



ARCADIS U.S., Inc.
Two Huntington Quadrangle
Suite 1S10
Melville
New York 11747
Tel 631 249 7600
Fax 631 249 7610
www.arcadis-us.com

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 First Quarter 2008 Groundwater Monitoring,
Operable Unit 2, Northrop Grumman Systems Corporation (Northrop Grumman) and
Naval Weapons Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York.
(NYSDEC Site #s 1-30-003A and B)

ENVIRONMENT

Dear Mr. Scharf:

On behalf of Northrop Grumman Systems Corporation (Northrop Grumman),
ARCADIS is providing the New York State Department of Environmental
Conservation (NYSDEC) with the validated results of groundwater monitoring
performed in accordance with the approved groundwater monitoring plan (ARCADIS
G&M, Inc. 2006) for the First Quarter of 2008 for Operable Unit 2 (OU2). Table 1
provides OU2 remedial systems performance and operational data and water
balance. Tables 2, 3, and 4 provide the results of monitoring for volatile organic
compounds (VOCs) and metals in monitoring wells and for VOCs in outpost wells, for
this period, respectively. Figure 1 shows the site plan with well locations.

Date:
July 31, 2008

Contact:
David E. Stern

Phone:
(631) 391-5284

Email:
David.stern@arcadis-us.com

Please contact us if you have any questions or comments.

Our ref:
NY001464.0408.00004

Sincerely,

ARCADIS U.S., Inc.

David E. Stern
Senior Scientist

Carlo San Giovanni
Project Manager

Enclosures

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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 2008, 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)	1st Quarter 2008 Estimated VOC Mass Removed ^(d) (lbs)
Remedial Wells		Groundwater Removed from Aquifer						
Well 1	800	830	112.9	110.1	98%	420	540	495
Well 3	700	732	98.8	100.2	101%	2,900	3,040	2,536
Well 17	1,000	1,041	141.1	145.5	103%	300	324	393
Well 18	600	614	84.7	85.8	101%	120	130	93
Well 19	700	709	98.8	97.0	98%	190	218.8	177
Rounded Totals:	3,800	3,926	536	539	101%	--	--	3,694
Recharge Basins ^(a)		Treated Water Recharged to Aquifer						
West Recharge Basins	412	461	58	65.1	112%	--	--	--
South Recharge Basins	2,231	2,975	314.8	419.8	133%	--	--	--
Rounded Totals:	2,643	3,436	373	484.9	130%	--	--	--
Treated Water Sent to Calpine								
Calpine Demand	600-1000	484	84.7-141	68.3	--	--	--	--
Treatment Efficiencies		Average SPDES Outfall TVOC Concentrations (ug/L) ^(f)						
Tower 96 System Efficiency ^(e) :		>99.9 %		0.2				
Tower 102 System Efficiency ^(e) :		99.7%		0.7				

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 2008, Operable Unit 2, Northrop Grumman 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, and pipe loss), plus incidental runoff from precipitation. Current average recharge rates have been determined using the entire 98-day span of time as opposed to current average pumping rates, which account for varying amounts of downtime, as indicated below.
- b) - OU2 wells were operational during the First Quarter 2008, at the following percentages: Well-1 (94%), Well-3 (97%); Well-17 (99%), Well-18 (99%), and Well-19 (97%). 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 2008 groundwater monitoring data (Table 2).
- (d) - TVOC mass removed is based on the TVOC data given above and the following formula:

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

- (e) Air Stripping Efficiency calculated from values above and in Table 2 using the following formula:

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

-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 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

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: N-10627 Sample ID: N-10627 Date: 3/14/2008	N-10631 N-10631 3/13/2008	FW-03 FW-03 3/13/2008	GM-13D GM-13D 3/25/2008	GM-15S GM-15S 3/12/2008	GM-15I GM-15I 3/11/2008	GM-15D GM-15D 3/11/2008	GM-15D2 GM-15D-2 3/11/2008	GM-17I GM-17I 3/7/2008
Chloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl chloride	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon disulfide	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1-Dichloroethene	< 5.0	< 5.0	< 5.0	12	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	< 5.0	< 5.0	5.8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	27	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
1,2-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1,1-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	< 5.0	< 5.0	5	68	< 5.0	< 5.0	< 5.0	10	< 5.0
Dibromochloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tetrachloroethene	< 5.0	< 5.0	31	250 D	< 5.0	< 5.0	< 5.0	12	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylene (total)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Acetate	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Freon 113	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total VOCs	0	0	36	362.8	0	0	0	22	0

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-17D	GM-18D	GM-20I	GM-20D	GM-21S	GM-21I	GM-21D	GM-33D2	GM-34D
	Sample ID:	GM-17D	GM-18D	GM-20I	GM-20D	GM-21S	GM-21I	GM-21D	GM-33D-2	GM-34D
	Date:	3/7/2008	3/21/2008	3/2/2008	3/3/2008	3/18/2008	3/3/2008	3/3/2008	3/14/2008	3/13/2008
Chloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Bromomethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Vinyl chloride	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10
Chloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250
Carbon disulfide	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250
1,1-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
1,1-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Chloroform	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 35
1,2-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250
1,1,1-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Carbon tetrachloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Bromodichloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
1,2-Dichloropropane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Trichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	63	800
Dibromochloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
1,1,2-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Benzene	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 3.5
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Bromoform	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250
Tetrachloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	13	< 25
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Toluene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Chlorobenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Ethylbenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Styrene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Xylene (total)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Vinyl Acetate	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25
Freon 113	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	24	< 25
Total VOCs		0	0	0	0	0	0	0	100	800

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-34D2	GM-35D2	GM-36D	GM-36D-2	GM-37D	GM-37D2	GM-38D	GM-38D2	GM-39D _A
	Sample ID:	GM-34D-2	GM-35D2	GM-36D	GM-36D-2	GM-37D	GM-37D-2	GM-38D	GM-38D-2	GM-39D
	Date:	3/13/2008	4/9/2008	3/5/2008	3/5/2008	3/6/2008	3/6/2008	3/10/2008	3/10/2008	3/18/2008
Chloromethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Bromomethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Vinyl chloride	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 20	< 2.0
Chloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Methylene chloride	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Acetone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 500	< 500	< 50
Carbon disulfide	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 500	< 500	< 50
1,1-Dichloroethene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
1,1-Dichloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	5.3	< 5.0	< 50	< 50	< 5.0
cis-1,2-Dichloroethene	13	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Chloroform	< 7.0	< 14	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 70	< 70	< 7.0
1,2-Dichloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
2-Butanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 500	< 500	< 50
1,1,1-Trichloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Carbon tetrachloride	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Bromodichloromethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
1,2-Dichloropropane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Trichloroethene	250 D	240	< 5.0	< 5.0	< 5.0	< 5.0	1000	1000	19	
Dibromochloromethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
1,1,2-Trichloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Benzene	< 0.70	< 1.4	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 7.0	< 7.0	< 0.70
trans-1,3-Dichloropropene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Bromoform	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
4-Methyl-2-pentanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 500	< 500	< 50
2-Hexanone	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 500	< 500	< 50
Tetrachloroethene	8.1	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Toluene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Chlorobenzene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Ethylbenzene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Styrene	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Xylene (total)	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Vinyl Acetate	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Freon 113	5.2	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 50	< 5.0
Total VOCs		276.3	240	0	0	0	5.3	1000	1000	19

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: GM-39D _B	GM-71D2	GM-73D	GM-73D2	GM-74I	GM-74D	GM-74D2	GM-75D2	GM-78S
	Sample ID: GM-39D-2	GM-71D-2	GM-73D	GM-73D-2	GM-74I	GM-74D	GM-74D-2	GM-75D-2	GM-78S
	Date: 3/18/2008	3/5/2008	3/18/2008	3/17/2008	3/17/2008	3/17/2008	3/17/2008	3/14/2008	3/12/2008
Chloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Bromomethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Vinyl chloride	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0
Chloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
Carbon disulfide	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
1,1-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
1,1-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Chloroform	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 14	< 7.0
1,2-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
1,1,1-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Carbon tetrachloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Bromodichloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
1,2-Dichloropropane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Trichloroethene	46	7.8	6.4	58	< 5.0	< 5.0	7.3	200	< 5.0
Dibromochloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
1,1,2-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Benzene	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 1.4	< 0.70
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Bromoform	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
Tetrachloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.2	< 10	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Toluene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Chlorobenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Ethylbenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Styrene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Xylene (total)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Vinyl Acetate	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Freon 113	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0
Total VOCs	46	7.8	6.4	58	0	0	14.5	200	0

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GM-78I	GM-79I	GM-79D	HN-24I	HN-40S	HN-40I	HN-42S	HN-42I	GP-1
	Sample ID:	GM-78I	GM-79I	GM-79D	HN-24I	HN-40S	HN-40I	HN-42S	HN-42I	WELL -1
	Date:	3/12/2008	3/21/2008	3/21/2008	3/13/2008	3/13/2008	3/13/2008	3/12/2008	3/12/2008	2/26/2008
Chloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Bromomethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Vinyl chloride	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
Chloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
Carbon disulfide	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
1,1-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
1,1-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.8	< 10
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Chloroform	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 14
1,2-Dichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
1,1,1-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Carbon tetrachloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Bromodichloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
1,2-Dichloropropane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Trichloroethene	< 5.0	< 5.0	39	15	< 5.0	< 5.0	< 5.0	< 5.0	15	420 D
Dibromochloromethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
1,1,2-Trichloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Benzene	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 1.4
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Bromoform	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
Tetrachloroethene	< 5.0	< 5.0	< 5.0	9.8	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	120
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Toluene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Chlorobenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Ethylbenzene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Styrene	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Xylene (total)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Vinyl Acetate	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Freon 113	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
Total VOCs		0	0	39	24.8	0	0	0	20.8	540

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

Table 2. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	GP-3	T-96 EFF	WELL-17	WELL-18	WELL-19	T-102 EFF
	Sample ID:	WELL -3	96 TOWER EFF	WELL-17	WELL-18	WELL-19	102 TOWER EFF
	Date:	2/26/2008	2/26/2008	2/26/2008	2/26/2008	2/26/2008	2/26/2008
Chloromethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl chloride	140	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	< 1000	< 50	< 100	< 50	< 50	< 50	< 50
Carbon disulfide	< 1000	< 50	< 100	< 50	< 50	< 50	< 50
1,1-Dichloroethene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	< 100	< 5.0	< 10	< 5.0	20	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	< 140	< 7.0	< 14	< 7.0	< 7.0	< 7.0	< 7.0
1,2-Dichloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone	< 1000	< 50	< 100	< 50	< 50	< 50	< 50
1,1,1-Trichloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	2900	< 5.0	300	120	190	< 5.0	< 5.0
Dibromochloromethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	< 14	< 0.70	< 1.4	< 0.70	< 0.70	< 0.70	< 0.70
trans-1,3-Dichloropropene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	< 1000	< 50	< 100	< 50	< 50	< 50	< 50
2-Hexanone	< 1000	< 50	< 100	< 50	< 50	< 50	< 50
Tetrachloroethene	< 100	< 5.0	24	10	8.8	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Xylene (total)	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Acetate	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Freon 113	< 100	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0
Total VOCs	3040	0	324	130	218.8	0	

ug/L Micrograms per liter
D Constituent identified at a secondary dilution
Bold Constituent detected
VOCs Volatile Organic Compounds

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Table 3. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Monitoring Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in mg/L)	Well:	N-10631	GM-15S	GM-78S	GM-78I	MW-1GF	MW-2GF	MW-04	MW-05	MW-06
	Sample ID:	N-10631	GM-15S	GM-78S	GM-78I	MW-01GF	MW-02GF	PT1MW-04	PT1MW-05	PT1MW-06
	Date:	3/13/2008	3/12/2008	3/12/2008	3/12/2008	3/18/2008	3/18/2008	3/12/2008	3/12/2008	3/12/2008
Cadmium	< 0.00500	--	< 0.00500	< 0.00500	< 0.00500	< 0.00500	< 0.00500	--	--	--
Cadmium (Dissolved)	< 0.00500	--	--	--	< 0.00500	< 0.00500	< 0.00500	--	--	--
Chromium	0.0295	0.574	< 0.0100	< 0.0100	< 0.0100	0.0271	< 0.0100	0.342	0.24	
Chromium (Dissolved)	0.0151	--	--	--	< 0.0100	0.0271	--	--	--	--

ug/L Micrograms per liter
Bold Constituent detected above IDL.
 -- Not analyzed

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Table 4. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, First Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	OW 1-1	OW 1-2	OW 1-3	OW 3-1	OW 3-2	OW 4-1	OW 4-2
	Sample ID:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2
	Date:	3/31/2008	3/31/2008	3/31/2008	4/1/2008	4/1/2008	4/1/2008	4/1/2008
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		1.2	< 0.50	2.1	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		1.2	< 0.50	1	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		2.1	< 0.50	2.8	< 0.50	< 0.50	< 0.50	< 0.50
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon tetrachloride		1.3	< 0.50	0.72	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Site-Related VOCs ⁽¹⁾:		5.8⁽³⁾	0	6.62⁽³⁾	0	0	0	0
TVOC Trigger Value ⁽²⁾:		0.6	0.6	0.6	1.5	1.5	1.5	1.5

(1) Site-related VOCs were established in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003).

(2) TVOC Trigger Values were established in the PWSCP (ARCADIS G&M, Inc. 2003).

(3) 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).

(4) TVOCs initially detected in Cluster 2 on May 3, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).

(4) Outpost well cluster OW-2 not sampled this round, due to ongoing NYSDEC investigation of non-site related VOCs (benzene and methyl tertiary butyl ether) detected in these wells.

ug/L Micrograms per liter
Bold Constituent detected
 TVOC Total Volatile Organic Compounds
 NE Not established

