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Mr. Steven Scharf, P.E.  
New York State Department of Environmental Conservation (NYSDEC)  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233-7015

Subject:  
Results of Second Quarter 2011 Groundwater Monitoring,  
Operable Unit 2, Northrop Grumman Systems Corporation and Naval Weapons  
Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York.  
(NYSDEC Site #s 1-30-003A and B)

ENVIRONMENT

Dear Mr. Scharf:

Date:  
August 12, 2011

On behalf of Northrop Grumman Systems Corporation (Northrop Grumman),  
ARCADIS is providing the NYSDEC with the validated results of Operable Unit 2  
(OU2) groundwater monitoring, performed in accordance with the approved  
groundwater monitoring plan (ARCADIS G&M, Inc. 2006) and the Public Water  
Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003). Table 1 provides  
OU2 remedial system performance operational data and water balance. Tables 2  
through 4 provide the validated analytical results of monitoring for this period. Figure  
1 shows the site plan with well locations.

Contact:  
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Please contact us if you have any questions or comments.

Our ref:  
NY001496.0311.GWMI4

Sincerely,

ARCADIS of New York, Inc.

David E. Stern  
Senior Hydrogeologist

Carlo San Giovanni  
Project Manager

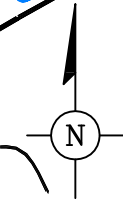
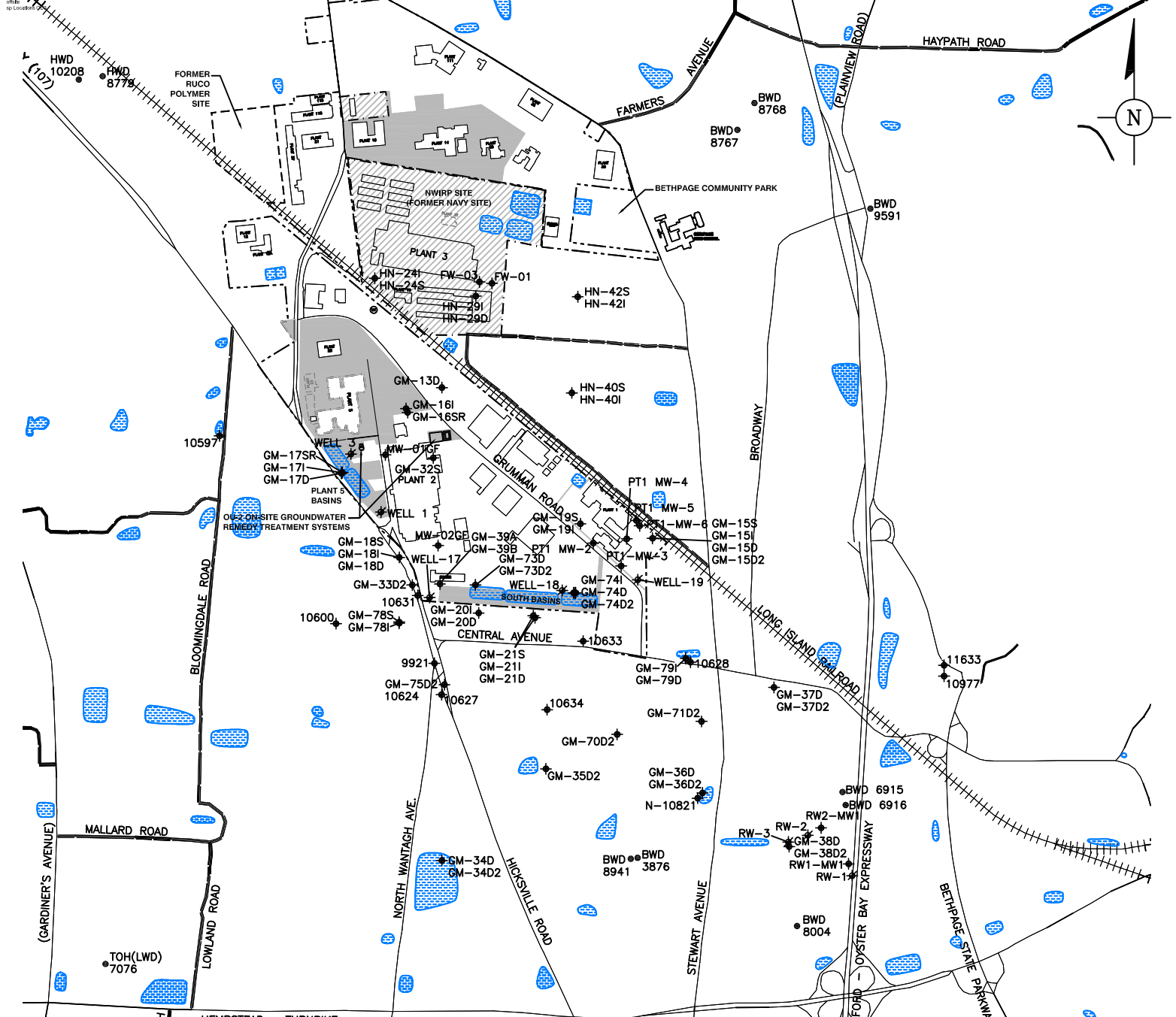
Enclosures

Imagine the result

Copies:

John Cofman – Northrop Grumman  
Kent Smith – Northrop Grumman  
Ed Hannon – Northrop Grumman  
Carol Henry, EMAGIN  
Walter Parish – NYSDEC Region 1  
Bill Spitz - NYSDEC Region 1  
Steven Karpinski – New York State Department of Health  
Michael Alarcon – Nassau County Department of Health  
Joseph DeFranco – Nassau County Department of Health  
Lora Fly – NAVFAC Midlant Environmental  
David Brayack – TetraTech NUS, Inc.  
Jeffrey Kogut – Glenn Springs Holdings, Inc.  
Kevin Lumpe – Steel Equities  
Thomas Taccone – USEPA  
Matthew Russo – Town of Oyster Bay  
Frank Flood – Massapequa Water District  
Matthew Snyder – Aqua New York  
William Bier – South Farmingdale Water District  
John Reinhardt – Town of Hempstead Water District  
Michael Boufis – Bethpage Water District  
Anthony J. Sabino Esq. – Bethpage Water District  
Lois Lovisololo – Bethpage Public Library (Public Repository)  
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PROJECTNAME: NY101496031



- EXPLANATION**
- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
  - PROPERTY BOUNDARY OF THE FORMER U.S. NAVY SITE
  - LIMITS OF THE FORMER OCC/RUCO SITE
  - +++++ LONG ISLAND RAILROAD
  - DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2003)
  - ▨ DENOTES U.S. NAVY OWNED PROPERTY (AS OF 1997)
  - RECHARGE BASIN
  - 10592 ◆ OBSERVATION/MONITORING WELL
  - 9591 ● PUBLIC SUPPLY WELL
  - WELL-17 \* NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
  - NWIRP NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
  - TOH (LWD) TOWN OF HEMPSTEAD LEVITOWN WATER DISTRICT
  - HWD HICKSVILLE WATER DISTRICT
  - SFWD SOUTH FARMINGDALE WATER DISTRICT
  - BWD BETHPAGE WATER DISTRICT
  - AQUA AQUA NEW YORK
  - OW OUTPOST WELL

**NOTE:**  
 THIS FIGURE DEPICTS MONITORING WELLS INCLUDED IN OJ-2 GROUNDWATER MONITORING PROGRAM AND SELECTED OTHER WELLS.

0 1000' 2000'  
 SCALE IN FEET

NORTHROP GRUMMAN SYSTEMS CORPORATION  
 BETHPAGE, NEW YORK  
 OPERABLE UNIT 2

**LOCATION OF ON-SITE GROUNDWATER REMEDY AND WELLS**

ARCADIS

FIGURE 1

Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2011, Northrop Grumman Systems Corporation, Bethpage, New York.

Identification	Design	Current Actual	Design	Current Actual	Current	Current	Current	2nd Quarter	
	Pumping/ Recharge Rate <sup>(a)</sup> (gpm)	Average Pumping/Recharge Rate <sup>(b)</sup> (gpm)	Total Pumpage/Recharge (MG)	Total Pumpage/Recharge (MG)	Percent of Design Pumpage/ Recharge	TCE Concentration (ug/L)	TVOC Concentration <sup>(c)</sup> (ug/L)	2011 Estimated VOC Mass Removed <sup>(d)</sup> (lbs)	
<b>Remedial Wells</b>		<b>Groundwater Removed from Aquifer</b>							
Well 1	800	812	112.9	114.0	101%	390	471	447	
Well 3	700	704	98.8	98.6	100%	2,100	2,378	1,954	
Well 17	1,000	959	141.1	129.9	92%	250	294	318	
Well 18	600	584	84.7	80.8	95%	77	100	67	
Well 19	700	787	98.8	110.0	111%	190	222	195	
<b>Rounded Totals:</b>	<b>3,800</b>	<b>3,846</b>	<b>536</b>	<b>533</b>	<b>99%</b>	--	--	<b>2,981</b>	
<b>Recharge Basins <sup>(a,g)</sup></b>		<b>Treated Water Recharged to Aquifer</b>							
West Recharge Basins	0	--	0	--	--	--	--	--	
South Recharge Basins	2,231	2,935	314.8	414.2	132%	--	--	--	
<b>Rounded Totals:</b>	<b>2,231</b>	<b>2,935</b>	<b>315</b>	<b>414</b>	--	--	--	--	
<b>Treated Water Sent to Calpine <sup>(g)</sup></b>									
Calpine Demand	100-400	--	12 - 48	--	--	--	--	--	
<b>Treatment Efficiencies</b>		<b>Average SPDES Outfall TVOC Concentrations (ug/L) <sup>(f)</sup></b>							
Tower 96 System Efficiency <sup>(e)</sup> :		<b>&gt;99.9%</b>	--	<b>&lt;0.5</b>	--	--	--	--	
Tower 102 System Efficiency <sup>(e)</sup> :		<b>99.7%</b>	--	<b>0.7</b>	--	--	--	--	

see footnotes on last page

Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2011, Northrop Grumman Systems Corporation, Bethpage, New York.

- (a) - Design remedial well pumping rates based on computer modeling (ARCADIS G& M, Inc. 2003c). Acceptable design recharge rates based on computer modeling (ARCADIS G&M, Inc. 2004b). Design pumping and recharge rates were modified in April, 2005. Recharge includes remedial well pumpage (minus Calpine demand, Oxy biosparge system demand, incidental irrigation use, and pipe loss), plus incidental runoff from precipitation. Current average recharge rates have been determined using the entire 98-day span of time for the Recharge Basins as opposed to current average pumping rates, which account for varying amounts of downtime, as indicated below.
- (b) - OU2 wells were operational during the Second Quarter 2011, at the following percentages: Well-1 (99.5%), Well-3 (99.2%); Well-17 (96%), Well-18 (98%), 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 Second Quarter 2011 groundwater monitoring data (Table 2).
- (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<sup>-6</sup> g/ug) X (2.2 x 10<sup>-3</sup> lb/g)**
- (e) Air Stripping Efficiency calculated from values above-using the following formula:  
$$1 - \left[ \left( \frac{\text{Average SPDES TVOC Concentration at Outfall}}{[(\text{TVOC}_{\text{Well 1}} \times Q_{\text{Well 1}}) + (\text{TVOC}_{\text{Well 3}} \times Q_{\text{Well 3}}) \text{ etc...}] / (Q_{\text{Well 1}} + Q_{\text{Well 3}} \text{ etc..})} \right) \right]$$
- 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 102 and 96 outfalls are identified as Outfalls 005 and 006, respectively (commonly known as the South Recharge Basins and Plant 5 Recharge Basins, respectively). Complete SPDES reporting provided to NYSDEC by NGC under separate cover.
- (g) - Current Actual Average and Total Pumpage/Recharge values for Calpine Demand nor the West Basin recharge for this period due to the fact that totalizer values for Calpine consumption were not available for the period of June to July 11, 2011. The West Basin recharge is calculated as by minusing the recharge to the South Basins and the Calpine/Occidental demand from the total water pumped by the OU2 Remedial Wells. The Second Quarter 2011 Actual Average and Total Pumpage/Recharge to the West Basins and Calpine will be noted in the Third Quarter 2011 Report.

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

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	FW-03	GM-13D	GM-15S	GM-15I	GM-15D	GM-15D2	GM-17I
	Sample ID:	FW-03	GM-13D	GM-15S	GM-15I	GM-15D	GM-15D2	GM-17I
	Date:	5/5/2011	5/31/2011	5/6/2011	5/13/2011	5/6/2011	5/6/2011	5/11/2011
1,1,1-Trichloroethane	<b>0.53 J</b>	<b>3.2 J</b>	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	<b>5.6 J</b>	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	<b>12</b>	< 5	< 5	< 5	< 5	<b>1.1 J</b>	< 5
1,2-Dichloroethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	< 0.7	< 1.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	< 5	<b>2.4 J</b>	< 5	< 5	< 5	< 5	<b>1 J</b>	< 5
Chloroethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	<b>0.58 J</b>	<b>21</b>	<b>0.32 J</b>	< 5	< 5	< 5	<b>0.31 J</b>	< 5
cis-1,3-dichloropropene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	<b>56</b>	<b>200</b>	< 5	< 5	< 5	<b>0.35 J</b>	<b>7.8</b>	< 5
Toluene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	<b>3.1 J</b>	<b>87</b>	<b>5 J</b>	<b>5.4</b>	<b>0.6 J</b>	<b>11</b>	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	< 5	<b>2.9 J</b>	< 5	< 5	< 5	< 5	<b>0.99 J</b>	< 5
Vinyl Chloride	< 2	< 4	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5
<b>Total VOCs</b>	<b>60</b>	<b>330</b>	<b>5.3</b>	<b>5.4</b>	<b>1.0</b>	<b>22</b>	<b>0</b>	

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-17D	GM-18I	GM-18D	GM-18D	GM-20I	GM-20D	GM-21S	GM-21I
	Sample ID:	GM-17D	GM-18I	GM-18D	GM-18D (REP)	GM-20I	GM-20D	GM-21S	GM-21I
	Date:	5/11/2011	5/31/2011	5/11/2011	5/11/2011	5/31/2011	5/31/2011	5/12/2011	6/1/2011
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	<b>1.6 J</b>	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	< 50 B	<b>1.1 J</b>	< 50	< 50	< 50	< 50	< 50	< 50 B	< 50
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	<b>0.54 J</b>	<b>0.45 J</b>	<b>1.7 J</b>	<b>1.7 J</b>	< 5	< 5	< 5	< 5	< 5
Trichlorotrifluoroethane (Freon 113)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
<b>Total VOCs</b>	<b>2.1</b>	<b>1.6</b>	<b>1.7</b>	<b>1.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-21D	GM-33D2	GM-34D	GM-34D2	GM-35D2	GM-38D	GM-38 D	GM-38D2
	Sample ID:	GM-21D	GM-33D2	GM-34D	GM-34D2	GM-35D2	GM-38D	GM-38D (REP)	GM-38D2
	Date:	5/12/2011	5/18/2011	5/16/2011	5/16/2011	5/17/2011	5/21/2011	5/21/2011	5/21/2011
1,1,1-Trichloroethane	< 5	< 5	< 13	< 10	< 5	<b>1.7 J</b>	<b>0.44 J</b>	<b>0.41 J</b>	
1,1,2,2-Tetrachloroethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
1,1,2-Trichloroethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
1,1-Dichloroethane	< 5	< 5	<b>1.1 J</b>	< 10	< 5	<b>2.6 J</b>	<b>1.6 J</b>	<b>1.8 J</b>	
1,1-Dichloroethene	< 5	< 5	<b>5.1 J</b>	<b>1.6 J</b>	<b>0.69 J</b>	<b>3.4 J</b>	<b>0.54 J</b>	<b>0.52 J</b>	
1,2-Dichloroethane	< 5	< 5	< 13	< 10	< 5	<b>1.7 J</b>	< 5	< 5	
1,2-Dichloropropane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
2-Butanone	< 50	< 50	< 130	< 100	< 50	< 130	< 50	< 50	
2-Hexanone	< 50	< 50	< 130	< 100	< 50	< 130	< 50	< 50	
4-methyl-2-pentanone	< 50	< 50	< 130	< 100	< 50	< 130	< 50	< 50	
Acetone	< 50	< 50	< 130	< 100	< 50	< 130	<b>0.8 J</b>	< 50	
Benzene	< 0.7	< 0.7	< 1.8	< 1.4	< 0.7	< 1.8	< 0.7	< 0.7	
Bromodichloromethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Bromoform	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Bromomethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Carbon Disulfide	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Carbon tetrachloride	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Chlorobenzene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 13	<b>0.72 J</b>	<b>0.85 J</b>	< 13	< 5	< 5	
Chloroethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Chloroform	< 5	< 5	< 13	< 10	< 5	< 13	<b>0.43 J</b>	<b>0.45 J</b>	
Chloromethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
cis-1,2-dichloroethene	< 5	<b>0.38 J</b>	<b>6.9 J</b>	<b>5.2 J</b>	<b>1.3 J</b>	<b>1.3 J</b>	<b>0.37 J</b>	<b>0.36 J</b>	
cis-1,3-dichloropropene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Dibromochloromethane	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Ethylbenzene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Methylene Chloride	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Styrene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Tetrachloroethene	< 5	<b>7</b>	<b>5.7 J</b>	<b>11</b>	<b>8.7</b>	<b>13</b>	< 5	< 5	
Toluene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
trans-1,2-dichloroethene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
trans-1,3-dichloropropene	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Trichloroethylene	<b>0.55 J</b>	<b>48</b>	<b>380</b>	<b>260</b>	<b>150</b>	<b>440</b>	<b>48</b>	<b>42</b>	
Trichlorotrifluoroethane (Freon 113)	< 5	<b>17</b>	<b>7.1 J</b>	<b>2.6 J</b>	<b>3.3 J</b>	<b>2 J</b>	<b>0.46 J</b>	<b>0.44 J</b>	
Vinyl Chloride	< 2	< 2	< 5	< 4	< 2	< 5	< 2	< 2	
Xylene-o	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
Xylenes - m,p	< 5	< 5	< 13	< 10	< 5	< 13	< 5	< 5	
<b>Total VOCs</b>	<b>0.55</b>	<b>72</b>	<b>410</b>	<b>280</b>	<b>170</b>	<b>470</b>	<b>53</b>	<b>46</b>	

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample



Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-39D <sub>A</sub>	GM-39D <sub>B</sub>	GM-73D	GM-73D2	GM-73D2	GM-74I	GM-74D	GM-74D2
	Sample ID:	GM-39D <sub>A</sub>	GM-39D <sub>B</sub>	GM-73D	GM-73D2	GM-73D2 (REP)	GM-74I	GM-74D	GM-74D2
	Date:	5/9/2011	5/9/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011
1,1,1-Trichloroethane	< 5	< 5	< 5	<b>0.58 J</b>	<b>0.49 J</b>	< 5	< 5	< 5	
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1-Dichloroethane	< 5	< 5	< 5	<b>0.99 J</b>	<b>0.94 J</b>	< 5	< 5	<b>0.52 J</b>	
1,1-Dichloroethene	< 5	< 5	< 5	<b>2.1 J</b>	<b>1.8 J</b>	< 5	< 5	<b>0.76 J</b>	
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
4-methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromomethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 5	< 5	<b>0.33 J</b>	< 5	< 5	<b>0.77 J</b>	
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
cis-1,2-dichloroethene	< 5	<b>0.38 J</b>	<b>0.35 J</b>	<b>1 J</b>	<b>0.87 J</b>	< 5	< 5	< 5	
cis-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Tetrachloroethene	< 5	<b>0.89 J</b>	< 5	<b>2 J</b>	<b>2.1 J</b>	< 5	<b>0.43 J</b>	<b>6.7</b>	
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
trans-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
trans-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Trichloroethylene	<b>1.2 J</b>	<b>94</b>	<b>58</b>	<b>110</b>	<b>120</b>	< 5	<b>1.8 J</b>	<b>8.8</b>	
Trichlorotrifluoroethane (Freon 113)	< 5	<b>0.37 J</b>	< 5	<b>0.52 J</b>	<b>0.47 J</b>	< 5	< 5	<b>0.95 J</b>	
Vinyl Chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Xylene-o	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Xylenes - m,p	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
<b>Total VOCs</b>	<b>1.2</b>	<b>96</b>	<b>59</b>	<b>120</b>	<b>130</b>	<b>0</b>	<b>2.0</b>	<b>19</b>	

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: GM-75D2	GM-78S	GM-78I	GM-79I	GM-79D	HN-24I	HN-40S	HN-40I
	Sample ID: GM-75D2	GM-78S	GM-78I	GM-79I	GM-79D	HN-24I	HN-40S	HN-40I
	Date: 5/18/2011	5/5/2011	5/5/2011	5/3/2011	5/3/2011	5/17/2011	5/3/2011	5/3/2011
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	<b>3.9 J</b>	< 5	<b>0.37 J</b>
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	<b>0.44 J</b>	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	<b>4.1 J</b>	< 5	< 5
1,1-Dichloroethene	<b>1 J</b>	< 5	< 5	< 5	< 5	<b>24</b>	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<b>1.3 J</b>
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	<b>0.79 J</b>	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 5	< 5	< 5	< 5	< 5	<b>4.3 J</b>	< 5	<b>0.63 J</b>
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene	<b>0.37 J</b>	< 5	< 5	< 5	< 5	<b>1.3 J</b>	< 5	< 5
cis-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 5	< 5	< 5	<b>2.6 J</b>	< 5	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	<b>2.8 J</b>	< 5	< 5	<b>0.62 J</b>	< 5	<b>75</b>	< 5	<b>0.64 J</b>
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene	<b>87</b>	< 5	< 5	<b>28</b>	< 5	<b>35</b>	< 5	<b>2.3 J</b>
Trichlorotrifluoroethane (Freon 113)	<b>1.3 J</b>	< 5	< 5	<b>0.43 J</b>	< 5	<b>2.1 J</b>	< 5	< 5
Vinyl Chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
<b>Total VOCs</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>5.0</b>

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	HN-42S	HN-42I	N-10624	N-10627	N-10631	WELL 1	WELL 3	WELL 3
	Sample ID:	HN-42S	HN-42I	N-10624	N-10627	N-10631	WELL 1	WELL 3	WELL 3 (REP)
	Date:	5/2/2011	5/2/2011	5/27/2011	5/18/2011	5/18/2011	5/9/2011	5/9/2011	5/9/2011
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	<b>2.5 J</b>	< 50
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	<b>0.83 J</b>	<b>2.5 J</b>	< 50
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	<b>2.5 J</b>	<b>10 J</b>	<b>11 J</b>
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	<b>5.2 J</b>	< 25	< 50
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 130	< 250	< 500
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 130	< 250	< 500
4-methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 130	< 250	< 500
Acetone	<b>1.3 J</b>	<b>0.84 J</b>	< 50 B	<b>0.88 J</b>	<b>0.82 J</b>	< 130 B	< 250	< 250	< 500
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 1.8	< 3.5	< 7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Bromomethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Chlorodifluoromethane (Freon 22)	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	<b>4.6 J</b>	<b>7 J</b>
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
cis-1,2-dichloroethene	<b>0.36 J</b>	<b>3.4 J</b>	< 5	< 5	< 5	< 5	<b>3.6 J</b>	<b>11 J</b>	<b>12 J</b>
cis-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Dichlorodifluoromethane (Freon 12)	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5	<b>65</b>	<b>69</b>	<b>72</b>
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
trans-1,2-dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
trans-1,3-dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Trichloroethylene	<b>0.79 J</b>	<b>8.1</b>	< 5	<b>0.67 J</b>	<b>0.59 J</b>	<b>390</b>	<b>2100 D</b>	<b>2100 D</b>	
Trichlorotrifluoroethane (Freon 113)	< 5	< 5	< 5	< 5	< 5	< 5	<b>4.2 J</b>	<b>8.8 J</b>	<b>12 J</b>
Vinyl Chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 5	<b>170</b>	<b>180</b>
Xylene-o	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
Xylenes - m,p	< 5	< 5	< 5	< 5	< 5	< 5	< 13	< 25	< 50
<b>Total VOCs</b>	<b>3.0</b>	<b>12</b>	<b>0</b>	<b>2.0</b>	<b>1.0</b>	<b>470</b>	<b>2400</b>	<b>2400</b>	

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: 96 EFFLUENT	WELL 17	WELL 18	WELL 19	102 EFFLUENT
	Sample ID: 96 EFFLUENT	WELL 17	WELL 18	WELL 19	102 EFFLUENT
	Date: 5/9/2011	5/9/2011	5/9/2011	5/9/2011	5/9/2011
1,1,1-Trichloroethane	< 5	<b>0.74 J</b>	<b>1.2 J</b>	<b>0.68 J</b>	< 5
1,1,2,2-Tetrachloroethane	< 5	< 10	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 10	< 5	< 5	< 5
1,1-Dichloroethane	< 5	<b>1.2 J</b>	<b>1.2 J</b>	<b>0.88 J</b>	< 5
1,1-Dichloroethene	< 5	<b>2.7 J</b>	<b>4.3 J</b>	<b>1.6 J</b>	< 5
1,2-Dichloroethane	< 5	< 10	< 5	<b>0.64 J</b>	< 5
1,2-Dichloropropane	< 5	< 10	< 5	< 5	< 5
2-Butanone	< 50	< 100	< 50	< 50	< 50
2-Hexanone	< 50	< 100	< 50	< 50	< 50
4-methyl-2-pentanone	< 50	< 100	< 50	< 50	< 50
Acetone	< 50	< 100 B	< 50	< 50	< 50 B
Benzene	< 0.7	< 1.4	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 5	< 10	< 5	< 5	< 5
Bromoform	< 5	< 10	< 5	< 5	< 5
Bromomethane	< 5	< 10	< 5	< 5	< 5
Carbon Disulfide	< 5	< 10	< 5	< 5	< 5
Carbon tetrachloride	< 5	< 10	< 5	< 5	< 5
Chlorobenzene	< 5	< 10	< 5	< 5	< 5
Chlorodifluoromethane (Freon 22)	< 5	< 10	<b>0.61 J</b>	<b>0.65 J</b>	< 5
Chloroethane	< 5	< 10	< 5	< 5	< 5
Chloroform	< 5	< 10	< 5	<b>0.65 J</b>	< 5
Chloromethane	< 5	< 10	< 5	< 5	< 5
cis-1,2-dichloroethene	< 5	<b>3.8 J</b>	<b>1.7 J</b>	<b>19</b>	< 5
cis-1,3-dichloropropene	< 5	< 10	< 5	< 5	< 5
Dibromochloromethane	< 5	< 10	< 5	< 5	< 5
Dichlorodifluoromethane (Freon 12)	< 5	< 10	< 5	< 5	< 5
Ethylbenzene	< 5	< 10	< 5	< 5	< 5
Methylene Chloride	< 5	< 10	< 5	< 5	< 5
Styrene	< 5	< 10	< 5	< 5	< 5
Tetrachloroethene	< 5	<b>30</b>	<b>12</b>	<b>7</b>	< 5
Toluene	< 5	< 10	< 5	< 5	< 5
trans-1,2-dichloroethene	< 5	< 10	< 5	< 5	< 5
trans-1,3-dichloropropene	< 5	< 10	< 5	< 5	< 5
Trichloroethylene	<b>0.43 J</b>	<b>250</b>	<b>77</b>	<b>190 D</b>	< 5
Trichlorotrifluoroethane (Freon 113)	< 5	<b>5.7 J</b>	<b>1.5 J</b>	<b>0.83 J</b>	< 5
Vinyl Chloride	< 2	< 4	< 2	< 2	< 2
Xylene-o	< 5	< 10	< 5	< 5	< 5
Xylenes - m,p	< 5	< 10	< 5	< 5	< 5
<b>Total VOCs</b>	<b>0.43</b>	<b>290</b>	<b>100</b>	<b>220</b>	<b>0</b>

**Note:** Results rounded to two significant figures.

**Bold** Constituent detected  
 VOCs Volatile Organic Compounds  
 ug/L Micrograms per liter  
 J Constituent value is estimated  
 REP Replicate Sample

Table 3. Concentrations of Metals in Monitoring Wells,  
Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in mg/L)	Well:	GM-15S	GM-78I	GM-78S	MW-01GF	MW-02GF	MW-02GF	N-10631	PT1 MW-4	PT1 MW-5	PT1 MW-6
	Sample ID: Date:	GM-15S 5/6/2011	GM-78I 5/5/2011	GM-78S 5/5/2011	MW-01GF 5/27/2011	MW-02GF 5/27/2011	MW-02GF (REP) 5/27/2011	N-10631 5/18/2011	PT1 MW-4 5/13/2011	PT1 MW-5 5/13/2011	PT1 MW-6 5/13/2011
Cadmium	--	< 5	< 5	< 5	< 5	< 5	< 5	<b>5.8</b>	--	--	--
Cadmium (Dissolved)	--	< 5	< 5	< 5	< 5	< 5	--	< 5	--	--	--
Chromium	<b>616</b>	< 10	< 10	< 10	<b>184</b>	<b>183</b>	<b>20</b>	< 10	<b>460</b>	<b>170</b>	
Chromium (Dissolved)	--	< 10	< 10	< 10	<b>183</b>	--	<b>14</b>	--	--	--	

**Bold** Constituent detected  
 mg/L Milligrams per liter  
 -- Not analyzed  
 REP Replicate Sample



Table 4. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, Second Quarter 2011, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	BPOW 1-1 <sup>(3)</sup>	BPOW 1-2 <sup>(3)</sup>	REP BPOW 1-2 <sup>(3)</sup>	BPOW 1-3 <sup>(3)</sup>	BPOW 2-1	BPOW 2-1 (REP)	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2
	Sample ID:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 1-3	BPOW 2-1	BPOW 2-1	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2
	Date:	5/23/2011	5/23/2011	5/24/2011	6/13/2011	5/26/2011	6/14/2011	5/24/2011	5/24/2011	5/26/2011	5/25/2011
1,1,1-Trichloroethane		<b>0.54</b>	<b>0.29 J</b>	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane		< 0.5	< 0.5	< 0.5	< 0.5	<b>0.65</b>	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene		<b>0.28 J</b>	<b>0.22 J</b>	< 0.5	< 0.5	<b>0.29 J</b>	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorotrifluoroethane (Freon 113)		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<b>0.8</b>	<b>0.62</b>
Tetrachloroethene		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene		<b>1.2</b>	<b>0.25 J</b>	< 0.5	< 0.5	<b>0.71</b>	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
<b>Total Site-Related VOCs <sup>(1)</sup> :</b>		<b>2.0</b>	<b>0.76</b>	0	0	<b>1.7</b>	0	0	0	<b>0.80</b>	<b>0.62</b>
<b>TVOC Trigger Value <sup>(2)</sup> :</b>		<b>0.60</b>	<b>0.60</b>	<b>0.60</b>	<b>0.60</b>	<b>NE</b>	<b>NE</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>

Note:

- <sup>(1)</sup> Site-related VOCs were established in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003). Results adjusted to two significant figures
- <sup>(2)</sup> TVOC Trigger Values were established in the PWSCP (ARCADIS G&M, Inc. 2003).
- <sup>(3)</sup> The TVOC Trigger Value for Cluster 1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).
- <sup>(5)</sup> Benzene and Methyl tert-butyl ether (MTBE), which are not site-related VOCs, were detected in Outpost Well OW 2-1 on 3/7/07 at 130 ug/L and 10 ug/L, respectively.

NE Not established  
 ug/L Micrograms per liter  
**Bold** Constituent detected  
 TVOC Total Volatile Organic Compounds  
 J Constituent value is estimated  
 REP Replicate sample