 result for this well, and may reflect the start of a downward trend in this well, which monitors the base of the deep potentiometric zone of the aquifer downgradient of the Landfill and upgradient of the Town's recovery wellfield.

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. 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.

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. It should also be noted that although the some of the figures in Appendix C shown the plume extending downgradient to Well MW-11A, VOC concentrations in Well MW-11A are very low, are not increasing, and most likely represent background groundwater VOC concentrations at this location.

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 the ongoing remediation.

The Consent Decree specifies a Groundwater Aquifer Requirement of 100 ppb for total VOCs. During 2007, this limit was exceeded in Well MW-7B, which was only sampled during the first two quarters of 2007. Previously, this limit has also exceeded in Wells MW-8A, MW-9D and OBS-1. These are the Town-monitored wells that have historically exceeded this limit. This limit was also been exceeded in Wells MW-10B and MW-10C during 2007. 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 2007 VHO Data

VHOs were detected in 11 of the 12 wells in which VOCs were detected during 2007, including 10 of the wells sampled quarterly (Wells MW-6A, MW-6B, MW-6E, MW-7B, MW-8A, MW-8B, MW-9C, MW-11A, OBS-1 and LF-1), and Well MW-9D, which was sampled during the third quarter round. Except for Wells MW-6B, MW-9C and LF-1, which were non-detectable for VHOs during 2006 but contained low levels of total VHOs during at least one 2007 monitoring round; and Wells MW-5B and MW-6C, in which low levels of total VHOs were during at least one 2006 monitoring round but were non-

detectable for VHOs during 2007, these are the same wells in which VHOs were detected last year. In general, these are the wells in which VHOs have historically been detected during quarterly monitoring.

Total VHO detections in Wells MW-6A, MW-6E, MW-8B, MW-9C and LF-1 were limited to low concentrations ranging from 0.2 to 1.6 ppb during one or two monitoring rounds. These sporadic, low-level detections are not considered significant and are not discussed further in this report.

Total VHO concentrations in the Town-monitored wells in which VHOs were detected consistently during 2007 are summarized and contrasted against previous data in the following table:

TOTAL VHO CONCENTRATIONS IN 2007 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2007 (Max.)	Range (Avg.)	2006 Average	1992-2006 Average	Baseline 1991 Data
MW-6B	ND	12.7	3.7	ND	0.2	105
MW-7B**	1,081	1,398	1,240	562	91.9	17
MW-8A	0.2	0.6	0.4	1.0	98.5	65
MW-9D**	21.8	21.8	21.8	42.2	38.9	ND
MW-11A	1.3	2.6	2.0	2.0	0.6	ND
OBS-1	3.0	6.7	4.5	5.5	36.6	18

* All concentrations in parts per billion (ppb), ND = not detectable.
** Well MW-7B only sampled during the first and second quarter monitoring rounds. Well MW-9D only sampled during the third quarter monitoring round.

During 2007, with the exceptions of Wells MW-6B and MW-7B, which showed increasing trends, total VHO concentrations in the wells in which VHOs were consistently detected remained relatively constant, or decreased. This same pattern is evident for the 2007 average total VHO concentrations relative to the 2006 average total VHO concentrations. Compared to the 1992-2006 average total VHO concentrations, the 2007 average total VHO concentrations were lower for Wells MW-8A, MW-9D and OBS-1, and higher for Wells MW-6B, MW-7B and MW-11A.

Overall, the 2007 total VHO results are consistent with the gradual temporal decrease in groundwater VHO concentrations that has been observed since start-up of the GTF.

The relatively constant total VHO concentrations in certain wells during 2007 reflects the fact that as the remediation progresses, the magnitudes of the improvement in water quality become less pronounced and therefore harder to distinguish short-term.

The apparent increase in total VHO concentration in Well MW-6B during 2007 is attributed to the fluctuating groundwater-quality conditions that have historically been observed at this location. The marked increase in total VHO concentrations in Well MW-7B during the first and second quarters is attributed to the westward shift in the position of the Claremont Site portion of the VOC plume, as mentioned previously. The decrease in the total VHO concentration in Well MW-9D relative to previous results may indicate the start of a downward trend in this well.

Figure 1 in Appendix C shows the approximate areal extent of total VHOs in groundwater based on the combined results from the 2007 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 lack of VHO detections in the central portion of the plume area (e.g., Well Clusters MW-5 and MW-9), the eastern side of the plume has been extended to reflect the VHO detections in Well Clusters MW-10 and EW-3, which as noted above 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 (1.3-2.6 ppb) levels of total VHOs detected in this well during 2007, which likely represent background groundwater total VHO concentrations at this location and do not appear to be increasing.

A total of 15 specific VHO compounds were detected in the quarterly groundwater samples collected during 2007. Thirteen of these VHOs (bromodichloromethane, chlorodibromomethane, chloroform, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, methylene chloride, 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. Two additional VHOs (chloroethane and 1,2-dichloropropane) were detected only in the sample collected from Well MW-9D during the third quarter round.

VHO compound detections in groundwater during 2007 are summarized below:

VHO COMPOUNDS DETECTIONS IN 2007 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2007 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
Bromodichloromethane	1/27	0.5	0.5	0.5	50
Chlorodibromomethane	1/27	0.4	0.4	0.4	5.0
Chloroethane	1/27	3.0	3.0	3.0	5.0
Chloroform	7/27	0.1	3.7	1.1	7.0
Dichlorodifluoromethane	5/27	0.2	5.5	2.5	5.0
1,1-Dichloroethane	10/27	0.1	4.7	0.7	5.0
1,2-Dichloroethane	3/27	0.3	1.4	0.8	0.6
1,1-Dichloroethene	3/27	0.1	13.2	7.4	5.0
cis- 1,2-Dichloroethene	13/27	0.2	79.0	13.2	5.0
trans-1,2-Dichloroethane	2/27	0.1	0.1	0.1	5.0
1,2-Dichloropropane	1/27	0.3	0.3	0.3	1.0
Methylene chloride	2/27	0.2	0.2	0.2	5.0
1,1,1-Trichloroethane	7/27	0.1	20.9	5.6	5.0
Trichloroethene	23/27	0.1	1,290	99.4	5.0
Vinyl chloride	10/27	0.2	0.9	0.6	2.0

* all concentrations in ppb.
** frequency each compound was detected in the 27 well samples in which VHOs were detected.
*** see Table 1.

As indicated in the above table, of the 15 VHOs detected during 2007, most were detected sporadically and at relatively low concentrations below their groundwater standard. Only two VHOs, cis-1,2-dichloroethene and trichloroethene, were detected in at least one-half 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 below their groundwater standard. Only five VHOs, specifically dichlorodifluoromethane, 1,1-dichloroethene, cis- 1,2-dichloroethene, 1,1,1-trichloroethane and trichloroethene, were detected at a concentration higher than their groundwater standard in at least one sample during 2007.

4.3.3 Analysis of 2007 Aromatic Hydrocarbon Data

Aromatic hydrocarbons were detected in 9 of the 12 wells in which VOCs were detected during 2007, including eight of the wells sampled quarterly (Wells MW-6A, MW-6B, MW-6C, MW-6E, MW-8B, OBS-1 and LF-1), and Well MW-9D, which was sampled during the third quarter monitoring round. Except for Wells MW-5B, MW-6F, MW-8A, and MW-11B, which were non-detectable for aromatic hydrocarbons in 2007 but contained sporadic low concentrations of total aromatic hydrocarbons in 2006; and Wells MW-6A, which was non-detectable for aromatic hydrocarbons last year but contained a trace (0.4 J ppb) total aromatic hydrocarbon concentration during the third quarter 2007 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, these are the wells in which aromatic hydrocarbons have been detected during quarterly monitoring.

It should be noted that the sporadic, low aromatic hydrocarbon concentrations detected in Wells MW-6A and MW-8B during 2007 are not considered to be significant, and therefore are not discussed in detail in this report.

The distribution of the significant total aromatic hydrocarbon detections in groundwater during 2007 is summarized, and contrasted against previous data, in the table below:

TOTAL AROMATIC HYDROCARBONS IN 2007 GROUNDWATER SAMPLES*

Well Number	Observed (Min.)	2007 (Max.)	Range (Avg.)	2006 Average	1992-2006 Average	Baseline 1991 Data
MW-6B	11.4	15.8	13.6	12.9	17.0	48
MW-6C	0.9	6.5	3.0	1.7	6.5	30
MW-6E**	2.2	5.2	3.2	3.3	4.5	37
MW-9D**	8.9	8.9	8.9	19.0	23.3	ND
OBS-1	2.0	4.4	2.8	3.6	42.6	110
LF-1	1.1	2.6	1.7	0.5	1.7	12

* All concentrations in ppb, ND = not detectable.

** Well MW-6E not sampled during the third quarter 2007, Well MW-9D sampled during third quarter only.

During 2007, total aromatic hydrocarbon concentrations fluctuated in the wells sampled on a quarterly basis, and did not exhibit consistent upward or downward trends. This is consistent with the fluctuating, but generally decreasing, trend in groundwater aromatic hydrocarbon concentrations that has been observed since start-up of the GTF.

This is reflected in the above table, which shows that the average 2007 total aromatic hydrocarbon concentration in every well except Well MW-9D is slightly higher or lower than the 2006 average concentration, and except for Well LF-1 markedly lower than the 1992-2006 average concentration. In Well MW-9D, the third quarter 2007 result is notably lower than both the third quarter 2006 result and the historical average for this well, possibly indicating the start of a downward trend in this well. The 2007 results for Well LF-1 are similar to the historical results, but limited to very low concentrations.

With the exception of Well MW-9D, which was non-detectable for VOCs during the 1991 baseline monitoring round, the total aromatic hydrocarbon concentrations detected during 2007 were notably lower than the baseline results for these wells. This finding is also consistent with the temporal decrease in groundwater aromatic hydrocarbon concentrations that has been observed since 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 2007 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, which is also consistent with the temporal decrease in groundwater aromatic hydrocarbon concentrations that has been observed since start-up of the GTF.

A total of seven aromatic hydrocarbon compounds were detected during 2007: benzene, n-butylbenzene, chlorobenzene, dichlorobenzene (o,m&p isomers), 1,3-dichloropropene, isopropylbenzene, and xylene (o,m&p isomers). In general, these are the aromatic hydrocarbon species that have historically been detected in groundwater, although benzene, chlorobenzene and dichlorobenzene are typically detected more frequently than the other compounds.

Aromatic hydrocarbon compound detections in groundwater during 2007 are summarized below:

AROMATIC HYDROCARBONS DETECTIONS IN 2007 GROUNDWATER SAMPLES*

Compound	Detection** Frequency	Observed 2007 Range (Min.)	(Max.)	(Avg.)	Grndwtr Limits***
Benzene	11/20	0.1	3.1	1.2	1
n-Butylbenzene	5/20	0.2	1.0	0.6	5
Chlorobenzene	20/20	0.2	4.6	1.5	5
Dichlorobenzene, total	20/20	0.5	5.4	2.1	9****
1,3-Dichloropropene, total	1/20	0.5	0.5	0.5	0.4
Isopropylbenzene	9/20	0.2	2.9	1.4	5
Xylene, total	2/20	0.2	1.4	0.8	15****

* all concentrations in parts per billion (ppb).
** frequency each compound was detected in the 20 samples in which aromatic hydrocarbons were consistently detected.
*** see Table 2.
**** total limit is per-isomer limit x 3.

Benzene was primarily detected in Wells MW-6B, MW-9D and OBS-1. The highest concentration of benzene was detected in Well MW-9D, followed by Wells MW-6B and OBS-1. All of the benzene detections in Wells MW-9D and MW-6B were higher than the groundwater standard. Benzene was also detected in Wells MW-6C, MW-6E and LF-1, but at lower concentrations. Chlorobenzene was detected in all of the wells in which aromatic hydrocarbons were consistently detected. The highest concentrations of chlorobenzene were detected in Well MW-6B, but all were lower than the groundwater standard. Dichlorobenzene was also detected in all of the wells in which aromatic hydrocarbons were consistently collected, but apart from a few low-magnitude per-isomer exceedances for 1,2-dichlorobenzene was lower than the groundwater standard. 1,3-dichloropropene was only detected in the third quarter sample from Well MW-6B, at a concentration slightly higher than the groundwater standard. Isopropylbenzene was primarily detected in Wells MW-6B, MW-6C, MW-6E and MW-9D, but at concentrations lower than the groundwater standard. Xylene was detected in Wells MW-6E and MW-9D. The highest concentration of xylene was detected in Well MW-9D, but was lower than the groundwater standard.

Overall, aromatic hydrocarbons were detected most frequently and at the highest concentrations in Wells MW-6B, MW-9D and OBS-1. Exceedances of the groundwater standards occurred in Wells MW-6B (benzene, all four quarters; 1,4-dichlorobenzene, all four quarters; 1,3-dichloropropene, second quarter); Well MW-6C (benzene, fourth quarter), MW-9D (benzene) and OBS-1 (benzene, second quarter). No exceedances for aromatic hydrocarbons occurred in Wells MW-6E or LF-1 in 2007.

4.3.4 Analysis of 2007 Tetrachloroethene Data

Tetrachloroethene was detected in Wells MW-7B, MW-8A, MW-8B and OBS-1 during all four 2007 quarterly monitoring rounds; at low concentrations in Wells MW-6A and MW-6E during the first quarter monitoring round; at low concentrations in Well MW-11A during all four 2007 quarter monitoring rounds, and in the sample collected from Well MW-9D during the third quarter monitoring round. Except for Wells MW-6E, which was non-detectable for tetrachloroethene during 2006, these are the same wells in which tetrachloroethene was detected last year.

The highest concentrations of tetrachloroethene were detected in Wells MW-7B (72.3 and 78.3 ppb) and MW-8A (7.4 - 26.2 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 (0.4 ppb), MW-6E (0.1 J ppb), MW-9D (1.6 ppb), MW-11A (0.3 - 0.6 ppb) and OBS-1 (0.3 - 1.4 ppb). Compared to last year's data, on average, tetrachloroethene concentrations increased slightly in Wells MW-7B and MW-8A, remained essentially unchanged in Wells MW-8B, MW-11A and MW-9D, and decreased slightly in Well OBS-1. These differences are attributed to temporal variation in the concentration of the tetrachloroethene plume at each well's location. Based on comparison to the 1992-2006 data, groundwater tetrachloroethene levels show 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 2007 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 trace levels of tetrachloroethene found in this well during 2007, which likely reflect background groundwater tetrachloroethene concentrations at this location.

Apart from the inclusion of Well MW-11A, the current extent of the tetrachloroethene plume is consistent with that shown by pre-2007 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 shallow and deep zone 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 2007 quarterly monitoring rounds.

Some of the figures in Appendix A of Appendix C show the plume extending south to Well MW-11A based on the low levels of VOCs detected in Well MW-11A during 2007. As noted previously, total VOC concentrations in Well MW-11A are very low, do not appear to be increasing, and most likely reflect background groundwater quality conditions at this location. Two of the water-table maps also show the plume boundary extending upgradient to Well MW-30-B based on the sporadic, low concentrations of total VOCs detected in this well during 2007, which also most likely reflect background groundwater quality conditions at this location.

After accounting for these data artifacts, 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 2006 data.

4.3.6 Analysis of 2007 Inorganic Parameter Data

The inorganic parameter data collected during the 2007 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 2007, and was similar to

that of previous quarterly monitoring efforts, as well as the 1991 baseline sampling round. However, the extent and concentration of leachate indicator parameters in groundwater appears to be decreasing over time, at most locations, in response to the ongoing groundwater remediation. Moreover, a few leachate indicators continued to be detected in Wells MW-8A and MW-8B on a regular basis during 2007. The presence of leachate indicators in these two wells is attributed to 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 shallow portion of the Landfill plume in this area to shift slightly eastward.

The overall distribution of inorganic parameters within the aquifer during 2007 was evaluated based on the nature and occurrence of exceedances of the Groundwater Aquifer Requirements listed in Table 2. During 2007, exceedances were noted for ammonia, chloride (Wells MW-6B and MW-6C only), iron, manganese, mercury (Well MW-9D only), phenols (Well MW-6C only) and sodium. The 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 during 2007.

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 2007 quarterly monitoring rounds. In addition, the limiting flow lines depicting the capture zone are shown on the shallow potentiometric surface maps.

The GTF maintained an average on-line performance of 92 percent during 2007. 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 2007.

Review of the 2007 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 by 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 61.6 feet above MSL during the second quarter of 2007.

During the period from April 1, 1992 through December 31, 2007, 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 2007, water level elevations exhibited fluctuating but primarily increasing trends across the site, in all three aquifer zones. On average, in the monitoring wells not located adjacent to a recharge basin, which could be influenced by mounding, water levels increased by an average of 0.66 feet during 2007 for all three aquifer zones. The site-wide increases in water-level elevations during 2007 are attributed to natural aquifer recharge from precipitation. Drawdown in the capture zone during 2007 averaged approximately 10 feet relative to the water-level elevations 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 1.28 MGD (see Section 6.0) during 2007 adequately maintained hydraulic control over the Landfill VOC plume. Furthermore, control of the VOC plume has been maintained during the sixty-three operating quarters since start-up of the GTF, where average facility flow has varied from

approximately 0.90 to 1.48 MGD regardless of the seasonal effects. Therefore, the frequency of hydraulic monitoring can continue to be safely reduced to the present quarterly from the original monthly schedule.

4.4.2 Effects of Mounding Due to Recharge

During 2007, the mounding effects associated with the various recharge basins were not too pronounced due to the site-wide increase in the water-table elevation associated with recharge from precipitation during eight months 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 2007 was evaluated based on the information regarding total system pumpage and individual recovery well flow presented in the quarterly monitoring reports. During 2007, the average daily combined pumpage from the five recovery wells was 1.28 MGD. System flow was primarily affected by Recovery Well RW-3 being off-line for repair from late October through the end of the year, and Recovery Well RW-2 being off-line for repair from mid November through the end of the year. The remainder of the downtime was associated with routine maintenance and repair of the various treatment system appurtenances. Quarterly pumpage records and system flow data for 2007 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 2007. The results were compared to the stack discharge limits established by the Consent Decree. The results of these comparisons indicated that the concentrations of 1,1-dichloroethene and trichloroethene during all four quarters, and vinyl chloride during the first quarter only, were slightly higher than these limits. However, previous dispersion modeling of similar concentrations of these VOCs has consistently shown that they 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 2007.

SECTION 6.0
DISCUSSION AND RECOMMENDATIONS

6.1 Discussion

6.1.1 Facility Operations

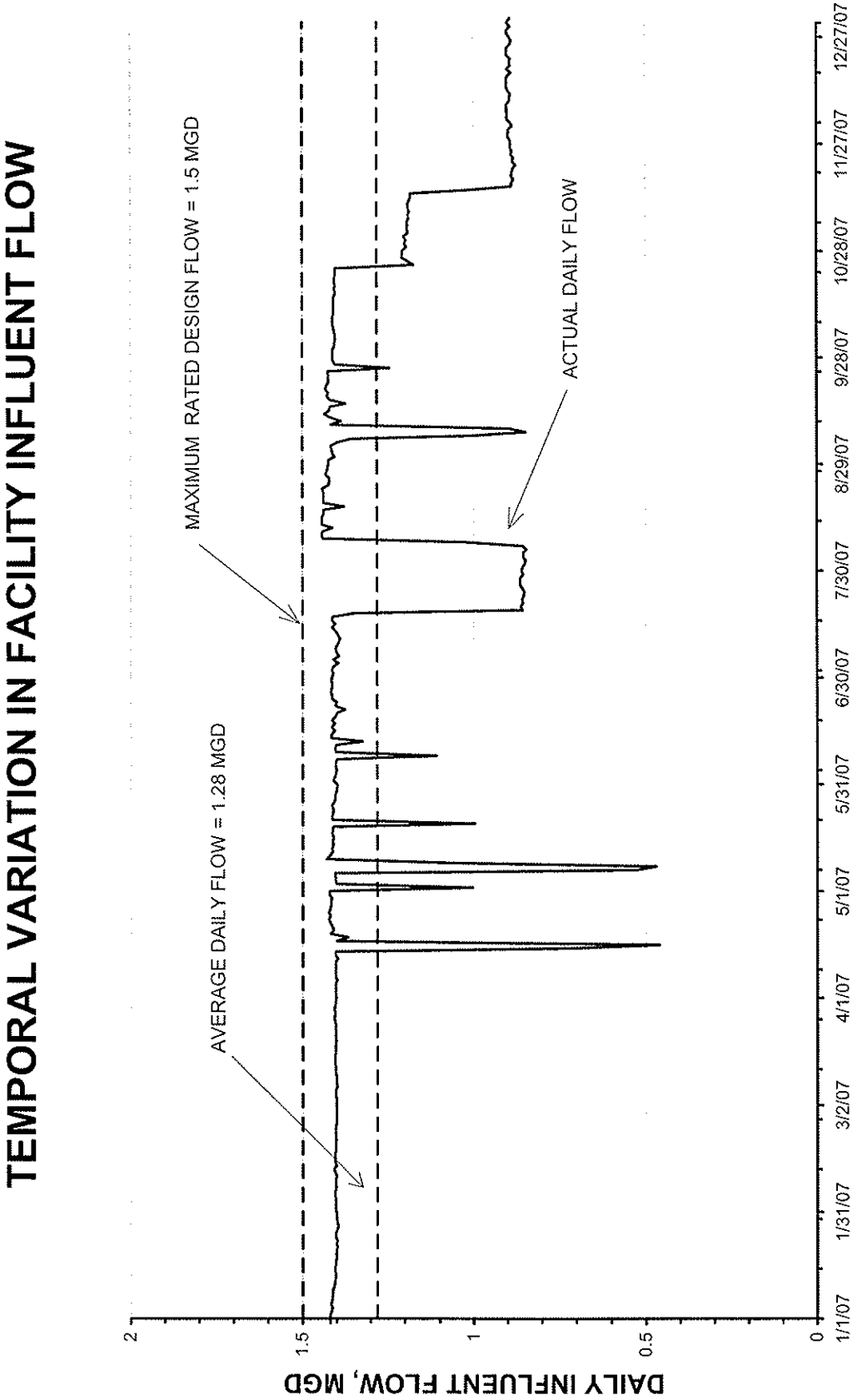
Review of the operational data provided in the quarterly reports indicates that the GTF maintained an average on-line performance of approximately 92 percent during 2007. Approximately 467 million gallons of groundwater were pumped, treated and recharged at an average daily flow rate of 1.28 MGD (Figure 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 2007	100	1.40	126
2nd Quarter of 2007	96	1.35	123
3rd Quarter of 2007	85	1.28	117
4th Quarter of 2007	75	1.10	101

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 2007 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 2007, which is summarized in Table 2 of Appendix C, was 3,581 hours. As shown in Table 2 of Appendix C, the majority of the downtime was associated with Recovery Well RW-3 being off-line from late October through the end of the year and Recovery Well RW-2 being off-line from mid November through the end of the year. The remainder of the downtime was associated with routine maintenance and repair of the GTF and appurtenances throughout the year.

FIGURE 1


TEMPORAL VARIATION IN FACILITY INFLUENT FLOW
MAXIMUM RATED DESIGN FLOW = 1.5 MGD
AVERAGE DAILY FLOW = 1.28 MGD
ACTUAL DAILY FLOW
DAILY INFLUENT FLOW, MGD
2
1.5
1
0.5
0
1/1/07
1/31/07
3/2/07
4/1/07
5/1/07
5/31/07
6/30/07
7/30/07
8/29/07
9/28/07
10/28/07
11/27/07
12/27/07
CALENDAR YEAR, 2007
TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

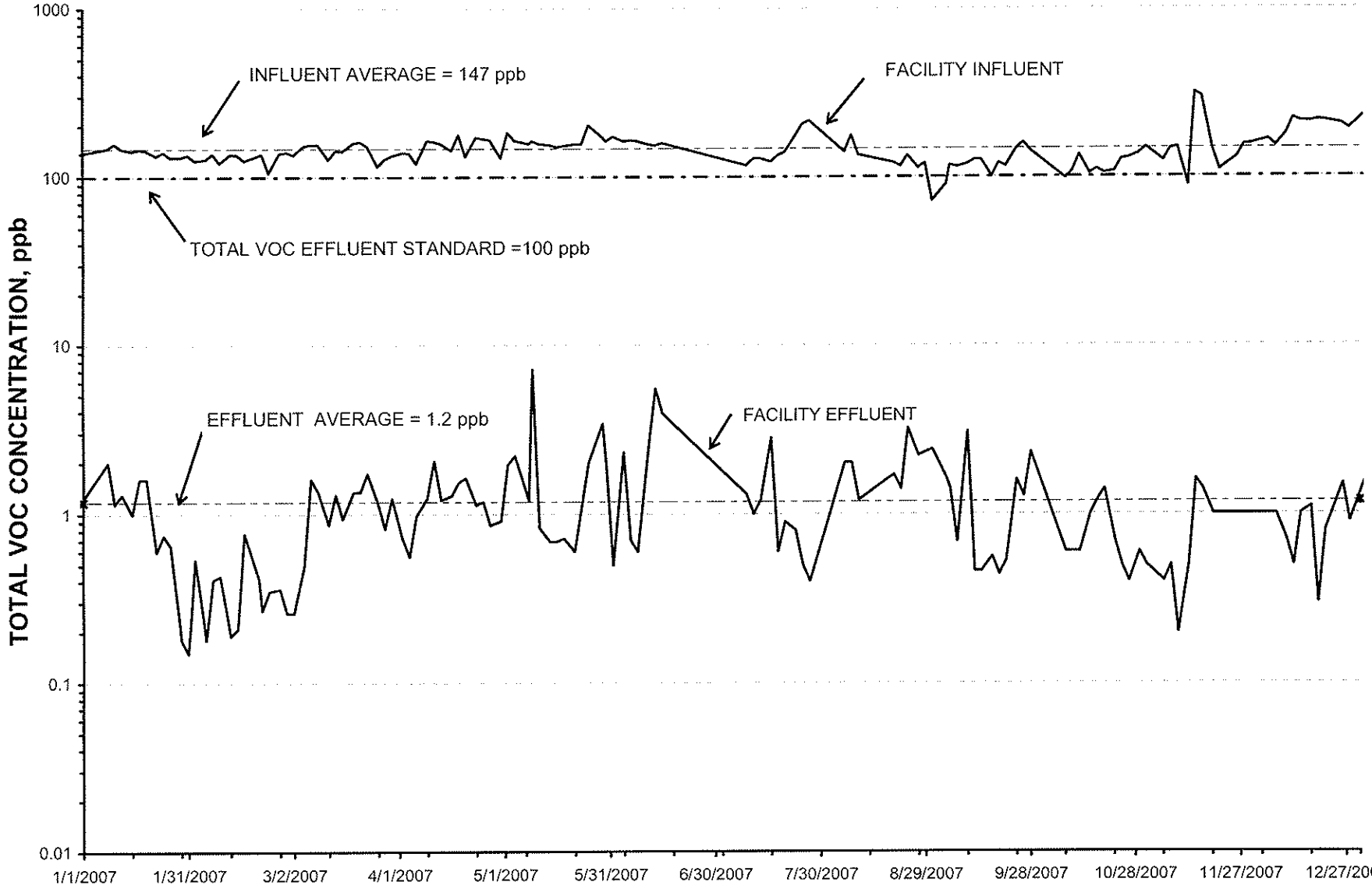
Based on the Town laboratory's data, which are independently verified by monthly SPDES analyses, during 2007, the total VOC concentration of the GTF influent averaged 147 ppb and the total VOC concentration of the effluent averaged 1.2 ppb (Figure 2). These averages are nearly identical to the 2006 averages. During 2007, the total VOC concentration of the GTF was relatively constant. The relative proportions of the individual VOC species comprising the influent also remained relatively consistent during 2007, with trichloroethene and tetrachloroethene comprising the bulk of the VOC loading (Figure 3).

Total VOC concentrations in each recovery well also remained relatively consistent during 2007 (Figure 4). Historically, short-term relative increases in total VOC concentration occur immediately following periods of a recovery well being off-line. These increases are attributed to the recovery of relatively undiluted plume water that migrated past the recovery wellfield during the off-line 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 99.2 percent during 2007 (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 Landfill-related 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 2007 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 approximately three times per week at the Town's on-site laboratory did not detect any VOCs above the limits listed in Table 1.

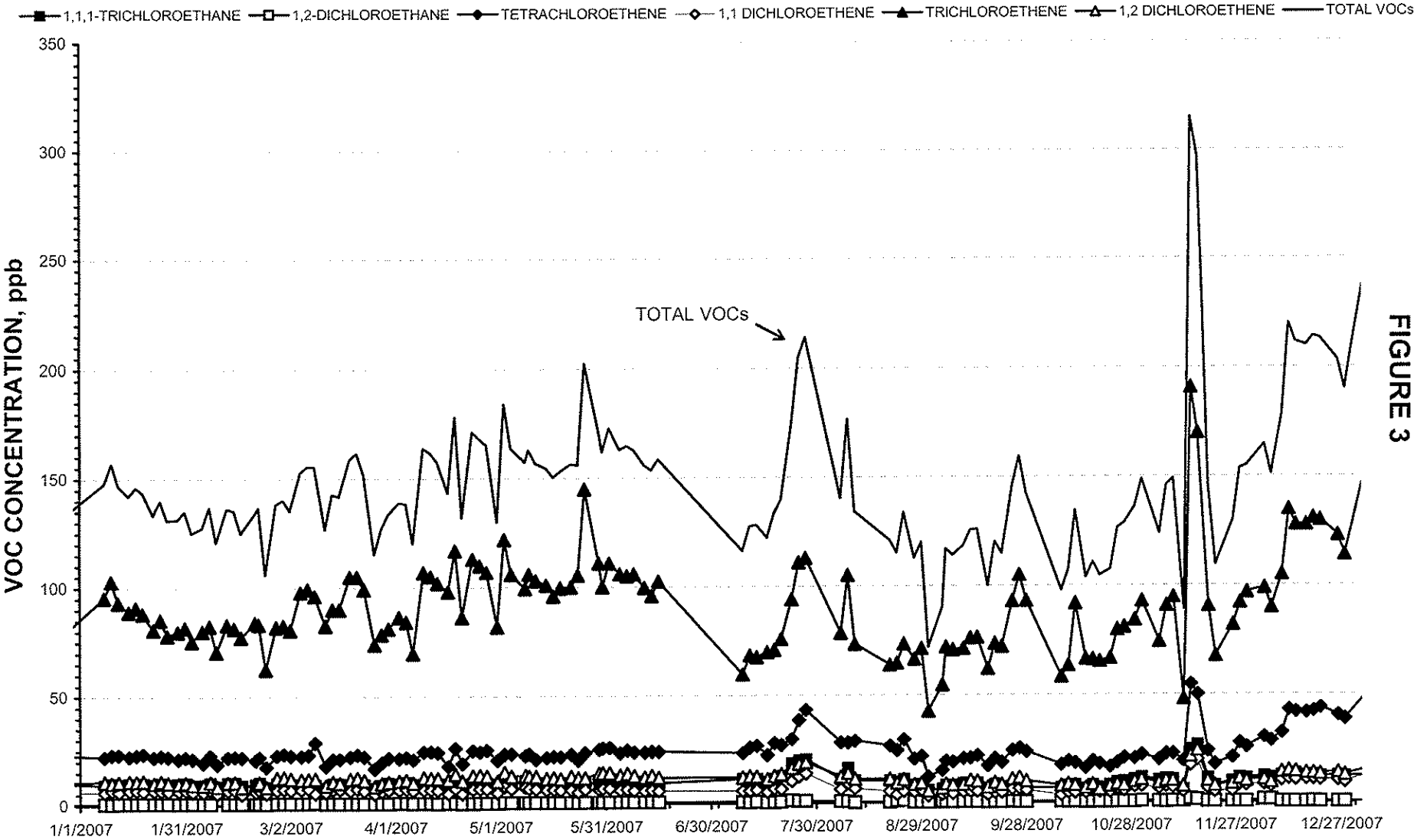
TEMPORAL COMPARISON OF INFLUENT/EFFLUENT TOTAL VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 2

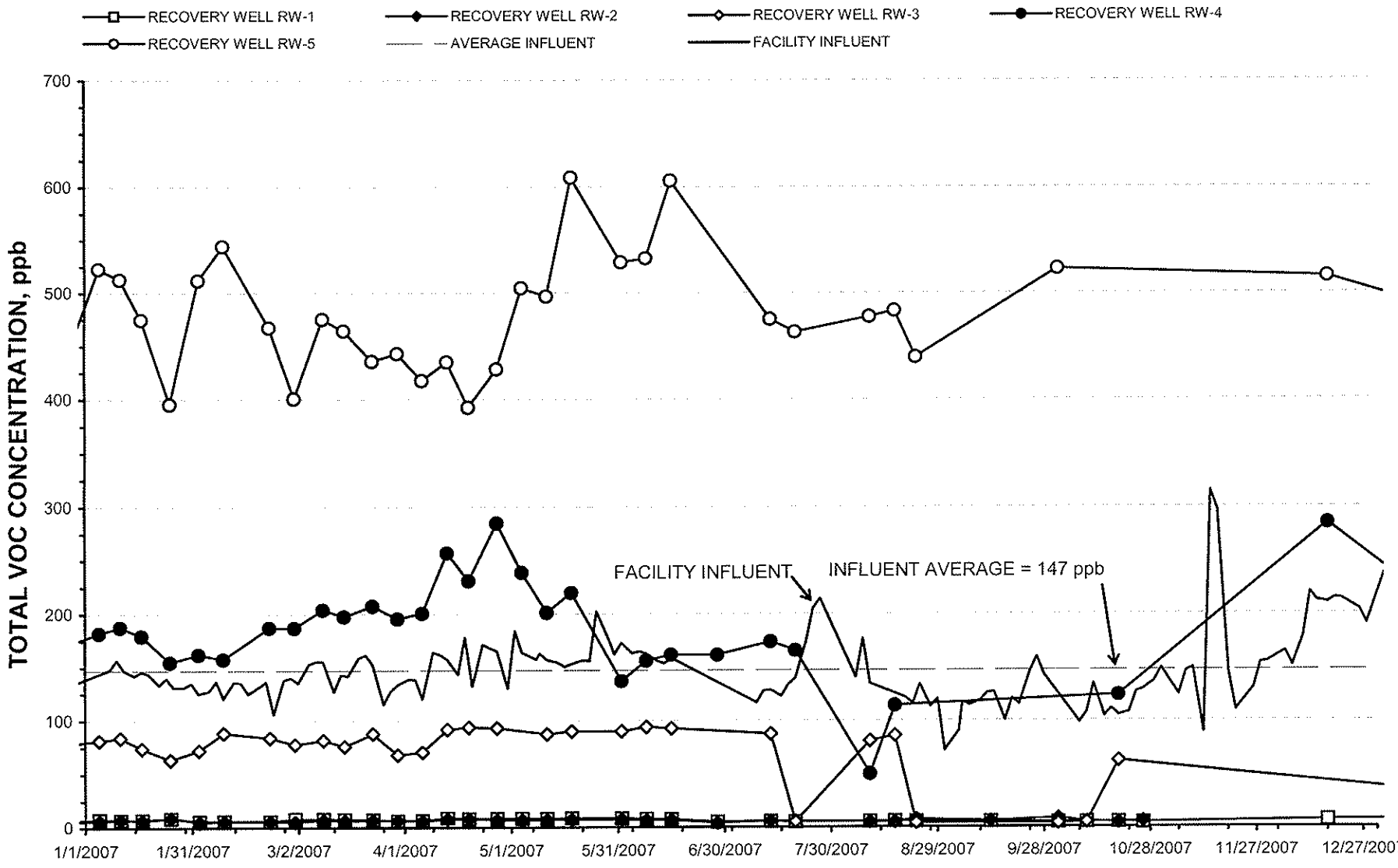
TEMPORAL VARIATION IN FACILITY INFLUENT VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 3

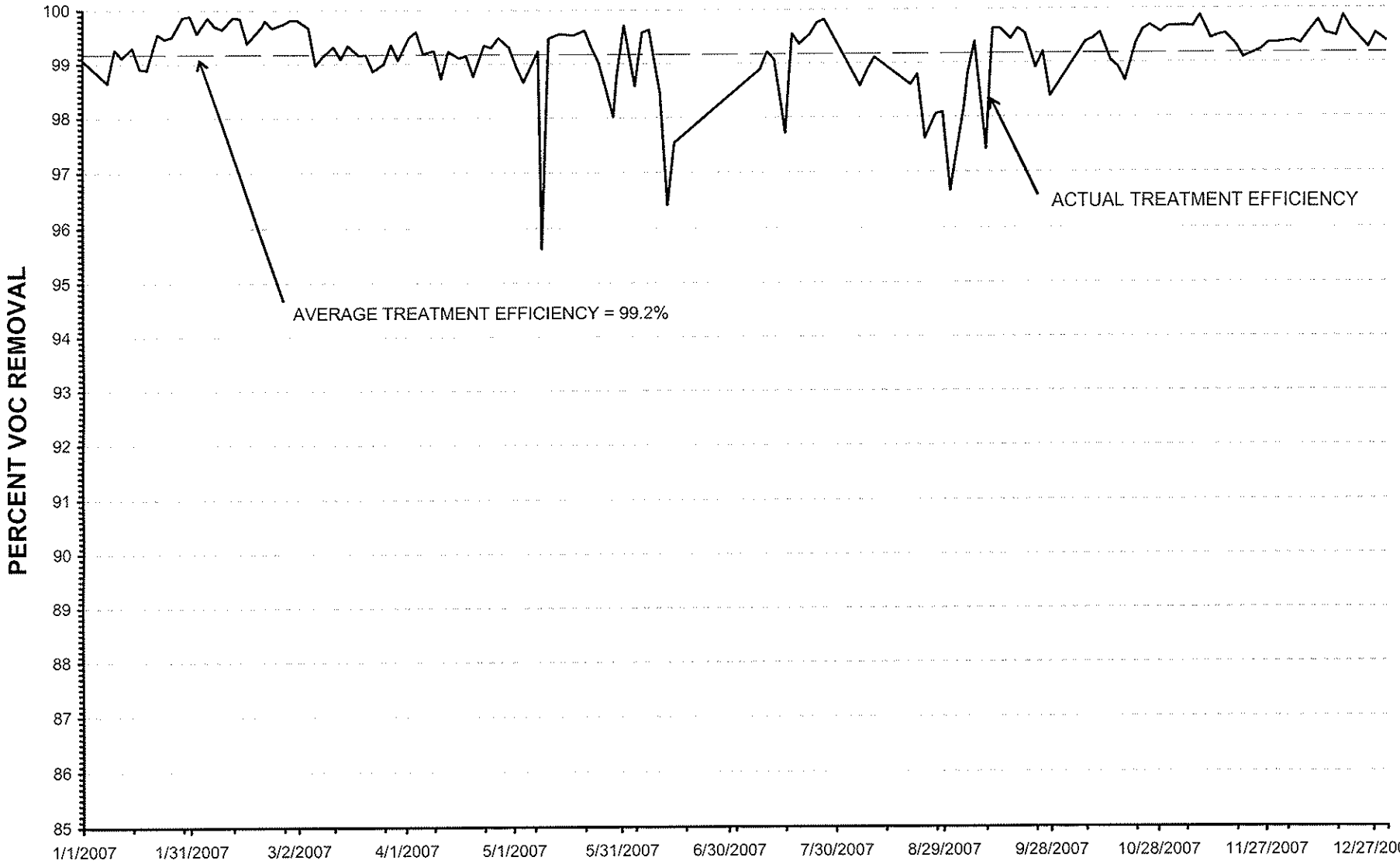
TEMPORAL VARIATION IN WELLFIELD TOTAL VOC CONCENTRATIONS



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 4

TEMPORAL VARIATION IN TREATMENT EFFICIENCY



PERCENT VOC REMOVAL

CALENDAR YEAR, 2007

TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 5

Therefore, based on the results from the SPDES monitoring and self-monitoring performed during 2007, 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 2007 indicate that except for 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. However, 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. Moreover, the manganese concentration of the influent appears to be decreasing gradually 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 2007 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.

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 2007 and summarized graphically in Figure 6.

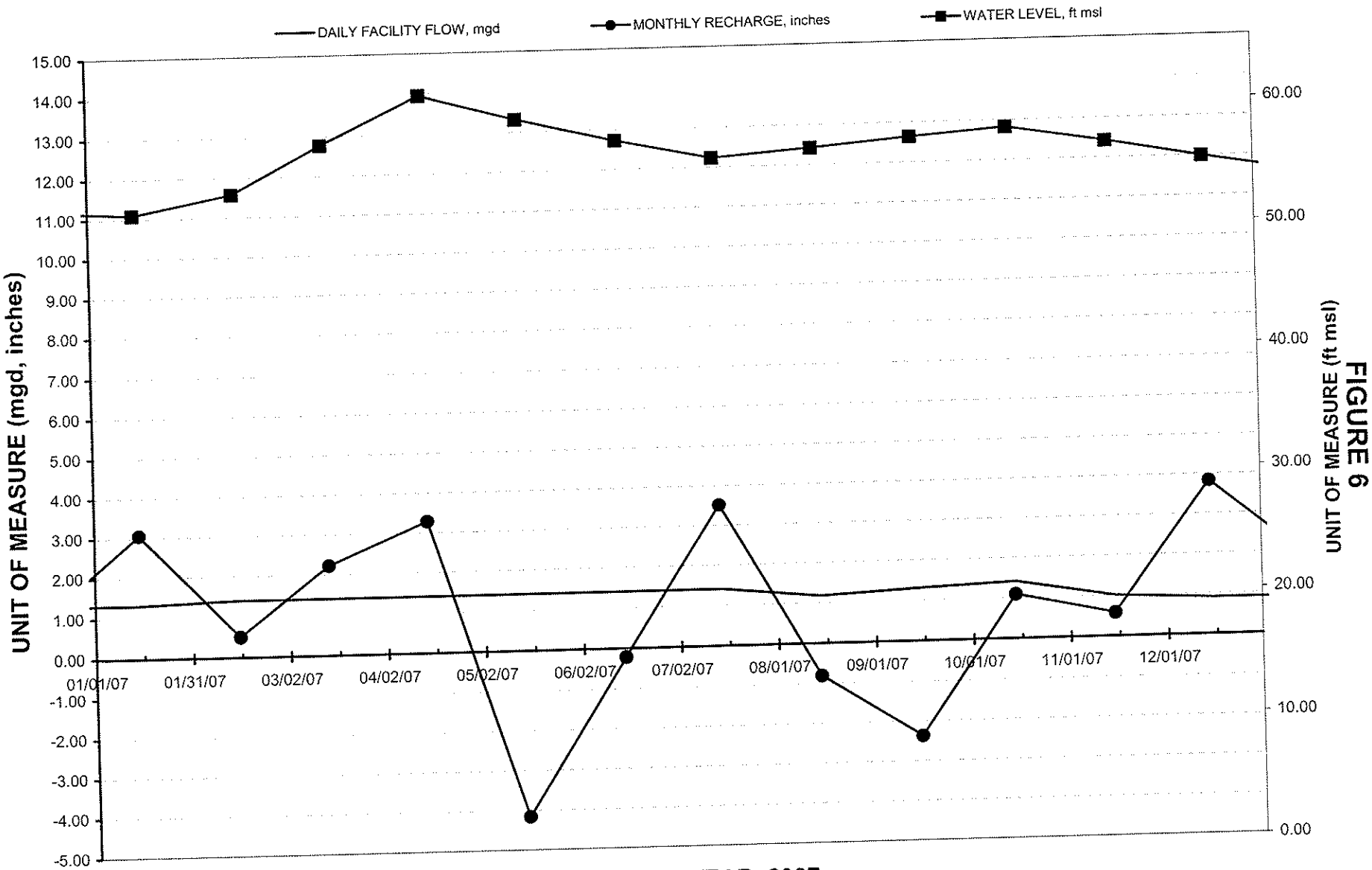
Facility flow data were compiled from the “Daily Operations Reports” and are presented in Figure 6 as the average flow for the days on which the hydraulic monitoring rounds were conducted. Recharge was estimated as the monthly precipitation corrected for evapotranspiration. Precipitation data were obtained from a meteorological station located approximately 2 miles east of the site**.** Evapotranspiration (ET) data were obtained from the local U.S. Natural Resources 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 long-term recharge patterns, are the primary factors influencing water-level elevations in the capture zone. Specifically, the average water-level elevation in the recovery wells remains relatively constant over time, despite short-term variations in recharge to the aquifer. However, long-term recharge patterns, such as the consistent monthly recharge during the first four months of 2007, also influences water-level elevations in the recovery wells although 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 2007 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



CALENDAR YEAR, 2007

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FIGURE 6

6.1.3 Variation in Wellfield VOC Concentrations

During 2007, the Town continued to monitor VOC concentrations in each recovery well on an approximately weekly basis when the well was on-line. 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 exhibited short-term fluctuations but overall remained relatively constant during 2007.

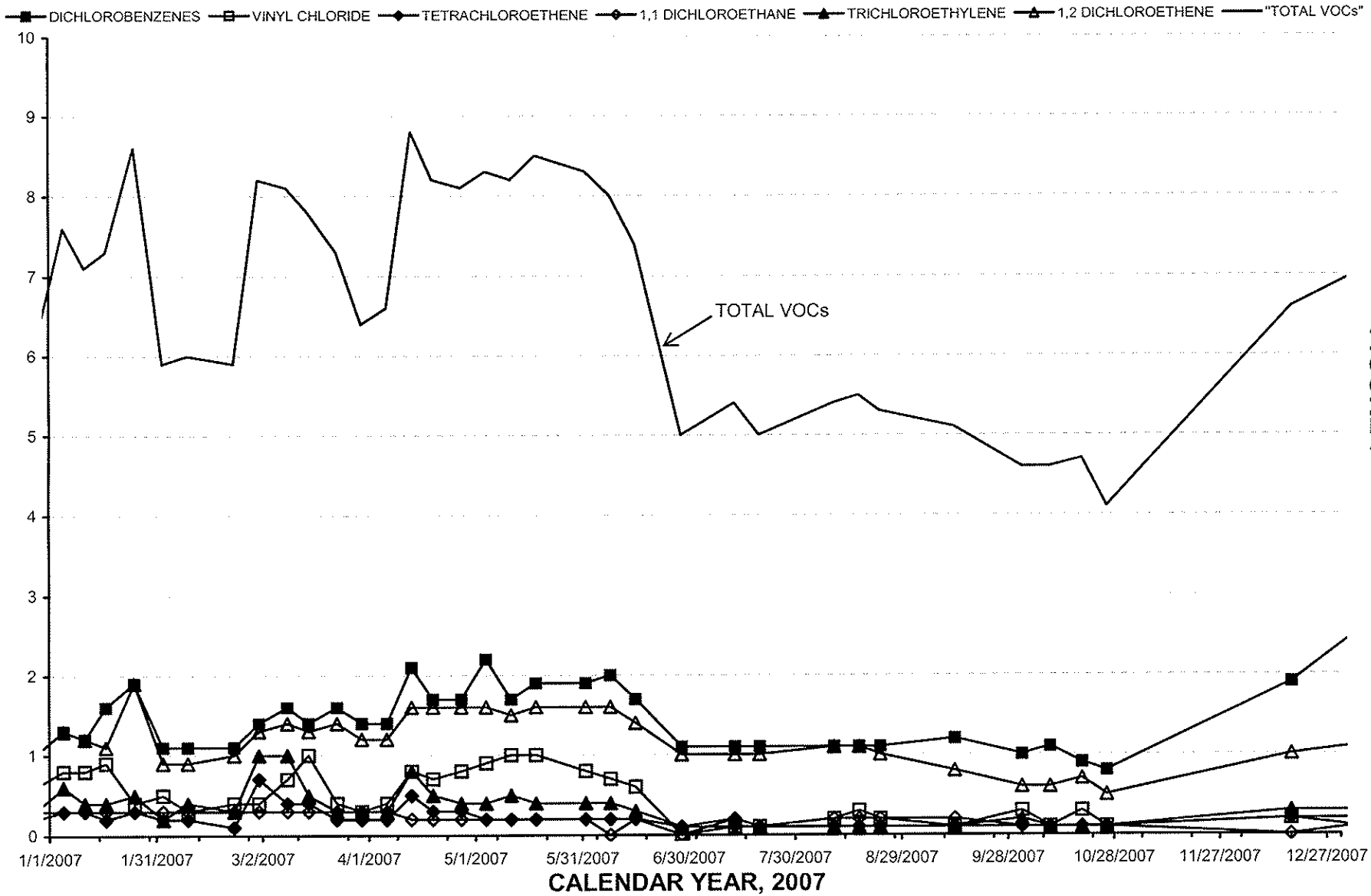
As shown in Figures 7 through 11, total VOC concentration for Recovery Wells RW-1 and RW-2 are attributed to low concentrations of a variety of VOCs, whereas total VOC concentrations in Recovery Well RW-3 are associated primarily with three compounds: 1,2-dichloroethene, tetrachloroethene and trichloroethene. Total VOC concentrations in Recovery Wells RW-4 and RW-5 are associated primarily with just one compound – trichloroethene, and to a lesser extent tetrachloroethene. The trends observed for the recovery wells are consistent with the monitoring well data discussed 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 significant 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 VOC plume originating entirely from the Landfill.

The current distribution of VOCs in groundwater, based on the 2007 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, Recovery Wells RW-3, RW-4 and RW-5, and in the split-samples from Wells MW-10C and MW-10D.

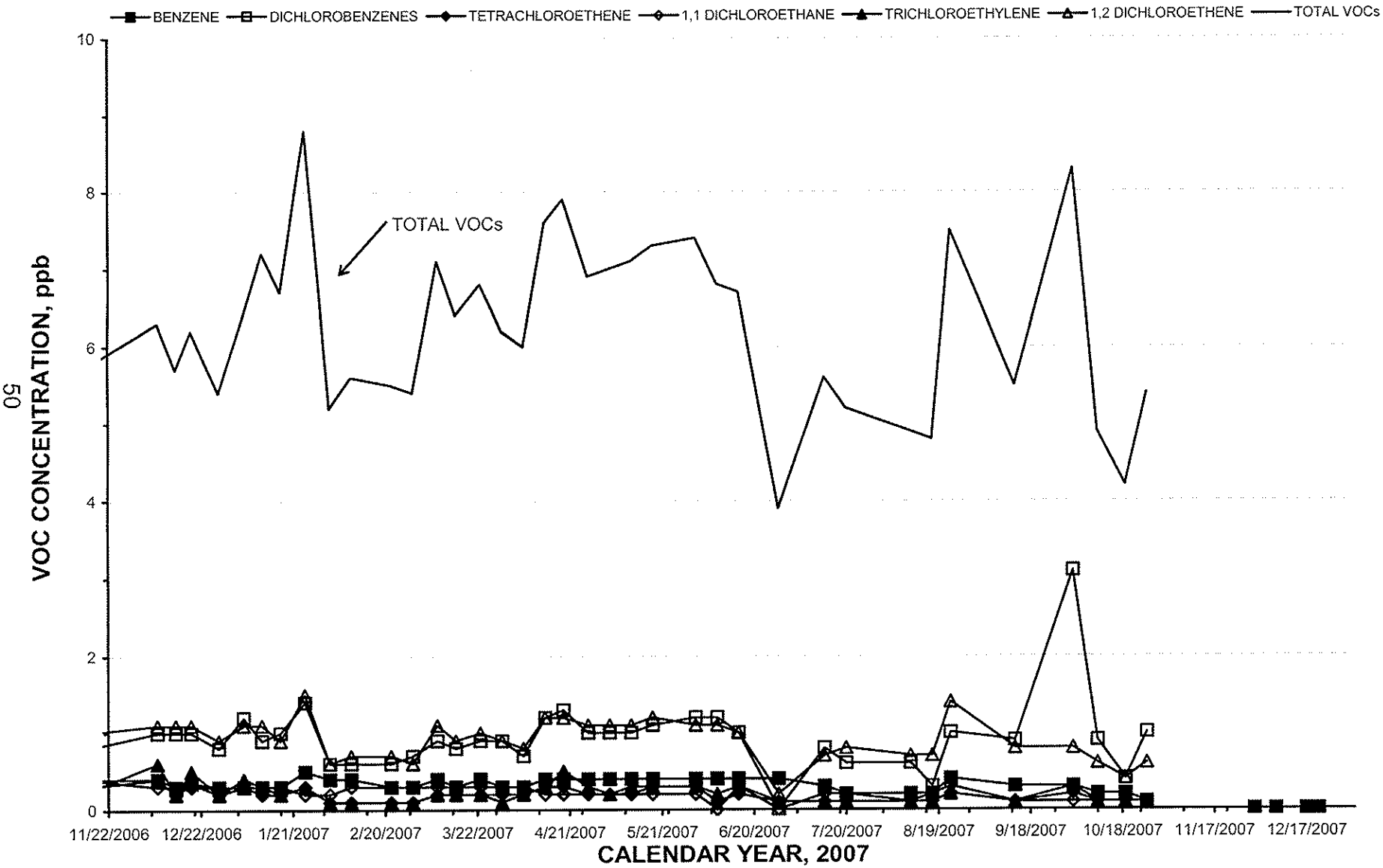
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-1



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 7

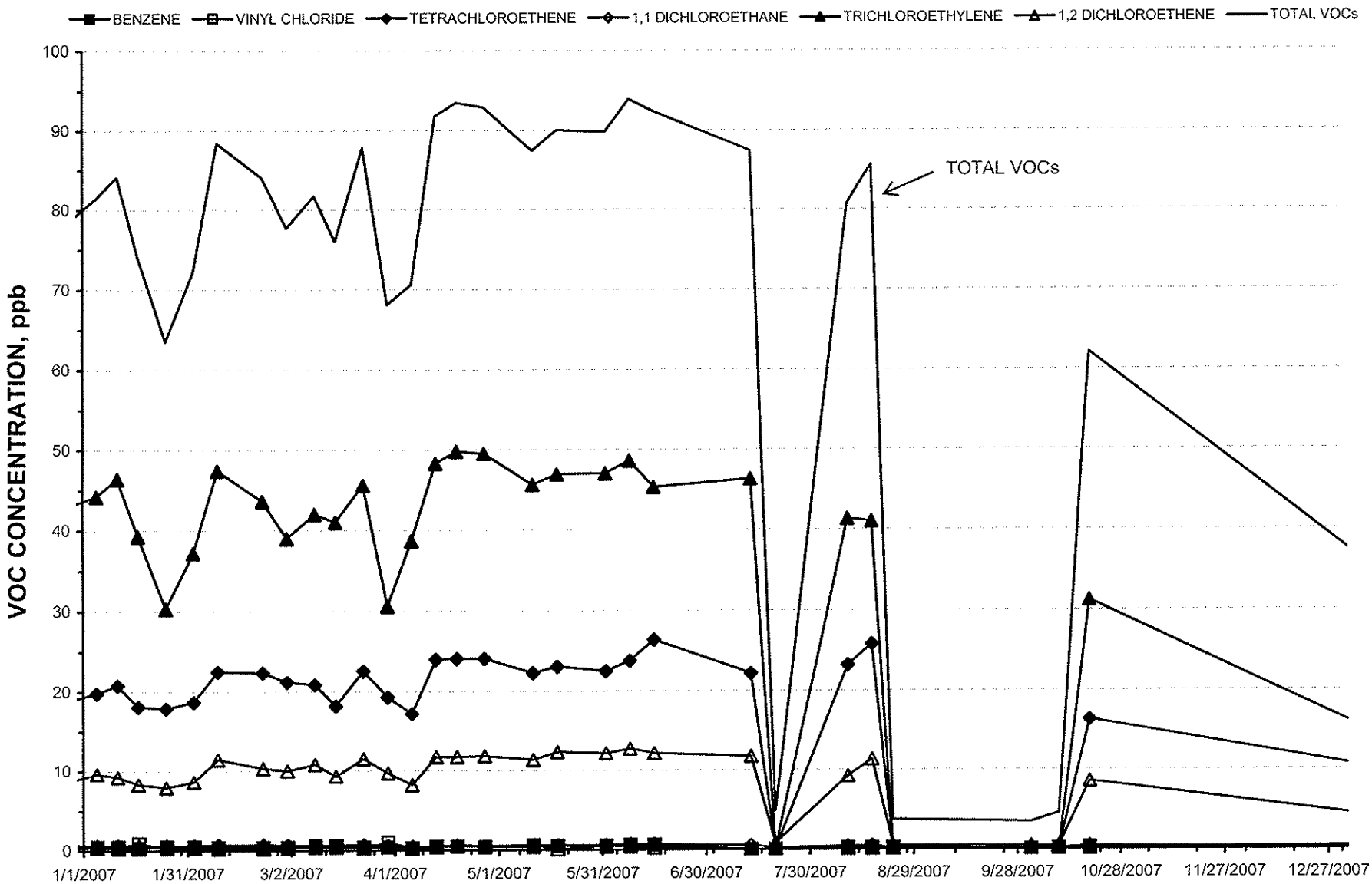
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-2



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 8

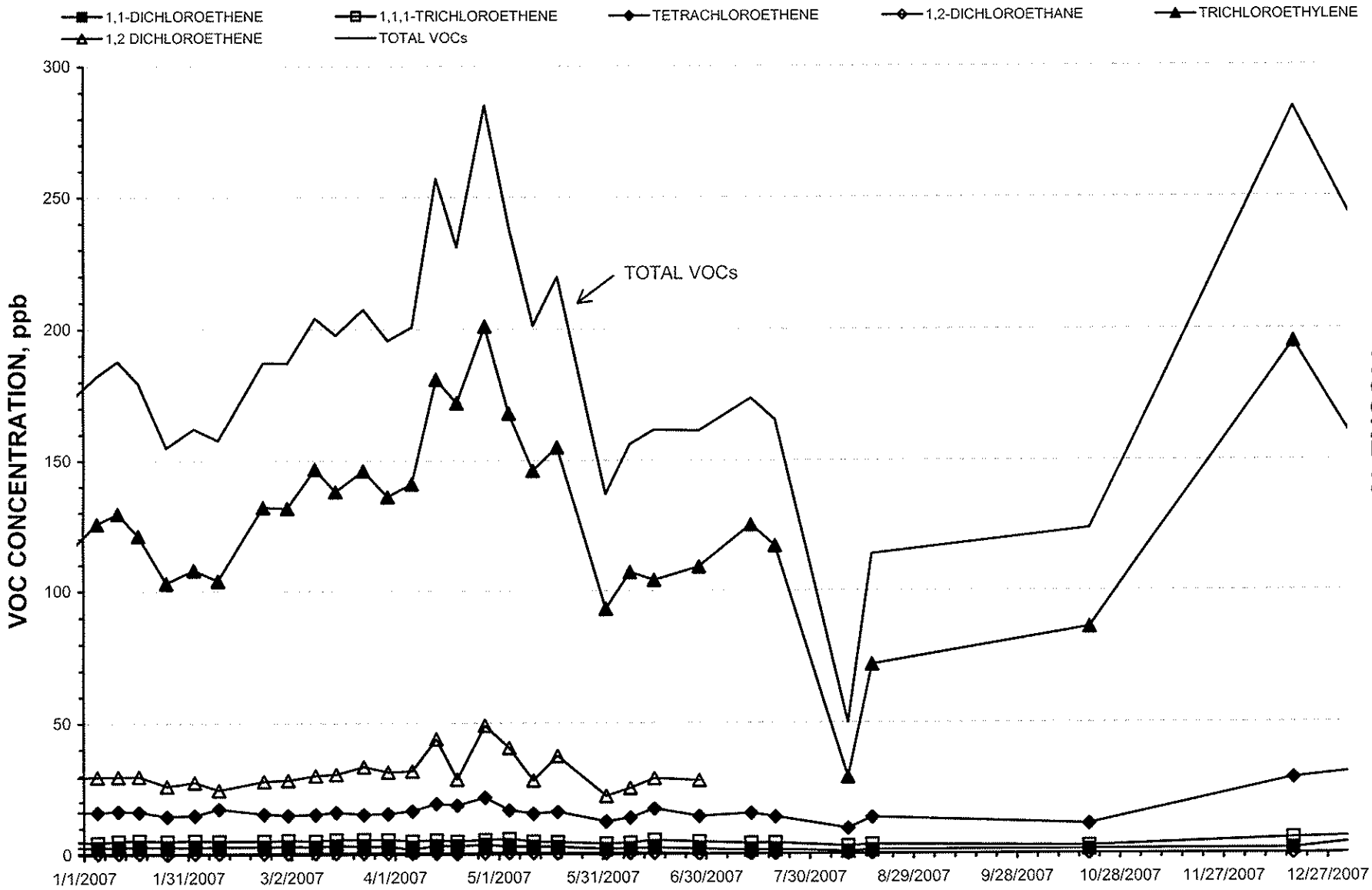
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-3



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 9

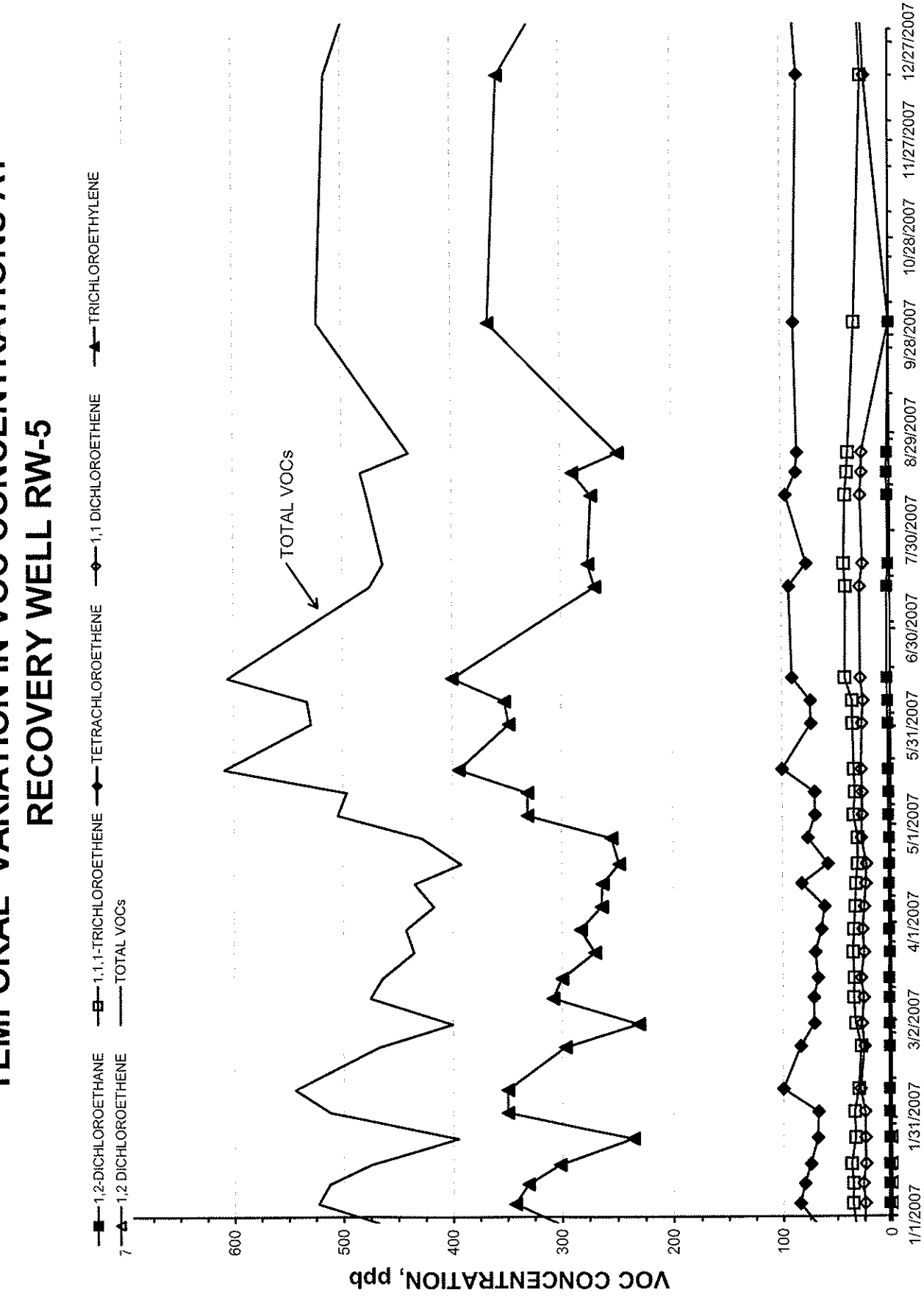
TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-4



TOWN OF OYSTER BAY GROUNDWATER TREATMENT FACILITY

FIGURE 10

FIGURE 11


TEMPORAL VARIATION IN VOC CONCENTRATIONS AT RECOVERY WELL RW-5
1,2-DICHLOROETHANE
1,1,1-TRICHLOROETHENE
TETRACHLOROETHENE
1,1 DICHLOROETHENE
TRICHLOROETHYLENE
1,2 DICHLOROETHENE
TOTAL VOCs
TOTAL VOCs
VOC CONCENTRATION, ppb
600
500
400
300
200
100
0
1/1/2007
1/31/2007
3/2/2007
4/1/2007
5/1/2007
5/31/2007
6/30/2007
7/30/2007
8/29/2007
9/28/2007
10/28/2007
11/27/2007
12/27/2007
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The fact that high total VOC concentrations were previously 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 2007.

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, particularly trichloroethene, in soil and groundwater.

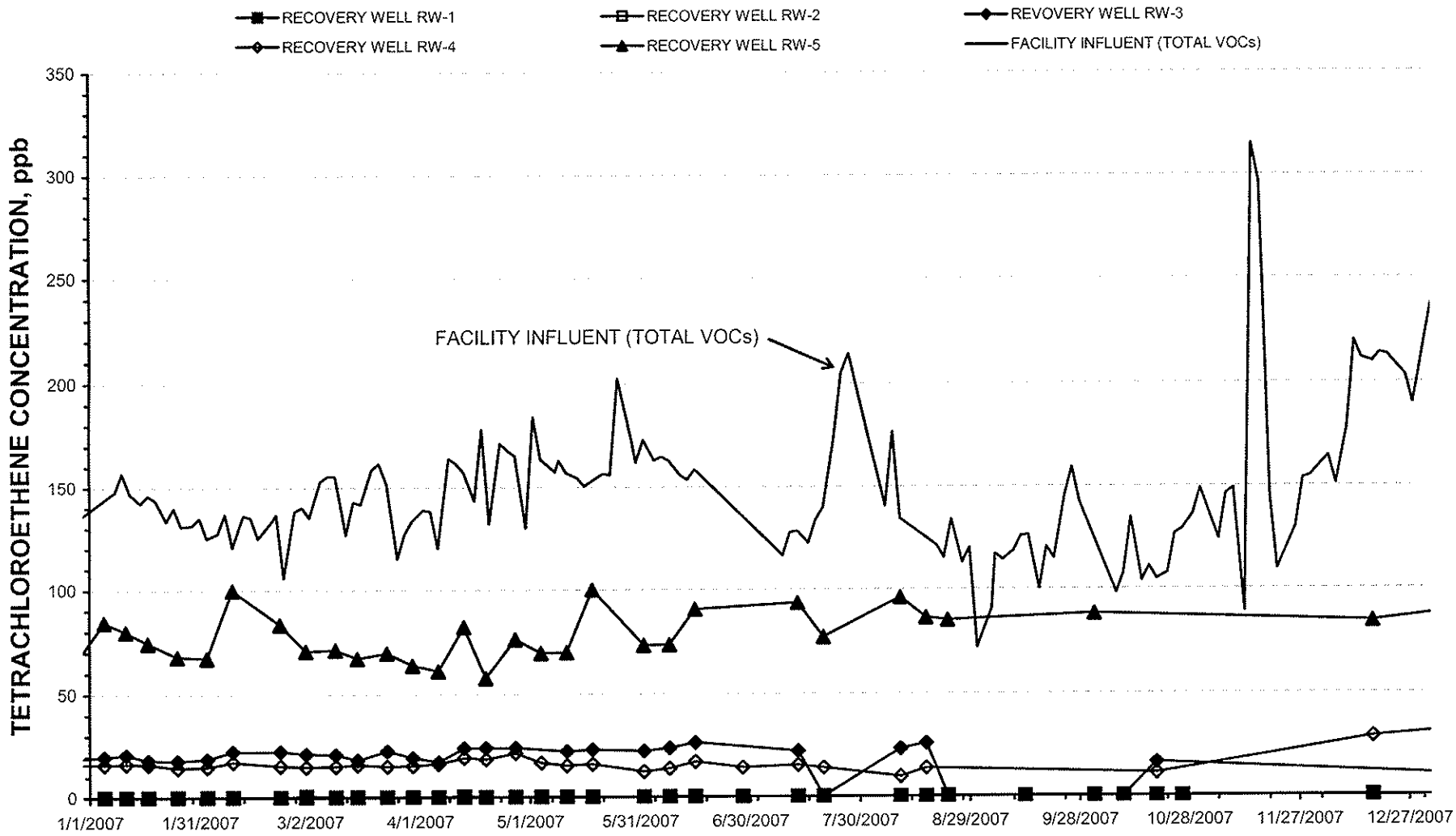
With respect to the Town’s recovery wellfield, the Claremont Site is located closest to, and hydraulically upgradient from, Recovery Well RW-5, and at increasing distance from Recovery Wells RW-4, RW-3, etc. The detected concentrations of tetrachloroethene, trichloroethene and several other VHO compounds 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 2007.

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 2007 indicate that the Landfill, and all other OBSWDC operations together, do not have a significant impact on ambient air quality in the vicinity of the OBSWDC. The results from the October 2007 annual thermal oxidizer test indicate that the thermal oxidizer continues to operate according to design and that the current air quality limits are satisfied. The results from the fourth quarter 2007 zero percent gas migration survey performed by Hazen & Sawyer verified that the zero gas migration line falls within the OBSWDC property line.

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 2007 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, the New York State Parks Department has completed construction of a pump station in Town Recharge Basin No. 33 and since the spring of 2008 has utilized the water in the basin for irrigating the Bethpage State Park Golf Course. This practice has largely eliminated past limitations on the ability to recharge the treated groundwater from the GTF.

Since the dimensions of the Landfill VOC plume have decreased somewhat in response to the ongoing remediation, some reduction in flow from the recovery wellfield may be possible without compromising hydraulic control of the plume. Flow reduction may be accomplished by reducing 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 during the winter months when there is little or no demand for golf course irrigation water.

It should be noted, however, that reducing the flow from Recovery Wells RW-3, RW-4 and/or RW-5 would reduce the amount of the Claremont Site off-site VOC plume captured by the Town's GTF. It should also be noted that reducing flow from Recovery Wells RW-1 and/or RW-2, which have relatively low total VOC concentrations, would increase the total VOC concentration of the influent to the GTF, possibly reducing the high degree of treatment efficiency historically obtained.

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, but that the concentrations of Landfill-related VOCs continue to exceed water-quality standards at certain locations. Moreover, the hydraulic and water-quality data collected at Well Cluster MW-8 during 2007 indicated that the on-site groundwater treatment system at the Claremont Site appears to be causing the shallow portion of the Landfill plume to shift slightly eastward locally.

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 VOCs, 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 apparently struck by State Park heavy equipment in late 2006 and cannot be located. The formerly wooded location of this well is now utilized for stockpiling wood chips, etc. 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 had been sampled voluntarily for VOCs on an annual basis 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, the Consent Decree requires monitoring of this well to demonstrate compliance with the termination criteria. Therefore, it is recommended that this well be located and restored, replaced in kind, or

that the RAP be amended to exclude monitoring of Well OBS-2 as part of future termination monitoring.

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 as soon as possible after they are returned to service. 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 prescribed 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

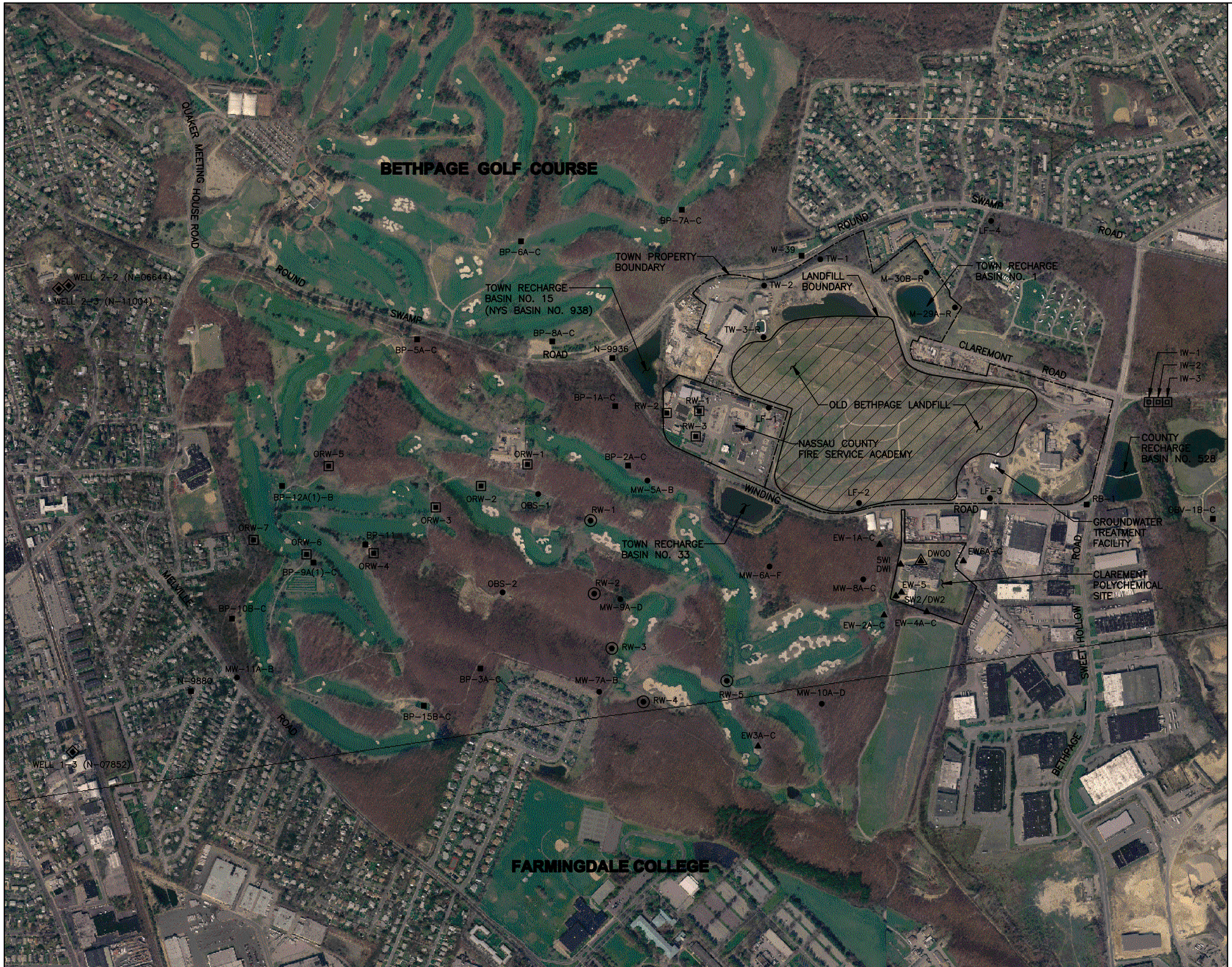
The discussion in Section 5.0 indicates that the current methodology is viable for assessing air quality impacts from the GTF at the OBSWDC property line. Therefore, it is recommended that this methodology continue to be used for subsequent reports.

6.2.6 Annual Zero Percent Methane Gas Migration Survey

It is recommended that the Town continue to perform this survey on an annual basis to verify that the zero percent methane gas migration line is within the OBSWDC property line and that the perimeter gas collection system is generally functioning as designed.

APPENDIX A

WELL LOCATION MAP



LEGEND:

- TOWN OF OYSTER BAY RECOVERY WELL (RW-1 THROUGH RW-5).
- TOWN OF OYSTER BAY MONITORING WELL OR WELL CLUSTER (AS INDICATED).
- NASSAU COUNTY RECOVERY WELL (RW-1 THROUGH RW-3, OR ORW-1 THROUGH ORW-7).
- NASSAU COUNTY INJECTION WELL (IW-1 THROUGH IW-3).
- NASSAU COUNTY MONITORING WELL OR WELL CLUSTER (AS INDICATED).
- CLAREMONT POLYCHEMICAL SITE DIFFUSION WELL (DW 00).
- CLAREMONT POLYCHEMICAL SITE MONITORING WELL OR WELL CLUSTER (AS INDICATED).
- VILLAGE OF FARMINGDALE SUPPLY WELL (WELLS 1-3, 2-2 AND 3-3).

NOTES:

1. TOWN WELLS LOCATED BY LKB.
2. COUNTY WELLS LOCATED BY NCDPW (ON-SITE FTC MONITORING WELLS NOT SHOWN).
3. CLAREMONT WELLS LOCATED BY USEPA AS PROVIDED ON PLATE 1, CONTAMINANTS DETECTED IN GROUNDWATER AND PROPOSED MONITORING WELL LOCATIONS, EBASCO SERVICES, INC. 1/6/93.
4. AERIAL PHOTOGRAPH DATE: 2004

REV.	DATE	REMARKS	BY

CLIENT

DEPARTMENT OF PUBLIC WORKS
TOWN OF OYSTER BAY
NASSAU COUNTY, N.Y.

LKB
LOCKWOOD, KESSLER & BARTLETT, INC.
CONSULTING ENGINEERS SINCE 1889 SYOSSET, NEW YORK

PROJECT TITLE
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX
OLD BETHPAGE LANDFILL GROUNDWATER REMEDIATION

DRAWING TITLE
WELL LOCATION MAP

DESIGN BY: J.G.	PROJECT NO. 4202-10
DRAWN BY: E.J.Z.	DRAWING NO. 101
CHECKED BY: J.G.	
DATE: AUGUST 2005	
SCALE: APPROX. 1"=400'	SHEET NO. 1 OF _

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

2007 Annual Summary Report

RTP Environmental Associates, Inc.
March 2008

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

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

2007 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 2008

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

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

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OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

EVALUATION OF VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR, 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 2007 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 2007 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 2007 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 (Figure 1.1). 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.

IMAGERY SOURCE: NYSGIS CLEARINGHOUSE

FIGURE 1.1

OBSWDC AND SURROUNDING AREA MAP

TOWN OF OYSTER BAY LANDFILL

BETHPAGE, NEW YORK

0 300 600 1,200 Feet

N

RTP Environmental Associates, Inc.
400 Post Avenue
Westbury, NY 11590
P:(516) 333-4526 F:(516) 333-4571

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 with portions beginning operation in 1981. 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. 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 2007 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. A schematic of the sampling train, 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; however, a test will occasionally be performed during steady to rising atmospheric pressure conditions to test ambient concentrations during rising pressure when landfill emissions are expected to be lower. For 2007, three (3) of the four (4) quarterly tests were conducted during periods of steady or slightly rising atmospheric pressure. The pressure for the first quarter event overall rose slightly 0.08 inches of mercury throughout the duration of the test. The pressure for the second quarter event rose by 0.09 inches of mercury throughout the duration of the test. The pressure for the third quarter event fell by 0.11 inches of mercury throughout the duration of the test, and finally, the pressure for the fourth quarter event rose overall roughly 0.05 inches of mercury. Sampling for each quarterly test occurred over a consecutive 24-hour period.

Table 2.1 provides the months during which the quarterly test efforts for each year of the sampling program were conducted. Monitoring for the 2007 sampling program, which is evaluated herein, occurred in April, July, September and November 2007.

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. It was modified on September 10, 2007 and was used for comparison in the third and fourth quarter sampling efforts, as well as the annual average totals.

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
2007	April	July	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

2007 PROGRAM TARGET COMPOUND LIST
AND NYSDEC AMBIENT AIR GUIDELINE CONCENTRATIONS

CHEMICAL NAME	CAS NUMBER	AIRS CODE	24 HOUR SGC µg/m³	W (SGC)	AGC µg/m³	W (AGC)	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	13.000	D	5.000	E	M			H												
Carbon Disulfide	00075-15-0	6	6.200	D	700	E	M			H	I											
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	---		700	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	00156-59-2	4	---		63	D	M															
trans-1,2-Dichloroethene	00156-60-5	4	----		63	D	M															
1,2-Dichloropropane	00078-87-5	4	----		4.0	E	M			H												
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	68.000	A	1.000	A	L									R	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	Z	1.000	E	M			H	I											
1,1,2,2-Tetrachloroethane	00079-34-5	4	---		16	T	M			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	5.000	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	14.000	Z	0.50	D	M	U		H	I											
Trichlorofluoromethane	00075-69-4	6	68.000	A	1.000	A	L									R	R					
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 Asphyxiant.
(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 recently revised September 2007 and are still current as of March 2008.

Several changes to the TCL and analytical procedures had been made for the 1997 program and these changes apply to the 2007 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 New York State Department of Environmental Conservation (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 20 nanograms (ng) to five 5 ng. The PQL represents the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The analytical laboratory used for sample analysis, Holzmacher, McLendon & Murrell, P.C. (H2M), introduced a target tentatively identified compound (TIC) minimum detection limit of 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.

The 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 AGC/SGC 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. During the 2003 monitoring program the designation of decane was changed from an additional TIC to a targeted TIC on the TCL. This change was completed in December 2003 first becoming effective in the 2003 fourth quarter testing effort with an amendment in June 2004. From that revision, the AGC value for decane changed from 0.1 to 200 $\mu g/m^3$, and now is 700 $\mu g/m^3$ as per the most recent revision in September 2007. In September 2007, the NYSDEC revised many of the SGC/AGC ambient air guideline values, some of which have changed for compounds that are being tested for during the quarterly monitoring program. Most noticeably, the AGC value for 1,1,2,2-tetrachloroethane was modified from 0.017 to 16 $\mu g/m^3$. As previously stated, any changes in guidelines were incorporated in the third and fourth

quarterly reports for this year, as well as this 2007 annual summary report. The quoted values represent NYSDEC guidelines as of March 2008.

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 2007 Ambient Air Quality Data

Ambient air quality levels were monitored for each 24-hour sampling period at three (3) sampling locations during the 2007 sampling events. Figure 2.1 provides the locations of the ambient air sampling sites during each quarterly test. 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 as a screening procedure to assure that 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 (2) Tenax/Anasorb® sorbent cartridges were used in collocated ambient samplers U2 and D2, rather than the traditional one (1) Tenax and one (1) Tenax/Anasorb® combination used for collocated samples U1 and D1 (EPA Reference Method 0030) for the first two quarterly tests; however RTP elected to return to the original configuration for the third quarterly test. During the fourth quarterly test, the original approach was also 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 minor contaminant breakthrough may

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

IMAGERY SOURCE: NYSGIS CLEARINGHOUSE

Legend

▲ Ambient Sample ▭ Landfill Boundary

FIGURE 2.1

AMBIENT AIR SAMPLING LOCATIONS FOR 2007 EFFORTS

TOWN OF OYSTER BAY LANDFILL

BETHPAGE, NEW YORK

0 750 1,500 3,000 Feet

N

RTP Environmental Associates, Inc.
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Westbury, NY 11590
P:(516) 333-4526 F:(516) 333-4571

have occurred through the front (all Tenax) cartridges in the third and fourth quarterly efforts in 2007, particularly with several TICs for the fourth quarter sampling effort.

The results from ambient air samples during the 2007 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. Some of the split samples were also suspect for breakthrough and therefore, the sampling method was reverted to the primary configuration. All of the samplers ran for the intended 1,440 minutes throughout all four sampling events, which was an improvement from the 2006 quarterly efforts where at least one of the sampling pumps in each quarter incurred difficulty with running for the entire sampling period.

Table 2.3 provides data for the 2007 monitoring program at the downwind sampling locations. The 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 five (5) 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 exceedance 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 2007, 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, six (6) TCL constituents exceeded the level of the current NYSDEC AGCs during all quarterly tests. In addition, one (1) of the TICs

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
2007 Annual Summary

Quarterly I.D. Sample Identification	1st D1	2nd D1	3rd D3	4th D3	ANNUAL AVERAGE MAX DOWNWIND VALUE	CURRENT AGC	24 HOUR SGC
Lower Quantitation Limit (ug/m^3)	0.0254	0.0281	0.0304	0.0255	0.0273	---	---
Practical Quantitation Limit (ug/m^3)	0.0406	0.0449	0.0486	0.0408	0.0438	---	---
Target TIC Lower Quantitation Limit (ug/m^3)	0.1269	0.1404	0.152	0.128	0.1367	---	---
Constituent/Units	($\mu g/std\text{-}m^3$)	($\mu g/std\text{-}m^3$)	($\mu g/std\text{-}m^3$)	($\mu g/std\text{-}m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Acetone*	< 6.55E-01	1.10E+00	1.19E+00	1.58E+00	1.13E+00	28,000	180,000
Benzaldehyde**						0.10	-----
Benzene	< 5.20E-01	7.30E-01	< 2.96E+00	< 1.11E+00	1.33E+00	0.13	1,300
Bromodichloromethane						0.02	---
Bromoform*	< 4.31E-02		< 7.29E-02		5.05E-02	0.91	---
Bromomethane						5.0	3,900
2-Butanone*	< 3.50E-01	< 4.72E-01	< 6.63E-01	< 5.82E-01	5.17E-01	5,000	13,000
Carbon Disulfide						700	6,200
Carbon Tetrachloride	< 8.50E-01	7.89E-01	7.03E-01	8.09E-01	7.89E-01	0.067	1,900
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether**	3.30E-02	3.65E-02			8.73E-02	0.10	-----
Chloroform	< 1.97E-01	1.71E-01	1.52E-01	< 3.32E-02	1.16E-01	0.043	150
Chloromethane	< 3.55E-02		< 3.95E-02	< 7.40E-02	< 4.43E-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)	< 5.08E-02	< 1.52E-01	< 2.25E-01	< 1.65E-01	1.31E-01	0.09	---
1,1-Dichloroethane						0.63	---
1,2-Dichloroethane						0.038	---
1,1-Dichloroethene		< 7.58E-02			3.93E-02	70	---
cis-1,2-Dichloroethene		< 1.04E-01			4.63E-02	63	---
trans-1,2-Dichloroethene						63	-----
1,2-Dichloropropane	< 3.30E-02				2.92E-02	4.0	-----
1,3-Dichloropropene, cis & trans isomers						0.25	---
Ethylbenzene	< 2.66E-01	< 3.51E-01	< 4.41E-01	< 3.95E-01	3.63E-01	1,000	54,000
2/4-Ethyltoluene (total)	< 4.19E-01	< 7.16E-01	< 8.05E-01	< 7.53E-01	6.73E-01	0.10	
Freon 13**						1000	68,000
2-Hexanone*						48	4,000
Methylene Chloride	< 2.92E-01	5.53E-01	6.38E-01	4.64E-01	4.87E-01	2.10	14,000
4-Methyl-2-Pentanone*		< 9.55E-02	< 1.40E-01		7.92E-02	3,000	31,000
Styrene						1,000	17,000
1,1,2,2-Tetrachloroethane						16	---
Tetrachloroethene	< 2.13E-01	< 7.16E-01	< 4.71E-01	< 7.02E-01	5.26E-01	1.0	1,000
Toluene	< 8.25E-01	< 1.84E+00	< 2.75E+00	< 2.03E+00	1.86E+00	5,000	37,000
1,1,1-Trichloroethane	< 1.40E-01	2.61E-01	< 1.58E-01	< 9.95E-02	1.65E-01	1,000	68,000
1,1,2-Trichloroethane						1.40	---
Trichloroethene	< 1.43E+00	< 1.51E+00	< 2.02E+00	< 8.93E-02	2.01E+00	0.50	14,000
Trichlorofluoromethane	< 1.38E+00	1.50E+00	9.18E-01	1.43E+00	1.31E+00	1,000	68,000
Vinyl Chloride						0.11	180,000
Xylenes (Total)	< 1.15E+00	< 1.50E+00	< 1.90E+00	< 1.75E+00	1.58E+00	100	4,300
Decane**	< 1.83E-01	< 4.07E-01	< 5.02E-01	< 3.44E-01	3.59E-01	700	---

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
2007 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification	D1	D1	D3	D3	MAX DOWNWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.127	0.140	0.152	0.128	0.137	---	---
Constituent/Units	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
2-Methyl-pentane	< 5.46E-01	2.95E+00	2.16E+00	3.01E+00	< 2.17E+00	4,200	350,000
3-Methyl-pentane		< 1.36E+00				4,200	350,000
(DEL) Branched Alkane		< 6.32E-01		2.22E+00	< 7.83E-01	---	---
Branched Alkane (Total)			1.85E+00		5.62E-01	---	---
C3 subst. Benzene		< 8.01E-01	< 7.14E-01	< 5.23E-01	< 5.41E-01	0.13	1,300
2-Methyl-butane	< 6.22E-01	< 2.32E+00	< 1.08E+00	2.83E+00	< 1.71E+00	42,000	---
2-Methyl-hexane	< 4.44E-01	< 1.92E+00	< 1.20E+00	< 1.49E+00	< 1.27E+00	---	---
Hexane	< 6.73E-01	< 4.28E+00	< 1.75E+00	< 2.87E+00	< 2.39E+00	700	---
Isobutane		< 1.95E+00	< 8.05E-01	< 1.44E+00	< 1.08E+00	57,000	---
Dichlorodifluoromethane	< 4.44E-01	< 1.76E+00	< 7.14E-01	< 1.11E+00	< 1.01E+00	12,000	---
Butane	< 4.19E-01	< 2.15E+00		< 2.39E+00	< 1.28E+00	57,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu (Freon 113)	< 8.25E-01			< 8.80E-01	< 4.99E-01	180,000	960,000
1,3-Butadiene, 2-methyl		1.69E+00			5.23E-01	---	---
Octane			< 7.45E-01		2.85E-01	3,300	---
1,3-Pentadiene, (E)-			< 5.93E-01			---	---
Cyclopentane, methyl		< 5.20E-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-m^3).
- 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 Chloroethyl vinyl ether, 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 (recently revised September 2007 and still current as of March 2008) 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.

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
2007 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U2	U1	U1	U1	MIN UPWIND VALUE	AGC	SGC
Lower Quantitation Limit (ug/m3)	0.0265	0.0287	0.0152	0.0131	0.021	---	---
Practical Quantitation Limit (ug/m3)	0.0423	0.0458	0.0243	0.0209	0.030	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.1323	0.1433	0.0760	0.0654	0.095	---	---
Constituent/Units	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Acetone*	5.26E-01	1.11E+00	8.51E-01	8.64E-01	< 8.38E-01	28,000	180,000
Benzaldehyde**						0.10	----
Benzene	**< 7.01E-01**	**6.16E-01**	**4.56E-01**	**9.95E-01**	**< 7.00E-01**	0.13	1,300
Bromodichloromethane						0.02	---
Bromoform*			4.56E-02		3.87E-02	0.9	---
Bromomethane						5.0	3,900
2-Butanone*	< 9.79E-02	< 1.75E-01	4.56E-01	4.97E-01	< 3.06E-01	5,000	13,000
Carbon Disulfide					<	700	6,200
Carbon Tetrachloride	**< 5.95E-01**	**7.16E-01**	**6.69E-01**	**7.59E-01**	**< 6.85E-01**	0.07	1,900
Chlorobenzene						110	---
Chloroethane						10,000	---
Chloroethyl Vinyl Ether**						0.10	----
Chloroform	**< 7.67E-02**	**1.46E-01**	**1.25E-01**	**1.05E-01**	**< 1.13E-01**	0.043	150
Chloromethane	< 3.97E-02		3.04E-02	4.97E-02	< 3.71E-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)	**< 5.82E-02**	**< 1.15E-01**	**1.55E-01**	7.59E-02	**< 1.01E-01**	0.09	---
1,1-Dichloroethane						0.63	---
1,2-Dichloroethane						0.04	---
1,1-Dichloroethene						70	---
cis-1,2-Dichloroethene						63	---
trans-1,2-Dichloroethene						63	----
1,2-Dichloropropane	< 3.17E-02				2.22E-02	4.0	----
1,3-Dichloropropene, cis & trans isomers						0.25	---
Ethylbenzene	< 1.59E-01	< 3.58E-01	3.04E-01	3.14E-01	< 2.84E-01	1,000	54,000
2/4-Ethyltoluene (total)	**< 5.31E-01**	**< 7.02E-01**	**5.17E-01**	**5.76E-01**	**< 5.31E-01**	0.10	
Freon 13**						1,000	68,000
2-Hexanone*						48	4,000
Methylene Chloride	3.49E-01	6.13E-01	3.65E-01	3.66E-01	4.23E-01	2.10	14,000
4-Methyl-2-Pentanone*						3,000	31,000
Styrene					<	1,000	17,000
1,1,2,2-Tetrachloroethane						16	---
Tetrachloroethene	< 1.59E-01	< 3.30E-01	3.34E-01	5.24E-01	< 3.37E-01	1.0	1,000
Toluene	< 7.54E-01	< 1.82E+00	1.85E+00	1.78E+00	< 1.55E+00	5,000	37,000
1,1,1-Trichloroethane	< 8.99E-02	1.06E-01	1.06E-01		< 7.89E-02	1,000	68,000
1,1,2-Trichloroethane						1.4	---
Trichloroethene	**< 5.57E-01**	3.81E-01	**1.49E-01**	7.07E-02	**< 1.78E-01**	0.5	14,000
Trichlorofluoromethane	1.30E+00	1.29E+00	8.21E-01	1.26E+00	1.17E+00	1,000	68,000
Vinyl Chloride						0.11	180,000
Xylenes (Total)	< 6.48E-01	< 1.48E+00	1.22E+00	1.44E+00	< 1.19E+00	100	4,300
Decane**	< 2.12E-01	< 3.87E-01	2.43E-01	2.15E-01	< 2.64E-01	700	---

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
2007 Annual Summary

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT	24 HOUR
Sample Identification*	U2	U1	U1	U1	MIN UPWIND VALUE	AGC	SGC
TIC Lower Quantitation Limit (LQL)	0.132	0.143	0.076	0.065	0.104	---	---
Constituent/Units	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
2-Methyl-pentane	< 3.57E-01	1.81E+00	1.43E+00	2.62E+00	< 1.55E+00	4,200	350,000
(DEL) Branched Alkane (Total)	< 2.67E-01			1.26E+00	< 4.36E-01	---	---
C3 subst. Benzene	**< 3.84E-01**	**< 9.03E-01**			**3.57E-01**	0.13	---
2-Methyl-butane	< 3.31E-01	< 2.39E+00	1.06E+00	3.66E+00	< 1.86E+00	42,000	1,300
2-Methyl-hexane	< 3.31E-01	< 1.33E+00	9.12E-01		6.60E-01	---	---
Hexane	< 3.84E-01	2.55E+00	1.31E+00	2.17E+00	1.60E+00	700	---
Isobutane		< 1.45E+00		1.96E+00	< 9.05E-01	57,000	---
Dichlorodifluoromethane	< 1.52E+00	< 5.01E-01	6.69E-01	1.60E+00	< 1.07E+00	12,000	---
Butane	< 1.48E-01	< 2.02E+00		3.66E+00	< 1.48E+00	57,000	---
Nonanal	< 3.57E-01	< 1.10E+00			< 4.00E-01	---	---
Unknown (RT: 1.70-11.85)			6.08E-01		2.37E-01	---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu (Freon 113)	< 1.40E-01				< 1.06E-01	180,000	---
1-Chloro-1,1-difluoroethane	< 2.49E-01				1.33E-01	25,000	---
1,3-Butadiene, 2-methyl		1.66E+00			4.84E-01	---	960,000
Decanal		< 7.59E-01				---	---
1,2 Pentadiene + unknown			8.21E-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-m^3).
- 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 Chloroethyl vinyl ether, 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 (recently revised September 2007 and still current as of March 2008) 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.

identified at the upwind site, C3 substituted benzene exceeded the level of its respective AGC. Further, no target or tentatively Identified Compounds exceeded their respective SGC values. No collectable condensate samples were retrieved during any of the four quarterly sampling events, and therefore, the condensate samples were not reported.

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. In addition, the third quarter showed a possibility of 1,1,2,2-tetrachloroethane contamination; however, it is believed that the media itself may have been compromised for this compound and laboratory contamination has been ruled out. Their concentrations and confirmation testing methods will be monitored for the 2008 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 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 three (3) TCL constituents, benzene, carbon tetrachloride and 2/4-ethyltoluene (total), 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. Two (2) other compounds, 1,4-dichlorobenzene (p) and trichloroethene, 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.

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)	0.0273	0.0208	---	---
Target TIC Lower Quantitation Limit (ug/m3)	0.0438	0.0304	---	---
Practical Quantitation Limit (ug/m3)	0.1367	0.0949	---	---
Constituent/Units	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Acetone*	1.13E+00	< 8.38E-01	2.91E-01	28,000
Benzaldehyde**				0.10
Benzene	**1.33E+00**	**< 7.90E-01**	**6.31E-01**	0.13
Bromodichloromethane				0.02
Bromoform*	5.05E-02	3.87E-02	1.18E-02	0.91
Bromomethane				5.0
2-Butanone*	5.17E-01	< 3.06E-01	2.10E-01	5,000
Carbon Disulfide		<		700
Carbon Tetrachloride	**7.89E-01**	**< 6.85E-01**	**1.04E-01**	0.067
Chlorobenzene				110
Chloroethane				10,000
Chloroethyl Vinyl Ether**	8.73E-02		8.73E-02	0.10
Chloroform	**1.16E-01**	**< 2.13E-01**	2.73E-03	0.043
Chloromethane	< 4.43E-02	< 3.71E-02	7.16E-03	90
Dibromochloromethane		<		0.10
1,2-Dichlorobenzene (o)				360
1,3-Dichlorobenzene (m)				360
1,4-Dichlorobenzene (p)	**1.51E-01**	**< 1.01E-01**	2.97E-02	0.09
1,1-Dichloroethane				0.63
1,2-Dichloroethane				0.038
1,1-Dichloroethene	3.93E-02		3.93E-02	70
cis-1,2-Dichloroethene	4.63E-02		4.63E-02	63
trans-1,2-Dichloroethene				63
1,2-Dichloropropane	2.92E-02	2.22E-02	7.08E-03	4.0
1,3-Dichloropropene, cis & trans isomers				0.25
Ethylbenzene	3.63E-01	< 2.84E-01	7.97E-02	1,000
2,4-Ethyltoluene (total)	**6.73E-01**	**< 5.31E-01**	**1.42E-01**	0.10
Freon 13**				1,000
2-Hexanone*				48
Methylene Chloride	4.87E-01	4.23E-01	6.36E-02	2.10
4-Methyl-2-Pentanone*	7.92E-02		7.92E-02	3,000
Styrene		<		1,000
1,1,2,2-Tetrachloroethane				16
Tetrachloroethene	5.26E-01	< 3.37E-01	1.89E-01	1.0
Toluene	1.86E+00	< 1.55E+00	3.09E-01	5,000
1,1,1-Trichloroethane	1.65E-01	< 7.89E-02	8.57E-02	1,000
1,1,2-Trichloroethane				1.40
Trichloroethene	**2.01E+00**	**< 1.75E+00**	2.35E-01	0.50
Trichlorofluoromethane	1.31E+00	1.17E+00	1.42E-01	1,000
Vinyl Chloride				0.11
Xylenes (Total)	1.58E+00	< 1.19E+00	3.81E-01	100
Decane**	< 4.43E-02	< 3.71E-02	7.16E-03	700

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 ($\mu g/std\text{-}m^3$).
- 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 Chloroethyl vinyl ether, 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 (recently revised September 2007 and still current as of March 2008) 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.

In a further analysis of the ambient data collected during all four quarters of the 2007 sampling events, background TCL constituent concentrations (total averaged upwind sample concentrations) were subtracted from the total average downwind sample concentrations recorded at both locations downwind of the landfill in order to provide an estimate of the net impacts that the landfill, and all other OBSWDC activities taken together, have on local air quality. This analysis is done only for the constituents that exceeded their respective guideline values for the year. The net impact from this analysis showed that benzene continued to exceed its respective guideline value when comparing the upwind concentrations detected and/or the LQL for undetectable compounds to the downwind concentrations detected, suggesting the landfill or other OBSWDC onsite activities may have had a slight influence on the air quality in the vicinity of the landfill during the time of this quarterly test.

Additionally, the average annual results were analyzed to determine the impacts from the two different downwind locations. The net concentrations for the exceeding compounds varied. Carbon tetrachloride and 2/4 ethyltoluene exceeded, but only when the averaged upwind values were compared to the averaged collocated downwind (D1 & D2) values. The net concentrations for carbon tetrachloride and 2/4 ethyltoluene did not exceed when compared to averaged downwind location D3. Benzene continued to exceed its AGC standard at both downwind locations when compared to the averaged upwind locations. As with the previous analysis, all averages were taken for exceeding compounds from all four quarters for the 2007 sampling efforts.

In terms of the relative impact of the landfill, it deserves repeating that because minimum 2007 upwind sample concentrations were subtracted from maximum 2007 downwind sample concentrations, the ambient air impact analysis presented within this report takes a conservative approach rather than simply comparing 2007 average upwind concentrations with 2007 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 2007 monitoring

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

2.3 New York State VOC Monitoring Summary

The OBSWDC VOC results were also compared with state-wide VOC ambient air quality levels. This section summarizes VOC monitoring data collected by the NYSDEC. A comparison between State collected data and the OSBSWDC annual average results are also provided for all compounds that were detected in the VOST samples.

The NYSDEC first established an ambient air toxics monitoring program in 1985. The monitoring program expanded to a state-wide network in 1990. Currently, there are 14 monitoring locations throughout the State measuring over 40 VOCs. The goal of the NYSDEC monitoring program is to monitor air quality related to toxics in urban, industrial, residential and rural areas.

There are several land use characteristics immediately surrounding the landfill including industrial, urban and suburban; and therefore, it is difficult to classify the results collected in the vicinity of the landfill as any one land use. As such, it is important to compare the results with State monitoring data representing several different site characteristics. As shown in Figure 2.2, five locations based on several site characteristics represented at the landfill and a control (rural site) have been chosen for comparison to average concentration levels. A location in Troy Atrium in Troy, NY has been chosen to represent an urban area. Lackawanna in Erie County, NY was chosen to represent an industrial site. Whiteface Base Lodge located in Adirondack Park, Essex, NY has been chosen as a rural site for control comparison. LaTourette Golf Course in Richmond, NY was chosen to represent a suburban neighborhood, and finally, the two sites located at Fresh Kills landfill (East and West) in Staten Island, NY were chosen to represent releases from another landfill. The nearest monitoring site to the landfill is located at the La Tourette Golf Course in Staten Island, NY, located approximately forty-nine (49) miles west southwest of the OBSWDC.

Table 2.6 provides annual average air toxic VOC concentrations for 2002 and 2003 at the urban, industrial, suburban/residential, landfill and a rural State monitoring site along with the VOC

SOURCE:
ESRI STREETMAP WORLD 2D

Location of facilities is approximate and should not be used to find exact coordinates.

0 37.5 75 150 Miles

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FIGURE 2.2

NYSDEC STATEWIDE VOLATILE ORGANICS NETWORK

Table 2.6- NYSDEC Air Toxic Concentrations at Various State Monitoring Sites. ($\mu g/m^3$)

Exceeding Compounds for 2007 Quarterly Efforts	TROY *Urban*		LACKAWANNA *Industrial*		Whiteface Mt. Base *Rural*		Fresh Kills Landfill West *Landfill*		Fresh Kills Landfill East *Landfill*		LaTourette Golf Course (Richmond) *Neighborhood*		TOB-OBSWDC *Landfill*	NYSDEC AGCs
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2007 Avg.	
Benzene	1.469	1.781	**3.336**	1.299	0.450	0.428	1.408	1.433	1.338	1.743	1.261	1.360	0.781	0.13
Bromodichloromethane	0.067	0.020	0.107	0.080	0.027	0.020	**0.121**	0.020	0.027	0.027	0.027	0.027	0.000	0.02
Bromomethane	0.074	0.054	0.085	0.074	0.066	0.058	**0.097**	0.074	0.081	0.070	0.074	0.078	0.000	5.0
Carbon Tetrachloride	0.748	0.729	**1.018**	0.704	0.767	0.692	0.773	0.717	0.792	0.692	0.754	0.723	0.717	0.07
Chlorobenzene	0.064	0.037	**0.083**	0.078	0.055	0.037	0.069	0.051	0.064	0.069	0.046	0.046	0.000	110
Chloroethane	**0.018**	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.007	10,000
Chloroform	0.166	0.176	0.161	0.166	0.098	0.102	0.181	0.171	0.181	**0.283**	0.166	0.185	0.113	0.04
Chloromethane	1.176	**1.649**	1.050	1.211	1.071	1.232	1.174	1.319	1.187	1.308	1.069	1.306	0.027	90
1,2-Dichlorobenzene (o)	**0.090**	0.010	0.017	0.016	0.013	0.009	0.015	0.012	0.012	0.013	0.011	0.011	0.000	360
1,3-Dichlorobenzene (m)	0.084	0.054	**0.102**	0.096	0.078	0.048	0.084	0.060	0.072	0.060	0.066	0.060	0.000	360
1,4-Dichlorobenzene (p)	**0.673**	0.517	0.180	0.168	0.204	0.066	0.252	0.204	0.330	0.282	0.264	0.234	0.118	0.09
1,2-Dichloroethane	0.069	0.057	0.085	**0.089**	0.057	0.061	0.028	0.065	0.061	0.065	0.057	0.065	0.004	0.04
1,1-Dichloroethene	0.020	0.004	0.036	**0.038**	0.012	0.008	0.020	0.008	0.008	0.012	0.008	0.012	0.011	70
1,2-Dichloropropane	0.023	0.009	0.037	**0.111**	0.014	0.018	0.023	0.014	0.009	0.018	0.009	0.023	0.005	4.0
Ethylbenzene	0.620	0.655	0.443	0.412	0.113	0.204	0.720	0.529	**0.759**	0.594	0.607	0.490	0.311	1,000
Styrene	0.247	0.187	0.226	0.183	0.123	0.089	0.238	0.175	**0.566**	0.311	0.213	0.166	0.000	1,000
1,1,2,2-Tetrachloroethane	0.096	0.089	**0.117**	**0.117**	0.034	0.069	0.041	0.089	0.021	0.096	0.021	0.089	0.004	16.0
Tetrachloroethene	0.237	0.237	0.264	0.298	0.108	0.102	0.447	0.474	0.535	**0.556**	0.420	0.522	0.438	1.0
Toluene	3.295	**4.798**	2.259	3.197	0.459	1.032	4.188	3.958	3.577	3.762	3.144	3.363	1.627	5,000
1,1,1-Trichloroethane	0.278	0.224	0.311	0.305	0.256	0.218	0.747	**1.538**	0.278	0.251	0.262	0.240	0.129	1,000
1,1,2-Trichloroethane	0.033	0.016	0.093	**0.104**	0.022	0.022	0.033	0.016	0.016	0.093	0.016	0.022	0.000	1.40
Trichloroethene	0.097	0.145	0.118	0.107	0.032	0.086	0.145	0.145	0.188	0.172	0.166	0.145	**1.962**	0.50
Trichlorofluoromethane	1.830	**2.044**	1.651	1.696	1.696	1.780	1.712	1.886	1.881	1.909	1.740	1.914	1.239	1,000
Vinyl Chloride	0.010	0.000	0.010	0.001	0.005	0.000	0.010	0.003	**0.018**	0.008	0.003	0.003	0.000	0.11
Xylenes (Total)	2.499	**2.855**	1.775	1.783	0.330	0.894	0.926	2.234	2.694	2.382	2.434	2.087	1.329	100

Notes:

- TOB-OBSWDC site is presented for comparison with the NYSDEC monitoring data. The TOB sites are not an official part of the NYSDEC Air Toxic Program.

- The NYSDEC data was only available up to 2003. As such, the two most current annual data averages were presented for comparison with the current 2007 average data from OBSWDC.

- Values in red represent the highest individual average annual compound concentration for the monitoring sites presented in this comparison.

- Values in shaded areas are at or exceed the level of the current (recently revised September 2007 and still current as of March 2008) and/or previous ambient air Annual Guideline Concentration (AGC) values.

concentrations from the OBSWDC 2007 air tests, as these are the latest sample years available. Upwind and downwind sample results for the OBSWDC tests represent the average concentrations at all four (4) quarterly sampling events. OBSWDC data for both upwind and downwind samplers were used to more closely compare with the NYSDEC data since the NYSDEC does not differentiate samplers as upwind or downwind. OBSWDC samples have been presented as the total annual average of combined upwind and downwind results in order to provide a more accurate value for comparison. It is important to note, however, that 2007 OBSWDC values being presented as representative of the annual average have been taken under similar meteorological conditions in four (4) seasonal quarters for a total of 20 tests per compound throughout the year. The NYSDEC VOC values have been taken once every six days regardless of meteorological conditions for the entire year amounting to roughly 60 samples. Although the amount of samples taken are lower and the sampling method is not known, it is believed that the results are comparable.

Aside from the TOB-OBSWDC 2007 annual average data, the values presented in Table 2.6 include only compounds measured by the NYSDEC. Lackawanna, the industrial site, detected the highest concentrations for five compounds in both 2002 and 2003, which was the most as compared to the other sites provided in this comparison. For most compounds, the OBSWDC results were below the average ambient air quality levels monitored at the other five (5) selected NYSDEC monitoring sites, including the rural site at Whiteface Mountain located in Adirondack Park. However, TOB-OBSWDC recorded a higher concentration for trichloroethene. It is worth noting that five (5) compounds, benzene, bromodichloromethane, carbon tetrachloride, chloroform, 1,4-dichlorobenzene (p) and 1,2-dichloroethane were detected in excess of the annual average data collected at the Whiteface Mountain site; however, the benzene concentration was below the data collected at all the other compared locations. Although the concentration for trichloroethene was highest for the OBSWDC compared to the other five locations, the source of this compound is most likely attributed to off-site industrial sources as opposed to actual landfill activities.

This demonstrates the air quality at many locales throughout New York State exceed certain State AGC guidelines. It is important to remember the NYSDEC monitoring data provided in Table 2.6 represents the most recent annual average concentrations. As such, it is not appropriate to directly compare the OBSWDC 2007 annual average ambient air results to State AGC values from 2002 and 2003, and they

are only provided as a general reference. However, the data in Table 2.6 clearly shows the TOB-OBSWDC annual results are below ambient VOC concentrations collected in other parts of state, representing various land uses.

2.4 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 seventeen 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 2007 and in 2006 (as well as results from previous years) confirm that benzene, carbon tetrachloride 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 and again in September 2007, it has not exceeded its new AGC value. Further, the compound 1,1,2,2-tetrachloroethane typically exceeded its AGC standard; however, with the revision of the guideline value from 0.017 to 16 $\mu g/m^3$ in September 2007, it has not exceeded its guideline value. Nevertheless, RTP will continue to monitor these target compounds as part of the Consent Decree. In addition, benzaldehyde, chloroethyl vinyl ether and tetrachloroethene were in excess of their respective AGC guideline values in both upwind and downwind samples during 2006, although these compounds are normally detected during quarterly sampling, they were detected in lower concentrations for 2007 and did not demonstrate consistent exceedances of their respective guideline values.

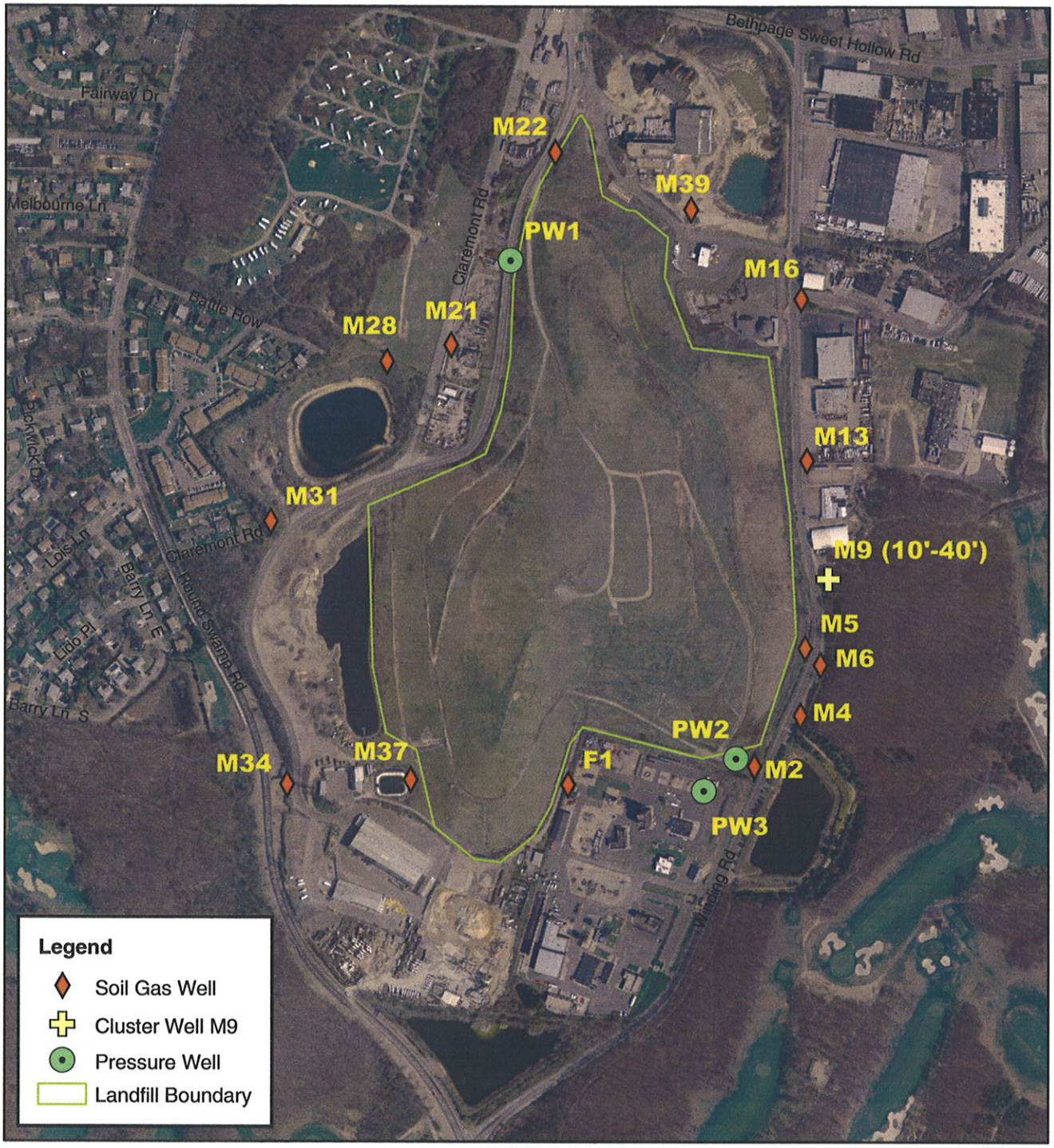
Several compounds observed in upwind and downwind samples during the first two years of monitoring appear at slightly higher concentration values when compared to 2007 values. The decrease for some compounds may, in part, be attributed to landfill capping which was completed in January 1993 and the decrease in landfill gas generation which is expected to occur with time as the landfill ages. Furthermore, the 2007 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. The comparison with similar air toxics data collected by NYSDEC at other sites in the State

indicates that the levels at the OBSWDC are typically lower than in other industrial areas as shown in Section 2.3.

2.5 Analysis of 2007 Soil Gas VOC Concentration Data

The 2007 soil gas VOC samples provide data on the concentrations of TCL and TIC constituents in the soil gas in the vicinity of the landfill. Figure 2.3 provides the 2007 sampling locations. Soil gas concentrations of the identified constituents observed during the 2007 year of testing have been presented in the quarterly reports and summary tables are reproduced in Appendix B of this report. Table 2.7 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. 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 30-inch wells only. As shown in Table 2.7, a total of six (6) compounds averaged higher than their respective ambient air AGC value.

Individually, M5 provides the maximum total VOC concentration out of all the soil gas wells analyzed during the 2007 quarterly monitoring efforts. M39 demonstrated the highest VOC concentrations for all the other quarterly sampling efforts for 2007. The number of soil gas wells containing target compound constituents that had exceeded the level of their respective AGCs varied throughout the four 2007 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 air guidelines; although, the measured 10-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 air guidelines during 2007. Neither the NYSDEC nor Nassau County have developed VOC concentration guidelines for soils, and therefore, a direct comparison to applicable State regulations cannot be made; however New York State is currently considering vadose zone limits for soil gas concentrations. When these guideline values are promulgated, the quarterly and annual reports for soil gas collection at the Old Bethpage Landfill will be modified to address any applicable guidance.



IMAGERY SOURCE: NYSGIS CLEARINGHOUSE

FIGURE 2.3

SOIL GAS AND PRESSURE WELLS FOR 2007 EFFORTS

TOWN OF OYSTER BAY LANDFILL

BETHPAGE, NEW YORK

0 250 500 1,000 Feet

N

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400 Post Avenue
Westbury, NY 11590
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TABLE 2.7

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM SOIL GAS VOC SAMPLE RESULTS FROM 2007

Quarterly I.D.	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M39	M5	M39	M39	---	AGC
Lower Quantitation Limit (LQL)	0.469	0.895	0.461	0.454	0.606	---
Practical Quantitation Limit (PQL)	0.750	1.432	0.738	0.726	0.97	---
Targeted TIC LQL	2.35	4.48	2.31	2.27	2.85	---

Constituent/Units	(µg/std-m3)	(µg/std-m3)	(µg/std-m3)	(µg/std-m^3)	(µg/std-m^3)	(µg/m^3)
Acetone**	2.81E+00	1.30E+01	5.81E+00	2.63E+00	6.06E+00	28,000
Benzaldehyde* **		**< 2.46E+01**			**7.88E+00**	0.10
Benzene						0.13
Bromodichloromethane						0.02
Bromoform**		**< 3.49E+00**			**1.43E+00**	0.91
Bromomethane		< 1.97E+00			1.62E+00	5.0
2-Butanone**		< 9.67E+00			2.97E+00	5,000
Carbon Disulfide						700
Carbon Tetrachloride						0.067
Chlorobenzene						110
Chloroethane						10,000
Chloroethyl Vinyl Ether***						0.10
Chloroform	**7.50E+00**	**< 1.07E+00**	**4.43E+00**	**1.18E+00**	**5.15E+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						63
trans-1,2-Dichloroethene						63
1,2-Dichloropropane						4.0
1,3-Dichloropropene, cis & trans isomers						0.25
Ethylbenzene						1,000
2/4-Ethyltoluene (total)						0.10
Freon 13***						1,000
2-Hexanone**		< 8.86E+00			2.77E+00	48
Methylene Chloride	**8.44E+00**	**5.37E+00**	**4.89E+00**		**6.01E+00**	2.10
4-Methyl-2-Pentanone**		< 9.40E+00			2.90E+00	3,000
Styrene						1,000
1,1,2,2-Tetrachloroethane		< 6.00E+00			1.62E+00	16
Tetrachloroethene	**1.03E+01**	**< 4.92E+00**	**5.17E+01**	**2.72E+01**	**2.49E+01**	1.0
Toluene			7.38E-01		1.23E+00	5,000
1,1,1-Trichloroethane			5.54E-01	5.44E-01	7.50E-01	1,000
1,1,2-Trichloroethane						1.40
Trichloroethene			**9.23E-01**		**1.27E+00**	0.50
Trichlorofluoromethane	3.28E+00	< 1.34E+00	2.03E+00	2.18E+00	2.69E+00	1,000
Vinyl Chloride						0.11
Xylenes (Total)						100
Decane***						700

TABLE 2.7
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SUMMARY OF MAXIMUM SOIL GAS VOC SAMPLE RESULTS FROM 2007
ADDITIONAL TENTATIVELY IDENTIFIED COMPOUNDS

Quarterly	1st	2nd	3rd	4th	ANNUAL AVERAGE	CURRENT
Soil Gas Well Identification*	M39	M5	M39	M39	---	AGC
Additional TIC LQL	2.35	4.48	2.31	2.27	2.85	---

Constituent/Units	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	($\mu g/m^3$)	($\mu g/m^3$)
Undecane (plus unknowns)	3.56E+00				3.15E+00	---
Dichlorodifluoromethane			3.51E+00	3.09E+00	3.35E+00	12,000.0
1,1-Dichloro-1-fluoroethane			5.44E+00		3.63E+00	---
Chlorodifluoromethane	4.32E+00				3.34E+00	50,000.0
Unknown (RT: 1.70-11.85)			2.86E+00		2.99E+00	---
Unknown siloxane (RT: 13.91-13.97)			3.51E+00		3.15E+00	---
1-Chloro-1,1-difluoroethane	2.72E+00				2.94E+00	25,000
Acetic acid, methyl ester		< 4.92E+00			2.96E+00	1,400

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 ($\mu g/std\text{-}m^3$).
- 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 Chloroethyl vinyl ether, 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 (recently revised September 2007 and still current as of March 2008) 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.

The 2007 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 tests. In past years, constituent concentrations have increased with well depths which may be attributed to groundwater conditions at this location. Although this trend, overall constituents, was not as pronounced during 2007 as in previous years, levels of the principal contaminant, tetrachloroethene, continued to show a significant increase with depth in 2007.

2.6 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 have consistently exceeded the level their respective NYSDEC ambient air annual guideline values. In 2007, bromoform and methylene chloride were also in excess of their respective AGC air standard; however, carbon tetrachloride was not. It is critical to note that the subsurface soil gas data were only 10 minute samples which are not directly comparable to NYSDEC annual or short-term guideline concentration values for ambient air. As stated before, the NYSDEC and Nassau County do not have soil gas standards at this point, and therefore, a direct comparison to applicable regulations cannot be made; however, New York State is currently considering vadose zone limits. Should these guideline values be adopted, RTP shall provide analysis in future quarterly and annual reports for all effected efforts.

2.7 Analysis of 2007 Soil Gas Pressure Measurements

Soil gas pressure measurements were made during the 2007 testing program as prescribed in the Consent Order. The locations of the pressure wells are provided in Figure 2.3. PW1 and PW2 are on the OBSWDC property while PW3 is off-site at the NCFTC. PW1 and PW3 are located outside the perimeter collection system while PW2 is located within the perimeter collection system.

Soil gas pressure readings during 2007 were zero or negative with the exception of the second quarter effort, where some soil gas pressures were slightly positive. These results indicate that the landfill gas control system was operating normally according to its design in 2007. The summaries of soil gas pressure readings for the quarterly tests are provided in Appendix C.

3.0 SUMMARY AND CONCLUSIONS

In summary, the 2007 test program involved collecting data on ambient air and soil gas volatile organic compounds 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 and 1,4-dichlorobenzene, 2/4-ethyltoluene and trichloroethene had ambient air concentrations in excess of the level of their respective NYSDEC annual guideline concentrations. These compounds were measured in excess of the level of the guideline values at locations both upwind and downwind of the OBSWDC.

Once the average minimum upwind VOC concentrations (background levels) are subtracted from the peak downwind VOC concentration levels, only benzene, carbon tetrachloride and 2/4-ethyltoluene (total), when adjusted for background levels, exceeded the level of the guideline value downwind of the landfill.

The upwind and downwind values that 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, in most cases, is intended to occur during generally falling barometric pressure conditions which tend to maximize the observed impacts from any landfill source. Although three (3) out of four (4) quarterly sampling events for 2007 occurred during rising atmospheric pressure, the results from those tests are considered valid and representative of the overall conditions at the landfill complex. The downwind sampling locations were also positioned in order to maximize the recorded impact. A comparison of the data collected by the NYSDEC at other sites across the State indicated that the air quality in the area surrounding the OBSWDC is typical of other areas of the State.

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 TCL has been occasionally updated based on continuing reviews of TICs 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 State annual guideline concentrations both upwind and downwind of the OBSWDC in the past. Hexachloroethane, an additional TIC was found during the 2006 quarterly sampling efforts 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. This compound was not detected during the 2007 monitoring events, but is detected from time to time in the vicinity of the OBSWDC, the source(s) continues to be unknown. No additional precautions are recommended at this point since this compound was not detected in 2007 and all previous concentrations were below the State SGC limit.

In conclusion, the ambient VOC concentrations measured during the 2007 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 2007 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. RTP has since reverted to the traditional VOST configuration in order to allow for a more comparable analysis in the collocated samplers. RTP may elect to continue this sampling configuration in future quarterly efforts for 2008.

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 OBSWDC 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 air guidelines.

APPENDIX A

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

2007 ANNUAL SUMMARY REPORT

2007 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 2007

	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)	0.0254	0.0265	0.0254	0.0246	0.0397	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0406	0.0423	0.0406	0.0394	0.0635	8	8		
TARGETED TIC LQL	0.1269	0.1323	0.1269	0.1232	0.198	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]	< 7.06E-01	5.26E-01	< 6.55E-01	5.64E-01	7.14E-01	12	18	28,000	180,000
Benzaldehyde[3]								0.10	----
Benzene	**< 6.47E-01**	**< 7.01E-01**	**< 5.20E-01**	**< 4.56E-01**	**< 5.36E-01**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]			< 4.31E-02					0.91	---
Bromomethane								5.00	3,900
2-Butanone[2]	< 1.40E-01	< 9.79E-02	< 3.50E-01	< 2.54E-01	< 2.18E-01			5,000	59,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	**< 8.25E-01**	**< 5.95E-01**	**< 8.50E-01**	**< 6.28E-01**	**8.77E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane				7.88E-02	< 5.16E-02			10,000	---
Chloroethyl Vinyl Ether[3]			3.30E-02					0.10	----
Chloroform	**< 9.64E-02**	**< 7.67E-02**	**< 1.07E-01**	**< 8.13E-02**	**< 1.07E-01**			0.043	150
Chloromethane	< 4.06E-02	< 3.97E-02	< 3.55E-02	< 4.19E-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)	< 5.84E-02	< 5.82E-02	< 5.08E-02	< 4.68E-02	< 5.56E-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		< 3.17E-02	< 3.30E-02	< 3.20E-02				4.0	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	< 1.55E-01	< 1.59E-01	< 2.66E-01	< 2.46E-01	< 2.06E-01			1,000	54,000
2/4-Ethyltoluene (total)	**< 3.17E-01**	**< 3.31E-01**	**< 4.19E-01**	**< 3.82E-01**	**< 3.45E-01**			0.10	----
Freon 13[3]								---	560,000
2-Hexanone[2]								48	4,000
Methylene Chloride	< 2.66E-01	3.49E-01	< 2.92E-01	3.47E-01	4.17E-01	30	32	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	< 1.57E-01	< 1.59E-01	< 2.13E-01	< 2.02E-01	< 1.83E-01			1.0	1,000
Toluene	< 7.49E-01	< 7.54E-01	< 8.25E-01	< 7.76E-01	< 8.13E-01			400	37,000
1,1,1-Trichloroethane	< 1.22E-01	< 8.99E-02	< 1.40E-01	< 1.03E-01	1.31E-01			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene	**< 5.85E+00**	**< 5.57E+00**	**< 1.43E+00**	**< 1.29E+00**	**< 1.05E+00**			0.50	54,000
Trichlorofluoromethane	< 1.38E+00	1.30E+00	< 1.38E+00	1.43E+00	1.71E+00			---	560,000
Vinyl Chloride								0.11	180,000
Xylenes (Total)	< 6.47E-01	< 6.48E-01	< 1.15E+00	< 1.07E+00	< 8.53E-01			100	4,300
Decane[3]	< 2.16E-01	< 2.12E-01	< 1.83E-01	< 1.67E-01	< 2.58E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FIRST QUARTER 2007

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	0.127	0.132	0.127	0.123	0.198	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								0.10	450,000
2-Methyl-pentane	< 5.20E-01	< 3.57E-01	< 5.46E-01	< 4.06E-01	4.76E-01			4,200	350,000
3-Methyl-pentane								---	---
Branched Alkane (Total)								---	---
Branched Alkane (DEL)		< 2.67E-01			< 2.90E-01			---	---
C4 subst. Benzene								0.13	1,300
C3 subst. Benzene	**< 3.68E-01**	**< 3.84E-01**		**< 3.57E-01**	**< 3.81E-01**			0.13	1,300
2-Methyl-butane	< 5.46E-01	< 3.31E-01	< 6.22E-01		< 3.33E-01			42,000	---
1-Butene								---	---
1-Pentene								---	---
Hexane	< 4.44E-01	< 3.84E-01	< 6.73E-01	< 4.06E-01	6.55E-01			200	---
Dichlorodifluoromethane	< 5.20E-01	< 1.52E+00	< 4.44E-01	< 1.39E+00	< 8.13E-01			12,000	---
1-Chloro-1,1-difluoroethane		< 2.49E-01		< 2.76E-01				50,000	---
Unknown alkane (RT: 1.74-2.00)					< 4.09E-01			---	---
Ethane, 1,1,2-trichloro-1,2,2-triflu	< 7.74E-01	< 1.40E-01	< 8.25E-01	7.04E-01	< 5.75E-01			180,000	960,000
2-Methyl-Hexane	< 3.93E-01	< 3.31E-01	< 4.44E-01	< 4.06E-01	< 4.29E-01			3,300	---
Butane		< 1.48E-01	< 4.19E-01	3.35E-01	< 4.25E-01			45,000	---
Decanal					< 2.30E-01			---	---
Nonanal		< 3.57E-01			< 3.13E-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 June 2004 and still current as of June 2007) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the OBSWDC northern property boundary, approximately 75 feet northeast of the incinerator.

D1/D2: Ambient downwind samplers collocated in the south central portion of the landfill boundary on the landfill access road, just northwest of the Nassau County Fire Service Academy.

D3: Ambient downwind sampler located approximately 50 feet east from soil gas well M37on the southwestern corner of the landfill, near perimeter haul road

- 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 June 2004 and still current as of June 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.
- 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 2007

	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)	0.0287	0.0269	0.0281	0.0315	0.0272	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0458	0.0430	0.0449	0.0505	0.0435	8	8		
TARGETED TIC LQL	0.1433	0.1344	0.1404	0.1577	0.136	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/m^3)	(ug/m^3)
Acetone[2]	1.11E+00	2.85E+00	1.10E+00	1.74E+00	1.22E+00			28,000	180,000
Benzaldehyde[3]		**< 8.33E-01**			**< 1.03E+00**			0.10	----
Benzene	**6.16E-01**	**< 3.63E-01**	**7.30E-01**	**< 4.26E-01**	**5.35E-01**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]								0.91	---
Bromomethane								5.00	3,900
2-Butanone[2]	< 1.75E-01	5.30E-01	< 4.72E-01	< 3.22E-01	6.06E-01			5,000	59,000
Carbon Disulfide				< 3.79E-02				700	6,200
Carbon Tetrachloride	**7.16E-01**	**4.97E-01**	**7.89E-01**	**5.87E-01**	**5.03E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]			3.65E-02					0.10	----
Chloroform	**1.46E-01**	**9.68E-02**	**1.71E-01**	**< 1.14E-01**	**< 7.61E-02**			0.043	150
Chloromethane								90	22,000
Dibromochloromethane								0.10	---
1,2-Dichlorobenzene (o)								360	30,000
1,3-Dichlorobenzene (m)								360	30,000
1,4-Dichlorobenzene (p)	**< 1.15E-01**	**< 1.08E-01**	**< 1.32E-01**	**< 1.48E-01**	**< 1.36E-01**			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene			< 7.58E-02	< 5.36E-02	< 5.16E-02			70	---
cis-1,2-Dichloroethene			< 1.04E-01	< 6.62E-02	< 5.71E-02			1,900	---
trans-1,2-Dichloroethene								1,900	----
1,2-Dichloropropane								4.0	51,000
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	< 3.58E-01	< 3.36E-01	< 3.51E-01	< 3.31E-01	< 3.40E-01			1,000	54,000
2/4-Ethyltoluene (total)	**< 7.02E-01**	**< 6.59E-01**	**< 7.16E-01**	**< 6.78E-01**	**< 6.39E-01**			0.10	----
Freon 13[3]								---	560,000
2-Hexanone[2]					< 1.47E-01			48	4,000
Methylene Chloride	6.13E-01	1.37E+00	5.53E-01	1.39E+00	4.05E-01	22	24	2.10	14,000
4-Methyl-2-Pentanone[2]		< 5.38E-02	< 9.55E-02	< 8.52E-02	1.90E-01			3,000	31,000
Styrene								1,000	17,000
1,1,2,2-Tetrachloroethane					**< 3.26E-02**			0.017	---
Tetrachloroethene	< 3.30E-01	< 3.09E-01	< 7.16E-01	< 6.78E-01	< 6.11E-01			1.0	1,000
Toluene	< 1.82E+00	< 1.71E+00	< 1.84E+00	< 1.72E+00	< 1.73E+00			400	37,000
1,1,1-Trichloroethane	1.06E-01	< 6.99E-02	2.61E-01	1.70E-01	1.68E-01			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene	3.81E-01	< 3.36E-01	**< 4.51E+00**	**< 3.49E+00**	**4.02E+00**			0.50	54,000
Trichlorofluoromethane	1.29E+00	1.24E+00	1.50E+00	1.67E+00	8.02E-01			---	560,000
Vinyl Chloride								0.11	180,000
Xylenes (Total)	< 1.48E+00	< 1.38E+00	< 1.50E+00	< 1.40E+00	< 1.43E+00			100	4,300
Decane[3]	< 3.87E-01	< 3.90E-01	< 4.07E-01	< 4.57E-01	< 5.03E-01			200	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

SECOND QUARTER 2007

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	0.143	0.134	0.140	0.158	0.136	25	25		
VOC COMPOUND NAME	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ng)	(ng)	(ug/m³)	(ug/m³)
2-Methyl-pentane	1.81E+00	1.61E+00	2.95E+00	2.30E+00	1.36E+00			4,200	350,000
3-Methyl-pentane			< 1.36E+00					50.0	380
Branched Alkane (Total)		< 3.36E-01	< 6.32E-01	< 2.10E+00	< 1.02E+00			---	---
C3 subst. Benzene	**< 9.03E-01**	**< 6.32E-01**	**< 8.01E-01**		**< 6.93E-01**			0.13	1,300
2-Methyl-butane	< 2.39E+00	2.96E+00	< 2.32E+00	4.98E+00	< 1.64E+00			42,000	---
Cyclohexane		< 3.90E-01						6,000	---
Hexane	2.55E+00	1.56E+00	< 4.28E+00	2.21E+00	2.01E+00			200	---
Isobutane	< 1.45E+00	< 1.14E+00	< 1.95E+00	2.56E+00	< 1.35E+00			45,000	---
Dichlorodifluoromethane	< 5.01E-01		< 1.76E+00	< 6.15E-01	< 3.67E-01			12,000	---
1,1-Dichloro-1-fluoroethane				< 3.66E-01				---	---
Cyclopentane, methyl			< 5.20E-01					200	---
2-Methyl-Hexane	< 1.33E+00	< 1.14E+00	< 1.92E+00	< 1.40E+00	< 1.37E+00			---	---
Butane	< 2.02E+00	2.42E+00	< 2.15E+00	3.97E+00	< 1.43E+00			45,000	---
Decanal	< 7.59E-01							---	---
1,3-Butadiene, 2-methyl-	1.66E+00	< 1.81E+00	1.69E+00		< 5.84E-01			---	---
Nonanal	< 1.10E+00				< 5.84E-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 June 2004 and still current as of October 2007) by 0.4 (EPA averaging time adjustment factor).

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

D1/D2: Ambient downwind samplers collocatedapproximately 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 north 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 June 2004 and still current as of October 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.
- 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 2007

	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION[1]	U1	U2	D1	D2	D3	FB2	TB1	AGC	SGC[4]
LOWER QUANTITATION LIMIT (LQL)	0.0152	0.0287	0.0141	0.0271	0.0304	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0243	0.0458	0.0225	0.0434	0.0486	8	8		
TARGETED TIC LQL	0.0760	0.1433	0.0704	0.1355	0.152	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/m^3)	(ug/m^3)
Acetone[2]	8.51E-01	1.03E+00	1.38E+00	8.40E-01	1.19E+00	30		28,000	180,000
Benzaldehyde[3]								0.10	----
Benzene	**4.86E-01**	**< 4.73E-01**	**5.92E-01**	**< 5.28E-01**	**< 2.96E+00**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]	4.56E-02	< 6.88E-02	7.61E-02	< 7.32E-02	< 7.29E-02			0.91	---
Bromomethane								5.00	3,900
2-Butanone[2]	4.56E-01	< 3.67E-01	7.32E-01	6.29E-01	< 6.63E-01			5,000	13,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	**6.69E-01**	**6.73E-01**	**7.61E-01**	**7.67E-01**	**7.08E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]								0.10	----
Chloroform	**1.25E-01**	**1.46E-01**	**1.55E-01**	**1.30E-01**	**1.52E-01**			0.043	150
Chloromethane	3.04E-02			< 2.98E-02	< 3.95E-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)	**1.55E-01**	**< 1.75E-01**	**1.61E-01**	**2.06E-01**	**< 2.25E-01**			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane								0.038	---
1,1-Dichloroethene			1.69E-02	< 2.71E-02				70	---
cis-1,2-Dichloroethene			4.79E-02	< 4.07E-02				63	---
trans-1,2-Dichloroethene								63	----
1,2-Dichloropropane								4.0	----
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	3.04E-01	< 3.01E-01	3.66E-01	< 3.12E-01	< 4.41E-01			1,000	54,000
2/4-Ethyltoluene (total)	**5.17E-01**	**< 5.30E-01**	**5.63E-01**	**< 4.74E-01**	**< 8.05E-01**			0.10	----
Freon 13[3]								1,000	68,000
2-Hexanone[2]								48	4,000
Methylene Chloride	3.65E-01	4.04E-01	4.23E-01	3.74E-01	6.38E-01	60	30	2.10	14,000
4-Methyl-2-Pentanone[2]			1.30E-01	< 9.76E-02	< 1.40E-01			3,000	31,000
Styrene								1,000	17,000
1,1,2,2-Tetrachloroethane				< 3.79E-02		11		16	---
Tetrachloroethene	3.34E-01	< 3.01E-01	5.07E-01	< 4.74E-01	< 4.71E-01			1.0	1,000
Toluene	1.85E+00	< 1.65E+00	2.06E+00	< 1.86E+00	< 2.75E+00			5,000	37,000
1,1,1-Trichloroethane	1.06E-01	< 1.03E-01	2.11E-01	2.09E-01	< 1.58E-01			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene	**1.09E+00**	**< 1.13E+00**	**3.38E+00**	**< 3.27E+00**	**< 2.02E+00**			0.50	14,000
Trichlorofluoromethane	8.21E-01	9.11E-01	8.45E-01	7.13E-01	9.18E-01			1,000	68,000
Vinyl Chloride								0.11	180,000
Xylenes (Total)	1.22E+00	< 1.19E+00	1.49E+00	< 1.29E+00	< 1.90E+00			100	4,300
Decane[3]	2.43E-01	< 3.01E-01	2.68E-01	< 3.12E-01	< 5.02E-01			700	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

THIRD QUARTER 2007

SAMPLE TYPE	24-HR AMBIENT AIR SAMPLE					BLANK		CURRENT	24-HOUR
SAMPLE IDENTIFICATION (1)	U1	U2	D1	D2	D3	FB2	TB1	AGC	SGC****
ADDITIONAL TIC LQL	0.076	0.143	0.070	0.136	0.152	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/m^3)	(ug/m^3)
2-Methyl-pentane	1.43E+00	1.46E+00	2.11E+00	1.17E+00	2.16E+00			4,200	350,000
3-Methyl-pentane		< 7.59E-01		< 5.83E-01				4,200	350,000
Branched Alkane (Total)		< 4.73E-01			1.85E+00			---	---
C3 subst. Benzene		**< 4.44E-01**		**< 4.47E-01**	**< 7.14E-01**			0.13	1,300
2-Methyl-butane	1.06E+00	< 6.73E-01	2.06E+00	< 6.91E-01	< 1.08E+00			42,000	---
Hexane	1.31E+00	< 1.36E+00	1.72E+00	1.36E+00	< 1.75E+00			700	---
alpha-Pinene isomer (12.02)				< 3.66E-01				270	---
Isobutane			8.45E-01	< 5.28E-01	< 8.05E-01			57,000	---
Dichlorodifluoromethane	6.69E-01	< 7.02E-01		< 3.66E-01	< 7.14E-01			12,000	---
Propane, 1-chloro-2-methyl-				< 4.20E-01				200	---
Unknown (RT: 1.70-11.85)	6.08E-01	< 9.03E-01	8.73E-01					---	---
2-Methyl-Hexane	9.12E-01	< 9.60E-01	1.21E+00	< 9.08E-01	< 1.20E+00			---	---
1,3-Pentadiene, (E)-					< 5.93E-01			---	---
1,2 Pentadiene + unknown	8.21E-01	7.74E-01	1.15E+00	< 3.93E-01				---	---
Octane		< 6.45E-01		< 6.64E-01	< 7.45E-01			3,300	---

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 September 2007 and still current as of December 2007) by 0.4 (EPA averaging time adjustment factor).

U1/U2: Ambient upwind samplers collocated near the old incinerator No. 2 building approximately 150 feet northeast of the northeast building corner.

D1/D2: Ambient downwind samplers collocated approximately 200 feet south of the landfill perimeter road on the west side of the landfill.

D3: Ambient downwind sampler located approximately 100 feet southeast of soil gas well M37 on the southwest corner 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 September 2007 and still current as of October 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.
- 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 2007

	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)	0.0131	0.0260	0.0124	0.0239	0.0255	5	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.0209	0.0417	0.0199	0.0383	0.0408	8	8		
TARGETED TIC LQL	0.0654	0.1302	0.0620	0.1196	0.128	25	25		
VOC COMPOUND NAME	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(ng)	(ng)	(µg/m³)	(µg/m³)
Acetone[2]	8.64E-01	1.02E+00	1.41E+00	1.20E+00	1.58E+00			28,000	180,000
Benzaldehyde[3]								0.10	----
Benzene	**9.95E-01**	**< 9.51E-01**	**9.93E-01**	**< 9.93E-01**	**< 1.11E+00**			0.13	1,300
Bromodichloromethane								0.02	---
Bromoform[2]								0.91	---
Bromomethane								5.00	3,900
2-Butanone[2]	4.97E-01	< 3.59E-01	4.71E-01	< 4.50E-01	< 5.82E-01			5,000	13,000
Carbon Disulfide								700	6,200
Carbon Tetrachloride	**7.59E-01**	**7.34E-01**	**7.94E-01**	**8.04E-01**	**8.09E-01**			0.067	1,900
Chlorobenzene								110	---
Chloroethane								10,000	---
Chloroethyl Vinyl Ether[3]								0.10	----
Chloroform	**1.05E-01**	**1.09E-01**	**1.12E-01**	**1.17E-01**	< 3.32E-02			0.043	150
Chloromethane	4.97E-02	< 7.03E-02	2.23E-02	< 5.74E-02	< 7.40E-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)	7.59E-02	**< 1.07E-01**	**1.09E-01**	**< 1.24E-01**	**< 1.15E-01**			0.09	---
1,1-Dichloroethane								0.63	---
1,2-Dichloroethane		**< 8.33E-02**						0.038	---
1,1-Dichloroethene								70	---
cis-1,2-Dichloroethene								63	---
trans-1,2-Dichloroethene								63	----
1,2-Dichloropropane								4.0	----
1,3-Dichloropropene, cis & trans isomers								0.25	---
Ethylbenzene	3.14E-01	< 3.26E-01	3.47E-01	< 3.71E-01	< 3.95E-01			1,000	54,000
2/4-Ethyltoluene (total)	**5.76E-01**	**< 6.38E-01**	**6.70E-01**	**< 7.30E-01**	**< 7.53E-01**			0.10	----
Freon 13[3]								1,000	68,000
2-Hexanone[2]								48	4,000
Methylene Chloride	3.66E-01	4.45E-01	3.97E-01	5.26E-01	4.64E-01	14		2.10	14,000
4-Methyl-2-Pentanone[2]								3,000	31,000
Styrene								1,000	17,000
1,1,2,2-Tetrachloroethane								16	---
Tetrachloroethene	5.24E-01	< 5.34E-01	6.70E-01	< 6.82E-01	< 7.02E-01			1.0	1,000
Toluene	1.78E+00	< 1.76E+00	2.01E+00	< 2.07E+00	< 2.03E+00			5,000	37,000
1,1,1-Trichloroethane		< 8.85E-02	1.22E-01	< 1.12E-01	< 9.95E-02			1,000	68,000
1,1,2-Trichloroethane								1.40	---
Trichloroethene	7.07E-02	< 8.59E-02	7.44E-02	< 8.61E-02	< 8.93E-02			0.50	14,000
Trichlorofluoromethane	1.26E+00	1.51E+00	1.24E+00	1.44E+00	1.43E+00			1,000	68,000
Vinyl Chloride								0.11	180,000
Xylenes (Total)	1.44E+00	< 1.50E+00	1.59E+00	< 1.66E+00	< 1.75E+00			100	4,300
Decane[3]	2.15E-01	< 2.89E-01	3.47E-01	< 4.19E-01	< 3.44E-01			700	---

TABLE 4.1
Continued

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

AMBIENT AIR VOST SAMPLE RESULTS

FOURTH QUARTER 2007

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	0.065	0.130	0.062	0.120	0.128	25	25		
VOC COMPOUND NAME	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(ng)	(ng)	(µg/m^3)	(µg/m^3)
2-Methyl-pentane	2.62E+00	2.50E+00	2.73E+00	2.73E+00	3.01E+00			4,200	350,000
3-Methyl-pentane		< 1.29E+00						4,200	350,000
Branched Alkane (DEL)	1.26E+00	< 4.56E-01		1.72E+00	2.22E+00			---	---
C3 subst. Benzene		**< 4.56E-01**		**< 5.38E-01**	**< 5.23E-01**			0.13	1,300
2-Methyl-butane	3.66E+00	2.68E+00	3.97E+00	2.99E+00	2.83E+00			42,000	---
Cyclopentane, methyl-				< 1.65E-01				6,000	---
Hexane	2.17E+00	< 2.30E+00	2.73E+00	< 2.69E+00	< 2.87E+00			700	---
Isobutane	1.96E+00	< 1.34E+00	2.46E+00	< 1.73E+00	< 1.44E+00			57,000	---
Dichlorodifluoromethane	1.60E+00	< 1.21E+00	8.19E-01	< 1.06E+00	< 1.11E+00			12,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu		< 8.20E-01			< 8.80E-01			180,000	960,000
2-Methyl-Hexane		< 1.13E+00	1.22E+00	< 1.42E+00	< 1.49E+00			---	---
Butane	3.66E+00	< 2.36E+00	3.72E+00	< 2.45E+00	< 2.39E+00			45,000	---
Octane		< 4.04E-01						3,300	---
Nonane				< 4.19E-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 September 2007 and still current as of February 2008) by 0.4 (EPA averaging time adjustment factor).

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

D1/D2: Ambient downwind samplers collocated at the cusp along East Winding Road, just northwest of the Nassau County Fire Service Academy.

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

- 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 Chloroethyl vinyl ether, 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 September 2007 and still current as of February 2008) 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, SOILS AND SOIL GAS PRESSURE READINGS

2007 ANNUAL SUMMARY REPORT

2007 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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.484	0.483	0.487	0.993	0.486	0.487	0.485	0.972	0.486	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.774	0.773	0.780	1.589	0.778	0.780	0.777	1.555	0.78	---	---
TARGETED TIC LQL	2.42	2.42	2.44	4.97	2.43	2.44	2.43	4.86	2.43	---	---
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*	2.32E+00	2.51E+00	2.44E+00	< 1.59E+00	2.82E+00	2.63E+00	2.62E+00	3.69E+00	3.11E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*										5000	59,000
Carbon Disulfide						1.75E+00	5.83E-01	< 1.07E+00	1.56E+00	700	6200
Carbon Tetrachloride		**7.73E-01**		**< 1.09E+00**	**5.84E-01**					0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**8.70E-01**		**7.80E-01**		**1.26E+00**	**5.85E-01**	**7.77E-01**	**< 1.36E+00**	**7.78E-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**							4.85E+00		7.30E+00	---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	1.45E+00	1.93E+00	1.56E+00	**5.36E+00**	1.36E+00	1.27E+00	8.74E-01	**5.64E+00**	**2.72E+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	**5.03E+00**		6.82E-01	**< 2.78E+00**	5.84E-01	**4.39E+00**	**9.71E+00**	**< 1.21E+01**	**3.60E+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	1.64E+00	1.64E+00	1.66E+00	< 1.79E+00	1.65E+00	2.63E+00	3.50E+00	3.50E+00	4.67E+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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.42	2.42	2.44	4.97	2.43	2.44	2.43	4.86	2.43		
VOC COMPOUND NAME	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/m3)	(ug/m3)
Undecane										---	---
Dichlorodifluoromethane		3.77E+00	4.29E+00	< 5.96E+00	3.40E+00	4.29E+00	9.13E+00	< 1.21E+01	1.36E+01	12,000	---
1,1-Dichloro-1-fluoroethane	2.42E+00								3.11E+00	---	---
1-Chloro-1,1-difluoroethane										40,000	---
Dichlorotetrafluoroethane						3.12E+00	2.72E+01	< 3.35E+01	6.42E+01	17,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu									4.47E+00	180,000	960,000
Chlorodifluoromethane										---	---
Ethene, 1-chloro-1-fluoro										---	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
FIRST QUARTER 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.476	0.473	-	0.472	0.471	0.467	0.477	0.468	0.469		
PRACTICAL QUANTITATION LIMIT (PQL)	0.761	0.758	-	0.755	0.753	0.75	0.763	0.748	0.750		
TARGETED TIC LQL	2.38	2.37	-	2.36	2.35	2.34	2.39	2.34	2.35		
VOC COMPOUND NAME	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/std-m^3)	(ug/m^3)	(ug/m^3)
Acetone*	3.24E+00	1.52E+00		4.25E+00	4.90E+00	2.43E+00	2.96E+00	3.46E+00	2.81E+00	28,000	180,000
Benzaldehyde**										0.10	---
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*										5000	59,000
Carbon Disulfide	7.61E-01									700	6200
Carbon Tetrachloride				**8.49E-01**	**7.53E-01**	**5.61E-01**	**7.63E-01**	**7.48E-01**		0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	---
Chloroform	**1.24E+00**			**5.66E-01**		**6.54E-01**		**5.61E-01**	**7.50E+00**	0.043	150
Chloromethane							6.68E-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	**5.71E-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	**3.04E+00**	**2.75E+00**		2.08E+00	**2.35E+00**	**4.58E+00**	**2.39E+00**	**3.74E+00**	**8.44E+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	**4.95E+00**								**1.03E+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	2.09E+00			1.51E+00	1.60E+00	1.96E+00	1.43E+00	1.68E+00	3.28E+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 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.38	2.37	-	2.36	2.35	2.34	2.39	2.34	2.35	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)
Undecane	2.09E+01			1.79E+02					3.56E+00	---	---
Dichlorodifluoromethane	3.81E+00				4.43E+00		3.53E+00			12,000	---
1,1-Dichloro-1-fluoroethane								3.46E+01		---	---
1-Chloro-1,1-difluoroethane									2.72E+00	40,000	---
Dichlorotetrafluoroethane										17,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu										180,000	960,000
Chlorodifluoromethane		4.92E+00				5.42E+01		1.87E+02	4.32E+00	---	---
Ethene, 1-chloro-1-fluoro								7.39E+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 June 2004 and still current as of June 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.
- 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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.457	0.452	0.457	0.895	0.480	0.460	0.461	0.935	0.468	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.731	0.723	0.731	1.432	0.768	0.735	0.738	1.497	0.75	---	---
TARGETED TIC LQL	2.28	2.26	2.29	4.48	2.40	2.30	2.31	4.68	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*	1.83E+00	4.16E+00	1.46E+00	1.30E+01	2.59E+00	1.56E+00	1.85E+00	5.33E+01	3.37E+00	28,000	180,000
Benzaldehyde**				**< 2.46E+01**				**5.33E+01**		0.10	---
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*				**< 3.49E+00**						0.91	---
Bromomethane				< 1.97E+00						5.00	3900
2-Butanone*				< 9.67E+00				2.05E+01		5000	59,000
Carbon Disulfide							1.11E+00			700	6200
Carbon Tetrachloride		**6.33E-01**								0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	---
Chloroform	**3.38E+00**		**1.19E+00**	**< 1.07E+00**	**1.25E+00**	**1.47E+00**	**1.11E+00**	**< 1.22E+00**	**5.62E-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**							4.61E+00		7.02E+00	---	560,000
2-Hexanone*				< 8.86E+00				< 2.90E+00		48.0	4000
Methylene Chloride	**2.37E+00**	8.14E-01	**4.57E+00**	**5.37E+00**	**5.57E+00**	**5.33E+00**	**3.78E+00**	**1.76E+01**	**2.62E+00**	2.10	14,000
4-Methyl-2-Pentanone*				< 9.40E+00				3.18E+00		3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane				**< 6.00E+00**						0.017	---
Tetrachloroethene	**1.00E+01**	**1.36E+00**	**2.19E+00**	**< 4.92E+00**	**2.11E+00**	**1.38E+01**	**1.01E+01**	**< 1.45E+01**	**6.09E+01**	1.00	1,000
Toluene										400	37,000
1,1,1-Trichloroethane									5.62E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**1.10E+00**	**1.90E+00**						**< 1.12E+00**	**1.22E+00**	0.50	54,000
Trichlorofluoromethane	1.46E+00	1.63E+00	1.37E+00	< 1.34E+00	1.25E+00	4.96E+00	3.04E+00	3.46E+00	4.12E+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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.28	2.26	2.29	4.48	2.40	2.30	2.31	4.68	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)
2-Methyl-pentane										4,200	---
2-Methyl-butane										42,000	---
Hexane										200	---
Undecane										---	---
alpha-Pinene isomer (12.02)										270	---
Isobutane										45,000	---
Dichlorodifluoromethane		3.53E+00	3.84E+00			7.54E+00	1.01E+01	< 1.15E+01		12,000	---
1,1-Dichloro-1-fluoroethane	2.83E+00					8.92E+00			2.62E+00	---	---
Unknown (RT: 1.32-1.41)										---	---
Dichlorotetrafluoroethane							5.81E+00	< 1.92E+01	2.43E+00	17,000	---
Chlorodifluoromethane					4.03E+00					50,000	---
Butane										45,000	---
Dichlorodifluoromethane + cholodifluoromet										12,000+50,000	---
Ethane, 1,1-difluoro- + dichlorodifluorometh										40,000+12,000	---
Cyclotrisiloxane, hexamethyl-			2.65E+00							---	---
Ethene, 1-chloro-1-fluoro-						3.31E+00				---	---
Acetic acid, methyl ester				< 4.92E+00						1,400	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
SECOND QUARTER 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.474	0.473	-	0.466	0.461	0.468	0.469	0.466	0.460		
PRACTICAL QUANTITATION LIMIT (PQL)	0.759	0.757	-	0.746	0.738	0.75	0.750	0.746	0.736		
TARGETED TIC LQL	2.37	2.37	-	2.33	2.31	2.34	2.35	2.33	2.30		
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*	2.28E+00	2.08E+00		3.36E+00	1.29E+00	1.40E+00		1.59E+00	1.66E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene				**8.40E-01**			**1.22E+00**			0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*										5000	59,000
Carbon Disulfide		5.68E-01		8.40E-01						700	6200
Carbon Tetrachloride					**7.38E-01**	**5.62E-01**	**7.50E-01**	**7.46E-01**		0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**5.98E+00**	**7.38E+00**		**1.96E+00**	**6.46E-01**	**1.69E+00**	**1.22E+00**	**5.88E+00**	**5.06E+00**	0.043	150
Chloromethane							6.57E-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		**1.42E+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							5.63E-01			1,000	54,000
2/4-Ethyltoluene (total)							**8.44E-01**			0.10	----
Freon 13**										---	560,000
2-Hexanone*										48.0	4000
Methylene Chloride	**3.51E+00**	**3.88E+00**		**3.08E+00**	**3.23E+00**	**3.18E+00**	**8.72E+00**	**5.88E+00**	**2.30E+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	**2.75E+01**	**1.99E+01**		**1.40E+00**	7.38E-01	**1.03E+00**	**1.31E+00**	**1.03E+00**	**6.99E+01**	1.00	1,000
Toluene				1.31E+00		4.68E-01	3.66E+00			400	37,000
1,1,1-Trichloroethane	9.49E-01	1.51E+00					3.00E+00	1.03E+00	9.20E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene		**1.89E+00**			**2.58E+00**	**1.69E+00**	**3.85E+00**	**2.61E+00**	**8.28E-01**	0.50	54,000
Trichlorofluoromethane	3.70E+00	2.46E+00		2.05E+00	1.38E+00	1.50E+00	1.78E+00	2.15E+00	3.04E+00	---	560,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)				1.96E+00			2.53E+00			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
SECOND QUARTER 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.37	2.37	-	2.33	2.31	2.34	2.35	2.33	2.30		
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-pentane							4.32E+00			4,200	---
2-Methyl-butane						4.78E+00	8.82E+00	5.60E+00		42,000	---
Hexane							3.56E+00			200	---
Undecane								1.77E+01		---	---
alpha-Pinene isomer (12.02)					5.54E+00					270	---
Isobutane						4.03E+00	6.75E+00			45,000	---
Dichlorodifluoromethane									4.60E+00	12,000	---
1,1-Dichloro-1-fluoroethane		3.78E+00						2.52E+01		---	---
Unknown (RT: 1.32-1.41)							1.89E+01	1.96E+01		---	---
Dichlorotetrafluoroethane				3.54E+00						17,000	---
Chlorodifluoromethane				6.16E+00						50,000	---
Butane						3.56E+00	6.00E+00	4.76E+00		45,000	---
Dichlorodifluoromethane + cholodifluoromet	5.12E+00	4.73E+00								12,000+50,000	---
Ethane, 1,1-difluoro- + dichlorodifluorometh					7.75E+00					40,000+12,000	---
Cyclotrisiloxane, hexamethyl-					2.398523985	10.29962547				---	---
Ethene, 1-chloro-1-fluoro-								1.12E+01		---	---
Acetic acid, methyl ester										1,400	---

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 June 2004 and still current as of October 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.
- 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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.489	0.500	0.500	0.986	0.495	0.497	0.499	0.999	0.500	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.782	0.799	0.800	1.578	0.792	0.795	0.798	1.598	0.80	---	---
TARGETED TiC LQL	2.44	2.50	2.50	4.93	2.48	2.49	2.50	5.00	2.50	---	---
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*	2.93E+00	1.40E+00	8.00E-01	< 1.58E+00	6.63E+00	7.95E-01	4.79E+00	4.00E+00	4.80E+00	28,000	180,000
Benzaldehyde**										0.10	----
Benzene										0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*										5000	13,000
Carbon Disulfide								< 1.10E+00	6.00E-01	700	6200
Carbon Tetrachloride										0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	----
Chloroform	**1.27E+00**		**5.00E-01**	**< 1.38E+00**		**1.19E+00**	**1.30E+00**	**< 1.40E+00**	**6.00E-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)	**7.82E-01**					**5.96E-01**				0.09	---
1,1-Dichloroethane										0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										63	---
trans-1,2-Dichloroethene										63	----
1,2-Dichloropropane										4.00	----
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	----
Freon 13**										1000	68,000
2-Hexanone*										48.0	4000
Methylene Chloride	2.05E+00	1.60E+00	1.60E+00	**2.66E+00**	1.29E+00	1.19E+00	9.98E-01	**3.20E+00**	8.00E-01	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane										16	---
Tetrachloroethene	**1.27E+01**	**2.20E+00**	**2.20E+00**	**< 1.43E+01**	**3.17E+00**	**1.89E+01**	**1.80E+01**	**< 3.45E+01**	**8.00E+01**	1.00	1,000
Toluene	6.84E-01						8.98E-01			5000	37,000
1,1,1-Trichloroethane						5.96E-01	5.99E-01	< 1.10E+00	7.00E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene		**1.80E+00**		**< 1.18E+00**				**< 9.99E-01**	**1.20E+00**	0.50	14,000
Trichlorofluoromethane	2.74E+00	1.60E+00	2.00E+00	2.27E+00	2.18E+00	5.67E+00	4.69E+00	5.59E+00	6.80E+00	1000	68,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										700	---

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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.44	2.50	2.50	4.93	2.48	2.49	2.50	5.00	2.50	(ug/m³)	(ug/m³)
VOC COMPOUND NAME	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)	(ug/std-m³)		
Cyclohexanol,methyl-methyletheny isomer	3.92E+01									560	---
Hexane							3.09E+00			700	---
Undecane										---	---
Dichlorodifluoromethane	5.57E+00	3.90E+00	3.30E+00	< 8.97E+00	5.64E+00	7.36E+00	1.20E+01	< 1.85E+01	2.50E+01	12,000	---
1,1-Dichloro-1-fluoroethane									2.80E+00	---	---
Unknown siloxane (RT: 13.91-13.97)										---	---
Unknown (RT: 1.70-11.85)										---	---
Dichlorotetrafluoroethane				< 5.97E+01	1.88E+01		1.10E+01	4.68E+01	1.10E+02	17,000	---
Cyclotrisiloxane, hexamethyl-									2.90E+00	---	---
Octenal,dimethyl-,isomer	3.32E+01									---	

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
THIRD QUARTER 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.446	0.466	-	0.475	0.455	0.467	0.459	0.454	0.461		
PRACTICAL QUANTITATION LIMIT (PQL)	0.714	0.745	-	0.760	0.728	0.75	0.735	0.727	0.738		
TARGETED TIC LQL	2.23	2.33	-	2.37	2.27	2.34	2.30	2.27	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*	3.48E+00	3.91E+00		3.51E+00	5.73E+00	2.99E+00	3.12E+00	2.27E+00	5.81E+00	28,000	180,000
Benzaldehyde**										0.10	---
Benzene		**7.45E-01**						**4.54E-01**		0.13	1300
Bromodichloromethane										0.02	---
Bromoform*										0.91	---
Bromomethane										5.00	3900
2-Butanone*										5000	13,000
Carbon Disulfide						6.54E-01				700	6200
Carbon Tetrachloride										0.067	1,900
Chlorobenzene										110	---
Chloroethane										10,000	---
Chloroethyl Vinyl Ether**										0.10	---
Chloroform	**6.24E+00**	**1.68E+00**				**7.48E-01**			**4.43E+00**	0.043	150
Chloromethane							7.35E-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	**1.25E+00**									0.63	---
1,2-Dichloroethane										0.038	---
1,1-Dichloroethene										70.00	---
cis-1,2-Dichloroethene										63	---
trans-1,2-Dichloroethene										63	---
1,2-Dichloropropane										4.00	---
1,3-Dichloropropene, cis & trans isomers										0.25	---
Ethylbenzene										1,000	54,000
2/4-Ethyltoluene (total)										0.10	---
Freon 13**										1000	68,000
2-Hexanone*										48.0	4000
Methylene Chloride	1.61E+00	1.58E+00		**2.18E+00**	1.73E+00	**2.43E+00**	**2.85E+00**	**4.45E+00**	**4.89E+00**	2.10	14,000
4-Methyl-2-Pentanone*										3,000	31,000
Styrene										1,000	17,000
1,1,2,2-Tetrachloroethane				5.70E-01						16	---
Tetrachloroethene	**2.32E+01**	**1.68E+01**			5.46E-01	8.41E-01		8.17E-01	**5.17E+01**	1.00	1,000
Toluene	7.14E-01	3.82E+00		1.42E+00			9.18E-01		7.38E-01	5000	37,000
1,1,1-Trichloroethane	2.05E+00	5.59E-01							5.54E-01	1,000	68,000
1,1,2-Trichloroethane										1.40	---
Trichloroethene	**1.69E+00**			**1.80E+00**				4.54E-01	**9.23E-01**	0.50	14,000
Trichlorofluoromethane	2.59E+00	2.05E+00		1.33E+00	1.27E+00	1.40E+00	1.38E+00	1.36E+00	2.03E+00	1000	68,000
Vinyl Chloride										0.11	180,000
Xylenes (Total)										100	4,300
Decane**										700	---

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 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	Current	Current
ADDITIONAL TIC LQL	2.23	2.33	-	2.37	2.27	2.34	2.30	2.27	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)
Cyclohexanol,methyl-methyletheny isomer										560	---
Hexane		2.89E+00								700	---
Undecane								1.63E+01		---	---
Dichlorodifluoromethane	5.26E+00	4.47E+00		3.13E+00	2.91E+00	3.55E+00	4.13E+00	3.81E+00	3.51E+00	12,000	---
1,1-Dichloro-1-fluoroethane	3.48E+00	8.10E+00				2.99E+00		4.36E+00	5.44E+00	---	---
Unknown siloxane (RT: 13.91-13.97)		2.51E+00							3.51E+00	---	---
Unknown (RT: 1.70-11.85)									2.86E+00	---	---
Dichlorotetrafluoroethane										17,000	---
Cyclotrisiloxane, hexamethyl-	2.50E+00	3.35E+00				3.46E+00		2.45E+00		---	---
Octenal,dimethyl-,isomer										---	---

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 June 2004 and still current as of October 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.
- 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 2007

SOIL GAS WELL ID	FI	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	FB1	Current	Current
LOWER QUANTITATION LIMIT (LQL)	0.472	0.469	0.473	0.935	0.466	0.505	0.514	1.030	0.515	5	AGC	SGC
PRACTICAL QUANTITATION LIMIT (PQL)	0.755	0.750	0.757	1.497	0.746	0.807	0.823	1.648	0.82	8	---	---
TARGETED TIC LQL	2.36	2.35	2.37	4.68	2.33	2.52	2.57	5.15	2.57	25	---	---
VOC COMPOUND NAME	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(ng)	(µg/m^3)	(µg/m^3)
Acetone*	7.08E+00	7.13E+00	2.37E+00	5.89E+00	3.17E+00	4.14E+00	1.54E+00	3.81E+00	3.09E+00	33	28.000	180.000
Benzaldehyde**											0.10	---
Benzene											0.13	1300
Bromodichloromethane											0.02	---
Bromoform*											0.91	---
Bromomethane											5.00	3900
2-Butanone*											5000	13.000
Carbon Disulfide											700	6200
Carbon Tetrachloride											0.067	1.900
Chlorobenzene											110	---
Chloroethane											10.000	---
Chloroethyl Vinyl Ether**											0.10	---
Chloroform	**8.50E-01**	**5.63E-01**		**< 1.03E+00**		**8.07E-01**	**1.23E+00**	**< 1.65E+00**	**7.21E-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											63	---
trans-1,2-Dichloroethene											63	---
1,2-Dichloropropane											4.00	---
1,3-Dichloropropene, cis & trans isomers											0.25	---
Ethylbenzene											1.000	54.000
2/4-Ethyltoluene (total)											0.10	---
Freon 13**											1000	68.000
2-Hexanone*											48.0	4000
Methylene Chloride	1.42E+00	7.50E-01	7.57E-01	**2.53E+00**	1.31E+00	9.08E-01	9.26E-01	**2.88E+00**	9.27E-01	13	2.10	14.000
4-Methyl-2-Pentanone*											3.000	31.000
Styrene											1.000	17.000
1,1,2,2-Tetrachloroethane											16	---
Tetrachloroethene	**4.25E+00**	5.63E-01	7.57E-01	**< 5.05E+00**	**1.31E+00**	**1.31E+01**	**3.09E+01**	**< 5.51E+01**	**9.27E+01**		1.00	1.000
Toluene											5000	37.000
1,1,1-Trichloroethane							6.17E-01	< 1.24E+00	8.24E-01		1.000	68.000
1,1,2-Trichloroethane											1.40	---
Trichloroethene								**< 1.24E+00**	**1.34E+00**		0.50	14.000
Trichlorofluoromethane	1.79E+00	1.59E+00	1.70E+00	< 2.62E+00	2.15E+00	4.24E+00	5.14E+00	6.49E+00	7.21E+00		1000	68.000
Vinyl Chloride											0.11	180.000
Xylenes (Total)											100	4.300
Decane**											700	---

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 2007

SOIL GAS WELL ID	F1	M2	M4	M5	M6	M9(10)	M9(20)	M9(30)	M9(40)	FB1	Current AGC	Current SGC
ADDITIONAL TIC LQL	2.36	2.35	2.37	4.68	2.33	2.52	2.57	5.15	2.57	25	(µg/m³)	(µg/m³)
VOC COMPOUND NAME	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(ng)		
2-Methyl-butane											42.000	---
1,1-difluoroethane											---	---
Isobutane											45.000	---
Dichlorodifluoromethane	3.31E+00	3.94E+00	3.78E+00	< 1.13E+01	6.81E+00	3.13E+00	1.44E+01	< 3.76E+01	2.47E+01		12.000	---
1,1-Dichloro-1-fluoroethane						8.38E+00					---	---
Unknown (RT: 13.94)											---	---
Dichlorotetrafluoroethane				< 1.43E+02	2.33E+01	2.52E+01	5.86E+01	1.62E+02	1.24E+02		17.000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu							3.29E+00	5.97E+00			180.000	960.000
Butane											45.000	---
1-chloro-1,1,2,2-tetrafluoroethane				< 6.45E+00							---	---
Cyclotrisiloxane, hexamethyl-											---	---
Ethene, 1-chloro-1-fluoro-											---	---
Nonanal											---	---

TABLE 4.2
(Continued)

TOWN OF OYSTER BAY
OLD BETHPAGE SOLID WASTE DISPOSAL COMPLEX

SOIL GAS VOST SAMPLE RESULTS
FOURTH QUARTER 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	FB2	Current AGC	Current SGC
LOWER QUANTITATION LIMIT (LQL)	0.467	0.462	-	0.450	0.461	0.463	0.458	0.467	0.454	5		
PRACTICAL QUANTITATION LIMIT (PQL)	0.748	0.739	-	0.720	0.738	0.74	0.733	0.748	0.726	8		
TARGETED TIC LQL	2.34	2.31	-	2.25	2.31	2.31	2.29	2.34	2.27	25		
VOC COMPOUND NAME	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(µg/std-m^3)	(ng)	(µg/m^3)	(µg/m^3)
Acetone*	3.36E+00			5.31E+00	4.98E+00	2.59E+00	8.70E+00	1.96E+00	2.63E+00		28,000	180,000
Benzaldehyde**											0.10	---
Benzene											0.13	1300
Bromodichloromethane											0.02	---
Bromoform*											0.91	---
Bromomethane											5.00	3900
2-Butanone*											5000	13,000
Carbon Disulfide											700	6200
Carbon Tetrachloride				5.40E-01			5.49E-01	5.61E-01			0.067	1,900
Chlorobenzene											110	---
Chloroethane											10,000	---
Chloroethyl Vinyl Ether**											0.10	---
Chloroform	**1.96E+00**	**7.39E-01**				**7.41E-01**			**1.18E+00**		0.043	150
Chloromethane							6.41E-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											63	---
trans-1,2-Dichloroethene											63	---
1,2-Dichloropropane											4.00	---
1,3-Dichloropropene, cis & trans isomers											0.25	---
Ethylbenzene											1,000	54,000
2/4-Ethyltoluene (total)					8.30E-01						0.10	---
Freon 13**											1000	68,000
2-Hexanone*											48.0	4000
Methylene Chloride	9.35E-01	7.39E-01		1.08E+00	1.57E+00	1.02E+00	1.19E+00	1.40E+00		12	2.10	14,000
4-Methyl-2-Pentanone*											3,000	31,000
Styrene					6.46E-01						1,000	17,000
1,1,2,2-Tetrachloroethane											16	---
Tetrachloroethene	**9.16E+00**	**7.76E+00**			7.38E-01	6.48E-01	6.41E-01	9.35E-01	**2.72E+01**		1.00	1,000
Toluene				8.10E-01	1.66E+00		5.49E-01				5000	37,000
1,1,1-Trichloroethane	1.21E+00								5.44E-01		1,000	68,000
1,1,2-Trichloroethane											1.40	---
Trichloroethene	**5.61E-01**										0.50	14,000
Trichlorofluoromethane	1.78E+00	3.70E+00		1.62E+00	2.49E+00	1.48E+00	1.37E+00	2.43E+00	2.18E+00		1000	68,000
Vinyl Chloride											0.11	180,000
Xylenes (Total)					2.03E+00						100	4,300
Decane**											700	---

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 2007

SOIL GAS WELL ID	M13	M16	M21	M22	M28	M31	M34	M37	M39	FB2	Current	Current
ADDITIONAL TIC LQL	2.34	2.31	-	2.25	2.31	2.31	2.29	2.34	2.27	25	AGC	SGC
VOC COMPOUND NAME	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(µg/std-m³)	(ng)	(µg/m³)	(µg/m³)
2-Methyl-butane								5.14E+00			42,000	---
1,1-difluoroethane								1.87E+01			---	---
Isobutane								2.80E+01			45,000	---
Dichlorodifluoromethane		5.18E+00		2.97E+00	8.49E+00	3.15E+00	3.48E+00		3.09E+00		12,000	---
1,1-Dichloro-1-fluoroethane					2.03E+02			1.59E+01			---	---
Unknown (RT: 13.94)					5.72E+00						---	---
Dichlorotetrafluoroethane											17,000	---
Ethane, 1,1,2-trichloro-1,2,2-triflu											180,000	960,000
Butane								7.76E+00			45,000	---
1-chloro-1,1,2,2-tetrafluoroethane											---	---
Cyclotrisiloxane, hexamethyl-					2.95E+00			2.52E+00			---	---
Ethene, 1-chloro-1-fluoro-					8.30E+00						---	---
Nonanal					4.24E+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 (µg/std-m^3).
- 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 Chloroethyl vinyl ether, 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 September 2007 and still current as of February 2008) 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, SOILS AND SOIL GAS PRESSURE READINGS

2007 ANNUAL SUMMARY REPORT

2007 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 2007

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	04/19/07	6:46 AM	PW1	NW corner of the landfill on Haul Road	10	-0.02
P2	04/19/07	6:46 AM	PW1	NW corner of the landfill on Haul Road	20	-0.05
P3	04/19/07	6:47 AM	PW1	NW corner of the landfill on Haul Road	10	-0.02
P4	04/19/07	6:47 AM	PW1	NW corner of the landfill on Haul Road	20	-0.05
P5	04/19/07	6:42 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	04/19/07	6:42 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.06
P7	04/19/07	6:43 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	04/19/07	6:43 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.06
P9	04/19/07	7:22 AM	PW3	Fireman's Training Center	10	0.00
P10	04/19/07	7:22 AM	PW3	Fireman's Training Center	20	-0.16
P11	04/19/07	7:23 AM	PW3	Fireman's Training Center	10	0.00
P12	04/19/07	7:23 AM	PW3	Fireman's Training Center	20	-0.16

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 2007

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	07/25/07	11:48 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P2	07/25/07	11:49 AM	PW1	NW corner of the landfill on Haul Road	20	0.00
P3	07/25/07	11:48 AM	PW1	NW corner of the landfill on Haul Road	10	0.00
P4	07/25/07	11:49 AM	PW1	NW corner of the landfill on Haul Road	20	0.00
P5	07/25/07	11:38 AM	PW2	SE corner of the landfill NW of Well M2	10	-0.05
P6	07/25/07	11:39 AM	PW2	SE corner of the landfill NW of Well M2	20	0.00
P7	07/25/07	11:38 AM	PW2	SE corner of the landfill NW of Well M2	10	-0.04
P8	07/25/07	11:39 AM	PW2	SE corner of the landfill NW of Well M2	20	0.00
P9	07/25/07	12:04 PM	PW3	Fireman's Training Center	10	0.02
P10	07/25/07	12:05 PM	PW3	Fireman's Training Center	20	-0.01
P11	07/25/07	12:04 PM	PW3	Fireman's Training Center	10	0.02
P12	07/25/07	12:05 PM	PW3	Fireman's Training Center	20	-0.01

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 2007

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	09/19/07	7:10 AM	PW1	NW corner of the landfill on Haul Road	10	-0.005
P2	09/19/07	7:10 AM	PW1	NW corner of the landfill on Haul Road	20	-0.01
P3	09/19/07	7:11 AM	PW1	NW corner of the landfill on Haul Road	10	-0.005
P4	09/19/07	6:51 PM	PW1	NW corner of the landfill on Haul Road	20	-0.01
P5	09/19/07	7:01 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	09/19/07	7:01 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.03
P7	09/19/07	7:02 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	09/19/07	7:02 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.03
P9	09/19/07	6:50 AM	PW3	Fireman's Training Center	10	0.00
P10	09/19/07	6:50 AM	PW3	Fireman's Training Center	20	-0.04
P11	09/19/07	6:51 AM	PW3	Fireman's Training Center	10	0.00
P12	09/19/07	6:51 AM	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

FOURTH QUARTER 2007

SAMPLE ID	DATE (mm/dd/yy)	TIME (EDT)	WELL ID	WELL LOCATION	WELL DEPTH (feet)	READINGS (INCHES H2O)
P1	11/30/07	7:33 AM	PW1	NW corner of the landfill on Haul Road	10	-0.22
P2	11/30/07	7:33 AM	PW1	NW corner of the landfill on Haul Road	20	-0.22
P3	11/30/07	7:35 AM	PW1	NW corner of the landfill on Haul Road	10	-0.18
P4	11/30/07	7:35 AM	PW1	NW corner of the landfill on Haul Road	20	-0.25
P5	11/30/07	7:20 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P6	11/30/07	7:20 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.13
P7	11/30/07	7:21 AM	PW2	SE corner of the landfill NW of Well M2	10	0.00
P8	11/30/07	7:21 AM	PW2	SE corner of the landfill NW of Well M2	20	-0.14
P9	11/30/07	7:04 AM	PW3	Fireman's Training Center	10	0.00
P10	11/30/07	7:04 AM	PW3	Fireman's Training Center	20	-0.23
P11	11/30/07	7:05 AM	PW3	Fireman's Training Center	10	0.00
P12	11/30/07	7:05 AM	PW3	Fireman's Training Center	20	-0.21

NOTES:

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

APPENDIX C

ANNUAL MONITORING REPORT
ANNUAL 2007 RESULTS
JANUARY THROUGH DECEMBER 2007
OLD BETHPAGE LANDFILL
OLD BETHPAGE, NY

Gannett Fleming Engineers and Architects, P.C.
May 2008

TOWN OF OYSTER BAY

ANNUAL MONITORING REPORT
ANNUAL 2007 RESULTS
JANUARY THROUGH DECEMBER 2007
OLD BETHPAGE LANDFILL
OLD BETHPAGE, NEW YORK

May 2008

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Gannett Fleming

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1.0 INTRODUCTION

This report summarizes the groundwater monitoring activities for 2007 at the Old Bethpage Solid Waste Disposal Complex (OBSWDC). The 2007 monitoring period covers the Fourteenth 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 2007 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.

Monitoring well water level elevations increased an average of 0.6 feet during this annual monitoring period. The recovery system was operating at its full capacity during 2007, except for the Groundwater Treatment Facility being off-line intermittently for repairs and the recovery wells being off-line on June 22 (RW-2 and RW-4), July 19 (RW-2, RW-3 and RW-4), August, 7 (RW-2, RW-3 and RW-4), September 5-8 (RW-2, RW-3 and RW-4), October 23 through November 14 (RW-3) and November 15 through December 31(RW-2 and RW-3). 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. The shallow and deep potentiometric groundwater flows toward the recovery wells in the capture zone area. 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 regional 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 (excluding third quarter due to interference in the well casing), MW-6F, MW-7B (excluding third and fourth quarter due to pump malfunction), MW-8A, MW-8B, MW-9B, MW-9C, MW-11A, MW-11B, OBS-1 and LF-1 in January, April, July and October 2007 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. The trend of concentrations of contaminants in the water table, shallow potentiometric and deep potentiometric zones are presented in Appendix B, figures 1 through 9.

3.1.1 Volatile Halogenated Compounds (VHO) Group

Sixteen VHO compounds were detected during 2007. The location and monitoring round during which the highest concentration of each compound was reported are listed below.

Compound	Peak Concentration (ppb*)	Quarter	Location
1,1-Dichloroethane	4.70	Third	MW-9D
1,1-Dichloroethene	13.20	First	MW-7B
1,1,1-Trichloroethane	20.9	First	MW-7B
1,2-Dichloroethane	0.7	Second	MW-7B
1,2- Dichloropropane	0.3	Third	MW-9D
Bromodichloromethane	0.5	Third	MW-6B
Chlorodibromomethane	0.4	Third	MW-6B
Chloroethane	3.0	Third	MW-9D
Chloroform	3.7	First	MW-7B
cis-1,2-Dichloroethene	79.0	Second	MW-7B
Dichlorodifluoromethane	5.5	Third	MW-9D
Methylene Chloride	0.2	Third	MW-9D
trans-1,2-Dichloroethene	0.1	Third	MW-9D
Trichloroethylene	1,290	Second	MW-7B
Vinyl chloride	0.9	First	MW-6B

*ppb – parts per billion

Total VHO concentrations decreased throughout 2007 in monitoring wells LF-1 (0.5 ppb to non-detect), MW-6B (1.60 ppb to non-detect), MW-6E (0.50 ppb to non-detect), MW-8A (0.6 ppb to 0.2 ppb), MW-9C (0.2 ppb to non-detect), MW-11A (1.7 ppb to 1.3 ppb) and OBS-1 (3.5 ppb to 3.3 ppb). Concentrations of VHOs decreased in MW- 9D (42.2 ppb to 22.1 ppb) when compared to third quarter of 2006. Concentrations of VHOs increased during 2007 in MW-7B (1080.9 ppb to 1398.3 ppb) (note that MW-7B was not sampled in the third and fourth quarters) and MW-8B (Non-detect to 0.20 ppb). VHO concentrations remained at less than the laboratory reporting limit in wells M-30B-R, MW-5B, MW-6A, MW-6C, MW-6F, MW-9B, and MW-11B during the first and fourth quarter sampling rounds.

For the year, concentrations of VHOs remained low in the water table and shallow potentiometric zone except for a peak in concentrations during the third quarter sampling event for MW-6B and MW-11A. This third quarter sampling event could be considered an anomaly. In the deep potentiometric zone, an elevated trichloroethylene concentration of 975.00 ppb in monitoring well MW-7B was detected during the first quarter monitoring round. Trichloroethylene increased in MW-7B to 1,290.00 ppb by the second quarter monitoring round and was not sampled in the third and fourth quarters.

Figure 1 shows the distribution of VHOs during 2007. Concentrations of total VHOs in each potentiometric zone are presented in Figures 1 through 3 in Appendix B. Figures 1 and 2 in Appendix B show the peak in concentrations of total VHOs for monitoring wells MW-6B and MW-11A and Figure 3 shows the elevated trichloroethylene concentrations in monitoring well MW-7B.

3.1.2 Aromatic Hydrocarbons

Seven aromatic hydrocarbons were detected during the 2007 monitoring period. The location and monitoring round during which the highest concentration of each compound was reported are listed below.

Compound	Peak Concentration (ppb*)	Quarter	Location
Benzene	3.1	Third	MW-9D
Chlorobenzene	4.3	First	MW-6B
1,2-Dichlorobenzene	4.8	Third	MW-6B
1,3-Dichlorobenzene	2.1	Third	MW-9D
1,4-Dichlorobenzene	5.4	Second	MW-6B
Isopropylbenzene	2.9	Fourth	MW-6B
o-xylene	1.4	Third	MW-9D

*ppb – parts per billion

Aromatic hydrocarbon concentrations increased in 2007 in wells MW-6C (2.4 ppb to 7.7 ppb), MW-8A (0.0 ppb to 0.3 ppb), and OBS-1 (2 ppb to 2.4 ppb). Aromatic hydrocarbon concentrations decreased in 2007 in wells LF-1 (1.7 ppb to 1.2 ppb), MW-6B (9.7 ppb to 9.1 ppb) and MW-6E (4.4 ppb to 2.2 ppb). Concentrations of aromatic hydrocarbons decreased in MW-9D (14.40 ppb to 11.6 ppb) as compared to third quarter 2006 concentrations. Aromatic hydrocarbon concentrations remained at less than the laboratory reporting limit in wells M-30B-R, MW-5B, MW-6F, MW-6A, MW-7B (not sampled third and fourth quarters), MW-8B, MW-9B, MW-9C, MW-11A and MW-11B 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 or remained at less than the laboratory reporting limit between the first and fourth quarter monitoring rounds.

Figure 2 shows the distribution of aromatic hydrocarbons during 2007. Concentrations of total aromatic hydrocarbons in each potentiometric zone are shown in Figures 4 through 6 in Appendix B.

3.1.3 Tetrachloroethene (PCE)

PCE was detected at the highest concentration of 78.3 parts per billion during the second quarter sampling round in well MW-7B. MW-7B was not sampled during the third and fourth quarter sampling rounds due to pump malfunction.

PCE concentrations decreased throughout 2007 in monitoring wells MW-6A (0.4 ppb to non-detect), MW-6E (0.1 ppb to non-detect), MW-8A (20 ppb to 7.4 ppb), MW-8B (1.4 ppb to 0.7 ppb), OBS-1 (0.4 ppb to 0.3 ppb) and MW-11A (0.4 ppb to 0.3 ppb). Concentrations of PCE decreased in MW-9D (1.8 ppb to 1.6 ppb) as compared to third quarter 2006. Concentrations of PCE increased in monitoring well MW-7B (72.3 to 78.3 ppb)[not sampled third and fourth quarters]. 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-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds.

PCE was reported only in MW-6A, MW-8A and MW-11A at the water table depth. MW-8A reported the highest concentrations in the first and second quarter sampling events, and then decreased in the third and fourth quarters. Monitoring well MW-7B contained the highest concentration of PCE (78.3 ppb) during the Second quarter in the deep potentiometric zone. The PCE concentration in MW-7B was 72.3 ppb in the first quarter but not sampled the third and fourth quarter. The PCE concentration 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 2007. Concentrations of PCE in each potentiometric zone are shown in Figures 7 through 9 in Appendix B.

3.2 Inorganic Compound Plume

The 2007 inorganic compound data show little change in the extent and concentration of leachate parameters over time. The highest leachate parameter concentrations were reported in decreasing order in the samples from wells MW-6B, MW-6C, MW-6E and OBS-1.

4.0 FINDINGS AND CONCLUSIONS

1. The average system pumpage in 2007 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 LF-1, MW-6B, MW-6E, MW-8A, MW-9C, MW-9D (compared to third quarter 2006), MW-11A and OBS-1, but increased in MW-7B and MW-8B. VHO concentrations remained at less than the laboratory reporting limit in wells M-30B-R, MW-5B, MW-6A, MW-6C, MW-6F, MW-9B, and MW-11B during the first and fourth quarter sampling rounds. Please note that MW-7B was not sampled during the third and fourth quarters and MW-6E was not sampled during the third quarter.

4. Aromatic hydrocarbon concentrations increased in wells MW-6C, MW-8A and OBS-1. Aromatic hydrocarbon concentrations decreased in wells LF-1, MW-6B, MW-6E and MW-9D. Aromatic hydrocarbons concentrations remained at less than the laboratory reporting limit in wells M-30B-R, MW-5B, MW-6F, MW-6A, MW-7B, MW-8B, MW-9B, MW-9C, MW-11A and MW-11B during the first and fourth quarter sampling rounds. Please note that MW-7B was not sampled during the third and fourth quarters and MW-6E was not sampled during the third quarter.

5. PCE concentrations decreased in monitoring wells MW-6A, MW-6E, MW-8A MW-8B, OBS-1, MW-9D and MW-11A and increased in monitoring well MW-7B. 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-6F, MW-9B, MW-9C, and MW-11B during the first and fourth quarter sampling rounds. Please note that MW-7B was not sampled during the third and fourth quarters and MW-6E was not sampled during the third quarter.

6. The distribution and concentration of inorganic compounds show little change in the extent and concentration of leachate parameters during 2007.

5.0 RECOMMENDATIONS

1. Continued pumping to assure hydraulic control as per the 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 2007

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
EW-02A	1/16/2007	157.14	91.70		65.44
EW-02A	4/16/2007	157.14	91.25	0.45	65.89
EW-02A	7/16/2007	157.14	90.72	0.53	66.42
EW-02A	10/15/2007	157.14	90.92	-0.20	66.22
EW-02B	1/16/2007	157.61	91.95		65.66
EW-02B	4/16/2007	157.61	91.08	0.87	66.53
EW-02B	7/16/2007	157.61	90.91	0.17	66.70
EW-02B	10/15/2007	157.61	91.25	-0.34	66.36
EW-02C	1/16/2007	157.54	91.72		65.82
EW-02C	4/16/2007	157.54	91.00	0.72	66.54
EW-02C	7/16/2007	157.54	90.75	0.25	66.79
EW-02C	10/15/2007	157.54	90.26	0.49	67.28
LF-1	1/16/2007	111.40	44.10		67.30
LF-1	4/16/2007	111.40	44.03	0.07	67.37
LF-1	7/16/2007	111.40	43.77	0.26	67.63
LF-1	10/15/2007	111.40	43.22	0.55	68.18
LF-2	1/16/2007	118.70	51.71		66.99
LF-2	4/16/2007	118.70	51.18	0.53	67.52
LF-2	7/16/2007	118.70	51.11	0.07	67.59
LF-2	10/15/2007	118.70	50.90	0.21	67.80
LF-3	1/16/2007	126.50	56.93		69.57
LF-3	4/16/2007	126.50	56.34	0.59	70.16
LF-3	7/16/2007	126.50	N/A	N/A	N/A
LF-3	10/15/2007	126.50	56.39	N/A	70.11
LF-4	1/16/2007	149.93	79.50		70.43
LF-4	4/16/2007	149.93	N/A	N/A	N/A
LF-4	7/16/2007	149.93	N/A	N/A	N/A
LF-4	10/15/2007	149.93	N/A	N/A	N/A
M-29A-R	1/16/2007	157.50	89.30		68.20
M-29A-R	4/16/2007	157.50	88.29	1.01	69.21
M-29A-R	7/16/2007	157.50	N/A	N/A	N/A
M-29A-R	10/15/2007	157.50	88.74	N/A	68.76
M-29B	1/16/2007	157.41	81.00		76.41
M-29B	4/16/2007	157.41	86.40	-5.40	71.01
M-29B	7/16/2007	157.41	N/A	N/A	N/A
M-29B	10/15/2007	157.41	82.56	N/A	74.85

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 2007

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-30A	1/16/2007	151.20	N/A		N/A
MW-30A	4/16/2007	151.20	N/A	N/A	N/A
MW-30A	7/16/2007	151.20	N/A	N/A	N/A
MW-30A	10/15/2007	151.20	N/A	N/A	N/A
M-30B-R	1/16/2007	154.51	84.85		69.66
M-30B-R	4/16/2007	154.51	84.19	0.66	70.32
M-30B-R	7/16/2007	154.51	83.98	0.21	70.53
M-30B-R	10/15/2007	154.51	84.12	-0.14	70.39
MW-05A	1/16/2007	137.13	71.45		65.68
MW-05A	4/16/2007	137.13	71.53	-0.08	65.60
MW-05A	7/16/2007	137.13	70.57	0.96	66.56
MW-05A	10/15/2007	137.13	70.02	0.55	67.11
MW-05B	1/16/2007	138.43	72.75		65.68
MW-05B	4/16/2007	138.43	73.82	-1.07	64.61
MW-05B	7/16/2007	138.43	71.91	1.91	66.52
MW-05B	10/15/2007	138.43	71.35	0.56	67.08
MW-06A	1/16/2007	160.24	94.79		65.45
MW-06A	4/16/2007	160.24	94.55	0.24	65.69
MW-06A	7/16/2007	160.24	93.91	0.64	66.33
MW-06A	10/15/2007	160.24	93.75	0.16	66.49
MW-06B	1/16/2007	160.39	95.17		65.22
MW-06B	4/16/2007	160.39	94.91	0.26	65.48
MW-06B	7/16/2007	160.39	94.35	0.56	66.04
MW-06B	10/15/2007	160.39	94.13	0.22	66.26
MW-06C	1/16/2007	159.99	94.50		65.49
MW-06C	4/16/2007	159.99	94.21	0.29	65.78
MW-06C	7/16/2007	159.99	93.70	0.51	66.29
MW-06C	10/15/2007	159.99	93.52	0.18	66.47
MW-06D	1/16/2007	160.39	94.90		65.49
MW-06D	4/16/2007	160.39	94.50	0.40	65.89
MW-06D	7/16/2007	160.39	94.03	0.47	66.36
MW-06D	10/15/2007	160.39	94.06	-0.03	66.33
MW-06E	1/16/2007	160.88	95.86		65.02
MW-06E	4/16/2007	160.88	95.41	-1.35	65.47
MW-06E	7/16/2007	160.88	N/A	N/A	N/A
MW-06E	10/15/2007	160.88	94.95	N/A	65.93

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 2007

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-06F	1/16/2007	159.88	94.86		65.02
MW-06F	4/16/2007	159.88	94.23	0.63	65.65
MW-06F	7/16/2007	159.88	94.07	0.16	65.81
MW-06F	10/15/2007	159.88	94.24	-0.17	65.64
MW-07A	1/16/2007	148.44	86.50		61.94
MW-07A	4/16/2007	148.44	86.25	0.25	62.19
MW-07A	7/16/2007	148.44	85.36	0.89	63.08
MW-07A	10/15/2007	148.44	85.69	-0.33	62.75
MW-07B	1/16/2007	147.94	87.30		60.64
MW-07B	4/16/2007	147.94	85.55	1.75	62.39
MW-07B	7/16/2007	147.94	86.70	-1.15	61.24
MW-07B	10/15/2007	147.94	85.45	1.25	62.49
MW-08A	1/16/2007	134.94	69.41		65.53
MW-08A	4/16/2007	134.94	68.55	0.86	66.39
MW-08A	7/16/2007	134.94	68.49	0.06	66.45
MW-08A	10/15/2007	134.94	68.74	-0.25	66.20
MW-08B	1/16/2007	134.24	68.11		66.13
MW-08B	4/16/2007	134.24	67.56	0.55	66.68
MW-08B	7/16/2007	134.24	68.10	-0.54	66.14
MW-08B	10/15/2007	134.24	67.85	0.25	66.39
MW-08C	1/16/2007	135.72	69.34		66.38
MW-08C	4/16/2007	135.72	68.70	0.64	67.02
MW-08C	7/16/2007	135.72	68.84	-0.14	66.88
MW-08C	10/15/2007	135.72	68.76	0.08	66.96
MW-09A	1/16/2007	153.35	90.23		63.12
MW-09A	4/16/2007	153.35	89.90	0.33	63.45
MW-09A	7/16/2007	153.35	89.09	0.81	64.26
MW-09A	10/15/2007	153.35	89.08	0.01	64.27
MW-09B	1/16/2007	153.28	91.44		61.84
MW-09B	4/16/2007	153.28	90.30	1.14	62.98
MW-09B	7/16/2007	153.28	90.56	-0.26	62.72
MW-09B	10/15/2007	153.28	90.73	-0.17	62.55
MW-09C	1/16/2007	153.53	92.50		61.03
MW-09C	4/16/2007	153.53	90.55	0.18	62.98
MW-09C	7/16/2007	153.53	91.82	-1.27	61.71
MW-09C	10/15/2007	153.53	91.91	-0.09	61.62

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 2007

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
MW-09D	1/16/2007	152.95	91.20		61.75
MW-09D	4/16/2007	152.95	90.00	1.20	62.95
MW-09D	7/16/2007	152.95	90.90	-0.90	62.05
MW-09D	10/15/2007	152.95	91.16	-0.26	61.79
MW-10A	1/16/2007	161.28	96.05		65.23
MW-10A	4/16/2007	161.28	95.90	0.15	65.38
MW-10A	7/16/2007	161.28	95.18	0.72	66.10
MW-10A	10/15/2007	161.28	95.98	-0.80	65.30
MW-10B	1/16/2007	161.12	96.28		64.84
MW-10B	4/16/2007	161.12	95.88	0.40	65.24
MW-10B	7/16/2007	161.12	95.50	0.38	65.62
MW-10B	10/15/2007	161.12	95.62	-0.12	65.50
MW-10C	1/16/2007	160.27	95.34		64.93
MW-10C	4/16/2007	160.27	94.81	0.53	65.46
MW-10C	7/16/2007	160.27	94.40	0.41	65.87
MW-10C	10/15/2007	160.27	94.82	-0.42	65.45
MW-10D	1/16/2007	161.17	96.15		65.02
MW-10D	4/16/2007	161.17	95.48	0.67	65.69
MW-10D	7/16/2007	161.17	95.85	-0.37	65.32
MW-10D	10/15/2007	161.17	96.50	-0.65	64.67
MW-11A	1/16/2007	80.19	22.87		57.32
MW-11A	4/16/2007	80.19	22.30	0.57	57.89
MW-11A	7/16/2007	80.19	22.58	-0.28	57.61
MW-11A	10/15/2007	80.19	23.36	-0.78	56.83
MW-11B	1/16/2007	79.91	22.80		57.11
MW-11B	4/16/2007	79.91	22.16	0.64	57.75
MW-11B	7/16/2007	79.91	22.67	-0.51	57.24
MW-11B	10/15/2007	79.91	23.20	-0.53	56.71
N-9980	1/16/2007	80.46	23.90		56.56
N-9980	4/16/2007	80.46	23.18	0.72	57.28
N-9980	7/16/2007	80.46	23.50	-0.32	56.96
N-9980	10/15/2007	80.46	24.35	-0.85	56.11
OBS-1	1/16/2007	110.61	49.00		61.61
OBS-1	4/16/2007	110.61	48.34	-0.11	62.27
OBS-1	7/16/2007	110.61	48.48	-0.14	62.13
OBS-1	10/15/2007	110.61	48.74	-0.26	61.87

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 2007

SITE	DATE	MP ELEVATION (feet)	DEPTH TO WATER (feet)	DELTA WATER ELEV. (feet)	WATER ELEVATION (feet)
OBS-2	1/16/2007	105.26	N/A		N/A
OBS-2	4/16/2007	105.26	N/A	N/A	N/A
OBS-2	7/16/2007	105.26	N/A	N/A	N/A
OBS-2	10/15/2007	105.26	N/A	N/A	N/A
RW-01	1/16/2007	110.94	57.25		53.69
RW-01	4/16/2007	110.94	56.05	1.20	54.89
RW-01	7/16/2007	110.94	56.36	-0.31	54.58
RW-01	10/15/2007	110.94	56.87	-0.51	54.07
RW-02	1/16/2007	145.31	95.78		49.53
RW-02	4/16/2007	145.31	82.50	13.28	62.81
RW-02	7/16/2007	145.31	94.99	-12.49	50.32
RW-02	10/15/2007	145.31	75.90	19.09	69.41
RW-03	1/16/2007	120.92	71.39		49.53
RW-03	4/16/2007	120.92	57.91	13.48	63.01
RW-03	7/16/2007	120.92	57.83	0.08	63.09
RW-03	10/15/2007	120.92	70.38	-12.55	50.54
RW-04	1/16/2007	144.82	82.14		62.68
RW-04	4/16/2007	144.82	81.84	0.30	62.98
RW-04	7/16/2007	144.82	N/A	N/A	N/A
RW-04	10/15/2007	144.82	N/A	N/A	N/A
RW-05	1/16/2007	149.74	95.71		54.03
RW-05	4/16/2007	149.74	85.44	10.27	64.30
RW-05	7/16/2007	149.74	N/A	N/A	N/A
RW-05	10/15/2007	149.74	N/A	N/A	N/A
TW-1	1/16/2007	121.12	51.57		69.55
TW-1	4/16/2007	121.12	51.19	0.38	69.93
TW-1	7/16/2007	121.12	51.58	-0.39	69.54
TW-1	10/15/2007	121.12	50.63	0.95	70.49
TW-2	1/16/2007	117.52	55.40		62.12
TW-2	4/16/2007	117.52	49.89	5.51	67.63
TW-2	7/16/2007	117.52	49.69	0.20	67.83
TW-2	10/15/2007	117.52	49.53	0.16	67.99
TW-3-R	1/16/2007	133.93	67.10		66.83
TW-3-R	4/16/2007	133.93	66.81	0.29	67.12
TW-3-R	7/16/2007	133.93	66.50	0.31	67.43
TW-3-R	10/15/2007	133.93	66.23	0.27	67.70

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 2007

Date(s)	Flow (gpm)	Remarks
First Quarter Average System Flow - 975		
1/1 to 3/31	975	GTF on-line for entire first quarter of 2007.
Second Quarter Average System Flow - 940		
4/1/07-4/14/07	974	GTF on-line.
04/15/07	487	GTF off-line 12 hr.
04/16/07	320	GTF off-line 16 hr.
4/17/07-5/1/07	981	GTF on-line.
05/02/07	697	GTF off-line 7 hr.
5/3/07-5/6/07	975	GTF on-line.
05/07/07	368	GTF off-line 15 hr.
05/08/07	327	GTF off-line 16 hr.
05/09/07	752	GTF off-line 5.5 hr.
5/10/07-5/20/07	981	GTF on-line.
05/21/07	692	GTF off-line 7 hr.
5/22/07-6/7/07	976	GTF on-line.
06/08/07	770	GTF off-line 5 hr.
6/9/07-6/11/07	974	GTF on-line.
06/12/07	919	GTF off-line 1.5 hr.
6/13/07-6/21/07	976	GTF on-line.
06/22/07	975	RW-2 and RW-4 off-line 1 hr.
6/23/07-6/30/07	981	GTF on-line.
Third Quarter Average System Flow - 887		
7/1 - 7/17	974	GTF on-line.
7/18	936	GTF off-line 1 hr.
7/19	594	GTF off-line 12 hr., RW-2, RW-3 and RW-4 off-line 9 hr.
7/20 - 8/6	594	GTF on-line.
8/7	708	RW-2, RW-3 and RW-4 off-line 17 hr.
8/8 - 9/4	991	GTF on-line.
9/5	942	RW-2, RW-3 and RW-4 off-line 1 hr.
9/6	694	RW-2, RW-3 and RW-4 off-line 17 hr.
9/7	588	RW-2, RW-3 and RW-4 off-line.
9/8	621	RW-2, RW-3 and RW-4 off-line 22 hr.
9/9 -9/24	985	GTF on-line.
9/25	864	GTF off-line 3 hr.
9/25 - 9/30	963	GTF on-line.
Fourth Quarter Average System Flow - 757		
10/1-10/22	977	GTF on-line
10/23/08	826	GTF on-line 5 hr., RW-3 off-line 4 hr.
10/24-11/14	827	RW-3 off-line
11/15-12/31	620	RW-2 and RW-3 off-line

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION: / DATE:	LF-1 1/19/2007	LF-1 4/19/2007	LF-1 7/20/2007	LF-1 10/16/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	0.3 J	<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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	0.2 J	<0.5	<0.5	<0.5
Sum of Constituents	0.5	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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	M-30B-R	M-30B-R	M-30B-R	M-30B-R
DATE:	1/17/2007	4/19/2007	7/19/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	0.3 J	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.3	0.0

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-05B	MW-05B	MW-05B	MW-05B
DATE:	1/19/2007	4/17/2007	7/20/2007	10/16/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06A	MW-06A	MW-06A	MW-06A
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.5	0.0

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06B	MW-06B	MW-06B	MW-06B
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	1.4	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	1.4J	<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	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	0.4J	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5
Chloromethane	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	0.7	<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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	**9.9**	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	0.9	0.5	<0.5	<0.5
Sum of Constituents	1.6	0.5	12.6	0.0

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06C	MW-06C	MW-06C	MW-06C
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP
DATE:	1/18/2007	1/18/2007	4/18/2007	4/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	0.2 J	0.2 J	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	<0.5	<0.5	0.4 J	0.2 J
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	N/A	N/A	N/A	N/A
Trichloroethylene	0.3 J	0.1 J	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	0.2 J	0.2 J
Sum of Constituents	0.5	0.3	0.6	0.4

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06C DUP	MW-06E	MW-06E	MW-06E DUP
DATE:	7/19/2007	7/19/2007	10/18/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	N/A	<0.5	<0.5
1,1,2,2-Tetrachloroethane	1.2	N/A	N/A	N/A
1,1,2-Trichloroethane	0.5	N/A	N/A	N/A
1,1-Dichloroethane	<0.5	N/A	<0.5	<0.5
1,1-Dichloroethene	<0.5	N/A	<0.5	<0.5
1,2-Dichloroethane	<0.5	N/A	<0.5	<0.5
1,2-Dichloropropane	<0.5	N/A	<0.5	<0.5
Bromodichloromethane	<0.5	N/A	<0.5	<0.5
Bromoform	<0.5	N/A	<0.5	<0.5
Bromomethane	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	N/A	<0.5	<0.5
Chlorodibromomethane	<0.5	N/A	<0.5	<0.5
Chloroethane	<0.5	N/A	<0.5	<0.5
Chloroform	<0.5	N/A	<0.5	<0.5
Chloromethane	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	N/A	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	<0.5	N/A	<0.5	<0.5
Methylene chloride	<0.5	N/A	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	N/A	<0.5	<0.5
trans-1,3-Dichloropropene	0.3 J	N/A	N/A	N/A
Trichloroethylene	0.3 J	N/A	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	N/A	<0.5	<0.5
Sum of Constituents	2.3	N/A	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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-06F	MW-06F	MW-06F	MW-06F
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-07B	MW-07B	MW-07B	MW-07B
DATE:	1/17/2007	4/17/2007	7/19/2007	10/18/2007
1,1,1-Trichloroethane	**20.9**	**16.5**	N/A	N/A
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
1,1-Dichloroethane	0.7	<0.5	N/A	N/A
1,1-Dichloroethene	**13.2**	**8.8**	N/A	N/A
1,2-Dichloroethane	<0.5	**0.7**	N/A	N/A
1,2-Dichloropropane	<0.5	<0.5	N/A	N/A
Bromodichloromethane	<0.5	<0.5	N/A	N/A
Bromoform	<0.5	<0.5	N/A	N/A
Bromomethane	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	<0.5	N/A	N/A
Chlorodibromomethane	<0.5	<0.5	N/A	N/A
Chloroethane	<0.5	<0.5	N/A	N/A
Chloroform	3.7	3.3 B	N/A	N/A
Chloromethane	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	**67.4**	**79.0**	N/A	N/A
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	<0.5	<0.5	N/A	N/A
Methylene chloride	<0.5	<0.5	N/A	N/A
trans-1,2-Dichloroethene	<0.5	<0.5	N/A	N/A
trans-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Trichloroethylene	**975**	**1,290**	N/A	N/A
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	N/A	N/A
Sum of Constituents	1080.9	1398.3	N/A	N/A

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-08A	MW-08A	MW-08A	MW-08A
DATE:	1/18/2007	4/18/2007	7/19/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	0.6	0.6	0.2 J	0.2 J
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.6	0.6	0.2	0.2

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	1/18/2007	4/18/2007	7/19/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	0.2 J	0.2 J
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.0	0.0	0.2	0.2

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-09B	MW-09B	MW-09B	MW-09B
DATE:	1/17/2007	4/17/2007	7/20/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	1/17/2007	4/17/2007	7/20/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	0.2 J	0.2 J	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.2	0.2	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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-11A	MW-11A	MW-11A	MW-11A
DATE:	1/17/2007	4/19/2007	7/19/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	0.1 J	0.1 J	0.1 J
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
1,1-Dichloroethane	0.2 J	0.1 J	0.1 J	0.1 J
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	N/A	N/A	N/A	N/A
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	0.1 J	0.1 J	0.2 J	0.1 J
Chloromethane	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	0.9	1.4	4.8	0.7
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	<0.5	0.2 J	**5.5**	<0.5
Methylene chloride	<0.5	<0.5	0.2 J	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	0.1 J	<0.5
trans-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Trichloroethylene	0.5	0.8	1.7	0.3 J
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	0.8	<0.5
Sum of Constituents	1.7	2.7	22.1	1.3

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	MW-11B	MW-11B	MW-11B	MW-11B
DATE:	1/17/2007	4/19/2007	7/19/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	OBS-1	OBS-1	OBS-1	OBS-1	MW-09D
DATE:	1/19/2007	4/17/2007	7/20/2007	10/16/2007	7/20/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	0.4 J
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	0.2 J	0.3 J	0.2 J	0.2 J	4.7
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	0.1 J
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	0.3 J
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	0.3 J
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	N/A	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	<0.5	<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	3.0
Chloroform	<0.5	<0.5	<0.5	<0.5	0.2 J
Chloromethane	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	2.1	4.7	3.7	2.1	4.8
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	**5.5**
Methylene chloride	<0.5	<0.5	<0.5	<0.5	0.2 J
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	0.1 J
trans-1,3-Dichloropropene	N/A	N/A	N/A	N/A	N/A
Trichloroethylene	0.5	1	0.5	0.3 J	1.7
Trichlorofluoromethane	N/A	N/A	N/A	N/A	N/A
Vinyl chloride	0.7	0.7	0.5	0.7	0.8
Sum of Constituents	3.5	6.7	4.9	3.3	22.1

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK
DATE:	1/19/2007	4/17/2007	7/20/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	0.2 J	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	0.7	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	0.4 J	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5
Bromomethane	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	0.1 J	<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	**7.6**	<0.5	<0.5
Chloromethane	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	0.2 J	<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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	<0.5
Sum of Constituents	0.9	8.3	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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/17/2007	4/17/2007	7/19/2007	10/16/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
Vinyl chloride	<0.5	<0.5	<0.5	0.5
Sum of Constituents	0.0	0.0	0.0	0.5

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

TABLE 3

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/18/2007	4/18/2007	7/20/2007	10/17/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A
Trichloroethylene	0.1 J	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	N/A	N/A
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 - 2007
VOLATILE HALOGENATED ORGANICS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/19/2007	4/19/2007	10/18/2007
1,1,1-Trichloroethane	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	N/A	N/A	NA
1,1,2-Trichloroethane	N/A	N/A	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	N/A	N/A	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	N/A	N/A	NA
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	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	N/A	N/A	NA
Trichloroethylene	<0.5	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	NA
Vinyl chloride	<0.5	<0.5	<0.5
Sum of Constituents	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 - 2007
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:	1/19/2007	4/19/2007	7/20/2007	10/16/2007	1/17/2007	4/19/2007	7/19/2007	10/17/2007
1,2-Dichlorobenzene	<0.5	<0.5	0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.9	1.3	0.5 J	0.6 J	<0.5	<0.5	<0.5	<0.5
Benzene	0.1 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.7	1.3	0.6	0.6	<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	1.7	2.6	1.1	1.2	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 - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-05B	MW-05B	MW-05B	MW-05B	MW-06A	MW-06A	MW-06A	MW-06A
DATE:	1/19/2007	4/17/2007	7/20/2007	10/16/2007	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.4 J	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.4	<0.5	<0.5	<0.5	0.4 J	<0.5
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.4 J	<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	0.4	0.0

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

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06B	MW-06B	MW-06B	MW-06B	MW-06C	MW-06C	MW-06E	MW-06C
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007	1/18/2007	4/18/2007	7/19/2007	10/18/2007
1,2-Dichlorobenzene	<0.5	<0.5	4.8	<0.5	<0.5	<0.5	N/A	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	N/A	<0.5
1,4-Dichlorobenzene	4.6	5.4	4.8	4.4	2.1	1.1	N/A	2.5
Benzene	**1.6**	**2.7**	**1.3**	**1.8**	<0.5	<0.5	N/A	**1.2**
Chlorobenzene	3.5	4.3	3.2	<0.5	0.3J	0.4J	N/A	3.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	<0.5
Isopropylbenzene	<0.5	<0.5	<0.5	2.9	<0.5	<0.5	N/A	2.0
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	<0.5
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	<0.5
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	<0.5
Sum of Constituents	9.7	12.4	9.8	9.1	2.4	1.5	N/A	7.7

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

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06C	MW-06C DUP	MW-06E	MW-06E DUP
DATE:	1/18/2007	1/18/2007	4/18/2007	4/18/2007	7/19/2007	7/19/2007	10/18/2007	10/18/2007
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	0.7 J	1.2	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	0.2	<0.5	<0.5	<0.5	0.3	<0.5	<0.5
1,4-Dichlorobenzene	2.1	2.0	1.3	2.3	0.7 J	1.2	1.1	1.3
Benzene	0.7	0.7	<0.5	0.9	<0.5	<0.5	<0.5	0.7
Chlorobenzene	1.4	1.4	1.0	1.6	0.2 J	0.2 J	1.1	1.3
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	0.1 J	0.1 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	0.1 J	0.1 J	<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	4.4	4.3	2.3	4.8	0.9	1.7	2.2	3.8

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

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-06F	MW-06F	MW-06F	MW-06F	MW-07B	MW-07B	MW-07B	MW-07B
DATE:	1/18/2007	4/18/2007	7/19/2007	10/18/2007	1/17/2007	4/17/2007	7/18/2007	10/18/2007
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
m/p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N/A	N/A
Sum of Constituents	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A

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

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-08A	MW-08A	MW-08A	MW-08A	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	1/18/2007	4/18/2007	7/19/2007	10/17/2007	1/18/2007	4/18/2007	7/19/2007	10/17/2007
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	0.3	0.0	0.9	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 - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-09B	MW-09B	MW-09B	MW-09B	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	1/17/2007	4/17/2007	7/20/2007	10/17/2007	1/17/2007	4/17/2007	7/20/2007	10/17/2007
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 - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-09D	MW-11A	MW-11A	MW-11A	MW-11A	MW-11B	MW-11B	MW-11B
DATE:	7/20/2007	1/17/2007	4/19/2007	7/19/2007	10/17/2007	1/17/2007	4/19/2007	7/19/2007
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	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	**3.1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.8	<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	1.4	<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	11.6	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 - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	MW-11B	OBS-1	OBS-1	OBS-1	OBS-1
DATE:	10/17/2007	1/19/2007	4/17/2007	7/20/2007	10/16/2007
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	1.2	2.3	<0.5	1.6
Benzene	<0.5	0.4 J	1.3	0.6	0.3 J
Chlorobenzene	<0.5	0.4 J	0.8	0.4	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	<0.5	<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	2.0	4.4	1.0	2.4

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

TABLE 4

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/19/2007	4/17/2007	7/20/2007	10/18/2007	1/17/2007	4/17/2007	7/19/2007	10/16/2007
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	0.9	<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	0.9	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 - 2007
AROMATIC HYDROCARBONS

SAMPLE DESIGNATION:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/18/2007	4/18/2007	7/20/2007	10/17/2007	1/19/2007	4/19/2007	10/18/2007
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 - 2007
TETRACHLOROETHENE

SAMPLE ID:	LF-1	LF-1	LF-1	LF-1	M-30B-R	M-30B-R	M-30B-R	M-30B-R
DATE:	1/19/2007	4/19/2007	7/20/2007	10/16/2007	1/17/2007	4/19/2007	7/19/2007	10/17/2007
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:	1/19/2007	4/17/2007	7/20/2007	10/16/2007	1/18/2007	4/18/2007	7/19/2007	10/18/2007
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	0.4 J	<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:	1/18/2007	4/18/2007	7/19/2007	10/18/2007	1/18/2007	4/18/2007	7/19/2007	10/18/2007
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 - 2007
TETRACHLOROETHENE

SAMPLE ID:	MW-06E	MW-06E DUP	MW-06E	MW-06E DUP	MW-06E	MW-06C DUP	MW-06E	MW-06E DUP
DATE:	1/18/2007	1/18/2007	4/18/2007	4/18/2007	7/19/2007	7/19/2007	10/18/2007	10/18/2007
Tetrachloroethene	0.1 J	<0.5	<0.5	<0.5	N/A	<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:	1/18/2007	4/18/2007	7/19/2007	10/18/2007	1/17/2007	4/17/2007	7/19/2007	10/17/2007
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	**72.3**	**78.3**	N/A	N/A
SAMPLE ID:	MW-08A	MW-08A	MW-08A	MW-08A	MW-08B	MW-08B	MW-08B	MW-08B
DATE:	1/18/2007	4/18/2007	7/19/2007	10/17/2007	1/18/2007	4/18/2007	7/19/2007	10/17/2007
Tetrachloroethene	**20.7**	**26.2**	**13.9**	**7.4**	1.4	1.9	0.6	0.7

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

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TETRACHLOROETHENE

SAMPLE ID:	MW-09B	MW-09B	MW-09B	MW-09B	MW-09C	MW-09C	MW-09C	MW-09C
DATE:	1/17/2007	4/17/2007	7/20/2007	10/17/2007	1/17/2007	4/17/2007	7/20/2007	10/17/2007
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:	7/20/2007	1/17/2007	4/19/2007	7/19/2007	10/17/2007	1/17/2007	4/19/2007	7/19/2007
Tetrachloroethene	1.6	0.4 J	0.6	0.3 J	0.3 J	<0.5	<0.5	<0.5

SAMPLE ID:	MW-11B	OBS-1	OBS-1	OBS-1	OBS-1
DATE:	10/17/2007	1/19/2007	4/17/2007	7/20/2007	10/16/2007
Tetrachloroethene	<0.5	0.4 J	1.4	0.6	0.3 J

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

TABLE 5

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TETRACHLOROETHENE

SAMPLE ID:	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE:	1/19/2007	4/19/2007	7/20/2007	10/18/2007	1/17/2007	4/17/2007	7/19/2007	10/16/2007
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:	1/18/2007	4/18/2007	7/20/2007	10/17/2007	1/19/2007	4/19/2007	10/18/2007
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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

TABLE 6

TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL RECOVERY WELL SAMPLING RESULTS - 2007
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 1/11/2007	RW-2 1/11/2007	RW-3 1/11/2007	RW-4 1/11/2007	RW-5 1/11/2007
Benzene	0.2 J	0.3 J	0.3 J	<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	0.5	0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.1 J	0.2 J	0.1 J	<0.5	<0.5
Chloroform	<0.5	0.1 J	0.4 J	1.5	1.2
o,p-Dichlorobenzene	1.2	0.9	1.0	<0.5	<0.5
m,o,p-Dichlorobenzene	1.2	0.9	1.0	<0.5	<0.5
1,1-Dichloroethane	0.3 J	0.3 J	0.6	0.4 J	2.7
1,2-Dichloroethane	<0.5	<0.5	0.3 J	0.5	**2.1**
1,1-Dichloroethene	<0.5	<0.5	0.7	2.8	**26.0**
cis-1,2-Dichloroethene	1.2	1.1	**9.2**	**29.6**	**32.4**
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	0.3 J	0.2 J	**20.8**	16.4	**79.9**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.3	**5.1**	**35.2**
Trichloroethylene	0.4 J	0.3 J	**46.4**	**130**	**331**
Vinyl chloride	0.8	0.2 J	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	6.3	5.0	83.1	186.3	510.5

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 - 2007
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 4/19/2007	RW-2 4/19/2007	RW-3 4/19/2007	RW-4 4/19/2007	RW-5 4/19/2007
Benzene	0.3 J	0.4 J	0.5	<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	0.6	0.4	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.1 J	0.1 J	0.1 J	<0.5	<0.5
Chloroform	<0.5	0.1 J	0.5	1.4	1.1
o,p-Dichlorobenzene	1.7	1.0	1.0	<0.5	<0.5
m,o,p-Dichlorobenzene	1.7	1.3	1.0	<0.5	<0.5
1,1-Dichloroethane	0.2 J	0.2 J	0.6	0.4 J	2.4
1,2-Dichloroethane	<0.5	<0.5	0.3 J	0.2 J	**1.8**
1,1-Dichloroethene	<0.5	<0.5	0.7	3.1	**22.4**
cis-1,2-Dichloroethene	1.6	1.2	**11.7**	**28.5**	**26.4**
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	0.3 J	0.3 J	**24.1**	**18.5**	**57.8**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.3	4.9	**30.5**
Trichloroethylene	0.5	0.5	**49.8**	**172**	**248**
Vinyl chloride	0.7	<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	6.2	4.7	91.5	229.0	390.0

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 - 2007
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 7/20/2007	RW-2 7/20/2007	RW-3 7/20/2007	RW-4 7/20/2007	RW-5 7/20/2007
Benzene	0.2 J	0.2 J	<0.5	<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	0.3 J	0.2 J	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	0.1 J	0.6	1.5	1.5
o,p-Dichlorobenzene	1.1	0.6 J	1.1	<0.5	<0.5
m,o,p-Dichlorobenzene	1.1	0.6 J	1.1	<0.5	<0.5
1,1-Dichloroethane	0.1 J	0.2 J	0.5	0.2 J	2.8
1,2-Dichloroethane	<0.5	<0.5	0.3 J	<0.5	**1.8**
1,1-Dichloroethene	<0.5	<0.5	0.4 J	1.5	**24.9**
cis-1,2-Dichloroethene	1.0	0.8 J	**11.7**	**25.2**	**35.5**
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	0.1 J	0.1 J	**22.2**	**14**	**76.9**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.7	4.1	**42.2**
Trichloroethylene	0.1 J	0.1 J	**46.3**	**117**	**275**
Vinyl chloride	0.1 J	0.1 J	<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	4.1	3.0	86.5	163.5	460.6

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 - 2007
VOLATILE ORGANIC COMPOUNDS

SAMPLE DESIGNATION: / DATE:	RW-1 10/19/2007	RW-2 10/19/2007	RW-3 10/19/2007	RW-4 10/19/2007	RW-5 10/19/2007
Benzene	0.1 J	0.2 J	<0.5	<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	0.4 J	0.2 J	0.5	<0.5	<0.5
Chlorodibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	<0.5	0.1 J	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	1.0	1.1
o,p-Dichlorobenzene	0.9 J	0.4 J	0.8	<0.5	<0.5
m,o,p-Dichlorobenzene	0.9 J	0.4 J	0.8	<0.5	<0.5
1,1-Dichloroethane	0.1 J	0.1 J	0.4 J	<0.5	1.4
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	0.6	1.6	**21.6**
cis-1,2-Dichloroethene	0.6	0.4 J	**8.5**	**18.8**	**22.4**
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	<0.5	0.1 J	**16.3**	**11.1**	**59.6**
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	1.2	2.8	**27.8**
Trichloroethylene	0.2 J	0.1 J	**31.2**	**86.1**	**259**
Vinyl chloride	0.3 J	0.1 J	<0.5	<0.5	<0.5
o-Xylene	<0.5	0.1 J	<0.5	<0.5	<0.5
m+p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (total)	<0.5	0.1 J	<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	3.5	2.3	60.3	121.4	392.9

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 - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	LF-1 1/19/2007	LF-1 4/19/2007	LF-1 7/20/2007	LF-1 10/16/2007	M-30B-R 1/17/2007
Alkalinity	228	240	202	208	16.8
Aluminum	<0.20	N/A	NA	NA	<0.20
Ammonia (as N)	35.3	39.0	32.1	33.9	<0.10
Barium	<0.20	N/A	NA	NA	<0.20
Bicarbonate (as CaCO3)	228	2.6	201	207	16.8
Calcium	12.8	N/A	NA	NA	10.1
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	205	170	169	193	25.4
Chromium	<0.01	N/A	NA	NA	<0.01
Chromium (Hexavalent)	<0.02	N/A	NA	NA	<0.02
Copper	<0.02	N/A	NA	NA	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	104	160	120	124	<120
Iron	16.9	N/A	NA	NA	0.05
Lead	<5.0	N/A	NA	NA	<5.0
Magnesium	17.0	N/A	NA	NA	5.56
Manganese	9.38	N/A	NA	NA	<0.02
Mercury	<0.20	N/A	NA	NA	<0.20
Nickel	<0.04	N/A	NA	NA	<0.04
Nitrate (as N)	<0.10	<0.10	<0.10	<0.10	6.52
Potassium	41.1	N/A	NA	NA	4.4
Sodium	128	N/A	NA	NA	19.2
Sulfate	23.2	23.4	25.8	31.3	15.5
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.03	N/A	NA	NA	0.03

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	M-30B-R 4/19/2007	M-30B-R 7/19/2007	M-30B-R 10/17/2007	MW-05B 1/19/2007	MW-05B 4/17/2007
Alkalinity	15.3	58.2	13.6	37.0	39.9
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	<0.10	<0.10	<0.10	<0.10	<0.10
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	1.7	58.2	13.5	37.0	39.9
Calcium	13.9	14.7	9.16	11.3	11.8
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	42.4	42.8	35.7	85.6	78.4
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)	58.0	60.0	44.0	68.0	72.0
Iron	0.04	0.06	0.17	0.06	0.04
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	6.89	7.54	5.24	7.35	7.82
Manganese	<0.02	<0.02	<0.02	5.0	5.21
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	5.18	4.9	4.67	1.26	1.22
Potassium	5.38	5.3	4.29	8.66	8.39
Sodium	24.1	27.9	26.0	50.3	51.2
Sulfate	17.8	21.9	18.3	21.7	22.5
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	0.05	0.02	0.03	0.1

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-05B 7/20/2007	MW-05B 10/16/2007	MW-06A 1/18/2007	MW-06A 4/18/2007	MW-06A 7/19/2007
Alkalinity	39.5	35.6	8.7	10.5	192
Aluminum	<0.20	<0.20	0.61	0.21	0.29
Ammonia (as N)	0.11	<0.10	4.61	2.64	1.97
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	39.5	35.6	8.7	10.5	192
Calcium	12.9	13.0	0.9	0.56	0.64
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	79.0	85.3	16.5	11.6	6.8
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	<0.02	<0.02	<0.02	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	50.0	100	5.0	32.0	12.0
Iron	0.05	0.07	2.18	0.26	0.38
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	9.56	9.22	0.75	0.6	0.51
Manganese	5.41	5.37	0.05	0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	2.25	3.84	1.68	1.21	1.76
Potassium	10.4	10.2	13.1	7.65	4.96
Sodium	52.0	45.7	15.8	14.4	8.41
Sulfate	20.8	16.5	9.5	10.9	6.4
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	<0.02	0.04	<0.02	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06A 10/18/2007	MW-06B 1/18/2007	MW-06B 4/18/2007	MW-06B 7/19/2007	MW-06B 10/18/2007
Alkalinity	4.6	775	1020	<1.0	996
Aluminum	0.56	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	1.3	125	149	145	176
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	4.6	775	1000	<1.0	996
Calcium	0.84	16.4	17.4	18.2	21.0
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	6.9	260	303	286	342
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)	6.0	92.0	120	100	140
Iron	1.33	7.48	8.52	7.64	9.99
Lead	<5.0	<5.0	<5.00	<5.0	<5.0
Magnesium	0.67	11.6	13.1	13.3	16.1
Manganese	0.02	0.07	0.07	0.07	0.09
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	1.62	<0.100	<0.100	<0.10	<0.100
Potassium	3.94	120	138	137	155
Sodium	6.07	260	296	304	331
Sulfate	6.6	8.0	7.2	9.0	37.6
Phenol	<5.0	<5.0	<5.0	7.5	12.7
Zinc	0.07	0.03	<0.02	<0.02	0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06C 1/18/2007	MW-06C 4/18/2007	MW-06C 7/19/2007	MW-06C 10/18/2007	MW-06E 1/18/2007
Alkalinity	489	448	416	897	271
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	37.0	36.4	35.6	113	46.5
Barium	<0.20	<0.20	<0.20	<0.20	0.23
Bicarbonate (as CaCO3)	489	447	416	897	271
Calcium	31.3	35.8	36.5	42.3	36.5
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	265	267	216	313	274
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)	128	140	170	160	152
Iron	4.08	5.03	4.25	6.03	3.87
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	7.79	9.13	8.66	13.1	17.3
Manganese	0.06	0.08	0.07	0.08	0.83
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.10	<0.10	<0.10	<0.10	<0.10
Potassium	63.2	58.5	58.3	120	62.7
Sodium	296	307	275	310	157
Sulfate	94.5	99.5	101	33.3	24.1
Phenol	<5.0	<5.0	<5.0	5.1	<5.0
Zinc	0.03	0.05	<0.02	<0.02	0.06

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06E DUP 1/18/2007	MW-06E 4/18/2007	MW-06E DUP 4/18/2007	MW-06E 7/19/2007	MW-06C DUP 7/19/2007
Alkalinity	264	247	<1.0	N/A	424
Aluminum	<0.20	<0.20	<0.20	N/A	<0.20
Ammonia (as N)	46.2	45.6	0.12	N/A	37.4
Barium	0.21	0.22	<0.20	N/A	<0.20
Bicarbonate (as CaCO3)	264	247	<1.0	N/A	424
Calcium	32.9	32.1	30.9	N/A	35.1
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	N/A	<1.0
Chloride	279	268	157	N/A	217
Chromium	<0.01	<0.01	<0.01	N/A	<0.01
Chromium (Hexavalent)	<0.02	<0.02	<0.02	N/A	<0.02
Copper	<0.02	<0.02	<0.02	N/A	<0.02
Cyanide	<10.0	<10.0	<10.0	N/A	<10.0
Hardness as (CaCO3)	168	150	150	N/A	120
Iron	3.45	4.3	0.12	N/A	4.04
Lead	<5.0	<5.0	<5.0	N/A	<5.0
Magnesium	15.6	15.6	12.9	N/A	8.39
Manganese	0.75	0.79	0.07	N/A	0.07
Mercury	<0.20	<0.20	0.3	N/A	<0.20
Nickel	<0.04	<0.04	<0.04	N/A	<0.04
Nitrate (as N)	<0.10	<0.10	0.63	N/A	<0.10
Potassium	56.5	54.6	3.06	N/A	56.5
Sodium	141	148	48.7	N/A	265
Sulfate	22.9	25.1	<5.0	N/A	104
Phenol	<5.0	<5.0	<5.0	N/A	<5.0
Zinc	0.05	0.03	0.03	N/A	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06E 10/18/2007	MW-06E DUP 10/18/2007	MW-6F 1/18/2007	MW-06F 4/18/2007	MW-06F 7/19/2007
Alkalinity	344	34.1	<1.0	<1.0	<1.0
Aluminum	<0.20	<0.20	<0.20	<0.20	0.23
Ammonia (as N)	61.8	60.6	0.21	0.12	0.22
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	343	34.1	<1.0	<1.0	<1.0
Calcium	28.9	30.4	32.0	30.9	33.8
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	303	275	165	157	169
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)	140	140	128	150	130
Iron	8.15	8.47	0.28	0.12	0.1
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	14.3	15	13.1	12.9	13.1
Manganese	0.78	0.82	0.07	0.07	0.08
Mercury	<0.20	<0.20	<0.20	0.3	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.10	<0.10	0.57	0.63	0.88
Potassium	68	70.2	4.17	3.06	3.69
Sodium	161	166	47.2	48.7	48.2
Sulfate	32.2	29.5	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.05	0.05	0.05	0.03	0.03

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-6F 10/18/2007	MW-07B 1/17/2007	MW-07B 4/17/2007	MW-07B 7/19/2007	MW-07B 10/18/2007
Alkalinity	<1.0	2.8	2.4	N/A	N/A
Aluminum	<0.20	<0.20	<0.20	N/A	N/A
Ammonia (as N)	0.54	<0.10	<0.10	N/A	N/A
Barium	0.21	<0.20	<0.20	N/A	N/A
Bicarbonate (as CaCO3)	<1.0	2.8	2.4	N/A	N/A
Calcium	36.2	4.8	5.7	N/A	N/A
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	N/A	N/A
Chloride	187	17.2	19.8	N/A	N/A
Chromium	<0.01	<0.01	<0.01	N/A	N/A
Chromium (Hexavalent)	<0.02	<0.02	<0.02	N/A	N/A
Copper	<0.02	0.04	0.05	N/A	N/A
Cyanide	<10.0	<10.0	<10.0	N/A	N/A
Hardness as (CaCO3)	136	20.0	24.0	N/A	N/A
Iron	0.64	0.03	0.04	N/A	N/A
Lead	<5.0	<5.0	<5.0	N/A	N/A
Magnesium	14.5	3.02	3.22	N/A	N/A
Manganese	0.11	0.04	0.05	N/A	N/A
Mercury	0.2	<0.20	<0.20	N/A	N/A
Nickel	<0.04	<0.04	<0.04	N/A	N/A
Nitrate (as N)	1.83	4.44	4.38	N/A	N/A
Potassium	6.97	1.24	1.3	N/A	N/A
Sodium	58.7	9.27	12.1	N/A	N/A
Sulfate	<5.0	<5.0	<5.0	N/A	N/A
Phenol	<5.0	<5.0	<5.0	N/A	N/A
Zinc	0.04	0.04	0.03	N/A	N/A

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-08A 1/18/2007	MW-08A 4/18/2007	MW-08A 7/19/2007	MW-08A 10/17/2007	MW-08B 1/18/2007
Alkalinity	83.0	44.7	3.2	6.6	<1.0
Aluminum	0.34	0.75	0.25	2.95	<0.20
Ammonia (as N)	0.35	0.33	<0.10	<0.10	1.22
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	83.0	44.7	3.1	6.6	<1.0
Calcium	30.7	26.5	4.76	11.4	22.6
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	59.9	54.7	17.2	32.4	123
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)	140	110	60.0	44.0	88.0
Iron	0.49	0.83	0.21	5.1	<0.02
Lead	<5.0	20.4	<5.0	12.6	<5.0
Magnesium	11.7	11.0	2.29	5.83	9.37
Manganese	0.1	0.1	0.04	0.12	1.14
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	10.5	8.67	5.36	3.12	1.72
Potassium	19.0	16.2	3.69	8.9	18.6
Sodium	56.2	41.3	8.8	31.3	47.2
Sulfate	90.5	45.2	8.8	25.4	21.1
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.04	0.02	<0.02	0.07	0.11

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-08B 4/18/2007	MW-08B 7/19/2007	MW-08B 10/17/2007	MW-09B 1/17/2007	MW-09B 4/17/2007
Alkalinity	<1.0	<1.0	1.6	13.6	10.8
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	1.14	0.98	1.0	0.44	0.48
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	<1.0	<1.0	1.5	13.6	10.7
Calcium	22.5	22.6	19.7	14.9	14.5
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	124	112	107	77.2	70.8
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	<0.02	<0.02	<0.02	0.03
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	110	80.0	76.0	60.0	58.0
Iron	0.04	0.03	0.02	<0.02	0.03
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	9.22	8.15	6.96	5.58	5.35
Manganese	1.15	1.1	0.95	0.1	0.12
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	1	1.66	1.75	4.6	4.91
Potassium	1.58	14.9	14.9	6.66	6.06
Sodium	49.4	44.2	39.8	39.9	40.5
Sulfate	21.7	22.7	19.4	23.5	22.5
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.09	0.09	0.08	0.03	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09B 7/20/2007	MW-09B 10/17/2007	MW-09C 1/17/2007	MW-09C 4/17/2007	MW-09C 7/20/2007
Alkalinity	11.8	12.0	36.0	35.5	36.9
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	0.46	0.4	6.28	7.81	7.5
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	11.7	11.9	36.0	35.5	36.9
Calcium	13.5	14.0	2.99	2.88	3.01
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	58.0	49.9	78.1	80.8	77.3
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)	44.0	56.0	28.0	30.0	<5.0
Iron	0.03	0.03	0.12	0.13	0.12
Lead	<5.0	<5.0	<5.0	14.5	<5.0
Magnesium	5.35	5.46	5.34	4.68	5.19
Manganese	0.12	0.11	0.07	0.07	0.07
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	5.3	5.63	0.16	0.15	0.21
Potassium	6.39	6.7	16.1	16.9	17.5
Sodium	40.5	31.2	41.9	46.8	49.6
Sulfate	22.5	<5.0	17.6	16.6	15.5
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	<0.02	0.02	0.03	<0.02	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09C 10/17/2007	MW-9D 7/20/2007	MW-11A 1/17/2007	MW-11A 4/19/2007	MW-11A 7/19/2007
Alkalinity	35.8	<1.0	<1.0	1.2	1.4
Aluminum	<0.20	0.73	<0.20	<0.20	<0.20
Ammonia (as N)	6.44	1.32	<0.10	<0.10	<0.10
Barium	<0.20	0.3	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	35.8	<1.0	<1.0	<1.0	1.4
Calcium	3.64	23.3	4.0	4.01	4.49
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	82.6	224	8.1	7.9	9.1
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)	32.0	130	20.0	29.0	25.0
Iron	0.15	1.24	0.03	<0.02	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	6.41	17.7	2.2	2.04	2.4
Manganese	0.09	0.19	<0.02	<0.02	<0.02
Mercury	<0.20	1.3	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.27	<0.10	4.75	4.52	4.39
Potassium	17.0	5.67	1.11	0.93	1.05
Sodium	47.4	107	4.73	4.97	5.38
Sulfate	16.8	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.06	0.1	0.03	<0.02	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-11A 10/17/2007	MW-11B 1/17/2007	MW-11B 4/19/2007	MW-11B 7/19/2007	MW-11B 10/17/2007
Alkalinity	<1.0	<1.0	1.3	1.0	1.4
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	<0.10	<0.10	<0.10	<0.10	<0.10
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	<1.0	<1.0	<1.0	1.0	1.3
Calcium	3.85	1.33	1.38	1.58	1.42
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	8.7	5.3	5.5	6.4	6.3
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	0.03	<0.02
Cyanide	<10.0	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	20.0	<10.0	11.0	6.0	6.0
Iron	<0.02	0.04	0.04	0.03	0.11
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	2.09	0.65	0.63	0.76	0.68
Manganese	<0.02	<0.02	<0.02	<0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	2.13	0.75	0.76	0.76	0.73
Potassium	1.08	0.73	0.6	0.69	0.78
Sodium	5.01	3.56	3.7	4.0	3.87
Sulfate	<5.0	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	0.03	0.03	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	OBS-1 1/19/2007	OBS-1 4/17/2007	OBS-1 7/20/2007	OBS-1 10/16/2007
Alkalinity	54.2	57.4	56.3	61.5
Aluminum	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	4.93	5.13	4.81	5.42
Barium	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	54.2	57.4	56.3	61.5
Calcium	17.1	23.8	21.1	21.3
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0
Chloride	93.4	105	99.3	107
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
Cyanide	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	104	125	120	116
Iron	0.06	0.11	0.11	0.09
Lead	<5.0	<5.0	<5.0	<5.0
Magnesium	13.1	17.8	17.1	16.6
Manganese	1.22	1.7	1.48	1.42
Mercury	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	0.44	<0.10	<0.10	<0.10
Potassium	9.54	10.1	9.15	9.23
Sodium	66.5	79.6	75.6	74.1
Sulfate	78.0	122	101	110
Phenol	<5.0	<5.0	<5.0	<5.0
Zinc	0.03	0.03	<0.02	0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 7
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (UNFILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	Field Blank 1/19/2007	Field Blank 4/17/2007	Field Blank 7/20/2007	Field Blank 10/18/2007
Alkalinity	<1.0	<1.0	<1.0	<1.0
Aluminum	<0.20	<0.20	<0.20	<0.20
Ammonia (as N)	<0.10	<0.10	<0.10	<0.10
Barium	<0.20	<0.20	<0.20	<0.20
Bicarbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0
Calcium	<0.20	<0.20	<0.20	<0.20
Carbonate (as CaCO3)	<1.0	<1.0	<1.0	<1.0
Chloride	<2.0	<2.0	<2.0	<2.0
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
Cyanide	<10.0	<10.0	<10.0	<10.0
Hardness as (CaCO3)	5.0	<5.0	<5.0	<5.0
Iron	<0.02	<0.02	<0.02	<0.02
Lead	<5.0	<5.0	<5.0	<5.0
Magnesium	<0.20	<0.20	<0.20	<0.20
Manganese	<0.02	<0.02	<0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04
Nitrate (as N)	<0.10	<0.10	<0.10	<0.10
Potassium	<0.20	<0.20	<0.20	<0.20
Sodium	0.38	<0.20	<0.20	<0.20
Sulfate	<5.0	<5.0	<5.0	<5.0
Phenol	<5.0	<5.0	<5.0	<5.0
Zinc	0.03	<0.02	<0.02	<0.02

Notes:

NA - Not analyzed

Mercury, cyanide and phenols are reported in micrograms per liter (µg/L)

All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	M-30B-R 1/17/2007	M-30B-R 4/19/2007	M-30B-R 7/19/2007	M-30B-R 10/17/2007	MW-05B 1/19/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	13.0	13.4	13.5	9.82	10.8
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	<0.02	<0.02	<0.02	<0.02
Iron	0.04	0.02	<0.02	0.02	0.03
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	7.07	7.21	6.97	5.14	7.05
Manganese	<0.02	<0.02	<0.02	<0.02	4.78
Mercury	NA	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	5.78	6.84	4.93	4.31	8.7
Sodium	25.3	25.5	25.8	26.3	49.1
Zinc	0.02	<0.02	0.02	<0.02	0.03

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-05B 4/17/2007	MW-05B 7/20/2007	MW-05B 10/16/2007	MW-06A 1/18/2007	MW-06A 4/18/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	12.2	11.6	12.7	1.29	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	0.02	<0.02	0.06	0.03	0.2
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	7.66	8.54	8.97	0.93	0.71
Manganese	5.45	5.03	5.23	0.03	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	8.22	9.95	10.2	14.7	2.8
Sodium	53.9	49.8	45.7	19.9	7.79
Zinc	0.02	0.02	<0.02	0.04	0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06A 7/19/2007	MW-06A 10/18/2007	MW-06B 1/18/2007	MW-06B 4/18/2007	MW-06B 7/19/2006
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	1.0	0.73	15.7	19.0	16.7
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	<0.02	0.03	0.1	0.14	0.37
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	0.63	0.55	11.0	12.6	12.4
Manganese	<0.02	<0.02	0.06	0.08	0.06
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	4.89	3.8	114	138	130
Sodium	7.97	6.01	246	309	288
Zinc	0.02	<0.02	0.03	<0.02	0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06B 10/18/2007	MW-06C 1/18/2007	MW-06C 4/18/2007	MW-06C 7/19/2007	MW-06C 10/18/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	19.5	31.7	35.5	34.0	40.3
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	0.04	<0.02
Iron	0.31	0.06	0.1	3.43	0.12
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	15.2	7.97	8.4	8.52	12.5
Manganese	0.07	0.07	0.06	0.08	0.08
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	0.05	<0.04
Potassium	149	64.5	60.8	61.2	118
Sodium	318	301	356	270	303
Zinc	<0.02	0.03	<0.02	0.07	<0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06E 1/18/2007	MW-06E DUP 1/18/2007	MW-06E 4/18/2007	MW-06E DUP 4/18/2007	MW-06E 7/19/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	N/A
Barium	0.21	<0.20	<0.20	<0.20	N/A
Calcium	34.4	32.5	29.9	28.3	N/A
Chromium	<0.01	<0.01	<0.01	<0.01	N/A
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	N/A
Copper	<0.02	<0.02	<0.02	<0.02	N/A
Iron	1.24	1.26	2.09	2.11	N/A
Lead	<5.0	<5.0	<5.0	<5.0	N/A
Magnesium	16.4	15.5	12.6	12.5	N/A
Manganese	0.79	0.74	0.71	0.65	N/A
Mercury	<0.20	<0.20	<0.20	<0.20	N/A
Nickel	<0.04	<0.04	<0.04	<0.04	N/A
Potassium	59.6	56.3	37.6	36.7	N/A
Sodium	149	142	92.1	88.8	N/A
Zinc	0.05	0.06	0.03	<0.02	N/A

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06CDUP 7/19/2007	MW-06E 10/18/2007	MW-06E DUP 10/18/2007	MW-06F 1/18/2007	MW-06F 5/24/2006
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	34.0	28.6	28.3	30.5	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	0.05	0.7	0.4	0.23	0.17
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	8.24	14.3	14.1	12.6	11.9
Manganese	0.06	0.77	0.77	0.07	0.07
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	55.2	68.3	67.5	4.8	4.43
Sodium	260	161	159	47.4	54.3
Zinc	0.02	<0.02	<0.02	0.03	0.03

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-06F 7/19/2007	MW-06F 10/18/2007	MW-07B 1/17/2007	MW-07B 4/17/2007	MW-07B 7/19/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	N/A
Barium	<0.20	<0.20	<0.20	<0.20	N/A
Calcium	34.7	32.9	4.79	4.8	N/A
Chromium	<0.01	<0.01	<0.01	<0.01	N/A
Chromium (Hexavalent)	<0.02	<0.02	<0.02	<0.02	N/A
Copper	<0.02	<0.02	0.04	0.05	N/A
Iron	0.11	0.57	<0.02	0.04	N/A
Lead	<5.0	<5.0	<5.0	<5.0	N/A
Magnesium	13.6	13.2	3.08	2.96	N/A
Manganese	0.08	0.11	0.04	0.06	N/A
Mercury	<0.20	<0.20	<0.20	<0.20	N/A
Nickel	<0.04	<0.04	<0.04	<0.04	N/A
Potassium	4.53	6.6	1.39	0.98	N/A
Sodium	51.8	55.2	9.94	14.6	N/A
Zinc	0.04	0.03	0.04	0.02	N/A

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-07B 10/18/2007	MW-08A 1/18/2007	MW-08A 4/18/2007	MW-08A 7/19/2007	MW-08A 10/17/2007
Aluminum	NA	<0.20	<0.20	<0.20	<0.20
Barium	NA	<0.20	<0.20	<0.20	<0.20
Calcium	NA	30.6	15.4	11.9	8.65
Chromium	NA	<0.01	<0.01	<0.01	<0.01
Chromium (Hexavalent)	NA	<0.02	<0.02	<0.02	<0.02
Copper	NA	<0.02	<0.02	<0.02	<0.02
Iron	NA	<0.02	<0.02	<0.02	0.08
Lead	NA	<5.0	<5.0	<5.0	<5.0
Magnesium	NA	11.6	5.99	5.48	4.49
Manganese	NA	0.1	0.07	0.09	0.09
Mercury	NA	<0.20	<0.20	<0.20	<0.20
Nickel	NA	<0.04	<0.04	<0.04	<0.04
Potassium	NA	19.5	11.7	9.38	7.33
Sodium	NA	58.2	36.8	22.8	26.0
Zinc	NA	0.04	0.08	0.03	0.03

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-08B 1/18/2007	MW-08B 4/18/2007	MW-08B 7/19/2007	MW-08B 10/17/2007	MW-09B 1/17/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	22.2	20.1	22.6	19.5	15.5
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
Iron	0.03	0.1	0.05	0.04	0.05
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	9.2	8.55	8.21	6.91	5.84
Manganese	1.12	1.07	1.08	0.95	0.11
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	18.3	15.4	16.3	15.1	6.78
Sodium	46.5	48.2	46.1	40.4	41.3
Zinc	0.11	0.08	0.1	0.07	0.03

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09B 4/17/2007	MW-09B 7/20/2007	MW-09B 10/17/2007	MW-09C 1/17/2007	MW-09C 4/17/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	13.8	12.9	12.9	3.34	2.96
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	0.04	0.04
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	5.82	5.15	5.11	5.34	5.04
Manganese	0.12	0.12	0.11	0.07	0.07
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	7.86	6.29	6.42	15.4	21.8
Sodium	36.6	39.9	30.0	41.8	52.0
Zinc	0.02	<0.02	<0.02	0.03	<0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-09C 7/20/2007	MW-09C 10/17/2007	MW-09D 7/20/2007	MW-11A 1/17/2007	MW-11A 4/19/2007
Aluminum	<0.20	<0.20	0.67	<0.20	<0.20
Barium	<0.20	<0.20	0.29	<0.20	<0.20
Calcium	3.06	3.51	21.5	4.09	4.21
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	0.05	0.28	1.17	<0.02	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	5.03	6.11	16.2	2.34	2.23
Manganese	0.07	0.08	0.21	<0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	16.8	16.5	5.57	1.26	1.27
Sodium	48.4	46.3	104	5.52	5.63
Zinc	<0.02	0.04	0.1	0.03	<0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-11A 7/19/2007	MW-11A 10/17/2007	MW-11B 1/17/2007	MW-11B 4/19/2007	MW-11B 7/19/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	4.73	3.88	1.36	1.27	1.63
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	0.04
Iron	<0.02	0.07	<0.02	0.02	<0.02
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	2.45	2.11	0.69	0.59	0.75
Manganese	<0.02	<0.02	<0.02	<0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	1.16	1.09	0.77	0.75	0.69
Sodium	5.12	5.19	3.78	3.67	3.52
Zinc	0.02	<0.02	0.02	<0.02	<0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	MW-11B 10/17/2007	OBS-1 1/19/2007	OBS-1 4/17/2007	OBS-1 7/20/2007	OBS-1 10/16/2007
Aluminum	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20	<0.20
Calcium	1.35	17.6	20.5	21.3	20.7
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	0.04	0.05	0.11	0.1	0.06
Lead	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	0.66	13.6	15.3	17.4	16.2
Manganese	<0.02	1.29	1.17	1.5	1.42
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium	0.7	10.1	9.27	9.22	9.33
Sodium	3.81	69.2	75.6	76.6	74.9
Zinc	<0.02	0.03	0.02	0.02	0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

TABLE 8
TOWN OF OYSTER BAY
OLD BETHPAGE LANDFILL
ANNUAL GROUNDWATER ANALYTICAL RESULTS - 2007
TOTAL (FILTERED) METALS AND LEACHATE INDICATORS

CONSTITUENT / SITE / DATE	Field Blank 1/19/2007	Field Blank 4/19/2007	Field Blank 7/20/2007	Field Blank 10/18/2007
Aluminum	<0.20	<0.20	<0.20	<0.20
Barium	<0.20	<0.20	<0.20	<0.20
Calcium	<0.20	<0.20	<0.20	<0.20
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	<0.20	<0.20	<0.20	<0.20
Manganese	<0.02	<0.02	<0.02	<0.02
Mercury	<0.20	<0.20	<0.20	<0.20
Nickel	<0.04	<0.04	<0.04	<0.04
Potassium	<0.20	<0.20	<0.20	<0.20
Sodium	0.38	<0.20	0.34	0.21
Zinc	0.02	<0.02	<0.02	<0.02

Notes:
NA - Not analyzed
Mercury and lead are reported in micrograms per liter (µg/L)
All other constituents are reported in milligrams per liter (mg/L)

FIGURES

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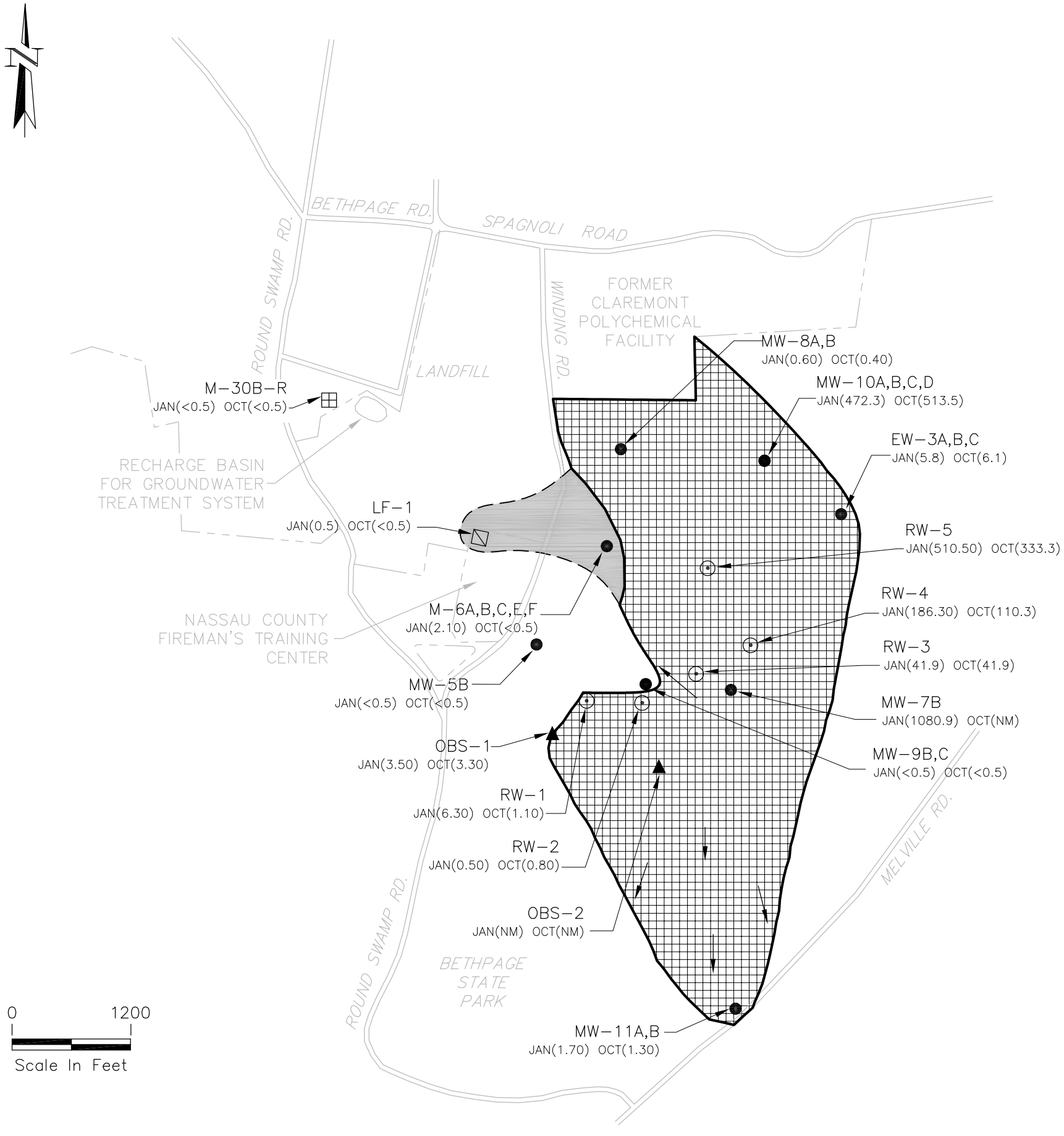
FIGURE 1



S46769 – A
042108

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 2007 APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS PLUME
	OCTOBER 2007 APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS PLUME
	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE VOLATILE HALOGENATED ORGANICS FOR JANUARY AND OCTOBER OF 2007

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.

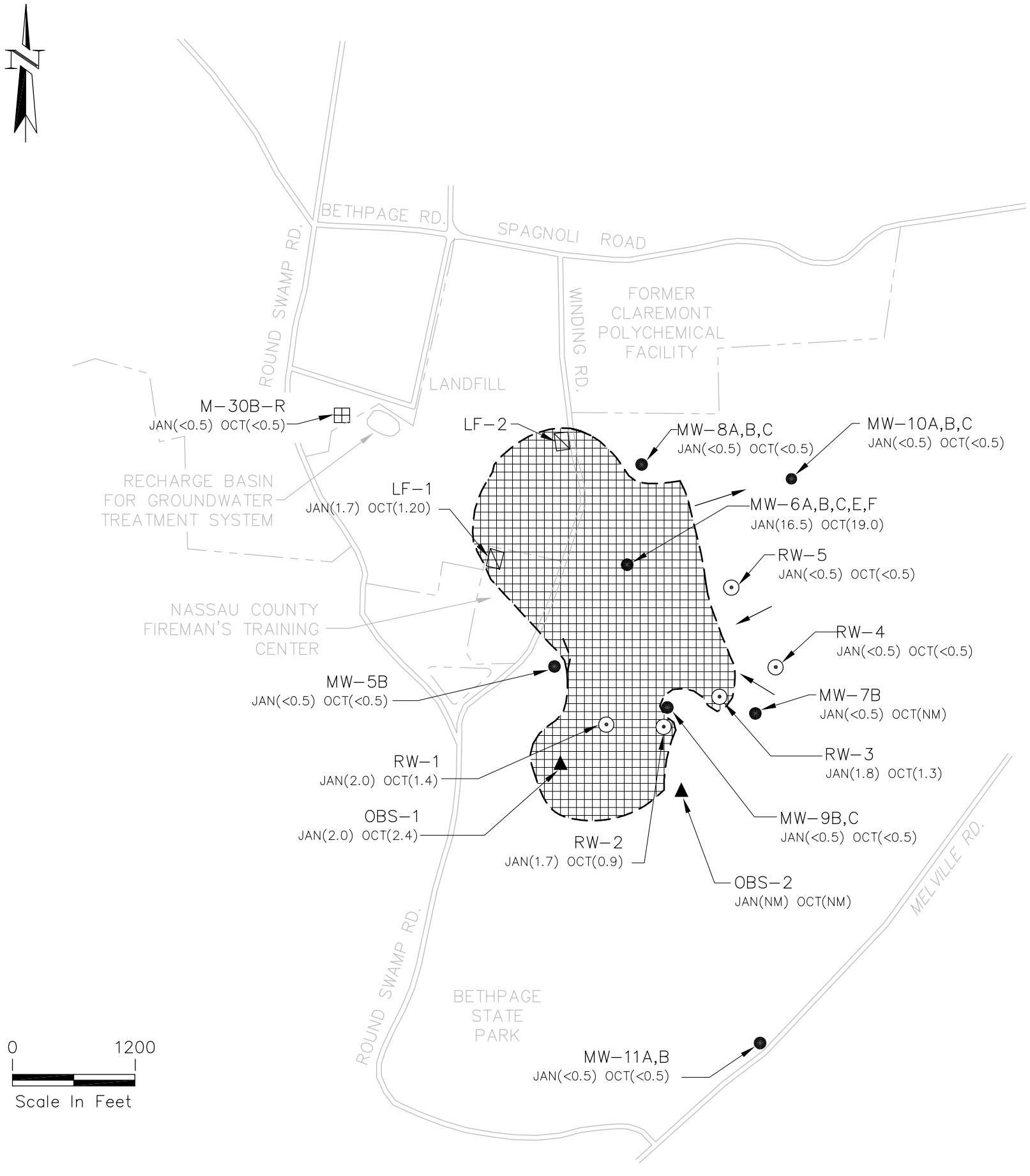
APPROXIMATE EXTENT AND DISTRIBUTION OF TOTAL VOLATILE HALOGENATED ORGANICS ANNUAL 2007

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

Gannett Fleming

FIGURE 2



S46769 – B
042108

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 2007 APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME
	OCTOBER 2007 APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME
	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE AROMATIC HYDROCARBON PLUME FOR JANUARY AND OCTOBER OF 2007

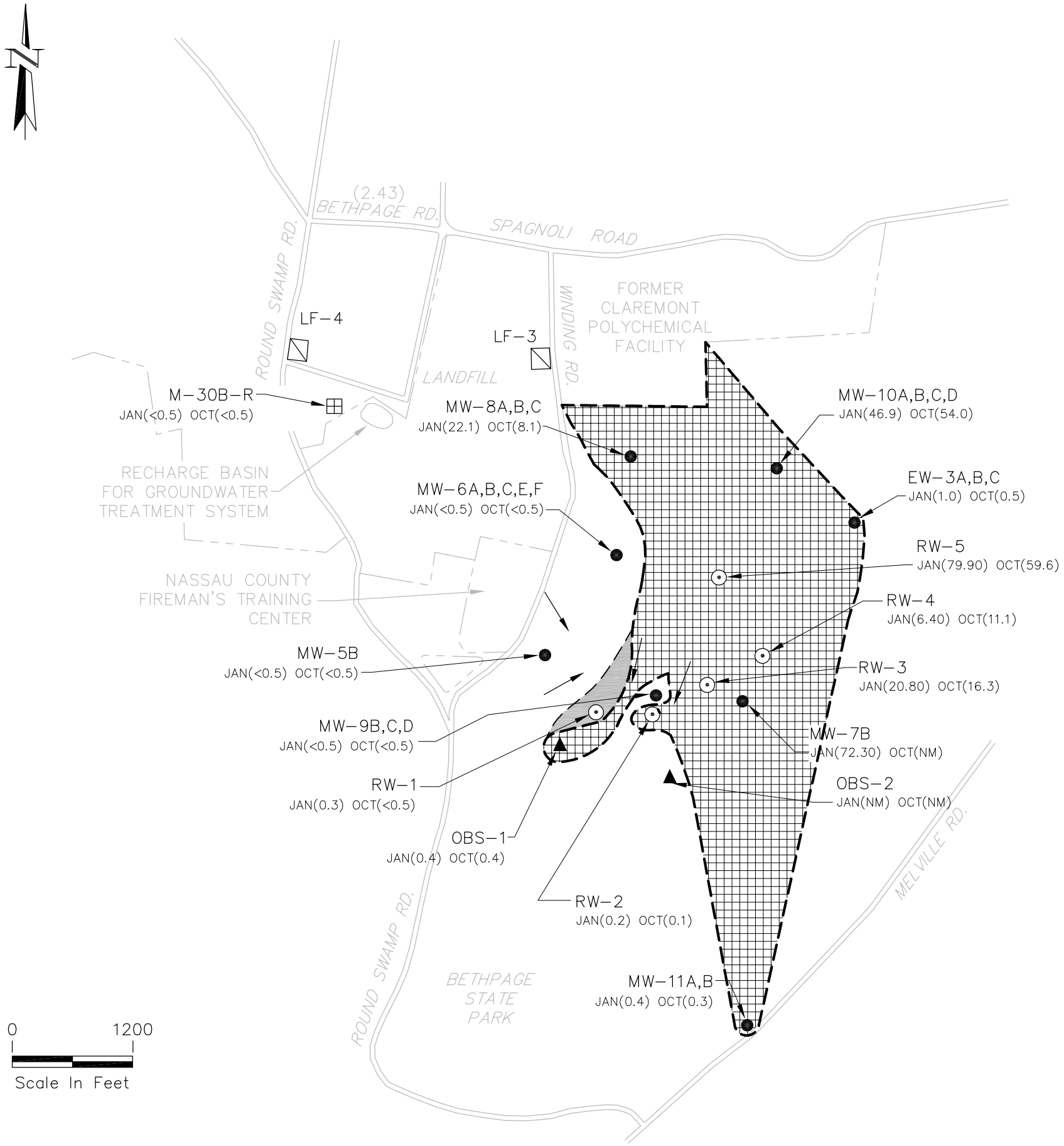
NOTE:

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 2007

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 2007 APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME
	OCTOBER 2007 APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME
	OVERLAP OF APPROXIMATE AREAL EXTENT OF THE TETRACHLOROETHENE PLUME FOR JANUARY AND OCTOBER OF 2007

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 2007

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

APPENDIX A

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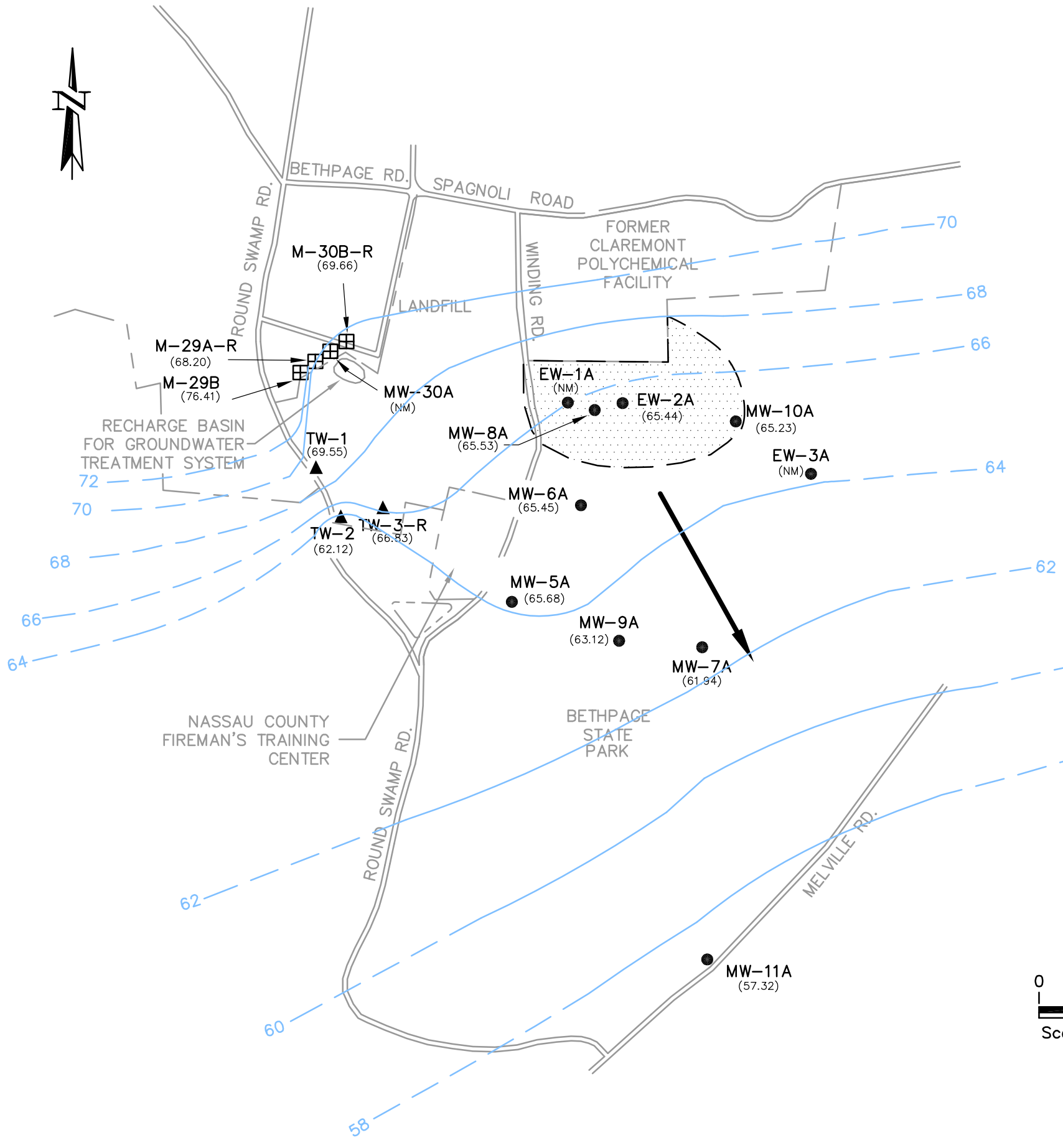
FIGURE 1



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*

0 1200

Scale In Feet

WATER TABLE FLOW MAP JANUARY 16, 2007

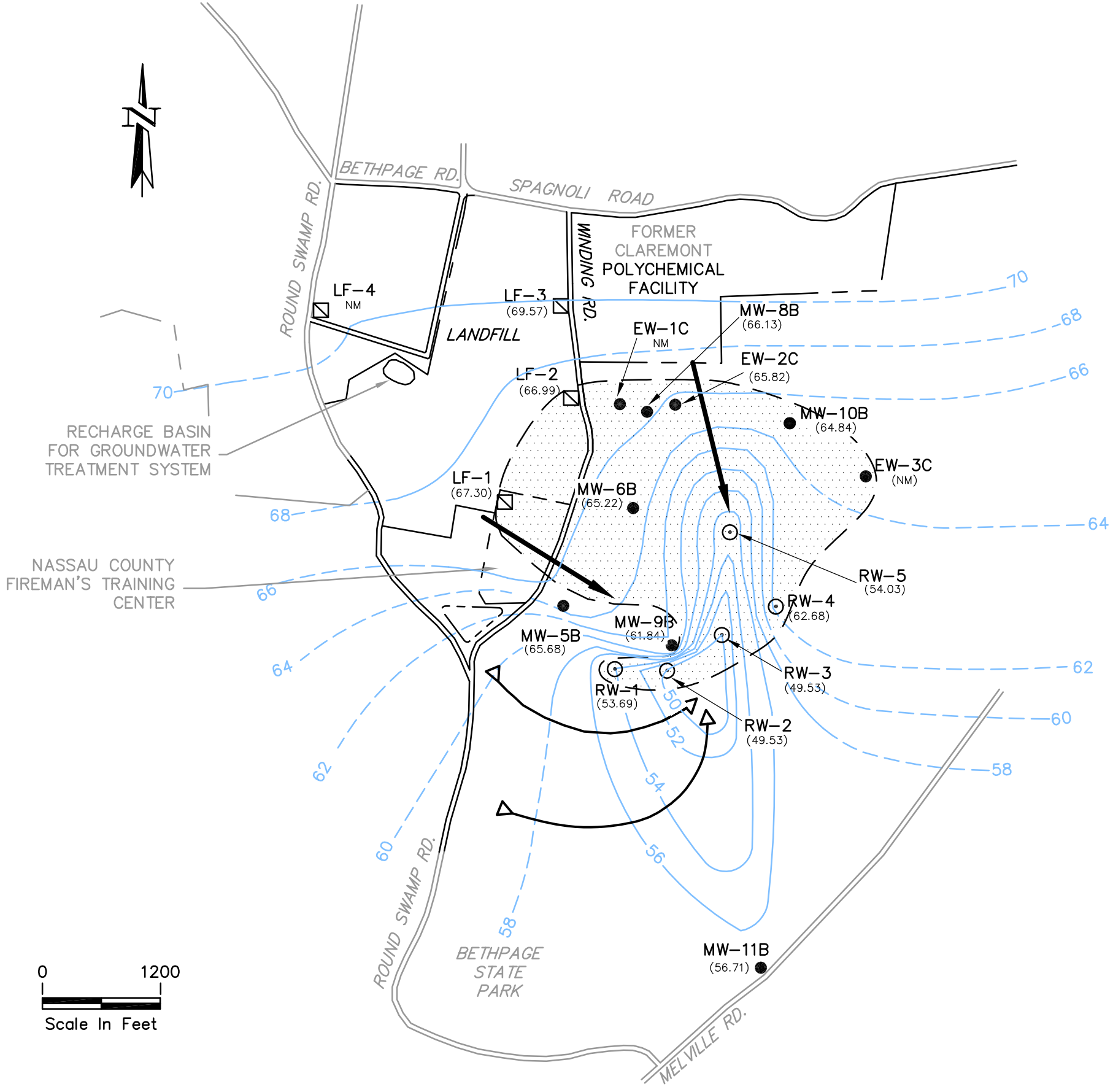
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769A
042008

Gannett Fleming

FIGURE 2



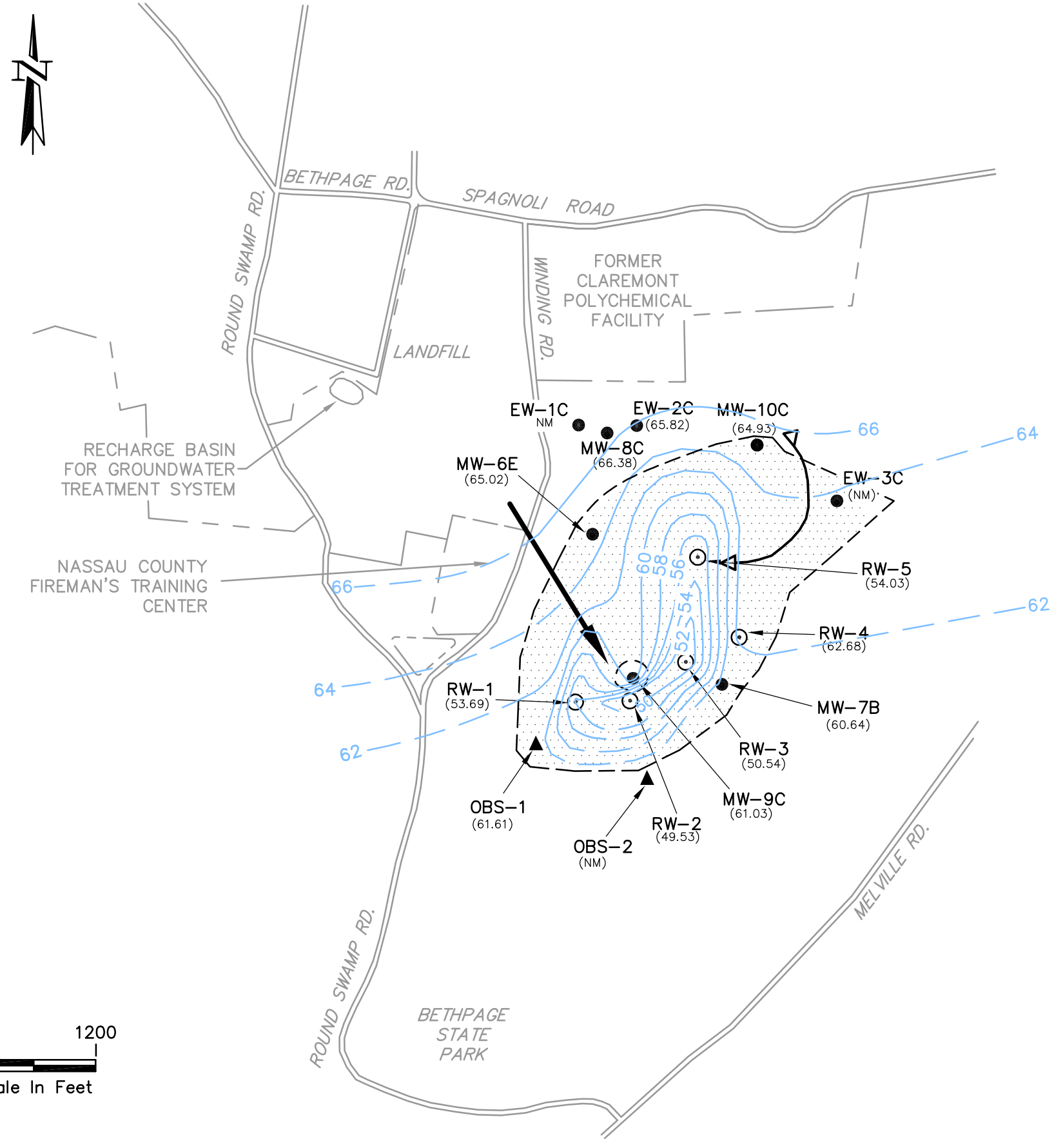
LEGEND

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 October 2006.*
NM	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP JANUARY 16, 2007

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN46769B
052107



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*

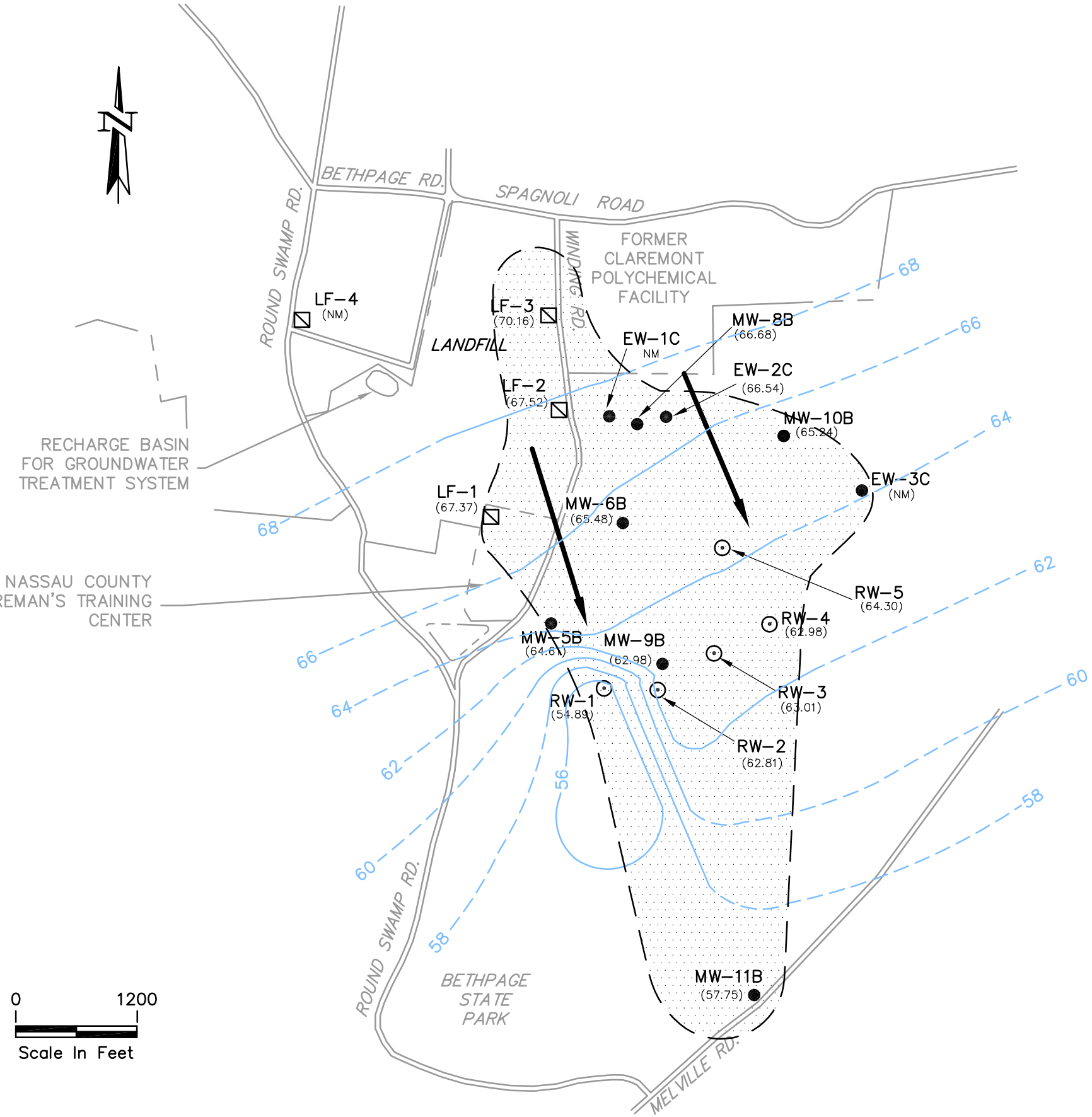
DEEP POTENTIOMETRIC FLOW MAP JANUARY 16, 2007

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN46769C
052107

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*
▬▶	*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 April 2007.*
(NM)	*Not Measured*

SHALLOW POTENTIOMETRIC FLOW MAP APRIL 16, 2007

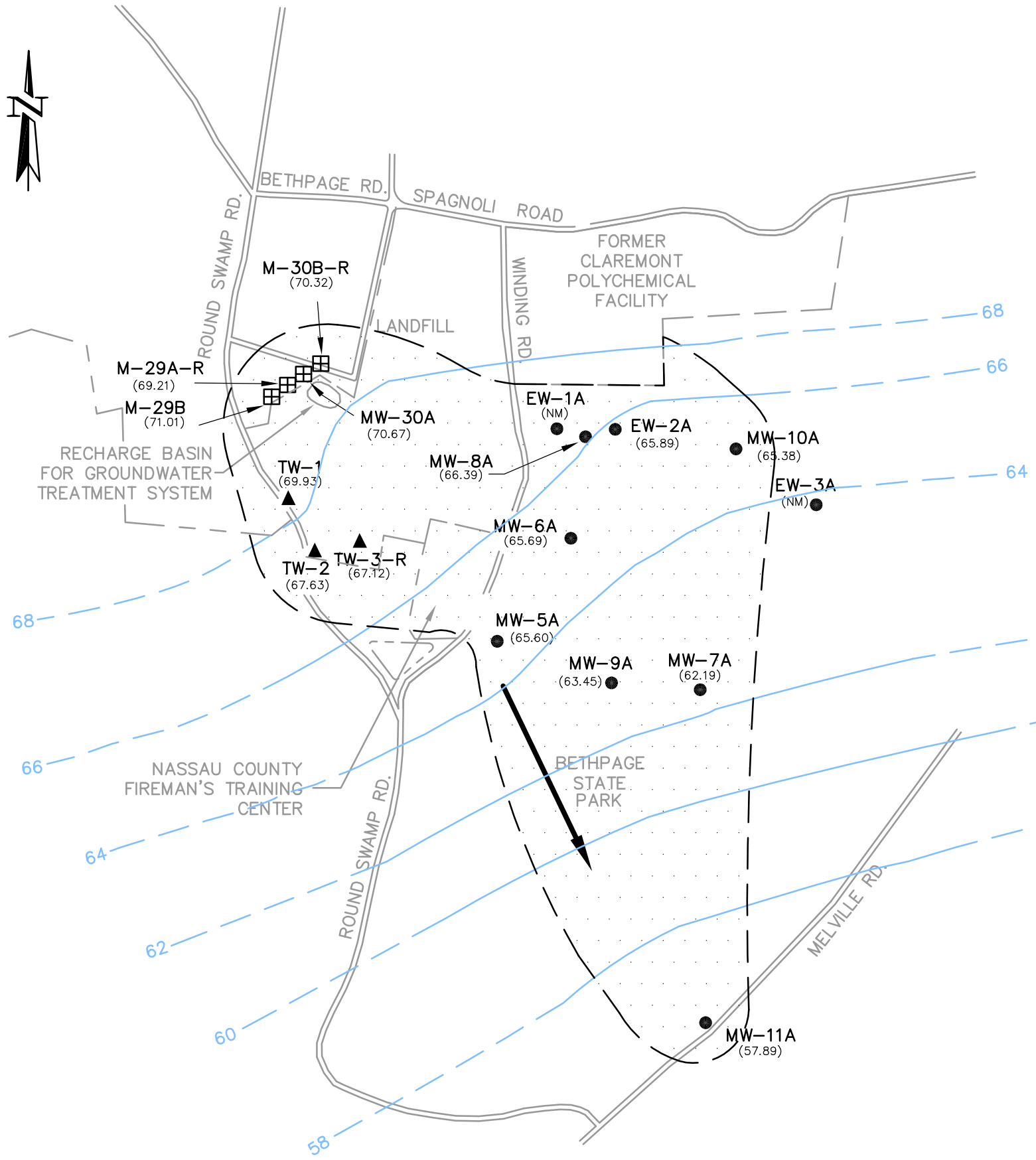
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311B
111507

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 – April 2007
(NM)	*Not Measured*

0 1200

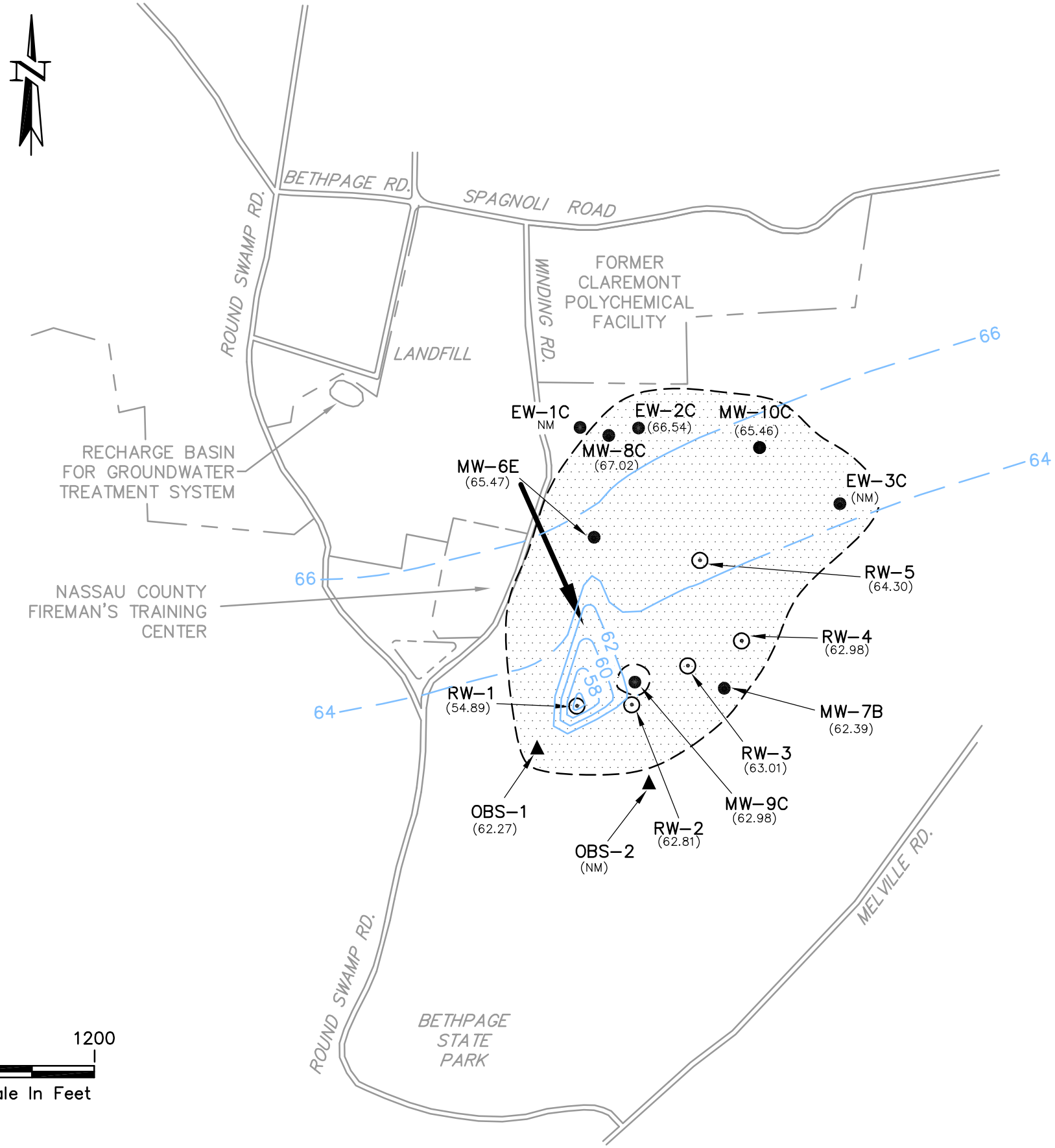
Scale In Feet

WATER TABLE FLOW MAP APRIL 16, 2007

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN43311A
111507



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
	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 – April 2007
(NM)	*Not Measured*

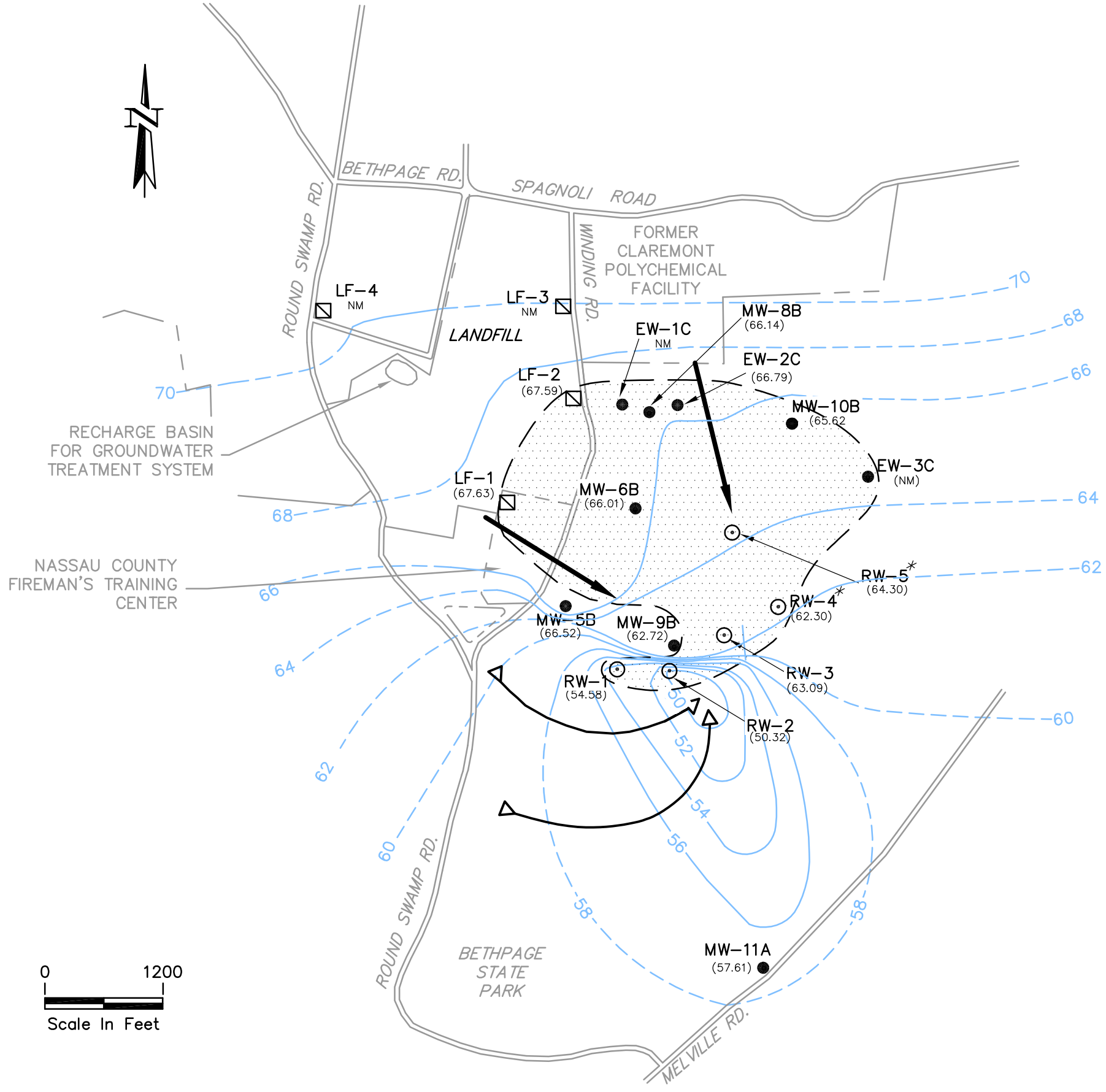
DEEP POTENTIOMETRIC FLOW MAP APRIL 16, 2007

OLD BETHPAGE LANDFILL
TOWN OF OYSTER BAY

SN43311C
111507

Gannett Fleming

FIGURE 2



LEGEND

MW–5B (66.52) ●	*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 July 2007.*
(NM)	*Not Measured*
*	*RW–4 and RW–5 were not measured on July 16, 2007, but were online. Most current prior readings are used for contouring (2nd Quarter 2007).*

SHALLOW POTENTIOMETRIC FLOW MAP JULY 16, 2007

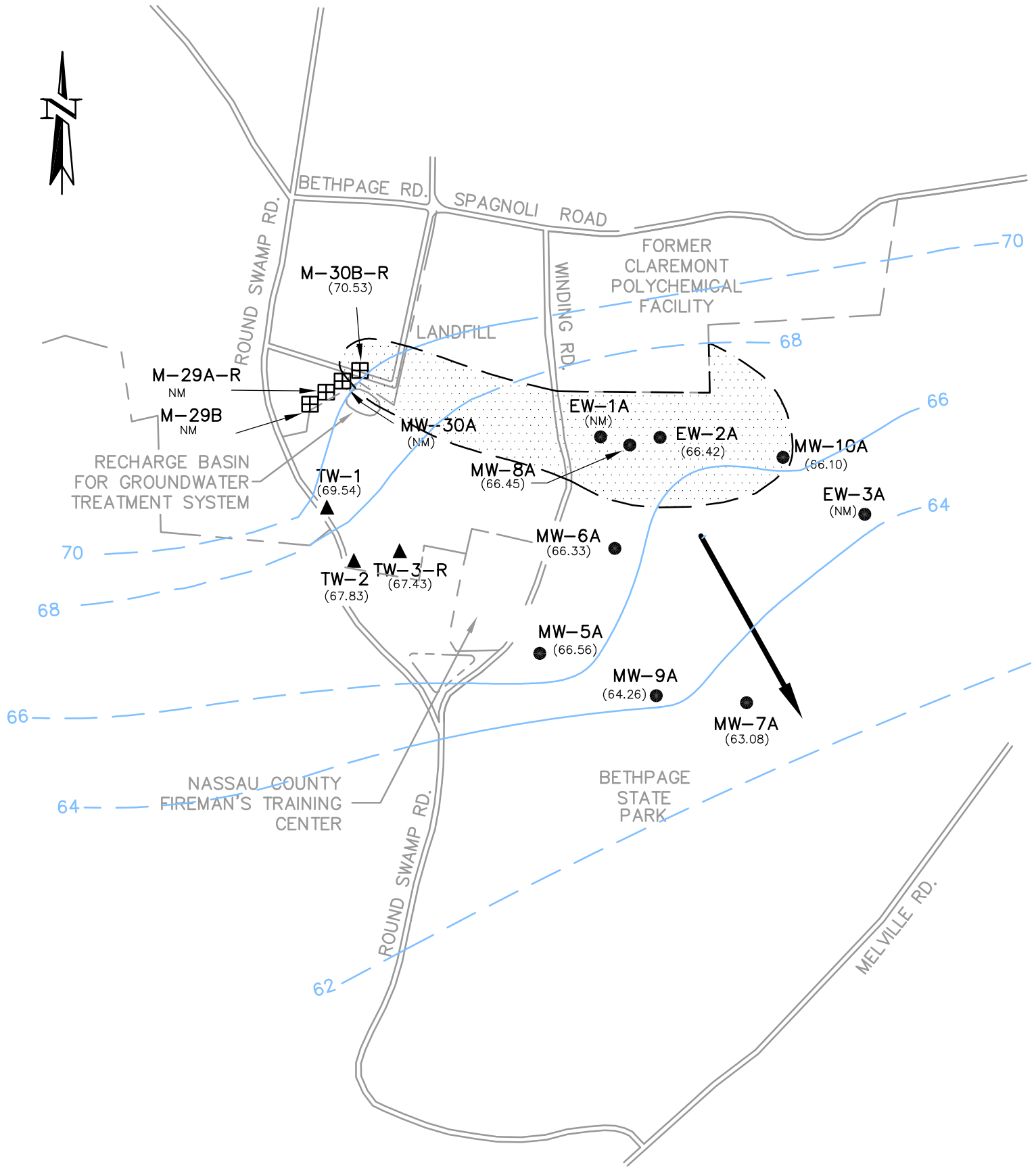
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769B
071408

Gannett Fleming

FIGURE 1



LEGEND

MW-5A (66.56) ●	*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 – July 2007
(NM)	*Not Measured*

0 1200

Scale In Feet

WATER TABLE FLOW MAP JULY 16, 2007

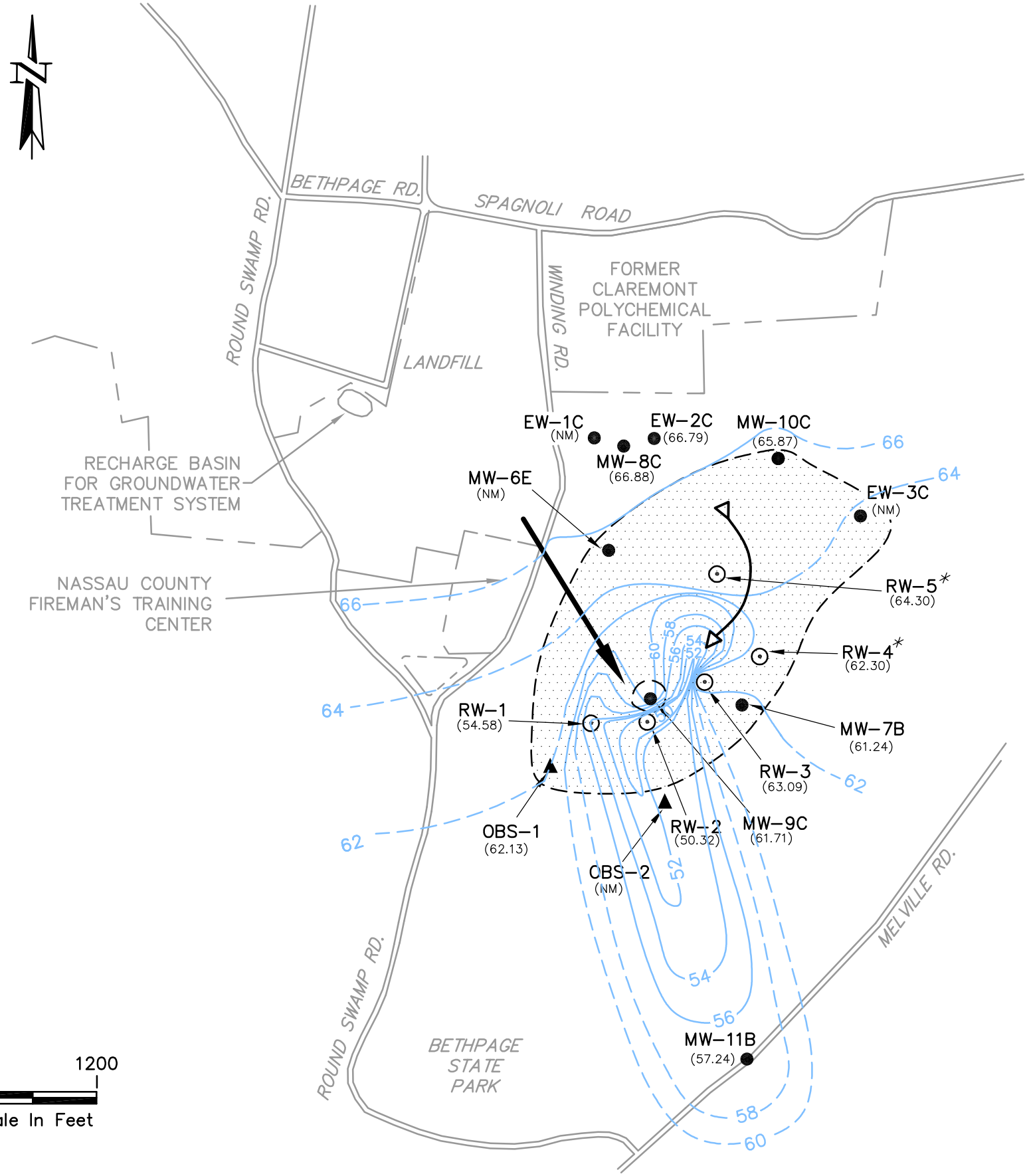
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769A
071408

Gannett Fleming

FIGURE 3



LEGEND

MW–8C (66.88) ●	*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 – July 2007
(NM)	*Not Measured*
*	*RW–4 and RW–5 were not measured on July 16, 2007, but were online. Most current prior readings are used for contouring (2nd Quarter 2007).*

DEEP POTENTIOMETRIC FLOW MAP JULY 16, 2007

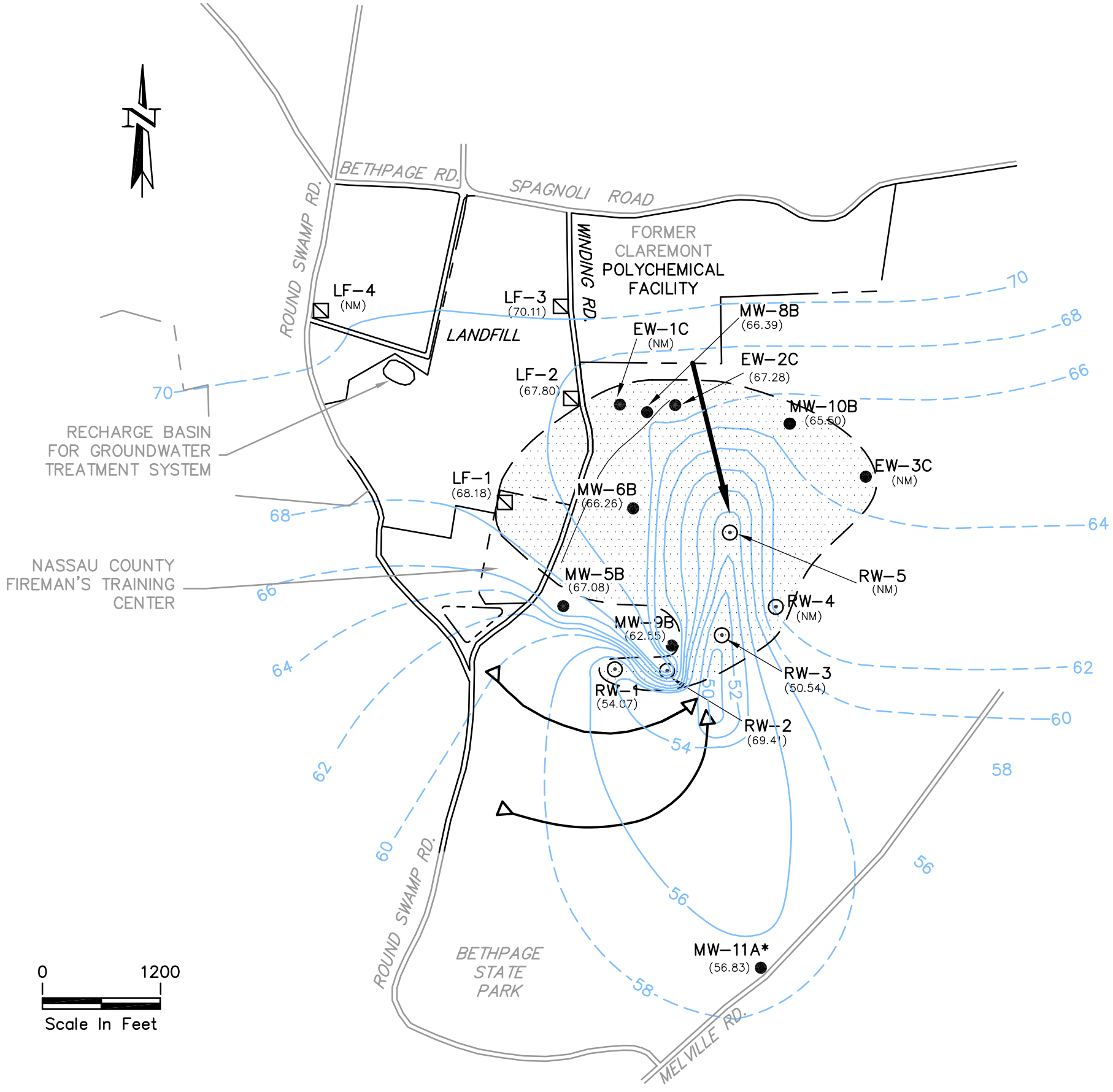
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769C
071408

Gannett Fleming

FIGURE 2



LEGEND

MW–5B (67.08) ●	*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 2007.*
(NM)	*Not Measured*
*	*Well MW–11A is screened just below the Shallow Potentiometric Zone.*

SHALLOW POTENTIOMETRIC FLOW MAP OCTOBER 15, 2007

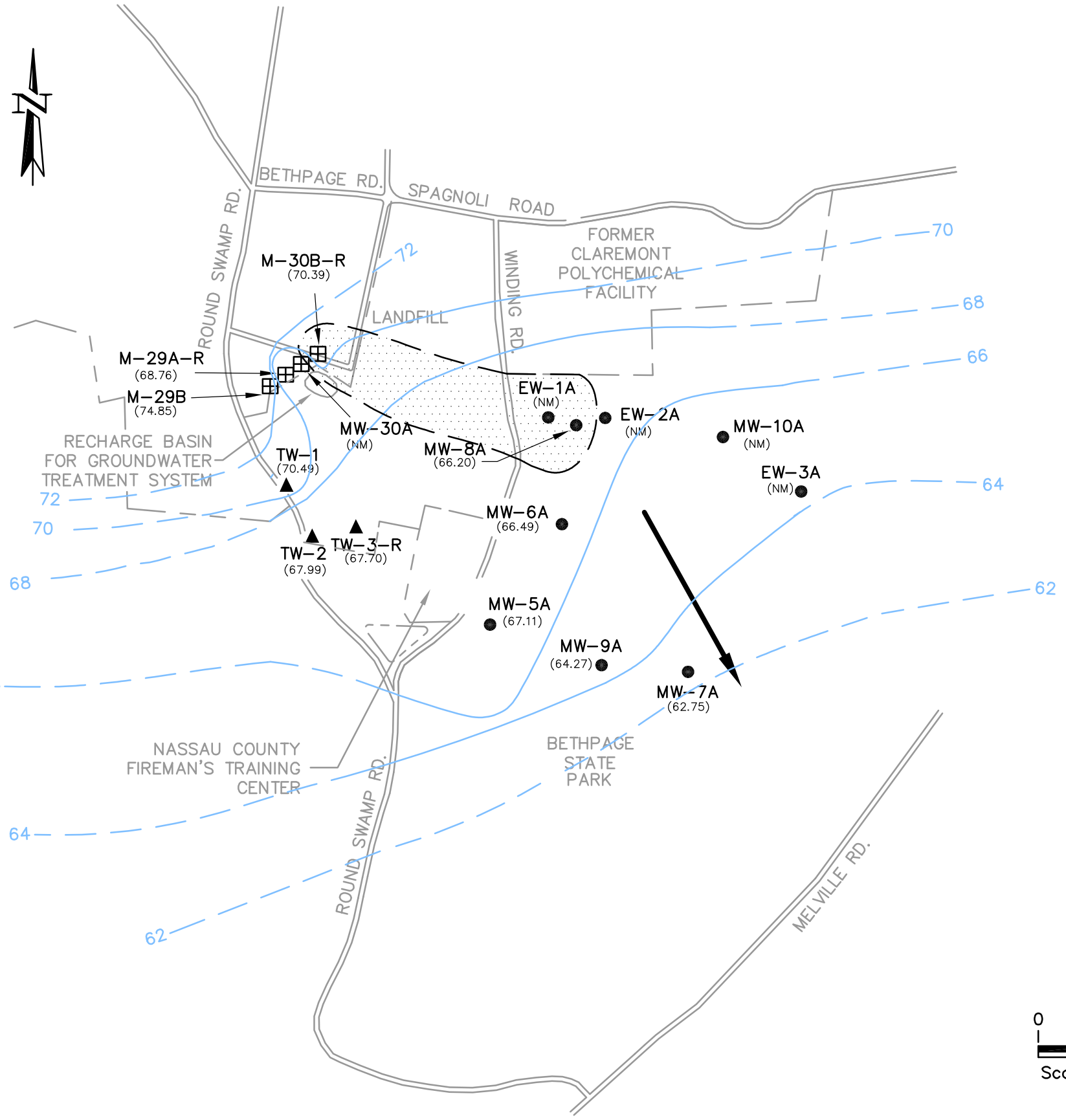
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769B
03172009

Gannett Fleming

FIGURE 1



LEGEND

- MW-5A (67.11) ● — *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 2007*
- *(NM)* — *Not Measured*

0 1200

Scale In Feet

WATER TABLE FLOW MAP OCTOBER 15, 2007

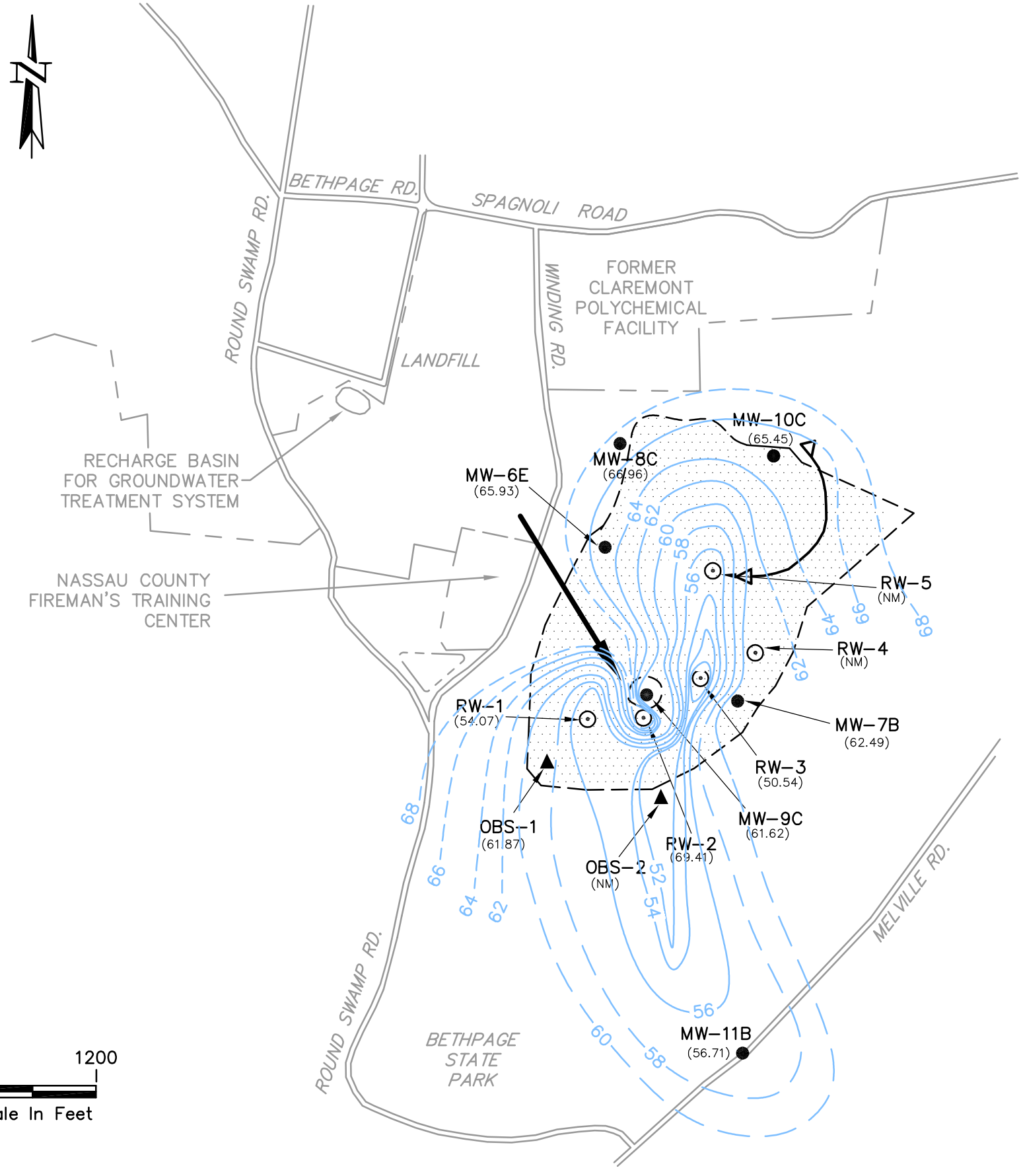
OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769A
03172009

Gannett Fleming

FIGURE 3



0 1200

Scale In Feet

LEGEND

MW–8C (66.96) ●	*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 2007
(NM)	*Not Measured*

DEEP POTENTIOMETRIC FLOW MAP OCTOBER 15, 2007

OLD BETHPAGE LANDFILL

TOWN OF OYSTER BAY

SN46769C
03172009

APPENDIX B

Figure 1. Total Volatile Halogenated Organics - Water Table

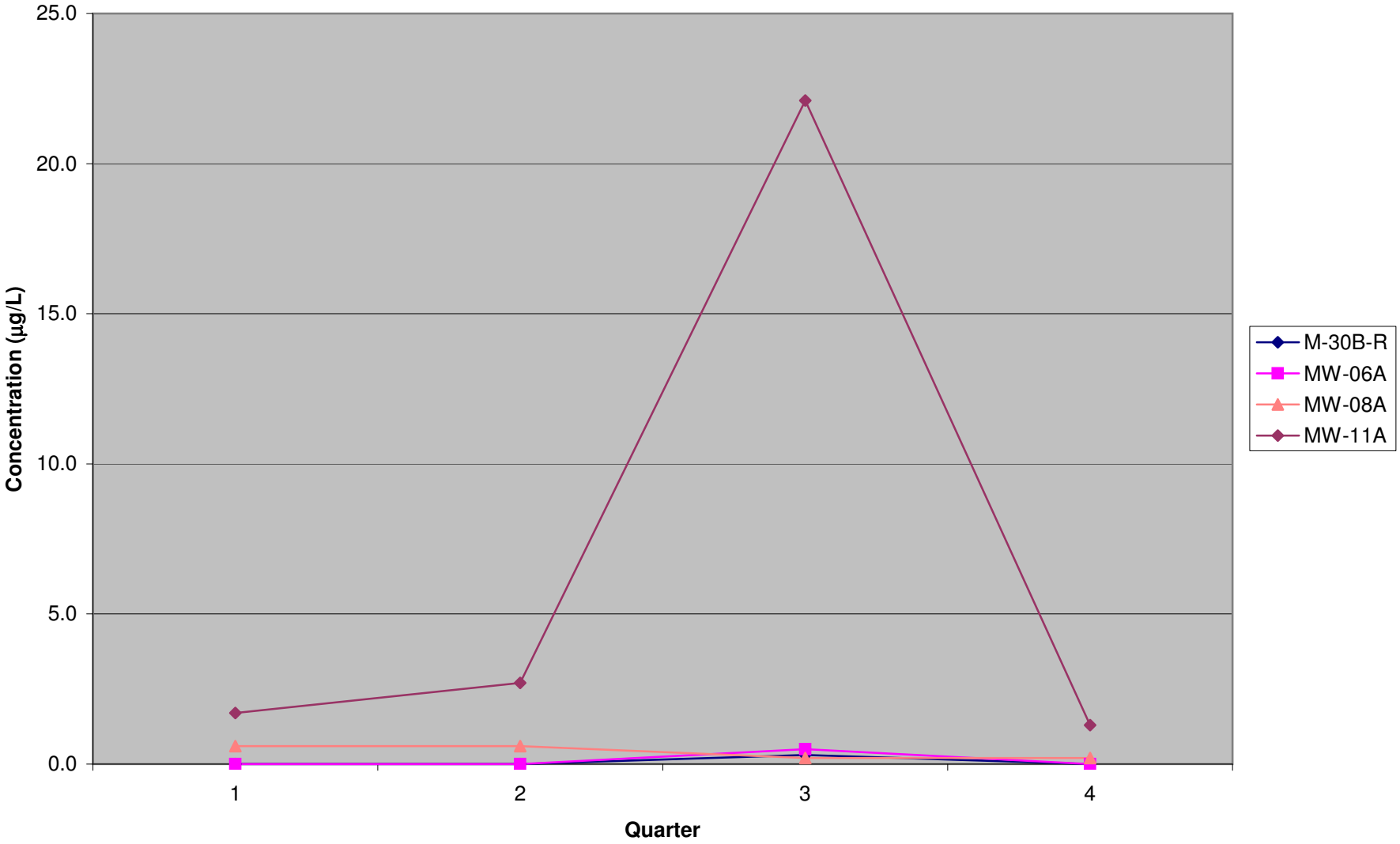


Figure 2. Total Volatile Halogenated Organics - Shallow Potentiometric Zone

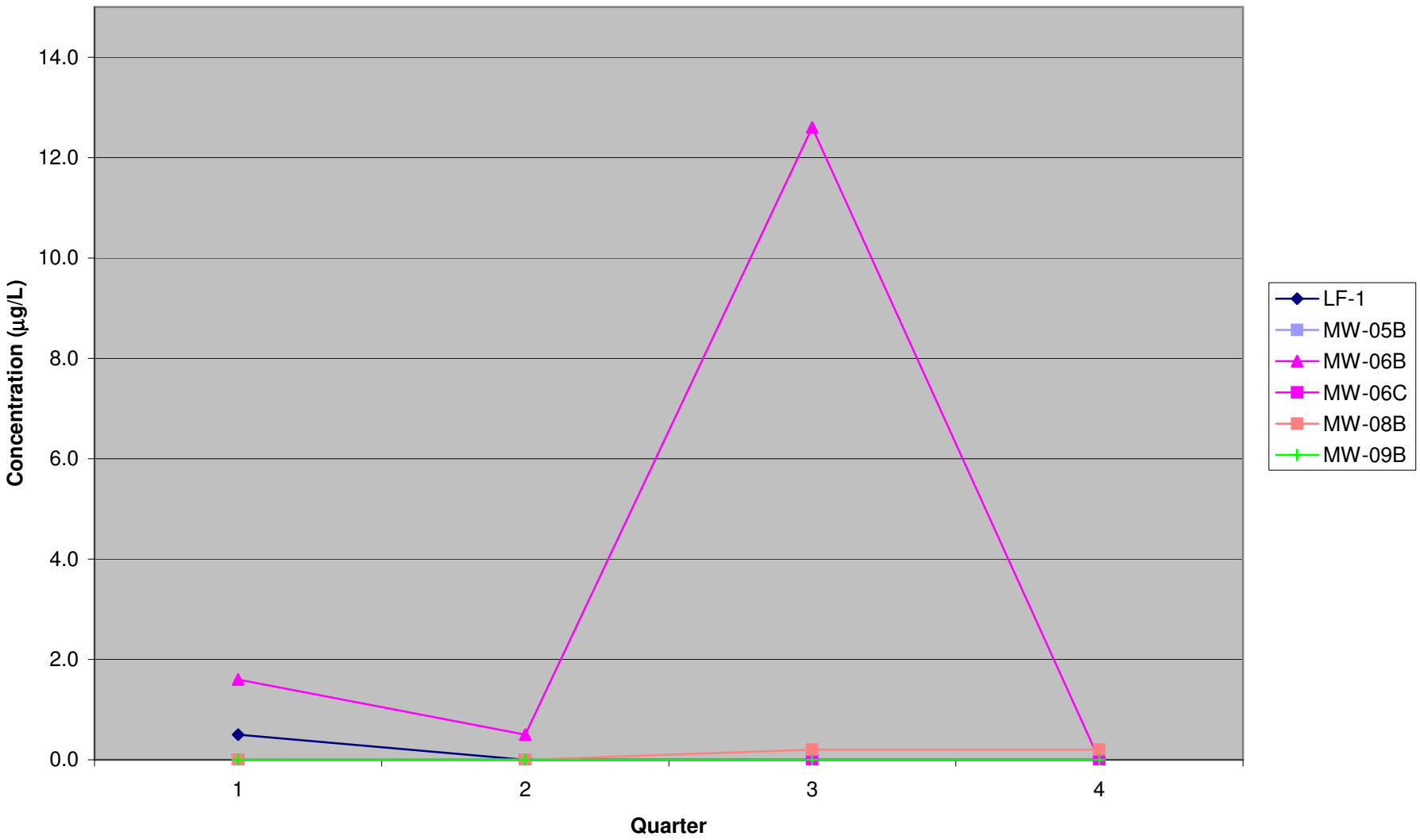
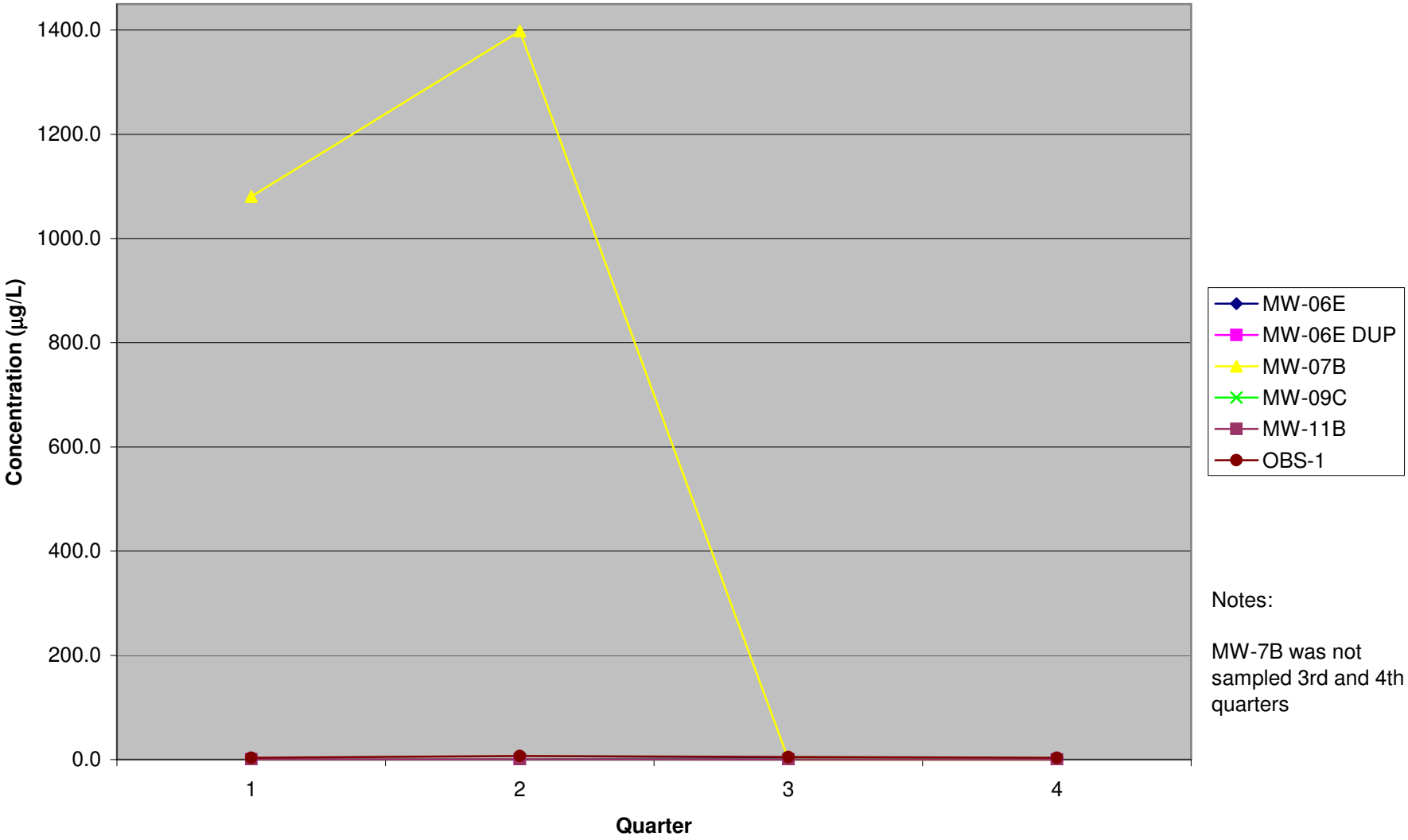


Figure 3. Total Volatile Halogenated Organics - Deep Potentiometric Zone



Notes:

MW-7B was not sampled 3rd and 4th quarters

Figure 4. Total Aromatic Hydrocarbons - Water Table

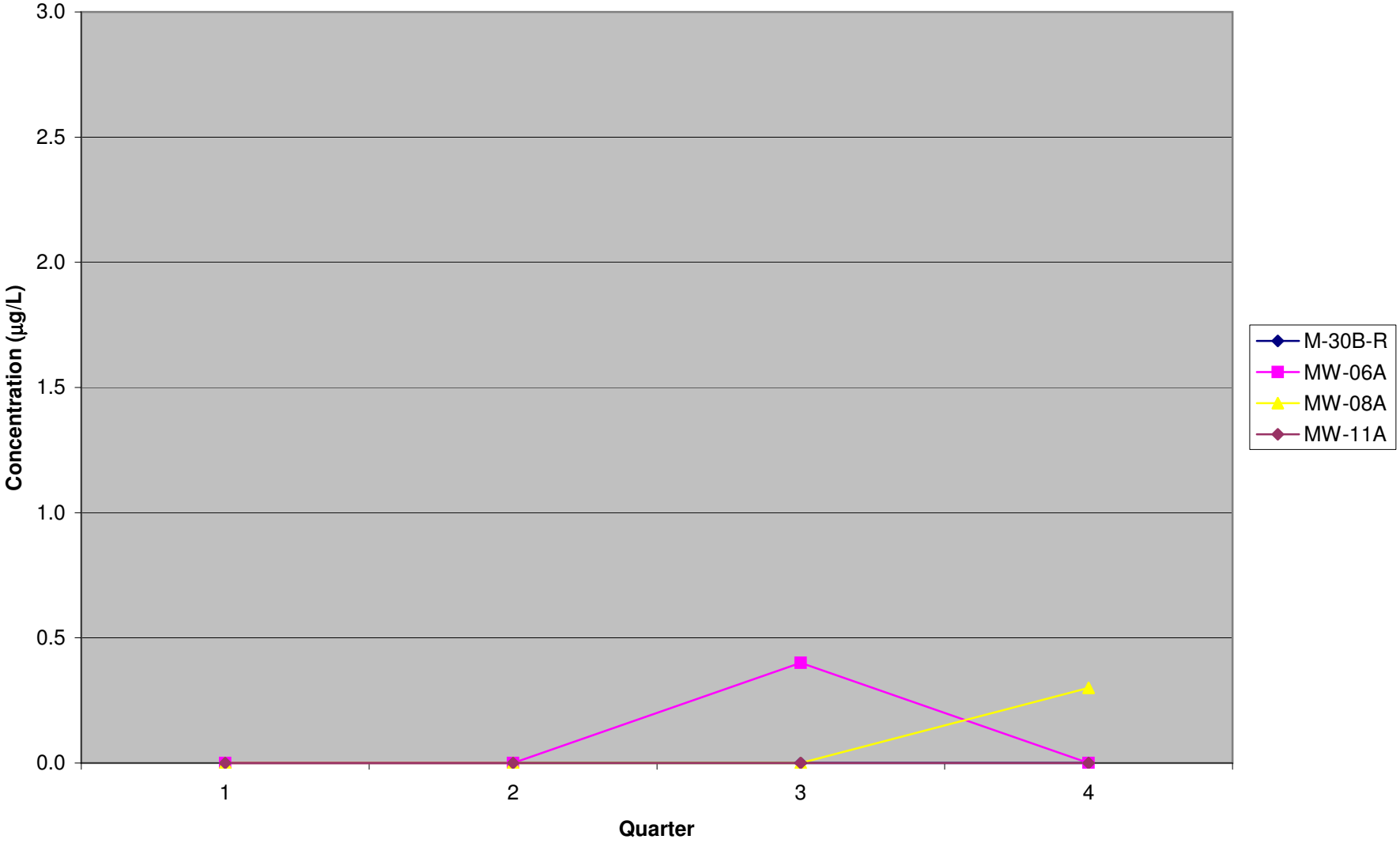


Figure 5. Total Aromatic Hydrocarbon Concentrations - Shallow Potentiometric Zone

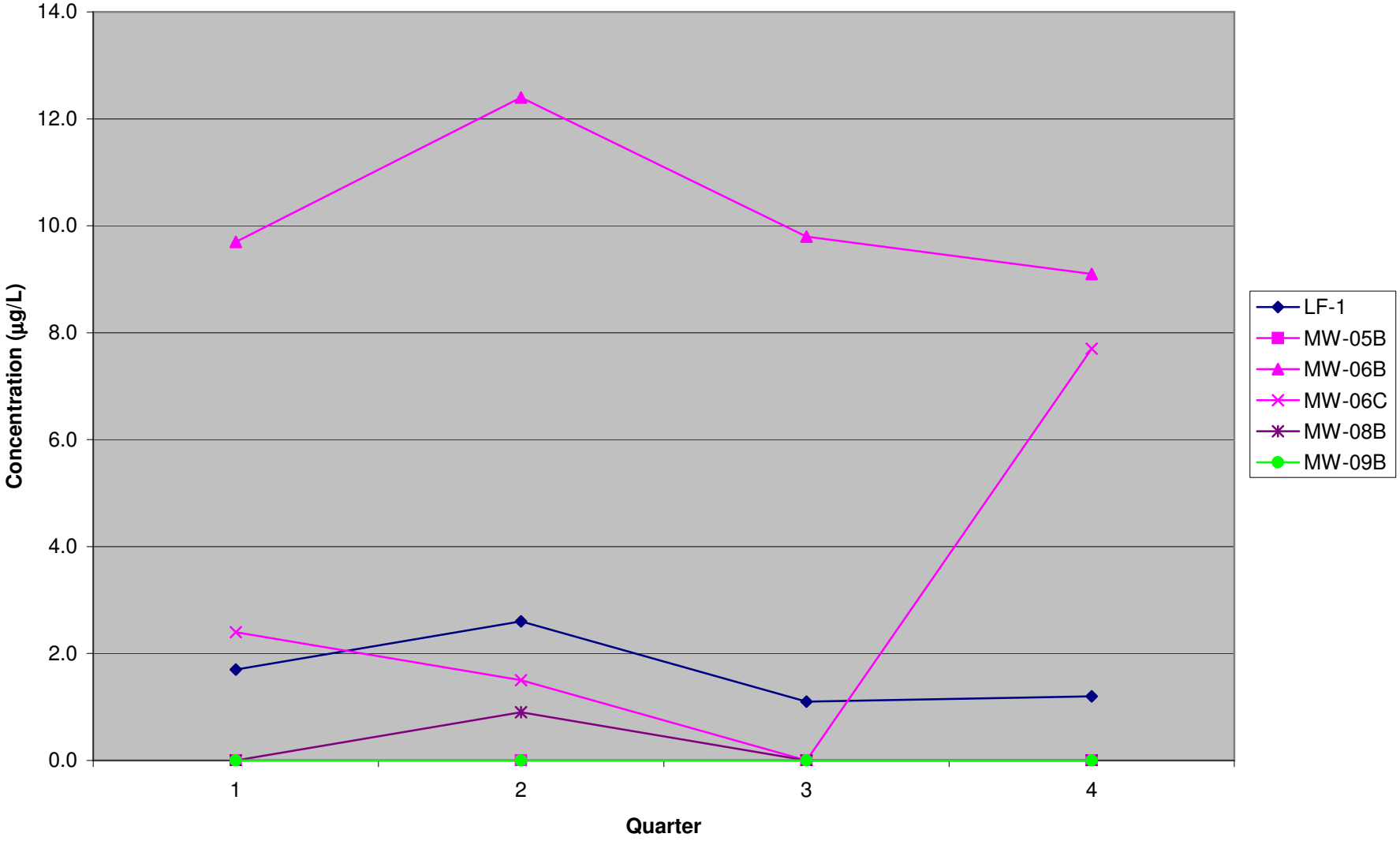


Figure 6. Total Aromatic Hydrocarbon Concentrations - Deep Potentiometric Zone

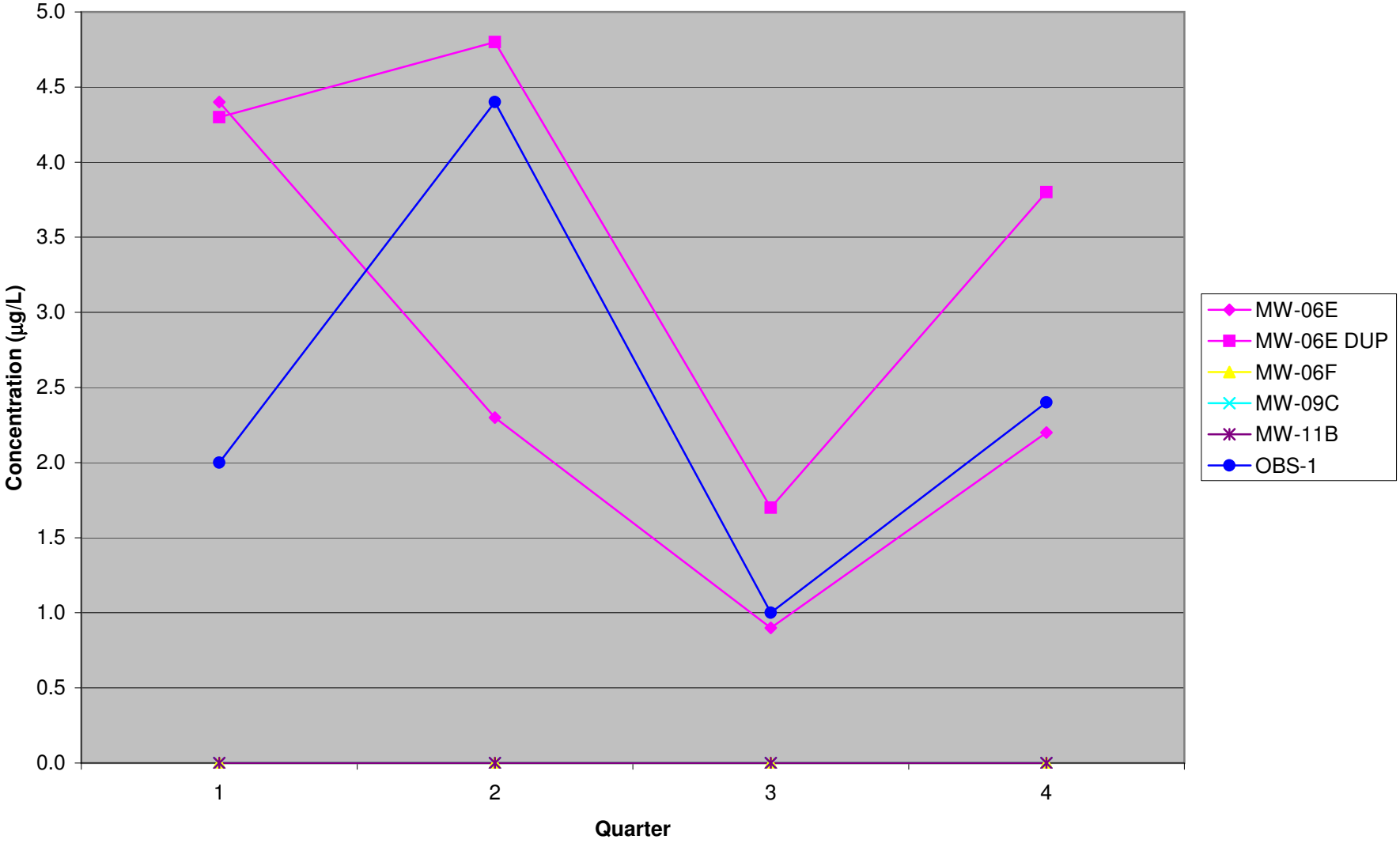


Figure 7. Tetrachloroethylene - Water Table

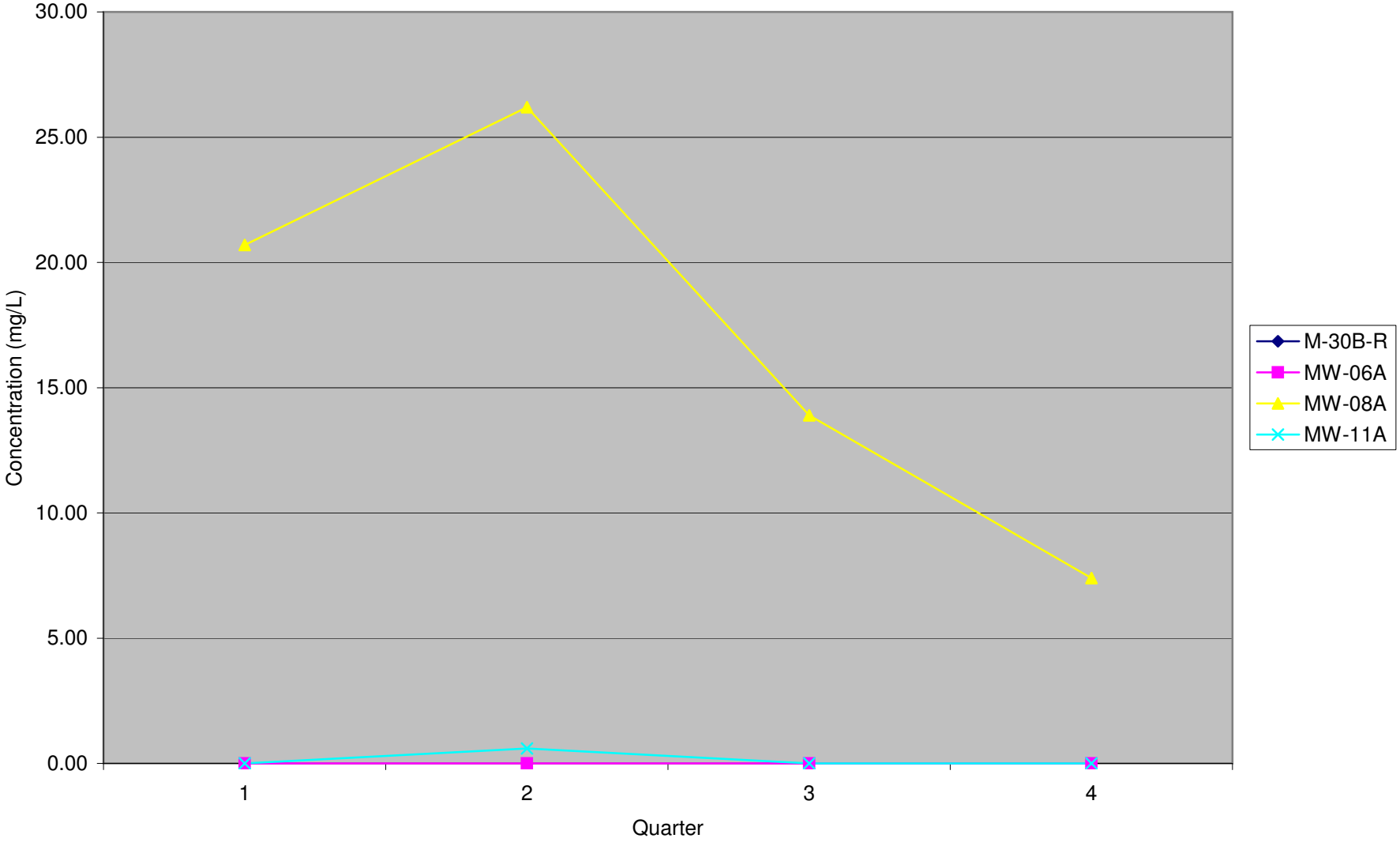


Figure 8. Tetrachloroethylene - Shallow Potentiometric Zone

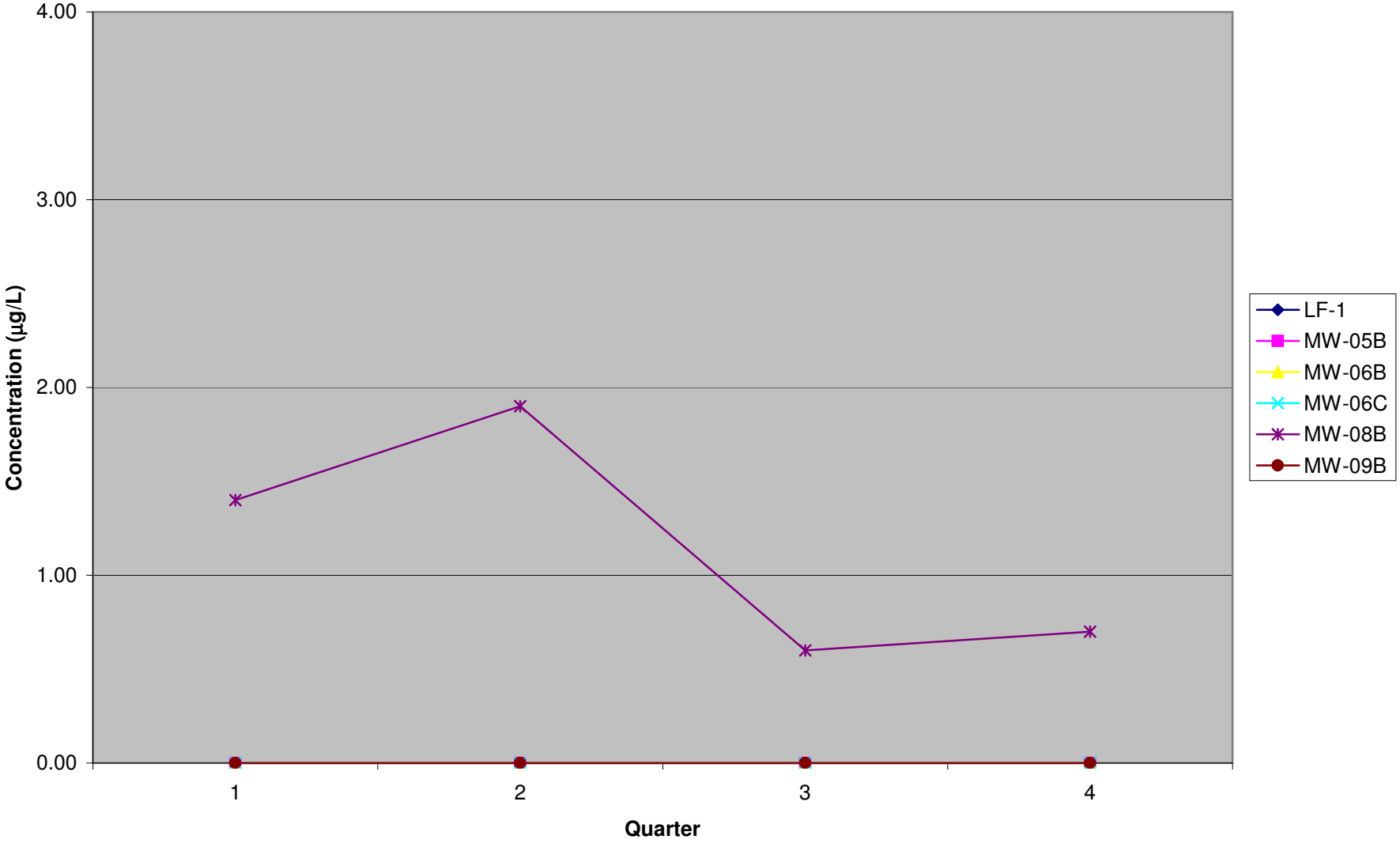
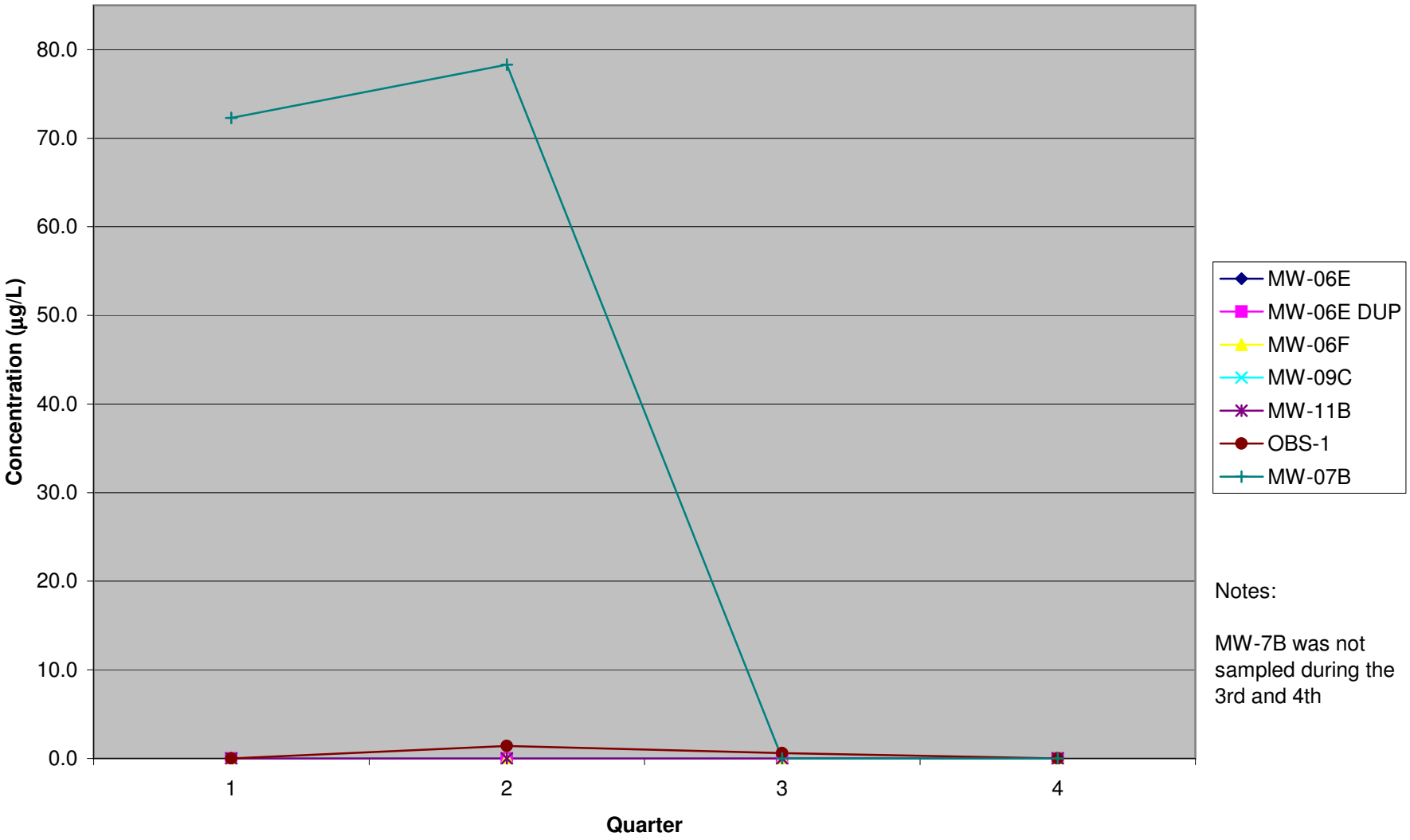


Figure 9. Tetrachloroethylene - Deep Potentiometric Zone



Notes:

MW-7B was not sampled during the 3rd and 4th