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Infrastructure, environment, buildings

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Transmittal Letter

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First Quarter 2006 Groundwater Monitoring Report

Operable Unit 2
Northrop Grumman Systems Corporation, Bethpage, New York
NYSDEC Site #1-30-003A

Imagine the result

ARCADIS

David E. Stern
Senior Hydrogeologist

Carlo San Giovanni
Project Manager

Michael F. Wolfert
Hydrogeologist/Project Director

First Quarter 2006
Groundwater Monitoring
Report

Operable Unit 2
Northrop Grumman Systems
Corporation, Bethpage, New
York NYSDEC Site #1-30-
003A

Prepared for:
Northrop Grumman Systems Corporation

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Our Ref.:
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Date:
September 8, 2006

Tables

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1. Introduction

This groundwater monitoring report was prepared to document the operation, maintenance, and monitoring (OM&M) activities for the Operable Unit 2 (OU2) groundwater remedy at the Northrop Grumman Corporation (NGC) Bethpage, New York facility. These activities are currently being conducted by NGC, in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved OU2 Groundwater Monitoring Plan (ARCADIS Geraghty & Miller, Inc. 2001), as modified in June 2004 (ARCADIS G&M Inc. 2004) and the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M Inc. 2003a) to meet the remedial objectives set forth in the March 2001 OU2 Record of Decision (ROD) (NYSDEC 2001).

This report describes the operational (remedial well/treatment system performance) and effectiveness (hydraulic and groundwater quality) monitoring of the on-site portion of the OU2 groundwater remedy for the period from December 29, 2005 through March 29, 2006, which is referred to in this report as the First Quarter 2006 report period. The Annual Report, which is issued after the completion of each calendar year, includes an evaluation of long-term data trends. The contents of the OM&M reports, as well as the findings and conclusions made, will continue to be re-evaluated in future reports as additional data become available.

2. Monitoring Program

The results obtained from monitoring activities conducted for this report period are provided in Tables 1 through 13 and are described and discussed in the following sections of this report: Remedial System Operational Monitoring (Section 3), Groundwater Flow (Section 4), and Groundwater Quality (Section 5).

Except as described on Tables 1 through 13 and in Sections 3, 4, and 5 of this report, the procedures, methodologies, and monitoring network utilized for the subject report period are consistent with procedures and methodologies used previously (as described in ARCADIS G&M, Inc. 2003b) and the NYSDEC-approved OU2 Groundwater Monitoring Plan (ARCADIS Geraghty & Miller, Inc. 2001; ARCADIS G&M, Inc. 2004). The complete description of the procedures to collect groundwater samples from outpost wells and evaluate and document the results is provided in the PWSCP (ARCADIS G&M, Inc. 2003b). Remedial system operational monitoring is currently being performed on a voluntary basis.

The locations of the NGC site, the OU2 groundwater remedy, the neighboring properties (i.e., the Naval Weapons Industrial Reserve Plant [NWIRP] and Occidental Chemical Corporation [OCC]/RUCO Polymer Corporation sites), and existing wells utilized in the monitoring programs are shown on Figure 1. This report also includes the following appendices: Appendix A (water-level measurement logs); Appendix B (groundwater sampling logs); and Appendix C (chain-of-custody records).

3. Remedial System Operational Monitoring

This section of the report summarizes the routine operational monitoring tasks conducted during the First Quarter 2006 for the on-site portion of the OU2 groundwater remedy, which included the following: (1) treatment system effluent water quality monitoring, remedial well water quality monitoring, treatment systems efficiency monitoring and determination of volatile organic compound (VOC) mass removal from the aquifer, and (2) monitoring of remedial well pumpage and treatment systems treated effluent discharge to on-site recharge basins.

Also summarized in this section are the remedial system/well troubleshooting and non-routine maintenance activities performed by ARCADIS and NGC during the First Quarter 2006.

3.1 Water Quality, Treatment Efficiencies, and Mass Removal

Tables 1 and 9 provide the total VOC (TVOC) concentrations detected in the OU2 remedial wells. Table 1 provides TVOC concentrations and TVOC mass removed by the remedial wells, and treatment efficiencies for the Tower 96 (previously referred to as GP-1) and Tower 102 (previously referred to as ONCT) remedial treatment system air strippers. Updated remedial well/treatment system nomenclature is provided in the 2005 Annual Report (ARCADIS G&M, Inc. 2006).

TVOC concentrations from the remedial wells ranged from 147.4 micrograms per liter (µg/L) (in Well 19) to 4,919 µg/L (in Well 3). A total of approximately 4,520 pounds of VOCs were removed from the aquifer by the remedial wells during the First Quarter 2006.

NGC's State Pollutant Discharge Elimination System (SPDES) discharge monitoring results (Permit No. NY0096792) are used as the final treated water quality in calculating remedial system treatment efficiency and documenting the quality of water returned to the aquifer. SPDES discharge monitoring data are documented on a

monthly basis by NGC to NYSDEC under separate cover in Discharge Monitoring Reports (DMRs) (Northrop Grumman Corporation 2006a; 2006b; and 2006c) and the average VOC concentration entering the two site outfalls this period are provided in Table 1. NGC Outfalls 005 and 006 represent the termini of the Tower 96 and Tower 102 system effluent water (i.e., inlets to the West Recharge Basins and South Recharge Basins) respectively. Based on the ratio of influent VOC concentrations to the average quarterly VOC concentrations in SPDES discharge monitoring, the efficiencies of the Tower 96 and Tower 102 systems for the First Quarter 2006 are calculated to be 99.9 percent and greater than 99.9 percent, respectively (Table 1).

3.2 Remedial System Pumpage and Discharge

Table 1 summarizes the remedial well pumpage for the First Quarter 2006 and comparison to design criteria. Remedial Wells 1, 3, 17, 18, and 19 collectively pumped approximately 486 million gallons (MG) of groundwater, which is equivalent to 98 percent of the design pumpage volume of groundwater.

On April 14, 2005, the NYSDEC approved the design pumpage rate for Remedial Well 3 of 700 gallons per minute (gpm). Additionally, the NYSDEC approved the revised design rate for Remedial Well 1 of 800 gpm (NYSDEC 2005; ARCADIS G&M, Inc. 2005). This quarter, NGC completed modifications to the pumps and controls and increased the pumping rate of Well 3 to meet the new design rate.

Based on weekly measurements collected by ARCADIS, the South Recharge Basins collectively received the treated effluent discharge from the Tower 102 remedial system (approximately 2,411 gallons per minute [gpm]), along with incidental stormwater runoff and contribution from Tower 96 remedial system, totaling an additional 397 gpm, for a total of approximately 2,808 gpm discharged this period.

As approved by NYSDEC, a portion of the treated water from the Tower 96 remedial system is provided to the adjacent Calpine Energy facility's new "peaker unit", dependent, on demand, for consumptive use. The demand rate is controlled by a "Cla-Val" located within a new subsurface transmission pipeline between Tower 96 and the Calpine facility. Based on the "peaker unit" activity, the demand rate is expected to fluctuate between 600 and 1,000 gpm. The actual Calpine demand rate for this report period is currently unavailable since the meter is located on Calpine property in a below grade vault; for the purpose of this report, the minimum demand rate of 600 gpm to Calpine has been assumed for calculating the water balance this period (Table 1). NGC is currently pursuing obtaining records of the demand rate from Calpine; these

data will be incorporated into the quarterly reports when they become available. Assuming a Calpine demand rate of 600 gpm, the West Recharge Basins received an average discharge rate from the Tower 96 remedial system of approximately 401 gpm.

3.3 Remedial Wells Specific Capacities

Table 2 summarizes the water-level measurement data, corresponding instantaneous pumping rates, calculated drawdown values, and specific capacities for the remedial wells for the First Quarter 2006. Based on the Well 3 specific capacity and pumping depth to water readings measured this quarter, the increased pumping rate has resulted in a more prominent indication of well inefficiency. Based on the data presented herein, the specific capacities of the measured remedial wells exceeded the minimum values needed to maintain the design pumping rates.

3.4 Troubleshooting and Non-Routine Maintenance

This section describes the troubleshooting/non-routine maintenance activities that occurred in the First Quarter 2006.

Short-term periods of well/system downtime occurred during the First Quarter 2006 (for both the Tower 96 and Tower 102 Systems); these were due to short-term repairs to system components, inspections, and temporary power outages.

4. Groundwater Flow

This report section describes the results of hydraulic monitoring performed during the First Quarter 2006 (i.e., measured on April 20 to 21, 2006). The evaluation of the hydraulic data was performed using methods described in previous quarterly reports.

4.1 Shallow and Intermediate Zones

The water-level measurement data for the First Quarter 2006 are provided in Table 3. Vertical hydraulic gradients calculated for select well pairs and comparison to model-predicted gradients (see Appendix B of the OU2 Feasibility Study; ARCADIS Geraghty & Miller 2000; ARCADIS G&M, 2003c) was performed (Table 4). Figure 2 depicts the water-table configuration and groundwater flow directions in the shallow zone, and Figure 3 depicts the potentiometric surface elevation and groundwater flow directions in the intermediate zone.

Vertical hydraulic gradients in shallow-intermediate well pairs are oriented downward and are close to or greater than model predicted values (Table 4). Figures 2 and 3 show the extent of the mounding of the water table and potentiometric surface in the shallow and intermediate zones, respectively, during the First Quarter 2006. The observed mounding extends around and beneath the South Recharge Basins and across the NGC site southern boundary. The extent of the mounding is consistent with prior rounds and is typical of the conditions that produce a hydraulic barrier to groundwater flow in the shallow and intermediate zones during normal operation of the on-site portion of the OU2 groundwater remedy.

The hydraulic data described above support the conclusion that shallow recharge at the South Recharge Basins is sufficient to maintain the hydraulic barrier to groundwater flow that continues to be effective in achieving the OU2 remedial goal of preventing the off-site migration of VOC-impacted groundwater in the shallow and intermediate zones.

4.2 Deep and D2 Zones

Vertical hydraulic gradients (see Table 4) in intermediate-deep and deep-deep2 (D2) well pairs are oriented downward and are close to or are greater than the model predicted values. These data support the conclusion that groundwater is flowing in a predominantly vertical direction in the deep zone along the NGC site southern boundary.

Figure 4 depicts the potentiometric surface elevation in the D2 zone that illustrates the cumulative capture zone formed by the combined pumpage of the OU2 remedial wells during the First Quarter 2006. The capture zone extends across the entire NGC site southern boundary and approximately 800 ft downgradient of Remedial Well 17.

These data are consistent with previous water-level rounds and support the conclusion that the pumpage of the remedial wells forms a hydraulic barrier to groundwater flow that continues to be effective in preventing the off-site migration of VOC-impacted groundwater in the deep and D2 zones.

4.3 Summary

Based on the data presented above, the combination of shallow recharge at the South Recharge Basins coupled with pumpage of the OU2 remedial wells in the D2 zone forms a hydraulic barrier to groundwater flow that continues to be effective in

achieving the OU2 remedial goal of preventing the off-site migration of VOC-impacted groundwater.

5. Groundwater Quality

This report section describes the analytical results of the various groundwater quality monitoring activities for the First Quarter 2006 that are specified in and required under the NYSDEC-approved Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2001; ARCADIS G&M, Inc. 2004), and the PWSCP (ARCADIS G&M Inc., 2003a). Analytical results are summarized in Tables 5 through 13 and described in the following sections.

5.1 Volatile Organic Compounds

The evaluation of VOC concentrations is presented based on consideration of the following factors: (1) proximity to the hydraulic barrier formed by the on-site portion of the OU2 groundwater remedy (i.e., upgradient, along the NGC site southern boundary, and downgradient of the hydraulic barrier), (2) hydrogeologic zone (i.e., shallow, intermediate, deep, and D2 zones), and (3) NYSDEC Standards, Criteria, and Guidance (SCG) Values. A discussion of the expected effect on groundwater quality from operating the on-site portion of the OU2 groundwater remedy is provided in the 2002 Annual Report (ARCADIS G&M, Inc. 2003b).

A summary of total VOCs detected in the select wells at the NGC site southern perimeter and a comparison to SCGs is provided in Table 5.

5.1.1 Shallow and Intermediate Zones

The First Quarter 2006 groundwater quality analytical results for shallow and intermediate monitoring wells are provided in Tables 6 and 7, respectively. In general, the water quality data from the shallow and intermediate wells sampled this quarter continue to support the interpretation of hydraulic data from the current and previous quarters and confirm that the operation of the on-site portion of the OU2 groundwater remedy has formed an effective hydraulic barrier that prevents the off-site migration of VOC-impacted groundwater in the shallow and intermediate zones. The current data show no exceedences of SCGs near the NGC site boundary in the shallow and intermediate zones (Tables 5, 6, and 7).

5.1.2 Deep Zone

In general, the water quality data from the deep wells sampled during the First Quarter 2006 continue to support the interpretation of the hydraulic data from the current and previous quarters and confirm that the operation of the on-site portion of the OU2 groundwater remedy has formed an effective hydraulic barrier that prevents the off-site migration of VOC-impacted groundwater in the deep zone.

Four deep wells (GM-18D, GM-39D_A, GM-39D_B, and GM-73D) located on-site, along the NGC site southern boundary, and upgradient of the remedial wells (Table 8 and Figure 1), exhibited SCG exceedences. Based on evaluation of the hydraulic data that is depicted on Figure 4, these monitoring wells are within the capture zone of the remedial wells and, therefore, groundwater in this area is hydraulically contained and, over time, will be extracted and treated by the on-site portion of the OU2 groundwater remedy. The remaining three on-site deep wells (GM-15D, GM-17D, and GM-74D) exhibited no or trace VOC detections and no SCG exceedences.

Three off-site deep wells (N-10627, GM-20D and GM-21D) located immediately downgradient of the NGC site southern boundary (Figure 1 and Tables 5 and 8) exhibited no or trace VOC detections and no SCG exceedences. Well GM-79D exhibited a single SCG exceedence this round.

Deep wells GM-13D, GM-34D, GM-36D, GM-37D, GM-38D and HN-29D located either on-site and upgradient or off-site and further downgradient of the hydraulic barrier exhibited TVOC concentrations ranging from not detected to 1,206 ug/L (Table 8). These data are consistent with the expected concentrations in the portions of the groundwater VOC plume in the deep zone that is not actively remediated.

5.1.3 Deep2 Zone

Groundwater monitoring data from the D2 zone are summarized in Table 9. In general, water quality data from the D2 wells sampled during the First Quarter 2006 continue to support the interpretation of hydraulic data from the current and previous quarters and confirm that the operation of the on-site portion of the OU2 groundwater remedy has formed an effective hydraulic barrier that prevents the migration of VOC-impacted groundwater in the D2 zone.

Along the line of remedial wells, total VOC concentrations were highest in Remedial Well 17 (529 ug/L) (Table 9). Monitoring Wells GM-33-D2, GM-73D2, GM-74D2,

and GM-15D2 exhibited one or more exceedences of SCGs (Table 9); total VOC concentrations in these areas, by comparison to Well 17, are substantially lower and ranged from 25.4 ug/L (Well GM-74D2) to 147.4 ug/L (Well 19). Based on hydraulic data depicted on Figure 4, on-site wells near the NGC site southern boundary are within the capture zone of the remedial wells (screened in the D2 zone) and therefore groundwater in this area is hydraulically contained and, over time, will be extracted and treated by the on-site portion of the OU2 groundwater remedy.

The eight off-site D2 wells exhibited SCG exceedences with total VOC concentrations ranging from non-detect (Well GM-36D2) to 1,306 ug/L (Well GM-38D2). These data are consistent with the expected concentrations in the off-site portion of the VOC plume in the D2 zone that is not actively remediated. The Navy is currently preparing the design for groundwater extraction and treatment in the GM-38 Area.

5.2 Outpost Monitoring

The results of the First Quarter 2006 outpost well monitoring round discussion of trigger value exceedences are provided in Table 10. VOCs were not detected in Outpost Wells OW1-2, OW3-1, OW3-2, OW4-1, and OW4-2 this round. Outpost Wells OW1-1, OW1-3, and OW2-2 exhibited one or more detections of site-related VOCs, with no SCG exceedences. Well OW2-1 exhibited detections of two non-site-related VOCs this quarter. As no new exceedences of outpost well trigger values occurred this quarter, the requirements for notification/reporting of the initial trigger value exceedences, as outlined in the PWSCP (ARCADIS G&M, Inc., 2003b), have already been met.

5.3 Vinyl Chloride Monomer

Vinyl chloride monomer (VCM) concentrations in groundwater samples collected during the First Quarter 2006 are provided in Tables 6 through 9. VCM continues to be present in Well 3 (160 ug/L during the First Quarter 2006), but was not detected in the other remedial wells or monitoring wells sampled this round. Additional groundwater monitoring of the extent of the VCM subplume and evaluation of remedial options for VCM is being performed by OCC/RUCO.

5.4 Cadmium and Chromium

The results of the quarterly monitoring of wells analyzed for cadmium and chromium (Cd/Cr) are provided in Table 11. Well MW-3R (near former NGC Plant 2) exhibited

the only Cd concentration that exceeded the SCG this round (Figure 1 and Table 11). The data indicate that Cr concentrations exceeded the SCG in three of the ten wells sampled this round, at Wells GM-15SR, PT1MW-05, and PT1MW-06. Comparison of the total/dissolved results indicates that cadmium and chromium are predominantly present in groundwater in the dissolved phase.

5.5 Tentatively Identified Compounds

The results of the laboratory qualitative assessment of Tentatively Identified Compound (TIC) concentrations in the samples collected during the First Quarter 2006 are provided in Table 12. Because TIC data is qualitative in nature, ARCADIS will monitor the TIC data; if trends develop to indicate that a TIC is frequently present, ARCADIS will consider petitioning the NYSDEC to add the subject TIC to the list of constituents monitored.

5.6 QA/QC Samples and Data Validation

The results of analysis of field blanks and trip blanks are provided in Table 13.

ARCADIS performed validation of all groundwater quality data collected (including TICs) by following the contract laboratory program national functional guidelines for organic and inorganic data review (USEPA 1999). The quality of the data is considered acceptable with the qualifications indicated on Tables 6 through 13.

6. Summary and Conclusions

The findings of the OM&M activities performed during the First Quarter 2006 are summarized below.

1. The remedial system pumpage data show that the OU2 remedial wells pumped 486 MG, or approximately 98 percent of the design volume of groundwater. Recharge basins received a collective total of approximately 405.8 MG of treated water this quarter. The Remedial Well 3 pumping rate has been increased to the new design rate of 700 gpm.

2. OU2 remedial well specific capacities remain above the minimum required to sustain the design pumping rates.

3. Approximately 4,520 lbs of VOCs were removed from the aquifer and treated by the on-site portion of the OU2 groundwater remedy.

4. The air stripper efficiencies of both groundwater remedial systems are at or above 99.9 percent.

5. The groundwater quality and hydraulic data indicate conditions that are consistent with previous rounds and that remedial goals continue to be met.

6. In the shallow, intermediate and deep zones, the majority of wells located along the NGC site perimeter show trace or non-detectable concentrations of VOCs.

7. Site-related VOCs continue to be detected in Outpost Wells OW1-1, OW1-3, and OW2-2. The remaining outpost wells exhibited no VOC detections.

8. Cd/Cr SCG exceedences are limited to on-site areas.

7. Recommendation

ARCADIS makes no recommendation for modification of the groundwater monitoring program at this time.

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Table 1. Summary of Operational Data and Water Balance for the On-Site Portion of the OU2 Groundwater Remedy, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Identification	Design Pumping/ Recharge Rate [a] (gpm)	Current Actual Average Pumping/Recharge Rate [b] (gpm)	Design Total Pumpage/Recharge (MG)	Current Actual Total Pumpage/Recharge (MG)	Current Percent of Design Pumpage/ Recharge	Current TCE Concentration (ug/L)	Current TVOC Concentration [c] ug/L	Current Estimated VOC Mass Removed [d] (lbs)
Remedial Wells			**Groundwater Removed from Aquifer**					
Well 1	1,075	872	140.9	114.3	81%	820	974	927
Well 3	425	526	55.7	68.9	124%	4,600	4,919.0	2,822
Well 17	1,000	1,003	131.0	126.2	96%	500	529	556
Well 18	600	678	78.6	85.3	109%	130	145	103
Well 19	700	730	91.7	90.9	99%	120	147.4	112
Rounded Totals:	**3,800**	**3,809**	**498**	**486**	**98%**	--	--	**4,520**
Recharge Basins [a]			**Treated Water Recharged to Aquifer**					
West Recharge Basins	412	401	54	52.5	97%	--		--
South Recharge Basins	2,231	2,808	292.4	353.3	121%	--	--	--
Rounded Totals:	**2,643**	**3,209**	**346**	**405.8**	**117%**	--	--	--
Treated Water Sent to Calpine								
Calpine Demand	600-1000	600	77.8 - 131	77.8	--	--	--	--
Treatment Efficiencies			**Average SPDES Outfall TVOC Concentrations (ug/L) [f]**					
Tower 96 System Efficiency [e]:		**99.9%**		**1.8**				
Tower 102 System Efficiency [e]:		**>99.9%**		**0**				

see footnotes on last page

Table 1. Summary of Operational Data and Water Balance for the On-Site Portion of the OU2 Groundwater Remedy, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

(a) - Remedial well pumping rates based on computer modeling (ARCADIS G& M, Inc. 2003c). Acceptable minimum recharge rates based on computer modeling (ARCADIS G&M, Inc. 2004b). Design pumping and recharge rates were modified in April, 2005 and will be shown herein when procured equipment is installed and the wells returned to service at NYSDEC-approved modified pumping rates. Recharge includes remedial well pumpage (minus pipe loss) and incidental runoff from precipitation. Current average recharge rates have been determined using the entire 91-day span of time as opposed to current average pumping rates, which account for varying amounts of downtime, as indicated below.

(b) - Actual Average Pumping Rates were calculated based on Actual Total Pumpage and hours of operation from December 26, 2005 to March 26, 2006 (91 days).

- OU2 wells were operational during the First Quarter 2006, at the following percentages: Well-1 (100%), Well-3 (100%); Well-17 (96%), Well-18 (96%), and Well-19 (99%). The Actual Average Pumping Rates and rate of treated water sent to Calpine are for when the wells are pumping.

(c) - The TVOC concentration for each well was calculated based on First Quarter 2006 groundwater monitoring data (Table 9).

(d) - TVOC mass removed is based on the TVOC data given above and the following formula:

(TVOC concentration in ug/L) X (gallons pumped) X (3.785 L/gal) X (1 x 10^{-6} g/ug) X (2.2 x 10^{-3} lb/g)

(e) Air Stripping Efficiency calculated from values above and in Table 9 using the following formula:

$$1 - \left[\left(\frac{\text{Average SPDES TVOC Concentration at Outfall}}{\frac{[(\text{TVOC}_{\text{Well 1}} \times Q_{\text{Well 1}}) + (\text{TVOC}_{\text{Well 2}} \times Q_{\text{Well 2}})]}{(Q_{\text{Well 1}} + Q_{\text{Well 2}})}} \right) \right]$$

When non-detectable levels of VOCs are found in the effluent, a value of zero is used to estimate the efficiency of the air stripper.

(f) Towers 96 and 102 outfalls are identified as Outfalls 005 and 006, respectively (commonly known as the Plant 5 Recharge Basins and South Recharge Basins, respectively). Complete SPDES reporting provided to NYSDEC by NGC under separate cover.

--	Not Available or Not Applicable	lb/g	pounds per gram
TVOC	Total Volatile Organic Compounds	lbs	pounds
g/ug	grams per microgram	MG	Million Gallons
gpm	gallons per minute	ug/L	micrograms per liter
L/gal	Liters per gallon	OU2	Operable Unit 2
SPDES	State Pollutant Discharge Elimination System	Q	Pumping Rate
NGC	Northrop Grumman Corporation	NYSDEC	New York State Department of Environmental Conservation

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Table 2. Summary of OU2 Remedial Well Performance Data, Baseline and First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

	Baseline (1)		First Quarter 2006				
Well Identification	Static Depth to Water (ft bmp)	Specific Capacity (gpm/ft)	Date of Pumping and Water-Level Measurements	Pumping Depth to Water (ft bmp)	Drawdown (ft)	Instantaneous Pumping Rate[2] (gpm)	Specific Capacity (gpm/ft)
Well 1	55.75	28.57	4/20/2006	79	23.25	802	34.5
Well 3	54.4	10.10	4/20/2006	158.00	103.60	685	6.6
Well 17	44.12	44.03	4/20/2006	63	18.88	1000	53.0
Well 18	50.15	38.09	4/20/2006	64.50	14.35	640	44.6
Well 19	49.13	40.12	4/20/2006	64.40	15.27	685	44.9

(1) For Wells 17, 18, and 19, baseline static depth to water measurements were collected in 1997 prior to OU2 system start-up; baseline pumping depth-to water and rate measurements (not shown) used with baseline static depth to water measurements to calculate baseline specific capacities, were collected in 1999 during OU2 system operation.
For Well 1, baseline static depth to water and specific capacity measurements were collected in 2001, during pump replacement.
For Well 3, baseline static depth to water and specific capacity measurements were collected in March-April 2005, during re-development activities.

(2) Pumping rate determined at time of depth to water measurement.

OU2	Operable Unit 2
gpm	gallons per minute
ft bmp	feet below measuring point
ft	feet
gpm/ft	gallons per minute per foot of drawdown

Table 3. Water-Level Measurement Data, April 20 to 21, 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Well Identification	Measuring Point Elevation (ft msl)	Depth to Water (ft bmp)	Water-Level Elevation (ft msl)
Shallow Wells			
FW-03	124.30	54.82	69.48
N-9921	94.23	31.57	62.66
N-10597	109.85	40.56	69.29
N-10600	102.41	38.37	64.04
N-10631	103.47	37.31	66.16
N-10633	103.80	38.50	65.30
N-10634	101.20	39.01	62.19
N-10821	91.58	33.75	57.83
GM-15S	109.44	43.65	65.79
GM-16SR	115.86	46.94	68.92
GM-17SR	115.79	46.92	68.87
GM-18S	107.60	40.66	66.94
GM-19S	109.86	41.47	68.39
GM-21S	105.81	34.98	70.83
GM-78S	104.94	40.35	64.59
GM-79S (N-10628)	100.88	38.97	61.91
HN-24S	120.32	50.96	69.36
HN-40S	116.35	47.74	68.61
HN-42S	120.32	49.74	70.58
MW-3R	101.45	33.79	67.66
Intermediate Wells			
N-10624	93.61	31.16	62.45
GM-15I	109.25	43.56	65.69
GM-16I	115.81	47.03	68.78
GM-17I	115.83	47.07	68.76
GM-18I	109.03	41.99	67.04
GM-19I	109.86	42.30	67.56
GM-20I	103.88	35.38	68.50
GM-21I	105.72	37.14	68.58
GM-74I	107.42	38.92	68.50
GM-78I	105.06	40.62	64.44
GM-79I	100.88	39.32	61.56
HN-24I	125.80	54.49	71.31
HN-29I	116.42	45.48	70.94
HN-40I	115.91	47.52	68.39
HN-42I	119.61	49.04	70.57

See notes on last page

Table 3. Water-Level Measurement Data, April 20 to 21, 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Well Identification	Measuring Point Elevation (ft msl)	Depth to Water (ft bmp)	Water-Level Elevation (ft msl)
Deep Wells			
N-10627	93.70	31.65	62.05
GM-13D	113.97	45.20	68.77
GM-15D	109.84	45.92	63.92
GM-17D	115.68	49.15	66.53
GM-18D	108.88	44.53	64.35
GM-20D	103.92	37.49	66.43
GM-21D	105.66	42.18	63.48
GM-34D[4]	71.19	13.91	57.28
GM-36D	91.63	34.17	57.46
GM-37D	97.26	37.97	59.29
GM-38D	91.75	37.42	54.33
$GM\text{-}39D_A$[5]	102.23	38.05	64.18
$GM\text{-}39D_B$[5]	102.08	40.86	61.22
GM-73D	104.87	43.14	61.73
GM-74D	107.43	44.25	63.18
GM-79D	101.25	40.79	60.46
HN-29D	115.11	45.75	69.36
Deep2 Wells			
GM-15D2	109.78	48.52	61.26
GM-33D2	106.85	48.32	58.53
GM-34D2[6]	71.19	16.26	54.93
GM-35D2	96.28	39.20	57.08
GM-36D2	91.60	37.11	54.49
GM-37D2	97.17	38.90	58.27
GM-38D2	91.56	40.17	51.39
GM-70D2	99.58	40.25	59.33
GM-71D2	98.45	40.83	57.62
GM-73D2	104.62	45.12	59.50
GM-74D2	107.36	50.79	56.57
GM-75D2	93.63	34.75	58.88
Well 1 [1]	116.78	79.00	37.78
Well 3 [2]	117.78	158.00	-40.22
Well 17 [3]	104.10	63.00	41.10
Well 18 [4]	110.00	64.50	45.50
Well 19	108.70	64.40	44.30

See notes on last page

Table 3. Water-Level Measurement Data, April 20 to 21, 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Well Identification	Measuring Point Elevation (ft msl)	Depth to Water (ft bmp)	Water-Level Elevation (ft msl)
Outpost Wells			
BPOW1-1	73.65	28.14	45.51
BPOW1-2	73.54	29.57	43.97
BPOW1-3	73.37	29.57	43.80
BPOW2-1	60.06	20.62	39.44
BPOW2-2	59.96	22.70	37.26
BPOW3-1	63.19	26.29	36.90
BPOW3-2	63.72	27.50	36.22
BPOW4-1	67.34	25.85	41.49
BPOW4-2	67.18	25.55	41.63

(1) Water level was measured by inflating airline set at 120 ft bmp (gauge at wellhead) and subtracting the reading on the gauge from 120 to obtain the depth to water in ft bmp.

(2) Water level was measured by inflating an airline set at 150 ft bmp (gauge at well head) and subtracting the reading on the gauge from 150 to obtain the depth to water in ft bmp.

(3) Water level was measured by inflating airline set at 110 ft bmp (gauge at wellhead) and subtracting the reading on the gauge from 110 to obtain the depth to water in ft bmp.

(4) Water level was measured by inflating airline set at 110 ft bmp (gauge at wellhead) and subtracting the reading on the gauge from 110 to obtain the depth to water in ft bmp.

(5) Wells GM-39_A and GM-39_B are screened at the approximate midpoint and basal portion of the deep zone, respectively.

(6) Water level measurement was collected on April 21, 2006.

ft msl feet relative to mean sea level

ft bmp feet below measuring point

Table 4. Comparison of April 20 to 21, 2006, Vertical Hydraulic Gradients to Model-Predicted Gradients, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Well Pair ID	Well Screen Midpoint Elevation (ft msl)	Water-Level Elevation (ft msl)	Vertical Gradient [2] (ft/ft) * 10^{-3}	Model-Predicted, OU2 Steady-State Vertical Gradient (ft/ft) * 10^{-3}	Increase Compared to Model-Predicted, Steady-State Vertical Gradient
Shallow-Intermediate Wells					
GM-15S	34.53	65.79			
GM-15I	9.29	65.69	3.96	4.20	-0.24
GM-16SR	66.77	68.92			
GM-16I	-24.19	68.78	1.54	1.11	0.43
GM-17SR	50.79	68.87			
GM-17I	5.83	68.76	2.45	4.50	-2.05
GM-19S	59.36	68.39			
GM-19I	-25.14	67.56	9.82	2.44	7.38
GM-21S	40.81	70.83			
GM-21I	-29.28	68.58	32.10	18.44	13.66
GM-78S	39.94	64.59			
GM-78I	5.56	64.44	4.36	8.73	-4.37
GM-79S	35.88	61.91			
GM-79I	-73.91	61.56	3.19	0.91	2.28
Intermediate-Deep Wells					
GM-15I	9.29	65.69			
GM-15D	-227.34	63.92	7.48	6.52	0.96
GM-17I	5.83	68.76			
GM-17D	-172.32	66.53	12.52	7.86	4.66
GM-18I	9.03	67.04			
GM-18D	-186.12	64.35	13.78	7.74	6.04
GM-20I	3.88	68.50			
GM-20D	-117.08	66.43	17.11	18.22	-1.11
GM-21I	-29.28	68.58			
GM-21D	-177.34	63.48	34.45	43.97	-9.52
GM-74I	8.42	68.50			
GM-74D	-192.57	63.18	26.47	20.17	6.30
GM-79I	-73.91	61.56			
GM-79D	-183.75	60.46	10.01	15.48	-5.47

See notes on last page

Table 4. Comparison of April 20 to 21, 2006, Vertical Hydraulic Gradients to Model-Predicted Gradients, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

Well Pair ID	Well Screen Midpoint Elevation (ft msl)	Water-Level Elevation (ft msl)	Vertical Gradient [2] (ft/ft) * 10^{-3}	Model-Predicted, OU2 Steady-State Vertical Gradient (ft/ft) * 10^{-3}	Increase Compared to Model-Predicted, Steady-State Vertical Gradient
Deep-Deep 2 Wells					
GM-15D	-227.34	63.92			
GM-15D2	-436.41	61.26	12.72	14.19	-1.47
GM-18D	-186.12	64.35			
GM-33D2	-403.15	58.53	26.82	12.30	14.52
GM-34D	-242.81	57.28			
GM-34D2	-443.81	54.93	11.69	2.33	9.36
GM-36D	-117.37	57.46			
GM-36D2	-443.40	54.49	9.11	2.75	6.36
GM-37D	-154.74	59.29			
GM-37D2	-282.83	58.27	7.96	3.88	4.08
GM-38D	-238.25	54.33			
GM-38D2	-393.44	51.39	18.94	6.08	12.86
GM-39D_A [1]	-169.77	64.18			
GM-39D_B [1]	-312.92	61.22	20.68	13.46	7.22
GM-73D	-301.13	61.73			
GM-73D2	-437.38	59.50	16.37	18.78	-2.41
GM-74D	-192.57	63.18			
GM-74D2	-444.64	56.57	26.22	28.26	-2.04
N-10627	-198.80	62.05			
GM-75D2	-421.37	58.88	14.24	2.25	11.99

(1) Wells GM-39D_A and GM-39D_B are screened at the approximate midpoint and basal portion of the deep zone, respectively.

ft msl feet relative to mean sea level

(2) Vertical hydraulic gradients are calculated as follows:

$$\frac{(\text{Water-Level Elevation}_1 - \text{Water-Level Elevation}_2)}{(\text{Screen Midpoint Elevation}_1 - \text{Screen Midpoint Elevation}_2)}$$

$_1$ - Shallower well of pairing

$_2$ - Deeper well of pairing

A positive "+" gradient value indicates a downward hydraulic gradient.

A negative "-" gradient value indicates an upward hydraulic gradient.

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Table 5. Summary of Total Volatile Organic Compound and Cadmium/Chromium Concentrations and Comparison to SCGs for Select Site Boundary Monitoring Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York. [1] [2]

Shallow Zone

Well Identification:	N-10631	N-10634	GM-17SR	GM-18S	GM-21S	GM-78S	MW-3R
First Quarter TVOC Concentration (ug/L):	0.5	ND	ND	ND	0.3	0.3	0.8
No. of First Quarter VOC SCG Exceedences:	None	None	None	None	None	None	None
First Quarter Total Cd Concentration (ug/L):	3.7	NS	<10	<10	NS	<10	32
First Quarter Total Cd SCG Exceedences:	None	--	None	None	--	None	1
First Quarter Total Cr Concentration (ug/L):	22.7	NS	<10	2.7	NS	<10	34.9
First Quarter Total Cr SCG Exceedences:	None	--	None	None	--	None	None

Intermediate Zone

Well Identification:	N-10624	GM-17I	GM-18I	GM-20I	GM-2II	GM-74I	GM-78I	GM-79I
First Quarter TVOC Concentration (ug/L):	ND	ND	2.4	ND	ND	ND	0.9	ND
No. First Quarter VOC SCG Exceedences:	None	None	None	None	None	None	None	None
First Quarter Total Cd Concentration (ug/L):	NS	NS	NS	NS	NS	NS	<10	NS
First Quarter Total Cd SCG Exceedences:	--	--	--	--	--	--	None	--
First Quarter Total Cr Concentration (ug/L):	NS	NS	NS	NS	NS	NS	<10	NS
First Quarter Total Cr SCG Exceedences:	--	--	--	--	--	--	None	--

Deep Zone

Well Identification:	GM-17D	GM-18D	GM-20D	GM-21D
First Quarter TVOC Concentration (ug/L):	ND	11.7	ND	2.0
No. First Quarter VOC SCG Exceedences:	None	1	None	None

(1) Wells are shown on Figure 1. VOC analytical results from shallow, intermediate, and deep wells are provided in Tables 6 through 8, respectively; Cr and Cd analytical results for shallow and intermediate wells are provided in Table 11.

(2) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

VOC Volatile Organic Compound
NS Not Sampled
ND Not Detected
-- Not Applicable
Cd Cadmium
Cr Chromium
NYSDEC New York State Department of Environmental Conservation
TOGS Technical and Operational Guidance Series
TVOC Total Volatile Organic Compound

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Table 6. Concentrations of Volatile Organic Compounds Detected in Shallow Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	10631 N-10631 03/16/06	10634 N-10634 04/10/06	FW-03 FW-03 03/14/06	GM-15SR GM-15SR 03/13/06	GM-16SR GM-16SR 04/10/06
Chloromethane	5		< 5	< 5	< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5	< 5	< 5
Acetone	50		< 10	< 10	< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5	**1J**	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5
Trichloroethene	5		**0.5 J**	< 5	**4 J**	**12**	**4 J**
Dibromochloromethane	5		< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	5		< 5	< 5	**10**	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5	< 5	< 5
Freon-113 *	5		< 5	< 5	< 5	< 5	< 5
Total VOCs			**0.5**	**0**	**14**	**13**	**4**

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
J	Estimated value
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 6. Concentrations of Volatile Organic Compounds Detected in Shallow Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL:	GM-17SR	GM-18S	GM-21S	GM-32S	GM-78S
		SAMPLE ID:	GW-17SR	GM-18S	GW-21S	GM-32S	GW-78S
		DATE:	03/15/06	03/16/06	03/15/06	03/17/06	03/15/06
Chloromethane	5		< 5	< 5	< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5	< 5	< 5
Acetone	50		< 10	< 10	< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5
Trichloroethene	5		< 5	< 5	< 5	< 5	**0.3 J**
Dibromochloromethane	5		< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	5		< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5	< 5	< 5
Freon-113 *	5		< 5	< 5	< 5	< 5	< 5
Total VOCs			0	0	0	0	**0.3**

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
J	Estimated value
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 6. Concentrations of Volatile Organic Compounds Detected in Shallow Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL:	HN-40S	HN-42S	MW-03R
		SAMPLE ID:	HN-40S	HN-42S	MW-3R
		DATE:	03/17/06	03/17/06	03/15/06
Chloromethane	5		< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5
Acetone	50		< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5
Trichloroethene	5		**4 J**	< 5	**0.8 J**
Dibromochloromethane	5		< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10
Tetrachloroethene	5		**4 J**	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5
Freon-113 *	5		< 5	< 5	< 5
Total VOCs			**8**	**0**	**0.8**

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
J	Estimated value
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 7. Concentrations of Volatile Organic Compounds Detected in Intermediate Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	10624 / N-10624 / 03/16/06	GM-15I / GM-15I / 03/31/06	GM-16I / GM-16I / 04/10/06	GM-17I / GM-17I / 03/08/06	GM-18I / GM-18I / 04/11/06	GM-20I / GM-20I / 03/09/06
Chloromethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5	< 5 UB	< 5 UB	< 5 UB
Acetone	50		< 10	< 10	< 10	< 10	< 10 UB	< 10
Carbon disulfide	50		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	**3 J**	< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	**1 J**	< 5	**2 J**	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	**6**	< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	5		< 5	**3 J**	**47**	< 5	**0.4 J**	< 5
Dibromochloromethane	5		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	5		< 5	< 5	**14**	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *	5		< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs			0	**3**	**71**	0	**2.4**	0

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound identified in associated blank.
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 7. Concentrations of Volatile Organic Compounds Detected in Intermediate Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-21I GM-21I 03/31/06	GM-74I GM-74I 03/20/06	GM-78I GW-78I 03/15/06	GM-79I GM-79I 03/07/06	HN-40I HN-40I 03/17/06	HN-42I HN-42I 03/17/06
Chloromethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5	< 5 UB	< 5	< 5
Acetone	50		< 10	< 10	< 10	< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	5		< 5	< 5	**0.9 J**	< 5	**8**	< 5
Dibromochloromethane	5		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	5		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5	< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *	5		< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs			0	0	**0.9**	0	**8**	0

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibiblity Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound identified in associated blank.
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 7. Concentrations of Volatile Organic Compounds Detected in Intermediate Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	HN-24I HW-24I 03/14/06	HN-24I REP031406 03/14/06	HN-29I HW-29I 03/14/06
Chloromethane	5		< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5
Methylene chloride	5		< 5	< 5	< 5
Acetone	50		< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5
1,1-Dichloroethene	5		< 5 UM	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5 UM	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5
Trichloroethene	5		**37**	**36**	**0.9 JH**
Dibromochloromethane	5		< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10
Tetrachloroethene	5		**0.8 JH**	**0.8 J**	**0.9 JH**
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5
Freon-113 *	5		**1 JH**	**1 JH**	< 5
Total VOCs			**38.8**	**37.8**	**1.8**

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibiblity Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound identified in associated blank.
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 8. Concentrations of Volatile Organic Compounds Detected in Deep Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	10627 N-10627 03/16/06	GM-13D GM-13D 03/09/06	GM-15D GM-15D 03/13/06	GM-17D GM-17D 03/08/06
Chloromethane	5		< 5	< 20	< 5	< 5
Bromomethane	5		< 5	< 20	< 5	< 5
Vinyl Chloride	2		< 2	< 8	< 2	< 2
Chloroethane	5		< 5	< 20	< 5	< 5
Methylene chloride	5		< 5	**8 JB**	< 5	< 5 UB
Acetone	50		< 10	**25 J**	< 10	< 10
Carbon disulfide	50		< 5	< 20	< 5	< 5
1,1-Dichloroethene	5		< 5	**32**	< 5	< 5
1,1-Dichloroethane	5		< 5	**14 J**	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	**60**	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 20	< 5	< 5
Chloroform	7		< 5	< 20	< 5	< 5
1,2-Dichloroethane	5		< 5	< 20	< 5	< 5
2-Butanone	50		< 10	< 40	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 20	< 5	< 5
Carbon tetrachloride	5		< 5	< 20	< 5	< 5
Bromodichloromethane	50		< 5	< 20	< 5	< 5
1,2-Dichloropropane	5		< 5	< 20	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 20	< 5	< 5
Trichloroethene	5		**1 J**	**130**	**1 J**	< 5 UH
Dibromochloromethane	5		< 5	< 20	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 20	< 5	< 5
Benzene	0.7		< 0.7	< 3	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 20	< 5	< 5
Bromoform	50		< 5	< 20	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 40	< 10	< 10
2-Hexanone	50		< 10	< 40	< 10	< 10
Tetrachloroethene	5		< 5	**510 D**	**1 J**	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 20	< 5	< 5
Toluene	5		< 5	< 20	< 5	< 5
Chlorobenzene	5		< 5	< 20	< 5	< 5
Ethylbenzene	5		< 5	< 20	< 5	< 5
Styrene	5		< 5	< 20	< 5	< 5
Xylene (total)	5		< 5	< 20	< 5	< 5
Vinyl Acetate	NE		< 5	< 20	< 5	< 5
Freon-113 *	5		< 5	**5 J**	< 5	< 5 UM
Total VOCs			**1**	**784**	**2**	0

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound wasdected in associated blank.
D	Diluted
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 8. Concentrations of Volatile Organic Compounds Detected in Deep Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-18D / GM-18D / 04/11/06	GM-20D / GM-20D / 03/09/06	GM-21D / GM-21D / 03/07/06	GM-34D / GM-34D / 04/07/06	GM-36D / GM-36D / 04/03/06
Chloromethane	5		< 5	< 5	< 5	< 25	< 5
Bromomethane	5		< 5	< 5	< 5	< 25	< 5
Vinyl Chloride	2		< 2	< 2	< 2	< 10	< 2
Chloroethane	5		< 5	< 5	< 5	< 25	< 5
Methylene chloride	5		< 5 UB	< 5 UB	< 5 UB	< 25 UB	< 5
Acetone	50		< 10 UB	< 10	< 10	< 50 UB	< 10
Carbon disulfide	50		< 5	< 5	< 5	< 25	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5	**8 J**	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5	< 25	< 5
cis-1,2-Dichloroethene	5		< 5	< 5	< 5	**11 J**	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5	< 25	< 5
Chloroform	7		< 5	< 5	< 5	< 25	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5	< 25	< 5
2-Butanone	50		< 10	< 10	< 10	< 50	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5	< 25	< 5
Carbon tetrachloride	5		< 5	< 5	< 5	< 25	< 5
Bromodichloromethane	50		< 5	< 5	< 5	< 25	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5	< 25	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5	< 25	< 5
Trichloroethene	5		**12**	< 5	**2 J**	**780 D**	**6**
Dibromochloromethane	5		< 5	< 5	< 5	< 25	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5	< 25	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7	< 4	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5	< 25	< 5
Bromoform	50		< 5	< 5	< 5	< 25	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10	< 50	< 10
2-Hexanone	50		< 10	< 10	< 10	< 50	< 10
Tetrachloroethene	5		**0.9 J**	< 5	< 5	**12 J**	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5	< 25	< 5
Toluene	5		< 5	< 5	< 5	< 25	< 5
Chlorobenzene	5		< 5	< 5	< 5	< 25	< 5
Ethylbenzene	5		< 5	< 5	< 5	< 25	< 5
Styrene	5		< 5	< 5	< 5	< 25	< 5
Xylene (total)	5		< 5	< 5	< 5	< 25	< 5
Vinyl Acetate	NE		< 5	< 5	< 5	< 25	< 5
Freon-113 *	5		< 5	< 5	< 5	**33**	< 5
Total VOCs			**12.9**	0	**2**	**844**	**6**

(1) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

VOCs Volatile organic compounds

ug/L Micrograms per liter

B Compound wasdected in associated blank.

D Diluted

H Alternate peak selection upon analytical review.

J Estimated value

M Manually integrated compound

U Compound not detected

NYSDEC New York State Department of Environmental Conservation

* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.

Value exceeds associated SCG value.

NE No SCG established

TOGS Technical and Operational Guidance Series

Bold value indicates a detection.

Table 8. Concentrations of Volatile Organic Compounds Detected in Deep Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-37D GM-37D 04/06/06	GM-38D GM-38D 04/05/06	GM-39D$_A$ GM-39D 03/24/06	GM-39D$_B$ GM-39D-2 03/24/06	GM-73D GM-73D 03/20/06	GM-73D REP032006 03/20/06
Chloromethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Bromomethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 20	< 2	< 2	< 2	< 2
Chloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Methylene chloride	5		< 5 UB	< 50 UB	< 5	< 5	< 5	< 5
Acetone	50		< 10	< 100 UB	< 10	< 10	< 10	< 10
Carbon disulfide	50		< 5	< 50	< 5	< 5	< 5	< 5
1,1-Dichloroethene	5		**0.4 J**	**6 J**	< 5	< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 50 UM	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5		< 5	< 50	< 5	< 5	< 5	< 5
Chloroform	7		**0.3 J**	< 50	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
2-Butanone	50		< 10	< 100	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 50	< 5	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 50	< 5	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 50	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 50	< 5	< 5	< 5	< 5
Trichloroethene	5		1 U	**1200 D**	**10**	**42**	**26**	**27**
Dibromochloromethane	5		< 5	< 50	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 50	< 5	< 5	< 5	< 5
Bromoform	50		< 5	< 50	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 100	< 10	< 10	< 10	< 10
2-Hexanone	50		< 10	< 100	< 10	< 10	< 10	< 10
Tetrachloroethene	5		**0.6 J**	< 50	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 50	< 5	< 5	< 5	< 5
Toluene	5		< 5	< 50	< 5	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 50	< 5	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 50	< 5	< 5	< 5	< 5
Styrene	5		< 5	< 50	< 5	< 5	< 5	< 5
Xylene (total)	5		< 5	< 50	< 5	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 50	< 5	< 5	< 5	< 5
Freon-113 *	5		< 5	< 50	< 5	< 5	< 5	< 5
Total VOCs			**1.3**	**1206**	**10**	**42**	**26**	**27**

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound wasdected in associated blank.
D	Diluted
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 8. Concentrations of Volatile Organic Compounds Detected in Deep Wells, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-74D GM-74D 03/20/06	GM-79D GM-79D 03/07/06	HN-29D HN-29D 03/14/06
Chloromethane	5		< 5	< 5	< 5
Bromomethane	5		< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 2	< 2
Chloroethane	5		< 5	< 5	< 5
Methylene chloride	5		< 5	< 5 UB	< 5
Acetone	50		< 10	< 10	< 10
Carbon disulfide	50		< 5	< 5	< 5
1,1-Dichloroethene	5		< 5	< 5	< 5
1,1-Dichloroethane	5		< 5	< 5	< 5
cis-1,2-Dichloroethene	5		< 5	< 5 UM	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 5
Chloroform	7		< 5	< 5	< 5
1,2-Dichloroethane	5		< 5	< 5	< 5
2-Butanone	50		< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 5
Trichloroethene	5		**3 J**	**57**	< 5
Dibromochloromethane	5		< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 5
Benzene	0.7		< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 5
Bromoform	50		< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 10
2-Hexanone	50		< 10	< 10	< 10
Tetrachloroethene	5		< 5	**1 J**	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 5
Toluene	5		< 5	< 5	< 5
Chlorobenzene	5		< 5	< 5	< 5
Ethylbenzene	5		< 5	< 5	< 5
Styrene	5		< 5	< 5	< 5
Xylene (total)	5		< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 5	< 5
Freon-113 *	5		< 5	**1 J**	< 5
Total VOCs			**3**	**58**	0

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSD most stringent value listed.
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
B	Compound wasdected in associated blank.
D	Diluted
H	Alternate peak selection upon analytical review.
J	Estimated value
M	Manually integrated compound
U	Compound not detected
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
	Value exceeds associated SCG value.
NE	No SCG established
TOGS	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 9. Concentrations of Volatile Organic Compounds Detected in Deep2 Wells Groundwater Remedial Treatment Systems, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL:	GM-15D2	GM-33D2	GM-34D2	GM-35D2	GM-36D2
		SAMPLE ID:	GM-15D-2	GM-33D-2	GM-34D-2	GM-35D-2	GM-36D-2
		DATE:	03/13/06	03/16/06	04/07/06	04/06/06	04/03/06
Chloromethane	5		< 5	< 5	< 10	< 10	< 5
Bromomethane	5		< 5	< 5	< 10	< 10	< 5
Vinyl Chloride	2		< 2	< 2	< 4	< 4	< 2
Chloroethane	5		< 5	< 5	< 10	< 10	< 5
Methylene chloride	5		< 5	< 5	< 10 UB	< 10 UB	< 5
Acetone	50		< 10	< 10	< 20 UB	< 20 UB	< 10
Carbon disulfide	50		< 5	< 5	< 10	< 10	< 5
1,1-Dichloroethene	5		**0.8 J**	< 5	**3 J**	**1 J**	< 5
1,1-Dichloroethane	5		< 5	< 5	< 10	< 10	< 5
cis-1,2-Dichloroethene	5		< 5 UM	< 5	**8 J**	**3 J**	< 5
trans-1,2-Dichloroethene	5		< 5	< 5	< 10	< 10	< 5
Chloroform	7		< 5	< 5	< 10	< 10	< 5
1,2-Dichloroethane	5		< 5	< 5	< 10	< 10	< 5
2-Butanone	50		< 10	< 10	< 20	< 20	< 10
1,1,1-Trichloroethane	5		< 5	< 5	< 10	< 10	< 5
Carbon tetrachloride	5		< 5	< 5	< 10	< 10	< 5
Bromodichloromethane	50		< 5	< 5	< 10	< 10	< 5
1,2-Dichloropropane	5		< 5	< 5	< 10	< 10	< 5
cis-1,3-Dichloropropene	5		< 5	< 5	< 10	< 10	< 5
Trichloroethene	5		**13**	**55**	**220 D**	**320 D**	< 5
Dibromochloromethane	5		< 5	< 5	< 10	< 10	< 5
1,1,2-Trichloroethane	5		< 5	< 5	< 10	< 10	< 5
Benzene	0.7		< 0.7	< 0.7	< 1	< 1	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 5	< 10	< 10	< 5
Bromoform	50		< 5	< 5	< 10	< 10	< 5
4-Methyl-2-pentanone	50		< 10	< 10	< 20	< 20	< 10
2-Hexanone	50		< 10	< 10	< 20	< 20	< 10
Tetrachloroethene	5		**18**	**10**	**11**	**9 J**	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 5	< 10	< 10	< 5
Toluene	5		< 5	< 5	< 10	< 10	< 5
Chlorobenzene	5		< 5	< 5	< 10	< 10	< 5
Ethylbenzene	5		< 5	< 5	< 10	< 10	< 5
Styrene	5		< 5	< 5	< 10	< 10	< 5
Xylene (total)	5		< 5	< 5	< 10	< 10	< 5
Vinyl Acetate	NE		< 5	< 5	< 10	< 10	< 5
Freon-113 *	5		**1 JH**	**42**	**6 J**	**7 J**	< 5
Total VOCs			**32.8**	**107**	**248**	**340**	0

(1) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

NYSDEC New York State Department of Environmental Conservation

VOCs Volatile organic compounds

ug/L Micrograms per liter

J Estimated value

D Constituent identified at a secondary dilution.

B Compound identified in associated blank.

U Compound not detected

* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.

Value exceeds associated SCG value.

NE No SCG established

TOGS Technical and Operational Guidance Series

Bold value indicates a detection.

Table 9. Concentrations of Volatile Organic Compounds Detected in Deep2 Wells Groundwater Remedial Treatment Systems, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-37D2 / GM-37D-2 / 04/05/06	GM-38D2 / GM-38D-2 / 04/05/06	GM-70D2 / GM-70D-2 / 04/06/06	GM-71D2 / GM-71D-2 / 04/06/06	GM-73D2 / GM-73D-2 / 03/24/06
Chloromethane	5		< 5	< 50	< 5	< 5	< 5
Bromomethane	5		< 5	< 50	< 5	< 5	< 5
Vinyl Chloride	2		< 2	< 20	< 2	< 2	< 2
Chloroethane	5		< 5	< 50	< 5	< 5	< 5
Methylene chloride	5		< 5 UB	< 50 UB	< 5 UB	< 5 UB	< 5
Acetone	50		< 10 UB	< 100 UB	< 10	< 10	< 10
Carbon disulfide	50		< 5	< 50	< 5	< 5	< 5
1,1-Dichloroethene	5		**3 J**	< 50 UM	< 5	**2 J**	< 5
1,1-Dichloroethane	5		**8**	< 50	< 5	**6**	< 5
cis-1,2-Dichloroethene	5		< 5 UM	**6 J**	**0.5 J**	**1 J**	< 5
trans-1,2-Dichloroethene	5		< 5	< 50	< 5	< 5	< 5
Chloroform	7		< 5	< 50	< 5	**2 J**	< 5
1,2-Dichloroethane	5		< 5	< 50	< 5	< 5	< 5
2-Butanone	50		< 10	< 100	< 10	< 10	< 10
1,1,1-Trichloroethane	5		**3 J**	< 50	< 5	**1 J**	< 5
Carbon tetrachloride	5		< 5	< 50	< 5	< 5	< 5
Bromodichloromethane	50		< 5	< 50	< 5	< 5	< 5
1,2-Dichloropropane	5		< 5	< 50	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 5	< 50	< 5	< 5	< 5
Trichloroethene	5		**3 J**	**1300 D**	**62**	**5 J**	**140**
Dibromochloromethane	5		< 5	< 50	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 5	< 50	< 5	< 5	< 5
Benzene	0.7		< 0.7	< 7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 50	< 5	< 5	< 5
Bromoform	50		< 5	< 50	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 10	< 100	< 10	< 10	< 10
2-Hexanone	50		< 10	< 100	< 10	< 10	< 10
Tetrachloroethene	5		**0.3 J**	< 50	**7**	< 5	**0.9 J**
1,1,2,2-Tetrachloroethane	5		< 5	< 50	< 5	< 5	< 5
Toluene	5		< 5	< 50	< 5	< 5	< 5
Chlorobenzene	5		< 5	< 50	< 5	< 5	< 5
Ethylbenzene	5		< 5	< 50	< 5	< 5	< 5
Styrene	5		< 5	< 50	< 5	< 5	< 5
Xylene (total)	5		< 5	< 50	< 5	< 5	< 5
Vinyl Acetate	NE		< 5	< 50	< 5	< 5	< 5
Freon-113 *	5		< 5	< 50 UM	**2 J**	< 5	< 5
Total VOCs			**17.3**	**1306**	**71.5**	**17**	**140.9**

(1) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

NYSDEC New York State Department of Environmental Conservation

VOCs Volatile organic compounds

ug/L Micrograms per liter

J Estimated value

D Constituent identified at a secondary dilution.

B Compound identified in associated blank.

U Compound not detected

* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.

Value exceeds associated SCG value.

NE No SCG established

TOGS Technical and Operational Guidance Series

Bold value indicates a detection.

Table 9. Concentrations of Volatile Organic Compounds Detected in Deep2 Wells Groundwater Remedial Treatment Systems, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	GM-74D2 GM-74D-2 03/20/06	GM-75D2 GM-75D-2 03/16/06	GP-1 WELL 1 04/12/06	GP-3 WELL 3 04/12/06	TOWER_EFF 96 TOWER EFF 04/12/06
Chloromethane	5		< 5	< 10	< 50	< 250	< 5
Bromomethane	5		< 5	< 10	< 50	< 250	< 5
Vinyl Chloride	2		< 2	< 4	< 20	**160**	< 2
Chloroethane	5		< 5	< 10	< 50	< 250	< 5
Methylene chloride	5		< 5	< 10	**24 JB**	**97 JB**	< 5 UB
Acetone	50		< 10	< 20	< 100 UB	< 500 UB	< 10 UB
Carbon disulfide	50		< 5	< 10	< 50	< 250	< 5
1,1-Dichloroethene	5		**0.6 J**	**3 J**	< 50	**22 JM**	< 5
1,1-Dichloroethane	5		< 5	< 10	< 50	< 250	< 5
cis-1,2-Dichloroethene	5		< 5	< 10 UM	**10 J**	< 250 UM	< 5
trans-1,2-Dichloroethene	5		< 5	< 10	< 50	< 250	< 5
Chloroform	7		< 5	< 10	< 50	< 250	< 5
1,2-Dichloroethane	5		< 5	< 10	< 50	< 250	< 5
2-Butanone	50		< 10	< 20	< 100	< 500	< 10
1,1,1-Trichloroethane	5		< 5	< 10	< 50	< 250	< 5
Carbon tetrachloride	5		< 5	< 10	< 50	< 250	< 5
Bromodichloromethane	50		< 5	< 10	< 50	< 250	< 5
1,2-Dichloropropane	5		< 5	< 10	< 50	< 250	< 5
cis-1,3-Dichloropropene	5		< 5	< 10	< 50	< 250	< 5
Trichloroethene	5		**12**	**200 D**	**820 D**	**4600 D**	**1 J**
Dibromochloromethane	5		< 5	< 10	< 50	< 250	< 5
1,1,2-Trichloroethane	5		< 5	< 10	< 50	< 250	< 5
Benzene	0.7		< 0.7	< 1	< 7	< 35	< 0.7
trans-1,3-Dichloropropene	5		< 5	< 10	< 50	< 250	< 5
Bromoform	50		< 5	< 10	< 50	< 250	< 5
4-Methyl-2-pentanone	50		< 10	< 20	< 100	< 500	< 10
2-Hexanone	50		< 10	< 20	< 100	< 500	< 10
Tetrachloroethene	5		**12**	**5 J**	**120**	**40 J**	< 5
1,1,2,2-Tetrachloroethane	5		< 5	< 10	< 50	< 250	< 5
Toluene	5		< 5	< 10	< 50	< 250	< 5
Chlorobenzene	5		< 5	< 10	< 50	< 250	< 5
Ethylbenzene	5		< 5	< 10	< 50	< 250	< 5
Styrene	5		< 5	< 10	< 50	< 250	< 5
Xylene (total)	5		< 5	< 10	< 50	< 250	< 5
Vinyl Acetate	NE		< 5	< 10	< 50	< 250	< 5
Freon-113 *	5		**0.8 J**	**2 J**	< 50	< 250	< 5
Total VOCs			**25.4**	**210**	**974**	**4919**	**1**

[1] Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

NYSDEC New York State Department of Environmental Conservation
VOCs Volatile organic compounds
ug/L Micrograms per liter
J Estimated value
D Constituent identified at a secondary dilution.
B Compound identified in associated blank.
U Compound not detected
* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
Value exceeds associated SCG value.
NE No SCG established
TOGS Technical and Operational Guidance Series
Bold value indicates a detection.

Table 9. Concentrations of Volatile Organic Compounds Detected in Deep2 Wells Groundwater Remedial Treatment Systems, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[1]	WELL: / SAMPLE ID: / DATE:	ONCT 1 WELL 17 04/12/06	ONCT 2 WELL 18 04/12/06	ONCT 3 WELL 19 04/12/06	TOWER_EFF 102 TOWER EFF 04/12/06
Chloromethane	5		< 25	< 5	< 5	< 5
Bromomethane	5		< 25	< 5	< 5	< 5
Vinyl Chloride	2		< 10	< 2	< 2	< 2
Chloroethane	5		< 25	< 5	< 5	< 5
Methylene chloride	5		< 25	< 5 UB	< 5 UB	< 5 UB
Acetone	50		< 50	< 10 UB	< 10 UB	< 10 UB
Carbon disulfide	50		< 25	< 5	< 5	< 5
1,1-Dichloroethene	5		< 25	**4 J**	< 5	< 5
1,1-Dichloroethane	5		< 25	< 5	< 5	< 5
cis-1,2-Dichloroethene	5		**2 J**	**1 J**	**16**	< 5
trans-1,2-Dichloroethene	5		< 25	< 5	**2 J**	< 5
Chloroform	7		< 25	< 5	**0.8 J**	< 5
1,2-Dichloroethane	5		< 25	< 5	< 5	< 5
2-Butanone	50		< 50	< 10	< 10	< 10
1,1,1-Trichloroethane	5		< 25	< 5	< 5	< 5
Carbon tetrachloride	5		< 25	< 5	< 5	< 5
Bromodichloromethane	50		< 25	< 5	< 5	< 5
1,2-Dichloropropane	5		< 25	< 5	< 5	< 5
cis-1,3-Dichloropropene	5		< 25	< 5	< 5	< 5
Trichloroethene	5		**500 D**	**130**	**120**	**1 J**
Dibromochloromethane	5		< 25	< 5	< 5	< 5
1,1,2-Trichloroethane	5		< 25	< 5	< 5	< 5
Benzene	0.7		< 4	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene	5		< 25	< 5	< 5	< 5
Bromoform	50		< 25	< 5	< 5	< 5
4-Methyl-2-pentanone	50		< 50	< 10	< 10	< 10
2-Hexanone	50		< 50	< 10	< 10	< 10
Tetrachloroethene	5		**18 J**	**9**	**8**	< 5
1,1,2,2-Tetrachloroethane	5		< 25	< 5	< 5	< 5
Toluene	5		< 25	< 5	< 5	< 5
Chlorobenzene	5		< 25	< 5	< 5	< 5
Ethylbenzene	5		< 25	< 5	< 5	< 5
Styrene	5		< 25	< 5	< 5	< 5
Xylene (total)	5		< 25	< 5	< 5	< 5
Vinyl Acetate	NE		< 25	< 5	< 5	< 5
Freon-113 *	5		**9 J**	**1 J**	**0.6 J**	< 5
Total VOCs			**529**	**145**	**147.4**	**1**

(1) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

NYSDEC New York State Department of Environmental Conservation

VOCs Volatile organic compounds

ug/L Micrograms per liter

J Estimated value

D Constituent identified at a secondary dilution.

B Compound identified in associated blank.

U Compound not detected

* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.

Value exceeds associated SCG value.

NE No SCG established

TOGS Technical and Operational Guidance Series

Bold value indicates a detection.

Table 10. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells and Associated Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York. (1)

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values(2)	WELL: SAMPLE ID: DATE:	OW 1-1 BPOW 1-1 03/28/06	OW 1-2 BPOW 1-2 03/28/06	OW 1-3 BPOW 1-3 03/28/06	OW 2-1 BPOW 2-1 03/27/06	BPOW2-1 REP032706 03/27/06	OW 2-1 BPOW 2-1DL 03/27/06	BPOW2-1 REP032706DL 03/27/06	OW 2-2 BPOW 2-2 03/27/06
Chlorobenzene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	5		**1.7**	< 0.5	**1.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	5		**1.4**	< 0.5	**0.84**	**1.1**	**1**	< 0.5	< 0.5	**0.74**
trans-1,2-Dichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	7		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	5		< 0.5	< 0.5	< 0.5	**2**	**1.9**	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	5		**3.8**	< 0.5	**3.3**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	5		**2**	< 0.5	**0.69**	**1.4**	**1.3**	< 0.5	< 0.5	**1.1**
1,1,2-Trichloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5		< 0.5	< 0.5	< 0.5	**0.68**	**0.64**	< 0.5	< 0.5	< 0.5
Freon-113 *	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Site-Related VOCs:			**8.9**	0	**6.43**	**5.18**	**4.84**	0	0	**1.84**

Footnotes:

(1) Site-related VOCs were established in the Public Water Supply Contingency Plan (ARCADIS Geraghty & Miller, Inc. 2003b).

(2) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

(4) The TVOC trigger value for Cluster OW-1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS Geraghty & Miller, Inc. 2003b).

(5) The TVOC trigger value for Cluster OW-2 was initially exceeded on May 3, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS Geraghty & Miller, Inc. 2003b).

(6) Benzene and Methyl tert-butyl ether (MTBE), which are not site-related VOCs, were detected in Outpost Well OW 2-1 on 3/27/06 at 120 ug/L and 11 ug/L, respectively.

General Notes:

- Samples analyzed and reported as a NYSDEC Category A deliverable per the NYS DER-10 Guidance Document (NYSDEC 2002).
- Samples analyzed by EPA Method 502.2, as specified in the NYSDEC OU2 Record of Decision.
- Results were validated by ARCADIS by following the contract laboratory program national functional guidelines for organic data review (USEPA 1999).

Definitions:

OU2	Operable Unit 2
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
TOGs	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 10. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells and Associated Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York. [1]

CONSTITUENT (Units in ug/L)	NYSDEC Standards Criteria and Guidance Values[2]	WELL: SAMPLE ID: DATE:	OW 3-1 BPOW 3-1 03/30/06	OW 3-2 BPOW 3-2 03/30/06	OW 4-1 BPOW 4-1 03/29/06	OW 4-2 BPOW 4-2 03/29/06	TRIP BLANK TB032806 03/28/06	TRIP BLANK TB032906 03/29/06	TRIP BLANK TB033006 03/30/06
Chlorobenzene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	7		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Freon-113 *	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Site-Related VOCs:			0	0	0	0	0	0	0

Footnotes:

(1) Site-related VOCs were established in the Public Water Supply Contingency Plan (ARCADIS Geraghty & Miller, Inc. 2003b).

(2) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGs (NYSDEC 1998); most stringent value listed.

(4) The TVOC trigger value for Cluster OW-1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS Geraghty & Miller, Inc. 2003b).

(5) The TVOC trigger value for Cluster OW-2 was initially exceeded on May 3, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS Geraghty & Miller, Inc. 2003b).

(6) Benzene and Methyl tert-butyl ether (MTBE), which are not site-related VOCs, were detected in Outpost Well OW 2-1 on 3/27/06 at 120 ug/L and 11 ug/L, respectively.

General Notes:

- Samples analyzed and reported as a NYSDEC Category A deliverable per the NYS DER-10 Guidance Document (NYSDEC 2002).
- Samples analyzed by EPA Method 502.2, as specified in the NYSDEC OU2 Record of Decision.
- Results were validated by ARCADIS by following the contract laboratory program national functional guidelines for organic data review (USEPA 1999).

Definitions:

OU2	Operable Unit 2
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
NYSDEC	New York State Department of Environmental Conservation
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane.
TOGs	Technical and Operational Guidance Series

Bold value indicates a detection.

Table 11. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater and Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC SCGs [1]	WELL:	GM-15SR	GM-16SR	GM-18S	GM-32S	GM-17SR	GM-78I	GM-78S	MW-1GF	MW-2GF	MW-3R	N-10631	PT1MW-04
		SAMPLE ID:	GM-15SR	GM-16SR	GM-18S	GM-32S	GM-17SR	GM-78I	GM-78S	MW-1GF	MW-2GF	MW-3R	N-10631	PT1MW-04
		DATE:	03/13/06	04/10/06	03/16/06	03/17/06	03/15/06	03/15/06	03/15/06	03/15/06	03/15/06	03/15/06	03/16/06	03/13/06
Cadmium	5		--	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	32	**3.7 B**	--
Cadmium (Dissolved)	5		--	< 10	< 10	< 10	< 10	--	--	< 10	< 10	32.9	**2.8 B**	--
Chromium	50		568	**1.9 B**	**2.7 B**	**37.5**	< 10	**3 B**	< 10	**3.2 B**	**30.1**	**34.9**	**22.7**	< 10
Chromium (Dissolved)	50		--	< 10 U	**1.9 B**	**38**	< 10	--	--	< 10	**27.7**	**33.4**	**6.9 B**	--

(1) Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGS (NYSDEC 1998); most stringent value listed.

NYSDEC New York State Department of Environmental Conservation

ug/L Micrograms per liter

B Detected between the IDL and CRDL

IDL Instrument detection limit

CRDL Contract-required detection limit

Value exceeds associated SCG value.

TOGS Technical and Operational Guidance Series

Bold Constituent detected above IDL.

-- Not analyzed

Table 11. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater and Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	NYSDEC SCGs [1]	WELL: / SAMPLE ID: / DATE:	PT1MW-05 PT1MW-05 03/13/06	PT1MW-06 PT1MW-06 03/13/06	FIELD BLANK FB031306 03/13/06	FIELD BLANK FB031506 03/15/06	FIELD BLANK FB-3-16-06 03/16/06	FIELD BLANK FB031706 03/17/06	FIELD BLANK FB041006 04/10/06
Cadmium	5		--	--	--	< 10	< 10	< 10	< 10
Cadmium (Dissolved)	5		--	--	--	--	--	--	--
Chromium	50		**959**	**215**	< 10	< 10	< 10	< 10	**2 B**
Chromium (Dissolved)	50		--	--	--	--	--	--	--

[1]	Standards, Criteria, and Guidance (SCG) values based on documents referenced in the Groundwater Feasibility Study Report (ARCADIS Geraghty & Miller, Inc. 2000) that are based on the NYSDEC TOGS (NYSDEC 1998); most stringent value listed.
NYSDEC	New York State Department of Environmental Conservation
ug/L	Micrograms per liter
B	Detected between the IDL and CRDL
IDL	Instrument detection limit
CRDL	Contract-required detection limit
	Value exceeds associated SCG value.
TOGS	Technical and Operational Guidance Series
Bold	Constituent detected above IDL.
--	Not analyzed

Table 12. Concentrations of Tentatively Identified Compounds (TICs) Detected in Groundwater and Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

WELL/BLANK SAMPLE IDENTIFICATION (Units in ug/L)	**SAMPLE ID**	**DATE**	Isobutane	2-Butene
TB031506	TB031506	3/15/2006	13 NJ	--
FB031406	FB031406	3/14/2006	7 NJ	--
FB031706	FB032006	3/17/2006	12 NJ	--
HN-42I	HN-42I	3/14/2006	16 NJ	--

TICs are identified based on review of mass spectrometry results via a comprehensive library search of all organic compounds.

ug/L Micrograms per liter

-- Not Detected

N Presumptive evidence of this constituent. Calibrations were not run for these constituents; therefore, the results should be used for qualitative purposes only.

J Estimated value

Table 13. Concentrations of Volatile Organic Compounds Detected in Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	SAMPLE TYPE:	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK
	SAMPLE ID:	FB031306	FB031406	FB031506	FB-3-16-06	FB031706	FB040706
	DATE:	03/13/06	03/14/06	03/15/06	03/16/06	03/17/06	04/07/06
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride		< 5	< 5	< 5	< 5	< 5	< 5 UB
Acetone		< 10	< 10	< 10	< 10	< 10	< 10
Carbon disulfide		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 10	**4 JH**	**5 J**	**5 J**	< 10	**4 J**
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone		< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate		< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *		< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		0	**4**	**5**	**5**	0	**4**

VOCs	Volatile organic compounds
ug/L	Micrograms per liter
H	Alternate peak selection upon analytical review.
J	Estimated value
B	Detected in an associated method blank
M	Manually integrate compound
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane
–	Not analyzed

Bold value indicates a detection.

Table 13. Concentrations of Volatile Organic Compounds Detected in Blank Samples, First Quarter 2006, Operable Unit 2 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	SAMPLE TYPE:	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
	SAMPLE ID:	FB041006	TB030706	TB030806	TB030906	TB031306	TB031406
	DATE:	04/10/06	03/07/06	03/08/06	03/09/06	03/13/06	03/14/06
Chloromethane		< 5 UM	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride		< 5	< 5 UB	< 5 UB	< 5 UB	< 5	< 5
Acetone		< 10	< 10	< 10	< 10	< 10	< 10
Carbon disulfide		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		**4 J**	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone		< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate		< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *		< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		4	0	0	0	0	0

VOCs	Volatile organic compounds
ug/L	Micrograms per liter
H	Alternate peak selection upon analytical review.
J	Estimated value
B	Detected in an associated method blank
M	Manually integrate compound
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane
–	Not analyzed

Bold value indicates a detection.

Table 13. Concentrations of Volatile Organic Compounds Detected in Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	SAMPLE TYPE:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
	SAMPLE ID:	TB031506	TB-3-16-06	TB031706	TB032006	TB032406	TB033106
	DATE:	03/15/06	03/16/06	03/17/06	03/20/06	03/24/06	03/31/06
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride		< 5	< 5	< 5	< 5	< 5	< 5
Acetone		< 10	< 10	< 10	< 10	< 10	< 10
Carbon disulfide		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		**4 J**	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene		< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone		< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)		< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate		< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *		< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		**4**	0	0	0	0	0

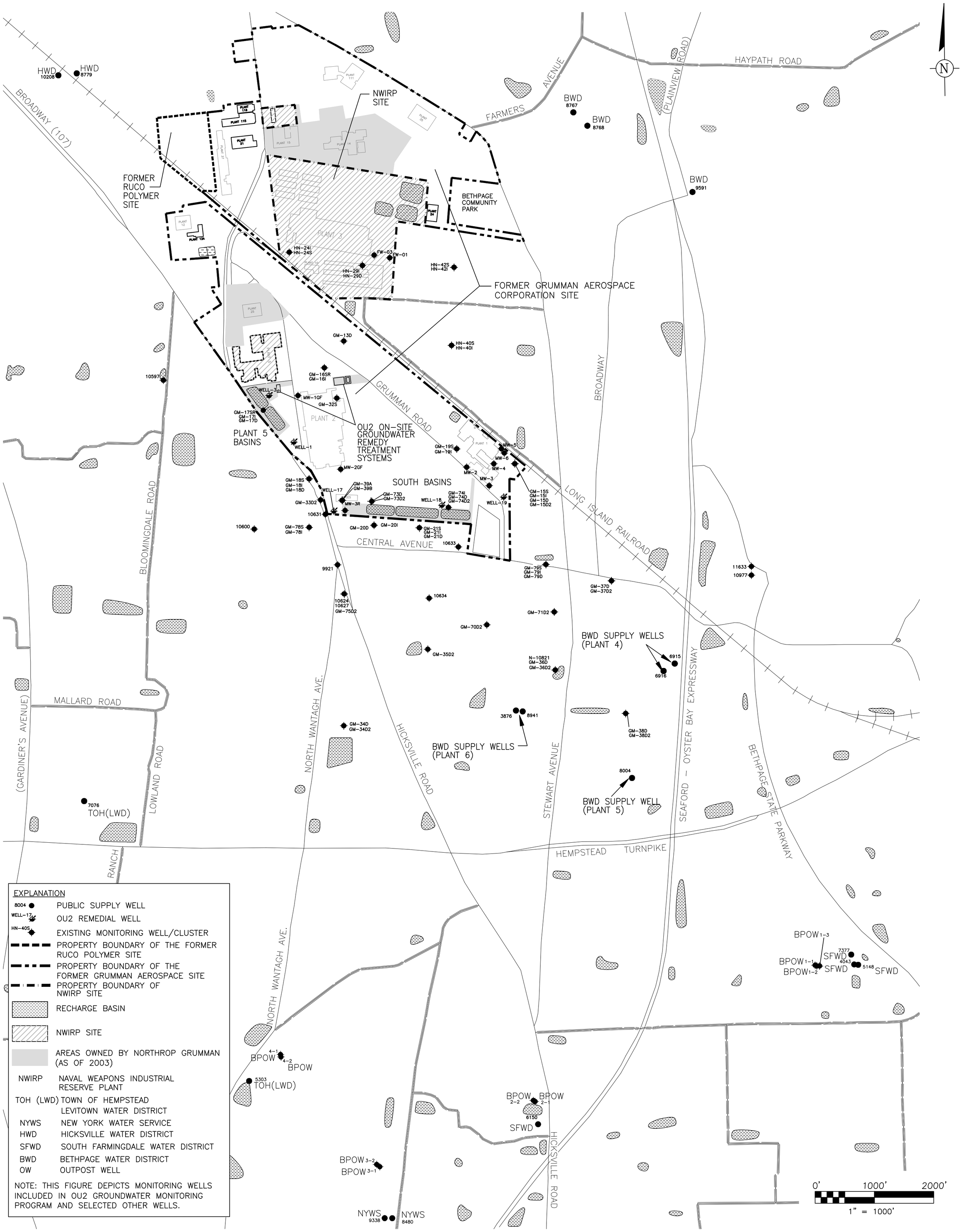
VOCs	Volatile organic compounds
ug/L	Micrograms per liter
H	Alternate peak selection upon analytical review.
J	Estimated value
B	Detected in an associated method blank
M	Manually integrate compound
*	Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane
--	Not analyzed

Bold value indicates a detection.

Table 13. Concentrations of Volatile Organic Compounds Detected in Blank Samples, First Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	SAMPLE TYPE:	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
	SAMPLE ID:	TB040306	TB040506	TB040606	TB040706	TB041006	TB041106	TB
	DATE:	04/03/06	04/05/06	04/06/06	04/07/06	04/10/06	04/11/06	04/12/06
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride		< 5	< 5 UB	< 5 UB	< 5 UB	< 5	< 5 UB	< 5 UB
Acetone		< 10	< 10 UB	< 10	< 10	< 10	< 10 UB	< 10 UB
Carbon disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene		< 5	< 5	**0.4 J**	**0.7 J**	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
trans-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone		< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylene (total)		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Freon-113 *		< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		0	0	**0.4**	**0.7**	0	0	0

VOCs Volatile organic compounds
ug/L Micrograms per liter
- Alternate peak selection upon analytical review.
J Estimated value
B Detected in an associated method blank
M Manually integrate compound
* Freon 113 also known as 1,1,1-Trichloro-2,2,2-trifluoroethane
-- Not analyzed
Bold value indicates a detection.



EXPLANATION

- 8004 — PUBLIC SUPPLY WELL
- WELL-17 — OU2 REMEDIAL WELL
- HN-40S — EXISTING MONITORING WELL/CLUSTER
- PROPERTY BOUNDARY OF THE FORMER RUCO POLYMER SITE
- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
- PROPERTY BOUNDARY OF NWIRP SITE
- RECHARGE BASIN
- NWIRP SITE
- AREAS OWNED BY NORTHROP GRUMMAN (AS OF 2003)

NWIRP	NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
TOH (LWD)	TOWN OF HEMPSTEAD LEVITOWN WATER DISTRICT
NYWS	NEW YORK WATER SERVICE
HWD	HICKSVILLE WATER DISTRICT
SFWD	SOUTH FARMINGDALE WATER DISTRICT
BWD	BETHPAGE WATER DISTRICT
OW	OUTPOST WELL

NOTE: THIS FIGURE DEPICTS MONITORING WELLS INCLUDED IN OU2 GROUNDWATER MONITORING PROGRAM AND SELECTED OTHER WELLS.

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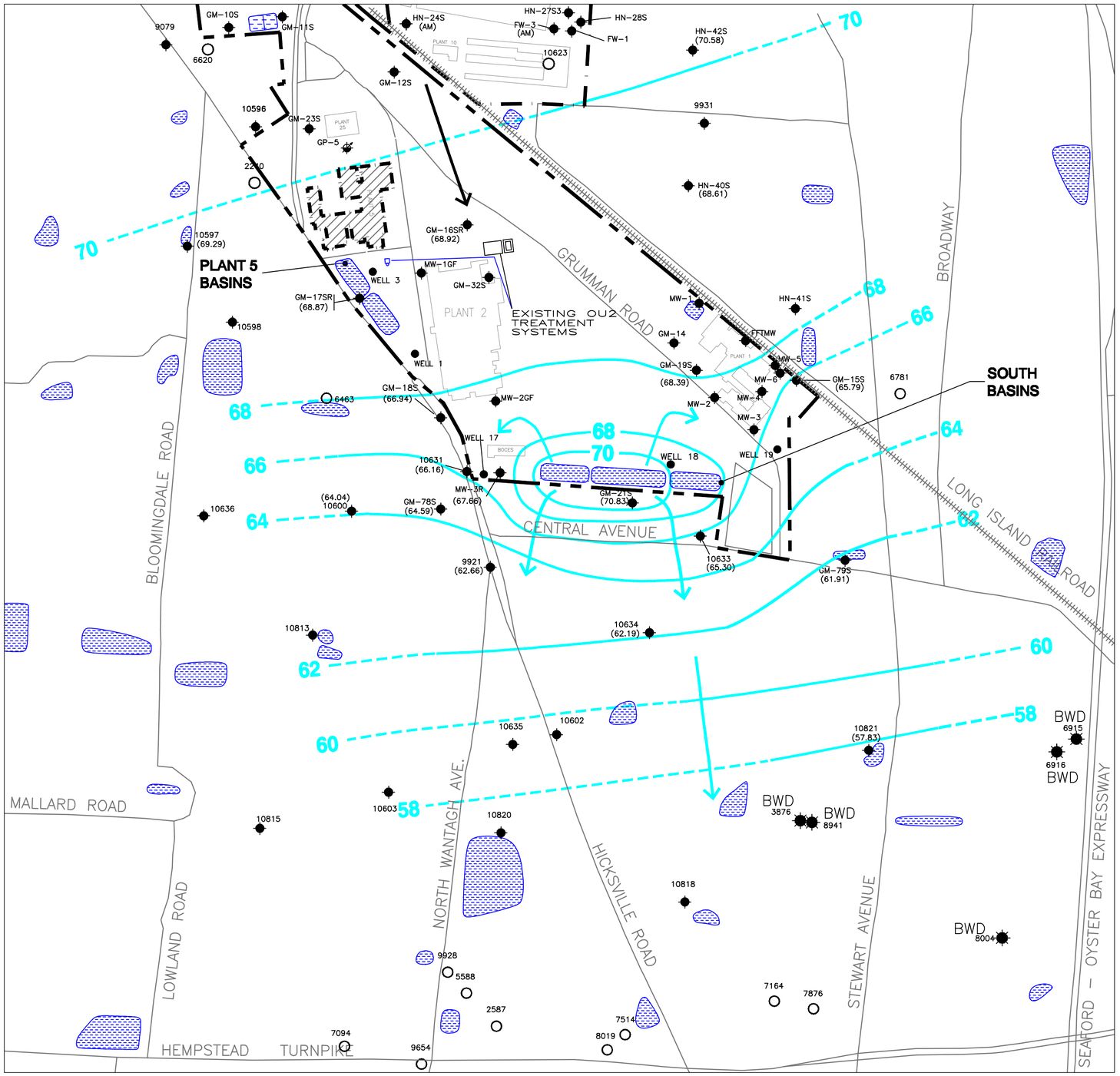
PROJECT TITLE

OPERABLE UNIT 2
NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGNER	CHECKED BY
C. SAN GIOVANNI	M. WOLFERT		D. STERN
SHEET TITLE		TASK/PHASE NUMBER	DRAWN BY
LOCATION OF OU2 ON-SITE GROUNDWATER REMEDY AND WELLS		00004	A. SANCHEZ
		PROJECT NUMBER	DRAWING NUMBER
		NY001348.0406	1



EXPLANATION

- PROPERTY BOUNDARY OF FORMER GRUMMAN AEROSPACE CORPORATION SITE
- PROPERTY BOUNDARY OF THE U.S. NAVY SITE
- RECHARGE BASIN
- GM-15S (65.79) — LOCATION AND DESIGNATION OF SHALLOW MONITORING WELL AND WATER-LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- 3876 — LOCATION AND DESIGNATION OF BETHPAGE WATER DISTRICT PUBLIC SUPPLY WELL (SHOWN FOR REFERENCE ONLY)
- 7164 — LOCATION AND DESIGNATION OF ADDITIONAL WELL
- GP-5 — LOCATION AND DESIGNATION OF GRUMMAN INDUSTRIAL SUPPLY WELL (SHOWN FOR REFERENCE ONLY)
- WELL 17 — LOCATION AND DESIGNATION OF ON-SITE OU2 REMEDIAL WELL (SHOWN FOR REFERENCE ONLY)
- HORIZONTAL COMPONENT OF GROUNDWATER FLOW
- -66- LINE OF EQUAL WATER TABLE ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (DASHED WHERE APPROXIMATE)

OU2 OPERABLE UNIT 2
BWD BETHPAGE WATER DISTRICT
USGS UNITED STATES GEOLOGICAL SURVEY
AM ANOMALOUS MEASUREMENT

NOTES:

1. THIS FIGURE INCLUDES LOCATIONS OF MONITORING WELLS AND PUBLIC SUPPLY WELLS AS OF SEPTEMBER 25, 2001.
2. OU2 WELLS 1,3,17,18, AND 19 ARE SCREENED IN THE D2 ZONE.
3. BWD WELL 3876 IS SCREENED IN THE DEEP ZONE.
4. BWD WELLS 6915, 6916, 8004, AND 8941 ARE SCREENED IN THE D2 ZONE.
5. BASIN LOCATIONS OBTAINED FROM USGS TOPOGRAPHIC MAPS (HICKSVILLE, AMITYVILLE, HUNTINGTION, AND FREEPORT QUADRANGLES), AND INFORMATION PROVIDED BY NORTHROP GRUMMAN.
6. SOUTH RECHARGE BASIN AND WEST BASIN DISCHARGE VOLUME OF GROUNDWATER FROM THE ON-SITE PORTION OF THE OU2 GROUNDWATER REMEDY THIS PERIOD IS PROVIDED IN TABLE 1.

0 800 1600
SCALE: 1" = 800'

NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD
0	7/27/06	1sT QT 2006 GW REPORT	MR

SEAL

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PROJECT TITLE
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NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
C. SAN GIOVANNI	M. WOLFERT		D. STERN

SHEET TITLE
WATER-TABLE CONFIGURATION AND HORIZONTAL GROUNDWATER FLOW DIRECTIONS IN THE SHALLOW ZONE APRIL 20 TO 21, 2006

TASK/PHASE NUMBER	DRAWN BY
00004	A. SANCHEZ
PROJECT NUMBER	DRAWING NUMBER
NY001348.0406	2

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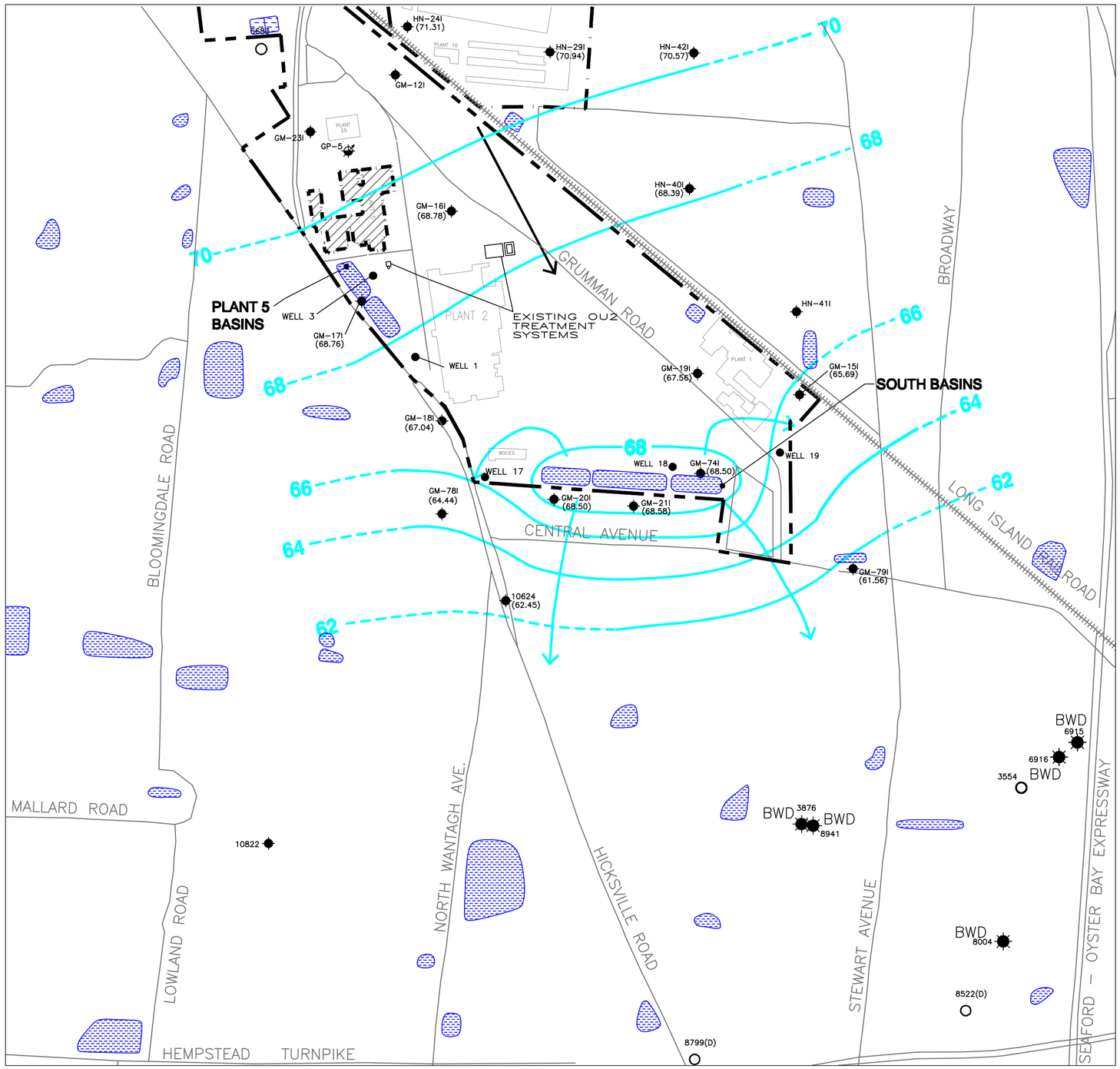
User Name : dsanchez



EXPLANATION

- PROPERTY BOUNDARY OF FORMER GRUMMAN AEROSPACE CORPORATION SITE
- PROPERTY BOUNDARY OF THE U.S. NAVY SITE
- RECHARGE BASIN
- GM-15I (65.69) — LOCATION AND DESIGNATION OF INTERMEDIATE MONITORING WELL AND WATER-LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- 3876 — LOCATION AND DESIGNATION OF BETHPAGE WATER DISTRICT PUBLIC SUPPLY WELL (SHOWN FOR REFERENCE ONLY)
- 3554 — LOCATION AND DESIGNATION OF ADDITIONAL WELL
- GP-5 — LOCATION AND DESIGNATION OF GRUMMAN INDUSTRIAL SUPPLY WELL (SHOWN FOR REFERENCE ONLY)
- WELL 17 — LOCATION AND DESIGNATION OF ON-SITE OU2 REMEDIAL WELL (SHOWN FOR REFERENCE ONLY)
- HORIZONTAL COMPONENT OF GROUNDWATER FLOW
- -68- LINE OF EQUAL POTENTIOMETRIC SURFACE ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (DASHED WHERE APPROXIMATE)

OU2 OPERABLE UNIT 2

BWD BETHPAGE WATER DISTRICT

USGS UNITED STATES GEOLOGICAL SURVEY

NOTES:

1. THIS FIGURE INCLUDES LOCATIONS OF MONITORING WELLS AND PUBLIC SUPPLY WELLS AS OF SEPTEMBER 25, 2001.
2. OU2 WELLS 1,3,17,18, AND 19 ARE SCREENED IN THE D2 ZONE.
3. BWD WELL 3876 IS SCREENED IN THE DEEP ZONE.
4. BWD WELLS 6915, 6916, 8004, AND 8941 ARE SCREENED IN THE D2 ZONE.
5. BASIN LOCATIONS OBTAINED FROM USGS TOPOGRAPHIC MAPS (HICKSVILLE, AMITYVILLE, HUNTINGTON, AND FREEPORT QUADRANGLES), AND INFORMATION PROVIDED BY NORTHROP GRUMMAN.

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SCALE: 1" = 800'

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Acad Version : R17.0s (LMS Tech)
User Name : alsanchez

NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD
0	7/27/06	1sT QT 2006 GW REPORT	MR

SEAL

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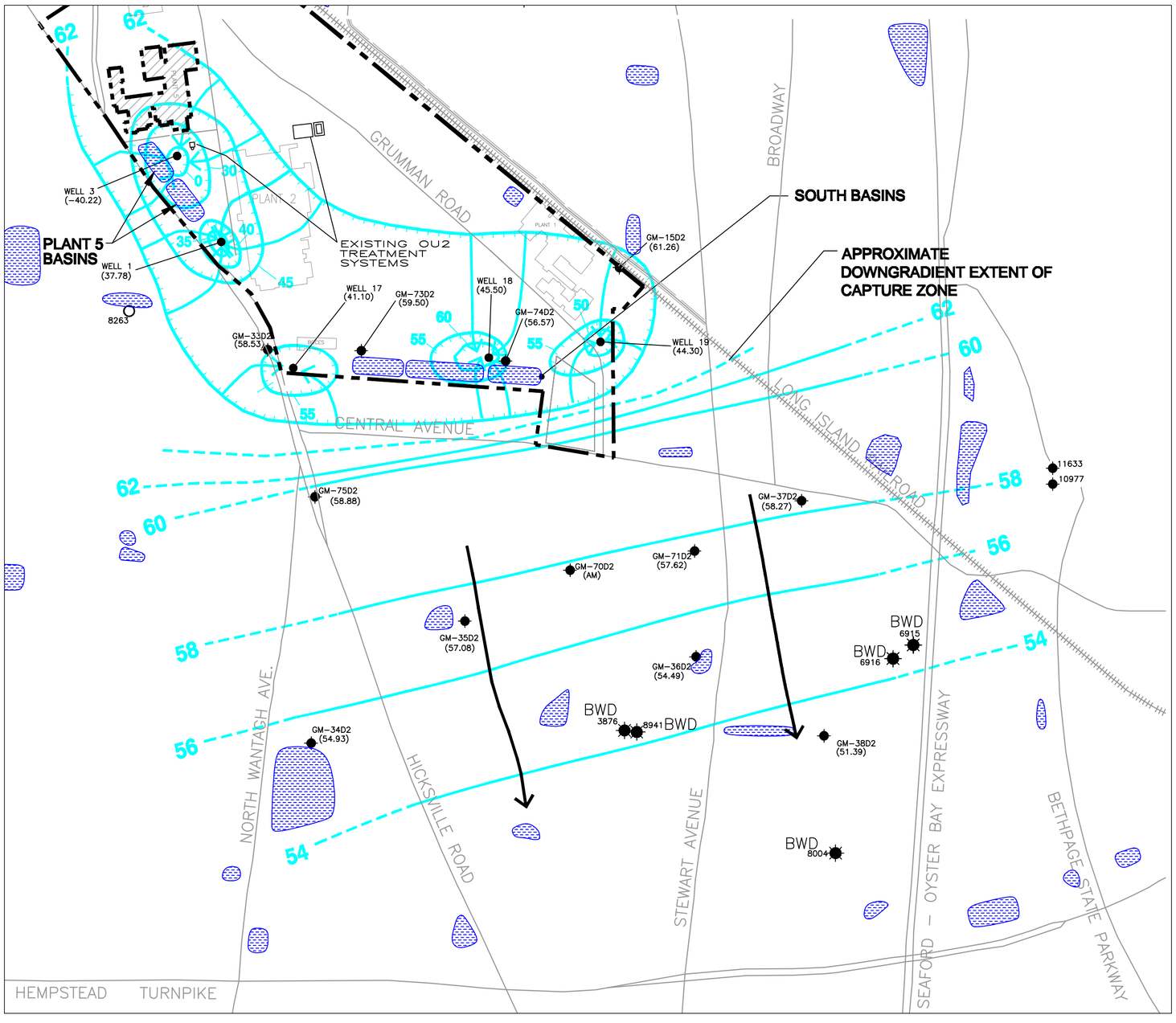
PROJECT TITLE
OPERABLE UNIT 2
NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
C. SAN GIOVANNI	M. WOLFERT		D. STERN

SHEET TITLE
POTENTIOMETRIC SURFACE ELEVATION AND HORIZONTAL GROUNDWATER FLOW DIRECTIONS IN THE INTERMEDIATE ZONE APRIL 20 TO 21, 2006

TASK/PHASE NUMBER	DRAWN BY
00004	A. SANCHEZ
PROJECT NUMBER	DRAWING NUMBER
NY001348.0406	3



N

EXPLANATION

- PROPERTY BOUNDARY OF FORMER GRUMMAN AEROSPACE CORPORATION SITE
- RECHARGE BASIN
- GM-15D2 (61.23) — LOCATION AND DESIGNATION OF D2 (VERY DEEP) MONITORING WELL AND WATER-LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL.
- 3876 — LOCATION AND DESIGNATION OF BETHPAGE WATER DISTRICT PUBLIC SUPPLY WELL
- 8263 — LOCATION AND DESIGNATION OF ADDITIONAL WELL
- WELL 19 (46.28) — LOCATION AND DESIGNATION OF ON-SITE OU2 REMEDIAL WELL AND WATER-LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- HORIZONTAL COMPONENT OF GROUNDWATER FLOW
- -60- LINE OF EQUAL POTENTIOMETRIC SURFACE ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (DASHED WHERE APPROXIMATE)
- LINE OF EQUAL POTENTIOMETRIC SURFACE ELEVATION DENOTING A DECREASE IN FEET RELATIVE TO MEAN SEA LEVEL

OU2 OPERABLE UNIT 2
GPM GALLONS PER MINUTE
BWD BETHPAGE WATER DISTRICT
USGS UNITED STATES GEOLOGICAL SURVEY
AM ANOMALOUS MEASUREMENT

NOTES:

1. THIS FIGURE INCLUDES LOCATIONS OF MONITORING WELLS AND PUBLIC SUPPLY WELLS AS OF SEPTEMBER 25, 2001.
2. OU2 REMEDIAL WELLS 1, 3, 17, 18, AND 19 ARE SCREENED IN THE D2 ZONE. WELLS GP-1,GP-3, ONCT-1, ONCT-2 AND ONCT-3 WERE PUMPING AT 1040 GPM, 440 GPM, 992 GPM, 647 GPM AND 647 GPM, RESPECTIVELY, AT THE TIME OF WATER-LEVEL MEASUREMENT.
3. BWD WELL 3876 IS SCREENED IN THE DEEP ZONE.
4. BWD WELLS 6915, 6916, 8004, AND 8941 ARE SCREENED IN THE D2 ZONE.
5. BASIN LOCATIONS OBTAINED FROM USGS TOPOGRAPHIC MAPS (HICKSVILLE, AMITYVILLE, HUNTINGTON, AND FREEPORT QUADRANGLES), AND INFORMATION PROVIDED BY NORTHROP GRUMMAN.

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SCALE: 1" = 800'

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User Name : alsanchez

NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD
0	7/27/06	1sT QT 2006 GW REPORT	MR

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PROJECT TITLE
OPERABLE UNIT 2
NORTHROP GRUMMAN
SYSTEMS CORPORATION
BETHPAGE, NEW YORK

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
C. SAN GIOVANNI	M. WOLFERT		D. STERN

SHEET TITLE
POTENTIOMETRIC SURFACE ELEVATION AND HORIZONTAL GROUNDWATER FLOW DIRECTIONS IN THE D2 ZONE APRIL 20 TO 21, 2006

TASK/PHASE NUMBER	DRAWN BY
00004	A. SANCHEZ

PROJECT NUMBER	DRAWING NUMBER
NY001348.0406	4

Appendix A

Water-Level Measurement Logs

ARCADIS G&M

Water Level Record

Project NY001348.0406.00002

Date 4/20/06

Well (s)	Depth to Water (ft)	Time	Remarks
HN-42I	49.04	10:05	
HN-42S	49.74	10:07	
HN-40S	47.74	10:08	
HN-40I	47.52	10:09	
GM-79D	40.71	10:14	
GM-79I	39.32	10:16	
GM-79S	38.97	10:19	
N-10633	38.50	10:24	
GM-21D	42.18	10:26	
GM-21I	37.14	10:28	
GM-21S	34.98	10:30	
GM-20I	35.38	10:34	
GM-20D	37.49	10:36	
GM-18D	44.53	10:39	
GM-18I	41.99	10:40	
ONCT1	47.0	10:46	1000 gpm GAUGE READING 110'-47' = 63 bmp
MW-3R	33.79	10:51	
GM 74I	38.92	11:01	
GM 74D	44.25	11:02	
GM 74D2	50.79	11:04	
Well 18	45.5	11:18	640 gpm 110-45.5 = 64.5
GM-73D2	45.12	11:20	
GM-73D	43.14	11:21	
GM-39D~~3~~	38.05	11:25	
GM 39D2	40.86	11:27	
GM-17D	44.15	11:33	
GM-17S	46.92	11:35	
GM-17I	47.07	11:36	
GP-1	79 ft	11:58	~~Pitot~~ Direct Reading 802 gpm
GM-16SR	~~46.94~~ 46.94	12:04	
GM-16I	47.03	12:05	
~~GP~~ GP-3	60 ft	12:12	685 GPM 218-60=158 el 117
GM-19I	42.30	12:21	
GM-19S	41.47	12:23	~~685~~
ONCT-3	64.40	12:26	≈ 685 GPM
GM-15I	43.56	12:32	
GM-15SR	43.65	12:33	
GM-15D2	48.52	12:35	
GM-15D	45.42	12:36	
GM-13D	45.20	12:46	

ARCADIS G&M

Water Level Record

Project N4001348.0406.00002

Date 4/20/06 & 4/21/06

Well (s)	Depth to Water (ft)	Time	Remarks
FW03	54.82	13:01	
HN-29D	45.75	13:07	
HN-29I	45.48	13:08	
HN-24I	54.49	1315	
HN-24S	50.96	1316	
BPOW 2-2	22.70	1431	
BPOW 2-1	20.62	1433	
BPOW 1-1	28.14	1435	
BPOW 1-2	29.57	1436	
BPOW 1-3	29.57	1437	
BPOW 3-1	26.29	1454	
BPOW3-2	27.50	1454	
BPOW 4-1	25.85	1504	
BPOW 4-2	25.55	1505	
GM-35D2	39.20	15:14	
N-10634	39.01	15:20	
GM-71D2	40.93	15:25	
GM-38D	37.42	15:31	
GM-38D2	40.17	15:33	
GM-37D	37.97	15:39	
GM-37D2	38.90	15:42	
GM-70D2	40.25	15	
N-10821	37.75	1556	
GM-36D	34.17	1558	
GM-36D2	37.11	1601	
N 10597	40.56	1611	
N 10600	38.37	1624	
GM-78S	40.35	1624	
GM-78I	40.62	1625	
N-10621	31.57	1633	
GM-75D2	34.75	1638	
N10627	31.65	1639	
N10624	31.16	1639	
N10631	37.31	1645	
GM-33D2	48.32	1648	
GM-18S	40.06	1652	
4/21/06 GM-34D	13.91	1052	2" well
GM-34D2	16.26	1053	4"

Appendix B

Groundwater Sampling Logs

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Ground water Sampling — Project No.: NV001348.0506.0002 — Page 1 of 1

Site Location: NBC Bethpage NY — Date: 3/15/06

Site/Well No.: MW-16F — Replicate No.: N/A — Code No.: ✓

Weather: Cool Cloudy/windy ≈40°F — Sampling Time: Begin ____ End ✓

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	✓
Land Surface Elevation (ft)	✓
Sounded Well Depth (ft bmp)	58
Depth to Water (ft bmp)	44.31
Water-Level Elevation (ft)	
Water Column in Well (ft)	13.69
Casing Diameter/Type	4" (.65)
Gallons in Well	8.89 x3
Gallons Pumped/Bailed Prior to Sampling	≈ 27
Sample Pump Intake Setting (ft bmp)	✓
Purge Time	begin 4:45 end 5:12
Pumping Rate (gpm)	1 gpm 9 min = 1V
Evacuation Method	Ready flow

Field Parameters

	1B	1V	2V	3V
Color	None	None	None	None
Odor	None	None	None	None
Appearance	Turb	Clear	Clear	Clear
pH (s.u.)	5.43	5.39	5.24	5.25
Conductivity (mS/cm) µS	324	351	350	353
~~(µmhos/cm)~~				
Turbidity (NTU)	101.4	39.5	12.8	6.46
Temperature (°C)	15.3	18.0	18.8	18.7
Dissolved Oxygen (mg/L)				
~~Salinity (%)~~ time	4:45	4:54	5:03	5:12

Sampling Method: Ready flow

Remarks: No PID (High winds)

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / C. Williams

Well Casing Volumes

Gal./ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Water Sampling Log

Project: Grd. Ind Water Samples | Project No. N70C1348,050k.0002 | Page 1 of 1

Site Location: NGC Bethpage, NY | Date: 3/15/00

Site/Well No.: MW-26F | Replicate No.: N/A | Code No.: /

Weather: Cool Overcast 40°F | Sampling Time: Begin 4:12 End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	59
Depth to Water (ft bmp)	43.21
Water-Level Elevation (ft)	/
Water Column in Well (ft)	15.79
Casing Diameter/Type	4" (.65)
Gallons in Well	10.2 x3
Gallons Pumped/Bailed Prior to Sampling	30
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 3:40 end 4:10
Pumping Rate (gpm)	1gpm 10min=1V
Evacuation Method	Ready flow / low.

Field Parameters

	I	1V	2V	3V
Color	Clear	Clear	Clear	Clear
Odor	None	None	None	None
Appearance	Clear	Clear	Clear	Clear
pH (s.u.)	5.88	5.87	5.87	5.84
Conductivity (mS/cm) µS	196.9	198.8	222	223
~~(µmhos/cm)~~	—	—	—	—
Turbidity (NTU)	123	23.7	17.4	11.3
Temperature (°C)	15.2	16.1	16.3	16.5
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	3:40	3:50	4:00	4:10
Sampling Method	Ready flow			
Remarks	No PID High winds			

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zuck / G. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Water Sampling Log

Project: Quarterly Sampling Project No. NV001348.0506.00002 Page 1 of 1

Site Location: NSC Bethpage, NY Date: 3/15/06

Site/Well No.: MW-3R Replicate No.: N/A Code No.: /

Weather: cool Overcast 240°F Sampling Time: Begin 1:15 End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	55
Depth to Water (ft bmp)	33.11
Water-Level Elevation (ft)	/
Water Column in Well (ft)	21.89
Casing Diameter/Type	2" (16)
Gallons in Well	3.5 x 3
Gallons Pumped/Bailed Prior to Sampling	10.5
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 12:58 end 1:10
Pumping Rate (gpm)	1 gpm
Evacuation Method	Peristaltic flow / Low flow

Field Parameters

	I	IV	2V	3V
Color	Brown	Lt Brn.	Lt Brn	None
Odor	None	None	None	None
Appearance	Turb	Turb	Clear	Clear
pH (s.u.)	5.53	5.29	5.25	5.49
Conductivity (mS/cm) µS	118.7	116.3	116.8	116.7
~~(umhos/cm)~~	—	—	—	—
Turbidity (NTU)	>200	195	61.4	27.6
Temperature (°C)	15.1	15.2	15.2	15.5
Dissolved Oxygen (mg/L)				
~~Salinity (%)~~ Time	12:58	1:02	1:06	1:10
Sampling Method	Peristaltic flow / Low flow			

Remarks: PID 0.0 But Bat. Died to Quick

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / C. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: N4001348 0506
Date: 3-9-06
Sampling Time: 12:30pm
Weather:

Task: 00002
Sampled By: GW
Recorded By: GW
Coded Replicate No.: N/A

Well ID: GM-13D

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC
Casing Diameter: 4"
Sounded Depth (ft bmp): 210
Depth to Water (ft bmp): 44.84

Purge Method: Dedicated Bladder/ Low Flow
Screen Interval (ft bmp): Top 200 Bottom 210
Pump Intake Depth (ft bmp): 205
Purge time Start: 11:30 AM Finish: 12:30 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (~~mS~~ µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:30		456		11.0	6.20	152.0	211	3.79		44.84	
11:35		↓		11.9	5.47	171.8	222	1.84			
11:40				12.1	5.26	[illegible]	230	1.72		44.83	
11:45				12.5	5.10	167.40	239	2.27			
11:50				12.5	5.10	168.4	238	2.28			
11:55				11.8	5.10	168.4	240	1.76		44.83	
12:00				11.6	5.12	170	245	1.74			
12:05				12.1	4.95	168.5	250	1.52			
12:10				12.2	4.98	167.5	251	1.48			
12:15				12.2	4.97	168.5	252	1.38		44.83	
12:20				12.3	5.00	168.4	252	1.80			
12:25				12.3	5.02	168.2	252	2.20			
12:30		↓		12.3	5.06	168.5	257	2.21	2.82		
~~12:35~~											
~~12:40~~											
~~12~~											

Sample Condition Color: COLORLESS Odor: MODERATE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading

Comments

8

G:\AFROJECT\WHCS Melville\ERD Pilot Test\lowflowsampleform.xls-LoFlo-GW-Samp

Water Sampling Log

Project: Northrop - Grumman | Project No. NY001348.0506.0000 | Page 1 of 1

Site Location: Bethpage NY | Date: 8-13-06

Site/Well No. GM-15SR | Replicate No. NA | Code No. NA

Weather: Overcast 50° | Sampling Time: Begin 2:18 | End 2:23

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	80
Depth to Water (ft bmp)	43.00
Water-Level Elevation (ft)	—
Water Column in Well (ft)	37
Casing Diameter/Type	~~2"~~ 4" (0.65)
Gallons in Well	24 x3
Gallons Pumped/Bailed Prior to Sampling	72
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 1:30 end 2:18
Pumping Rate (gpm)	Q=1.5 T=48 min 24 g/V
Evacuation Method	Rediflow Pump

Field Parameters	I	1V	2V	3V
Color	Clear	Clear	Clear	No Color
Odor	None	None	None	None
Appearance	Clear	Clear	Clear	Clear
pH (s.u.)	5.40	5.39	5.33	5.32
Conductivity µS ~~(mS/cm)~~	373	394	201	404
~~(umhos/cm)~~	—	—	—	—
Turbidity (NTU)	5.21	5.97	2.52	3.08
Temperature (°C)	16.0	16.1	16.3	16.3
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	1:30	1:46	2:02	2:18

Sampling Method: Ready Flow / Low Flow

Remarks: 0.0 PID

Constituents Sampled	Container Description	Number	Preservative
See ~~QA~~ COC			

Sampling Personnel: D. Zuck / G. Williams

Well Casing Volumes

Gal./Ft.			
1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP GRUMMAN | Project No. NY 001348.0406.00002 | Page 1 of 1

Site Location: BETHPAGE NY | Date: 3-31-06

Site/Well No.: GM-15I | Replicate No.: N/A | Code No.: —

Weather: CLEAR 65° | Sampling Time: Begin ____ End ____

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	105
Depth to ~~Water~~ Packer (ft bmp)	94
Water-Level Elevation (ft)	—
Water Column in Well (ft)	11
Casing Diameter/Type	4 (0.65)
Gallons in Well	7.15 ×3
Gallons Pumped/Bailed Prior to Sampling	22
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	Dedicated Bladder/packer

Field Parameters	I	1V	2V	3V
Color	—	—	—	COLORLESS
Odor	—	—	—	NONE
Appearance	—	—	—	CLEAR
pH (s.u.)	5.73	5.77	5.78	5.76
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	256	237	234	237
Turbidity (NTU)	—	—	—	3.83
Temperature (°C)	16.5	16.4	16.4	16.5
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	—	—	—	—

Sampling Method: PACKERED 3 WELL VOLUME

Remarks: 5 GAL PAILS ||||½
PACKER PRESSURE 80 PSI

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW.

Well Casing Volumes				
Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: GM-15-D

Date: 3/13/06 Sampled By: GW/D.Zuck

Sampling Time: 11:10 Recorded By: D.Zuck

Weather: Overcast 48° Coded Replicate No.: NA

Instrument Identification

Water Quality Meter(s): ——— Serial #: ———

Purging Information

Casing Material: PVC Purge Method: Dedicated Bladder / Low Flow

Casing Diameter: 4" Screen Interval (ft bmp): Top 332 Bottom 342

Sounded Depth (ft bmp): 342 Pump Intake Depth (ft bmp): 337

Depth to Water (ft bmp): 45.25 Purge time Start: 10:05 Finish: 11:10

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:05				12.5	6.18	192	134	5.72	2.33	45.25	
10:10				14.5	4.58	192	216	3.27	1.64		
10:15				14.6	4.20	192	252	4.18	1.75		
10:20				14.6	4.14	190	263	4.15	1.52	45.27	
10:25				14.3	4.17	191	269	4.24	1.26		
10:30				14.2	4.19	194	269	4.22	1.06		
10:35				14.2	4.20	192	272	4.25	1.09	45.27	
10:40				14.3	4.19	190	273	4.29	1.29		
10:45				14.4	4.19	192	275	4.27	1.08		
10:50				14.6	4.20	191	275	4.30	1.02	45.25	
10:55				14.6	4.18	188	276	4.36	1.14		
11:00				14.5	4.21	189	277	4.33	.90		
11:05				14.5	4.21	188	277	4.32	.99	45.26	

Sample Condition Color: Clear Odor: None Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments ———

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0405 Task: 00002 Well ID: GM-15D2
Date: 3/13/06 Sampled By: GW/D.Zuck
Sampling Time: 12:15 Recorded By: D.Zuck
Weather: Overcast 48° Coded Replicate No.: SPIKE MS/MSD

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Dedicated Bladder/Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 536 Bottom 556
Sounded Depth (ft bmp): 556 Pump Intake Depth (ft bmp): 546
Depth to Water (ft bmp): 47.60 Purge time Start: 11:15 Finish: 12:15

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:14				14.4	4.29	176	276	5.21	1.21	47.80	
11:20				14.0	4.51	142	263	5.12	1.32		
11:25				14.7	4.41	96	259	1.87	—		
11:30				14.7	4.44	96	259	3.24	—	47.73	
11:35				14.7	4.45	95	259	4.61	—		
11:40				14.7	4.47	95	260	4.70	—		
11:45				14.8	4.47	94	260	5.17	—	47.72	
11:50				14.8	4.46	95	261	5.26	—		
11:55				14.8	4.46	95	262	5.35	—		
12:00				14.8	4.47	94	263	5.40	—	47.72	
12:05				14.8	4.48	94	263	5.43	—		
12:10				14.9	4.47	94	263	5.36	—		
12:15				15.0	4.47	94	265	5.40	1.13	47.71	

Sample Condition Color: clear Odor: None Appearance: clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 0.0

Comments:

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No.: NY001348.0406.00002 | Page: 1 of 1

Site Location: Bethpage, NY | Date: 4/10/06

Site/Well No.: GM-16SR | Replicate No.: N/A | Code No.: ____

Weather: clear 56° | Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	46.63
Water-Level Elevation (ft)	/
Water Column in Well (ft)	23.37
Casing Diameter/Type	4" (0.65)
Gallons in Well	15.19
Gallons Pumped/Bailed Prior to Sampling	46 x3
Sample Pump Intake Setting (ft bmp)	Q=1 T=46 IV=16
Purge Time	begin 1:35pm end 12:23
Pumping Rate (gpm)	1
Evacuation Method	Rediflow Pump

Field Parameters

Field Parameters	I	1V	2V	3V
Color	Colorless	Colorless	Colorless	Colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.99	5.98	5.95	5.99
Conductivity ~~(mS/cm)~~	—	—	—	
(µmhos/cm)	124.1	122.6	121.7	122.8
Turbidity (NTU)	26	15	14	14
Temperature (°C)	16.4	16.3	16.3	16.3
Dissolved Oxygen (mg/L)	—	—	—	—
Time ~~Salinity (%)~~	1:35	1:51	2:07	2:23

Sampling Method: 3 well volume

Remarks: ____

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW CP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No.: NY001348.1406.00002 | Page: 1 of 1

Site Location: Bethpage, NY | Date: 4/10/06

Site/Well No.: GM-16I | Replicate No.: N/A | Code No.: —

Weather: clear 50's | Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	145
Depth to ~~Water~~ packer (ft bmp)	134
Water-Level Elevation (ft)	/
Water Column in Well (ft)	11
Casing Diameter/Type	4" (0.65)
Gallons in Well	7.15 x3
Gallons Pumped/Bailed Prior to Sampling	22
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 11:42 end 12:50
Pumping Rate (gpm)	
Evacuation Method	Dedicated packer

Field Parameters

Field Parameters	I:	1V	2V	3V
Color	Brown	Brown	Brown	Brown
Odor	None	None	None	None
Appearance	turbid	turbid	turbid	turbid
pH (s.u.)	9.31	9.41	9.00	8.63
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	335	270	256	247
Turbidity (NTU)	—	—	—	220
Temperature (°C)	15.2	16.4	16.5	17.0
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity~~ 5 gallon containers (%)	—	1 1/2	1/2 1	1 1/2

Sampling Method: 3 well volume

Remarks: DTW = 46.75

134 − 46.75 × .43 + 50 = 90 PSI Rounded up

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW AA

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Sampling — Project No.: NY001345.0506.00001 — Page: 1 of 1

Site Location: NGC Bethpage, NY — Date: 3/15/06

Site/Well No.: GM-17SR — Replicate No.: NA — Code No.: /

Weather: Cool windy ≈40° — Sampling Time: Begin 2:20 — End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	70
Depth to Water (ft bmp)	46.75
Water-Level Elevation (ft)	/
Water Column in Well (ft)	23.25
Casing Diameter/Type	4" (.65)
Gallons in Well	3.72 | 15.11 X3
Gallons Pumped/Bailed Prior to Sampling	≈45
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 1:45 end 2:15
Pumping Rate (gpm)	1.5 g/min 10 min = 1V
Evacuation Method	Peristaltic Pump

Field Parameters

	I	1V	2V	3V
Color	None	None	None	None
Odor	None	None	None	None
Appearance	Clear	Cloudy/Clear	Clear	Clear
pH (s.u.)	6.05	5.98	5.95	5.96
Conductivity (mS/cm) µS (µmhos/cm)	1288	1263	1273	1283
Turbidity (NTU)	2.85	2.61	1.93	1.30
Temperature (°C)	10.4	10.7	10.5	11.0
Dissolved Oxygen (mg/L)				
Salinity (%) Time	1:45	1:55	2:05	2:15

Sampling Method: Peristaltic Pump / Low Flow

Remarks: PID 0.0 (high winds) Bat. died

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / G. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348086 Task: 00003 Well ID: GM-17I
Date: 3-8-06 Sampled By: GD
Sampling Time: _____ Recorded By: GD
Weather: _____ Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): _____ Serial #: _____

Purging Information
Casing Material: PVC Purge Method: Low Flow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 100 Bottom 120
Sounded Depth (ft bmp): 120 Pump Intake Depth (ft bmp): 110
Depth to Water (ft bmp): 46.86 Purge time Start: 11:35 AM Finish: 12:20pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. µS (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:35		450		12.7	5.63	100.3	267	6.97		46.86	
11:40				11.8	5.87	107.7	257	6.91			
11:45				12.0	5.98	113.6	249	6.56		46.86	
11:50				12.1	6.00	114.6	245	6.61			
11:55				12.2	6.05	114.7	245	6.52			
12:00				12.2	6.05	114.5	245	6.53		46.92	
12:05				12.3	6.09	114.6	244	6.54			
12:10				12.3	6.11	114.9	241	6.53			
12:15				12.4	6.13	114.8	241	6.45		46.94	
12:20		↓		12.4	6.13	114.8	241	6.35	3.16		

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments _____

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ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: GM-17D
Date: 3-8-06 Sampled By: GW
Sampling Time: Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Lowflow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 278 Bottom 298
Sounded Depth (ft bmp): 298 Pump Intake Depth (ft bmp): 288
Depth to Water (ft bmp): 48.86 Purge time Start: 10:05 AM Finish: 11:05 AM

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:05		450		11.8	6.17	110.7	268	5.81		48.86	
10:10				11.5	6.14	107.1	276	5.73			
10:15				11.4	5.60	106.3	284	5.91		48.84	
10:20				11.4	5.45	106.1	288	5.84			
10:25				11.5	5.37	105.7	290	5.81			
10:30				11.4	5.32	106.1	296	5.95		48.84	
10:35				11.3	5.24	106.2	299	5.80			
10:40				11.7	5.19	105.9	299	6.05			
10:45				12.0	5.13	105.7	298	6.11		48.84	
10:50				12.1	5.14	105.4	299	6.10			
10:55				12.6	5.10	105.0	301	5.97			
11:00				12.6	5.14	104.7	301	6.03			
11:05				12.6	5.09	104.7	303	5.96	1.86	48.84	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
See CoC			

PID Reading 0.0

Comments

ARCADIS

Water Sampling Log

Project: Ground water Sampling Project No. NY001348.0406.00002 Page 1 of 1

Site Location: NOC Bethpage NY Date: 3/16/06

Site/Well No. GM145 Replicate No. NA Code No. /

Weather: Sunny Windy 40° Sampling Time: Begin 12:00 End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	67
Depth to Water (ft bmp)	39.10
Water-Level Elevation (ft)	/
Water Column in Well (ft)	27.1
Casing Diameter/Type	2" (.16)
Gallons in Well	4.33
Gallons Pumped/Bailed Prior to Sampling	12 gal X3
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 11:45 end 11:57
Pumping Rate (gpm)	1gpm 4min=1V
Evacuation Method	Peristaltic flow

Field Parameters

	I	1V	2V	3V
Color	gray	Clear	Clear	Clear
Odor	None	None	None	None
Appearance	turb	Clear	Clear	Clear
pH (s.u.)	6.30	5.76	5.67	5.64
Conductivity µS (mS/cm) (µmhos/cm)	238	311	319	319
Turbidity (NTU)	>200	4.76	3.33	2.51
Temperature (°C)	15.4	16.0	16.0	16.0
Dissolved Oxygen (mg/L)				
~~Salinity (%)~~ time	11:45	11:49	11:53	11:57

Sampling Method: Peristaltic flow

Remarks: No PID (High Wind)

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / G. Willidms

Well Casing Volumes

Gal./ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. N4001348.0406-00502 Page 1 of ____

Site Location: BETHPAGE NY Date: 4-11-06

Site/Well No.: GM-18I Replicate No.: N/A Code No.: ____

Weather: ____ Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	105
Depth to Water (ft bmp) PACKER	94
Water-Level Elevation (ft)	
Water Column in Well (ft)	11
Casing Diameter/Type	4" (0.65)
Gallons in Well	7.1
Gallons Pumped/Bailed Prior to Sampling	22
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 330 end ____
Pumping Rate (gpm)	
Evacuation Method	BLADDER PUMP

Field Parameters

	I	1J	2J	3J
Color				COLORLESS
Odor				NONE
Appearance				CLEAR
pH (s.u.)	6.04	6.14	5.74	5.70
Conductivity (mS/cm)				
(µmhos/cm)	262	313	358	365
Turbidity (NTU)				10
Temperature (°C)	16.9	16.7	16.2	16.4
Dissolved Oxygen (mg/L)				
Salinity (%)				

Sampling Method: PACKERED 3 WELL VOLS

Remarks: 5 GAL PAILS 11 1/2

105 − 49 = 56 x .43 = 24 + 50 = 80 PSI

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.05.06 Task: 0002 Well ID: GM-18D
Date: 3-28-06 Sampled By: GW
Sampling Time: Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Lowflow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 290 Bottom 300
Sounded Depth (ft bmp): 300 Pump Intake Depth (ft bmp): 295
Depth to Water (ft bmp): 43.98 Purge time Start: 1:40pm Finish: 2:40pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1:40		450		14.9	6.05	108.7	235	7.56		43.98	
1:45				15.0	587	101.1	246	5.21			
1:50				—	—	—	—	—			
1:55				14.3	589	103.3	254	6.41		44.07	
2:00				14.4	5.53	103.4	257	6.72			
2:05				14.6	5.52	102.9	263	6.67			
2:10				14.7	5.42	103.2	266	6.70		44.04	
2:15				14.8	5.40	102.7	270	6.75			
2:20				14.8	5.38	102.96	271	6.77			
2:25				14.7	5.37	102.8	276	6.73		43.98	
2:30				14.4	5.37	102.6	278	6.78			
2:35				14.6	5.36	102.3	279	6.68			
2:40		↓		14.6	5.36	102.5	280	6.63	2.57	43.98	
2											

Sample Condition Color: Colorless Odor: None Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406 Task: 00002 Well ID: GM-18D
Date: 4-11-06 Sampled By: GW
Sampling Time: Recorded By: GW
Weather: CLEAR 55° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: Purge Method: LOW FLOW
Casing Diameter: Screen Interval (ft bmp): Top Bottom
Sounded Depth (ft bmp): Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 44.31 Purge time Start: Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units) G-50	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:20				17.7	7.03	227	198	7.03		44.31	
2:25				17.5	5.63	122.9	237	6.43			
2:30				17.6	6.55	115.4	260	6.43			
2:35				—	—	—	—	—		44.31	
2:40				17.6	5.61	115.6	261	6.54		44.34	
2:45				17.6	5.61	116.1	262	6.49			
2:50				18.2	5.64	116.1	262	6.36			
2:55				18.8	5.64	116.5	260	6.28		44.30	HOT SUN
300				18.9	5.64	116.5	258	6.23			HEATING WATER
3:05				18.9	5.64	116.5	260	6.23			
3:10				18.7	5.64	116.5	260	6.37		44.30	
3:15				18.7	5.64	116.7	262	6.24			
3:20				18.7	5.67	116.7	261	6.35	<50	4430	

Sample Condition Color: Odor: Appearance:
Sample Collection

Parameter:	Container:	No.	Preservative:

PID Reading 0.0

Comments

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. NY001348.0506.00002 Page 1 of 1

Site Location: BETHPAGE NY Date: 8-9-06

Site/Well No.: GM-20I Replicate No.: N/A Code No.: —

Weather: _____ Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	105
Depth to ~~water~~ PACKER (ft bmp)	93
~~Water Level~~ PACKER Elevation (ft)	NA
Water Column in Well (ft) BELOW PACKER	12
Casing Diameter/Type	4(0.65)
Gallons in Well	7.8
Gallons Pumped/Bailed Prior to Sampling	24 X3
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin _____ end _____
Pumping Rate (gpm)	
Evacuation Method	Dedicated Bladder/packer

Field Parameters

Field Parameters	I	1V	2V	3V
Color	—	—	—	COLORLESS
Odor	—	—	—	NONE
Appearance	—	—	—	CLEAR
pH (s.u.)	11.09	11.09	11.11	11.07
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	326	310	280	271
Turbidity (NTU)	—	—	—	—
Temperature (°C)	11.8	12.0	12.1	12.2
Dissolved Oxygen (mg/L)	—	—	—	—

Salinity (%): _____

Sampling Method: 3 WELL VOLUMES

Remarks: DTW - @ 34.43

105 - 35 x .43 + 50 = 85 = 100 PSI

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW.

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

GM-20D

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No.: NY001348.0506.00002 Page 1 of 1

Site Location: BETHPAGE NY Date: 3-9-06

Site/Well No.: GM-20D Replicate No.: N/A Code No.: —

Weather: CLEAR 40° Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	226
Depth to ~~Water~~ Product (ft bmp)	214
Water-Level Elevation (ft)	/
Water Column in Well (ft)	12
Casing Diameter/Type	4 (.65)
Gallons in Well	7.8
Gallons Pumped/Bailed Prior to Sampling	24 x3
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	Dedicated Bladder/pump

Field Parameters

Field Parameters	1	1J	2J	3J
Color	—	—	—	COLORLESS
Odor	—	—	—	NONE
Appearance	—	—	—	CLEAR
pH (s.u.)	5.39	5.38	5.33	5.35
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	97.6	97.6	97.7	97.8
Turbidity (NTU)	—	—	—	>20
Temperature (°C)	13.5	13.7	13.1	13.7
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	—	—	—	—

Sampling Method: ____

Remarks: 5 GALLON PAILS

226-36 x .43 + 50 = @ 132 PSI

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: G.W.

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Ground water Samples | Project No.: NY001348.0506.00002 | Page: 1 of 1

Site Location: NGC Bethpage NY | Date: 3/15/06

Site/Well No.: GM-21S | Replicate No.: NA | Code No.: /

Weather: Cool Windy ~40°F | Sampling Time: Begin 3:25 pm | End /

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	67
Depth to Water (ft bmp)	34.16
Water-Level Elevation (ft)	/
Water Column in Well (ft)	32.84
Casing Diameter/Type	2" (.16)
Gallons in Well	5.25 x3
Gallons Pumped/Bailed Prior to Sampling	≈16 gal
Sample Pump Intake Setting (ft bmp)	10/min 5min=1V
Purge Time	begin 3:05 end 3:20 pm
Pumping Rate (gpm)	1gal/min 1V=5min
Evacuation Method	Steady flow

Field Parameters	1st	1V	2V	3V
Color	Lt. Brn	Clear	Clear	Clear
Odor	None	None	None	None
Appearance	turbid	Clear	Clear	Clear
pH (s.u.)	6.25	6.10	6.12	6.09
Conductivity (mS/cm) µS	109.3	109.0	108.7	109.0
(µmhos/cm)				
Turbidity (NTU)	74.5	10.65	10.03	8.20
Temperature (°C)	10.4	14.9	10.4	10.6
Dissolved Oxygen (mg/L)				
Salinity (%) time	3:05	3:10	3:15	3:20

Sampling Method: Bailer / Low flow / Low flow

Remarks: No PID (high winds)

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zack / G. Willdins

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP GRUMMAN Project No.: NY001348.0006.00002 Page 1 of 1

Site Location: BETHPAGE NY Date: 3-31-06

Site/Well No.: GM-21S Replicate No.: N/A Code No.: —

Weather: Clear, 65° Sampling Time: Begin ____ End ____

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	140
Depth to ~~Water~~ Packer (ft bmp)	129
Water-Level Elevation (ft)	—
Water Column in Well (ft)	11
Casing Diameter/Type	4 (0.65)
Gallons in Well	7.15
Gallons Pumped/Bailed Prior to Sampling	21.45
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	Dedicated Bladder/packer

Field Parameters	I	1.5	2.5	3.5
Color	—	—	—	Colorless
Odor	—	—	—	None
Appearance	—	—	—	Clear
pH (s.u.)	9.53	9.96	10.02	9.99
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	112.3	113.4	115.1	114.3
Turbidity (NTU)	—	—	—	6.24
Temperature (°C)	14.6	14.5	12.0	12.0
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	—	—	—	—

Sampling Method: 3 well volume

Remarks: 129-37=92 x .43=40+50=90 PSI

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: GM-21D
Date: 3-7-06 Sampled By: GW
Sampling Time: _____ Recorded By: GW
Weather: _____ Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): _____ Serial #: _____

Purging Information
Casing Material: PVC Purge Method: LOWflow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 278 Bottom 288
Sounded Depth (ft bmp): 288 Pump Intake Depth (ft bmp): 283
Depth to Water (ft bmp): 41.36 Purge time Start: 2:40 pm Finish: 3:40 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:40		450		10.4	4.60	97.7	311	6.26		41.36	
2:45				10.6	4.26	96.5	342	5.36			
2:50				10.9	4.19	84.4	351	5.30		41.42	
2:55				10.9	4.18	84.9	353	5.65			
3:00				10.9	4.18	86.3	355	5.96			
3:05				10.9	4.04	87.1	357	5.99		41.42	
3:10				10.9	4.19	88.3	358	6.03			
3:15				11.0	4.19	89.7	355	6.18			
3:20				11.1	4.18	89.8	357	6.22			
3:25				11.1	4.15	89.8	357	6.17		41.42	
3:30				11.0	4.16	89.9	357	6.24			
3:35				11.1	4.19	89.9	354	6.26			
3:40				11.1	4.18	90.7	357	6.19	2.12	41.42	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments _____

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/17/06

Site/Well No.: GM-32S | Replicate No.: N/A | Code No.: —

Weather: clear 40s' | Sampling Time: Begin 3:05 | End 3:09pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	51.00
Depth to Water (ft bmp)	40.49
Water-Level Elevation (ft)	—
Water Column in Well (ft)	10.51
Casing Diameter/Type	4" (0.65)
Gallons in Well	6.8
Gallons Pumped/Bailed Prior to Sampling	21
Sample Pump Intake Setting (ft bmp)	Q=1 T=21 IV=7
Purge Time	begin 2:44 end 3:05
Pumping Rate (gpm)	1
Evacuation Method	Rediflow Pump

Field Parameters

Field Parameters	I	1V	2V	3V
Color		Colorless		
Odor	None	NONE		
Appearance	cloudy	CLEAR		
pH (s.u.)	6.73	6.68	6.61	6.61
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	481	420	409	412
Turbidity (NTU)	70.5	10.83	7.69	4.50
Temperature (°C)	13.4	14.9	15.6	15.6
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	2:44	2:51	2:58	3:05

Sampling Method: 3 well Volume

Remarks: PID reading at wellhead zero

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0906 **Task:** 00002 **Well ID:** GM-33D2
Date: 3/16/06 **Sampled By:** GW/D. Zuck
Sampling Time: 1:45 **Recorded By:** D. Zuck
Weather: Sunny windy 40° **Coded Replicate No.:** NA

Instrument Identification
Water Quality Meter(s): **Serial #:**

Purging Information
Casing Material: PVC **Purge Method:** Dedicated Bladder
Casing Diameter: 4" **Screen Interval (ft bmp):** Top 500 **Bottom** 520
Sounded Depth (ft bmp): 520 **Pump Intake Depth (ft bmp):** 510
Depth to Water (ft bmp): 47.68 **Purge time** **Start:** 12:40 **Finish:** 1:40

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (ml/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) µS	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:40				13.1	6.89	119.3	145	7.49		47.68	
12:44				13.5	6.92	111.2	179	7.[illegible]3			
12:50				13.9	7.04	108.6	118	6.19			
12:55				14.6	7.30	107.0	104	6.01		47.71	
1:00				14.6	7.60	108.6	87	6.05			
1:05				14.2	6.81	97.9	156	6.99			
1:10				14.7	6.00	93.9	191	7.18		47.71	
1:15				14.5	5.11	93.5	215	7.28			
1:20				14.6	5.03	93.4	219	7.21			
1:25				14.6	4.99	93.5	221	7.20		47.72	
1:30				14.6	4.95	93.3	226	7.21			
1:35				14.5	4.95	93.3	229	7.10			
1:40				14.5	4.95	93.3	231	7.09	1.48	47.73	

Sample Condition Color: Clear Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: high winds

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: Man1348.0406 Task: 00002 Well ID: GM34D
Date: 4/7/06 Sampled By: GWilliams / JSherlin
Sampling Time: 16:25 Recorded By: JSherlin
Weather: Rain, 45° Coded Replicate No.: /

Instrument Identification
Water Quality Meter(s): YSI Serial #: YSI

Purging Information
Casing Material: Steel Purge Method: Low Flow
Casing Diameter: 2" Screen Interval (ft bmp): Top 309 Bottom 319
Sounded Depth (ft bmp): 319 Pump Intake Depth (ft bmp): 314
Depth to Water (ft bmp): 13.1 Purge time Start: 16:20 Finish: 17:30

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
16:25				13.6	6.68	113.5	59	4.49		13.1	
16:30				14.2	9.24	97.1	-183	0.63			
16:35				14.2	8.96	80.7	-155	0.63		13.1	
16:40				14.1	7.64	183.3	-95	0.70			
16:45				14.3	6.66	182.6	3	0.73		13.1	
16:50				14.4	6.67	182.4	7	0.74			
16:55				14.7	6.47	181.2	15	0.74		13.1	
17:00				14.7	6.44	181.8	28	0.74			
17:05				14.7	6.44	181.7	35	0.73			
17:10				14.3	6.39	181.5	43	0.76			
17:15				14.1	6.35	181.3	52	0.73			
17:20				13.9	6.31	181.5	57	0.73	[redacted]		
17:25				14.0	6.29	181.5	61	0.73	5.8	13.1	

Sample Condition Color: colorless Odor: odorless Appearance: clear

Sample Collection

Parameter	Container:	No.	Preservative:
See CoC			

PID Reading: rain

Comments:

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: M001948.0406 Task: 00002 Well ID: GM34D2
Date: 4/7/06 Sampled By: G Williams / JSchetlin
Sampling Time: 15:45 Recorded By: JScheflo
Weather: Rain, 45° Coded Replicate No.: /

Instrument Identification
Water Quality Meter(s): Y/A Serial #: Y/A

Purging Information
Casing Material: Steel Purge Method: Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 510 - Bottom 520 -
Sounded Depth (ft bmp): 520 Pump Intake Depth (ft bmp): 515'
Depth to Water (ft bmp): 14.95' Purge time Start: 14:40 Finish: 15:45

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
14:40				13.1	~~7.38~~	104.8	229	2.34		14.95	pH = 7.38
14:45				13.3	7.62	94.9	204	2.50			
14:50				13.5	7.72	93.5	203	2.85		14.95	
14:55				13.6	7.96	89.1	187	2.46			
15:00				13.6	7.96	82.4	187	2.42		14.95	
15:05				13.7	6.57	73.3	185	1.47			
15:10				13.7	6.74	69.3	121	1.31		14.95	
15:15				13.7	6.66	64.9	99	1.59			
15:20				13.7	6.70	65.1	93	1.61			
15:25				13.1	6.41	~~104.2~~	71	4.00			Spec. cond = 104.2
15:30				13.5	6.30	~~104.1~~	45	3.91			Sp. Cond = 104.1
15:35				13.1	6.16	99.2	62	4.19			
15:40				13.1	6.14	98.7	65	4.24	3.1	14.95	

Sample Condition Color: Colorless Odor: odorless Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading RAW

Comments

G:\AFROJECT\WHCS Melville\ERD Pilot Test\lowflowsamplomp.xls-LoFlo-GW-Samp

ARCADIS

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. My00134B.0406.0000 Page 1 of ____

Site Location: BETHPAGE NY Date: 4-20-06

Site/Well No.: BM-35D-2 Replicate No.: N/A Code No.: ____

Weather: CLEAR 40° Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	530
Depth to Water (ft bmp)	508
Water-Level Elevation (ft)	
Water Column in Well (ft)	22
Casing Diameter/Type	4(0.65)
Gallons in Well	14.3
Gallons Pumped/Bailed Prior to Sampling	~~42A~~ 43
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 4:00 end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters

	I			S
Color				COLORLESS
Odor				NONE
Appearance				CLEAR
pH (s.u.)	6.46	5.91	5.83	5.88
Conductivity ~~(mS/cm)~~ (µmhos/cm)	114.1	113.1	116.0	114.5
Turbidity (NTU)				1.3
Temperature (°C)	16.8	16.7	16.1	16.0
Dissolved Oxygen (mg/L)				
Salinity (%)				
Sampling Method				
Remarks	5 GAL PAILS NTU 25			

530-38 = 492 x .43 = 221 + ~~50~~ = 250 PSI

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. NY001348.0406.00002 Page 1 of 1

Site Location: BETHPAGE NY. Date: 4-3-06

Site/Well No.: 6M-36D Replicate No.: N/A Code No.: —

Weather: _____ Sampling Time: Begin _____ End _____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	214
Depth to ~~Water~~ PACKER (ft bmp)	202
Water-Level Elevation (ft)	~~NA~~
Water Column in Well (ft)	12
Casing Diameter/Type	4(0.65)
Gallons in Well	78 X3
Gallons Pumped/Bailed Prior to Sampling	23.4
Sample Pump Intake Setting (ft bmp)	_____
Purge Time	begin _____ end _____
Pumping Rate (gpm)	_____
Evacuation Method	Dedicated Bladder Packer

Field Parameters

Field Parameters	1	1V	2V	3V
Color	—	—	—	COLORLESS
Odor	—	—	—	NONE
Appearance	—	—	—	CLEAR
pH (s.u.)	6.42	6.16	5.91	6.04
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	106.5	106.6	109.2	108.1
Turbidity (NTU)	—	—	—	6.46
Temperature (°C)	16.0	15.9	14.9	16.0
Dissolved Oxygen (mg/L)	—	—	—	—

Salinity (%): _____

Sampling Method: 3WV W/PACKER

Remarks: OTW 33.75

215 − 33.75 = 181.25 x .43 = 78 + 20.98 = 100

100 PSI

5 GAL PASS III

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-½" = 0.08	2" = 0.16	3" = 0.37	4" = 0.65
	1-¼" = 0.05	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. NY001348.0406.00002 Page 1 of 1

Site Location: BETHPAGE NY Date: 4-3-06

Site/Well No.: ~~GM 38D-2~~ GM-36D2 Replicate No.: N/A Code No.: —

Weather: ______ Sampling Time: Begin ______ End ______

Evacuation Data	
Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	540
Depth to ~~Water~~ PACKER (ft bmp)	518
Water-Level Elevation (ft)	~~22~~
Water Column in Well (ft)	22
Casing Diameter/Type	4 (0.65)
Gallons in Well	14.3 x3
Gallons Pumped/Bailed Prior to Sampling	43 GAL
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ______ end ______
Pumping Rate (gpm)	
Evacuation Method	Dedicated Bladder/packer

Field Parameters	I	1V	2V	3V
Color	—	—	—	COLORLESS
Odor	—	—	—	NONE
Appearance	—	—	—	CLEAR
pH (s.u.)	8.30	10.27	8.16	8.40
Conductivity ~~(mS/cm)~~	—	—	—	|
(umhos/cm)	151.3	158.8	125.1	116.0
Turbidity (NTU)	—	—	—	19.4
Temperature (°C)	13.5	14.6	14.6	15.3
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	—	—	—	—

Sampling Method: 3 WELL VOLUME W/ PACKER

Remarks: 56 GAL PASS NY ||||
~~495-39.10=455.9-196~~
540-36.10=503.9x.43=216+25
PACKER PRESSURE 240

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Water Sampling Log

Project: NORTHROP GRUMMAN Project No. 100348.0406.0002 Page 1 of ____

Site Location: BETHPAGE NY Date: 4-6-06

Site/Well No.: GM-37D Replicate No.: N/A Code No.: ____

Weather: CLEAR 35° Sampling Time: Begin 1105 End 1110

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	262
Depth to ~~Water~~ PACKER (ft bmp)	240
Water-Level Elevation (ft)	~~22~~
Water Column in Well (ft)	22
Casing Diameter/Type	4"(0.65)
Gallons in Well	14.3
Gallons Pumped/Bailed Prior to Sampling	~~42.9~~ 43
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 9:30 end 11:00
Pumping Rate (gpm)	
Evacuation Method	PACKERED 3 WELL VOLUME

Field Parameters

Field Parameters	I	1 V	2 J	3 V
Color				COLORLESS
Odor				NONE
Appearance			5.18	CLEAR
pH (s.u.)	5.51	5.65	~~5.18~~	5.34
Conductivity ~~(mS/cm)~~ (µmhos/cm)	6.48	219	199.4	1958
Turbidity (NTU)				1.84
Temperature (°C)	12.1	15.0	14.9	15.1
Dissolved Oxygen (mg/L)				
Salinity (%)				

Sampling Method: PACKERED 3 WELL VOLUME

Remarks: 56 GAL PAILS

262 - 37.7 = 224 x .43 = 96 + 50 = 150 PSI

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No. NY001347.0406.00002 Page 1 of ____

Site Location: BETHPAGE NY Date: 4-5-06

Site/Well No.: GM-37D-2 Replicate No.: N/A Code No.: ____

Weather: RAINY/SNOWY Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	390
Depth to ~~Water~~ PACKER (ft bmp)	~~329~~ 366
Water-Level Elevation (ft)	?
Water Column in Well (ft)	22
Casing Diameter/Type	4 (0.65)
Gallons in Well	14.3
Gallons Pumped/Bailed Prior to Sampling	429
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 2:50 end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters

Field Parameters	I	1V	2'V	3 V
Color				COLORLESS
Odor				NONE
Appearance				CLEAR
pH (s.u.)	6.46	5.31	5.27	5.05
Conductivity ~~(mS/cm)~~	~~164~~	~~136.1~~		
(µmhos/cm)	164	1361	143.5	1404
Turbidity (NTU)				4.67
Temperature (°C)	16.1	16.2	16.0	16.0
Dissolved Oxygen (mg/L)				
Salinity (%)				
Sampling Method				
Remarks				

5 GAL PAILS IIIIII

390-37.50 = 352.50 x .43 = 151 + 50 = 201

RED NOT USED (RAIN) 200 PSI

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: ____

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: N4001348.0406 Task: 00002 Well ID: GM-38
Date: 4-5-06 Sampled By: GL
Sampling Time: Recorded By:
Weather: Coded Replicate No.: MS/MSD TRIPLEN

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: Purge Method: LOW flow
Casing Diameter: Screen Interval (ft bmp): Top Bottom
Sounded Depth (ft bmp): Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 36.79 Purge time Start: Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
10:25		450		—	—	—	~~13~~	—	—	36.79	
10:30				12.0	6.83	184.8	130	2.51			
10:35				12.4	6.31	184.7	224 *	1.55		36.80	
10:40				12.7	6.03	128.0	214	1.27			
10:45				12.9	5.83	127.7	223	1.09		36.89	
10:50				12.3	5.67	129.6	233	1.32			
10:55				12.0	5.58	131.8	240	1.40			
11:00				12.0	5.58	132.2	242	1.38			
11:05				11.9	5.56	133.0	247	1.38		36.90	
11:10				12.0	5.52	134.8	259	1.29			
11:15				12.1	5.52	134.8	262	1.21			
11:20		V		12.2	5.52	134.2	270	1.30		36.90	
11:25				12.2	5.52	134.8	270	1.26	~~1.50~~		
									2.36		

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:

PID Reading 0.0

Comments * CALIBRATED ORP PROBE AFTER 1ST READING

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY003B.0406. Task: 00002 Well ID: GM-38D-2
Date: 4-5-06 Sampled By: GW
Sampling Time: Recorded By: GW
Weather: RAIN/SNOW Coded Replicate No.: REP-4-506

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: Purge Method: Low-flow
Casing Diameter: Screen Interval (ft bmp): Top Bottom
Sounded Depth (ft bmp): Pump Intake Depth (ft bmp):
Depth to Water (ft bmp): 39.20 Purge time Start: Finish:

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:55				12.1	5.59	85.9	275	4.40		39.20	
12:00				12.1	5.56	73.10	284	4.32			
12:05				12.5	5.54	71.3	288	4.36			
12:10				12.0	5.51	70.8	291	4.27		39.20	
12:15				12.7	5.52	71.3	295	3.43			
12:20				12.3	5.50	72.8	293	3.15			
12:25				12.2	5.48	73.3	292	3.24			
12:30				12.2	5.40	76.3	291	3.01			
12:35				12.4	5.38	77.4	306	3.21			
12:40				12.1	5.38	78.1	313	3.14		39.00	
12:45				12.0	5.38	78.0	316	3.06			
12:50				12.0	5.37	77.9	316	2.85			
12:55				12.0	5.37	77.7	317	3.04	2.62	39.00	

Sample Condition Color: COLORLESS Odor: Appearance:
Sample Collection

Parameter:	Container:	No.	Preservative:

PID Reading RAIN
Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0416 Task: 00002 Well ID: GM-39D
Date: 3-24-06 Sampled By: GW
Sampling Time: 1130pm Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Low flow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 262 Bottom 282
Sounded Depth (ft bmp): 282 Pump Intake Depth (ft bmp): 272
Depth to Water (ft bmp): 37.51 Purge time Start: 12:30 pm Finish: 1130 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. µS (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:30		450		13.4	7.13	124.1	241	7.07		37.51	
12:35				13.4	7.09	127.6	243	7.14			
12:40				13.4	6.72	122.4	252	6.96		37.52	
12:45				13.4	6.63	122.4	254	6.93			
12:50				13.4	6.51	123.5	255	6.97			
12:55				13.6	6.48	125.0	255	6.98			
1:00				13.5	6.14	125.16	252	6.99		37.52	
1:05				13.5	5.67	126.1	260	6.90			
1:10				↓				6.84			
1:15											
1:20											
1:25				13.5	5.58	127.0	262	6.84		37.54	
1:30		↓		13.4	5.55	127.6	262	6.93	1.68		

Sample Condition Color: COLORLESS Odor: None Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0-0

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406 Task: 00002 Well ID: GM-39D-2
Date: 3-24-06 Sampled By: GW
Sampling Time: 4:45pm Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Lowflow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 410 Bottom 420
Sounded Depth (ft bmp): 420 Pump Intake Depth (ft bmp): 415
Depth to Water (ft bmp): 40.1 Purge time Start: 3:45 Finish: 4:45pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:45		450		11.2	4.89	139.7	308	8.05		40.41	
3:50		↓		12.2	4.92	139.5	306	7.06			
3:55				12.3	4.92	138.7	306	7.32		40.42	
4:00				12.2	4.93	138.2	305	7.43			
4:05				12.4	5.00	138.1	307	7.42			
4:10				12.4	5.00	138.1	307	7.44		40.39	
4:15				12.2	5.00	138.5	309	7.43			
4:20				12.3	5.01	138.3	308	7.45			
4:25				12.4	5.01	138.3	310	7.44		40.40	
4:30				12.4	5.01	138.3	310	7.47			
4:35				12.2	5.01	138.5	311	7.45		40.40	
4:40				12.2	5.01	138.7	311	7.49			
4:45				12.1	5.01	138.4	310	7.46	2.10		

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments

Water Sampling Log

Project: NORTHROP-GRUMMAN Project No.: NY001348.0406.0002 Page: 1 of ____

Site Location: BETHPAGE NY Date: 4-6-06

Site/Well No.: GM-70D-2 Replicate No.: N/A Code No.: ____

Weather: ____ Sampling Time: Begin 1250 End 12:55

Evacuation Data

Measuring Point	____
MP Elevation (ft)	____
Land Surface Elevation (ft)	____
Sounded Well Depth (ft bmp)	330
Depth to Water (ft bmp)	308
Water-Level Elevation (ft)	____
Water Column in Well (ft)	22
Casing Diameter/Type	4(0.65)
Gallons in Well	14.3
Gallons Pumped/Bailed Prior to Sampling	~~42.9~~ 43
Sample Pump Intake Setting (ft bmp)	____
Purge Time	begin 11:30 end 12:50
Pumping Rate (gpm)	____
Evacuation Method	PACKERS 3 WELL VOLUMES

Field Parameters

	I	W	2U	3J
Color				COLORLESS
Odor				NONE
Appearance				CLEAR
pH (s.u.)	5.91	5.76	5.79	5.73
Conductivity ~~(mS/cm)~~ (µmhos/cm)	103.5	99.7	99.5	97.1
Turbidity (NTU)				1.91
Temperature (°C)	14.8	15.9	16.0	16.1
Dissolved Oxygen (mg/L)				
Salinity (%)				
Sampling Method	PP			
Remarks	5 GAL PAILS			

330 − 39 = 291 × .43 = 138 + 50 = 188 DSE

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Water Sampling Log

Project: NORTHROP-GRUMMAN | Project No.: N4DD13480406 00002 | Page: 1 of ____

Site Location: BETHPAGE NY | Date: 4-6-26

Site/Well No.: GM-71D-2 | Replicate No.: N/A | Code No.: ____

Weather: CLEAR 40° | Sampling Time: Begin 3:35 End 3:40

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	464
Depth to Water (ft bmp)	442
Water-Level Elevation (ft)	
Water Column in Well (ft)	22
Casing Diameter/Type	4 (0.65)
Gallons in Well	14.3
Gallons Pumped/Bailed Prior to Sampling	~~42.9~~ 43
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 2:15 end 3:30
Pumping Rate (gpm)	
Evacuation Method	PACKERED 3WV

Field Parameters

	1	2	3	3J
Color				COLORLESS
Odor				NONE
Appearance				CLEAR
pH (s.u.)	5.70	5.76	5.51	5.55
Conductivity ~~(mS/cm)~~ (µmhos/cm)	174.1	152.3	153.7	152.7
Turbidity (NTU)				2.28
Temperature (°C)	16.5	16.1	15.9	15.6
Dissolved Oxygen (mg/L)				
Salinity (%)				
Sampling Method				
Remarks	5 GAL PAILS			

464 - 41 = 423 x .43 = 182 + 50 = 232

Constituents Sampled	Container Description	Number	Preservative
SEE COC			

Sampling Personnel: GW

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NYDO1348.0406 Task: 000002 Well ID: GM-73D
Date: 3-20-06 Sampled By: GW
Sampling Time: 4:00 pm Recorded By: GW
Weather: Coded Replicate No.: REP-3-20-06/MS/MSD

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Low Flow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 401 Bottom 411
Sounded Depth (ft bmp): 411 Pump Intake Depth (ft bmp): 406
Depth to Water (ft bmp): 42.56 Purge time Start: 3:00 Finish: 4:00 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) (µS)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:00				9.6	4.68	85.7	283	5.45		42.56	
3:05				9.3	4.55	99.6	291	6.04			
3:10				10.0	4.52	110.2	294	6.32			
3:15				10.1	4.55	120.2	295	7.17		42.55	
3:20				10.2	4.55	122.5	298	7.03			
3:25				10.3	4.55	123.5	299	6.81			
3:30				10.3	4.57	123.5	299	7.05		42.55	
3:35				10.2	4.56	124.2	301	7.20			
3:40				10.1	4.56	125.4	301	7.40			
3:45				10.1	4.57	125.9	304	7.18			
3:50				10.2	4.57	126.6	305	6.96		42.55	
3:55				10.2	4.57	127.7	304	7.17			
4:00				10.1	4.57	127.5	304	7.31	1.57	42.55	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading —

Comments: PID LAMP OUT

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0006
Date: 3-24-06
Sampling Time: 3:15pm
Weather:

Task: 00002
Sampled By: GW
Recorded By: GW
Coded Replicate No.: N/A

Well ID: GM-73D-2

Instrument Identification

Water Quality Meter(s):
Serial #:

Purging Information

Casing Material: PVC
Casing Diameter: 4"
Sounded Depth (ft bmp): 552
Depth to Water (ft bmp): 4290

Purge Method: Lowflow / Dedicated Bladder
Screen Interval (ft bmp): Top 532 Bottom 552
Pump Intake Depth (ft bmp): 542
Purge time Start: 2:15 Finish: 3:15

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:15		450		10.6	~~5.32~~ 5.32	123.0	257	8.83		~~42.89~~	42.90
2:20		↓		10.4	5.24	128.7	264	8.65			
2:25				10.3	5.02	131.0	278	6.97		42.91	
2:30				10.3	4.94	131.9	287	6.39			
2:35				10.4	4.79	131.2	298	6.80		42.91	
2:40				10.4	4.73	131.9	306	7.03			
2:45				10.4	4.72	131.8	310	7.01		42.31	
2:50				10.4	4.72	131.8	312	7.09			
2:55				10.4	4.72	132.2	313	7.09			
3:00				10.4	4.69	133.0	315	7.08		42.31	
3:05				10.4	4.70	133.1	318	7.04			
3:10				10.4	4.69	133.6	319	7.10			
3:15		↓		10.4	4.69	133.5	317	7.19	3.65		

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading

Comments

G:\PROJECT\WHCS Melville\ERD Pilot Test\lowflowsampleme.xls-LoFlo-GW-Samp

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: W400348.0406 Task: 00002 Well ID: GM-74I
Date: 3/20/06 Sampled By: GW
Sampling Time: 12:15pm Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Low flow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 94 Bottom 114
Sounded Depth (ft bmp): 114 Pump Intake Depth (ft bmp): 104
Depth to Water (ft bmp): 38.25 Purge time Start: 11:30 AM Finish: 12:15pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:30		450		9.6	6.08	150.4	245	9.01		38.25	
11:35				9.8	5.72	136.8	252	8.93			
11:40				9.8	5.45	114.2	258	9.27		38.45	
11:45				9.6	5.46	109.0	257	8.96			
11:50				8.5	5.16	103.6	258	8.98			
11:55				8.6	5.13	103.3	258	9.15		38.45	
12:00				8.6	5.09	103.2	258	9.08			
12:05				8.6	5.10	103.1	258	9.13			
12:10				8.5	5.08	103.0	259	9.14			
12:15				8.7	5.08	102.9	260	9.10	>20	38.45	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading
Comments PID LAMP OUT

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NYP001348.0406 Task: 80002 Well ID: GM-740
Date: 3-29-06 Sampled By: GW
Sampling Time: 1125 Recorded By: GW
Weather: CLEAR 35° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Lowflow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 295 Bottom 305
Sounded Depth (ft bmp): 305 Pump Intake Depth (ft bmp): 300
Depth to Water (ft bmp): 43.52 Purge time Start: 12:25 Finish: 1:25 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:26				7.1	4.96	101.8	274	9.35		43.52	
12:30				7.5	4.50	99.4	288	5.95			
12:35				8.6	4.38	95.2	294	5.93		43.60	
12:40				8.8	4.35	93.7	296	6.07			
12:45				9.0	4.35	93.1	300	6.14			
12:50				8.8	4.34	93.2	302	6.16		43.45	
12:55				8.5	4.36	93.3	304	6.18			
1:00				8.4	4.35	93.5	304	6.09			
1:05				8.4	4.35	93.5	306	6.29		43.45	
1:10				8.4	4.36	93.7	309	6.26			
1:15				8.5	4.36	93.9	311	6.19			
1:20				8.4	4.36	94.1	308	6.12			
1:25				8.5	4.36	94.2	310	6.21	25.3	43.50	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 1

Comments: PUMP LAMPOUT

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0006 Task: 00002 Well ID: GM-740-2
Date: 3-20-06 Sampled By: GW
Sampling Time: 2:40pm Recorded By: GW
Weather: Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Low flow / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 542 Bottom 562
Sounded Depth (ft bmp): 562 Pump Intake Depth (ft bmp): 552
Depth to Water (ft bmp): 50.03 Purge time Start: 1:40 Finish: 2:40 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) (µS)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1:40				7.8	4.82	93.0	300	8.45		50.03	
1:45				8.8	4.70	87.2	297	1.96			
1:50				9.1	4.70	87.2	293	1.54			
1:55				9.2	4.70	95.4	—	2.88		50.02	CALIBRATE DO
2:00				9.0	4.73	86.8	294	3.13			
2:05				9.1	4.59	86.4	294	3.25		50.02	
2:10				9.2	4.59	86.2	297	3.01			
2:15				9.3	4.57	86.5	298	3.28			
2:20				9.3	4.57	87.1	299	3.35			
2:25				9.2	4.54	87.8	299	3.42		50.02	
2:30				9.5	4.56	88.5	299	3.47			
2:35				9.5	4.54	89.1	300	3.50			
2:40				9.4	4.58	84.0	301	3.47	2.21	50.02	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading
Comments: RDO LAMP OUT

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406.0002 Task: 00002 Well ID: GM-75D2

Date: 3/16/06 Sampled By: D. Zuck / G. Williams

Sampling Time: Recorded By: D. Zuck

Weather: Clear Wind 40° Coded Replicate No.: NA

Instrument Identification

Water Quality Meter(s): — Serial #: —

Purging Information

Casing Material: PVC Purge Method: Dedicated Bladderpump / Low flow

Casing Diameter: 4" Screen Interval (ft bmp): Top 505 Bottom 525

Sounded Depth (ft bmp): 525 Pump Intake Depth (ft bmp): 515

Depth to Water (ft bmp): 33.80 Purge time Start: 3:10 Finish: 4:10

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) µs	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
3:10				12.2	4.99	108.1	250	4.87		33.80	
3:15				12.3	4.95	114.1	235	4.78			
3:20				12.6	4.98	121.8	240	4.76			
3:25				12.6	4.94	125.0	244	4.77		33.85	
3:30				12.4	4.96	128.0	247	4.63			
3:35				12.5	4.96	128.1	250	4.82			
3:40				12.3	4.94	127.4	252	4.71		33.84	
3:45				12.2	4.94	128.1	253	4.77			
3:50				11.8	4.99	127.0	257	5.14			
3:55				11.0	4.98	127.6	258	4.70		33.85	
4:00				11.6	4.91	127.7	259	4.42			
4:05				12.1	4.89	127.5	260	4.39			
4:10				12.0	4.90	127.2	262	4.41	2.61		

Sample Condition Color: Clear Odor: None Appearance: Clear

Sample Collection

Parameter: See COC Container: No. Preservative:

PID Reading: High Wind

Comments: Rate chnge @ 3:50 to 1 pulse/min (43 psi = 100 ft)

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NY001348.0506 | task Project No.: 00002 | Page: 1 of 1

Site Location: NGC Bethpage, NY | Date: 3/15/06

Site/Well No.: GM-78S | Replicate No.: NA | Code No.: /

Weather: Cool Cloudy ~40° | Sampling Time: Begin 11:45 | End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	70 ft
Depth to Water (ft bmp)	39.69
Water-Level Elevation (ft)	/
Water Column in Well (ft)	30.31
Casing Diameter/Type	4" (65)
Gallons in Well	19.7 x3
Gallons Pumped/Bailed Prior to Sampling	~60
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 11:10 end 11:40
Pumping Rate (gpm)	2 G/min IV=10 ml/min
Evacuation Method	Ready flow / Low flow

Field Parameters

	I	IV	2V	3V
Color	None	None	None	None
Odor	None	None	None	None
Appearance	Clear	Clear	Clear	Clear
pH (s.u.)	5.21	5.54	5.55	5.52
Conductivity (mS/cm) µS	277	315	328	333
~~(µmhos/cm)~~	—	—	—	—
Turbidity (NTU)	30.6	16.1	3.83	3.06
Temperature (°C)	15.6	15.2	15.6	16.0
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	11:10	11:20	11:30	11:40

Sampling Method: Ready flow / Low flow

Remarks: PID 0.0

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: G. Williams / D. Zuck

Well Casing Volumes

Gal./ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: G-M-78I
Date: 3/15/06 Sampled By: G. Williams / D. Zuck
Sampling Time: 10:56 Recorded By: D. Zuck
Weather: Cool Cloudy ≈ 40° Coded Replicate No.: NA

Instrument Identification
Water Quality Meter(s): — Serial #: —

Purging Information
Casing Material: PVC Purge Method: Ready flow / Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 90 Bottom 110
Sounded Depth (ft bmp): 110 Pump Intake Depth (ft bmp): 100
Depth to Water (ft bmp): 39.98 Purge time Start: 9:55 Finish: 10:55

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
9:55				14.3	5.19	174.4	173	4.44		39.98	
10:00				13.9	5.61	176.9	174	4.18			
10:05				13.6	5.65	179.2	173	4.12			
10:10				13.9	5.64	181.9	172	4.02		39.95	
10:15				14.1	5.65	183.4	171	4.16			
10:20				14.3	5.63	184.4	172	4.13			
10:25				14.7	5.62	184.3	172	4.14		39.97	
10:30				14.7	5.61	184.0	173	3.94			
10:35				14.5	5.60	183.4	173	4.11			
10:40				14.7	5.60	183.8	173	4.06		39.97	
10:45				14.1	5.62	183.4	173	4.04			
10:50				14.4	5.59	185.4	174	3.99			
10:55				14.6	5.58	181.9	175	3.98	1.86	39.97	

Sample Condition Color: Clear Odor: None Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 000002 Well ID: GM-79I
Date: 3-7-06 Sampled By: GW
Sampling Time: Recorded By: GW
Weather: CLEAR 50° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: LOW FLOW
Casing Diameter: 4" Screen Interval (ft bmp): Top 170 Bottom 180
Sounded Depth (ft bmp): 180 Pump Intake Depth (ft bmp): 175
Depth to Water (ft bmp): 38.69 Purge time Start: 1:05 pm Finish: 1:50 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
1:05		450		11.1	4.77	108.4	286	6.63		38.69	
1:10		↓		12.3	4.78	105.4	295	5.52			
1:15				12.4	4.78	105.1	295	5.59		38.83	
1:20				12.6	4.77	104.2	298	5.34			
1:25				12.9	4.77	104.4	299	5.21		38.79	
1:30				12.8	4.74	104.4	302	5.59			
1:35				12.8	4.74	104.4	303	5.61		38.81	
1:40				12.9	4.76	104.6	302	5.64			
1:45				12.9	4.74	104.4	303	5.64			
1:50		↓		13.0	4.75	104.5	304	5.67	3.65	38.80	

Sample Condition Color: COLORLESS Odor: NO Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading 0.0

Comments

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: GM-79D
Date: 3-7-06 Sampled By: GW
Sampling Time: _____ Recorded By: GW
Weather: CLEAR 50° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): _____ Serial #: _____

Purging Information
Casing Material: PVC Purge Method: LOWFLOW / Dedicated Bladder
Casing Diameter: 4" Screen Interval (ft bmp): Top 280 Bottom 290
Sounded Depth (ft bmp): 290 Pump Intake Depth (ft bmp): 285
Depth to Water (ft bmp): 39.95 Purge time Start: 11:50 AM Finish: 12:50 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:50		450		12.4	5.14	118.8	264	8.90		39.95	
11:55		450		12.8	5.13	110.8	282	6.97			
12:00		"		13.1	4.75	108.1	295	5.47		39.95	
12:05		"		13.4	5.27	108.7	300	5.17			
12:10		"		13.3	5.18	108.5	305	5.15		40.02	
12:15		"		13.4	4.63	108.1	310	5.08			
12:20				13.5	4.63	107.8	310	4.94		39.98	
12:25				13.4	4.61	107.9	313	4.96			
12:30				13.3	4.61	107.7	313	4.93		39.98	
12:35				13.4	4.59	107.6	314	5.00			
12:40				13.3	4.59	107.1	313	4.89		39.98	
12:45				13.2	4.59	107.7	316	4.89			
12:50				13.2	4.59	107.3	316	4.87	1.89	39.99	

Sample Condition Color: COLORLESS Odor: NONE Appearance: CLEAR
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: 0.0

Comments: _____

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406 Task: 00002 Well ID: N-10624
Date: 3/16/06 Sampled By: G. Williams / D. Zuck
Sampling Time: 6:25 Recorded By: D. Zuck
Weather: Cool/Cloudy/windy 40° Coded Replicate No.: NA

Instrument Identification
Water Quality Meter(s): — Serial #: —

Purging Information
Casing Material: Steel Purge Method: ~~Steady flow~~ Non-dedicated Bladder PP / Low flow
Casing Diameter: 2" Screen Interval (ft bmp): Top 190 Bottom 194
Sounded Depth (ft bmp): 194 Pump Intake Depth (ft bmp): 192
Depth to Water (ft bmp): 29.09 Purge time Start: 5:35 Finish: 6:15

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm) uS	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
5:35				13.4	4.97	131.6	-153	0.14		29.09	
5:40				12.1	10.10	112.1	-187	0.16			
5:45				10.8	10.15	107.8	-199	0.13			
5:50				10.3	10.18	106.8	-202	0.14		51.48	
5:55				8.8	10.24	105.9	-202	0.14			
6:00				8.7	10.26	105.2	-203	0.14		52.25	
6:05				8.7	10.18	103.9	-203	0.15			
6:10				8.9	10.18	103.6	-202	0.17			
6:15				8.8	10.20	104.9	-205	0.15	63.5		
6:20				8.4	10.22	106.4	-207	0.12		53.1	

Sample Condition Color: Lt. Brn Odor: None Appearance: Some turb.
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: High winds

Comments

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ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001344.0406 Task: 00002 Well ID: N-10627
Date: 3/16/06 Sampled By: G. Williams / D. Zuck
Sampling Time: 5:20 Recorded By: D. Zuck
Weather: Clear Windy 40° Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: ~~PVC~~ Steel Purge Method: Non-dedicated Bladder / Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 280 Bottom 295
Sounded Depth (ft bmp): 295 Pump Intake Depth (ft bmp): 292.5
Depth to Water (ft bmp): 31.10 Purge time Start: 4:15 Finish: 5:15

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
4:15				11.2	4.97	127.5	229	5.86		31.10	
4:20				10.8	6.02	149.2	207	4.79			
4:25				12.0	8.10	179.4	54	3.00		31.98	
4:30				12.1	9.02	180.6	45	2.46			
4:35				12.3	9.63	2260	-43	2.12			
4:40				12.1	9.91	248	-79	2.28		32.50	
4:45				12.0	10.01	249	-98	2.10			
4:50				12.0	10.06	250	-105	2.00			
4:55				12.0	10.09	246	-110	2.17		32.71	
5:00				11.8	10.07	237	-110	2.32			
5:05				11.7	10.02	232	-109	2.35			
5:10				11.8	9.95	222	-106	2.50	29.4		
5:15				11.9	9.89	195.6	-104	2.59	29.4	32.58	

Sample Condition Color: Clear Odor: None Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: High Wind

Comments:

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Ground Water Sampling — Project No. NY001348.0406.0002 — Page 1 of 1

Site Location: NGC Bethpage, N.Y. — Date: 3/16/00

Site/Well No.: N-10831 — Replicate No.: N/A — Code No.: /

Weather: Sunny Cool 40° (windy) — Sampling Time: Begin 2:35 — End /

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	67
Depth to Water (ft bmp)	36.98
Water-Level Elevation (ft)	/
Water Column in Well (ft)	30.02
Casing Diameter/Type	2" (.16)
Gallons in Well	4.8 X3
Gallons Pumped/Bailed Prior to Sampling	15
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 2:20 end 2:35
Pumping Rate (gpm)	1 gpm
Evacuation Method	Ready Flow/Low flow

Field Parameters

	I	1V	2V	3V
Color	gray	clear	clear	clear
Odor	None	None	None	None
Appearance	Turb	Clear	Clear	Clear
pH (s.u.)	6.96	6.37	5.96	5.79
Conductivity (mS/cm) µS	654	169.3	144.0	140.9
~~(µmhos/cm)~~	—	—	—	—
Turbidity (NTU)	84.2	18.1	14.0	8.82
Temperature (°C)	15.4	15.2	16.1	15.4
~~Dissolved Oxygen (mg/L)~~	—	—	—	—
Salinity (%) time	2:20	2:25	2:30	2:35

Sampling Method: Ready Flow/Low flow

Remarks: NO PID (High wind)

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zuck / G. Williams

Well Casing Volumes

Gal/Ft				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No.: NY001348.0406.00001 | Page: 1 of 1

Site Location: Bethpage, NY | Date: 4/10/06

Site/Well No.: N-10634 | Replicate No.: N/A | Code No.: —

Weather: clear 50's | Sampling Time: Begin ____ End ____

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	67.00
Depth to Water (ft bmp)	38.85
Water-Level Elevation (ft)	/
Water Column in Well (ft)	28.15
Casing Diameter/Type	2" (0.16)
Gallons in Well	4.5 ~~13.5~~ x3
Gallons Pumped/Bailed Prior to Sampling	13.5
Sample Pump Intake Setting (ft bmp)	Q=1 T=13.5 lv=5
Purge Time	begin 3:08 end ____
Pumping Rate (gpm)	1
Evacuation Method	Redflow Pump

Field Parameters

Field Parameters	I:	1V	2V	3V
Color	Brown	Colorless	colorless	colorless
Odor	None	None	None	None
Appearance	turbid	clear	clear	clear
pH (s.u.)	7.49	7.48	6.29	6.09
Conductivity ~~(mS/cm)~~	—	—	—	
(µmhos/cm)	115.8	119.4	121.1	121.9
Turbidity (NTU)	—	—	—	15
Temperature (°C)	16.2	15.8	15.8	15.9
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity~~ Time (%)	3:08	3:13	3:18	3:23

Sampling Method: 3 well Volume

Remarks: ____

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW AP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NY001346.0506 | Project No.: 00002 | Page: 1 of 1
Site Location: NGC (Bethpage, NY) | Date: 3/13/06
Site/Well No.: PLT 1 MW-04 | Replicate No.: NA | Code No.: NA
Weather: Overcast 50° | Sampling Time: Begin 3:52 pm End 3:55 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	N/A
Sounded Well Depth (ft bmp)	56.5
Depth to Water (ft bmp)	42.30
Water-Level Elevation (ft)	—
Water Column in Well (ft)	14.2
Casing Diameter/Type	2" (.16)
Gallons in Well	2.27 x3
Gallons Pumped/Bailed Prior to Sampling	6.8
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 3:43 end 3:52
Pumping Rate (gpm)	1 gpm
Evacuation Method	Ready flow Pump

Field Parameters

	I	1V	2V	3V
Color	None	None	None	None
Odor	None	None	None	None
Appearance	Clear	Clear	Clear	Clear
pH (s.u.)	5.85	5.81	5.83	5.81
Conductivity ~~mS/cm~~ µS	356	341	344	345
(µmhos/cm)	—	—	—	—
Turbidity (NTU)	13.4	7.13	4.30	2.73
Temperature (°C)	15.4	15.8	16.0	16.0
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	3:43	3:46	3:49	3:52
Sampling Method	Ready flow/Low flow			
Remarks	PID: 0.0			3 well volume

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: G. Williams / D. Zuck

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NY001348.0506 | Project No.: 00002 | Page: 1 of 1

Site Location: Plant 1 MW-05 NOC (Bethpage, NY) | Date: 3/13/06

Site/Well No.: PLT 1 MW-05 | Replicate No.: NA | Code No.: NA

Weather: Overcast 50° | Sampling Time: Begin 3:58 pm End 3:59

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	/
Land Surface Elevation (ft)	/
Sounded Well Depth (ft bmp)	58
Depth to Water (ft bmp)	40.45
Water-Level Elevation (ft)	/
Water Column in Well (ft)	17.55
Casing Diameter/Type	2" (.16)
Gallons in Well	2.8 x 3
Gallons Pumped/Bailed Prior to Sampling	≈ 8.5
Sample Pump Intake Setting (ft bmp)	/
Purge Time	begin 3:49 end 3:58 pm
Pumping Rate (gpm)	1 gpm 1V = 3 min
Evacuation Method	Peristaltic Pump

Field Parameters

	I	1V	2V	3V
Color	Brown	Lt Brn	White	clear
Odor	None	None	None	None
Appearance	turbid	turbid	turbid	clear
pH (s.u.)	5.66	5.49	5.44	5.42
Conductivity ~~(mS/cm)~~ µS	140.3	135.5	135.9	136.7
(µmhos/cm)	<	—	—	—
Turbidity (NTU)	>200	>200	~~135.9~~ 129	13.6
Temperature (°C)	16.4	16.6	16.7	16.1
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	3:49	3:52	3:55	3:58
Sampling Method	Peristaltic flow / bow flow			
Remarks	0.0 PID			

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: G. Williams / D. Zuck

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NY001348.0405.00002 | Project No.: — | Page: 1 of 1

Site Location: NGC Bethpage, NY | Date: 3/13/06

Site/Well No.: PLT1MW-06 | Replicate No.: NA | Code No.: NA

Weather: Overcast 46° | Sampling Time: Begin ~~3:18 pm~~ 3:28 pm | End ~~3:28~~ 3:28 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	62
Depth to Water (ft bmp)	43.05
Water-Level Elevation (ft)	~~NA~~
Water Column in Well (ft)	18.95
Casing Diameter/Type	2" (.16)
Gallons in Well	3.03 x3
Gallons Pumped/Bailed Prior to Sampling	9.1
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 3:19 end 3:24
Pumping Rate (gpm)	1 gpm 1V = 3 gal
Evacuation Method	Ready flow Pump

Field Parameters

	I	1V	2V	3V
Color	Brn	Lt. Brn	None	Clear
Odor	None	None	None	None
Appearance	Turb.	Slt. Turb.	Clear	Clear
pH (s.u.)	5.42	5.36	5.34	5.39
Conductivity µS (mS/cm)	416	377	375	401
~~(µmhos/cm)~~	—	—	—	—
Turbidity (NTU)	>200	116	26.8	14.9
Temperature (°C)	15.0	15.2	15.3	15.4
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	3:19	3:22	3:25	3:28

Sampling Method: Ready flow / Low flow

Remarks: 0.0

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: D. Zuck / C. Williams

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Millisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/l	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: HN-24I
Date: 3/14/06 Sampled By: G. Williams / D. Zuck
Sampling Time: 3:40 Recorded By: D. Zuck
Weather: Clear Windy 50°F Coded Replicate No.: Rep. 3-14-06

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Peristaltic Pump
Casing Diameter: 4" Screen Interval (ft bmp): Top 148 Bottom 158
Sounded Depth (ft bmp): 158 Pump Intake Depth (ft bmp): 156
Depth to Water (ft bmp): 54.30 Purge time Start: 2:55 Finish: 3:40

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
2:55				13.8	7.44	476	195	6.50		54.30	
3:00				14.2	6.64	518	211	5.83			
3:05				14.3	6.18	508	214	5.71			
3:10				14.4	5.92	479	216	5.61		54.35	
3:15				14.4	5.62	468	219	5.63			
3:20				14.4	5.40	467	220	5.63			
3:25				14.5	5.37	461	220	5.54		54.34	
3:30				14.4	5.24	467	222	5.56			
3:35				14.3	5.25	459	222	5.37			
3:40				14.2	5.22	557	221	5.33	11.4	54.37	

Sample Condition Color: None Odor: None Appearance: Clear

Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: NR

Comments:

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0506 Task: 00002 Well ID: HN-29I
Date: 3/14/06 Sampled By: C. Williams / D. Zuck
Sampling Time: 1:35 PM Recorded By: D. Zuck
Weather: Overcast > clear 50° High Winds Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflow / Low flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 120 Bottom 130
Sounded Depth (ft bmp): 130 Pump Intake Depth (ft bmp): 128
Depth to Water (ft bmp): 45.94 Purge time Start: 12:30 Finish: 1:30

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:30	/	/		14.7	11.10	784	14	6.18	/	45.94	
12:35	/	/	/	14.6	11.47	317	-13	5.88			
12:40	/	/	/	14.6	11.49	328	-16	6.00			
12:45	/	/	/	14.7	11.53	358	-20	5.93		46.70	
12:50	/	/	/	14.6	11.53	396	-23	5.96			
12:55	/	/	/	14.9	11.54	415	-24	5.99			
1:00	/	/	/	15.0	11.53	424	-24	5.98		46.74	
1:05	/	/	/	15.0	11.53	434	-22	5.84			
1:10	/	/	/	15.0	11.54	431	-22	5.83			
1:15	/	/	/	15.0	11.53	424	-21	5.92		46.69	
1:20	/	/	/	15.0	11.53	421	-21	5.89			
1:25	/	/	/	14.9	11.52	417	-20	5.91			
1:30	/	/	/	15.0	11.51	410	-16	5.92	3.60	~~5.80~~ 46.74	

Sample Condition Color: Clear Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading: high Hum

Comments:

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001346.0506 Task: 00002 Well ID: HN-29D
Date: 3/14/06 Sampled By: GW/D.Zuck
Sampling Time: Recorded By: D. Zuck
Weather: Overcast 55° Coded Replicate No.: NA

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Non-dedicated Bladder Pump / Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 210 Bottom 220
Sounded Depth (ft bmp): 220 Pump Intake Depth (ft bmp): 215
Depth to Water (ft bmp): 45.39 Purge time Start: 11:05 Finish: 12:05

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. ~~mS/cm~~ µS	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
11:05				14.9	6.66	146.6	143	7.02		45.39	
11:10				15.1	6.62	148.2	138	6.47			
11:15				15.1	6.17	145.1	165	6.46			
11:20				15.1	5.96	142.5	173	6.52		45.52	
11:25				15.0	5.90	143.6	162	6.44			
11:30				15.0	5.89	143.8	161	5.46			
11:35				15.0	5.88	143.2	160	6.52		45.37	
11:40				15.0	5.86	143.4	159	6.61			
11:45				15.0	5.84	143.0	158	6.59			
11:50				15.0	5.82	142.9	157	6.51		45.51	
11:55				15.0	5.81	142.9	156	6.58			
12:00				15.0	5.81	142.6	156	6.64			
12:05				14.9	5.82	142.5	156	6.59	2.63	45.39	

Sample Condition Color: Clear Odor: None Appearance: Clear

Sample Collection
Parameter: See COC Container: No. Preservative:

PID Reading NA 100% hum.

Comments

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/17/06

Site/Well No.: HN-40S | Replicate No.: N/A | Code No.: —

Weather: clear 40s | Sampling Time: Begin 5:31 End 5:33pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	59
Depth to Water (ft bmp)	47.40
Water-Level Elevation (ft)	—
Water Column in Well (ft)	11.6
Casing Diameter/Type	4" (0.65)
Gallons in Well	7.54 x3
Gallons Pumped/Bailed Prior to Sampling	23
Sample Pump Intake Setting (ft bmp)	Q=2 T=11.5 1v=4
Purge Time	begin 5:18 end 5:30
Pumping Rate (gpm)	2
Evacuation Method	Rediflow Pump

Field Parameters

Field Parameters	I	1v	2v	3v
Color	Colorless			
Odor	None	NONE		
Appearance	Clear	CLEAR		
pH (s.u.)	6.29	6.06	6.07	6.03
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	101.8	115.5	138.6	186.8
Turbidity (NTU)	—	—	—	11.2
Temperature (°C)	13.0	14.3	15.3	15.3
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	5:18	5:22	5:26	5:30

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW PP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406 Task: 00002 Well ID: HN-40I
Date: 3/17/06 Sampled By: GW PP
Sampling Time: 5:00pm Recorded By: PP
Weather: clear 40s Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): / / Serial #: /

Purging Information
Casing Material: PVC Purge Method: Rediflow Pump
Casing Diameter: 4" Screen Interval (ft bmp): Top 108 Bottom 118
Sounded Depth (ft bmp): 118 Pump Intake Depth (ft bmp): 113
Depth to Water (ft bmp): 47.21 Purge time Start: 4:15 Finish: 5:00pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. ~~(mS/cm)~~ µS	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
4:15	—	—	—	12.3	6.55	274	193	*	—	—	—
4:20	—	—	—	13.0	6.35	266	201	*	—	47.16	—
4:25	—	—	—	13.0	6.31	267	202	*	—	—	—
4:30	—	—	—	13.1	6.28	267	205	*	—	47.14	—
4:35	—	—	—	13.0	6.27	241	205	*	—	—	—
4:40	—	—	—	12.9	6.20	241	211	5.62	—	47.13	—
4:45	—	—	—	13.4	6.22	240	210	5.86	—	—	
4:50	—	—	—	13.9	6.19	240	203	6.30	—	47.14	—
4:55	—	—	—	14.4	6.14	240	205	6.13	—	—	—
5:00	—	—		14.7	6.14	239	207	6.26	18.6	—	—

Sample Condition Color: Colorless Odor: None Appearance: clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading At wellhead zero
Comments * DO meter not working. Needs new batteries

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N. Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/17/06

Site/Well No.: HN-42S | Replicate No.: N/A | Code No.: —

Weather: Clear 40s | Sampling Time: Begin 1:14 | End 1:17 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	60
Depth to Water (ft bmp)	49.5
Water-Level Elevation (ft)	—
Water Column in Well (ft)	10.5
Casing Diameter/Type	4" (0.65)
Gallons in Well	6.82 x3
Gallons Pumped/Bailed Prior to Sampling	21
Sample Pump Intake Setting (ft bmp)	Q=2 T=10.5 IV=4
Purge Time	begin 1:00 pm end 1:12
Pumping Rate (gpm)	2
Evacuation Method	Rediflow Pump

Field Parameters

Field Parameters	I	1V	2V	3V
Color		Colorless		
Odor	None	NONE		
Appearance	clear	clear	CLEAR	
pH (s.u.)	8.03	7.70	7.45	7.06
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	706	682	694	697
Turbidity (NTU)	—	—	—	4.63
Temperature (°C)	14.4	15.3	15.4	15.7
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Time	1:00	1:04	1:08	1:12

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: GW PP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS G&M, Inc.

Low-Flow Groundwater Sampling Log

Project Number: NY001348.0406 Task: 0002 Well ID: HN-42I
Date: 3/17/06 Sampled By: GW IPP
Sampling Time: 12:45 Recorded By: PP
Weather: clear 40s Coded Replicate No.: N/A

Instrument Identification
Water Quality Meter(s): Serial #:

Purging Information
Casing Material: PVC Purge Method: Redflow pump/ Low Flow
Casing Diameter: 4" Screen Interval (ft bmp): Top 100 Bottom 110
Sounded Depth (ft bmp): 110 Pump Intake Depth (ft bmp): 105
Depth to Water (ft bmp): 48.84 Purge time Start: 12:00 Finish: 12:45 pm

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Rate (mL/min)	Volume Purged	Temp (°C)	pH (SI Units)	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)	Comments
12:00	—	—	—	10.3	10.47	298	-11	6.21	—	—	—
12:05	—	—	—	11.5	10.57	284	-18	5.31	—	48.68	—
12:10	—	—	—	10.7	10.65	302	-18	4.84	—	—	—
12:15	—	—	—	10.7	10.65	296	-17	4.76	—	48.69	—
12:20	—	—	—	10.9	10.65	297	-16	4.81	—	—	—
12:25	—	—	—	11.2	10.62	292	-14	4.89	—	—	—
12:30	—	—	—	11.6	10.58	277	-10	4.76	—	48.72	—
12:35	—	—	—	11.7	10.57	272	-9	4.82	—	—	—
12:40	—	—	—	11.9	10.54	266	-7	4.89	—	48.71	—
12:45	—	—	—	12.0	10.50	258	-3	4.99	24.2	—	—

Sample Condition Color: Colorless Odor: None Appearance: Clear
Sample Collection

Parameter:	Container:	No.	Preservative:
See COC			

PID Reading At wellhead zero

Comments

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/28/06

Site/Well No.: BPOW 1-1 | Replicate No.: MS/MSD | Code No.: —

Weather: Clear 50s' | Sampling Time: Begin 11:39 | End 11:42 AM

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	241
Depth to ~~Water~~ Packer (ft bmp)	169
Water-Level Elevation (ft)	—
Water Column in Well (ft)	72
Casing Diameter/Type	4" (0.65)
Gallons in Well	46.8
Gallons Pumped/Bailed Prior to Sampling	x3 = 140
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 10:55 AM end 11:38 AM
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

Field Parameters	I	1V	2V	3V
Color		Colorless		Colorless
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.42	5.28	5.25	4.87
Conductivity ~~(mS/cm)~~ (µmhos/cm)	233	169.3	190.5	194.1
Turbidity (NTU)	—	—	—	6.01
Temperature (°C)	13.8	12.8	13.4	13.3
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ DTW	—	28.01	28.03	28.05

Sampling Method: 3 well volume

Remarks: Nitrogen male connector at well rusty

PID reading at wellhead zero

DTW 27.59

169 − 27.59 × .43 + 50 = 120 PSI rounded up

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N- Grumman | Project No. NY001348.0406.00002 | Page: 1 of 1

Site Location: Bethpage, NY | Date: 3/28/06

Site/Well No.: BPOW 1-2 | Replicate No.: N/A | Code No.: —

Weather: Mostly cloudy 50s | Sampling Time: Begin 3:53 | End 3:56 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	335
Depth to ~~Water~~ packer (ft bmp)	294
Water-Level Elevation (ft)	—
Water Column in Well (ft)	41
Casing Diameter/Type	4" (0.65)
Gallons in Well	26.65
Gallons Pumped/Bailed Prior to Sampling	x3 80
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 3:35 pm end 3:53 pm
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

Field Parameters	I:	1V	2V	3V
Color		Colorless		
Odor	None	None	None	None
Appearance	Clear	clear	clear	clear
pH (s.u.)	5.84	5.91	5.72	5.56
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	76.2	51.9	59.8	63.1
Turbidity (NTU)	—	—	—	—
Temperature (°C)	13.2	12.0	11.8	11.6
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%) (DTW)	29.88	29.75	29.87	28.84

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

DTW = 28.22

294 - 28.22 x .43 + 50 = 170 psi rounded up

Pressure gauge at wellhead not working well

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N- Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/28/06

Site/Well No.: BPOW 1-3 | Replicate No.: N/A | Code No.: —

Weather: Mostly cloudy 50s | Sampling Time: Begin 1:44 | End 1:47 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	419
Depth to ~~Water~~ packer (ft bmp)	344
Water-Level Elevation (ft)	—
Water Column in Well (ft)	75
Casing Diameter/Type	4" (0.65)
Gallons in Well	48.75 x3
Gallons Pumped/Bailed Prior to Sampling	146.25
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 1:15pm end 1:44pm
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

	I:	1V	2V	3V
Color	Colorless			
Odor	None	NONE		
Appearance	clear	CLEAR		
pH (s.u.)	4.87	4.67	4.99	4.67
Conductivity ~~(mS/cm)~~ (µmhos/cm)	121.9	172.3	142.8	129.1
Turbidity (NTU)	—	—	—	24.2
Temperature (°C)	13.2	12.4	12.0	12.2
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ DTW	30.25	30.18	30.14	28.89

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero
Nitrogen male connector at well rusty
DTW = 28.14
344 − 28.14 x .43 + 50 = 185 psi

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: DZ PP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/27/06

Site/Well No.: BPOW 2-1 | Replicate No.: Rep032706 | Code No.: —

Weather: Clear 50s | Sampling Time: Begin 2:13 | End 2:15 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	400
Depth to ~~Water~~ packer (ft bmp)	310
Water-Level Elevation (ft)	—
Water Column in Well (ft)	90
Casing Diameter/Type	4" (0.65)
Gallons in Well	58.5 x 3
Gallons Pumped/Bailed Prior to Sampling	175.5
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 1:47 end 2:10
Pumping Rate (gpm)	
Evacuation Method	Dedicated Submersible pump/packer

Field Parameters

Field Parameters	I	1V	2V	3V
Color	Colorless			
Odor	None	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.43	5.79	5.71	5.49
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	134.9	170.5	112.3	103.8
Turbidity (NTU)	—	—	—	11.2
Temperature (°C)	14.8	13.1	13.0	13.0
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	—	19.30	19.31	18.94

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

DTW = 18.57

310 − 18.57 × .43 + 50 = 175 psi

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: DZ PP

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Northrop Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date 3/27/06

Site/Well No. BPOW 2-2 | Replicate No. N/A | Code No. —

Weather clear 50s | Sampling Time: Begin 3:58 | End 4:01 pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	495
Depth to ~~Water~~ packer (ft bmp)	419
Water-Level Elevation (ft)	—
Water Column in Well (ft)	76
Casing Diameter/Type	4" (0.65)
Gallons in Well	49.40
Gallons Pumped/Bailed Prior to Sampling	x3 = 149
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 3:35 end 3:58 pm
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

Field Parameters	I:	1V Yellow tint	2V	3V
Color	colorless		Colorless	
Odor	None	None	None	None
Appearance	clear	cloudy	clear	clear
pH (s.u.)	5.33	5.16	5.59	5.24
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	91.1	115.6	100.6	95.0
Turbidity (NTU)	—	—	—	21.4
Temperature (°C)	15.5	13.9	14.0	14.0
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ Depth to water	18.49	21.15	21.12	19.82

Sampling Method: 3 well volume

Remarks: DTW = 18.49

419 − 18.49 × .43 + 50 = 225 psi

PID reading at wellhead zero

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N- Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date 3/30/06

Site/Well No. BPOW 3-1 | Replicate No. N/A | Code No. —

Weather: Clear 65° | Sampling Time: Begin 12:47pm End 12:50pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	516
Depth to Packer Water (ft bmp)	414
Water-Level Elevation (ft)	—
Water Column in Well (ft)	102
Casing Diameter/Type	4" (0.65)
Gallons in Well	66.3 x 3
Gallons Pumped/Bailed Prior to Sampling	199
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 12:10 end 12:47 pm
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

Field Parameters	I:	1V	2V	3V
Color	Colorless			
Odor	Moderate	None	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	4.88	4.54	4.33	4.61
Conductivity (mS/cm)	—	—	—	—
(µmhos/cm)	118.7	137.9	143.6	144.4
Turbidity (NTU)	—	—	—	4.78
Temperature (°C)	16.3	14.5	14.1	14.7
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%) DTW	31.14	31.63	31.58	28.34

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

DTW = 25.72

414 - 25.72 x .43 + 50 = 220 PSI (rounded up)

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N-Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/30/06

Site/Well No.: BPOW 3-2 | Replicate No.: N/A | Code No.: —

Weather: clear 65° | Sampling Time: Begin 11:14 AM End 11:17 AM

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	647
Depth to ~~Water~~ Packer (ft bmp)	503
Water-Level Elevation (ft)	—
Water Column in Well (ft)	144
Casing Diameter/Type	4" (0.65)
Gallons in Well	93.6 x3
Gallons Pumped/Bailed Prior to Sampling	280
Sample Pump Intake Setting (ft bmp)	—
Purge Time	begin 9:38 AM end 11:13 AM
Pumping Rate (gpm)	—
Evacuation Method	Dedicated submersible pump/packer

Field Parameters

	I:	1V	2V	3V
Color	Colorless			
Odor	slight	very slight	None	None
Appearance	clear	clear	clear	clear
pH (s.u.)	5.48	5.08	5.67	5.50
Conductivity ~~(mS/cm)~~ (µmhos/cm)	164.7	131.1	91.5	74.8
Turbidity (NTU)	—	—	—	6.89
Temperature (°C)	15.6	15.6	14.6	14.8
Dissolved Oxygen (mg/L)	—	—	—	—
Salinity (%)	26.79	26.98	26.70	27.27

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

DTW = 26.45

503 − 26.45 × .43 + 50 = 255 psi

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N- Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date 3/29/06

Site/Well No. BPOW 4-1 | Replicate No. N/A | Code No. —

Weather: Clear 50s | Sampling Time: Begin 5:25 | End 5:28 pm

Evacuation Data

	Standpipe	Screen
Measuring Point	TOC	
MP Elevation (ft)	—	
Land Surface Elevation (ft)		
Sounded Well Depth (ft bmp)	652	692
Depth to Water (packer) (ft bmp)	503	652
Water-Level Elevation (ft)	—	—
Water Column in Well (ft)	149	40
Casing Diameter/Type	4" (0.65)	2" (0.16)
Gallons in Well	96.85 x 3 = 290	6.4 x 3 = 19.2

Gallons Pumped/Bailed Prior to Sampling: 309 (290+19.2)

Sample Pump Intake Setting (ft bmp): —

Purge Time: begin 2:58 pm end 5:25 pm

Pumping Rate (gpm): —

Evacuation Method: Dedicated submersible pump/packer

Field Parameters

Field Parameters	I:	1V	2V	3V
Color	Colorless	tan tint	Colorless	Colorless
Odor	None	None	None	None
Appearance	clear	cloudy	cloudy	cloudy
pH (s.u.)	5.75	6.35	6.35	6.04
Conductivity ~~(mS/cm)~~	—	—	—	—
(µmhos/cm)	47.6	112.1	71.2	55.3
Turbidity (NTU)	—	—	—	96.1
Temperature (°C)	14.9	12.8	12.8	12.4
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ DTW	—	29.61	29.59	27.20

Sampling Method: 3 well volume

Remarks: PID reading at wellhead 0
DTW = 27.00
PSI = 255

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: N- Grumman | Project No. NY001348.0406.00002 | Page 1 of 1

Site Location: Bethpage, NY | Date: 3/29/06

Site/Well No.: BPOW 4-2 | Replicate No.: N/A | Code No.: —

Weather: clear 50s | Sampling Time: Begin 1:14 | End 1:17pm

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	—
Land Surface Elevation (ft)	—
Sounded Well Depth (ft bmp)	764
Depth to packer Water (ft bmp)	503
Water-Level Elevation (ft)	—
Water Column in Well (ft)	261
Casing Diameter/Type	4" (0.65)
Gallons in Well	169.65
Gallons Pumped/Bailed Prior to Sampling	x3 509
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 10:21 AM end 1:14pm
Pumping Rate (gpm)	
Evacuation Method	Dedicated packer / Bladder

Field Parameters

Field Parameters	I:	1V	2V	3V
Color		Colorless		
Odor	None	None	None	None
Appearance	clear	cloudy	clear	clear
pH (s.u.)	5.06	4.56	5.09	5.20
Conductivity (~~mS/cm~~)	—	—	—	—
(µmhos/cm)	121.6	148.9	73.5	47.5
Turbidity (NTU)	—	—	—	16.5
Temperature (°C)	15.0	13.7	14.2	15.5
Dissolved Oxygen (mg/L)	—	—	—	—
~~Salinity (%)~~ DTW	24.95	24.52	24.69	24.67

Sampling Method: 3 well volume

Remarks: PID reading at wellhead zero

DTW = 26.02

503 − 26.02 x .43 + 50 = 255psi

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: PP DZ

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	NORTHROP GRUMMAN	Project No.	NY001348.0406TC	Page	1 of 1
Site Location	Bethpage NY			Date	4-12-06
Site/Well No.	102 TOWER EFF.	Replicate No.	N/A	Code No.	
Weather	Sunny + warm	Sampling Time:	Begin 1305	End	1308

Evacuation Data		Field Parameters	
Measuring Point	Sample Port	Color	CLEAR
MP Elevation (ft)		Odor	N/O
Land Surface Elevation (ft)		Appearance	
Sounded Well Depth (ft bmp)		pH (s.u.)	5.19
Depth to Water (ft bmp)		Conductivity (mS/cm)	94.5
		(µmhos/cm)	
Water-Level Elevation (ft)		Turbidity (NTU)	0.22
Water Column in Well (ft)		Temperature (°C)	14.8
Casing Diameter/Type		Dissolved Oxygen (mg/L)	
Gallons in Well		Salinity (%)	
Gallons Pumped/Bailed Prior to Sampling		Sampling Method	GRAB
Sample Pump Intake Setting (ft bmp)		Remarks	Flow - 2404 GPM RATE
Purge Time	begin ___ end ___		
Pumping Rate (gpm)			
Evacuation Method			

Constituents Sampled	Container Description	Number	Preservative
VOC's	40ml VOAs	2	HCl

Sampling Personnel: [signature]

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	mililiter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: NORTHROP GRUMMAN | Project No.: NY001348.0106.00002 | Page 1 of 1
Site Location: Bethpage NY | Date: 4-12-06
Site/Well No.: WELL 3 | Replicate No.: N/A | Code No.: ____
Weather: Sunny-Warm | Sampling Time: Begin 1635 | End 1637

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters

Color	
Odor	
Appearance	
pH (s.u.)	4.31
Conductivity (mS/cm)	140.4
(µmhos/cm)	
Turbidity (NTU)	0.00
Temperature (°C)	14.0
Dissolved Oxygen (mg/L)	
Salinity (%)	
Sampling Method	Grab
Remarks	Flowrate - 700 GPM

Constituents Sampled	Container Description	Number	Preservative
VOC's	40 ml Vials	2	HCl

Sampling Personnel: [signature]

Gal./Ft.	Well Casing Volumes			
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	mililiter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	Grumman Northrop	Project No.	NY001348 0400.00002	Page	1 of 1
Site Location	Bethpage N.Y.			Date	4-12-06
Site/Well No.	96 Tower Eff.	Replicate No.	N/A	Code No.	
Weather	Sunny · Warm	Sampling Time:	Begin 1510	End	1512

Evacuation Data

Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters

Color	Clear
Odor	N/D
Appearance	
pH (s.u.)	4.98
Conductivity (mS/cm)	123.2
(µmhos/cm)	
Turbidity (NTU)	0.00
Temperature (°C)	14.1
Dissolved Oxygen (mg/L)	
Salinity (%)	
Sampling Method	Grab
Remarks	Flow Rate - 1483

Constituents Sampled	Container Description	Number	Preservative
VOC's	40ml Voas	2	HCL

Sampling Personnel [signature]

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	Grumman Northrup	Project No.	NY001344.0404-T2	Page	1 of 1
Site Location	Bethpage N.Y.			Date	4/12/06
Site/Well No.	WELL 17	Replicate No.	Rep 041206	Code No.	
Weather	Sunny - warm 62°	Sampling Time:	Begin 1415	End	1420

Evacuation Data		Field Parameters	
Measuring Point		Color	Clear
MP Elevation (ft)		Odor	N/O
Land Surface Elevation (ft)		Appearance	
Sounded Well Depth (ft bmp)		pH (s.u.)	4.46
Depth to Water (ft bmp)		Conductivity (mS/cm)	102.7
		(µmhos/cm)	
Water-Level Elevation (ft)		Turbidity (NTU)	0.44
Water Column in Well (ft)		Temperature (°C)	16.7
Casing Diameter/Type		Dissolved Oxygen (mg/L)	
Gallons in Well		Salinity (%)	
Gallons Pumped/Bailed Prior to Sampling		Sampling Method	GRAB
Sample Pump Intake Setting (ft bmp)		Remarks	Flowrate: 1022 GPM
Purge Time	begin ____ end ____		
Pumping Rate (gpm)			
Evacuation Method			

Constituents Sampled	Container Description	Number	Preservative
VOC's	40ml vows	2	HCl

Sampling Personnel: [signature]

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	mililiter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	Northrup Grumman	Project No.	NY001348.0406.00002	Page 1 of 1	
Site Location	Bethpage NY			Date	4-12-06
Site/Well No.	Well 18	Replicate No.	MS/MSD	Code No.	
Weather	Sunny-Warm 62°	Sampling Time: Begin	1340	End	1345

Evacuation Data	
Measuring Point	Sample Port
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters	
Color	Clear
Odor	N/D
Appearance	
pH (s.u.)	4.81
Conductivity (mS/cm)	108.3
(µmhos/cm)	
Turbidity (NTU)	0.43
Temperature (°C)	14.3
Dissolved Oxygen (mg/L)	
Salinity (%)	
Sampling Method	Grab
Remarks	Flow rate - 820 GPM

Constituents Sampled	Container Description	Number MS/MSD	Preservative
VOC's	40ml VOAs	2 6	HCl

Sampling Personnel: [signature]

Well Casing Volumes				
Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	mililiter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project	Northrop Grumman	Project No.	NY000348.0006 F2	Page	1 of 1
Site Location	Bethpage N.Y.			Date	4-12-06
Site/Well No.	Well 1	Replicate No.	N/A	Code No.	
Weather	Sunny - Warm	Sampling Time: Begin	1625	End	1627

Evacuation Data	
Measuring Point	
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters	
Color	Clear
Odor	N/O
Appearance	
pH (s.u.)	4.69
Conductivity (mS/cm)	121.5
(µmhos/cm)	
Turbidity (NTU)	0.00
Temperature (°C)	14.3
Dissolved Oxygen (mg/L)	
Salinity (%)	
Sampling Method	Grab
Remarks	Flow Rate - 744

Constituents Sampled	Container Description	Number	Preservative
VOC'S	3 40ml VOAS	2	HCL

Sampling Personnel: [signature]

Well Casing Volumes

Gal./Ft.	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS GERAGHTY & MILLER

Water Sampling Log

Project: Northrop Grumman
Project No.: NY00 1348.0406 T2
Page: 1 of 1
Site Location: Bethpage NY
Date: 4-12-06
Site/Well No.: WELL 19
Replicate No.: N/A
Code No.:
Weather: Sunny + Warm
Sampling Time: Begin 1242 End 1244

Evacuation Data

Measuring Point	Sample Port
MP Elevation (ft)	
Land Surface Elevation (ft)	
Sounded Well Depth (ft bmp)	
Depth to Water (ft bmp)	
Water-Level Elevation (ft)	
Water Column in Well (ft)	
Casing Diameter/Type	
Gallons in Well	
Gallons Pumped/Bailed Prior to Sampling	
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin ____ end ____
Pumping Rate (gpm)	
Evacuation Method	

Field Parameters

Color	Clear
Odor	N/O
Appearance	
pH (s.u.)	5.95
Conductivity (mS/cm)	90.6
(µmhos/cm)	
Turbidity (NTU)	0.01
Temperature (°C)	14.7
Dissolved Oxygen (mg/L)	
Salinity (%)	
Sampling Method	Grab
Remarks	FLOW RATE: 705 EPM

Constituents Sampled	Container Description	Number	Preservative
VOC's	40 ml vials	2	HCl

Sampling Personnel: Ben McCafferty

Well Casing Volumes

Gal./Ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

ARCADIS

Water Sampling Log

Project: NY001345.0506 | Project No.: 00002 | Page: 1 of 1
Site Location: NGC | Date: 3/14/06
Site/Well No.: FW-03 | Replicate No.: NA | Code No.: NA
Weather: Overcast 54° | Sampling Time: Begin 10:25 End 10:37

Evacuation Data

Measuring Point	TOC
MP Elevation (ft)	
Land Surface Elevation (ft)	~~64.00~~
Sounded Well Depth (ft bmp)	~~54.38~~ 64.00
Depth to Water (ft bmp)	54.36
Water-Level Elevation (ft)	
Water Column in Well (ft)	9.62
Casing Diameter/Type	2" (.16)
Gallons in Well	1.53 x3
Gallons Pumped/Bailed Prior to Sampling	4.6
Sample Pump Intake Setting (ft bmp)	
Purge Time	begin 10:25 end 10:37
Pumping Rate (gpm)	.5 gpm 3 min
Evacuation Method	Ready flow

Field Parameters

	I	1V	2V	3V
Color	Brn	Brn	Brown	Lt Brn
Odor	None	None	None	None
Appearance	Turb.	Turb	Turb	turb.
pH (s.u.)	5.69	5.98	6.24	6.25
Conductivity ~~(mS/cm)~~ µS (µmhos/cm)	343	353	370	361
Turbidity (NTU)	7200	" "	" "	189 (150)
Temperature (°C)	14.5	15.0	14.6	15.4
Dissolved Oxygen (mg/L)				
~~Salinity (%)~~ Time	10:25	10:28	10:31	10:34
Sampling Method	Ready flow / Low flow			
Remarks	3 well Volume			

Constituents Sampled	Container Description	Number	Preservative
See COC			

Sampling Personnel: G. Williams / D. Zuck

Well Casing Volumes

Gal./ft.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter	NR	Not Recorded	VOC	Volatile Organic Compounds

Appendix C

Chain Of Custody Records

3/7/06

ARCADIS

Laboratory Task Order No./P.O. No. ____________

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name NY001342.0506.00002

Project Location BETHPAGE NY

Laboratory [illegible]

Project Manager [illegible]

Sampler(s)/Affiliation GW

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	[illegible] VOC (HCl)						Remarks	Total
GM-79D	L	3-7-06		2							2
GM-79I	✓	✓		2							2
GM-21D	✓	✓		2							2
TB-3-7-06	✓	✓		2							2

Total No. of Bottles/Containers 8

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: ARCADIS	Date 3/7/06	Time [illegible]	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: [illegible]

Delivery Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other ______ SPECIFY

AG 05-12/01

3/8/06

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name NY000317.0006.00002

Project Location [illegible]

Laboratory [illegible]

Project Manager [illegible]

Sampler(s)/Affiliation [illegible]

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: [illegible] VOC (WL)						Remarks	Total
GM-17D	W	3/8/06		2							2
GM-17I	W	3/8/06		2							2
GM-18D	W	3/8/06		2							2
TB-3-7-06	W	3/8/06		2							2
										Total No. of Bottles/ Containers	8

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [illegible]	Organization: [illegible]	Date 3/8/06	Time [illegible]	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		

Special Instructions/Remarks: [illegible]

Delivery Method: ☐ In Person ☑ Common Carrier [illegible] SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. ______ **CHAIN-OF-CUSTODY RECORD** Page ___ of ___

Project Number/Name NY0003480506.00002
Project Location BETHPAGE NY
Laboratory SPUDDU - TRENT SHELTON
Project Manager CARLO SAN GIOVANNI
Sampler(s)/Affiliation G.W.

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOA VOC (HCl)						Remarks	Total
GM-20I	L	3-9-06		2							2
GM-20D	✓	✓		2							2
GM-13D	✓	✓		2							2
TB3-9-06	✓	✓		2							2

Total No. of Bottles/Containers 8

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: ARCADIS	Date 3/9/06	Time 5:30	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☐ Common Carrier ______ SPECIFY ☐ Lab Courier ☐ Other ______ SPECIFY

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. ______

CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project Number/Name NY00B480506.00002

Project Location BETHPAGE NY

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SAN GIOVANNI

Sampler(s)/Affiliation G.W, D.Z.

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml VIAL VOC HCl	500ml PLASTIC Chrom (HNO3)				Remarks	Total
GM-15D	L	3-13-06		2						2
GM-15D-2	↓	↓		6*						6
GM-15SR				2	1					3
~~FF~~TB-3-13-06				2						2
FB-3-13-06				2	1					3
PT/MW-04					1					1
PT/MW-05					1					1
MT MW-06	↓	↓			1					1
									Total No. of Bottles/ Containers	19

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: ARCADIS	Date 3 / 13 / 06	Time 5:00	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: *PLEASE USE THIS SAMPLE FOR AN MS/MSD QA/QC SAMPLE
REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FEDEX ☐ Lab Courier ☐ Other ______ SPECIFY

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ____ of ____

Project Number/Name NY00B48.0506.00002

Project Location BETHPAGE NY

Laboratory SEVERN TRENT SHELTON

Project Manager CARLO SALVATORE

Sampler(s)/Affiliation G.W. DZ

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml VOC (HCl)						Remarks	Total
HW-29D	L	3-14-06		2							2
HW-29E				2							2
HW-03				2							2
HW-24E				2							2
FB3 14 06				2							2
TB-3-14-06				2							2
REP-3-14-06				2							2

Total No. of Bottles/ Containers 14

Sample Matrix: L = Liquid; S = Solid; A = Air

				Seal Intact?
Relinquished by: _____	Organization: ARCADIS	Date 3/14/06	Time 5:00	
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A

Special Instructions/Remarks: REPORT TO CARLO SALVATORE

Delivery Method: ☐ In Person ☒ Common Carrier FED EX ☐ Lab Courier ☐ Other _____

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name NY001345.0506.0002

Project Location Bethpage, NY

Laboratory Severn-Trent Shelton

Project Manager Carlo San Giovanni

Sampler(s)/Affiliation GW/D. Zack Arcadis

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40 mL VOA HCl	500 mL plastic 1:1 HNO3	500 mL plastic unpreserved (filtered)				Remarks	Total
FB 3-15-06	L	3/15/06		2	1						3
TB 3-15-06				2							2
GM-78I				2	1						3
MW-3R				2	1	1					4
GM-21S				2							2
GM-78S				2	1						3
GM-17SR				2	1	1					4
MW-2GF					1	1					2
MW-1GF					1	1					2

Total No. of Bottles/ Containers 25

Sample Matrix: L = Liquid; S = Solid; A = Air

				Seal Intact?
Relinquished by: D Zack / G. Williams	Organization: Arcadis	Date 3/15/06	Time 6:15 PM	
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A

Special Instructions/Remarks: Please Report Results to Dave Stern

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. ______

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name NY001348.0406.00002

Project Location BETHPAGE NY

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SAN GIOVANNI

Sampler(s)/Affiliation G.W. DZ.

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml VOC (HCl)	500ml Total Cd/Cr (HNO3)	500ml Dissolved Cd/Cr (HNO3)				Remarks	Total
GM-18S	L	3-16-06		2	1	1					4
GM-33D-2	↓	↓		2							2
N-10631	↓	↓		2	1	1					4
GM-75D2	↓	↓		2							2
N-10627	↓	↓		2							2
N-10624	↓	↓		2							2
FB-3-16-06	↓	↓		2	1						3
TB 3-16-06	↓	↓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 21

Relinquished by: [signature]	Organization: ARCADIS	Date 3/16/06	Time 6:30	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FEDEX (SPECIFY) ☐ Lab Courier ☐ Other ______ SPECIFY

ARCADIS

Laboratory Task Order No./P.O. No. Guaranteed Quoted

CHAIN-OF-CUSTODY RECORD

Project Number/Name NY001348.0406.00002

Project Location Bethpage, NY

Laboratory Severn Trent - Shelton

Project Manager Dave Stern

Sampler(s)/Affiliation GW PP

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml Vial VOC 200 Ag (HCL)	500ml plastic Total Color (HNO3)	500ml plastic Dissolved Color (HNO3)				Remarks	Total
HN-42I	L	3/17/06		2							2
TB031706	↓	↓		2							2
FB031706	↓	↓		2	1						3
HN-42S	↓	↓		2							2
GM-32S	↓	↓		2	1	1					~~3~~ 4
HN-40I	↓	↓		2							2
HN-40S	↓	↓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 17

Relinquished by: [signature]	Organization: Arcadis	Date 3/17/06	Time 6:00pm	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Report to Dave Stern

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex ☐ Lab Courier ☐ Other

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ____ of ____

Project Number/Name NY000242.0006.00002

Project Location BETHPAGE NY.

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SAN GIOVANNI

Sampler(s)/Affiliation G.W.

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOC (HCl)						Remarks	Total
GM-74T	L	3.20.06		2							2
GM-74D				2							2
GM-74D-2				2							2
GM-73D				6*							6*
REP-3-20-06				2							2
TB-3-20-06				2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 16

Relinquished by: GW	Organization: ARCADIS	Date 3/20/06	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks:

* PLEASE USE THIS SAMPLE FOR AN MS/MSD QA/QC SAMPLE

REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name: NY001348.0406.00002

Project Location: BETHPAGE NY.

Laboratory: SEVERN-TRENT SHELTON

Project Manager: CARLO SAM GIOVANNI

Sampler(s)/Affiliation: G.W.

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40 ml VOA VOC (HCl)						Remarks	Total
GM-73D-2	L	3-24-06		2							2
GM-39D	↓	↓		2							2
GM-39D-2	↓	↓		2							2
TB 3-24-06	↓	↓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 8

Relinquished by: [signature]	Organization: ARCADIS	Date 3/24/06	Time 5:15	Seal Intact?	
Received by: [signature]	Organization:	Date / /	Time	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks: REPORT TO DAVE STARV

Delivery Method: ☐ In Person ☑ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 12/01

ARCADIS

Laboratory Task Order No./P.O. No. Quarterly — Grumman Outpost

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: NY001248.0406.00002
Project Location: Bethpage, NY
Laboratory: Severn Trent - Shelton
Project Manager: Dave Stern
Sampler(s)/Affiliation: D 2 P

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml Vial VOC 502.2 (HCL)						Remarks	Total
TB032706	L	3/27/06		2							2
Rep032706	↓	↓		2							2
BP0612-1	↓	↓		2							2
BP0612-2	↓	↓		2							2

* Note: VOC Analysis 502.2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 8

Relinquished by: [signature]	Organization: Arcadis	Date 3/27/06	Time 6:00pm	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Report to Dave Stern

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

ARCADIS

Laboratory Task Order No./P.O. No. Grumman Outpost **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name NY000134 8.0406.00002

Project Location Bethpage, NY

Laboratory Severn Trent - Shelton

Project Manager Dave Stern

Sampler(s)/Affiliation D2 PP

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40 mL Vials VOC 502.2 (HCl)						Remarks	Total
TB032806	L	3/28/06		2							2
BPOW 1-1	↓	↓		*6							6
BPOW 1-2				2							2
BPOW 1-3				2							2
				Note: VOC Analysis 502.2							

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 12

					Seal Intact?
Relinquished by: Art Colgrosso	Organization: Arcadis	Date 3/28/06	Time 5:30pm		
Received by:	Organization:	Date / /	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: Report to Dave Stern

* Please use this sample as a QA/QC MS/MSD Sample

Delivery Method: ☐ In Person ☐ Common Carrier Fed Ex ☐ Lab Courier ☐ Other

ARCADIS

Laboratory Task Order No./P.O. No. Grumman outpost **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name NY001348.0406.00002

Project Location Bethpage, NY

Laboratory Severn Trent - Shelton

Project Manager Dave Stern

Sampler(s)/Affiliation DZ PP

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40 ml Vials VOC 502.2 (HCL)						Remarks	Total
TB 3-29-06	L	3/29/06		2							2
BPOW 4-2	↓	↓		2							2
BPOW 4-1	↓	↓		2							2
				Note: Analysis VOC 502.2							

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 6

Relinquished by: Pat Professionale	Organization: Arcadis	Date 3/29/06	Time 6:30pm	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	Yes No N/A
Received by:	Organization:	Date / /	Time		

Special Instructions/Remarks: Report to Dave Stern

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. Grumman outport

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NY001348.0006.00002

Project Location Bethpage, NY

Laboratory Severn Trent - Shelton

Project Manager Dave Stern

Sampler(s)/Affiliation DZ PP

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40 ml vial VOC 502.2 (HCL)						Remarks	Total
TB033006	L	3/30/06		2							2
BPOW 3-2	↓	↓		2							2
BPOW 3-1	↓	↓		2							2
				Note: Analysis VOC 502.2							

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 6

					Seal Intact?
Relinquished by: Pat Ryan	Organization: Arcadis	Date 3/30/06	Time 6:15pm		
Received by:	Organization:	Date / /	Time		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: Report to Dave Stern

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. NORTHROP GRUMMAN

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name NY001348.0406.00002

Project Location BETHPAGE NY

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SAN GIOVANNI

Sampler(s)/Affiliation G.W.

ANALYSIS / METHOD / SIZE: 40ml VOC / HCl

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml VOC HCl						Remarks	Total
GM-21I	L	3.31.06		2							2
GM-15I	✓	✓		2							2
TB-3-31-06	✓	✓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 6

Relinquished by: [signature]	Organization: ARCADIS	Date 3/31/06	Time 5:00	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: REPORT TO DAVE STERN.

Delivery Method: ☐ In Person ☒ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other ____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. ______

CHAIN-OF-CUSTODY RECORD

Project Number/Name NY001348.0406.00002

Project Location BETHPAGE NY

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SAN GIOVANNI

Sampler(s)/Affiliation G.W.

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40ml VOA VOC HCL						Remarks	Total
GM-36D	L	4-3-06		2							2
GM-36D-2	↓	↓		2							2
TB 4-3-06	↓	↓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 6

Relinquished by: G.W.	Organization: ARCADIS	Date 4 / 3 / 06	Time 5:00	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other ______ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ____ of ____

Project Number/Name NY 001348.0406.0002
Project Location BETHPAGE NY
Laboratory SEVERN-TRENT SHELTON
Project Manager CARLO SANGIOVANNI
Sampler(s)/Affiliation G.W

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOA VOC (HCl)						Remarks	Total
GM-38D	L	4-5-06		6*							6*
GM-38D-2				2							2
GM-37D-2				2							2
REP-4-5-06				2							2
TB-4-5-06	V	↓		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 14

Relinquished by: GW	Organization: ARCADIS	Date 4/5/06	Time 6:30	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: REPORT TO DAVE STERN
* PLEASE USE THIS

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ____ of ____

Project Number/Name: N40013481.0406.00002
Project Location: BETHPAGE N.Y.
Laboratory: SEVERN-TRENT LABS SHELTON
Project Manager: CARLO SANGIOVANNI
Sampler(s)/Affiliation: GW.

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOC (HCl)						Remarks	Total
GM-37D	L	4-6-06		2							2
GM-700-2				2							2
GM-710-2				2							2
GM-350-2				2							2
TB4-6-06				2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 10

					Seal Intact?
Relinquished by: [signature]	Organization: ARCADIS	Date 4/6/06	Time 5:45		
Received by:	Organization:	Date / /	Time		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page ____ of ____

Project Number/Name N4001348.0406.00002
Project Location BETHPAGE N.Y.
Laboratory SEVERN-TRENT SHELTON
Project Manager CARLO SAN GIOVANNI
Sampler(s)/Affiliation G.W.J.C.

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOA VOC (HCl)						Remarks	Total
GM-34D	L	4-7-06		2							2
GM-34D-2	↓	↓		2							2
TB4-7-06	↓	↓		2							2
										Total No. of Bottles/ Containers	6

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: SHW	Organization: ARCADIS	Date 4/7/06	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes	No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes	No N/A

Special Instructions/Remarks: REPORT TO DAVE STERN

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. Grumman Quarterly

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NY001348.0406.00002

Project Location Bethpage, NY

Laboratory Severn Trent - Shelton

Project Manager Dave Stern

Sampler(s)/Affiliation GW 00

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40 ml vial VOC	500 ml plastic Total cdlc (HNO3)	500 ml plastic Dissolved cdlc (HNO3)				Remarks	Total
TB041006	L	4/10/06		2							2
FB041006				2	1						3
GM-16I				2							2
GM-16SR				2	1	1					4
N-10634	↓	↓		2							2
										Total No. of Bottles/ Containers	13

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Art Petronik	Organization: Arcadis	Date 4/10/06	Time 5:30pm	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: Report to Dave Stern

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name NY001348040600002

Project Location BETHPAGE NY.

Laboratory SEVERN-TRENT SHELTON

Project Manager CARLO SALVATORE

Sampler(s)/Affiliation G.W. I

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 40ml VOA VOC (HCl)						Remarks	Total
GM-18O	L	4.11.06		2							2
GM-18I	↓	↓		2							2
TB 4.11.06	↓	↓		2							2

Total No. of Bottles/ Containers: 6

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: ARCADIS	Date 4/11/06	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks: REPORT TO DAVE STERN.

Delivery Method: ☐ In Person ☒ Common Carrier FED-EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. NGC G/P TONCT

CHAIN-OF-CUSTODY RECORD

Project Number/Name NY001348.0406.00002

Project Location Bethpage N.Y.

Laboratory STL CT

Project Manager ~~Chris Tho~~ Dave Stern

Sampler(s)/Affiliation D. McClafferty/Arcadis

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	40 ml Vials	VOC's	Grab	Standard TAT			Remarks	Total
Well 19	L	4-12-06 1242		2							2
Well 18	↓	1340		6						☆ 4 VOA's MS/MSD	6
Well 17		1415		2							2
102 Tower Eff.		1305		2							2
96 Tower Eff.		1510		2							2
Well 1		1620		2							2
Well 3		1435		2							2
Rep 041206		↓		2		↓				Rep is Well 17	2
T.B.	↓			2	↓		↓				2
Temp. Bottle											1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 23

Relinquished by: D. McClafferty	Organization: ARCADIS	Date 4/12/06	Time 1705	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: ATTN: JOHANNA DUBAUSKAS - WELL 18 HAS 6 VOAS, 4 FOR MS/MSD. THANK YOU

Delivery Method: ☐ In Person ☐ Common Carrier ________ SPECIFY ☐ Lab Courier ☐ Other ________ SPECIFY

AG 05-12/01

ARCADIS

Laboratory Task Order No./P.O. No. NGC G/P FONCT

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name NIAGARA 1348.0406.00002

Project Location BETH PAGE N.Y.

Laboratory STL ET UT

Project Manager DAVE STEGEN

Sampler(s)/Affiliation D. MCLAUGHLIN / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: 6 LITER SUMMA	TO-15	GRAB	STANDARD TAT	TANK # (G)	Remarks	Total
G/P INF. TANK B	A	4.12.06 1523						2622	START FINISH	1
G/P EFF. TANK B		1525						2596	START FINISH	1
OXY EFF		1527						2697	START FINISH	1
ONCT INF. TANK B		1740						3802	START FINISH	1
ONCT EFF. TANK B		1743						2715	START FINISH	1
UNUSED										1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 5

Relinquished by: D. McLaughlin	Organization: ARCADIS	Date 4/12/06	Time 1600	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks: ATTN: RON PENTKOWSKI - RETURN THE UNUSED SUMMA

Delivery Method: ☐ In Person ☒ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01