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Remedial Investigation Report (Study Area Groundwater)

Operable Unit 3 (Former Grumman Settling Ponds),
Bethpage, New York

Revised: February 7, 2011

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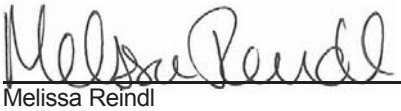

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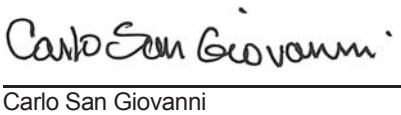

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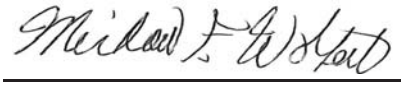

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Remedial Investigation Report (Study Area Groundwater)
Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York

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Certification

Pursuant to Section II.D.1 of the Order On Consent (Index #W1-0018-04-01) between the New York State Department of Environmental Conservation and Northrop Grumman Systems Corporation, Integrated Systems Sector, all requirements of the Remedial Investigation/Feasibility Study Work Plan, Former Grumman Settling Ponds (Operable Unit 3 – Bethpage Community Park), Bethpage, New York, NYSDEC Site # 1-30-003A, Revised: March 8, 2006 (including all addenda) have been complied with and all activities have been performed in full accordance with the Work Plan.

By:

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E-1 Executive Summary

This RI Report addresses the "Study Area", which is defined as VOC-impacted groundwater south/southeast of the Site Area, plus the peripheral area. This report was prepared to achieve the following Study Area objectives: characterize the geology and hydrogeology; determine the nature and extent of groundwater contamination; update the groundwater portion of the CSM; determine if any additional investigation is warranted to meet RI objectives; and evaluate the need for an IRM(s).

The RI consisted of drilling and sampling of VPBs, installation of monitoring wells, water-level measurements, and groundwater sampling. A total of 20 VPBs were drilled and sampled in the Study Area, with depths ranging from 120 to 890 ft bls. VPB groundwater samples were analyzed for VOCs and selected samples for perchlorate. A total of 15 monitoring wells were installed. Water levels were measured and groundwater samples were collected from new and selected existing wells.

Geology consists primarily of sand with interbedded lenses of silts, clays, and gravels. The direction of groundwater flow is horizontally to the south-southeast and vertically, slightly downward and consistent with the regional flow direction. Remedial well and supply well pumping locally influences groundwater flow. Groundwater velocity in the Study Area ranges from approximately 0.85 to 2.56 ft/day. The Study Area is a part of the larger region of VOC-impacted groundwater. BWD operates three public supply well fields (Plants 4, 5, and 6) that lie within the Study Area. VOCs have been detected in untreated water in several BWD wells; however, Plants 4, 5, and 6 have treatment systems to meet BWD's goal of no detectable VOCs in the delivered water.

The regional downward flow has been accentuated by industrial pumping and recharge on the former Grumman, NWIRP, and OCC properties, and public supply well pumpage. As a result, regional VOC-impacted groundwater descends in the aquifer as it migrates south-southeast. VOCs in groundwater beneath and downgradient of the above properties were influenced by groundwater withdrawals for industrial use and recharge (through recharge basins) from the above properties, with the result being a mixed-source region of VOC-impacted groundwater. The constituents in the region of VOC-impacted groundwater include TCE; PCE; 1,1,1-TCA; 1,2-DCE (cis/trans); 1,2-DCA; Freon 113; 1,1-DCE; and 1,1-DCA, and VC. The maximum extent of the regional area of VOC-impacted groundwater is approximately 3.5 miles in length by 1.6 miles in width, with a maximum depth of 790 ft bls and a maximum thickness of 430 ft.

VOCs were determined to be the COCs in Study Area groundwater. The Study Area VOC-impacted groundwater is part of and comprises approximately 11 percent of the region of VOC-impacted groundwater previously identified. The maximum extent of VOC-impacted groundwater identified in the RI is approximately 8,300 ft in length and 2,100 ft in width, with a maximum depth of 670 ft bls and a maximum thickness of 430 ft. The highest total VOC levels are predominantly located in the Study Area and north of Northrop Grumman Remedial Wells 1 and 3. The highest total VOC levels observed in the Study Area were at depths ranging from approximately 75 ft bls (northern portion) to 590 ft bls (southern portion VP-111 exhibited the maximum level of total VOCs (10,500 µg/L at a depth of 451 ft bls). The highest total VOC levels observed outside the Study Area were around Northrop Grumman Remedial Wells 1 and 3, which are screened at depths of approximately 480 to 570 ft bls. The composition of the Study Area VOC impacted groundwater changes with distance downgradient from the Site. The leading edge of the impacted groundwater (oldest portion) consists predominantly of TCE, the intermediate section consists of TCE and cis- 1,2- DCE in relatively equal proportions, and the portion nearest the Site (youngest portion) consists predominantly of cis- 1,2- DCE. The distribution and levels of chromium and perchlorate in the Study Area indicate that these constituents are not Site-related.

A conceptual site model for groundwater was developed and is summarized as follows:

- VOCs from Site Area source areas and industrial releases to properties west and adjacent to the Site resulted in VOC impacts to groundwater.
- Historical pumping and recharge on the former Grumman, NWIRP, and OCC properties caused mixing of VOCs and accentuated downward movement of VOC-impacted groundwater, resulting in impacts at depths greater than 500 ft bls. The VOC-impacted groundwater that migrated south of the above properties and the Site was further influenced by the pumping of public supply wells.
- Several downgradient public supply wells are presently affected by VOC-impacted groundwater.
- Current wellhead treatment of public supply wells for VOCs results in no human exposure to VOCs in groundwater above applicable drinking water standards.

A recommendation for additional action includes preparing a focused FS to address VOCs in Study Area groundwater.

Acronyms and Abbreviations

Access Road	Former Grumman Plant 24 Access Road
AOC	Administrative Order on Consent
ARCADIS	ARCADIS U.S. Inc.
ATSDR	Agency for Toxic Substances and Disease Registry
bls	below land surface
BTEX	benzene, toluene, ethyl benzene, and xylene
BWD	Bethpage Water District
Cd	cadmium
CAMP	Community Air Monitoring Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
Cr	Chromium
COC	Constituent of Concern
CSM	Conceptual Site Model
DCA	Dichloroethane
DCE	Dichloroethene
DUSR	Data Usability Summary Report
EVS	Environmental Visualization System
Freon 22	Chlorodifluoromethane
Freon 12	Dichlorodifluoromethane
FS	Feasibility Study
ft	feet

ft/d	feet per day
Grumman	Grumman Aerospace Corporation
HASP	Health and Safety Plan
IDW	investigation derived waste
IRM	Interim Remedial Measure
K_H	horizontal hydraulic conductivity
K_{oc}	organic carbon partitioning coefficient
K_{ow}	octanol-water partitioning coefficient
mg/L	milligrams per liter
msl	mean sea level
NAD	North American Datum
Navy	United States Navy
NCDOH	Nassau County Department of Health
NCDPW	Nassau County Department of Public Works
Northrop Grumman	Northrop Grumman Systems Corporation
NWIRP	Naval Weapons Industrial Reserve Plant
NYCRR	New York Code of Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
OCC	Occidental Chemical Corporation

OM&M	Operation, Maintenance, and Monitoring
OU	Operable Unit
Park	Bethpage Community Park
PCE	Tetrachloroethene (aka Perchloroethene)
PPE	personal protective equipment
QAPP	Quality Assurance Project Plan
QA/QC	Quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
SCGs	Standards, Criteria and Guidance Values
Site	Bethpage Community Park and Former Grumman Plant 24 Access Road
Site Area	Bethpage Community Park and Former Grumman Plant 24 Access Road, plus rights of way along portions of Stewart Avenue and Sycamore Avenues that abut the Site to the east and south, respectively.
TAGM	Technical and Administrative Guidance Memorandum
TCA	Trichloroethane
TCE	Trichloroethene
TCL	Target Compound List
TICs	Tentatively Identified Compounds
TOGs	Technical and Operational Guidance Series
Town	Town of Oyster Bay
USGS	United States Geological Survey
µg/L	micrograms per liter

USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
VPB	Vertical Profile Boring

1. Introduction

This Remedial Investigation (RI) Report (RI Report) (Study Area Groundwater) has been prepared by ARCADIS U.S., Inc. (ARCADIS) on behalf of Northrop Grumman Systems Corporation (Northrop Grumman), and is submitted pursuant to the Administrative Order on Consent (AOC) between the New York State Department of Environmental Conservation (NYSDEC) and Northrop Grumman, effective July 4, 2005 (NYSDEC 2005a).

The "Site" is defined as the Bethpage Community Park (Park), termed the "Former Grumman Settling Ponds Area" and designated as Operable Unit 3 (OU3) by the NYSDEC, and the Former Grumman Plant 24 Access Road Property (Access Road). The "Site Area" is defined as the Site, plus the residential properties on the north side of Sycamore Avenue. Generally, the "Study Area" is defined as volatile organic compound (VOC)-impacted groundwater hydraulically downgradient (i.e., south and southeast) of the Site Area, plus the peripheral area that was used to delineate the impacted groundwater (Figure 1).

On February 1, 2008, the Site Area RI Report was submitted to the NYSDEC. The Site Area RI Report characterized soil, soil gas, perched water, and groundwater in the Site Area. For the reasons stated in Section 1.3.1 of this report, groundwater is the sole medium investigated during the Study Area RI.

As agreed to by the NYSDEC, this report is the second of two documents that collectively form the RI Report for OU3.

1.1 Objectives of Report

The purpose of this RI Report is to discuss groundwater impacts in the Study Area. Accordingly, this report was prepared to achieve the following objectives:

- Characterize the geology and hydrogeology in the Study Area.
- Determine the nature and extent of groundwater contamination in the Study Area.
- Update the portion of the Conceptual Site Model for Study Area groundwater.
- Determine if any additional investigation is warranted to meet the RI objectives.

- Evaluate the need for an Interim Remedial Measure (IRM).

1.2 Site History

The Site history is provided in the Site Area RI Report (ARCADIS 2008a; 2009a).

1.3 Previous/Other Investigations

1.3.1 Soil Gas

Investigation into the nature and extent of Site-related impacts to soil gas as well as potential vapor intrusion (VI) were completed as part of the OU3 Site Area RI. Samples were collected from soil gas points, subslab soil gas, indoor and outdoor air. The analytical results are documented in the Site Area RI Report (ARCADIS 2008a), and indicate that soil gas impacts were limited to the Site Area and do not extend into the Study Area. Additionally, based on soil gas data from the Site Area, it was determined that a Soil Gas IRM was necessary. The Soil Gas IRM was constructed on the Site and started up on February 18, 2008. Routine performance monitoring has indicated that the IRM effectively prevents off-site migration of VOCs in soil gas and that additional off-site soil gas investigation is not required (NYSDOH 2008).

1.3.2 Groundwater

The Study Area is part of the larger region of VOC-impacted groundwater, located downgradient of the former Grumman, Naval Weapons Industrial Reserve Plant (NWIRP), and Occidental Chemical Corporation (OCC) properties. The regional groundwater impacts have been previously investigated and documented by the U.S. Geological Survey (USGS), and subsequently investigated and remediated by Northrop Grumman, the US Navy, and OCC (Figure 1). Based on the findings of Northrop Grumman and the Navy, the plan for remediation for the regional VOC-impacted groundwater was developed and implemented with approval from the NYSDEC. The Operable Unit 2 (OU2) Record of Decision (ROD)-required components of the regional VOC-impacted groundwater remedy include:

- On-site containment (via pump and treat) of VOC-impacted groundwater attributable to the former Grumman Aerospace Corporation (Grumman) and Naval Weapons Industrial Reserve Plant (NWIRP) properties.

- VOC mass removal from groundwater (via pump and treat) in an area of elevated VOC concentrations in the GM-38 Area (near Wells GM-38D/D2 – See Figure 1).

- Further study of elevated VOC concentrations in the GM-75D2 area (see Figure 1).

- Implementation of a public water supply protection program consisting of installing and monitoring outpost wells and providing funding for potentially affected downgradient water suppliers.

- Ongoing groundwater monitoring and reporting.

The USGS performed investigations into former industrial areas throughout the Bethpage, Hicksville, Levittown, Plainview, Plainedge, and Farmingdale region in 1986 and 1987. The USGS area of investigation encompassed approximately 11.4 square miles, which includes the Study Area. Analytical results indicated widespread regional groundwater impacts from VOCs (primarily trichloroethene [TCE]; tetrachloroethene [PCE]; 1,1,1-trichloroethane [1,1,1-TCA]; cis- and trans-1,2-dichloroethene [1,2 DCE]; 1,1-dichloroethane [1,1-DCA], and vinyl chloride [VC]). The USGS concluded that the distribution of VOCs detected was greatly influenced by withdrawals for industrial non-contact cooling water purposes. Also, subsequent routing of pumped water into recharge basins altered the natural hydraulic gradients and increased the vertical component of groundwater flow within this industrialized area, resulting in an area of contaminated groundwater greater than 500 ft thick(USGS 1992).

Northrop Grumman performed several groundwater investigation activities on and in the area south and southeast of the Grumman facility from 1989 through 1995. VOCs attributed to the Grumman facility primarily include TCE and Freon 113. The investigations generally consisted of drilling and sampling of monitoring wells to characterize and delineate site-related VOC impacts in groundwater. In general, four areas of contamination (i.e., western, central, and northwestern portions of the main facility, and off-site) were detected, which collectively contributed to a regional area of VOC-impacted groundwater. Consistent with the USGS' findings, the main mechanism for the distribution of VOCs within the aquifer was on-site deep pumpage and shallow recharge of non-contact cooling water. Although not fully delineated, it was concluded in the RI Report for the main facility that sources of VOCs likely originated from one or more sources on the NWIRP, OCC, and Grumman properties (Geraghty & Miller 1994). Additionally, ongoing groundwater monitoring has been performed by Northrop Grumman since 1997 in varying subsets of wells in the area.

The Navy performed groundwater investigation activities on and in the area south, southeast, and southwest of their NWIRP Bethpage facility between 1986 and 2009. VOCs attributed to the NWIRP site include TCE; PCE;1,1,1-TCA; 1,2 DCE; 1,1-dichlorethene (1,1-DCE), and 1,1-DCA. VOC sources identified on the NWIRP Bethpage facility included Site 1 (Former Drum Marshalling Area, located east of Former Plant 3), Site 2 (Recharge Basin Area, located immediately west of the Park), Well HN-24 Area (located immediately southwest of Former Plant 3), and Site 3 (Former Salvage Storage Area, located north of Former Plant 3 and west of the recharge basins) (Halliburton NUS 1993).

OCC performed groundwater investigation activities since the late 1980s for VOCs on and downgradient of their former Hicksville property (i.e., the Oxy Hooker RUCO National Priorities List [NPL] site), located immediately west of the former Grumman facility. VOCs attributed to the OCC site included TCE; PCE; VC; 1,1,1-TCA; 1,2 DCE, 1,1-DCE; 1,2 DCA; 1,1-DCA andseveral tentatively identified compounds (TICs) (Geraghty & Miller 1994). VOC sources on the OCC site included the discharge of process water to on-site recharge basins, located in the southern portion of the OCC property. Pumpage on the Grumman and NWIRP properties caused impacted water beneath the OCC property to migrate beneath the Grumman/NWIRP properties (Conestoga Rovers Associates, Inc. 1996).

The nature and extent of impacted groundwater in the Study Area is discussed in Section 5 of this report.

1.4 Interim Remedial Measures in Place

On the Northrop Grumman property, a groundwater remedy has been in place since 1998 to contain and treat on-site VOC-impacted groundwater associated with the former Grumman and NWIRP properties. OCC relies, in part, on this system to capture VOC-impacted groundwater associated with their former Hicksville property. Formerly an IRM, the remedy consists of five remedial wells (Wells, 1, 3, 17, 18, and 19 that pump nearly 5.5 million gallons per day), two air stripping towers, off-gas vapor treatment, and two sets of recharge basins on Northrop Grumman property. The Northrop Grumman/NWIRP IRM, with the approval of NYSDEC, became part of the final OU2 ROD-required remedy (as describe in Section 1.3.2) for regional VOC-impacted groundwater in 2001.

As part of the OU3 Site Area RI, Northrop Grumman performed an evaluation of the need for IRMs. Based on this evaluation Northrop Grumman implemented two IRMs

one for soil gas (see Section 1.3.1), the second for groundwater. Based on data in the Site Area, it was determined that a groundwater IRM was necessary. The groundwater IRM was started up on July 21, 2009, and is meeting its design goal of containing on-Site VOC-impacted groundwater. Details on the scope and purpose of the IRMs are provided in the associated design reports (ARCADIS 2007a; 2008b).

2. Physical Setting

2.1 Surface Features and Land Use

The Study Area land surface elevation ranges from approximately 120 feet above mean sea level (ft msl) to 85 ft msl and, topographically, is generally flat. Land usage is primarily residential with some commercial and industrial development; surface features are shown on Figure 1.

2.2 Surface Water Hydrology and Drainage

Natural surface water features do not exist in the Study Area, although man-made stormwater recharge basins are present, which receive runoff from paved surfaces and recharge the groundwater system (Figure 1).

2.3 Regional Hydrogeology

In general, regional geology, from land surface downward to the basal Magothy Formation, consists primarily of sand with interbedded lenses of silts, clays, and gravels. The uppermost sequence of these sediments is part of the Upper Glacial Pleistocene-age outwash deposits, while the lower geologic sequence comprises the Cretaceous-age Magothy Formation. The Upper Glacial deposits in this area of Long Island tend to be coarser than the underlying upper portion of the Magothy Formation, whose the deposits tend to become finer with depth, except for the basal Magothy, where sand and gravel deposits are more prevalent. The saturated Upper Glacial deposits tend to thin toward the north and are relatively thin beneath the Study Area. Regional geologic cross sections indicate a high degree of stratification of these deposits with stratification increasing with depth in the Magothy Formation (ARCADIS Geraghty & Miller, Inc., 2000).

The principal aquifers are the Upper Glacial and the Magothy, which are in direct hydraulic connection with each other. Groundwater in the Upper Glacial and Magothy aquifers occurs under unconfined conditions, with the Magothy aquifer exhibiting semi-

confined to confined conditions with increasing depth. The average horizontal hydraulic conductivity of the Upper Glacial aquifer is approximately 270 feet per day (ft/d); with an anisotropy of approximately 10:1 (horizontal to vertical hydraulic conductivity, respectively). The average horizontal hydraulic conductivity of the Magothy aquifer is approximately 50 ft/d, with an anisotropy ratio of approximately 100:1. The regional direction of groundwater flow is to the south-southeast (Geraghty & Miller, Inc. 1994).

3. Remedial Investigation Activities

Study Area RI activities were conducted in accordance with the approved RI/FS Work Plan and approved addenda (ARCADIS 2006; ARCADIS 2007b; ARCADIS 2007c; ARCADIS 2008c; ARCADIS 2008d; ARCADIS 2009b) (hereinafter referred to as the Work Plan) that are provided in Appendix K. The scope of work is summarized in Table 1 and sample locations are shown on Figure 1. The Work Plan provided for a dynamic investigation approach consisting of systematic planning, dynamic work strategies, and rapid data turnaround in which modifications to the work scope (e.g., sampling depths, number of samples) could be implemented in real time, based on observed field conditions.

The groundwater investigation consisted of drilling and sampling of vertical profile borings (VPBs) and monitoring wells to evaluate the nature and extent of groundwater contamination in the Study Area. As the work progressed, data gaps were identified and additional work was proposed. Monitoring wells were installed to confirm VPB results in selected areas and to allow for future periodic groundwater monitoring.

3.1 Vertical Profile Borings

From June 2006 to July 2009, a total of 20 VPBs (VP-100 to VP-119) were drilled and sampled in the Study Area (Figure 1). Information obtained included lithology, geophysical data, and profiles of groundwater quality. Split-spoon soil sampling and geophysical logging of the VPB boreholes was performed to obtain hydrogeologic information, support selection of groundwater sample intervals, determine the need for monitoring wells, select monitoring well screen intervals, and determine Study Area hydrogeology.

VPB total drilled depths ranged from 120 to 890 ft bls. Depending on the anticipated depth, VPBs were drilled/groundwater was sampled using either the hollow-stem auger/temporary well (shallower VPBs) or the mud rotary/hydropunch method (deeper

VPBs) (refer to the Work Plan for details). Groundwater samples collected from VPBs were submitted for laboratory analysis of the Target Compound List (TCL) VOCs, plus Freons 12, 22, and 113. Select VPB groundwater samples were also analyzed for perchlorate. Depending on the results, either a permanent monitoring well was installed or the VPB was abandoned. VPB and well locations are shown on Figure 1. Split-spoon sample logs, geophysical logs, and VPB sampling logs are provided in Appendices A, B, and C, respectively.

3.2 Monitoring Well Installation

From March 2007 to May 2009, 15 monitoring wells were installed in the Study Area (Figure 1). Depths of the wells range from 55 to 750 ft bls. For each well location, the associated VPB water quality data and geophysical logs were reviewed to select a screen interval that would intersect permeable aquifer materials. Well screens generally were placed either in the zone with the highest observed VOC concentrations, or as guided by groundwater modeling.

Following completion, the wells were surveyed to the 1983 North American Datum (NAD 83) by a NYS-licensed surveyor.

Well construction details and survey data are summarized in Tables 2 and 3, respectively. Well locations are shown on Figure 1. Monitoring well construction logs/well development logs are provided in Appendix D.

3.3 Monitoring Well Sampling/Water-Level Measurements

Two rounds of water-level measurements were collected in July and September 2009 (Table 3).

Groundwater samples were obtained from new and select existing Study Area wells in July 2009 and were analyzed for TCL VOCs (plus Freons, 12, 22, and 113) and total/dissolved cadmium (Cd) and chromium (Cr). Additional rounds of samples were also collected from select wells for TCL VOC (plus Freons, 12, 22, and 113) analysis to develop data trends. In accordance with the Work Plan, a second round of groundwater sampling is planned for the Fourth Quarter of 2009; these data are included in the Supplement to the Remedial Investigation Report (Study Area Groundwater), which was submitted to the NYSDEC in March 2010 and is included herein as Appendix L.

Groundwater sampling logs are provided in Appendix C.

3.4 Community Air Monitoring Program

Real-time community air monitoring was performed and recorded for field activities in the Study Area. The CAMP data indicated no exceedances of CAMP action levels. The Community Air Monitoring results are provided in Appendix E.

3.5 Investigation-Derived Waste Disposal

Investigation-derived waste (IDW) consisting of personal protective equipment (PPE) as well as soil cuttings generated during the drilling program was containerized in New York State Department of Transportation (NYSDOT) 55-gallon drums, characterized as appropriate, and transported for off-site disposal. Based on analytical results obtained, IDW was disposed of as non-hazardous.

Waters generated from the drilling and sampling activities were containerized in NYSDOT 55-gallon drums and characterized prior to disposal. Based on waste characterization results, water was either discharged to the publicly-owned treatment works (POTW) intake at the Northrop Grumman property (in accordance with existing approvals granted by the Nassau County Department of Public Works) or disposed of at Ross Incineration Services, of Grafton, OH under Northrop Grumman's United States Environmental Protection Agency (USEPA) ID#NYR000058347. IDW records are provided in Appendix F.

4. Study Area Hydrogeology

4.1 Lithology

Figure 2 depicts Geologic Cross Section A-A' through the Study Area (line of section is shown on Figure 1). The cross section was developed using data from VPBs and wells installed by Northrop Grumman and others.

Split-spoon soil samples and geophysical logs obtained from VPB and monitoring well boreholes and other historical data were collectively utilized to characterize lithology. Based on these data, from land surface downward, the geologic sequence is as follows:

- Pleistocene-age (Upper Glacial) sands of varying grain size with silt, clay and gravel lenses in the unsaturated and saturated zones

- Cretaceous-age (Magothy) interbedded fine to coarse sands and silts with discontinuous zones of lower permeability clays, sandy clays, and silty clays to a depth of approximately 820 ft bls.

- The basal Magothy gravel zone was encountered in VP-104 from 820 to 880 ft bls.

- Cretaceous age clay (Raritan Confining Unit) (dense, colored gray with red mottling) was encountered at 672 ft bls during the drilling program in VP-110R (Figure 1). Although it has been documented in the literature that regionally this unit underlies the Magothy formation and varies in depth, except for at VP-110R, all VPBs drilled deep enough to reach this unit did not encounter it.

4.2 Groundwater Use

The Bethpage Water District (BWD) operates five public supply wells in three wellfields (Plants 4, 5, and 6) (Figure 1). It is believed that all residents in the Study Area receive water supply from BWD. BWD Plants 4, 5, and 6 are equipped with treatment systems to remove VOCs.

4.3 Groundwater Flow, Hydraulic Gradients and Groundwater Velocity

Based on water levels measured in 2009, groundwater elevations in the Study Area range from approximately 51 to 74 ft above mean sea level (msl) (Table 3).

The potentiometric surface and groundwater flow directions from the July 2009 round are shown on Figure 4. Water-level elevation data indicate a resultant direction of groundwater flow that is horizontally to the south-southeast and vertically, slightly downward and overall generally consistent with the regional flow direction. The steepening hydraulic gradient and resulting increase in average groundwater flow velocity indicate the effect of well pumpage on groundwater flow within the Study Area (Figure 1).

The horizontal hydraulic gradient generally north of Central Avenue (i.e., northern portion of the Study area, distant from pumping wells) was calculated to be approximately 0.0017 ft/ft. Using the established horizontal hydraulic conductivity (K_H) value for the upper Magothy of 50 ft/day (USGS 1988)and an effective porosity value of 0.1(ARCADIS G&M, Inc. 2003) that was utilized in the NYSDEC-accepted regional model, the average horizontal groundwater velocity in this area was calculated to be approximately 0.85 ft/day.

The horizontal hydraulic gradient generally south of Central Avenue (southern portion of the Study area, closer to pumping wells) was calculated to be approximately 0.0032 ft/ft. Using the established K_H value for the middle Magothy of 80 ft/day (USGS 1988) and an effective porosity value of 0.1(ARCADIS G&M, Inc. 2003), the average horizontal groundwater velocity in this area was calculated to be 2.56 ft/day.

4.4 Historical Pumpage and Recharge

As documented by the USGS (1992), a natural vertical head difference of approximately 2 to 4 ft between the water table and the basal portion of the Magothy aquifer causes a downward component of groundwater flow. This regional downward flow has, over the years, been accentuated by industrial pumping and recharge on the former Grumman, NWIRP, and OCC properties, as well as public supply well pumpage throughout the area. As a result of this downward flow component, regional VOC-impacted groundwater descends in the aquifer as it migrates downgradient (south-southeast).

As described by the USGS (1992) and Geraghty & Miller, Inc. (1994), the distribution of VOCs in groundwater beneath and downgradient of the former Grumman, NWIRP and OCC properties was greatly influenced by the concentrated on-site withdrawals (for industrial non-contact cooling water purposes; 14 industrial wells pumping 11 million gallons per day peak) and recharge (via four sets of recharge basins). Specifically, this pumpage and recharge altered the natural hydraulic gradients and increased the horizontal and vertical components of groundwater flow. The effect of this pumpage/recharge was twofold: Near the basins, mounding of the water table created radial horizontal flow and accentuated downward groundwater movement. In relation to the Study Area, historical data (Geraghty & Miller, Inc. 1994) and Navy modeling (Halliburton NUS 1993) indicate that mounding of the water table beneath the former NWIRP Plant 3 basins resulted in an easterly component of flow underneath the Park. South of the Park, the eastern flow component was re-directed to the south-southeast, consistent with the regional flow direction. Second, deep production well pumpage pulled contaminated groundwater locally to depths that it would not naturally occur. The combined result was a mixed-source region of contaminated groundwater.

5. Nature and Extent of Constituents in Groundwater

5.1 Standards, Criteria, and Guidance Values

Standards, Criteria, and Guidance Values (SCGs) have been identified for the Study Area that pertain to meeting applicable regulations and RI objectives.

The groundwater SCGs for VOCs and metals utilized in this report, consist of the New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, as provided by the Division of Water Technical and Operational Guidance Series (TOGs 1.1.1) and addenda (NYSDEC 1998) (SCGs are provided in Tables 4, to 7). The guidance value for perchlorate utilized in this report is that which has been adopted by Nassau County for water purveyors (see Table 8).

5.2 Data Analysis Methods and Usability Assessment

Analytical data collected as part of the Study Area RI are summarized in Tables 4 to 9. Data were validated following RI/FS Work Plan protocols. Specifically, the Data Validation Checklist associated with sampling conducted for the Study Area RI was reviewed for thoroughness and accuracy. The analytical data underwent an independent review process following NYSDEC data usability summary report (DUSR) guidelines. Analytical methods utilized followed acceptable NYSDEC or USEPA methods, as specified in the RI/FS Work Plan. The DUSRs are provided in Appendix H. NYSDEC Category A and B laboratory data package deliverables are provided as Appendix I. It is the opinion of the data reviewers that the analytical data generated from samples collected and analyzed as part the Study Area RI Report underwent a thorough data review process in accordance with Quality Assurance Project Plan (QAPP) requirements. Based on the data validation, the data are considered acceptable for the intended purpose.

The Study Area RI data were supplemented, as appropriate, by data collected by Northrop Grumman and others as part of ongoing investigations/monitoring in the region. The data were obtained from final Department and agency approved reports. ARCADIS also independently reviewed the data for its suitability in determining the nature and extent of constituents in groundwater.

As part of the data usability analysis, the VOC analytical results from monitoring wells were compared to co-located VPB VOC analytical results. Based on this analysis, there was a good agreement between VPB data and monitoring well data (Table 6).

Therefore, the VPB data were considered to be representative of groundwater conditions and were used throughout this report.

5.3 Nature and Extent of Constituents in Groundwater

Analytical results of groundwater samples are provided in Tables 4 to 10 and are depicted on Figures 4 to 7; graphs showing VOC detections versus depth in VPBs are provided in Appendix G. In general, the data obtained from water quality sampling of groundwater from VPBs and monitoring wells have met the RI goal of determining the nature and extent of COCs in groundwater in the Study Area.

Where total VOC concentration contours are depicted on Figures 4 and 5, the krieging function of Environmental Visualization Software (EVS) was used initially to develop the contours. The contours were then reviewed and modified using professional judgment.

5.3.1 Volatile Organic Compounds

The areal extent of VOC-impacted groundwater in the Study Area represents about 11 percent (approximately 0.44 square miles) of the total areal extent of the regional VOC impacted groundwater (approximately 3.9 square miles). Section 1.3.2 also described investigations of VOC-impacted groundwater in the region associated with the former Grumman, NWIRP, and OCC properties.

Regionally, VOC-impacted groundwater has been documented (see Section 1.3.2 of this report) to underlie and extend downgradient (generally south) of the former Grumman, NWIRP, and OCC properties, and the Site. The maximum horizontal extent (irrespective of depth) of total VOCs in the regional area of VOC-impacted groundwater is shown on Figure 4, and the vertical extent is shown on Figure 5. The extent of impacted groundwater shown on these figures is based on the 5 microgram per liter (µg/L) contour; although there is no SCG for total VOCs, this contour was selected because many of the VOCs have an SCG of 5µg/L. From review of Figures 4 and 5, the overall maximum extent of the regional area of VOC-impacted groundwater is approximately 3.5 miles in length by 1.6 miles in width, with a depth and thickness of 790 ft bls and 430 ft, respectively.

As depicted on Figure 5, Cross Sections A-A' and B-B' are transects of the regional area of total VOC-impacted groundwater and indicate that the impacts are present at similar depths along these sections. In the Study Area (Cross Section A-A'), the

maximum extent of VOC-impacted groundwater identified is approximately 8,300 feet in length and 2,100 ft in width, with a depth and thickness of approximately 670 ft bls and 430 ft, respectively. As depicted on Cross Section A-A', a segment of VOC-impacted groundwater was identified at depths of approximately 100 to 330 ft bls between VPBs VP-111 and VP-119. This shallower segment of VOC-impacted groundwater is not consistent with the depth of the Study Area VOC-impacted groundwater originating from the Site and therefore is not Site-related.

As shown on Figure 6 and summarized in Table 10, public supply wells at Bethpage Water District Plants 4, 5, and 6, have detections of VOCs in the untreated water, water from these wells is treated to meet the BWD's policy of zero detections in water delivered to the public.

As shown on Figure 4, the highest total VOC concentrations (i.e., greater than 1,000 µg/L) are predominantly located in the Study Area and also more locally near and north of Northrop Grumman Remedial Wells 1 and 3. Regionally, the VOC-impacted groundwater descends in the aquifer as it migrates, generally consistent with regional groundwater flow and hydraulic gradient (Figure 5). The highest total VOC concentrations (i.e., greater than 1,000 µg/L) are predominantly observed in the Study Area at depths ranging from approximately 75 ft bls (northern portion) to 590 ft bls (southern portion) and also near and north of Northrop Grumman Remedial Wells 1 and 3, which are at depths of approximately 480 to 570 ft bls. The highest total VOC concentrations were detected in the Study Area and were found in VP-104; VP-109; VP-111; and VP-116. VP-111 exhibited the maximum concentration of total VOCs (10,500 µg/L at a depth of 451 ft bls). Concentrations of total VOCs in Remedial Wells 1 and 3 were 740 µg/L and 3,529 µg/L, respectively.

The constituents in the regional area of VOC-impacted groundwater generally are TCE; PCE; 1,1,1-TCA; 1,2-DCE (cis/trans); 1,2-DCA; Freon 113; 1,1-DCE; and 1,1-DCA, and to a more localized extent VC. For detailed information on VOCs detected, see Tables 4 and 5, as well as previous reports prepared for the region Geraghty & Miller, Inc. (1994); TTNUS (1993); and Conestoga Rovers (1996).

Additionally, Freons 12 and 22 were sporadically detected in groundwater in the Study Area. The extent of these compounds off-site was not delineated, as the source of these compounds was attributed to the Town in the Site Area RI Report (ARCADIS 2008a).

Figure 6 depicts the percentage of individual VOCs relative to the total VOCs detected in select wells/VPBs and primarily illustrates the widespread nature of the TCE distribution in the region of VOC-impacted groundwater. For Figure 6, the maximum total VOC concentration detected over the period of record for each location was used. Data from the Study Area depicted on Figure 6, and provided in Tables 4 and 5 and Appendix G confirm the regional nature of the VOC impacts. In addition, this figure generally illustrates that constituents comprising the regional area of VOC-impacted groundwater are present in the Study Area (e.g., as evidenced by various VOCs detected in Wells GM-15I and GM-36D2).

As illustrated on Figure 6, the composition of the Study Area VOC-impacted groundwater changes with distance downgradient from the Site, from predominantly cis-1,2-DCE to TCE. Although the details of the historical daily operations at the Site are not known, one possible explanation for this off-site VOC distribution is that TCE was initially introduced to the subsurface, followed by the introduction of toluene at the site at some later date (see VP-27 and Site Area RI Report [ARCADIS 2008a]). In this scenario, toluene provided the source of organic carbon that allowed for the creation of an anaerobic environment amenable to the biodegradation of TCE on-site (as supported by biogeochemical data included in the Site Area RI Report [ARCADIS 2008a]). As is well documented in the literature, this biodegradation process then transformed TCE to cis-1,2DCE (as well as other degradation products) (Suthersan 1997). This process is a possible explanation of the change in VOC-impacted groundwater composition with distance from the Site and is supported by the data (i.e., the leading edge of the impacted groundwater [oldest portion] consists predominantly of TCE, the intermediate section consists of both VOCs in relatively equal proportions, and the portion nearest the Site consists predominantly of cis- 1,2- DCE). As described in Section 4.4., the historical discharge of VOC-impacted water (non-contact cooling water) to the Former NWIRP Plant 3 recharge basins (assuming it primarily contained TCE) and subsequent groundwater flow beneath and downgradient of the Site, (consistent with Northrop Grumman historical data and US Navy modeling), could also explain the Study Area distribution of TCE and cis-1,2,-DCE (Halliburton NUS 1993).

5.3.2 Metals

The results of metals analysis (total/dissolved) are provided in Table 7 and the single SCG exceedance is depicted on Figure 7; only chromium was detected in exceedance of its SCG. In general, dissolved concentrations are more representative of groundwater quality because total sample analytical results may include metals

adsorbed onto particulate matter in the sample and yield results that are biased high, and therefore only dissolved results are discussed. Based on the Site Area RI Report findings, chromium was determined to not be a COC in groundwater. The single, isolated, dissolved-phase exceedance of chromium in Monitoring Well MW111-4, it is not Site-related. An additional round of groundwater sampling is planned; this second round will include re-sampling of these wells for metals.

5.3.3 Perchlorate

The analytical results of perchlorate are provided in Table 8. Based on the findings of the Site Area RI Report (ARCADIS 2008a), no on-Site source of perchlorate to groundwater was identified and overall, the Study Area data verify that perchlorate is not Site related, with no trends apparent.

5.4 Tentatively Identified Compounds

This section of the RI Report discusses the results of analysis for TICs in groundwater samples collected during the RI. The results of TIC sample analysis are provided in Table 9. Two TICs, identified as 2-methyl 1-propene and propene, were detected in 30 and 29 percent of samples, respectively. The results from subsequent rounds of groundwater sampling will be evaluated to determine if any TICs need to be added to the list of quantified analytes.

6. Fate and Transport

This section of the RI Report provides a discussion of the environmental processes that control the movement and distribution of the COCs related to the Study Area. In general, after a chemical is released to the environment, it may be transported; transformed physically, chemically, or biologically; or accumulated in one or more media. The evaluation of the fate and transport of the COCs identified for the Study Area will aid in predicting future potential risks by identifying the substance's persistence and potential for migration in the environment.

6.1 Constituents of Concern

Chlorinated VOCs and toluene are identified as the COCs for the Study Area based on their concentrations and frequency of detection in groundwater samples collected in VPBs and monitoring wells. TCE and cis-1,2-DCE were determined to be the predominant VOCs detected in groundwater above SCGs, followed by (in order of

decreasing frequency of exceedance) 1,1-DCA; PCE; 1,1-DCE; VC; 1,2-DCA; Freon 113; toluene , chloroform, 1,1,1-TCA; and trans-1,2-DCE. Table 11 summarizes the chemical properties relevant to fate and transport of the COCs and Appendix J provides a general discussion of the various fate and transport processes applicable to the COCs.

6.2 Environmental Fate

The medium of concern for the Study Area is groundwater and the COCs are chlorinated VOCs and toluene. The COCs are relatively mobile in groundwater, having moderate to high solubilities and/or low organic carbon partition coefficients (K_{oc}) and octanol-water partition coefficients (K_{ow}). Accordingly, these COCs are considered to have medium-to-high mobility in groundwater, with relatively low sorption to soils. The predominant degradation processes for the COCs are hydrolysis and biodegradation. As discussed in Section 5, a number of biodegradation processes may have occurred in the Site Area. Further degradation of these breakdown products in the subsurface environment is expected to be slow; therefore, these constituents may persist for some time.

6.3 Transport Mechanisms

Transport mechanisms are physical processes governing the movement of constituents from points of origin (i.e., sources) through environmental media. The primary transport mechanism for the COCs is advection, which is chemical movement via groundwater flow due to the groundwater hydraulic gradient. The primary influences on groundwater movement are subsurface lithology and structure and local groundwater pumpage and recharge. As discussed in Section 4, downward regional groundwater flow has caused the VOC-impacted groundwater to descend in the aquifer as it migrates downgradient (south-southeast). As a result, the distal edge of the impacted groundwater exists at depths close to the basal portion of the Magothy aquifer, approximately 800 ft bls.

7. Conceptual Site Model

Previous sections of this RI Report summarized relevant Study Area conditions, consisting of hydrogeology (Study Area and regional), and distribution of COCs in groundwater. The groundwater portion of the conceptual site model (CSM) relates current conditions to apparent historical sources (to the extent possible with available data). The purpose of the CSM is to more specifically explain the source(s) of COCs,

migration mechanisms of COCs in groundwater, as well as potential receptors. The portion of the CSM related to groundwater is shown on Figure 8.

7.1 Sources

VOCs present in source areas in the Site Area, as well as industrial releases to properties west and adjacent to the Site, migrated via percolation through the unsaturated zone to groundwater.

7.2 Migration Mechanisms

Prior to startup of the groundwater remedy on the Northrop Grumman property, local recharge via basins and operation of industrial supply wells on the former Grumman, NWIRP, and OCC facilities caused the VOC-impacted groundwater to migrate downward, resulting in a zone of impacted groundwater greater than 500 ft deep on the Grumman facility (USGS 1992). This pumpage/recharge also laterally and vertically mixed VOCs from multiple on-site sources. A portion of the VOC-impacted groundwater migrated off-site via advection, where it was further influenced by the pumping of public supply wells in the area. VOCs have been detected in several downgradient public supply wells.

VOC-impacted groundwater at the Site descended in the aquifer as it migrated via advection off-site and downgradient in the Study Area to the south/southeast, along the regional flow path. Further downgradient of the Site, local pumpage (i.e., Remedial Well 19 and downgradient public supply wells) accentuated the descent of the impacted groundwater in the aquifer.

The result of this pumpage, recharge, and migration is a regional area of VOC-impacted groundwater that is approximately 3.5 miles in length by 1.6 miles in width, with a depth and thickness of 790 ft bls and 430 ft, respectively

7.3 Potential Receptors

Off-Site wellhead treatment of public supply wells for VOCs, supplemented by the OU3 Groundwater IRM and the Northrop Grumman main facility groundwater remedy, results in no human exposure to VOCs in groundwater.

8. Conclusions

- The horizontal groundwater flow direction is south-southeast and in the vertical direction, flow is slightly downward. Supply well pumping and recharge via basins exhibit local influences on groundwater flow directions (vertically/horizontally).

- Regionally, VOC-impacted groundwater has been documented to underlie and extend downgradient (generally south) of the former Grumman facility, the NWIRP, and OCC properties, and the Site. The constituents in the regional VOC-impacted groundwater generally are TCE; PCE; 1,1,1-TCA; 1,2-DCE (cis/trans); 1,2-DCA; Freon 113; 1,1-DCE; and 1,1-DCA, and to a more localized extent VC. In general, the highest total VOC concentrations (i.e., greater than 1,000 µg/L) are predominantly observed in the Study Area and near and north of Northrop Grumman Remedial Wells 1 and 3.

- In the Study Area, chlorinated VOCs and toluene were determined to be the COCs in groundwater. Of these COCs, TCE and cis-1,2 DCE, were the predominant VOCs. Other VOCs detected above SCGs include the regional VOCs, plus chloroform.

- The maximum extent of the regional area of VOC-impacted groundwater is approximately 3.5 miles in length by approximately 1.6 miles in width, with a maximum depth/ thickness of 790 ft bls and 430 ft, respectively. In the Study Area, the VOC-impacted groundwater (downgradient of the Site) extends over a maximum area of approximately 8,300 feet in length by 2,100 ft in width. This impacted groundwater descends in the aquifer as it migrates generally to the south (consistent with regional groundwater flow) and reaches a maximum depth/thickness of approximately 670 ft bls, and 430 ft, respectively.

- The analytical data collected in the Study Area from VPBs and monitoring wells show good agreement. Therefore, VPB data were considered representative of aquifer conditions and were used throughout this Report.

- The composition of the Study Area VOC-impacted groundwater changes from predominantly cis-1,2-DCE to TCE with distance downgradient from the Site. One possible explanation is that TCE was initially introduced to the subsurface, followed by the introduction of toluene, which facilitated the biodegradation of TCE to cis-1,2DCE. Also, the historical discharge of VOC-impacted water (assuming water contained predominantly TCE) to the Former NWIRP Plant 3 recharge basins and

subsequent groundwater flow beneath and downgradient of the Site is another possible explanation.

- The shallower segment of VOC-impacted groundwater identified between VP-111 and VP-119 is not consistent with the depth of the Study Area VOC-impacted groundwater originating from the Site and therefore is not Site-related.

- Freons 12 and 22 were identified in the Study Area. The source of these compounds has been attributed to the Town.

- Based on the findings of the Site Area and Study Area RIs, Site-related metals in groundwater are limited in extent to the Site and are not COCs in Study Area groundwater.

- Based on the findings of the Site Area RI Report, no on-Site source of perchlorate was identified and overall, the Study Area data verify that perchlorate is not a COC in groundwater.

- Primary mechanism for transport of VOCs in groundwater is advection.

- The CSM for groundwater is as follows:

    - VOCs in source areas in the Site Area and industrial releases to properties west and adjacent to the Site resulted in VOC impacts to groundwater. Historical pumping/recharge on the former Grumman, NWIRP, and OCC properties caused lateral and vertical mixing of VOCs and accentuated downward movement of VOC-impacted groundwater, resulting in groundwater impacts at depths greater than 500 ft bls. The VOC-impacted groundwater that migrated south of the former Grumman, NWIRP, OCC, and the Site was further influenced by the pumping of public supply wells. Several downgradient public supply wells are presently affected by VOC-impacted groundwater.

    - Wellhead treatment of public supply wells for VOCs, supplemented by the OU3 Groundwater IRM and the former Grumman main facility groundwater remedy, results in no human exposure to VOCs in groundwater.

- Additional IRMs are not appropriate and no further investigation is warranted

9. Recommendations

Prepare a feasibility study to evaluate remedial alternatives for VOCs in Study Area groundwater.

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Table 1. Summary of Study Area Remedial Investigation Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Location Identification	Drilling/Sampling Method[1]	Completed Total Depth (ft bls)	Completed Soil Logging Intervals (ft bls)	Groundwater Sampling Interval	Completed Groundwater Analysis[2]	Downhole Geophysical Logging
Vertical Profile Borings						
VP-100	HSA/SP/SS	399	--	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-101	MR/HP/SS	360	--	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-102	HSA/SP/SS	370	--	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-103	MR/HP/SS	660	--	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-104	MR/HP/SS	887	820-822, 840-842, 860-862, 880-882, 885-887	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-105	HSA/SP/SS	170	--	10[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-106	HSA/SP/SS	120	--	10[3]	VOC, field parameters [4]	Gamma
VP-107	HSA/SP/SS	170	--	10[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-108	HSA/SP/SS	170	--	10[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-109	HSA/SP/SS	293	--	10[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-109R	MR/HP/SS	522	470-472	20[3]	VOC, field parameters [4]	Gamma/Electric
VP-110	HSA/SP/SS	387	--	10[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-110R	MR/HP/SS	674	466-468, 566-568, 642-644, 665-667, 672-674	20[3]	VOC, field parameters [4]	Gamma
VP-111	MR/HP/SS	631	--	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-112	MR/HP/SS	702	658-660, 678-680, 700-702	20[3]	VOC, Perchlorate, field parameters [4]	Gamma
VP-113	MR/HP/SS	493	422-424 and 425-427	20[3]	VOC, field parameters [4]	Gamma
VP-114	MR/HP/SS	497	135-137, 235-237, 275-277, 380-382, 440-442, 495-497	20[3]	VOC, field parameters [4]	Gamma
VP-115	MR/HP/SS	603	60-62, 160-162, 260-262, 360-362, 460-462, 560-562	20[3]	VOC, field parameters [4]	Gamma/Electric
VP-116	MR/HP/SS	699	155-157, 255-257, 335-337, 360-362, 454-456, 531-533, 634-636, 674-676	20[3]	VOC, field parameters [4]	Gamma/Electric
VP-117	MR/HP/SS	789	104-106, 204-206, 304-306, 414-416, 519-521, 610-612, 710-712, 755-757, 784-786, 787-789	50/20[3]	VOC, field parameters [4]	Gamma/Electric
VP-118	MR/HP/SS	799	104-106, 204-206, 310-312, 404-406, 514-516, 562-564, 597-599, 614-616, 627-629, 647-649, 669-671, 687-689, 707-709. 737-739. 754-756. 762-764. 777-779. 797-799	50/20[3]	VOC, field parameters [4]	Gamma/Electric
VP-119	MR/HP/SS	804	644-646, 647-649, 667-669, 677-679, 687-689, 707-709, 767-769, 772-774, 802-804	50/20[3]	VOC, field parameters [4]	Gamma/Electric

Notes and abbreviation on last page.

Table 1. Summary of Study Area Remedial Investigation Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Location Identification	Drilling/Sampling Method[1]	Completed Total Depth (ft bls)	Completed Soil Logging Intervals (ft bls)	Groundwater Sampling Interval	Completed Groundwater Analysis[2]	Downhole Geophysical Logging
Monitoring Well Sampling						
B24MW-2	--/SP	74	--	54-74	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
B24MW-3	--/SP	70	--	55-70	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
B30MW-1	--/SP	72	--	57-72	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
HN-40S	--/SP	59	--	49-59	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
HN-40I	--/SP	118	--	108-118	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
HN-42S	--/SP	60	--	50-60	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
HN-42I	--/SP	110	--	100-110	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
GM-15S	--/SP	80	--	70-80	VOC and field parameters [4]	--
GM-15I	--/Bladder	105	--	95-105	VOC and field parameters [4]	--
GM-15D	--/Bladder	342	--	332-342	VOC and field parameters [4]	--
GM-15D2	--/Bladder	556	--	536-556	VOC and field parameters [4]	--
MW100-1	--/SP	70	--	55-65	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW100-2	--/SP	160	--	145-155	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW100-3	--/SP	252	--	237-247	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW102-1	--/SP	152	--	137-147	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW107-1	--/SP	93	--	78-88	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--

Notes and abbreviation on last page.

Table 1. Summary of Study Area Remedial Investigation Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Location Identification	Drilling/Sampling Method[1]	Completed Total Depth (ft bls)	Completed Soil Logging Intervals (ft bls)	Groundwater Sampling Interval	Completed Groundwater Analysis[2]	Downhole Geophysical Logging
Monitoring Well Sampling (continued)						
MW108-1	--/SP	82	--	67-77	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-109-3	--/SP	248	--	233-243	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-111-4	--/SP	473	--	448-468	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-116-5	--/SP	595	--	570-590	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-117-5	--/SP	762	--	737-757	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-118-5	--/SP	743	--	713-738	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	--
MW-200-1	--/SP	100	--	85-95	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	Gamma
MW-201-1	--/SP	85	--	70-80	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	Gamma
MW-202-1	--/SP	140	--	125-135	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	Gamma
MW-203-1	--/SP	118	--	103-113	VOC, Cd/Cr (Total and Dissolved), field parameters [4]	Gamma

Notes and abbreviation on last page.

Table 1. Summary of Study Area Remedial Investigation Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

(1) The complete description of drilling, sampling, and logging methods is provided in the NYSDEC-approved RI/FS Work Plan.

(2) Laboratory analysis of samples were performed using one or more of the following methods:
- VOCs: TCL VOCs using NYSDEC ASP 2000 Method OLM 4.2.
- Cadmium/Chromium using USEPA Method ILM 4.0.
- Perchlorate: USEPA Method 314.0.

(3) In vertical profile borings completed using hollow stem auger drilling, groundwater sampling commenced from the bottom of the borehole and proceeded upward in 10 or 20 foot intervals to the water table (approx. 55 ft bls). In VPBs completed with mud rotary drilling, groundwater samples were collected from the water table to the terminal depth in 50 or 20 foot intervals. Actual sampling intervals were selected based on field activities.

(4) Field parameters included pH, specific conductance, and temperature (sample interval may not include every noted parameter due to field conditions).

ft bls	Feet below land surface
VP	Vertical profile boring
TCL	Target compound list
VOC	Volatile organic compound
NYSDEC	New York State Department of Environmental Conservation
Cd/Cr	Cadmium/Chromium
--	Not applicable
USEPA	United States Environmental Protection Agency
ASP	Analytical services protocol
HSA	Hollow-stem auger
SS	Split spoon
SP	Submersible pump
MR	Mud Rotary

ARCADIS

Table 2. Study Area Monitoring Well Construction Summary, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Well Identification	NYSDEC Permit #	Date Installed	Owner	Casing/ Screen Material [1]	Casing/ Screen Diameter (inches)	Surface Casing	Measuring Point Elevation [2] (ft msl)	Total Depth (ft bmp)	Total Depth (ft msl)	Screened Interval (ft bmp)	Screened Interval Elevation (ft msl)	Dedicated Pump/Packer (Y/N)
B24MW-2	--	3/7/1994	NG	PVC	2	FM	126.96	74	52.96	54 to 74	72.96 to 52.96	N
B24MW-3	--	2/24/1994	NG	PVC	2	FM	127.11	70	57.11	55 to 70	72.11 to 57.11	N
B30MW-1	--	4/14/2006	NG	PVC	2	FM	128.33	72	56.33	57 to 72	71.33 to 56.33	N
HN-40S	--	4/13/2006	US Navy	Sch. 40 PVC	4	FM	116.35	59	57.35	49 to 59	67.35 to 57.35	N
HN-40I	--	4/13/2006	US Navy	Sch. 40 PVC	4	FM	115.91	118	-2.09	108 to 118	7.91 to -2.09	N
HN-42S	--	4/13/2006	US Navy	Sch. 40 PVC	4	FM	120.32	60	60.32	50 to 60	70.32 to 60.32	N
HN-42I	--	4/13/2006	US Navy	Sch. 40 PVC	4	FM	119.61	110	9.61	100 to 110	19.61 to 9.61	N
GM-15S	--	5/16/2000	US Navy	Sch. 40 PVC	4	FM	109.44	80	29.44	70 to 80	39.44 to 29.44	N
GM-15I	--	--	NG	Sch. 40 PVC	4	FM	109.25	105	4.25	95 to 105	14.25 to 4.25	N
GM-15D	--	5/9/2000	US Navy	Sch. 40 PVC	4	FM	109.84	342	-232.16	332 to 342	-222.16 to -232.16	N
GM-15D2	--	5/5/2000	US Navy	Sch. 40 PVC	4	FM	109.78	556	-446.22	536 to 556	-426.22 to -446.22	N
MW100-1	N-13666	5/1/2007	NG	Sch. 40 PVC	4	FM	117.00	70	47.00	55 to 65	62.00 to 52.00	N
MW100-2	N-13667	5/7/2007	NG	Sch. 40 PVC	4	FM	116.59	160	-43.41	145 to 155	-28.41 to -38.41	N
MW100-3	N-13668	4/3/2007	NG	Sch. 80 PVC	4	FM	116.63	252	-135.37	237 to 247	-120.37 to -130.37	N
MW102-1	N-13663	6/14/2007	NG	Sch. 40 PVC	4	FM	115.80	152	-36.20	137 to 147	-21.20 to -31.20	N
MW107-1	N-13664	5/15/2007	NG	Sch. 40 PVC	4	FM	116.72	93	23.72	78 to 88	38.72 to 28.72	N
MW108-1	N-13665	5/31/2007	NG	Sch. 40 PVC	4	FM	118.46	82	36.46	67 to 77	51.46 to 41.46	N
MW-109-3	N-13815	4/8/2009	NG	Sch. 80 PVC/ SS	4	FM	111.29	248	-136.71	233 to 243	-121.71 to -131.71	N
MW-111-4	N-13757	4/28/2008	NG	Sch. 80 PVC/ SS	4	FM	103.38	473	-369.62	448 to 468	-344.62 to -364.62	N
MW-116-5	N-13712	4/4/2008	NG	Sch. 80 PVC/ SS	4	FM	93.58	595	-501.42	570 to 590	-476.42 to -496.42	Y
MW-117-5	N-13791	1/22/2009	NG	Sch. 80 PVC/ SS	4	FM	94.80	762	-667.20	737 to 757	-642.20 to -662.20	Y
MW-118-5	N-13792	5/11/2009	NG	Sch. 80 PVC/ SS	4	FM	85.53	743	-657.47	713 to 738	-627.47 to -652.47	Y
MW-200-1	N-13761	1/21/2009	NG	Sch. 40 PVC/ SS	4	FM	123.49	100	23.49	85 to 95	38.49 to 28.49	N
MW-201-1	N-13760	1/27/2009	NG	Sch. 40 PVC/ SS	4	FM	121.69	85	36.69	70 to 80	51.69 to 41.69	N
MW-202-1	N-13759	2/2/2009	NG	Sch. 40 PVC/ SS	4	FM	119.27	140	-20.73	125 to 135	-5.73 to -15.73	N
MW-203-1	N-13758	2/9/2009	NG	Sch. 40 PVC/ SS	4	FM	118.25	118	0.25	103 to 113	15.25 to 5.25	N

Notes and Abbreviations:

[1] All monitoring wells have a 0.01 in. slot screen openings.

[2] Measuring point elevation is top of inner casing.

ft bmp Feet below measuring point

ft msl Feet relative to mean sea level

Sch. Schedule

PVC Polyvinyl chloride

SS Stainless steel

FM Flush mount

NG Northrop Grumman System Corporation

US Navy United States Navy

-- Not available/None

Table 3. Monitoring Well Survey Data and Water-Levels Measured July and September 2009, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Well ID and Hydrogeologic Zone	Northing (Datum: NAD 1983)	Easting (Datum: NAD 1983)	Measuring Point Elevation (Datum: NAVD 1988)	Measuring Point Description	July 2009 Depth to Water (ft bmp)	July 2009 Water-Level Elevation (ft msl)	September 2009 Depth to Water (ft bmp)	September 2009 Water-Level Elevation (ft msl)
Shallow								
B24MW-2	215138.44	1126021.69	126.96	TOC	52.33	74.63	52.61	74.35
B24MW-3	214493.18	1125923.74	127.11	TOC	53.92	73.19	54.88	72.23
B30MW-1	215297.04	1126443.42	128.33	TOC	54.34	73.99	55.14	73.19
MW-100-1	213238.98	1127170.61	117.00	TOC	45.53	71.47	46.46	70.54
MW-107-1	213048.14	1127921.13	116.72	TOC	44.50	72.22	45.56	71.16
MW-108-1	213781.55	1126243.05	118.46	TOC	47.07	71.39	47.97	70.49
MW-200-1	214273.20	1126278.80	123.49	TOC	50.85	72.64	52.02	71.47
MW-201-1	214253.00	1126534.50	121.69	TOC	49.24	72.45	50.49	71.20
MW-202-1	214232.00	1126774.00	119.27	TOC	47.01	72.26	48.06	71.21
MW-203-1	214222.10	1127012.50	118.25	TOC	46.01	72.24	47.07	71.18
GM-15S	1127074.76	210582.97	109.44	TOC	42.10	67.34	43.22	66.22
HN-40S	1125986.76	212473.56	116.35	TOC	45.91	70.44	46.79	69.56
HN-42S	1126067.16	213790.77	120.32	TOC	48.28	72.04	49.23	71.09
Intermediate								
MW-100-2	213231.24	1127170.17	116.59	TOC	46.39	70.20	47.30	69.29
MW-102-1	213559.15	1127449.83	115.80	TOC	45.18	70.62	46.11	69.69
GM-15I	1127097.56	210576.28	109.25	TOC	41.91	67.34	43.03	66.22
HN-40I	1125986.76	212473.56	115.91	TOC	45.76	70.15	46.77	69.14
HN-42I	1126067.16	213790.77	119.61	TOC	47.61	72.00	48.51	71.10
Deep								
MW-100-3	213212.23	1127168.95	116.63	TOC	46.18	70.45	47.10	69.53
MW-109-3	212006.60	1127775.10	111.29	TOC	43.19	68.10	44.23	67.06
MW-111-4	210188.20	1128108.00	103.38	TOC	40.48	62.90	41.62	61.76
GM-15D	1127065.47	210601.69	109.84	TOC	44.52	65.32	45.56	64.28
Deep2								
MW-116-5	207462.60	1129288.80	93.58	TOC	39.91	53.67	39.13	54.45
MW-117-5	206932.70	1127137.90	94.80	TOC	39.11	55.69	39.63	55.17
MW-118-5	205698.00	1128080.50	85.53	TOC	34.21	51.32	33.97	51.56
GM-15D2	1127051.72	210613.96	109.78	TOC	47.28	62.50	48.28	61.50

Notes and abbreviations on following page.

Table 3. Monitoring Well Survey Data and Water-Levels Measured July and September 2009, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. Water-level measurements were collected on July 17, 2009 and September 23, 2009
ID Identification
ft bmp Feet below measuring point
ft msl Feet relative to mean sea level
NAD North American Datum
NAVD North American Vertical Datum
TOC Top of inner PVC casing

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-100 46 - 51 9/15/2006	VP-100 55 - 60 9/15/2006	VP-100 75 - 85 9/14/2006	VP-100 105 - 110 9/14/2006	VP-100(REP) 105 - 110 9/14/2006	VP-100 125 - 130 9/13/2006	VP-100 145 - 150 9/13/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 10	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 10	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	**0.27 J**	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10 J	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 10	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	**0.95 J**	**1.2 J**	**14**	**3 J**	**3 J**	< 5	< 5
Chloroethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.77 J**	**0.63 J**	**9**	**2 J**	**2 J**	**0.7 J**	**0.7 J**
Chloromethane	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**15**	**13**	**100**	**140**	**150**	**930 D**	**1500 D**
cis-1,3-dichloropropene	0.4	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 JB	< 10 JB	< 5 B	< 5 B	< 5 B	< 5	< 5
Styrene	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	**0.48 J**	**2 J**	**1 J**	**0.8 J**	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 10	< 5	< 5	< 5	**0.9 J**	< 5
trans-1,3-dichloropropene	0.4	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**2.5 J**	**2.4 J**	**17**	**22**	**23**	**97**	**190**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**0.19 J**	**0.12 J**	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 10	< 5	< 5	< 5	< 5	< 5
TVOC		**19.4**	**18.1**	**142.0**	**168.0**	**178.8**	**1,028.6**	**1,690.7**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-100 160 - 165 9/12/2006	VP-100 180 - 185 9/12/2006	VP-100 190 - 195 9/12/2006	VP-100 200 - 205 9/11/2006	VP-100 210 - 215 9/11/2006	VP-100 220 - 225 9/11/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**3 J**	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	**2 J**	**2 J**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**2 J**	< 5	**2 J**	**0.6 J**	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**360 D**	**66**	**16**	**11**	**22**	**17**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	**0.6 J**	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	**0.8 J**	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**78**	**32**	**20**	**11**	**15**	**14**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**2 J**	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**445.0**	**98.0**	**38.6**	**23.4**	**39.0**	**33.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-100 230 - 235 9/8/2006	VP-100 (REP) 230 - 235 9/8/2006	VP-100 240 - 245 9/8/2006	VP-100 250 - 255 9/7/2006	VP-100 270 - 275 9/7/2006	VP-100 290 - 295 9/6/2006	VP-100 310 - 315 9/6/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 10	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 10	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 20	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 20	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 20	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 20	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 1	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
cis-1,2-dichloroethene	5	**3 J**	**3 J**	**2 J**	**3 J**	**8**	**7 J**	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Tetrachloroethene	5	**2 J**	**0.9 J**	**3 J**	**2 J**	**3 J**	< 10	**3 J**
Toluene	5	**1 J**	**1 J**	< 5	**8**	**3 J**	**1 J**	**1 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Trichloroethylene	5	**20**	**20**	**47**	**86**	**240 D**	**190**	**18**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 10	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 4	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 10	< 5
TVOC		**26.0**	**24.9**	**52.0**	**99.0**	**254.0**	**198.0**	**22.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-100 330 - 335 9/5/2006	VP-100 (REP) 330 - 335 9/5/2006	VP-100 350 - 355 9/5/2006	VP-100 371 - 376 9/1/2006	VP-100 394 - 399 9/1/2006	VP-101 60 - 60 6/27/2006	VP-101 80 - 80 6/27/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10 J	< 36
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**6**	**7**	< 5	**0.5 J**	**0.8 J**	< 5	< 5
Toluene	5	**1 J**	**1 J**	< 5	**0.7 J**	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**11**	**12**	**2 J**	**0.6 J**	**1 J**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	**0.9 J**	**0.8 J**	< 5	< 5	**0.7 J**	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**18.9**	**20.8**	**2.0**	**1.8**	**2.5**	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-101 100 - 100 6/28/2006	VP-101 120 - 120 6/28/2006	VP-101 140 - 140 6/28/2006	VP-101 167 - 167 6/29/2006	VP-101 180 - 180 6/29/2006	VP-101 200 - 200 6/30/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10 J	< 10 J	< 10 J	< 10 B	< 10 B	**4 J**
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5 JB	< 5 B	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	**0.6 J**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	0	0	**0.6**	**4.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-101 227 - 227 6/30/2006	VP-101 (REP) 227 - 227 6/30/2006	VP-101 240 - 240 7/5/2006	VP-101 260 - 260 7/5/2006	VP-101 287 - 287 7/6/2006	VP-101 300 - 300 7/6/2006	VP-101 320 - 320 7/6/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5		< 5		< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	**5 J**	**5 J**	< 10 B	< 10 B	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 10
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	**1 JB**	< 5 B	< 5 B	< 5 B	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**0.8 J**	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**6.8**	**5.0**	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-101 340 - 340 7/6/2006	VP-101 360 - 360 7/7/2006	VP-101 387 - 387 7/10/2006	VP-101 400 - 400 7/10/2006	VP-101 420 - 420 7/11/2006	VP-101 440 - 440 7/11/2006	VP-101 460 - 460 7/11/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	**6 J**	< 10	**4 J**	**6 J**	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**6.0**	0	**4.0**	**6.0**	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-101 480 - 480 7/12/2006	VP-101 507 - 507 7/13/2006	VP-102 45 - 50 10/13/2006	VP-102 65 - 70 10/13/2006	VP-102 (REP) 65 - 70 10/13/2006	VP-102 85 - 90 10/13/2006	VP-102 105 - 110 10/12/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 18	< 10 J	< 10 J	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	**0.32 J**	**0.37 J**	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	**0.42 J**	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5 JB	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	**1.6 J**	**4.2 J**	**4 J**	**4.4 J**	**7.2**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	**14**	**33**	**34**	**13**	**34**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	**15.6**	**37.5**	**38.8**	**17.4**	**41.2**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-102 Sample Depth (ft bls): 125 - 130 Sample Date: 10/12/2006	VP-102 135 - 140 10/11/2006	VP-102 150 - 155 10/11/2006	VP-102 160 - 165 10/11/2006	VP-102 170 - 175 10/10/2006	VP-102 180 - 185 10/10/2006	VP-102 190 - 195 10/6/2006
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	**2 J**	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	**6.2**	**12**
1,1-Dichloroethene	5	< 5	< 5	**0.61 J**	**0.77 J**	**1.1 J**	**1.9 J**	**3.3 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	**0.85 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	**0.98 J**	**1.2 J**	**2.5 J**	**4.1 J**	**2.2 J**	**3 J**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	**0.74 J**	< 5	< 5
Toluene	5	**1.6 J**	**4.3 J**	**5.1**	**3.5 J**	**0.64 J**	< 5	**0.9 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	**2.6 J**
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**16**	**83**	**86**	**140**	**150**	**78**	**110**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	**1 J**	**2.1 J**	**4.1 J**	**1.8 J**	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**17.6**	**88.3**	**93.9**	**148.9**	**160.7**	**92.1**	**132.7**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-102 200 - 205 10/6/2006	VP-102 220 - 225 10/5/2006	VP-102 240 - 245 10/5/2006	VP-102 250 - 255 10/4/2006	VP-102 (REP) 250 - 255 10/4/2006	VP-102 260 - 265 10/4/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 10	< 10	< 10
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 10	< 10	< 10
1,1-Dichloroethane	5	**3.6 J**	< 5	**7.8**	**6.6 J**	**5.8 J**	**8.7 J**
1,1-Dichloroethene	5	< 5	< 5	**1.5 J**	**2.2 J**	**1.8 J**	**3.3 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 10	< 10	< 10
1,2-Dichloropropane	1	< 5	< 5	< 5	< 10	< 10	< 10
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 10	< 10	< 10
Bromodichloromethane	50	< 5	< 5	< 5	< 10	< 10	< 10
Bromoform	50	< 5	< 5	< 5	< 10	< 10	< 10
Bromomethane	5	< 5	< 5	< 5	< 10	< 10	< 10
Carbon Disulfide	60	< 5	< 5	< 5	< 10	< 10	< 10
Carbon tetrachloride	5	< 5	< 5	< 5	< 10	< 10	< 10
Chlorobenzene	5	< 5	< 5	< 5	< 10	< 10	< 10
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 10	< 10	< 10
Chloroethane	5	< 5	< 5	< 5	< 10	< 10	< 10
Chloroform	7	< 5	< 5	< 5	< 10	< 10	< 10
Chloromethane	5	< 5	< 5	< 5	< 10	< 10	< 10
cis-1,2-dichloroethene	5	**1.7 J**	**6.2**	**4.7 J**	**34 J**	**31**	**47**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 10	< 10	< 10
Dibromochloromethane	50	< 5	< 5	< 5	< 10	< 10	< 10
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 10	< 10	< 10
Ethylbenzene	5	< 5	< 5	< 5	< 10	< 10	< 10
Methylene Chloride	5	< 5	< 5	< 5	< 10 JB	< 10 JB	< 10 JB
Styrene	5	< 5	< 5	< 5	< 10	< 10	< 10
Tetrachloroethene	5	< 5	< 5	< 5	< 10	< 10	< 10
Toluene	5	**1.1 J**	< 5 J	< 5 J	< 10 J	**2.8 J**	**8 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 10	< 10	< 10
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 10	< 10	< 10
Trichloroethylene	5	**62**	**190**	**180**	**340 D**	**330 D**	**440 D**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 10	< 10	< 10
Vinyl Acetate	NE	< 5	< 5	< 5	< 10	< 10	< 10
Vinyl Chloride	2	< 2	< 2	< 2	**1.2 J**	**1.4 J**	**2.2 J**
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 10	< 10	< 10
TVOC		**68.4**	**196.2**	**194.0**	**384.0**	**372.8**	**509.2**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-102 290 - 295 10/2/2006	VP-102 300 - 305 9/29/2006	VP-102 310 - 315 9/29/2006	VP-102 325 - 330 9/28/2006	VP-102 (REP) 325 - 330 9/28/2006	VP-102 345 - 350 9/28/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**9.3**	**17**	**12**	**2.4 J**	**2.7 J**	**2.7 J**
1,1-Dichloroethene	5	**3.7 J**	**4.9 J**	**1.4 J**	**1.9 J**	**2 J**	**1.2 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	**0.38 J**	< 5	< 5	< 5	**0.82 J**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.75 J**	**0.56 J**	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**71**	**79**	**18**	**21**	**22**	**15**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5.7 B	< 9.9 B	< 9.3 B	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**0.55 J**	< 5	< 5	< 5	< 5	< 5
Toluene	5	**5.9**	< 5	**0.33 J**	**0.61 J**	**0.72 J**	< 5
trans-1,2-dichloroethene	5	**0.61 J**	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**1100 D**	**460 D**	**100**	**310 D**	**300 D**	**200**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**1.7 J**	**3.2**	**1.9 J**	< 2	< 2	**0.13 J**
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**1,193.5**	**565.0**	**133.6**	**335.9**	**327.4**	**219.9**

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Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-102 365 - 370 9/27/2006	VP-102 370 - 375 10/3/2006	VP-102 380 - 385 10/3/2006	VP-103 60 - 60 10/10/2006	VP-103 80 - 80 10/10/2006	VP-103 100 - 100 10/10/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 10	< 10	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 10	< 10	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 10	< 10	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	**11**	< 10	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	**5.6 J**	**1.5 J**	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 10	< 10	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 10	< 10	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10 J	< 10
Benzene	1	< 0.7	< 10	< 10	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 10	< 10	< 5	< 5	< 5
Bromoform	50	< 5	< 10	< 10	< 5	< 5	< 5
Bromomethane	5	< 5	< 10	< 10	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 10	< 10	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 10	< 10	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 10	< 10	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 10	< 10	< 5	< 5	< 5
Chloroethane	5	< 5	< 10	< 10	< 5	< 5	< 5
Chloroform	7	< 5	< 10	**0.44 J**	< 5	< 5	< 5
Chloromethane	5	< 5	< 10	< 10	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	**78**	**23**	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 10	< 10	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 10	< 10	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 10	< 10	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 10	< 10	< 5	< 5	< 5
Methylene Chloride	5	< 5 JB	< 10 J	< 10 J	< 5 JB	< 5	< 5
Styrene	5	< 5	< 10	< 10	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 10	**1.7 J**	< 5	< 5	< 5
Toluene	5	< 5	**5.4 J**	**4.6 J**	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 10	< 10	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 10	< 10	< 5	< 5	< 5
Trichloroethylene	5	**1.7 J**	**1000 D**	**1100 D**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 10	**2.4 J**	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 10	< 10	< 5	< 5	< 5
Vinyl Chloride	2	< 2	**3.3 J**	**0.34 J**	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 10	< 10	< 5	< 5	< 5
TVOC		**1.7**	**1,103.3**	**1,134.0**	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-103 120 - 120 10/10/2006	VP-103 140 - 140 10/11/2006	VP-103 165 - 165 10/11/2006	VP-103 185 - 185 10/11/2006	VP-103 200 - 200 10/12/2006	VP-103 220 - 220 10/12/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10 J	< 10 J	< 10	< 10	< 10 J
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.43 J**	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**0.4**	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-103 Sample Depth (ft bls): 240 - 240 Sample Date: 10/12/2006	VP-103 260 - 260 10/12/2006	VP-103 285 - 285 10/13/2006	VP-103 320 - 320 10/16/2006	VP-103 345 - 345 10/16/2006	VP-103 (REP) 345 - 345 10/16/2006
1,1,1-Trichloroethane	5	< 5	**10**	< 5	**16**	**2.9 J**	**2.4 J**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	**19**	< 5	**17**	**10**	**8.6**
1,1-Dichloroethene	5	< 5	**9.3**	< 5	**30**	**2.8 J**	**3.7 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	**4.3 J**	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10 J	< 10	< 10 J	< 10 J
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	**2 J**	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	**1.4 J**	< 5	**4 J**	**1.7 J**	**1.1 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**55**	**110**	**13**	**270**	**190 J**	**150 J**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 JB	< 5	< 5 J	< 5	< 5 JB	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	**0.65 J**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	**0.37 J**	< 5	**1.1 J**	**1.2 J**	**0.19 J**
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**43**	**280 D**	**25**	**1900 D**	**450 DJ**	**320 DJ**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**98.0**	**430.1**	**38.0**	**2,244.4**	**659.3**	**486.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-103 360 - 360 10/17/2006	VP-103 380 - 380 10/17/2006	VP-103 400 - 400 10/17/2006	VP-103 420 - 420 10/18/2006	VP-103 440 - 440 10/18/2006	VP-103 460 - 460 10/18/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	**4.1 J**	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	**5.3**	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**14**	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5 J	< 5	< 5	< 5	< 5 J
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**380 D**	**3.4 J**	**0.51 J**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**403.4**	**3.4**	**0.5**	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-103 480 - 480 10/18/2006	VP-103 500 - 500 10/19/2006	VP-103 525 - 525 10/19/2006	VP-103 545 - 545 10/20/2006	VP-103 560 - 560 10/20/2006	VP-103 580 - 580 10/23/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10 J	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 J	< 5 JB	< 5 JB	< 5 JB	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-103 600 - 600 10/23/2006	VP-103 620 - 620 10/23/2006	VP-103 640 - 640 10/24/2006	VP-103 (REP) 640 - 640 10/24/2006	VP-103 660 - 660 10/24/2006	VP-104 60 - 60 7/28/2006
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 16 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 JB	< 5 JB	< 5 JB	< 5 JB	< 5 JB	< 5 J
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-104 80 - 80 7/28/2006	VP-104 100 - 100 7/31/2006	VP-104 120 - 120 7/31/2006	VP-104 140 - 140 7/31/2006	VP-104 (REP) 140 - 140 7/31/2006	VP-104 160 - 160 7/31/2006	VP-104 180 - 180 8/1/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10 J	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**1 J**	**2 J**	**150**	**8**	**10**	**19**	**2 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**1.0**	**2.0**	**150.0**	**8.0**	**10.0**	**19.0**	**2.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-104 200 - 200 8/1/2006	VP-104 220 - 220 8/1/2006	VP-104 240 - 240 8/1/2006	VP-104 260 - 260 8/2/2006	VP-104 280 - 280 8/2/2006	VP-104 300 - 300 8/2/2006	VP-104 320 - 320 8/3/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	**7**
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	**3 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10 J	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	**1 J**	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	**0.8 J**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**3 J**	**5 J**	**7**	**7**	**7**	**2 J**	**0.9 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**3.0**	**6.0**	**7.0**	**7.0**	**7.0**	**2.8**	**10.9**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-104 340 - 340 8/3/2006	VP-104 360 - 360 8/3/2006	VP-104 380 - 380 8/7/2006	VP-104 400 - 400 8/7/2006	VP-104 420 - 420 8/7/2006	VP-104 (REP) 420 - 420 8/7/2006	VP-104 460 - 460 8/8/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	**3 J**	**3 J**	**3 J**	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	**10**	**11**	**11**	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	**3 J**	**4 J**	**4 J**	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10 J	< 10 J	< 11	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	**0.7 J**	**0.7 J**	**0.6 J**	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 B	< 5 B	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**2 J**	**2 J**	**2 J**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	**3 J**	**3 J**	**3 J**	**0.3 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	0	**21.7**	**23.7**	**23.6**	**0.3**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-104 Sample Depth (ft bls): 480 - 480 Sample Date: 8/8/2006	VP-104 500 - 500 8/8/2006	VP-104 520 - 520 8/14/2006	VP-104 540 - 540 8/14/2006	VP-104 560 - 560 8/14/2006	VP-104 580 8/15/2006	VP-104 600 8/15/2006
1,1,1-Trichloroethane	5	**6**	**1 J**	< 5	< 25	< 25	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	**3 J**	< 25	**5 J**	< 5	< 5
1,1-Dichloroethane	5	**15**	**2 J**	**3 J**	< 25	< 25	< 5	< 5
1,1-Dichloroethene	5	**9**	**2 J**	**2 J**	**4 J**	**7 J**	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	**16**	< 25	**12 J**	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 200	< 250	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 50	< 50	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 50	< 50	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 50	< 50	< 10	< 10
Acetone	50	< 10	< 10 J	**5 J**	< 50	< 50	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 4	< 4	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Chloroform	7	**2 J**	**6**	< 18	< 25 J	< 25 J	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
cis-1,2-dichloroethene	5	**20**	**84**	**380 D**	**470**	**290**	**6**	**1 J**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Tetrachloroethene	5	**19**	**4 J**	**12**	**3 J**	**7 J**	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 25	< 25	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5 M	**6**	**4 J**	**5 J**	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Trichloroethylene	5	**72**	**190 D**	**1400 D**	**3200 D**	**6300 D**	**110**	**17**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	**0.5 J**	< 25	< 25	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 25	< 25	< 5	< 5
Vinyl Chloride	2	< 2	< 2 M	< 2	< 10	< 10	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 25	< 25	< 5	< 5
TVOC		**143.0**	**289.0**	**1,827.5**	**3,681.0**	**6,626.0**	**116.0**	**18.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-104 620 8/15/2006	VP-104 640 8/16/2006	VP-104 660 8/16/2006	VP-104 680 8/16/2006	VP-104 707 8/21/2006	VP-104 720 8/22/2006	VP-104 740 8/22/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	**4 J**	< 10	< 10	< 10	**6 J**	< 10 J	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**1 J**	< 5	**0.9 J**	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**14**	**8**	**11**	**4 J**	**0.5 J**	**1 J**	**1 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**19.0**	**8.0**	**11.9**	**4.0**	**6.5**	**1.0**	**1.0**

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Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-104 760 8/23/2006	VP-104 780 8/23/2006	VP-104 800 8/23/2006	VP-104 820 8/24/2006	VP-104 840 8/24/2006	VP-104 860 8/25/2006	VP-104 880 8/25/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	**5 J**	< 10	< 10 J	< 10 J	**5 J**	**6 J**
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5 J
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**1 J**	**0.9 J**	**1 J**	**0.3 J**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**1.0**	**5.9**	**1.0**	**0.3**	0	**5.0**	**6.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-105 45 - 50 8/2/2006	VP-105 55 - 60 8/2/2006	VP-105 65 - 70 8/2/2006	VP-105 80 - 75 8/2/2006	VP-105 85 - 90 8/1/2006	VP-105 95 - 100 8/1/2006	VP-105 102 - 107 8/1/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	**7**	**3 J**	**2 J**	**5 J**
1,1-Dichloroethene	5	< 5	< 5	< 5	**2 J**	**2 J**	< 5	**5 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 13	< 10	< 10	< 10	< 10 J	< 10 J	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	**0.5 J**	**0.6 J**	**2 J**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5 M	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**39**	**74**	**22**	**180 D**	**280 D**	**270 D**	**1500 D**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	**0.8 J**	**0.5 J**	**0.5 J**	**10 J**
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**4 J**	**7**	**3 J**	**51**	**28**	**12**	**78 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**0.8 J**	**3**	**0.8 J**	**7**	**14**	**12**	**55 J**
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**43.8**	**84.0**	**25.8**	**247.8**	**328.0**	**297.1**	**1,655.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-105 Sample Depth (ft bls): 115 - 120 Sample Date: 7/31/2006	Sample Location: VP-105 Sample Depth (ft bls): 125 - 130 Sample Date: 7/31/2006	Sample Location: VP-105 Sample Depth (ft bls): 135 - 140 Sample Date: 7/31/2006	Sample Location: VP-105 Sample Depth (ft bls): 145 - 150 Sample Date: 7/28/2006	Sample Location: VP-105 Sample Depth (ft bls): 155 - 160 Sample Date: 7/28/2006	Sample Location: VP-105 Sample Depth (ft bls): 165 - 170 Sample Date: 7/28/2006	Sample Location: VP-106 Sample Depth (ft bls): 49 - 54 Sample Date: 6/30/2006
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	**0.7 J**	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10 B	< 10 B	< 10 B	< 10	< 10	< 10	**6 J**
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	**0.9 J**	**2 J**	**4 J**	**3 J**	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	**2 J**	**2 J**	< 5	**1 J**	**2 J**	**0.5 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**310 D**	**30**	**11**	**220 D**	**34**	**2 J**	**30**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	**3 J**	**1 J**	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**14**	**12**	**8**	**14**	**13**	**6**	**6**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**11**	**0.8 J**	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**335.7**	**45.7**	**23.0**	**241.0**	**52.0**	**10.0**	**42.5**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-106 Sample Depth (ft bls): 55 - 60 Sample Date: 6/30/2006	Sample Location: VP-106 Sample Depth (ft bls): 65 - 70 Sample Date: 6/30/2006	Sample Location: VP-106 Sample Depth (ft bls): 75 - 80 Sample Date: 6/30/2006	Sample Location: VP-106 Sample Depth (ft bls): 85 - 90 Sample Date: 6/30/2006	Sample Location: VP-106 Sample Depth (ft bls): 95 - 100 Sample Date: 6/29/2006	Sample Location: VP-106 Sample Depth (ft bls): 105 - 110 Sample Date: 6/29/2006	Sample Location: VP-106 Sample Depth (ft bls): 115 - 120 Sample Date: 6/29/2006
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**1 J**	**5 J**	**8**	**3 J**	< 5	< 5	< 5
1,1-Dichloroethene	5	**0.8 J**	**3 J**	**7**	**0.6 J**	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	**6 J**	< 10	< 10	< 10	< 10 B	< 10 B	< 10 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.8 J**	**1 J**	**0.6 J**	**3 J**	**5 J**	**10**	**11**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5 J	< 5	< 5 J
cis-1,2-dichloroethene	5	**140**	**610 D**	**1100 D**	**140**	**4 J**	**10**	**3 J**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 B	< 5 B	< 5 B	< 5 B	< 5 B	< 5 JB	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	**0.4 J**	**0.5 J**	< 5	< 5	< 5	< 5
Toluene	5	**0.4 J**	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	**0.3 J**	**2 J**	**2 J**	**0.5 J**	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**25**	**85**	**130**	**41**	**4 J**	**9**	**7**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	**2 J**	**2 J**	**31**	**2 J**	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**176.3**	**708.4**	**1,279.1**	**190.1**	**13.0**	**29.0**	**21.0**

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Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-107 45 - 50 7/25/2006	VP-107 55 - 60 7/25/2006	VP-107 65 - 70 7/25/2006	VP-107 75 - 80 7/25/2006	VP-107 85 - 90 7/25/2006	VP-107 95 - 100 7/21/2006	VP-107 105 - 110 7/21/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	**8 J**	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	**8 J**	**6 J**
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	**5**	**5 J**	**16**	**40**	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5 B	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**3 J**	**13**	**14**	**26**	**91**	< 5	**0.6 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**3.0**	**18.0**	**19.0**	**50.0**	**131.0**	**8.0**	**6.6**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-107 119 - 124 7/21/2006	VP-107 135 - 140 7/20/2006	VP-107 148 - 153 7/20/2006	VP-107 165 - 170 7/20/2006	VP-108 45 - 50 7/14/2006	VP-108 55 - 60 7/14/2006	VP-108 65 - 70 7/14/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	**5 J**	< 10	**8 J**	**7 J**	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	**0.3 J**	**0.3 J**	**1 J**	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5 J	< 5 J	< 5 J
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	**8**	**17**	**9**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 B	< 5	< 5	< 5	< 5 B	< 5 B	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**4 J**	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	**2 J**	**2 J**	**7**	**6**	**12**	**8**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		0	**2.3**	**7.3**	**12.0**	**22.0**	**36.0**	**17.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-108 75 - 80 7/14/2006	VP-108 85 - 90 7/14/2006	VP-108 95 - 100 7/14/2006	VP-108 105 - 110 7/13/2006	VP-108 115 - 120 7/13/2006	VP-108 125 - 130 7/13/2006	VP-108 (REP) 125 - 130 7/14/2006
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	**3 J**	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	**1 J**	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	**1 J**	< 5	**2 J**	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5 J	**8**	**10**	**12**	< 5 J	< 5 J
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**2 J**	**16**	**150**	**58**	**130**	**180 D**	**16**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	**3 J**	**13**	**6**	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 B	< 5 B	< 5 B	< 5	< 5	< 5	< 5 B
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	**0.8 J**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**2 J**	**16**	**110**	**62**	**110**	**370 D**	**12**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**4.0**	**32.0**	**268.0**	**134.0**	**265.0**	**562.8**	**28.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	VP-108 135 - 140 7/13/2006	VP-108 145 - 150 7/13/2006	VP-108 155 - 160 7/12/2006	VP-108 165 - 170 7/12/2006	VP-109 44 - 49 2/5/2007	VP-109 55 - 60 2/5/2007	VP-109 65 - 70 2/5/2007
		Sample Location: / Sample Depth (ft bls): / Sample Date:						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	**0.57 J**	**0.32 J**
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10 JB	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	**3.4 JB**
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	**0.3 J**	**0.5 J**	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5 J	< 5 J	< 5 J	**3 J**	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**26**	**18**	**25**	**49**	**18**	**38**	**22**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 10	< 10	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	**0.7 J**	< 5	**1.1 J**	**7.7**	**0.51 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**60**	**77**	**39**	**80**	**18**	**44**	**22**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**86.0**	**95.0**	**65.0**	**132.5**	**37.1**	**90.3**	**48.2**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-109 75 - 80 2/5/2007	VP-109 85 - 90 2/2/2007	VP-109 95 - 100 2/2/2007	VP-109 105 - 110 2/2/2007	VP-109 115 - 120 2/1/2007	VP-109 125 - 130 2/1/2007	VP-109 135 - 140 1/31/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 25	**0.41 J**	**0.42 J**	**0.73 J**	**1.1 J**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**0.24 J**	**1.7 J**	**4.9 DJ**	**6.3**	**6.3**	**8.6**	**12**
1,1-Dichloroethene	5	< 5	**0.91 J**	< 25	**2.7 J**	**2.7 J**	**3.9 J**	**5.9**
1,2-Dichloroethane	0.6	< 5	< 5	< 25	**0.63 J**	< 5	< 5	**3 J**
1,2-Dichloropropane	1	< 5	< 5	< 25	< 5	< 5	< 5	**0.56 J**
2-Butanone	50	< 10	< 10	< 50	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 50	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 50	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 50	< 10 JB	< 10 JB	< 10 JB	< 10 JB
Benzene	1	< 0.7	< 0.7	< 3.5	< 0.7	< 0.7	< 0.7	**0.24 J**
Bromodichloromethane	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	**0.23 J**	< 25	< 5	< 5	< 5	**0.21 J**
Chloroethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chloroform	7	< 5	**1.4 J**	< 25	**1.9 J**	**1.8 J**	**2.6 J**	**3 J**
Chloromethane	5	< 5	< 5	< 25	< 5	< 5	< 5	**0.62 J**
cis-1,2-dichloroethene	5	**29**	**240 D**	**420 D**	**510 D**	**480 D**	**380 D**	**690 D**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	**2.3 DJ**	< 5	< 5	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	**0.76 J**	< 25	**2.4 J**	**2.3 J**	**3.5 J**	**4.5 J**
Toluene	5	**0.8 J**	**0.79 J**	< 25	**2.8 J**	**3 J**	**3 J**	**7.1**
trans-1,2-dichloroethene	5	< 5	**0.62 J**	< 25	**1.8 J**	**1.7 J**	**2.6 J**	**2.1 J**
trans-1,3-dichloropropene	0.4	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Trichloroethylene	5	**27**	**120**	**200**	**220 D**	**300 D**	**150 D**	**680 D**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	**0.22 J**	< 10	**1.9 J**	**2.4**	**5**	**8.3**
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 25	< 5	< 5	< 5	< 5
TVOC		**57.0**	**366.6**	**627.2**	**750.8**	**800.6**	**559.9**	**1,418.6**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-109 Sample Depth (ft bls): 145 - 150 Sample Date: 1/31/2007	VP-109 155 - 160 1/31/2007	VP-109 165 - 170 1/30/2007	VP-109 175 - 180 1/30/2007	VP-109 185 - 190 1/30/2007	VP-109 195 - 200 1/29/2007	VP-109 205 - 210 1/29/2007
1,1,1-Trichloroethane	5	**1.1 J**	< 5	< 50	< 50	< 100	**0.76 J**	**2 J**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 50	< 50	< 100	**0.39 J**	**0.79 J**
1,1-Dichloroethane	5	**12**	**6.4**	**11 DJ**	**15 DJ**	**21 DJ**	**25**	**33**
1,1-Dichloroethene	5	**6.4**	**3.5 J**	**4.5 DJ**	**3 DJ**	< 100	**5.7**	**14**
1,2-Dichloroethane	0.6	**2.9 J**	**2.1 J**	< 50	< 50	< 100	**1.9 J**	**3.8 J**
1,2-Dichloropropane	1	**0.78 J**	< 5	< 50	< 50	< 100	**0.48 J**	**1.5 J**
2-Butanone	50	< 10	< 10	< 100	< 100	< 200	< 10	< 10
2-Hexanone	50	< 10	< 10	< 100	< 100	< 200	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 100	**1.8 DJ**	**5.6 DJ**	< 10	< 10
Acetone	50	< 10 JB	< 10 JB	< 100 JB	< 100 JB	< 200 JB	< 10 JB	< 10 JB
Benzene	1	**0.32 J**	< 0.7	< 7	< 7	< 14	< 0.7	**0.51 J**
Bromodichloromethane	50	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Bromoform	50	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Bromomethane	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	**0.28 J**	< 5	< 50	< 50	< 100	**0.96 J**	**0.53 J**
Chloroethane	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Chloroform	7	**2.7 J**	**1.7 J**	**4.4 DJ**	**5.5 DJ**	**2.9 DJ**	**6**	**4.1 J**
Chloromethane	5	**0.8 J**	< 5	< 50	< 50	< 100	< 5	< 5
cis-1,2-dichloroethene	5	**670 D**	**410 D**	**1200 D**	**1500 D**	**2000 D**	**2000 D**	**3400 D**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 50	< 50	< 100	**3.5 J**	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Methylene Chloride	5	< 5 JB	< 5 JB	< 50 JB	< 50 JB	< 100 JB	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Tetrachloroethene	5	**4.5 J**	**3.9 J**	< 50	**2.5 DJ**	< 100	**6.4**	**8.7**
Toluene	5	**5.5**	**3.1 J**	**1.3 DJ**	< 50	< 100	**0.7 J**	**1.3 J**
trans-1,2-dichloroethene	5	**2.1 J**	**1.2 J**	< 50	**3.9 DJ**	< 100	**7**	**13**
trans-1,3-dichloropropene	0.4	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Trichloroethylene	5	**710 D**	**540 D**	**1200 D**	**1500 D**	**1700 D**	**1500 D**	**1800 D**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 50	< 50	< 100	< 5	**1.1 J**
Vinyl Acetate	NE	< 5	< 5	< 50	< 50	< 100	< 5	< 5
Vinyl Chloride	2	**9.1**	**5.3**	**5 DJ**	< 20	**11 DJ**	**6.2**	**47**
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 50	< 50	< 100	< 5	< 5
TVOC		**1,428.5**	**977.2**	**2,426.2**	**3,031.7**	**3,740.5**	**3,565.0**	**5,331.3**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-109 215 - 220 1/26/2007	VP-109 225 - 230 1/25/2007	VP-109 235 - 240 1/25/2007	VP-109 (REP) 235 - 240 1/25/2007	VP-109 247 - 252 1/24/2007	VP-109 255 - 260 1/24/2007	VP-109 265 - 270 1/23/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 100	< 250	< 250	< 250	**3.9 J**	**2.2 J**	< 250
1,1,2,2-Tetrachloroethane	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
1,1,2-Trichloroethane	1	< 100	< 250	< 250	< 250	**0.7 J**	**0.24 J**	< 250
1,1-Dichloroethane	5	**38 J**	**48 DJ**	**64 DJ**	**51 DJ**	**13**	**6.9**	**35 DJ**
1,1-Dichloroethene	5	**15 J**	**26 DJ**	**27 DJ**	**20 DJ**	**8.5**	**4.8 J**	**19 DJ**
1,2-Dichloroethane	0.6	**14 J**	**14 DJ**	**25 DJ**	**17 DJ**	**3.1 J**	**1.3 J**	< 250
1,2-Dichloropropane	1	< 100	< 250	< 250	< 250	< 5	< 5	< 250
2-Butanone	50	< 200	< 500	< 500	< 500	< 10	< 10	< 500
2-Hexanone	50	< 200	< 500	< 500	< 500	< 10	< 10	< 500
4-methyl-2-pentanone	50	< 200	< 500	**7.8 DJ**	< 500	< 10	< 10	< 500
Acetone	50	< 200 JB	< 500 JB	< 500 JB	< 500	< 10 JB	< 10 JB	< 500 JB
Benzene	1	< 14	< 35	< 35	< 35	< 0.7	< 0.7	< 35
Bromodichloromethane	50	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Bromoform	50	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Bromomethane	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Carbon Disulfide	60	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Carbon tetrachloride	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Chlorobenzene	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Chlorodifluoromethane (Freon 22)	NE	< 100	< 250	< 250	< 250	**0.27 J**	**0.23 J**	< 250
Chloroethane	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Chloroform	7	< 100	< 250	< 250	< 250	**3.2 J**	**2.1 J**	< 250
Chloromethane	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
cis-1,2-dichloroethene	5	**2700**	**2800 D**	**3200 D**	**3000 D**	**560 D**	**280 D**	**2500 D**
cis-1,3-dichloropropene	0.4	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Dibromochloromethane	50	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Dichlorodifluoromethane (Freon 12)	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Ethylbenzene	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Methylene Chloride	5	< 100 JB	< 250 JB	< 250 JB	< 250 JB	< 5 JB	< 5 JB	< 250 JB
Styrene	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Tetrachloroethene	5	**3.2 J**	< 250	< 250	< 250	**11**	**8.9**	< 250
Toluene	5	< 100 J	< 250	< 250	< 250	**1.3 J**	**0.45 J**	< 250
trans-1,2-dichloroethene	5	**12 J**	**21 DJ**	**22 DJ**	< 250	**1.9 J**	**1.1 J**	< 250
trans-1,3-dichloropropene	0.4	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Trichloroethylene	5	**2400**	**3900 D**	**5800 DJ**	**4200 DJ**	**2400 D**	**1300 D**	**5200 D**
Trichlorotrifluoroethane (Freon 113)	5	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Vinyl Acetate	NE	< 100	< 250	< 250	< 250	< 5	< 5	< 250
Vinyl Chloride	2	**44**	**38 DJ**	**27 DJ**	**39 DJ**	< 2	< 2	< 100
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 100	< 250	< 250	< 250	< 5	< 5	< 250
TVOC		**5,226.2**	**6,847.0**	**9,172.8**	**7,327.0**	**3,006.9**	**1,608.2**	**7,754.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-109 275 - 280 1/23/2007	VP-109 288 - 293 1/22/2007	VP-109R 302 5/1/2008	VP-109R 327 5/1/2008	VP-109R 337 5/2/2008	VP-109R 361 5/2/2008	VP-109R 382 5/5/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
1,1,2,2-Tetrachloroethane	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
1,1,2-Trichloroethane	1	< 100	< 250	< 25	< 5	< 10	< 130	< 10
1,1-Dichloroethane	5	**26 DJ**	**31 DJ**	< 25	< 5	< 10	< 130	< 10
1,1-Dichloroethene	5	**13 DJ**	**19 JD**	< 25	< 5	< 10	< 130	< 10
1,2-Dichloroethane	0.6	< 100	< 250	< 25	< 5	< 10	< 130	< 10
1,2-Dichloropropane	1	< 100	< 250	< 25	< 5	< 10	< 130	< 10
2-Butanone	50	< 200	< 500	< 250	< 50	< 100	< 1300	< 100
2-Hexanone	50	< 200	< 500	< 250	< 50	< 100	< 1300	< 100
4-methyl-2-pentanone	50	< 200	< 500	< 250	< 50	< 100	< 1300	< 100
Acetone	50	< 200 JB	< 500	< 250	< 50	< 100	< 1300	< 100
Benzene	1	< 14	< 35	< 3.5	< 0.7	< 1.4	< 18	< 1.4
Bromodichloromethane	50	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Bromoform	50	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Bromomethane	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Carbon Disulfide	60	< 100	< 250	< 250	< 50	< 100	< 1300	< 100
Carbon tetrachloride	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Chlorobenzene	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Chlorodifluoromethane (Freon 22)	NE	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Chloroethane	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Chloroform	7	< 100	< 250	< 35	< 7	< 14	< 180	< 14
Chloromethane	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
cis-1,2-dichloroethene	5	**1500 D**	**2200 D**	**360**	**36**	**26**	**220**	**17**
cis-1,3-dichloropropene	0.4	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Dibromochloromethane	50	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Dichlorodifluoromethane (Freon 12)	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Ethylbenzene	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Methylene Chloride	5	< 100 JB	< 250 JB	< 25	< 5	< 10	< 130	< 10
Styrene	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Tetrachloroethene	5	**2.4 DJ**	< 250	< 25	< 5	< 10	< 130	< 10
Toluene	5	**2.1 DJ**	< 250	< 25	< 5	< 10	< 130	< 10
trans-1,2-dichloroethene	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
trans-1,3-dichloropropene	0.4	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Trichloroethylene	5	**3900 D**	**5500 D**	**660**	**190**	**320**	**3600**	**370**
Trichlorotrifluoroethane (Freon 113)	5	< 100	< 250	< 25	< 5	< 10	< 130	< 10
Vinyl Acetate	NE	< 100	< 250	--	--	--	--	--
Vinyl Chloride	2	< 40	**8.2 JD**	< 10	< 2	< 4	< 50	< 4
Xylene-o	NE	--	--	< 25	< 5	< 10	< 130	< 10
Xylenes - m,p	NE	--	--	< 25	< 5	< 10	< 130	< 10
Xylene (total)	10	< 100	< 250	--	--	--	--	--
TVOC		**5,443.5**	**7,758.2**	**1,020.0**	**226.0**	**346.0**	**3,820.0**	**387.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-109R 402 5/5/2008	VP-109R 421 5/6/2008	VP-109R (REP) 421 5/6/2008	VP-109R 447 5/7/2008	VP-109R 461 5/7/2008	VP-109R 481 5/8/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 10	< 25	< 25	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 10	< 25	< 25	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 10	< 25	< 25	< 5	< 5	< 5
1,1-Dichloroethane	5	< 10	< 25	< 25	< 5	< 5	< 5
1,1-Dichloroethene	5	< 10	< 25	< 25	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 10	< 25	< 25	< 5	< 5	< 5
1,2-Dichloropropane	1	< 10	< 25	< 25	< 5	< 5	< 5
2-Butanone	50	< 100	< 250	< 250	< 50	< 50	< 50
2-Hexanone	50	< 100	< 250	< 250	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 100	< 250	< 250	< 50	< 50	< 50
Acetone	50	< 100	< 250	< 250	< 50	< 50	< 50
Benzene	1	< 1.4	< 3.5	< 3.5	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 10	< 25	< 25	< 5	< 5	< 5
Bromoform	50	< 10	< 25	< 25	< 5	< 5	< 5
Bromomethane	5	< 10	< 25	< 25	< 5	< 5	< 5
Carbon Disulfide	60	< 100	< 250	< 250	< 50	< 50	< 50
Carbon tetrachloride	5	< 10	< 25	< 25	< 5	< 5	< 5
Chlorobenzene	5	< 10	< 25	< 25	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 25	< 25	< 5	< 5	< 5
Chloroethane	5	< 10	< 25	< 25	< 5	< 5	< 5
Chloroform	7	< 14	< 35	< 35	< 7	< 7	< 7
Chloromethane	5	< 10	< 25	< 25	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**15**	< 25	< 25	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 10	< 25	< 25	< 5	< 5	< 5
Dibromochloromethane	50	< 10	< 25	< 25	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 25	< 25	< 5	< 5	< 5
Ethylbenzene	5	< 10	< 25	< 25	< 5	< 5	< 5
Methylene Chloride	5	< 10	< 25	< 25	< 5	< 5	< 5
Styrene	5	< 10	< 25	< 25	< 5	< 5	< 5
Tetrachloroethene	5	< 10	< 25	< 25	< 5	**5.5**	< 5
Toluene	5	< 10	< 25	< 25	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 10	< 25	< 25	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 10	< 25	< 25	< 5	< 5	< 5
Trichloroethylene	5	**680 D**	**690**	**770**	**12**	**24**	**6.5**
Trichlorotrifluoroethane (Freon 113)	5	< 10	< 25	< 25	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 4	< 10	< 10	< 2	< 2	< 2
Xylene-o	NE	< 10	< 25	< 25	< 5	< 5	< 5
Xylenes - m,p	NE	< 10	< 25	< 25	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		**695.0**	**690.0**	**770.0**	**12.0**	**29.5**	**6.5**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-109R 502 5/8/2008	VP-109R 521 5/9/2008	VP-110 40 - 45 2/22/2007	VP-110 45-50 2/22/2007	VP-110 50 - 55 2/22/2007	VP-110 60 - 65 2/21/2007	VP-110 70 - 75 2/21/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 50	< 50	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 50	< 50	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 50	< 50	< 10 JB	< 10 JB	< 10 JB	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5 JB	< 5 JB	< 5 JB	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**0.22 J**	< 5	< 5	< 5
Toluene	5	< 5	< 5	**9.6**	**21**	**18**	**2.5 J**	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	**0.24 J**	**0.2 J**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	--	--	--	--	--
Xylenes - m,p	NE	< 5	< 5	--	--	--	--	--
Xylene (total)	10	--	--	< 5	< 5	< 5	< 5	< 5
TVOC		0	0	**9.6**	**21.5**	**18.2**	**2.5**	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110 80-85 2/21/2007	VP-110 90 - 95 2/21/2007	VP-110 100 - 105 2/21/2007	VP-110 110 - 115 2/20/2007	VP-110 120 - 125 2/20/2007	VP-110 140 - 145 2/20/2007	VP-110 150 - 155 2/20/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	**0.78 J**	**0.2 J**	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	**0.24 J**	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10 JB	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10 JB	< 10 JB	< 10 JB	< 10 JB
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5 JB	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5 JB	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	**0.19 J**	**0.34 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5 J	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5 JB	< 5 JB	< 5 JB	< 5 JB
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	**0.56 J**	**0.53 J**	**0.98 J**	**0.97 J**	**0.49 J**	**2 J**	**0.87 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	**0.38 J**	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**0.6**	**0.5**	**1.0**	**1.0**	**1.5**	**2.8**	**1.2**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110 160 - 165 2/20/2007	VP-110 170 - 175 2/16/2007	VP-110 180 - 185 2/16/2007	VP-110 (REP) 180 - 185 2/16/2007	VP-110 190 - 195 2/16/2007	VP-110 200 - 205 2/13/2007	VP-110 210 - 215 2/13/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	**0.52 J**	< 10
Acetone	50	< 10 JB	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5 JB	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.34 J**	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5 JB	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**0.31 J**	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	**0.98 J**	**0.33 J**	**0.77 J**	**0.75 J**	**0.65 J**	**1.2 J**	**1.3 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**1.6**	**0.3**	**0.8**	**0.8**	**0.7**	**1.7**	**1.3**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110 220 - 225 2/13/2007	VP-110 230 - 235 2/9/2007	VP-110 240 - 245 2/9/2007	VP-110 250 - 255 2/7/2007	VP-110 260 - 265 2/7/2007	VP-110 270 - 275 2/7/2007	VP-110 283 - 288 2/6/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	**1.3 J**	**0.87 J**	**1.5 J**	**1.5 J**	**0.54 J**	**1.5 J**	**0.56 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	**0.39 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**1.3**	**0.9**	**1.5**	**1.5**	**0.5**	**1.5**	**1.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110 295 - 300 2/6/2007	VP-110 325 - 330 2/5/2007	VP-110 333 - 338 2/5/2007	VP-110 344 - 349 2/1/2007	VP-110 315 - 350 2/6/2007	VP-110 352 - 357 2/1/2007	VP-110 362 - 367 1/31/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	**0.74 J**	**7.1**	**4.8 J**	< 5	**0.96 J**	**2.8 J**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	**0.36 J**	**0.79 J**	**1.1 J**	< 5	**0.46 J**	**1.3 J**
1,1-Dichloroethene	5	< 5	**1.8 J**	**22**	**16**	**1.4 J**	**2.6 J**	**13**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	**1.9 JB**	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	**0.96 J**	**0.61 J**	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	**0.47 J**	< 5	< 5	< 5	**0.4 J**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	**0.49 J**	**0.46 J**	< 5	< 5 J	**0.79 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	**4.6 J**	**5.4**	< 5	**0.23 J**	**5.6**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	**1.3 J**	**11**	**7.8**	**0.6 J**	**1.9 J**	**10**
Toluene	5	**1.2 J**	**1 J**	**1.3 J**	**0.32 J**	**0.77 J**	**0.73 J**	**0.23 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**2.3 J**	**8.5**	**43**	**47**	**6.8**	**13**	**51**
Trichlorotrifluoroethane (Freon 113)	5	< 5	**0.7 J**	**8.9**	**5.3**	< 5	**0.96 J**	**3.8 J**
Vinyl Acetate	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	--	--	--	--
Xylenes - m,p	NE	--	--	--	--	--	--	--
Xylene (total)	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**3.5**	**14.4**	**100.6**	**88.8**	**11.5**	**20.8**	**88.9**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110 352 - 367 2/1/2007	VP-110 372 - 377 1/31/2007	VP-110 382 - 387 1/30/2007	VP-110R 384 7/8/2008	VP-110R 404 7/9/2008	VP-110R (REP) 404 7/9/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	**0.99 J**	**0.48 J**	**1.4 J**	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**0.4 J**	**0.33 J**	**3.9 J**	< 5	< 5	< 5
1,1-Dichloroethene	5	**3.3 J**	**1.4 J**	**6.3**	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	**0.79 J**	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 10	< 10	< 10	< 50	< 50	< 50
2-Hexanone	50	< 10	< 10	< 10	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 10	< 10	**0.18 J**	< 50	< 50	< 50
Acetone	50	< 10	< 10	< 10	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	**0.5 J**	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.24 J**	< 5	**1.5 J**	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**0.35 J**	< 5	**59**	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**2.2 J**	**1.4 J**	**11**	**12**	**7**	**6.7**
Toluene	5	**0.71 J**	**0.45 J**	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**14**	**6.8**	**120**	**19**	**7.5**	**7.3**
Trichlorotrifluoroethane (Freon 113)	5	**1.1 J**	**0.51 J**	**1.9 J**	< 5	< 5	< 5
Vinyl Acetate	NE	< 5	< 5	< 5	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	--	--	--	< 5	< 5	< 5
Xylenes - m,p	NE	--	--	--	< 5	< 5	< 5
Xylene (total)	10	< 5	< 5	< 5	--	--	--
TVOC		**23.3**	**11.4**	**206.5**	**31.0**	**14.5**	**14.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110R 424 7/9/2008	VP-110R 444 7/9/2008	VP-110R 464 7/10/2008	VP-110R 489 7/11/2008	VP-110R 504 7/11/2008	VP-110R 524 7/11/2008	VP-110R 544 7/14/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**10**	**11**	**10**	**9.7**	**5.9**	**14**	**6.1**
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**10**	**9.3**	**9.8**	**9.3**	**8.1**	**8.8**	**9**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**20.0**	**20.3**	**19.8**	**19.0**	**14.0**	**22.8**	**15.1**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-110R 569 7/14/2008	VP-110R 584 7/15/2008	VP-110R 604 7/15/2008	VP-110R 629 7/16/2008	VP-111 51 4/17/2007	VP-111 71 4/17/2007	VP-111 91 4/17/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**13**	**12**	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**10**	**8.7**	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**23.0**	**20.7**	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-111 111 4/17/2007	VP-111 131 4/18/2007	VP-111 151 4/18/2007	VP-111 171 4/18/2007	VP-111 (REP) 171 4/18/2007	VP-111 191 4/19/2007	VP-111 211 4/19/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-111 231 4/19/2007	VP-111 251 4/19/2007	VP-111 271 4/20/2007	VP-111 291 4/20/2007	VP-111 311 4/20/2007	VP-111 331 4/20/2007	VP-111 351 4/23/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	**5.8**	**7.6**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	**7.4**	**10**	**6.4**	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	**5.6**	**7.6**	**9.2**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	**9.2**	**48**	**18**	**18**	**14**
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	**8**	**8.5**	**17**	**25**	**30**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	**24.6**	**66.5**	**47.0**	**56.4**	**60.8**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-111 371 Sample Depth (ft bls): Sample Date: 4/23/2007	VP-111 391 4/24/2007	VP-111 411 4/24/2007	VP-111 431 4/24/2007	VP-111 451 4/24/2007	VP-111 471 4/25/2007	VP-111 491 4/25/2007
1,1,1-Trichloroethane	5	**10**	**5.6**	< 10	< 25	< 250	< 250	< 25
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
1,1,2-Trichloroethane	1	< 5	< 5	< 10	< 25	< 250	< 250	< 25
1,1-Dichloroethane	5	< 5	**6.9**	< 10	< 25	< 250	< 250	< 25
1,1-Dichloroethene	5	**10**	**7.4**	< 10	< 25	< 250	< 250	< 25
1,2-Dichloroethane	0.6	< 5	< 5	< 10	< 25	< 250	< 250	< 25
1,2-Dichloropropane	1	< 5	< 5	< 10	< 25	< 250	< 250	< 25
2-Butanone	50	< 50	< 50	< 100	< 250	< 2500	< 2500	< 250
2-Hexanone	50	< 50	< 50	< 100	< 250	< 2500	< 2500	< 250
4-methyl-2-pentanone	50	< 50	< 50	< 100	< 250	< 2500	< 2500	< 250
Acetone	50	< 50	< 50	< 100	< 250	< 2500	< 2500	< 250
Benzene	1	< 0.7	< 0.7	< 1.4	< 3.5	< 35	< 35	< 3.5
Bromodichloromethane	50	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Bromoform	50	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Bromomethane	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Carbon Disulfide	60	< 50	< 50	< 100	< 250	< 2500	< 2500	< 250
Carbon tetrachloride	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Chlorobenzene	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Chloroethane	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Chloroform	7	< 7	< 7	< 14	< 35	< 350	< 350	< 35
Chloromethane	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
cis-1,2-dichloroethene	5	**23**	**65**	**130**	**300**	**1400**	**1200**	**55**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Dibromochloromethane	50	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Ethylbenzene	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Methylene Chloride	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Styrene	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Tetrachloroethene	5	**11**	**28**	**13**	< 25	< 250	< 250	< 25
Toluene	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
trans-1,2-dichloroethene	5	< 5	< 5	< 10	< 25	< 250	< 250	< 25
trans-1,3-dichloropropene	0.4	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Trichloroethylene	5	**55**	**160**	**240**	**520**	**9100**	**6500**	**1700 D**
Trichlorotrifluoroethane (Freon 113)	5	**5.1**	< 5	< 10	< 25	< 250	< 250	< 25
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 4	< 10	< 100	< 100	< 10
Xylene-o	NE	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Xylenes - m,p	NE	< 5	< 5	< 10	< 25	< 250	< 250	< 25
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**114.1**	**272.9**	**383.0**	**820.0**	**10,500.0**	**7,700.0**	**1,755.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-111 511 4/25/2007	VP-111 531 4/26/2007	VP-111 511 4/26/2007	VP-111 (REP) 551 4/26/2007	VP-111 571 4/27/2007	VP-111 591 4/27/2007	VP-111 616 4/30/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 13	< 10	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 13	< 10	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 130	< 100	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 130	< 100	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 130	< 100	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 130	< 100	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 1.8	< 1.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 130	< 100	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 18	< 14	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**13**	< 10	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**820 D**	**430 D**	**52**	**54**	< 5	< 5	**30**
Trichlorotrifluoroethane (Freon 113)	5	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 5	< 4	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 13	< 10	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**833.0**	**430.0**	**52.0**	**54.0**	0	0	**30.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-111 631 5/1/2007	VP-112 60 5/23/2007	VP-112 80 5/23/2007	VP-112 100 5/23/2007	VP-112 120 5/24/2007	VP-112 140 5/24/2007	VP-112 165 5/24/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	**5.4**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**6.4**	< 5	**16**	**62**
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	**5.2**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	**6.4**	0	**16.0**	**72.6**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-112 185 5/30/2007	VP-112 200 5/30/2007	VP-112 220 5/31/2007	VP-112 240 5/31/2007	VP-112 (REP) 240 5/31/2007	VP-112 260 5/31/2007	VP-112 280 5/31/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**20**	< 5	**19**	**66**	**64**	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**76**	**9.8**	**84**	**190**	**180**	**6.8**	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**20**	< 5	**19**	**56**	**55**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	**5.9**	< 2	**4.1**	**5.2**	**5.1**	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**121.9**	**9.8**	**126.1**	**317.2**	**304.1**	**6.8**	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-112 300 6/1/2007	VP-112 320 6/1/2007	VP-112 340 6/1/2007	VP-112 360 6/4/2007	VP-112 380 6/4/2007	VP-112 410 6/5/2007	VP-112 420 6/6/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	**5.4**
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	**5.4**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-112 440 6/6/2007	VP-112 470 6/7/2007	VP-112 (REP) 470 6/7/2007	VP-112 480 6/7/2007	VP-112 500 6/7/2007	VP-112 520 6/7/2007	VP-112 545 6/8/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 50
1,1-Dichloroethane	5	**5.2**	**5.4**	**5.5**	**6.1**	**5.6**	< 5	< 50
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 50
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 50
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 500
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 500
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 500
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 500
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 500
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 70
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
cis-1,2-dichloroethene	5	< 5	**13**	**14**	**8.9**	**24**	**30**	**110**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Trichloroethylene	5	< 5	**86**	**86**	**26**	**40**	**260 D**	**760**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 20
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 50
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**5.2**	**104.4**	**105.5**	**41.0**	**69.6**	**290.0**	**870.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-112 560 6/8/2007	VP-112 580 6/8/2007	VP-112 600 6/11/2007	VP-112 620 6/13/2007	VP-112 640 6/13/2007	VP-112 660 6/14/2007	VP-112 680 6/14/2007
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,1,2-Trichloroethane	1	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,1-Dichloroethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,1-Dichloroethene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,2-Dichloroethane	0.6	< 25	< 50	< 25	< 25	< 25	< 5	< 5
1,2-Dichloropropane	1	< 25	< 50	< 25	< 25	< 25	< 5	< 5
2-Butanone	50	< 250	< 500	< 250	< 250	< 250	< 50	< 50
2-Hexanone	50	< 250	< 500	< 250	< 250	< 250	< 50	< 50
4-methyl-2-pentanone	50	< 250	< 500	< 250	< 250	< 250	< 50	< 50
Acetone	50	< 250	< 500	< 250	< 250	< 250	< 50	< 50
Benzene	1	< 3.5	< 7	< 3.5	< 3.5	< 3.5	< 0.7	< 0.7
Bromodichloromethane	50	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Bromoform	50	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Bromomethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Carbon Disulfide	60	< 250	< 500	< 250	< 250	< 250	< 50	< 50
Carbon tetrachloride	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Chlorobenzene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Chloroethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Chloroform	7	< 35	< 70	**45**	< 35	< 35	< 7	< 7
Chloromethane	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
cis-1,2-dichloroethene	5	**96**	**190**	**130**	**30**	< 25	< 5	< 5
cis-1,3-dichloropropene	0.4	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Dibromochloromethane	50	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Ethylbenzene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Methylene Chloride	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Styrene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Tetrachloroethene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Toluene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
trans-1,2-dichloroethene	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
trans-1,3-dichloropropene	0.4	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Trichloroethylene	5	**480**	**680**	**580**	**560**	**120**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 10	< 20	< 10	< 10	< 10	< 2	< 2
Xylene-o	NE	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Xylenes - m,p	NE	< 25	< 50	< 25	< 25	< 25	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**576.0**	**870.0**	**755.0**	**590.0**	**120.0**	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-112 700 6/14/2007	VP-113 50 3/19/2008	VP-113 70 3/20/2008	VP-113 90 3/20/2008	VP-113 110 3/21/2008	VP-113 130 3/21/2008	VP-113 150 3/24/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,1,2,2-Tetrachloroethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,1,2-Trichloroethane	1	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,1-Dichloroethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,1-Dichloroethene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,2-Dichloroethane	0.6	< 5	< 10	< 10	< 5	< 10	< 5	< 25
1,2-Dichloropropane	1	< 5	< 10	< 10	< 5	< 10	< 5	< 25
2-Butanone	50	< 50	< 100	< 100	< 50	< 100	< 50	< 250
2-Hexanone	50	< 50	< 100	< 100	< 50	< 100	< 50	< 250
4-methyl-2-pentanone	50	< 50	< 100	< 100	< 50	< 100	< 50	< 250
Acetone	50	< 50	< 100	< 100	< 50	< 100	< 50	< 250
Benzene	1	< 0.7	< 1.4	< 1.4	< 0.7	< 1.4	< 0.7	< 3.5
Bromodichloromethane	50	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Bromoform	50	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Bromomethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Carbon Disulfide	60	< 50	< 100	< 100	< 50	< 100	< 50	< 250
Carbon tetrachloride	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Chlorobenzene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Chlorodifluoromethane (Freon 22)	NE	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Chloroethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Chloroform	7	< 7	< 14	< 14	< 7	< 14	< 7	< 35
Chloromethane	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
cis-1,2-dichloroethene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
cis-1,3-dichloropropene	0.4	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Dibromochloromethane	50	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Dichlorodifluoromethane (Freon 12)	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Ethylbenzene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Methylene Chloride	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Styrene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Tetrachloroethene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Toluene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
trans-1,2-dichloroethene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
trans-1,3-dichloropropene	0.4	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Trichloroethylene	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 4	< 4	< 2	< 4	< 2	< 10
Xylene-o	NE	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Xylenes - m,p	NE	< 5	< 10	< 10	< 5	< 10	< 5	< 25
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-113 170 3/24/2008	VP-113 190 3/24/2008	VP-113 210 3/25/2008	VP-113 230 3/25/2008	VP-113 250 3/25/2008	VP-113 270 3/26/2008	VP-113 290 3/26/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
1,1,2-Trichloroethane	1	< 10	< 5	< 5	< 5	< 25	< 5	< 5
1,1-Dichloroethane	5	< 10	< 5	< 5	< 5	< 25	**5.9**	< 5
1,1-Dichloroethene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
1,2-Dichloroethane	0.6	< 10	< 5	< 5	< 5	< 25	< 5	< 5
1,2-Dichloropropane	1	< 10	< 5	< 5	< 5	< 25	< 5	< 5
2-Butanone	50	< 100	< 50	< 50	< 50	< 250	< 50	< 50
2-Hexanone	50	< 100	< 50	< 50	< 50	< 250	< 50	< 50
4-methyl-2-pentanone	50	< 100	< 50	< 50	< 50	< 250	< 50	< 50
Acetone	50	< 100	< 50	< 50	< 50	< 250	< 50	< 50
Benzene	1	< 1.4	< 0.7	< 0.7	< 0.7	< 3.5	< 0.7	< 0.7
Bromodichloromethane	50	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Bromoform	50	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Bromomethane	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Carbon Disulfide	60	< 100	< 50	< 50	< 50	< 250	< 50	< 50
Carbon tetrachloride	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Chlorobenzene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Chloroethane	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Chloroform	7	< 14	< 7	< 7	< 7	< 35	< 7	< 7
Chloromethane	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
cis-1,2-dichloroethene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
cis-1,3-dichloropropene	0.4	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Dibromochloromethane	50	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Ethylbenzene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Methylene Chloride	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Styrene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Tetrachloroethene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Toluene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
trans-1,2-dichloroethene	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
trans-1,3-dichloropropene	0.4	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Trichloroethylene	5	< 10	< 5	< 5	< 5	< 25	**8**	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 4	< 2	< 2	< 2	< 10	< 2	< 2
Xylene-o	NE	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Xylenes - m,p	NE	< 10	< 5	< 5	< 5	< 25	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	**13.9**	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-113 310 3/28/2008	VP-113 330 3/28/2008	VP-113 350 3/28/2008	VP-113 370 3/31/2008	VP-113 410 3/31/2008	VP-113 417 4/1/2008	VP-113 421 4/1/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 10	< 10	< 10	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 10	< 10	< 10	< 5	< 5	< 5	< 5
2-Butanone	50	< 100	< 100	< 100	< 50	< 50	< 50	< 50
2-Hexanone	50	< 100	< 100	< 100	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 100	< 100	< 100	< 50	< 50	< 50	< 50
Acetone	50	< 100	< 100	< 100	< 50	< 50	< 50	< 50
Benzene	1	< 1.4	< 1.4	< 1.4	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Bromoform	50	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Bromomethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 100	< 100	< 100	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Chloroethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Chloroform	7	< 14	< 14	< 14	< 7	< 7	< 7	< 7
Chloromethane	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Styrene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Toluene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 4	< 4	< 4	< 2	< 2	< 2	< 2
Xylene-o	NE	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 10	< 10	< 10	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-113 431 4/2/2008	VP-113 436 4/2/2008	VP-113 441 4/2/2008	VP-113 462 4/3/2008	VP-113 492 4/4/2008	VP-113 (REP) 492 3/24/2008	VP-114 59 5/16/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 11	< 25	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 11	< 25	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 110	< 250	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 110	< 250	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 110	< 250	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 110	< 250	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 1.6	< 3.5	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 110	< 250	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 16	< 35	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 4.5	< 10	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 11	< 25	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-114 74 5/19/2008	VP-114 94 5/19/2008	VP-114 114 5/19/2008	VP-114 134 5/19/2008	VP-114 154 5/20/2008	VP-114 174 5/20/2008	VP-114 194 5/20/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-114 214 5/22/2008	VP-114 234 5/22/2008	VP-114 259 5/27/2008	VP-114 (REP) 259 5/27/2008	VP-114 274 5/27/2008	VP-114 294 5/28/2008	VP-114 314 5/28/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-114 339 5/28/2008	VP-114 354 5/29/2008	VP-114 379 6/2/2008	VP-114 394 6/2/2008	VP-114 419 6/3/2008	VP-114 449 6/4/2008	VP-114 474 6/5/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-114 494 6/5/2008	VP-115 82 6/5/2008	VP-115 102 6/6/2008	VP-115 122 6/6/2008	VP-115 (REP) 122 6/6/2008	VP-115 142 6/6/2008	VP-115 162 6/9/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-115 182 6/9/2008	VP-115 202 6/9/2008	VP-115 222 6/10/2008	VP-115 242 6/10/2008	VP-115 262 6/10/2008	VP-115 282 6/11/2008	VP-115 302 6/11/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	**6.6**	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	**6.9**	**9.8**	**8.3**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	**6.9**	**16.4**	**8.3**	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-115 322 6/11/2008	VP-115 342 6/12/2008	VP-115 362 6/12/2008	VP-115 382 6/13/2008	VP-115 402 6/13/2008	VP-115 422 6/16/2008	VP-115 442 6/16/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	**9.6**	< 5	**8.5**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**6.6**	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**6.9**	**6.2**	< 5	**7.2**	**9.4**	**6.5**	**7.6**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**6.9**	**6.2**	0	**13.8**	**19.0**	**6.5**	**16.1**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-115 462 6/17/2008	VP-115 482 6/17/2008	VP-115 502 6/18/2008	VP-115 522 6/18/2008	VP-115 527 6/19/2008	VP-115 542 6/19/2008	VP-115 562 6/20/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	**9.1**	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**7**	**6.3**	**6.5**	< 5	**6.6**	< 5	**6**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**7.0**	**15.4**	**6.5**	0	**6.6**	0	**6.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-115 582 6/20/2008	VP-115 602 6/23/2008	VP-116 54 3/4/2008	VP-116 74 3/4/2008	VP-116 94 3/4/2008	VP-116 114 3/5/2008	VP-116 134 3/5/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	**16**	**19**
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**7.8**	**8.6**	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**7.8**	**8.6**	0	0	0	**16.0**	**19.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-116 154 3/5/2008	VP-116 179 3/6/2008	VP-116 194 3/6/2008	VP-116 214 3/7/2008	VP-116 (REP) 214 3/7/2008	VP-116 243 3/7/2008	VP-116 245 3/7/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 25	< 20	< 10	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 25	< 20	< 10	< 5
2-Butanone	50	< 50	< 50	< 50	< 250	< 200	< 100	< 50
2-Hexanone	50	< 50	< 50	< 50	< 250	< 200	< 100	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 250	< 200	< 100	< 50
Acetone	50	< 50	< 50	< 50	< 250	< 200	< 100	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 3.5	< 2.8	< 1.4	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Bromoform	50	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Bromomethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 250	< 200	< 100	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	**5.4**	< 25	< 20	< 10	< 5
Chloroethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Chloroform	7	< 7	< 7	< 7	< 35	< 28	< 14	< 7
Chloromethane	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
cis-1,2-dichloroethene	5	< 5	< 5	**43**	**200**	**200**	**150**	**8.6**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	**11**	< 25	< 20	< 10	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Styrene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Tetrachloroethene	5	**36**	**27**	**81**	**620**	**630**	**620 D**	**100**
Toluene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Trichloroethylene	5	< 5	< 5	**38**	**140**	**140**	**110**	**18**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	**14**	**51**	**53**	**29**	**2.5**
Xylene-o	NE	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 25	< 20	< 10	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**36.0**	**27.0**	**192.4**	**1,011.0**	**1,023.0**	**909.0**	**129.1**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-116 274 3/10/2008	VP-116 294 3/10/2008	VP-116 314 3/11/2008	VP-116 334 3/11/2008	VP-116 369 3/12/2008	VP-116 374 3/12/2008	VP-116 394 3/13/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	**5.4**
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**32**	**23**	**79**	**22**	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**26**	**140**	**300 D**	**85**	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**16**	**30**	**73**	**23**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	**7.3**	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**81.3**	**193.0**	**452.0**	**130.0**	0	0	**5.4**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-116 414 3/13/2008	VP-116 434 3/13/2008	VP-116 454 3/14/2008	VP-116 474 3/14/2008	VP-116 494 3/14/2008	VP-116 514 3/17/2008	VP-116 544 3/18/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 13
1,1-Dichloroethane	5	< 5	**5.8**	**5.6**	**5.6**	< 5	< 5	< 13
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	**6.4**	< 13
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	**16**	< 13
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 13
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 130
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 130
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 130
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 130
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 1.8
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50	< 130
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Chloroform	7	< 7	< 7	< 7	< 7	< 7	**23**	< 18
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
cis-1,2-dichloroethene	5	< 5	< 5	< 5	**5.6**	< 5	**61**	**33**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Trichloroethylene	5	< 5	< 5	< 5	< 5	**18**	**470 D**	**330**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 5
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 13
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	**5.8**	**5.6**	**11.2**	**18.0**	**576.4**	**363.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-116 554 3/18/2008	VP-116 574 3/18/2008	VP-116 594 3/19/2008	VP-116 614 3/19/2008	VP-116 634 3/20/2008	VP-116 659 3/21/2008	VP-116 674 3/21/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
1,1,2,2-Tetrachloroethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
1,1,2-Trichloroethane	1	< 10	< 50	< 5	< 13	< 5	< 10	< 5
1,1-Dichloroethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
1,1-Dichloroethene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
1,2-Dichloroethane	0.6	< 10	< 50	**6.9**	< 13	< 5	< 10	< 5
1,2-Dichloropropane	1	< 10	< 50	< 5	< 13	< 5	< 10	< 5
2-Butanone	50	< 100	< 500	< 50	< 130	< 50	< 100	< 50
2-Hexanone	50	< 100	< 500	< 50	< 130	< 50	< 100	< 50
4-methyl-2-pentanone	50	< 100	< 500	< 50	< 130	< 50	< 100	< 50
Acetone	50	< 100	< 500	< 50	< 130	< 50	< 100	< 50
Benzene	1	< 1.4	< 7	< 0.7	< 1.8	< 0.7	< 1.4	< 0.7
Bromodichloromethane	50	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Bromoform	50	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Bromomethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Carbon Disulfide	60	< 100	< 500	< 50	< 130	< 50	< 100	< 50
Carbon tetrachloride	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Chlorobenzene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Chlorodifluoromethane (Freon 22)	NE	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Chloroethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Chloroform	7	**22**	< 70	**20**	< 18	< 7	< 14	< 7
Chloromethane	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
cis-1,2-dichloroethene	5	**51**	**140**	**120**	**31**	< 5	< 10	< 5
cis-1,3-dichloropropene	0.4	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Dibromochloromethane	50	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Dichlorodifluoromethane (Freon 12)	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Ethylbenzene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Methylene Chloride	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Styrene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Tetrachloroethene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Toluene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
trans-1,2-dichloroethene	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
trans-1,3-dichloropropene	0.4	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Trichloroethylene	5	**250**	**1900**	**910 D**	**460**	**28**	**43**	**8.5**
Trichlorotrifluoroethane (Freon 113)	5	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 4	< 20	< 2	< 5	< 2	< 4	< 2
Xylene-o	NE	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Xylenes - m,p	NE	< 10	< 50	< 5	< 13	< 5	< 10	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**323.0**	**2,040.0**	**1,056.9**	**491.0**	**28.0**	**43.0**	**8.5**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-116 699 3/24/2008	VP-117 54 12/9/2008	VP-117 104 12/9/2008	VP-117 (REP) 104 12/9/2008	VP-117 154 12/10/2008	VP-117 204 12/10/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		0	0	0	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-117 254 12/10/2008	VP-117 304 12/11/2008	VP-117 329 12/11/2008	VP-117 349 12/12/2008	VP-117 374 12/12/2008	VP-117 394 12/13/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	**5.4**	**5**	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	**89**	**61**	**110**	**210 D**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	**7.4**
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		0	0	**94.4**	**66.0**	**110.0**	**217.4**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-117 414 12/15/2008	VP-117 434 12/15/2008	VP-117 454 12/16/2008	VP-117 479 12/17/2008	VP-117 499 12/17/2008	VP-117 529 12/18/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**190 D**	**74**	**91**	**39**	**95**	**130**
Trichlorotrifluoroethane (Freon 113)	5	**7.9**	**5**	**6.2**	**6.8**	**9.8**	**6.3**
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		**197.9**	**79.0**	**97.2**	**45.8**	**104.8**	**136.3**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-117 549 12/19/2008	VP-117 569 12/19/2008	VP-117 589 12/19/2008	VP-117 614 12/22/2008	VP-117 634 12/23/2008	VP-117 649 12/23/2008
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 50	< 50	< 50	< 50
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**15**	**36**	**9.4**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		**15.0**	**36.0**	**9.4**	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-117 679 12/27/2008	VP-117 714 1/7/2009	VP-117 729 1/8/2009	VP-117 764 1/12/2009	VP-118 54 4/9/2009	VP-118 104 4/9/2009	VP-118 154 4/10/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50 B	< 50 B	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 7	< 5	< 5	< 5	**0.38 J**	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5 B
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	0	**0.4**	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-118 209 4/13/2009	VP-118 (REP) 209 4/13/2009	VP-118 259 4/13/2009	VP-118 314 4/14/2009	VP-118 339 4/15/2009	VP-118 359 4/15/2009	VP-118 384 4/15/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	**0.4 J**	< 5	**1.2 J**	**0.93 J**
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	**0.32 J**	**0.4 J**
1,1-Dichloroethene	5	< 5	< 5	< 5	**0.72 J**	< 5	**1 J**	**1.6 J**
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	**0.63 J**
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	**0.56 J**	**0.55 J**
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	**0.43 J**	**0.41 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	**0.81 J**	**0.38 J**	**1 J**	**1.7 J**
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	**0.94 J**	< 5	**0.88 J**	**0.92 J**
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	**2.2 J**	**2.6 J**	< 5	< 5	**1 J**
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	**34**	**79**	< 5 B	**62**	**130**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	**0.49 J**	**3.9 J**	**1.2 J**	**5.8**	**7.9**
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	**36.7**	**88.4**	**1.6**	**73.2**	**146.0**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-118 409 4/16/2009	VP-118 429 4/16/2009	VP-118 454 4/17/2009	VP-118 494 4/20/2009	VP-118 (REP) 494 4/20/2009	VP-118 514 4/22/2009	VP-118 534 4/22/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	**1.1 J**	**0.79 J**	**0.92 J**	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	**0.41 J**	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	**1.7 J**	**1.3 J**	**1.9 J**	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50	**3.7**
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	B	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	**0.45 J**	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	**0.54 J**	**0.54 J**	**0.78 J**	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.5 J**	**0.42 J**	**0.66 J**	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**0.62 J**	**0.69 J**	**1.8 J**	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	**1.3 J**	**1.3 J**	**0.93 J**	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5 B	< 5	**1.1**	**0.79**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**15**	< 5 B	**89**	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	**7.1**	**5.6**	**8.4**	< 5	< 5	**0.76**	**0.76**
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**27.9**	**10.6**	**105.3**	0	0	**1.9**	**5.3**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-118 574 4/23/2009	VP-118 614 4/24/2009	VP-118 619 4/24/2009	VP-118 639 4/27/2009	VP-118 659 4/27/2009	VP-118 679 4/28/2009	VP-118 699 4/28/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	**1.3 J**	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	**0.31 J**	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	**0.34 J**	< 5	< 5	< 5
Chloromethane	5	< 5	**0.45 J**	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**0.41 J**	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5 B	< 5 B	< 5 B	< 5	**0.39 J**	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	**0.48 J**	< 5	< 5	**0.46 J**
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**0.4**	**2.1**	0	**0.8**	**0.4**	0	**0.5**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-118 729 4/29/2009	VP-118 769 5/4/2009	VP-118 794 5/5/2009	VP-119 54 6/18/2009	VP-119 104 6/18/2009	VP-119 159 6/19/2009	VP-119 209 6/22/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	**0.36 J**	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	**0.9 J**
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5 B
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	**0.35 J**
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	**0.46 J**	< 5	< 5	**0.31 J**
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	**0.44 J**
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	**0.31 J**	**0.51 J**	**0.62 J**	**1.9 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	0	0	**1.1**	**0.5**	**0.6**	**3.9**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: VP-119 Sample Depth (ft bls): 259 Sample Date: 6/22/2009	VP-119 309 6/23/2009	VP-119 359 6/23/2009	VP-119 409 6/23/2009	VP-119 429 6/25/2009	VP-119 454 6/25/2009	VP-119 484 6/26/2009
1,1,1-Trichloroethane	5	**110**	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	**0.96 J**	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	**4 J**	**1.8 J**	**0.9 J**	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	**110**	**0.47 J**	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	**0.58 J**	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	**0.49 J**	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**1.2 J**	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	**35**	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	**1.5 J**	< 5	**0.55 J**	**0.4 J**	< 5	< 5	< 5
trans-1,2-dichloroethene	5	**0.82 J**	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**8.2**	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	**0.52 J**	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		**273.3**	**2.3**	**1.5**	**0.4**	0	0	0

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-119 504 6/26/2009	VP-119 524 6/26/2009	VP-119 554 6/29/2009	VP-119 569 6/30/2009	VP-119 (REP) 569 6/30/2009	VP-119 589 6/30/2009
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50 B	< 50 B	< 50 B	**12 BJ**	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	**0.4 J**	**0.39 J**
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--
TVOC		0	0	0	0	**12.4**	**0.4**

Notes and abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Depth (ft bls): / Sample Date:	VP-119 649 7/2/2009	VP-119 689 7/7/2009	VP-119 709 7/7/2009	VP-119 729 7/8/2009	VP-119 774 7/9/2009	VP-119 794 7/9/2009	VP-119 804 7/10/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B	< 50 B
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5 B	< 5	< 5	< 5	< 5	< 5 B
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	5	< 5	**0.59 J**	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	< 5	< 5 B	< 5 B	< 5	**0.54 J**	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE	--	--	--	--	--	--	--
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	10	--	--	--	--	--	--	--
TVOC		0	**0.6**	0	0	**0.5**	0	0

Notes and abbreviations on last page.

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Table 4. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples analyzed for the TCL VOCs using NYSDEC ASP 2000 Method OLM4.2.

Indicates an exceedance of an SCG

Bold value indicates a detection

RI/FS	Remedial Investigation/Feasibility Study
NYSDEC	New York State Department of Environmental Conservation
TCL	Target compound list
VOC	Volatile organic compound
ASP	Analytical services protocol
SCGs	Standard, criteria, and guidance values
ft bls	Feet below land surface
ug/L	Micrograms per liter
TVOC	Total volatile organic compounds
NE	Not established
REP	Field replicate
J	Value is estimated
D	Value from a secondary dilution
--	Not analyzed
B	Compound detected in associated blank sample

Table 5. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Date:	GM-15S 7/15/2009	GM-15S (REP) 7/15/2009	GM-15I 7/7/2009	GM-15D 7/7/2009	GM-15D2 7/7/2009	HN-40S 7/14/2009	HN-40I 7/14/2009	HN-42S 7/8/2009
	NYSDEC SCGs								
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	**0.8 J**	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50	< 50	< 50	< 50	< 50 B	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 5 J	< 5 J	< 5 J	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 5	< 5	**1.4 J**	< 5	< 5	< 5
Chloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	< 5	**0.36 J**	< 5	**0.47 J**	**0.88 J**	< 5
Chloromethane	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	**0.37 J**	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	**0.55 J**	**10**	< 5	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	5	**2.8 J**	**2.7 J**	**3.6 J**	**1.3 J**	**10**	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 5	< 5	**1.3 J**	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
TVOC		**2.8**	**2.7**	**3.6**	**2.2**	**23.9**	**0.5**	**0.9**	0

Notes and abbreviations on last page.

Table 5. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Date:	HN-42I 7/8/2009	MW-100-1 7/9/2009	MW-100-2 7/9/2009	MW-100-3 7/9/2009	MW-102-1 7/17/2009	MW-107-1 7/13/2009	MW-108-1 7/13/2009
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 5	< 5	**6.9 J**	**0.43 J**	**0.42 J**	**1.1 J**	< 5
1,1-Dichloroethene	5	< 5	< 5	**3.5 J**	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	< 5	< 5	< 25	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 5	< 5	< 25	< 5	< 5	< 5	< 5
2-Butanone	50	< 50	< 50	< 250	< 50	< 50	< 50	< 50
2-Hexanone	50	< 50	< 50	< 250	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 50	< 50	< 250	< 50	< 50	< 50	< 50
Acetone	50	< 50	< 50 J	< 250 B	< 50	< 50	< 50	< 50
Benzene	1	< 0.7	< 0.7	< 3.5	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Bromoform	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Bromomethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 5	< 5	< 25	**0.66 J**	< 5	< 5	**1.1 J**
Chloroethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Chloroform	7	< 5	< 5	**8.8 J**	**2.4 J**	**0.73 J**	**0.92 J**	< 5
Chloromethane	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**7.4**	**0.38 J**	**1300 D**	**2.2 J**	< 5	**51**	< 5
cis-1,3-dichloropropene	0.4	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Styrene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 25	**2.3 J**	< 5	**1.1 J**	< 5
Toluene	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	< 5	< 5	**6.5 J**	< 5	< 5	**0.8 J**	< 5
trans-1,3-dichloropropene	0.4	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Trichloroethylene	5	**20**	< 5	**150**	**64**	**0.51 J**	**110**	**0.43 J**
Trichlorotrifluoroethane (Freon 113)	5	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 2	< 2	**35**	< 2	< 2	< 2	< 2
Xylene-o	NE	< 5	< 5	< 25	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 5	< 5	< 25	< 5	< 5	< 5	< 5
TVOC		**27.4**	**0.4**	**1,510.7**	**72.0**	**1.7**	**164.9**	**1.5**

Notes and abbreviations on last page.

Table 5. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Date:	MW-109-3 4/14/2009	MW-109-3 7/8/2009	MW-111-4 5/6/2008	MW-111-4 7/15/2009	MW-116-5 4/11/2008	MW-116-5 9/29/2008	MW-116-5 12/29/2008
	NYSDEC SCGs							
1,1,1-Trichloroethane	5	**1.8 J**	< 50	< 250	**9 J**	< 50	< 50	< 50
1,1,2,2-Tetrachloroethane	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
1,1,2-Trichloroethane	1	< 25	< 50	< 250	< 100	< 50	< 50	< 50
1,1-Dichloroethane	5	**18 J**	**16 J**	< 250	**35 J**	< 50	< 50	< 50
1,1-Dichloroethene	5	**7.4 J**	**5.7 J**	< 250	**26 J**	< 50	< 50	< 50
1,2-Dichloroethane	0.6	**6.4 J**	**4.5 J**	< 250	**27 J**	< 50	< 50	< 50
1,2-Dichloropropane	1	< 25	< 50	< 250	< 100	< 50	< 50	< 50
2-Butanone	50	< 250	< 500	< 2500	< 1000	< 500	< 500	< 500
2-Hexanone	50	< 250	< 500	< 2500	< 1000	< 500	< 500	< 500
4-methyl-2-pentanone	50	< 250	< 500	< 2500	< 1000	< 500	< 500	< 500
Acetone	50	< 250	< 500 B	< 2500	< 1000	< 500	< 500	< 500
Benzene	1	< 3.5	< 7	< 35	< 14	< 7	< 7	< 7
Bromodichloromethane	50	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Bromoform	50	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Bromomethane	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Carbon Disulfide	60	< 25	< 50	< 2500	< 100	< 500	< 500	< 500
Carbon tetrachloride	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Chlorobenzene	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Chlorodifluoromethane (Freon 22)	NE	**2.2 J**	< 50	< 250	< 100	< 50	< 50	< 50
Chloroethane	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Chloroform	7	**7 J**	**4.5 J**	< 350	**9.6 J**	< 70	< 70	< 70
Chloromethane	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
cis-1,2-dichloroethene	5	**1100 D**	**1000**	**1500**	**1600**	**130**	**140**	**150**
cis-1,3-dichloropropene	0.4	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Dibromochloromethane	50	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Dichlorodifluoromethane (Freon 12)	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Ethylbenzene	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Methylene Chloride	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Styrene	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Tetrachloroethene	5	**9.1 J**	**5.9 J**	< 250	**8.8 J**	< 50	< 50	< 50
Toluene	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
trans-1,2-dichloroethene	5	**3.9 J**	**4 J**	< 250	< 100	< 50	< 50	< 50
trans-1,3-dichloropropene	0.4	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Trichloroethylene	5	**2300 D**	**1200**	**8800**	**5100 D**	**1100**	**1300**	**1100**
Trichlorotrifluoroethane (Freon 113)	5	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Vinyl Chloride	2	**2.1 J**	**4.6 J**	< 100	< 40	< 20	< 20	< 20
Xylene-o	NE	< 25	< 50	< 250	< 100	< 50	< 50	< 50
Xylenes - m,p	NE	< 25	< 50	< 250	< 100	< 50	< 50	< 50
TVOC		**3,457.9**	**2,245.2**	**10,300.0**	**6,815.4**	**1,230.0**	**1,440.0**	**1,250.0**

Notes and abbreviations on last page.

Table 5. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Date:	MW-116-5 3/31/2009	MW-116-5 7/22/2009	MW-117 2/11/2009	MW-117-5 7/20/2009	MW-118 5/21/2009	MW-118-5 7/21/2009
	NYSDEC SCGs						
1,1,1-Trichloroethane	5	< 50	< 50	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5	< 50	< 50	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	1	< 50	< 50	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5	< 50	< 50	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5	**3.7 J**	< 50	< 5	< 5	< 5	< 5
1,2-Dichloroethane	0.6	**15 J**	**6.5 J**	< 5	< 5	< 5	< 5
1,2-Dichloropropane	1	< 50	< 50	< 5	< 5	< 5	< 5
2-Butanone	50	< 500	< 500	< 50	< 50	< 50	< 50
2-Hexanone	50	< 500	< 500	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	50	< 500	< 500	< 50	< 50	< 50	< 50
Acetone	50	< 500	< 500	< 50	< 50	< 50	< 50 B
Benzene	1	< 7	< 7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	50	< 50	< 50	< 5	< 5	< 5	< 5
Bromoform	50	< 50	< 50	< 5	< 5	< 5	< 5
Bromomethane	5	< 50	< 50	< 5	< 5	< 5	< 5
Carbon Disulfide	60	< 50	< 50	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 50	< 50	< 5	< 5	< 5	< 5
Chlorobenzene	5	< 50	< 50	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	NE	< 50	< 50	< 5	< 5	< 5	< 5
Chloroethane	5	< 50	< 50	< 5	< 5	< 5	< 5
Chloroform	7	**34 J**	**15 J**	< 5	< 5	< 5	< 5
Chloromethane	5	< 50	< 50	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	5	**210**	**130**	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	0.4	< 50	< 50	< 5	< 5	< 5	< 5
Dibromochloromethane	50	< 50	< 50	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	5	< 50	< 50	< 5	< 5	< 5	< 5
Ethylbenzene	5	< 50	< 50	< 5	< 5	< 5	< 5
Methylene Chloride	5	< 50	< 50	< 5	< 5	< 5	< 5
Styrene	5	< 50	< 50	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 50	< 50	< 5	< 5	< 5	< 5
Toluene	5	< 50	< 50	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	5	**5.6 J**	< 50	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	0.4	< 50	< 50	< 5	< 5	< 5	< 5
Trichloroethylene	5	**1200**	**1100**	< 5	**0.71 J**	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	5	< 50	< 50	< 5	< 5	< 5	< 5
Vinyl Chloride	2	< 20	< 20	< 2	< 2	< 2	< 2
Xylene-o	NE	< 50	< 50	< 5	< 5	< 5	< 5
Xylenes - m,p	NE	< 50	< 50	< 5	< 5	< 5	< 5
TVOC		**1,468.3**	**1,251.5**	0	**0.71**	0	0

Notes and abbreviations on last page.

Table 5. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples analyzed for the TCL VOCs using NYSDEC ASP 2000 Method OLM4.2.

Indicates an exceedance of an SCG

Bold value indicates a detection

RI/FS	Remedial Investigation/Feasibility Study
NYSDEC	New York State Department of Environmental Conservation
TCL	Target compound list
VOC	Volatile organic compound
ASP	Analytical services protocol
SCGs	Standard, criteria, and guidance values
ug/L	Micrograms per liter
TVOC	Total volatile organic compounds
NE	Not established
REP	Field replicate
J	Value is estimated
D	Value from a secondary dilution
B	Compound detected in associated blank sample

Table 6. Comparison of Total Volatile Organic Compound Concentrations between Groundwater Samples Collected from Study Area Vertical Profile Borings and Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location:	VP-100	MW-100-1	VP-100	MW-100-2	VP-100	MW-100-3	VP-102	MW-102-1	VP-107	MW-107-1	VP-108	MW-108-1
Sample Depth (ft bls):	55 - 60	55-65	145 - 150	145-155	240 - 245	237-247	135 - 140	137-147	75-90	78-88	65-80	67-77
Sample Date:	9/15/2006	7/9/2009	9/13/2006	7/9/2009	9/8/2006	7/9/2009	10/11/2006	7/17/2009	7/25/2006 AVG[1]	7/13/2009	7/14/2006 AVG[1]	7/13/2009
TVOC (ug/L)	**18.1**	**0.4**	**1,690.7**	**1,510.7**	**52.0**	**72.0**	**88.3**	**1.7**	**115.5**	**164.9**	**10.5**	**1.5**

Notes and abbreviations on following page.

Table 6. Comparison of Total Volatile Organic Compound Concentrations between Groundwater Samples Collected from Study Area Vertical Profile Borings and Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location:	VP-109	MW-109-3	VP-111	MW-111-4	VP-116	MW-116-5	VP-117	MW-117-5	VP-118	MW-118-5
Sample Depth (ft bls):	235 - 240	233-243	451-471	448-468	574-594	570-590	729-764	737-757	729 - 729	713-738
Sample Date:	1/25/2007	4/14/2009	4/24/2007 AVG(1)	5/6/2008	3/18/2008 AVG(1)	9/29/2008	1/8/2009 AVG(1)	2/11/2009	4/29/2009	5/4/2009
TVOC (ug/L)	**9,172.8**	**3,457.9**	**9,100.0**	**10,300.0**	**1,548.5**	**1,440.0**	0	0	0	0

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples analyzed for the TCL VOCs using NYSDEC ASP 2000 Method OLM4.2.

AVG(1)	TVOC is an average of vertical profile boring sample intervals which coincide with the screened interval of the co-located monitoring well, see Table 4 for all vertical profile boring results. If the monitoring well was sampled more than once, the result closest in time to the co-located vertical profile boring result(s) was used. See Table 5 for all monitoring well results.
RI/FS	Remedial Investigation/Feasibility Study
NYSDEC	New York State Department of Environmental Conservation
TCL	Target compound list
VOC	Volatile organic compound
ASP	Analytical services protocol
SCGs	Standard, criteria, and guidance values
ft bls	Feet below land surface
ug/L	Micrograms per liter
VP	Vertical profile boring
TVOC	Total volatile organic compounds

Table 7. Concentrations of Metals in Groundwater Samples Collected from Study Area Monitoring Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	Sample Location: / Sample Date:	HN-40S 7/14/2009	HN-40I 7/14/2009	HN-42S 7/8/2009	HN-42I 7/8/2009	MW-100-1 7/9/2009	MW-100-2 7/9/2009	MW-100-3 7/9/2009	MW-102-1 7/17/2009	MW-107-1 7/13/2009	MW-108-1 7/13/2009	MW-109-3 7/8/2009	MW-111-4 7/15/2009	MW-116-5 7/22/2009
	NYSDEC SCGs													
Total Cadmium	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total Chromium	50	< 10	**16.3**	< 10	< 10	**13.5**	**12.1**	**19.7**	**15.3**	**15.1**	**60**	**57.4**	**103**	< 10
Dissolved Cadmium	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dissolved Chromium	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**11.5**	**19.6**	**73.2**	< 10

Notes and abbreviations on following page.

Table 7. Concentrations of Metals in Groundwater Samples Collected from Study Area Monitoring Wells,
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

CONSTITUENT (ug/L)	NYSDEC SCGs	Sample Location: MW-117-5 Sample Date: 7/20/2009	MW-118-5 7/21/2009
Total Cadmium	5	< 5	< 5
Total Chromium	50	**12.8**	**26.9**
Dissolved Cadmium	5	< 5	< 5
Dissolved Chromium	50	< 10	< 10

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).

2. Samples analyzed for the TAL Metals using NYSDEC ASP Method 2000 ILM4.0.

Indicates an exceedance of an SCG

Bold value indicates a detection

RI/FS	Remedial Investigation/Feasibility Study
NYSDEC	New York State Department of Environmental Conservation
TAL	Target analyte list
ASP	Analytical services protocol
SCGs	Standard, criteria, and guidance values
ug/L	Micrograms per liter

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-100	46-51	9/15/2006	< 10
VP-100	55-60	9/15/2006	< 5
VP-100	75-80	9/13/2006	< 4
VP-100	105-110	9/14/2006	< 4
VP-100 (REP)	105-110	9/14/2006	< 4
VP-100	125-130	9/12/2006	< 4
VP-100	145-150	9/13/2006	< 4
VP-100	160-165	9/11/2006	< 4
VP-100	180-185	9/12/2006	< 4
VP-100	190-195	9/12/2006	< 4
VP-100	200-205	9/8/2006	< 4
VP-100	210-215	9/11/2006	< 4
VP-100	220-225	9/11/2006	< 4
VP-100	230-235	9/7/2006	< 4
VP-100 (REP)	230-235	9/8/2006	< 4
VP-100	240-245	9/8/2006	< 4
VP-100	250-255	9/7/2006	< 4
VP-100	270-275	9/7/2006	< 4
VP-100	290-295	9/6/2006	< 4
VP-100	310-315	9/6/2006	< 4
VP-100	330-335	9/5/2006	4.3
VP-100 (REP)	330-335	9/5/2006	4.2
VP-100	350-355	9/5/2006	< 4
VP-100	371-376	9/1/2006	< 4
VP-100	394-399	9/1/2006	4.7
VP-101	60	6/27/2006	< 10 J
VP-101	80	6/27/2006	< 10 J
VP-101	100	6/28/2006	< 10 J
VP-101	120	6/28/2006	< 10 J
VP-101	140	6/28/2006	< 10 J
VP-101	167	6/29/2006	< 10
VP-101	320	7/6/2006	< 10
VP-101	340	7/6/2006	< 10
VP-101	360	7/7/2006	**11**
VP-101	387	7/10/2006	**3 J**
VP-101	400	7/10/2006	< 10
VP-101	420	7/11/2006	**6.2**
VP-101	440	7/11/2006	< 10
VP-101	460	7/11/2006	< 10
VP-101	480	7/12/2006	< 0.32
VP-101	507	7/13/2006	< 1
VP-102	45-50	10/13/2006	< 5
VP-102	65-70	10/13/2006	**0.68 J**
VP-102 (REP)	65-70	10/13/2006	< 5
VP-102	85-90	10/13/2006	**1.2**
VP-102	105-110	10/12/2006	**0.77 J**
VP-102	125-130	10/12/2006	**3.3**
VP-102	135-140	10/11/2006	**1.6**
VP-102	150-155	10/11/2006	**3.4**
VP-102	160-165	10/11/2006	**1.5**
VP-102	170-175	10/10/2006	**1.7**
VP-102	180-185	10/10/2006	< 1
VP-102	190-195	10/6/2006	< 1
VP-102	200-205	10/6/2006	**0.67 J**
VP-102	220-225	10/5/2006	**0.76 J**
VP-102	240-245	10/5/2006	**0.4 J**

Notes and abbreviations on last page.

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-102	250-255	10/4/2006	**0.46 J**
VP-102 (REP)	250-255	10/4/2006	**0.41 J**
VP-102	260-265	10/4/2006	**1.3**
VP-102	270-275	10/3/2006	**0.59 J**
VP-102	280-285	10/3/2006	**0.71 J**
VP-102	290-295	10/2/2006	**0.65 J**
VP-102	300-305	9/29/2006	< 1
VP-102	310-315	9/29/2006	< 1
VP-102	325-330	9/28/2006	< 1
VP-102 (REP)	325-330	9/28/2006	< 1
VP-102	345-350	9/28/2006	< 1
VP-102	365-370	9/27/2006	**0.98 J**
VP-102	370-375	10/3/2006	**0.59 J**
VP-102	380-385	10/3/2006	**0.71 J**
VP-103	60	10/10/2006	< 10
VP-103	80	10/10/2006	< 10
VP-103	100	10/10/2006	**2.2 J**
VP-103	120	10/10/2006	< 20
VP-103	140	10/11/2006	< 10
VP-103	165	10/11/2006	< 10
VP-103	185	10/11/2006	**0.93 J**
VP-103	200	10/12/2006	< 20
VP-103	220	10/12/2006	< 20
VP-103	240	10/12/2006	< 20
VP-103	260	10/12/2006	< 2
VP-103	320	10/16/2006	< 2
VP-103	345	10/16/2006	< 10
VP-103 (REP)	345	10/16/2006	< 10
VP-103	360	10/17/2006	< 1
VP-103	380	10/17/2006	< 1
VP-103	420	10/18/2006	< 5
VP-103	440	10/18/2006	< 5
VP-103	460	10/18/2006	< 10
VP-103	480	10/18/2006	< 20
VP-103	500	10/19/2006	< 20
VP-103	525	10/19/2006	< 10
VP-103	545	10/20/2006	**6.9**
VP-103	560	10/20/2006	< 10
VP-103	580	10/23/2006	< 10
VP-103	600	10/23/2006	< 10
VP-103	620	10/23/2006	< 5
VP-103	640	10/24/2006	**3.7 J**
VP-103 (REP)	640	10/24/2006	< 10
VP-103	660	10/24/2006	**6 J**
VP-104	40	8/7/2006	< 4
VP-104	60	7/28/2006	< 4
VP-104	80	7/28/2006	< 4
VP-104	100	7/31/2006	< 4
VP-104	120	7/31/2006	< 4
VP-104	140	7/31/2006	< 4
VP-104 (REP)	140	7/31/2006	< 4
VP-104	160	7/31/2006	< 4
VP-104	180	8/1/2006	< 4
VP-104	200	8/1/2006	< 4
VP-104	220	8/1/2006	< 4
VP-104	240	8/1/2006	< 4

Notes and abbreviations on last page.

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-104	260	8/2/2006	< 4
VP-104	280	8/2/2006	< 4
VP-104	300	8/2/2006	< 4
VP-104	320	8/3/2006	< 4
VP-104	340	8/3/2006	< 4
VP-104	360	8/3/2006	< 4
VP-104	380	8/7/2006	< 4
VP-104	400	8/7/2006	< 4
VP-104	420	8/7/2006	< 4
VP-104	460	8/8/2006	< 4
VP-104	480	8/8/2006	< 4
VP-104	500	8/8/2006	< 4
VP-104	520	8/14/2006	< 4
VP-104	540	8/14/2006	< 4
VP-104	560	8/14/2006	< 4
VP-104	740	8/22/2006	< 4
VP-104	820	8/24/2006	< 4
VP-104	840	8/24/2006	< 4
VP-104	860	8/25/2006	< 4
VP-104	880	8/25/2006	< 4
VP-105	45-50	8/2/2006	< 4
VP-105	55-60	8/2/2006	< 4
VP-105	65-70	8/2/2006	< 4
VP-105	75-80	8/2/2006	< 4
VP-105	85-90	8/1/2006	< 4
VP-105	95-100	8/1/2006	< 4
VP-105	102-107	8/1/2006	< 4
VP-105	115-120	7/31/2006	< 4
VP-105	125-130	7/31/2006	< 4
VP-105	135-140	7/31/2006	< 4
VP-105	145-150	7/28/2006	< 4
VP-105	155-160	7/28/2006	< 4
VP-105	165-170	7/28/2006	< 4
VP-107	45-50	7/25/2006	< 4
VP-107	55-60	7/25/2006	< 4
VP-107	65-70	7/25/2006	< 4
VP-107	75-80	7/25/2006	< 4
VP-107	85-90	7/25/2006	< 4
VP-107	95-100	7/21/2006	< 4
VP-107	105-110	7/21/2006	< 4
VP-107	119-124	7/21/2006	< 4
VP-107	135-140	7/20/2006	< 4
VP-107	148-153	7/20/2006	< 4
VP-107	165-170	7/20/2006	< 4
VP-108	45-50	7/13/2006	< 1
VP-108	55-60	7/13/2006	**1.6**
VP-108	65-70	7/13/2006	**1.7**
VP-108	75-80	7/13/2006	**1.2**
VP-108	85-90	7/13/2006	**1.2**
VP-108	95-100	7/13/2006	**1.2**
VP-108	105-110	7/13/2006	**1.3**
VP-108	115-120	7/13/2006	**1.4**
VP-108	125-130	7/13/2006	**1.6**
VP-108	135-140	7/13/2006	**1.4**
VP-108	145-150	7/13/2006	**1.3**
VP-108 (REP)	145-150	7/13/2006	**1.3**

Notes and abbreviations on last page.

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-109	44-49	2/5/2007	**9.4**
VP-109	55-60	2/5/2007	**0.79 J**
VP-109	65-70	2/5/2007	**1**
VP-109	75-80	2/5/2007	**1.1**
VP-109	85-90	2/2/2007	**1.1**
VP-109	95-100	2/2/2007	**0.43 J**
VP-109	105-110	2/2/2007	**0.84 J**
VP-109	115-120	2/1/2007	**0.4 J**
VP-109	125-130	2/1/2007	< 1
VP-109	135-140	1/31/2007	**0.68 J**
VP-109	145-150	1/31/2007	**0.36 J**
VP-109	155-160	1/31/2007	**0.5 J**
VP-109	165-170	1/30/2007	**0.77 J**
VP-109	175-180	1/30/2007	**0.51 DJ**
VP-109	185-190	1/30/2007	**0.62 J**
VP-109	195-200	1/29/2007	**0.85 J**
VP-109	205-210	1/29/2007	**0.38 J**
VP-109	215-220	1/26/2007	< 1
VP-109	225-230	1/25/2007	< 1
VP-109	235-240	1/25/2007	< 1
VP-109 (REP)	235-240	1/25/2007	< 1
VP-109	247-252	1/24/2007	**0.57 J**
VP-109	255-260	1/24/2007	**0.73 J**
VP-109	265-270	1/23/2007	< 2
VP-109	275-280	1/23/2007	< 2
VP-109	288-293	1/22/2007	< 1
VP-110	40-45	2/22/2007	< 1
VP-110 (REP)	40-45	2/22/2007	< 1
VP-110	50-55	2/22/2007	< 1
VP-110	60-65	2/21/2007	< 1
VP-110	70-75	2/21/2007	< 1
VP-110	80-80	2/21/2007	< 1
VP-110	90-95	2/21/2007	< 1
VP-110	100-105	2/21/2007	< 1
VP-110	110-115	2/20/2007	**0.69 J**
VP-110	120-125	2/20/2007	**0.95 J**
VP-110	140-145	2/20/2007	**0.59 J**
VP-110	150-155	2/20/2007	**1.3**
VP-110	160-165	2/20/2007	**1.2**
VP-110	170-175	2/16/2007	**1.4**
VP-110	180-185	2/16/2007	**0.78 J**
VP-110 (REP)	180-185	2/16/2007	**0.93 J**
VP-110	190-195	2/16/2007	**0.71 J**
VP-110	200-205	2/13/2007	**0.91 J**
VP-110	210-215	2/13/2007	**1**
VP-110	220-225	2/13/2007	**1**
VP-110	230-235	2/9/2007	**1.6**
VP-110	240-245	2/9/2007	**1.9**
VP-110	250-255	2/7/2007	**2.5**
VP-110	260-265	2/7/2007	**2.2**
VP-110	270-275	2/7/2007	**1.7**
VP-110	283-288	2/6/2007	**1.4**
VP-110	295-300	2/6/2007	**0.97 J**
VP-110	315-320	2/6/2007	**1.6**
VP-110	325-330	2/5/2007	**1.3**
VP-110	333-338	2/5/2007	**3.9**

Notes and abbreviations on last page.

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-110	344-349	2/1/2007	**3**
VP-110	352-357	2/1/2007	**1.8**
VP-110	352-367	2/1/2007	**1.6**
VP-110	362-367	1/31/2007	**2.9**
VP-110	372-377	1/31/2007	**1.3**
VP-110	382-387	1/30/2007	**1.4**
VP-111	50-51	4/17/2007	**0.84**
VP-111	70-71	4/17/2007	**1.7**
VP-111	91-91	4/17/2007	**1.1**
VP-111	111-111	4/17/2007	**1.3**
VP-111	131-131	4/18/2007	**2.1**
VP-111	151-151	4/18/2007	**2**
VP-111	171-171	4/18/2007	**1.9**
VP-111 (REP)	171-171	4/18/2007	**2**
VP-111	191-191	4/19/2007	**1.9**
VP-111	211-211	4/19/2007	**1.4**
VP-111	231-231	4/19/2007	**1.5**
VP-111	251-251	4/19/2007	**1.1**
VP-111	271-271	4/20/2007	**1.1**
VP-111	291-291	4/20/2007	**0.9**
VP-111	311-311	4/20/2007	**2**
VP-111	331-331	4/20/2007	**2.4**
VP-111	351-351	4/23/2007	**2.4**
VP-111	371-371	4/23/2007	**2.6**
VP-111	391-391	4/24/2007	**1.8**
VP-111	411-411	4/24/2007	**2.2**
VP-111	431-431	4/24/2007	**3.6**
VP-111	451-451	4/24/2007	**1.8**
VP-111	471-471	4/25/2007	**1.4**
VP-111	491-491	4/25/2007	**4.1**
VP-111	511-511	4/25/2007	**4.8**
VP-111	531-531	4/26/2007	**6.2**
VP-111	551-551	4/26/2007	**1.6**
VP-111 (REP)	551-551	4/26/2007	**1.6**
VP-111	571-571	4/27/2007	**4.1**
VP-111	591-591	4/27/2007	**2.6**
VP-111	616-616	4/30/2007	**2**
VP-111	631-631	5/1/2007	< 0.2
VP-112	60-60	5/23/2007	**0.48**
VP-112	80-80	5/23/2007	**3**
VP-112	100-100	5/23/2007	**0.93**
VP-112	120-120	5/24/2007	**3.7**
VP-112	140-140	5/24/2007	**0.86**
VP-112	165-165	5/24/2007	**1.1**
VP-112	185-185	5/30/2007	**1.2**
VP-112	200-200	5/30/2007	**2.6**
VP-112	220-220	5/31/2007	**3.4**
VP-112	240-240	5/31/2007	**3.5**
VP-112 (REP)	240-240	5/31/2007	**3.5**
VP-112	260-260	5/31/2007	**3.3**
VP-112	280-280	5/31/2007	**0.93**
VP-112	300-300	6/1/2007	**0.75**
VP-112	320-320	6/1/2007	**0.73**
VP-112	340-340	6/1/2007	**0.78**
VP-112	360-360	6/4/2007	**0.98**
VP-112	380-380	6/4/2007	**0.74**

Notes and abbreviations on last page.

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-112	410-410	6/5/2007	**0.76**
VP-112	420-420	6/6/2007	**0.91**
VP-112	440-440	6/6/2007	**0.78**
VP-112	470-470	6/7/2007	**1.7**
VP-112 (REP)	470-470	6/7/2007	**1.5**
VP-112	480-480	6/7/2007	**1.2**
VP-112	500-500	6/7/2007	**1.5**
VP-112	520-520	6/7/2007	**1.9**
VP-112	545-545	6/8/2007	**3.8**
VP-112	560-560	6/8/2007	**3**
VP-112	580-580	6/8/2007	**5.3**
VP-112	600-600	6/11/2007	**5.2**
VP-112	620-620	6/13/2007	**1.9**
VP-112	660-660	6/14/2007	**0.9**
VP-112	680-680	6/14/2007	**0.2**
VP-112	700-700	6/14/2007	< 0.2

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples analyzed for perchlorate using USEPA Method 314.0.
3. Nassau County Department of Health has adopted a guidance value of 18 ug/L for perchlorate.

Bold value indicates detection.

RI/FS	Remedial Investigation/Feasibility Study
USEPA	United States Environmental Protection Agency
ug/L	Micrograms per liter
J	Value is estimated
D	Value from a secondary dilution
ft bls	Feet below land surface
REP	Field replicate

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) Samplie ID: / Sample Depth (ft bls): / Sample Date	VP-100 105-110 9/14/2006	VP-100 125-130 9/13/2006	VP-100 145-150 9/13/2006	VP-100 160-165 9/12/2006	VP-100-DL 160-165 9/12/2006	VP-100 180-185 9/12/2006	VP-100 220-225 9/11/2006	VP-100 250-255 9/7/2006	VP-100 350-355 9/5/2006	VP-100 371-376 9/1/2006	VP-100 200-205 9/11/2006	VP-101 60 6/27/2006	VP-101 167 6/29/2006	VP-101 420 7/11/2006	VP-101 440 7/11/2006	VP-101 460 7/11/2006
1,1,1,2-Tetrafluoroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Butene	--	6 NJ	--	--	--	13 NJ	--	--	--	--	--	--	--	--	22 NJ	--
1-Pentene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Ethyl- 1-Hexanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-Propene	--	--	18 NJ	17 NJ	11 NJD	--	20 NJ	6 NJ	--	--	--	--	--	12 NJ	--	--
Acetaldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopropane, ethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclotrisiloxane, hexamethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	--	--	--	--	--	--	--	--	--	--	--	9 NJ	--	--	--	--
Diisopropylether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eicosane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26 NJ
Ethyl Acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexanal	--	--	--	--	--	--	--	--	--	5 NJ	--	--	--	--	--	--
Isobutane	9 NJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-Butyl Ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentanal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propane, 2-methoxy-2-methyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propene	--	26 NJ	43 NJ	37 NJ	37 NJD	16 NJ	--	20 NJ	--	--	12 NJ	--	--	--	--	--
Propene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silanol, trimethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-100	VP-100	VP-100	VP-100	VP-100-DL	VP-100	VP-100	VP-100	VP-100	VP-100	VP-100	VP-101	VP-101	VP-101	VP-101	VP-101
Sample Depth (ft bls):	105-110	125-130	145-150	160-165	160-165	180-185	220-225	250-255	350-355	371-376	200-205	60	167	420	440	460
TIC ID (ug/L) Sample Date	9/14/2006	9/13/2006	9/13/2006	9/12/2006	9/12/2006	9/12/2006	9/11/2006	9/7/2006	9/5/2006	9/1/2006	9/11/2006	6/27/2006	6/29/2006	7/11/2006	7/11/2006	7/11/2006
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Unknown Aliphatic Hydrocarbon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Aliphatic Hydrocarbon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Aliphatic Hydrocarbon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Aliphatic Hydrocarbon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-100 105-110 9/14/2006	VP-100 125-130 9/13/2006	VP-100 145-150 9/13/2006	VP-100 160-165 9/12/2006	VP-100-DL 160-165 9/12/2006	VP-100 180-185 9/12/2006	VP-100 220-225 9/11/2006	VP-100 250-255 9/7/2006	VP-100 350-355 9/5/2006	VP-100 371-376 9/1/2006	VP-100 200-205 9/11/2006	VP-101 60 6/27/2006	VP-101 167 6/29/2006	VP-101 420 7/11/2006	VP-101 440 7/11/2006	VP-101 460 7/11/2006
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	11 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	14 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	18 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	13 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	12 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	5 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	12 J	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24 J

Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-100	VP-100	VP-100	VP-100	VP-100-DL	VP-100	VP-100	VP-100	VP-100	VP-100	VP-100	VP-101	VP-101	VP-101	VP-101	VP-101
	Sample Depth (ft bls):	105-110	125-130	145-150	160-165	160-165	180-185	220-225	250-255	350-355	371-376	200-205	60	167	420	440	460
	Sample Date	9/14/2006	9/13/2006	9/13/2006	9/12/2006	9/12/2006	9/12/2006	9/11/2006	9/7/2006	9/5/2006	9/1/2006	9/11/2006	6/27/2006	6/29/2006	7/11/2006	7/11/2006	7/11/2006
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18 J
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Cycloalkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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UnknownFreon		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Hydrocarbon		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Hydrocarbon		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Silanol		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-101	VP-101	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102
Sample Depth (ft bls):	480	507	45-50	65-70	105-110	135-140	160-165	170-175	180-185	190-195	200-205	240-245	290-295	325-330	330-325	345-350
TIC ID (ug/L) Sample Date	7/12/2006	7/13/2006	10/13/2006	10/13/2006	10/12/2006	10/11/2006	10/11/2006	10/10/2006	10/10/2006	10/6/2006	10/6/2006	10/5/2006	10/2/2006	9/28/2006	9/28/2006	9/28/2006
1,1,1,2-Tetrafluoroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Pentene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Ethyl- 1-Hexanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-Propene	--	--	9.2	16	23	24	5	5.6	5.8	--	--	--	--	13	11	11
Acetaldehyde	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopropane, ethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclotrisiloxane, hexamethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diisopropylether	--	--	--	--	--	--	--	--	--	5.3	8.5	8.2	--	--	--	--
Eicosane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexanal	--	--	13	19	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-101 480 7/12/2006	VP-101 507 7/13/2006	VP-102 45-50 10/13/2006	VP-102 65-70 10/13/2006	VP-102 105-110 10/12/2006	VP-102 135-140 10/11/2006	VP-102 160-165 10/11/2006	VP-102 170-175 10/10/2006	VP-102 180-185 10/10/2006	VP-102 190-195 10/6/2006	VP-102 200-205 10/6/2006	VP-102 240-245 10/5/2006	VP-102 290-295 10/2/2006	VP-102 325-330 9/28/2006	VP-102 330-325 9/28/2006	VP-102 345-350 9/28/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-101	VP-101	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102
Sample Depth (ft bls):	480	507	45-50	65-70	105-110	135-140	160-165	170-175	180-185	190-195	200-205	240-245	290-295	325-330	330-325	345-350
TIC ID (ug/L) Sample Date	7/12/2006	7/13/2006	10/13/2006	10/13/2006	10/12/2006	10/11/2006	10/11/2006	10/10/2006	10/10/2006	10/6/2006	10/6/2006	10/5/2006	10/2/2006	9/28/2006	9/28/2006	9/28/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-101	VP-101	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102
	Sample Depth (ft bls):	480	507	45-50	65-70	105-110	135-140	160-165	170-175	180-185	190-195	200-205	240-245	290-295	325-330	330-325	345-350
	Sample Date	7/12/2006	7/13/2006	10/13/2006	10/13/2006	10/12/2006	10/11/2006	10/11/2006	10/10/2006	10/10/2006	10/6/2006	10/6/2006	10/5/2006	10/2/2006	9/28/2006	9/28/2006	9/28/2006
Unknown Alkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103
Sample Depth (ft bls):	80	140	185	200	220	240	285	345	360	400	460	480	525	545	560	600
TIC ID (ug/L) Sample Date	10/10/2006	10/11/2006	10/11/2006	10/12/2006	10/12/2006	10/12/2006	10/13/2006	10/16/2006	10/17/2006	10/17/2006	10/18/2006	10/18/2006	10/19/2006	10/20/2006	10/20/2006	10/23/2006
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1-Pentene	--	--	--	--	--	--	--	16	--	--	--	--	--	--	--	--
2-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Ethyl- 1-Hexanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.7
2-Methyl-1-Propene	--	21	--	16	5.5	17	5.6	14	--	--	8	33	11	13	9	--
Acetaldehyde	23	--	26	--	--	--	--	--	29	--	--	--	--	--	--	--
Acetaldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopropane, ethyl-	--	12	--	--	--	--	--	--	--	14	--	--	--	--	--	--
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Propane, 2-methoxy-2-methyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103
Sample Depth (ft bls):	80	140	185	200	220	240	285	345	360	400	460	480	525	545	560	600
TIC ID (ug/L) Sample Date	10/10/2006	10/11/2006	10/11/2006	10/12/2006	10/12/2006	10/12/2006	10/13/2006	10/16/2006	10/17/2006	10/17/2006	10/18/2006	10/18/2006	10/19/2006	10/20/2006	10/20/2006	10/23/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103
	Sample Depth (ft bls):	80	140	185	200	220	240	285	345	360	400	460	480	525	545	560	600
	Sample Date	10/10/2006	10/11/2006	10/11/2006	10/12/2006	10/12/2006	10/12/2006	10/13/2006	10/16/2006	10/17/2006	10/17/2006	10/18/2006	10/18/2006	10/19/2006	10/20/2006	10/20/2006	10/23/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103	VP-103
	Sample Depth (ft bls):	80	140	185	200	220	240	285	345	360	400	460	480	525	545	560	600
	Sample Date	10/10/2006	10/11/2006	10/11/2006	10/12/2006	10/12/2006	10/12/2006	10/13/2006	10/16/2006	10/17/2006	10/17/2006	10/18/2006	10/18/2006	10/19/2006	10/20/2006	10/20/2006	10/23/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) / Samplie ID:	VP-103	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104RE	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104
Sample Depth (ft bls):	620	60	140	160	200	340	460	707	600	620	640	707	720	740	780	840
Sample Date	10/23/2006	7/28/2006	7/31/2006	7/31/2006	8/1/2006	8/3/2006	8/8/2006	8/21/2006	8/15/2006	8/15/2006	8/16/2006	8/21/2006	8/22/2006	8/22/2006	8/23/2006	8/24/2006
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1-Pentene	--	--	12 NJ	--	--	--	--	--	--	--	--	--	--	--	--	--
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2-Ethyl- 1-Hexanol	4.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-Propene	--	--	17 NJ	6 NJ	--	--	8 NJ	--	5 NJ	19 NJ	5 NJ	6 NJ	--	--	--	3 NJ
Acetaldehyde	--	7 NJ	--	--	10 NJ	--	--	--	--	--	--	--	--	--	12 NJ	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-103 620 10/23/2006	VP-104 60 7/28/2006	VP-104 140 7/31/2006	VP-104 160 7/31/2006	VP-104 200 8/1/2006	VP-104 340 8/3/2006	VP-104 460 8/8/2006	VP-104RE 707 8/21/2006	VP-104 600 8/15/2006	VP-104 620 8/15/2006	VP-104 640 8/16/2006	VP-104 707 8/21/2006	VP-104 720 8/22/2006	VP-104 740 8/22/2006	VP-104 780 8/23/2006	VP-104 840 8/24/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-103 620 10/23/2006	VP-104 60 7/28/2006	VP-104 140 7/31/2006	VP-104 160 7/31/2006	VP-104 200 8/1/2006	VP-104 340 8/3/2006	VP-104 460 8/8/2006	VP-104RE 707 8/21/2006	VP-104 600 8/15/2006	VP-104 620 8/15/2006	VP-104 640 8/16/2006	VP-104 707 8/21/2006	VP-104 720 8/22/2006	VP-104 740 8/22/2006	VP-104 780 8/23/2006	VP-104 840 8/24/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-103	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104RE	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104	VP-104
	Sample Depth (ft bls):	620	60	140	160	200	340	460	707	600	620	640	707	720	740	780	840
	Sample Date	10/23/2006	7/28/2006	7/31/2006	7/31/2006	8/1/2006	8/3/2006	8/8/2006	8/21/2006	8/15/2006	8/15/2006	8/16/2006	8/21/2006	8/22/2006	8/22/2006	8/23/2006	8/24/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-104	VP-105	VP-105-Dilution	VP-106	VP-106	VP-107	VP-107	VP-107	VP-107	VP-107	VP-107	VP-108	VP-109	VP-109	VP-109	VP-109
Sample Depth (ft bls):	860	55-60	95-100	49-54	75-80	55-60	85-90	95-100	105-110	135-140	148-153	75-80	125-130	135-140	247-252	275-280
TIC ID (ug/L) Sample Date	8/25/2006	8/2/2006	8/1/2006	6/30/2006	6/30/2006	7/25/2006	7/25/2006	7/21/2006	7/21/2006	7/20/2006	7/20/2006	7/14/2006	2/1/2007	1/31/2007	1/24/2007	1/23/2007
1,1,1,2-Tetrafluoroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Pentene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Ethyl- 1-Hexanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-Propene	5 NJ	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	--	--	--	--	--	--	--	32 NJ	18 NJ	32 NJ	31 NJ	--	--	--	--	--
Acetaldehyde	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopropane, ethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclotrisiloxane, hexamethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Silanol, trimethyl-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-104 860 8/25/2006	VP-105 55-60 8/2/2006	VP-105-Dilution 95-100 8/1/2006	VP-106 49-54 6/30/2006	VP-106 75-80 6/30/2006	VP-107 55-60 7/25/2006	VP-107 85-90 7/25/2006	VP-107 95-100 7/21/2006	VP-107 105-110 7/21/2006	VP-107 135-140 7/20/2006	VP-107 148-153 7/20/2006	VP-108 75-80 7/14/2006	VP-109 125-130 2/1/2007	VP-109 135-140 1/31/2007	VP-109 247-252 1/24/2007	VP-109 275-280 1/23/2007
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-104 860 8/25/2006	VP-105 55-60 8/2/2006	VP-105-Dilution 95-100 8/1/2006	VP-106 49-54 6/30/2006	VP-106 75-80 6/30/2006	VP-107 55-60 7/25/2006	VP-107 85-90 7/25/2006	VP-107 95-100 7/21/2006	VP-107 105-110 7/21/2006	VP-107 135-140 7/20/2006	VP-107 148-153 7/20/2006	VP-108 75-80 7/14/2006	VP-109 125-130 2/1/2007	VP-109 135-140 1/31/2007	VP-109 247-252 1/24/2007	VP-109 275-280 1/23/2007
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-104	VP-105	VP-105-Dilution	VP-106	VP-106	VP-107	VP-107	VP-107	VP-107	VP-107	VP-107	VP-108	VP-109	VP-109	VP-109	VP-109
	Sample Depth (ft bls):	860	55-60	95-100	49-54	75-80	55-60	85-90	95-100	105-110	135-140	148-153	75-80	125-130	135-140	247-252	275-280
	Sample Date	8/25/2006	8/2/2006	8/1/2006	6/30/2006	6/30/2006	7/25/2006	7/25/2006	7/21/2006	7/21/2006	7/20/2006	7/20/2006	7/14/2006	2/1/2007	1/31/2007	1/24/2007	1/23/2007
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-109R	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110	VP-110
	Sample Depth (ft bls):	461	40-45	60-65	110-115	120-125	140-145	150-155	160-165	180-185	200-205	210-215	250-255	260-265	270-275	295-300	315-320
	Sample Date	5/7/2008	2/22/2007	2/21/2007	2/20/2007	2/20/2007	2/20/2007	2/20/2007	2/20/2007	2/16/2007	2/13/2007	2/13/2007	2/7/2007	2/7/2007	2/7/2007	2/6/2007	2/6/2007
1,1,1,2-Tetrafluoroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Butene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Pentene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
2-Ethyl- 1-Hexanol		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) — Samplie ID: / Sample Depth (ft bls): / Sample Date	VP-109R 461 5/7/2008	VP-110 40-45 2/22/2007	VP-110 60-65 2/21/2007	VP-110 110-115 2/20/2007	VP-110 120-125 2/20/2007	VP-110 140-145 2/20/2007	VP-110 150-155 2/20/2007	VP-110 160-165 2/20/2007	VP-110 180-185 2/16/2007	VP-110 200-205 2/13/2007	VP-110 210-215 2/13/2007	VP-110 250-255 2/7/2007	VP-110 260-265 2/7/2007	VP-110 270-275 2/7/2007	VP-110 295-300 2/6/2007	VP-110 315-320 2/6/2007
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: Sample Depth (ft bls): Sample Date	VP-109R 461 5/7/2008	VP-110 40-45 2/22/2007	VP-110 60-65 2/21/2007	VP-110 110-115 2/20/2007	VP-110 120-125 2/20/2007	VP-110 140-145 2/20/2007	VP-110 150-155 2/20/2007	VP-110 160-165 2/20/2007	VP-110 180-185 2/16/2007	VP-110 200-205 2/13/2007	VP-110 210-215 2/13/2007	VP-110 250-255 2/7/2007	VP-110 260-265 2/7/2007	VP-110 270-275 2/7/2007	VP-110 295-300 2/6/2007	VP-110 315-320 2/6/2007
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID: / Sample Depth (ft bls): / Sample Date	VP-109R 461 5/7/2008	VP-110 40-45 2/22/2007	VP-110 60-65 2/21/2007	VP-110 110-115 2/20/2007	VP-110 120-125 2/20/2007	VP-110 140-145 2/20/2007	VP-110 150-155 2/20/2007	VP-110 160-165 2/20/2007	VP-110 180-185 2/16/2007	VP-110 200-205 2/13/2007	VP-110 210-215 2/13/2007	VP-110 250-255 2/7/2007	VP-110 260-265 2/7/2007	VP-110 270-275 2/7/2007	VP-110 295-300 2/6/2007	VP-110 315-320 2/6/2007
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-110	VP-113	VP-113	VP-113	VP-114	VP-114	VP-114	VP-115	VP-115	VP-115	VP-115	VP-116	VP-116	VP-117	VP-119	VP-119
	Sample Depth (ft bls):	344-349	270	421	436	59	74	94	102	122	122	542	374	474	349	54	159
	Sample Date	2/1/2007	3/26/2008	4/1/2008	4/2/2008	5/16/2008	5/19/2008	5/19/2008	6/6/2008	6/6/2008	6/6/2008	6/19/2008	3/12/2008	3/14/2008	12/12/2008	6/18/2009	6/19/2009
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-110	VP-113	VP-113	VP-113	VP-114	VP-114	VP-114	VP-115	VP-115	VP-115	VP-115	VP-116	VP-116	VP-117	VP-119	VP-119
	Sample Depth (ft bls):	344-349	270	421	436	59	74	94	102	122	122	542	374	474	349	54	159
	Sample Date	2/1/2007	3/26/2008	4/1/2008	4/2/2008	5/16/2008	5/19/2008	5/19/2008	6/6/2008	6/6/2008	6/6/2008	6/19/2008	3/12/2008	3/14/2008	12/12/2008	6/18/2009	6/19/2009
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) Sample ID: / Sample Depth (ft bls): / Sample Date	VP-110 344-349 2/1/2007	VP-113 270 3/26/2008	VP-113 421 4/1/2008	VP-113 436 4/2/2008	VP-114 59 5/16/2008	VP-114 74 5/19/2008	VP-114 94 5/19/2008	VP-115 102 6/6/2008	VP-115 122 6/6/2008	VP-115 122 6/6/2008	VP-115 542 6/19/2008	VP-116 374 3/12/2008	VP-116 474 3/14/2008	VP-117 349 12/12/2008	VP-119 54 6/18/2009	VP-119 159 6/19/2009
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-110	VP-113	VP-113	VP-113	VP-114	VP-114	VP-114	VP-115	VP-115	VP-115	VP-115	VP-116	VP-116	VP-117	VP-119	VP-119
	Sample Depth (ft bls):	344-349	270	421	436	59	74	94	102	122	122	542	374	474	349	54	159
	Sample Date	2/1/2007	3/26/2008	4/1/2008	4/2/2008	5/16/2008	5/19/2008	5/19/2008	6/6/2008	6/6/2008	6/6/2008	6/19/2008	3/12/2008	3/14/2008	12/12/2008	6/18/2009	6/19/2009
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) Samplie ID:	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	MW-100-2	FB080106	FB080106	FB080206	FB080306	FB080706	FB080806
Sample Depth (ft bls):	209	484	554	569	689	709	729	774	804	237-247	--	--	--	--	--	--
Sample Date	6/22/2009	6/26/2009	6/29/2009	6/30/2009	7/7/2009	7/7/2009	7/8/2009	7/9/2009	7/10/2009	7/9/2009	8/1/2006	8/1/2006	8/2/2006	8/3/2006	8/7/2006	8/8/2006
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1-Pentene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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2-Ethyl- 1-Hexanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	MW-100-2	FB080106	FB080106	FB080206	FB080306	FB080706	FB080806
Sample Depth (ft bls):	209	484	554	569	689	709	729	774	804	237-247	--	--	--	--	--	--
TIC ID (ug/L) Sample Date	6/22/2009	6/26/2009	6/29/2009	6/30/2009	7/7/2009	7/7/2009	7/8/2009	7/9/2009	7/10/2009	7/9/2009	8/1/2006	8/1/2006	8/2/2006	8/3/2006	8/7/2006	8/8/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L) / Samplie ID:	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	MW-100-2	FB080106	FB080106	FB080206	FB080306	FB080706	FB080806
Sample Depth (ft bls):	209	484	554	569	689	709	729	774	804	237-247	--	--	--	--	--	--
Sample Date	6/22/2009	6/26/2009	6/29/2009	6/30/2009	7/7/2009	7/7/2009	7/8/2009	7/9/2009	7/10/2009	7/9/2009	8/1/2006	8/1/2006	8/2/2006	8/3/2006	8/7/2006	8/8/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	VP-119	MW-100-2	FB080106	FB080106	FB080206	FB080306	FB080706	FB080806
	Sample Depth (ft bls):	209	484	554	569	689	709	729	774	804	237-247	--	--	--	--	--	--
	Sample Date	6/22/2009	6/26/2009	6/29/2009	6/30/2009	7/7/2009	7/7/2009	7/8/2009	7/9/2009	7/10/2009	7/9/2009	8/1/2006	8/1/2006	8/2/2006	8/3/2006	8/7/2006	8/8/2006
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB091506	FB092806	FB100206	FB100206	FB101006	FB101206	FB101306	FB101306	FB102306	FB021607	TB022007	FB022207	FB 041108	FB051608	FB051908	FB-05-20-08
	Sample Depth (ft bls):	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Sample Date	9/15/2006	9/28/2006	10/2/2006	10/2/2006	10/10/2006	10/12/2006	10/13/2006	10/13/2006	10/23/2006	2/16/2007	2/20/2007	2/22/2007	4/11/2008	5/16/2008	5/19/2008	5/20/2008
1,1,1,2-Tetrafluoroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Butene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Pentene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Ethyl- 1-Hexanol		--	--	--	--	--	--	--	--	6.3	--	--	--	--	--	--	--
2-Methyl-1-Propene		5	23	6.3	--	17	12	28	17	--	--	--	--	--	--	--	--
Acetaldehyde		--	--	--	--	--	--	--	--	--	--	--	--	--	--	9 JN	11 JN
Acetaldehyde		--	--	--	--	--	--	--	--	--	--	--	--	--	8 JN	--	--
Cyclopropane, ethyl-		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclotrisiloxane, hexamethyl-		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Diisopropylether		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Pentane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propane, 2-methoxy-2-methyl-		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Propene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silanol, trimethyl-		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	FB091506	FB092806	FB100206	FB100206	FB101006	FB101206	FB101306	FB101306	FB102306	FB021607	TB022007	FB022207	FB 041108	FB051608	FB051908	FB-05-20-08
Sample Depth (ft bls):	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TIC ID (ug/L) Sample Date	9/15/2006	9/28/2006	10/2/2006	10/2/2006	10/10/2006	10/12/2006	10/13/2006	10/13/2006	10/23/2006	2/16/2007	2/20/2007	2/22/2007	4/11/2008	5/16/2008	5/19/2008	5/20/2008
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Samplie ID:	FB091506	FB092806	FB100206	FB100206	FB101006	FB101206	FB101306	FB101306	FB102306	FB021607	TB022007	FB022207	FB 041108	FB051608	FB051908	FB-05-20-08
Sample Depth (ft bls):	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TIC ID (ug/L) Sample Date	9/15/2006	9/28/2006	10/2/2006	10/2/2006	10/10/2006	10/12/2006	10/13/2006	10/13/2006	10/23/2006	2/16/2007	2/20/2007	2/22/2007	4/11/2008	5/16/2008	5/19/2008	5/20/2008
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB091506	FB092806	FB100206	FB100206	FB101006	FB101206	FB101306	FB101306	FB102306	FB021607	TB022007	FB022207	FB 041108	FB051608	FB051908	FB-05-20-08
	Sample Depth (ft bls):	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Sample Date	9/15/2006	9/28/2006	10/2/2006	10/2/2006	10/10/2006	10/12/2006	10/13/2006	10/13/2006	10/23/2006	2/16/2007	2/20/2007	2/22/2007	4/11/2008	5/16/2008	5/19/2008	5/20/2008
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Unknown Cycloalkane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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UnknownFreon		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Hydrocarbon		--	--	--	--	--	--	--	--	--	--	--	--	8 J	--	--	--
Unknown Hydrocarbon		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Silanol		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB060308	FB061809	FB061909	FB062209	FB062309
	Sample Depth (ft bls):	--	--	--	--	--
	Sample Date	6/3/2008	6/18/2009	6/19/2009	6/22/2009	6/23/2009
1,1,1,2-Tetrafluoroethane		--	--	--	7 JN	--
1-Butene		--	--	--	--	--
1-Pentene		--	--	--	--	--
2-Butene		--	--	--	--	--
2-Ethyl- 1-Hexanol		--	--	--	--	--
2-Methyl-1-Propene		30 JN	--	--	--	--
Acetaldehyde		--	--	--	--	--
Acetaldehyde		--	--	--	--	--
Cyclopropane, ethyl-		--	--	--	--	--
Cyclotrisiloxane, hexamethyl-		--	--	--	--	--
Decane		--	--	--	--	--
Diisopropylether		--	--	--	--	--
Eicosane		--	--	--	--	--
Ethyl Acetate		--	--	--	--	--
Hexanal		--	--	--	--	--
Isobutane		--	--	--	--	--
Methyl acetate		--	--	--	--	--
Methyl tert-Butyl Ether		--	--	--	--	--
Pentanal		--	--	--	--	--
Pentane		--	--	--	--	--
Propane, 2-methoxy-2-methyl-		--	--	--	--	--
Propene		--	--	--	--	--
Propene		--	--	--	--	--
Propene		--	--	--	--	--
Silanol, trimethyl-		--	--	--	--	--
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Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB060308	FB061809	FB061909	FB062209	FB062309
	Sample Depth (ft bls):	--	--	--	--	--
	Sample Date	6/3/2008	6/18/2009	6/19/2009	6/22/2009	6/23/2009
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Unknown	Aliphatic Hydrocarbon	--	--	--	--	--
Unknown	Aliphatic Hydrocarbon	--	--	--	--	--
Unknown	Aliphatic Hydrocarbon	--	--	--	--	--
Unknown	Aliphatic Hydrocarbon	--	--	--	--	--
Unknown	Alkane	--	--	--	--	--
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB060308	FB061809	FB061909	FB062209	FB062309
	Sample Depth (ft bls):	--	--	--	--	--
	Sample Date	6/3/2008	6/18/2009	6/19/2009	6/22/2009	6/23/2009
Unknown Alkane		--	--	--	--	--
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Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

TIC ID (ug/L)	Samplie ID:	FB060308	FB061809	FB061909	FB062209	FB062309
	Sample Depth (ft bls):	--	--	--	--	--
	Sample Date	6/3/2008	6/18/2009	6/19/2009	6/22/2009	6/23/2009
Unknown Alkane		--	--	--	--	--
Unknown Alkane		--	--	--	--	--
Unknown Alkane		--	--	--	--	--
Unknown Alkane		--	--	--	--	--
Unknown Cycloalkane		--	--	--	--	--
Unknown Cycloalkane		--	--	--	--	--
Unknown Cycloalkane		--	--	--	--	--
Unknown Cycloalkane		--	--	--	--	--
UnknownFreon		--	12 J	10 J	--	--
Unknown Hydrocarbon		--	--	--	--	--
Unknown Hydrocarbon		--	--	--	--	--
Unknown Silanol		--	--	--	--	--

Notes and abbreviations on last page.

Table 9. Concentrations of Tentatively Identified Compounds in Study Area Vertical Profile Borings, Monitoring Wells, and QA/QC Samples, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. TICs are generated after analytical results (chemical spectra) are compared to a library of spectra and there is not a clear match between the two. If there is a partial match, the chemical spectra may be assigned to a group and it is referred to as an unknown with the group (i.e., Unknown alkane), but no CAS number is assigned. If a group cannot be determined, it is given the name Unknown with no CAS number. There are different Unknowns listed per sample because the spectra peak for the result comes out at a different retention time indicating that different compounds were detected.

TIC	Tentatively identified compound
ID	Identification
ft bls	Feet below land surface
VP	Vertical profile boring
FB	Field blank
TB	Trip Blank
MW	Monitoring Well
DL	TICs present in the diluted run of the sample
RE	TICs present in a re-run of the sample
J	Value is estimated
NJ	Presumptive evidence indicates the constituent is present and the value is estimated
NJD	Presumptive evidence indicates the constituent is present and the value is estimated at a secondary dilution
--	Parameter not detected/Not Applicable

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Table 10. Concentrations of Detected Volatile Organic Compounds in Untreated Groundwater Samples Collected from Bethpage Water District Public Supply Wells, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.[1]

CONSTITUENT (ug/L)		NYSDEC SCGs	Nassau County Well ID: N-6915 Water District Plant: 4 Local Well Number: 4-1 Sample Date: 3/25/2009	N-6916 4 4-2 3/25/2009	N-8004[2] 5 5-1 1/1/2007	N-3876 6 6-1 8/25/2009	N-8941 6 6-2 9/3/2009
1,1,1-Trichloroethane		5	**2.8**	**1.1**	ND	ND	ND
1,1-Dichloroethane		5	**7.3**	**3**	ND	ND	ND
1,1-Dichloroethene		5	**2.9**	**1.1**	ND	**0.6**	ND
1,2-Dichloroethane		0.6	**2**	**1.3**	ND	ND	ND
Chloroform		7	**1.6**	**3.3**	ND	ND	ND
cis-1,2-dichloroethene		5	**10.9**	**11.5**	ND	**1.3**	ND
Tetrachloroethene		5	ND	**1**	ND	**8.1**	ND
Trichloroethylene		5	**57**	**55.2**	**0.6**	**110 D**	**239 D**
TVOC			**84.5**	**77.5**	**0.6**	**120**	**239**

Notes and Abbreviations:

(1) Results provided by the Bethpage Water District.

(2) Results provided for N-8004 are the maximum results reported for the 2007 year.

SCGs Standard, criteria, and guidance values
ug/L Micrograms per liter
TVOC Total volatile organic compounds
D Value from a secondary dilution

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Table 11. Summary of Chemical Properties for Study Area Constituents of Concern,
Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Constituent	Henry's Law Constant (atm-m^3/mol)	Vapor Pressure (mm Hg)	Log K_{ow}	Log K_{oc}	Water Solubility (mg/L)
VOLATILE ORGANIC COMPOUNDS					
Chlorinated Ethenes/Ethanes					
1,1,1-Trichloroethane	1.70E-02 (a)	1.24E+02 (b)	2.49E+00 (b)	1.69E+00 (a)	4.40E+03 (b)
1,1-Dichloroethene	2.61E-02 (b)	6.00E+02 (b)	2.13E+00 (b)	1.81E+00 (b)	2.42E+03 (b)
1,2-Dichloroethane	1.18E-03 (b)	7.89E+01 (b)	1.48E+00 (b)	1.52E+00 (b)	8.60E+03 (b)
1-1 Dichloroethane	5.82E-03 (c)	2.34E+02 (c)	1.79E+00 (d)	1.48E+00 (c)	5.06E+03 (c)
Chloroform	3.20E-03 (c)	1.98E+02 (c)	1.97E+00 (d)	1.64E+00 (c)	9.30E+03 (c)
cis-1,2-Dichloroethene	4.10E-03 (b)	2.00E+02 (b)	1.86E+00 (b)	2.40E+00 (b)	6.41E+03 (b)
Tetrachloroethene	1.53E-02 (c)	2.00E+01 (c)	2.59E+00 (d)	2.42E+00 (c)	1.50E+02 (c)
trans-1,2-Dichloroethene	6.74E-03 (c)	4.10E+02 (c)	4.77E-01 (d)	1.77E+00 (c)	6.30E+03 (c)
Trichloroethene	9.10E-03 (c)	7.26E-01 (c)	2.38E+00 (d)	1.81E+00 (c)	1.10E+03 (c)
Vinyl Chloride	2.78E-02 (b)	2.98E+03 (b)	1.62E+00 (a)	1.76E+00 (b)	2.70E+03 (b)
Chlorofluorocarbons					
Freon 113	2.15E+01 (b)	3.63E+02 (b)	3.16E+02 (b)	3.16E+02	1.70E+02 (b)
Aromatic Hydrocarbons					
Toluene	6.74E-03 (c)	2.20E+01 (c)	2.13E+00 (c)	2.06E+00 (c)	4.90E+02 (c)

Abbreviations

atm-m^3/mol	Atmosphere meter cubed per mole
mm Hg	Millimeters of Mercury
mg/L	Milligrams per Liter
Log K_{ow}	Logarithm of n-Octanol-water partition coefficient
Log K_{oc}	Logarithm of Organic Cabon partition (or sorption) coefficient

Sources:
(a) Risk Assessment Information System (RAIS). Available at http://rais.ornl.gov.
(b) Hazardous Substances Databank
(c) Suthersan, 1997
(d) Nyer, 1992

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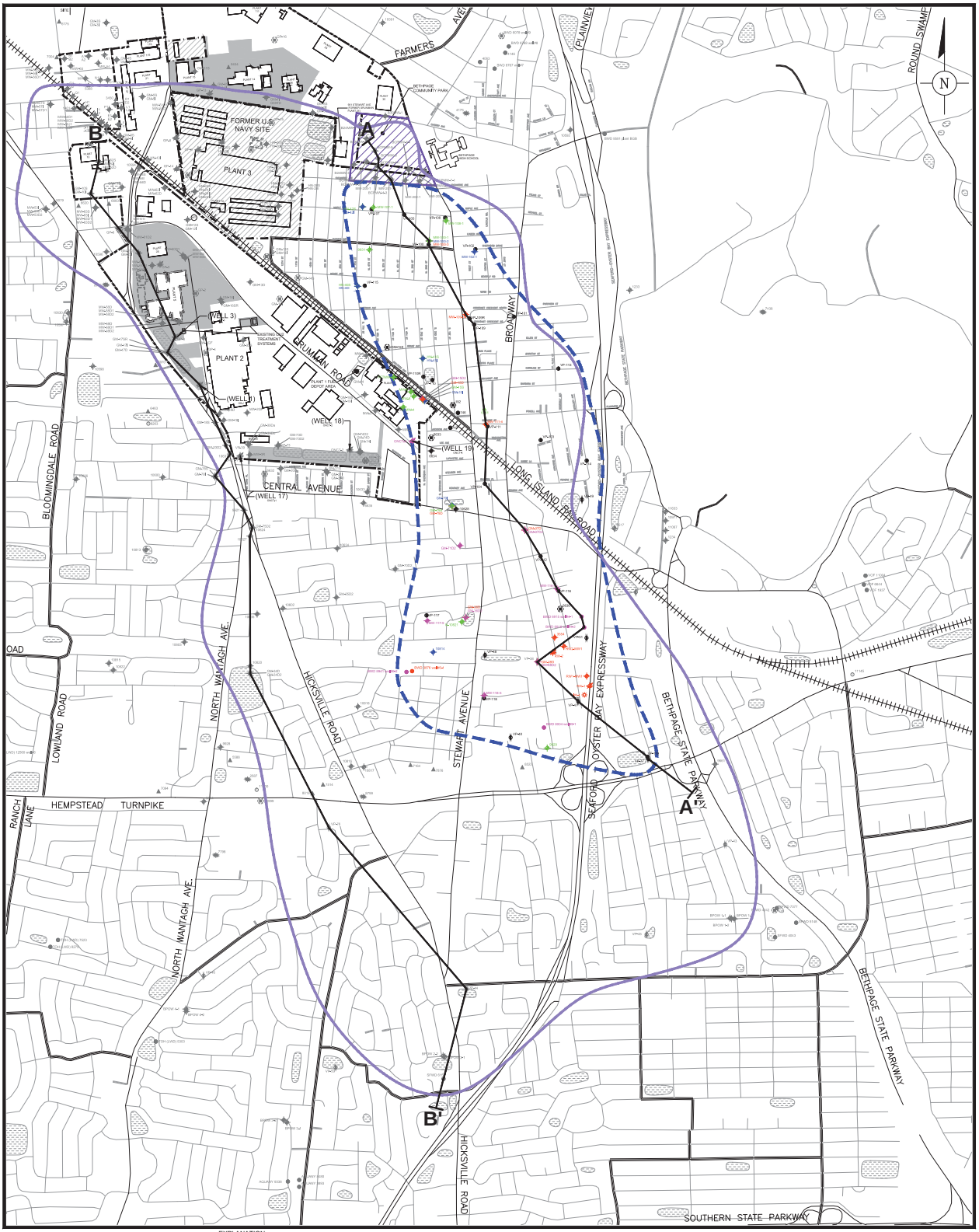


EXPLANATION:

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE PROPERTY
- PROPERTY BOUNDARY OF THE FORMER U.S. NAVY PROPERTY
- PROPERTY BOUNDARY OF THE FORMER OCC PROPERTY
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY
- DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- A — A' LINE OF SECTION
- SITE AREA
- STUDY AREA LIMIT (APPROXIMATE)
- APPROXIMATE LIMIT OF REGIONAL AREA OF VOC-IMPACTED GROUNDWATER
- MICROGRAMS PER LITER

- OBSERVATION, MONITORING WELL
- INDUSTRIAL WELL
- PUBLIC SUPPLY WELL
- IRRIGATION WELL
- INJECTION WELL
- NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
- OU2 VERTICAL PROFILE BORING
- OU3 VERTICAL PROFILE BORING
- ABANDONED WELL

DESIGNATION OF HYDROGEOLOGIC ZONE FOR MONITORING WELL SCREENED INTERVALS (ARCADIS 2003)

- SHALLOW
- INTERMEDIATE
- DEEP
- DEEP2

NOTES:

1. VERTICAL PROFILE BORING LOCATIONS BASED ON FIELD MEASUREMENTS.
2. HYDROGEOLOGIC ZONE BASED ON MODEL LAYER ELEVATIONS PRESENTED IN COMPREHENSIVE GROUNDWATER MODEL (ARCADIS 2003).

0 800' 1600'
SCALE IN FEET

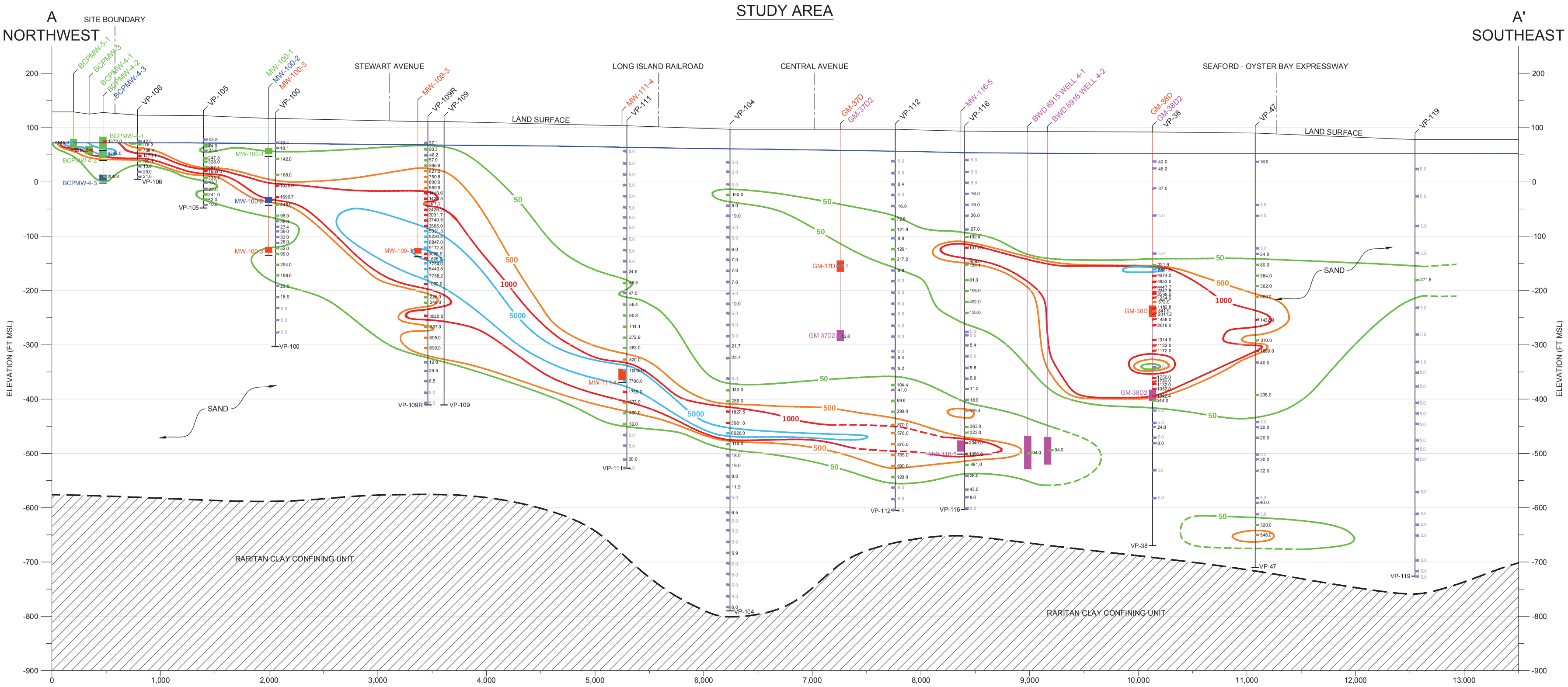
ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

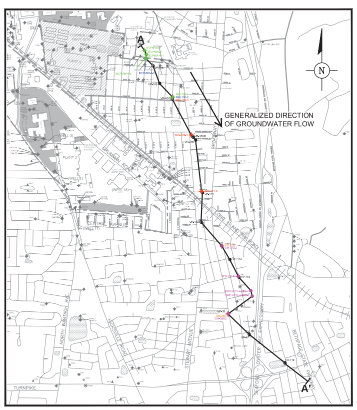
NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

STUDY AREA SHOWING WELL AND VERTICAL PROFILE BORING LOCATIONS AND LINES OF SECTION

ARCADIS

FIGURE 1





PLAN VIEW SHOWING LINE OF SECTION A-A'

0 2000' 4000'
SCALE IN FEET

EXPLANATION

- OBSERVATION, MONITORING WELL
- PUBLIC SUPPLY WELL
- OU2 VERTICAL PROFILE BORING
- OU3 VERTICAL PROFILE BORING
- A ⊢⊣ A' LINE OF SECTION

DESIGNATION OF HYDROGEOLOGIC ZONE FOR MONITORING WELL SCREENED INTERVALS (ARCADIS 2003)

- SHALLOW
- INTERMEDIATE
- DEEP
- DEEP2

TVOC CONTOURS

- 50
- 500
- 1000
- 5000

VERTICAL PROFILE DESIGNATION

WELL DESIGNATION

LAND SURFACE (APPROXIMATE)

ESTIMATED WATER-LEVEL ELEVATION (FT MSL)

WELL SCREENED INTERVAL

OBTAINED FROM VPB HYDROPUNCH SAMPLES. THE 5.0 VALUE WHERE SHOWN WITH PURPLE HASH MARK REPRESENTS A AT INDICATED SAMPLE COLLECTION DEPTH. SHOWN WITH PURPLE HASH MARK AT SAMPLE COLLECTION DEPTH

END OF BORING

RARITAN CLAY CONFINING UNIT (TOP ELEVATION IS ESTIMATED)

FT	FEET
MSL	MEAN SEA LEVEL
TVOC	TOTAL VOLATILE ORGANIC COMPOUND

NOTES:

1. HYDROGEOLOGIC ZONE BASED ON MODEL LAYER ELEVATIONS PRESENTED IN COMPREHENSIVE GROUNDWATER MODEL (ARCADIS 2003).
2. VERTICAL PROFILE BORING LOCATIONS ARE BASED ON FIELD MEASUREMENTS.
3. MONITORING WELLS SURVEYED TO NAD 1983.
4. LAND SURFACE ESTIMATED FROM USGS QUADRANGLES (AMITYVILLE, HUNTINGTON, FREEPORT, AND HICKSVILLE)
5. THE GEOLOGICAL TERM "SAND" REFERENCED ABOVE IS DEFINED IN DETAIL IN THE STUDY AREA REMEDIAL INVESTIGATION REPORT. LOCALIZED LENSES OF LOWER PERMEABILITY NOT SHOWN. REFER TO STUDY AREA REMEDIAL INVESTIGATION REPORT FOR THIS INFORMATION (ARCADIS 2009).

NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

CONCENTRATIONS OF TVOCs IN GROUNDWATER (CROSS SECTION A-A')

ARCADIS

FIGURE 2

ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

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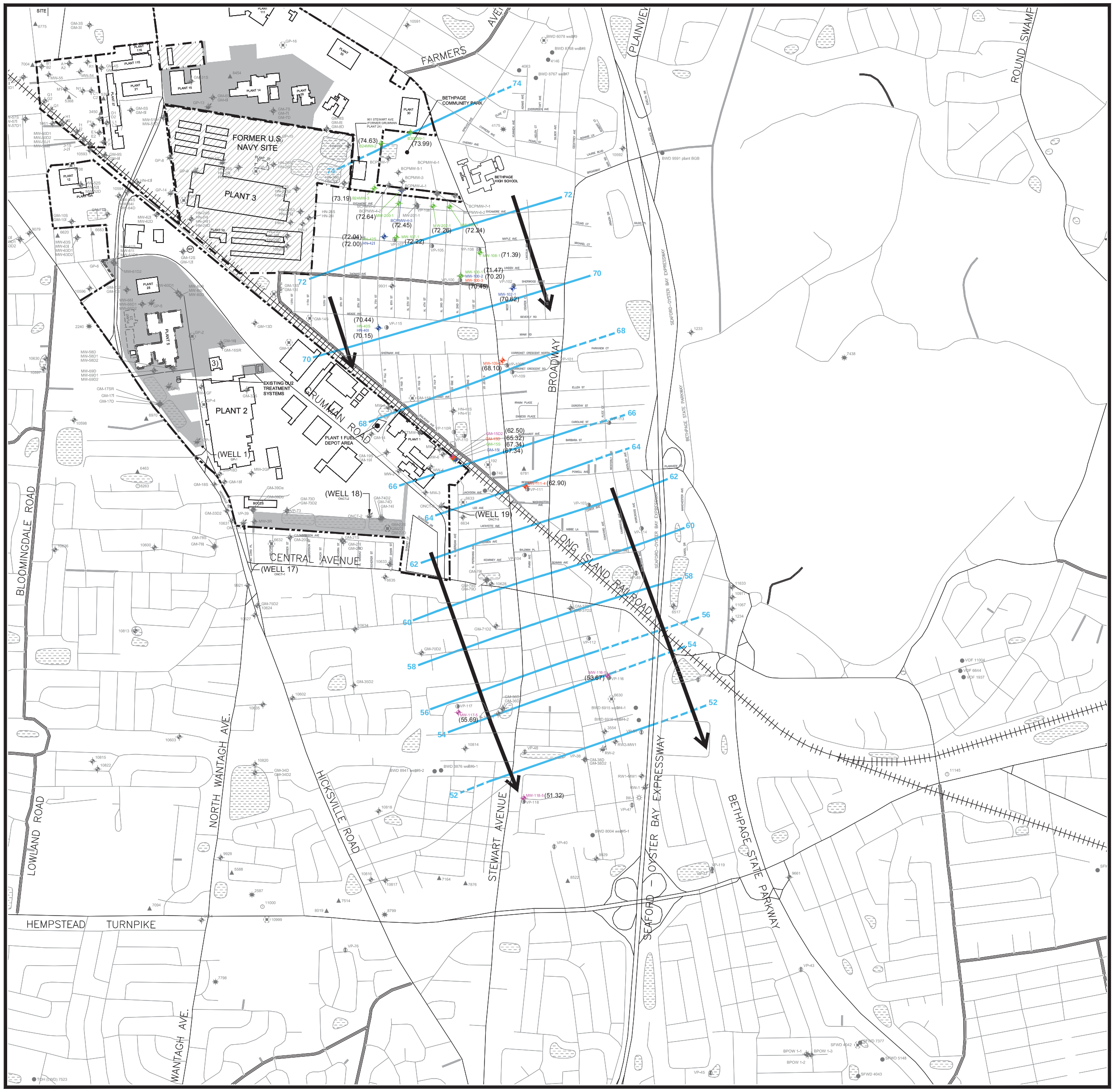

EXPLANATION:

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE PROPERTY
- PROPERTY BOUNDARY OF THE FORMER U.S. NAVY PROPERTY
- PROPERTY BOUNDARY OF THE FORMER OCC PROPERTY
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY
- DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- OBSERVATION, MONITORING WELL
- INDUSTRIAL WELL
- PUBLIC SUPPLY WELL
- IRRIGATION WELL
- INJECTION WELL
- NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
- OU2 VERTICAL PROFILE BORING
- OU3 VERTICAL PROFILE BORING
- ABANDONED WELL
- BWD BETHPAGE WATER DISTRICT
- VPB VERTICAL PROFILE BORING
- RI REMEDIAL INVESTIGATION
- OU2 OPERABLE UNIT 2
- OU3 OPERABLE UNIT 3
- 66 LINE OF EQUAL POTENTIOMETRIC SURFACE ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (DASHED WHERE INFERRED)
- HORIZONTAL COMPONENT OF GROUNDWATER FLOW

DESIGNATION OF HYDROGEOLOGIC ZONE FOR MONITORING WELL SCREENED INTERVALS (ARCADIS 2003):

- SHALLOW
- INTERMEDIATE
- DEEP
- DEEP2

NOTES:

1. HYDROGEOLOGIC ZONE BASED ON MODEL LAYER ELEVATIONS PRESENTED IN COMPREHENSIVE GROUNDWATER MODEL (ARCADIS 2003).
2. WELL CLUSTERS, SHALLOWEST WATER ELEVATIONS USED. DEEPER WELLS IN CLUSTERS ARE USED TO GUIDE CONTOURS BUT WERE NOT EXCLUSIVELY RELIED ON.

0 800' 1600'
SCALE IN FEET

ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

POTENTIOMETRIC SURFACE AND GROUNDWATER FLOW DIRECTION
JULY 2009

ARCADIS

FIGURE
3

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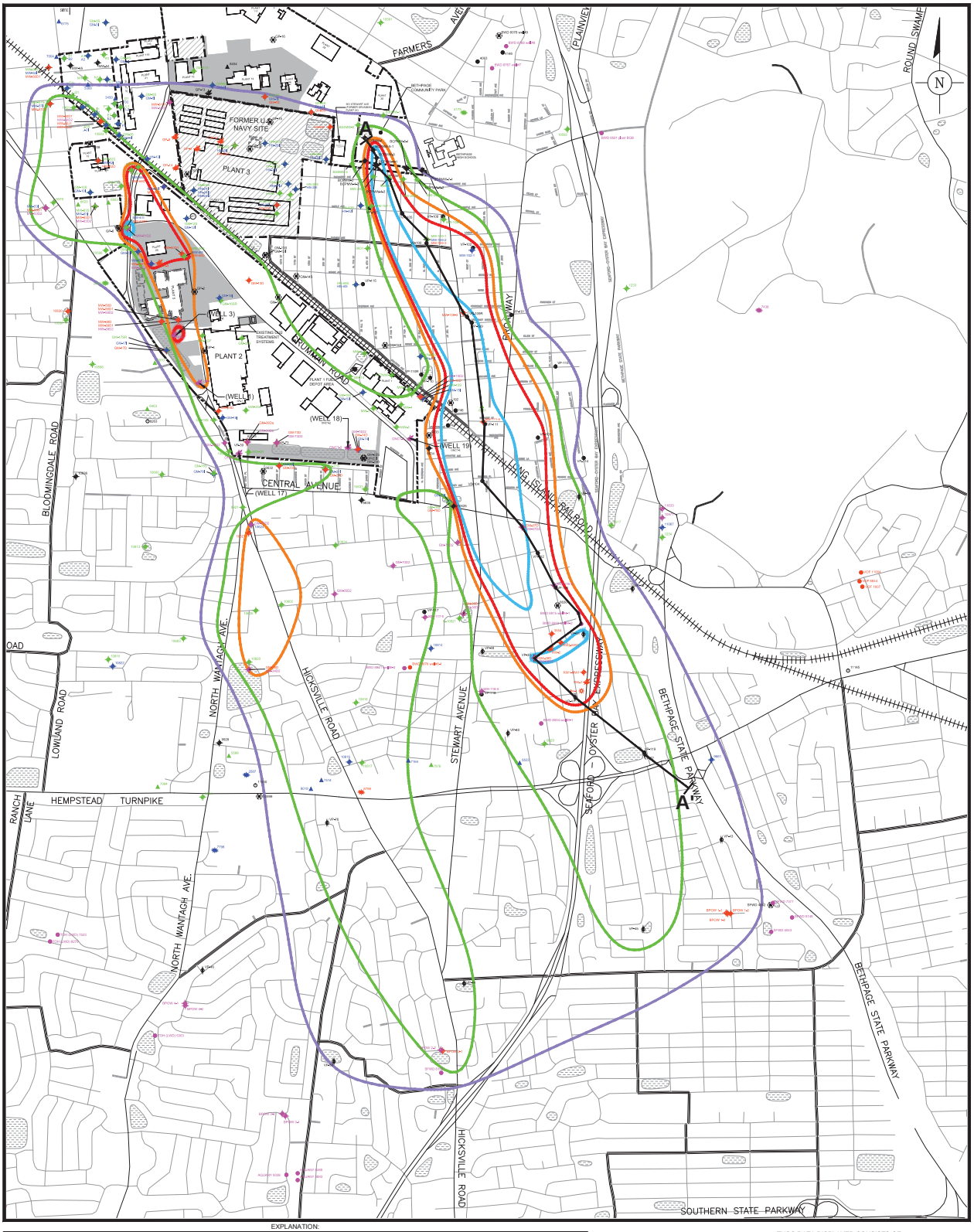


EXPLANATION:

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE PROPERTY
- PROPERTY BOUNDARY OF THE FORMER U.S. NAVY PROPERTY
- PROPERTY BOUNDARY OF THE FORMER OCC PROPERTY
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY
- DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- A — A' LINE OF TVOC CROSS-SECTION
- OBSERVATION, MONITORING WELL
- INDUSTRIAL WELL
- PUBLIC SUPPLY WELL
- IRRIGATION WELL
- INJECTION WELL
- NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
- OU2 VERTICAL PROFILE BORING
- OU3 VERTICAL PROFILE BORING
- ABANDONED WELL

TVOC TOTAL VOLATILE ORGANIC COMPOUND
MICROGRAMS PER LITER
VPB VERTICAL PROFILE BORING
BPOW BETHPAGE OUTPOST WELL
RW REMEDIAL WELL
BWD BETHPAGE WATER DISTRICT
SFWD SOUTH FARMINGDALE WATER DISTRICT
VOF VILLAGE OF FARMINGDALE
TOH (LWD) TOWN OF HEMPSTEAD (LEVITTOWN WATER DISTRICT)

DEFINITIONS OF TVOC CONCENTRATION CONTOURS IN GROUNDWATER

5
50
500
1000
5000

0 800' 1600'
SCALE IN FEET

TVOC DATA DISPLAYED CONSISTS OF:

- AVERAGE OF MONITORING WELL AND PUBLIC SUPPLY WELL DATA FROM 2004 THROUGH 2007
- NORTHROP GRUMMAN AND NAVY VERTICAL PROFILE BORING INFORMATION

NOTE:

1. VPB LOCATIONS BASED ON FIELD MEASURMENTS.

ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

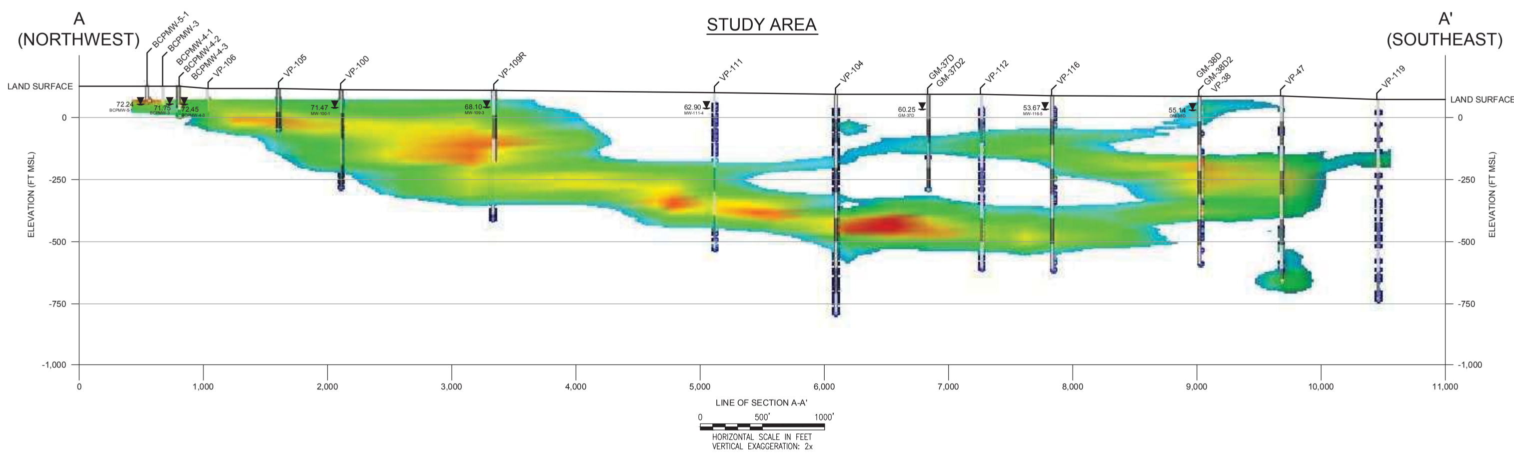
NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

CONCENTRATIONS OF TVOCs IN REGIONAL AREA GROUNDWATER - PLAN VIEW

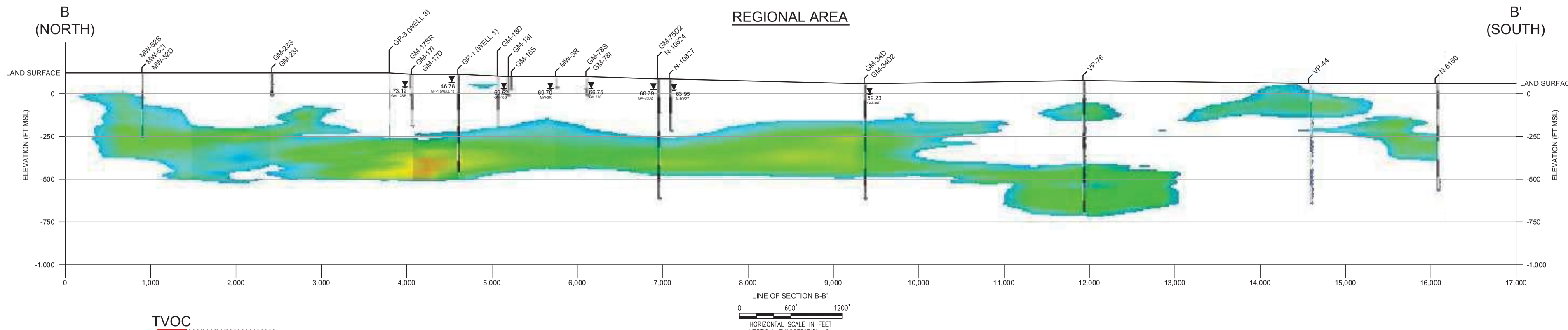
ARCADIS

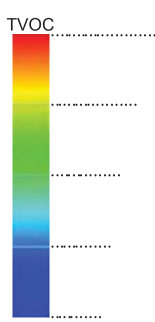
FIGURE 4

STUDY AREA



REGIONAL AREA





NOTES:

1. CROSS SECTION BASED ON A PROJECTED VIEW OF SECTION LINES A-A' AND B-B' SHOWN ON FIGURE 1.
2. TVOC PLUME GENERATED IN "EVS".
3. VPB LOCATIONS ARE ESTIMATED.
4. MONITORING WELL SURVEYED TO NAD 83.
5. WATER-LEVEL ELEVATIONS FROM SHALLOW WELLS ESTIMATED BASED ON MOST RECENT ROUNDS OF WATER LEVEL MEASUREMENTS FOR THAT WELL.
6. LAND SURFACE ELEVATION IS APPROXIMATE.

DEFINITIONS:

TVOC	TOTAL VOLATILE ORGANIC COMPOUND
······	MICROGRAMS PER LITER
FT MSL	FEET RELATIVE TO MEAN SEA LEVEL
VPB	VERTICAL PROFILE BORING
EVS	ENVIRONMENTAL VISUALIZATION SYSTEM
72.24 ▼	WATER-LEVEL ELEVATION (FT MSL)

DATA DISPLAYED CONSISTS OF:

- AVERAGE OF MONITORING WELL AND PUBLIC SUPPLY WELL DATA FROM 2004 THROUGH 2007
- NORTHROP GRUMMAN AND NAVY VERTICAL PROFILE BORING INFORMATION

NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

CROSS SECTIONS A-A' AND B-B' SHOWING TVOC CONCENTRATIONS GREATER THAN 5μg/L

ARCADIS

FIGURE
5

CITY:Melville-NY DIV/GROUP:SER1 DB:A.Sanchez LD:AS PIC: PM:C.S.Giovanni TM:M.Reindl LYR:(Opt)ON=*;OFF=*REF*
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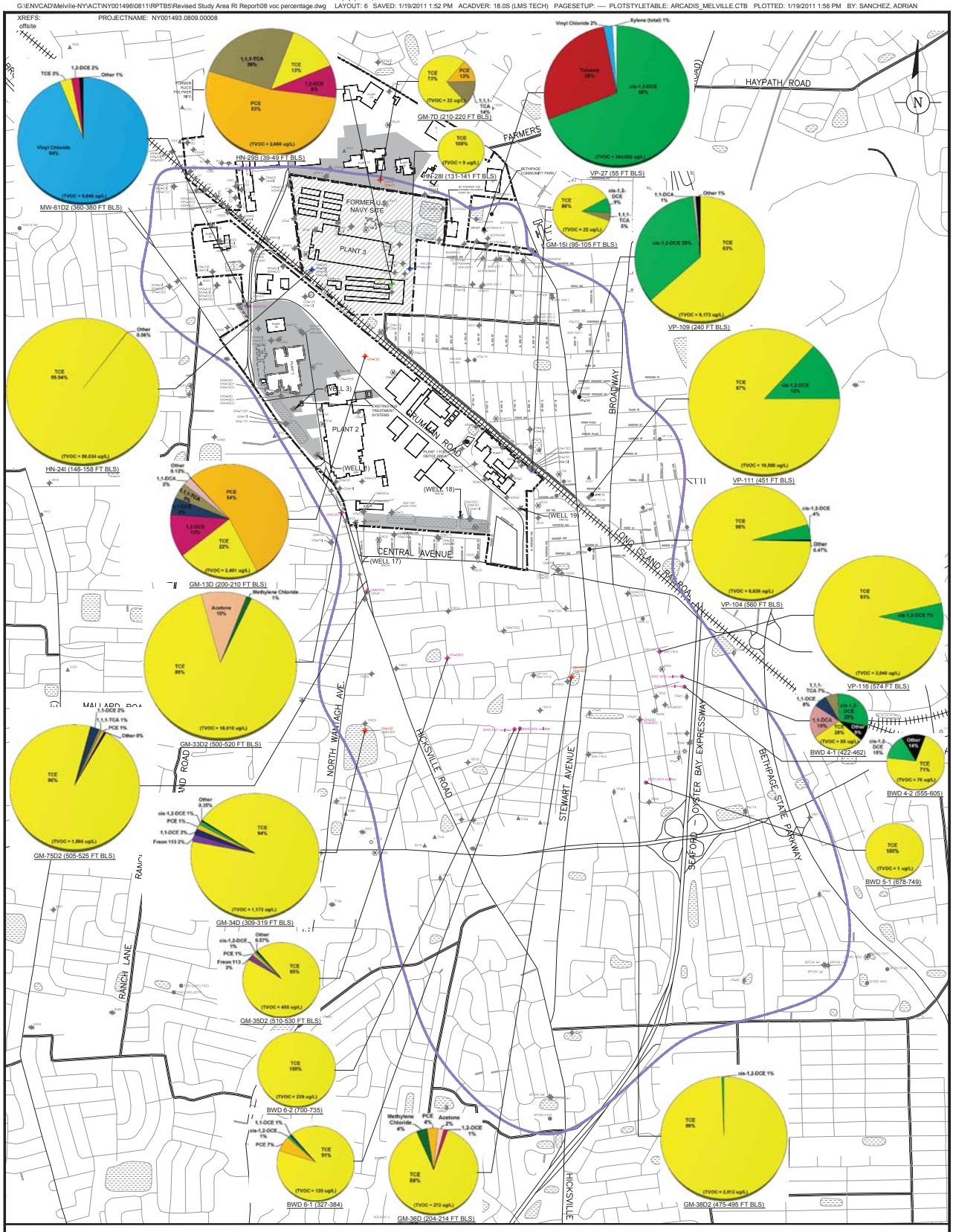


EXPLANATION:

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE PROPERTY
- PROPERTY BOUNDARY OF THE FORMER U.S. NAVY PROPERTY
- PROPERTY BOUNDARY OF THE FORMER OCC PROPERTY
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY
- DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- APPROXIMATE LIMIT OF REGIONAL AREA OF VOC-IMPACTED GROUNDWATER
- OBSERVATION / MONITORING WELL
- INDUSTRIAL WELL
- PUBLIC SUPPLY WELL
- IRRIGATION WELL
- INJECTION WELL
- NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
- OU2 VERTICAL PROFILE BORING
- OU3 VERTICAL PROFILE BORING
- ABANDONED WELL

MICROGRAMS PER LITER
TVOC TOTAL VOLATILE ORGANIC COMPOUNDS
FT BLS FEET BELOW LAND SURFACE
BWD BETHPAGE WATER DISTRICT

DESIGNATION OF HYDROGEOLOGIC ZONE FOR MONITORING WELL SCREENED INTERVALS (ARCADIS 2003)
SHALLOW DEEP
INTERMEDIATE DEEP2

NOTES:

1. CONCENTRATION SHOWN REPRESENTS THE HIGHEST TVOC CONCENTRATION FOR THE VERTICAL PROFILE BORING OR FOR THE PERIOD OF RECORD FOR THE WELL.
2. "OTHER" CONSISTS OF COMPILATION OF COMPOUNDS DETECTED, BUT AT LOWER CONCENTRATIONS THAN THOSE INDICATED ON THE CHART AND USUALLY IS COMPRISED OF; 1,1-DICHLOROETHANE, 1,1-DICHLOROETHENE, 1,1,1-TETRACHLOROETHANE, 1,2-DICHLOROETHANE, CHLOROFORM, AND TETRACHLOROETHENE.
   THE FOLLOWING WELLS EXHIBITED DETECTIONS OF ONE OR MORE OF THE ABOVE VOCs, PLUS ADDITIONAL VOCs, AS DESCRIBED BELOW:
   - GM-34D : FREON 12 AND FREON 22
   - GM-35D2 : CARBON TETRACHLORIDE
   - GM-75D2 : CIS-1,2-DICHLOROETHENE
   - HN-24I : CARBON TETRACHLORIDE, TOLUENE
   - MW-61D2 : BENZENE
   - VP-104 : 1,1,2-TRICHLOROETHANE
   - VP-109 : 1,2-DICHLOROETHENE, 4-METHLY-2-PENTANONE, TRANS-1,2-DICHLOROETHENE, VINYL CHLORIDE

0 800' 1600'
SCALE IN FEET

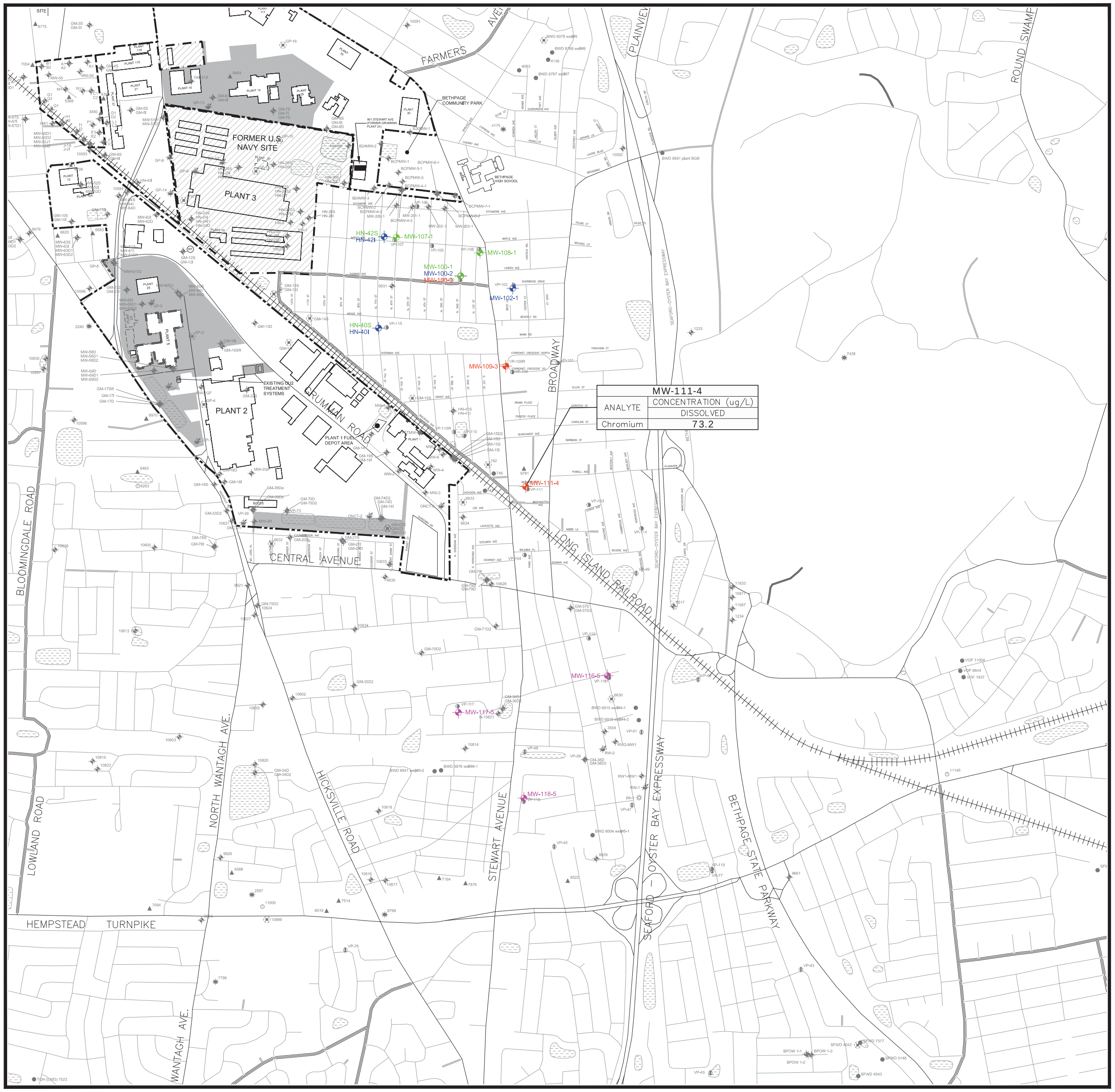
ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

PERCENTAGE OF VOCs IN SELECT VERTICAL PROFILE BORINGS AND WELLS

ARCADIS

FIGURE 6



EXPLANATION:

— · · —	PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
— · —	PROPERTY BOUNDARY OF FORMER U.S. NAVY SITE
— — —	PROPERTY BOUNDARY OF THE FORM OCC PROPERTY
++++++	LONG ISLAND RAILROAD
	DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2003)
	DENOTES FORMER U.S. NAVY OWNED PROPERTY
	RECHARGE BASIN
	OBSERVATION, MONITORING WELL
	INDUSTRIAL WELL
	PUBLIC SUPPLY WELL
	IRRIGATION WELL
	INJECTION WELL
	NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
	OU2 VERTICAL PROFILE BORING
	OU3 VERTICAL PROFILE BORING
	ABANDONED WELL
BWD	BETHPAGE WATER DISTRICT
VPB	VERTICAL PROFILE BORING
RI	REMEDIAL INVESTIGATION
OU2	OPERABLE UNIT 2
OU3	OPERABLE UNIT 3
······	MICROGRAMS PER LITER

DESIGNATION OF HYDROGEOLOGIC ZONE FOR MONITORING WELL SCREENED INTERVALS (ARCADIS 2003)

- SHALLOW
- INTERMEDIATE
- DEEP
- DEEP2

0 800' 1600'
SCALE IN FEET

ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983

NORTHROP GRUMMAN SYSTEMS CORPORATION
OPERABLE UNIT 3
(FORMER GRUMMAN SETTLING PONDS)
BETHPAGE, NEW YORK

CHROMIUM (Cr) EXCEEDANCE IN GROUNDWATER

ARCADIS

FIGURE 7

CITY:Melville-NY DIV/GROUP:SER1 DB:A.Sanchez LD: PIC: PM:C.S.Giovanni TM:S.Stern LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\ACT\NY001496\0811\RPTBS\Revised Study Area RI Report\07 conc data in gw.dwg LAYOUT: 7 SAVED: 10/22/2009 10:19 AM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 1/19/2011 11:19 AM BY: SANCHEZ, ADRIAN
XREFS: PROJECTNAME: ----
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