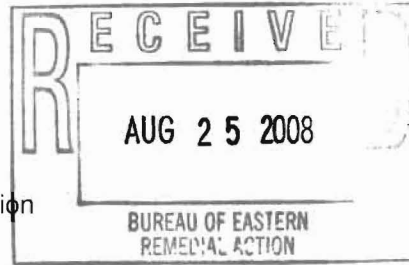




Infrastructure, environment, facilities

Steven M. Scharf, P.E.  
Project Engineer  
New York State Department of Environmental Conservation  
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Subject:

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

ENVIRONMENT

Dear Mr. Scharf:

Date:  
August 21, 2008

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 and the public water supply contingency plan (ARCADIS G&M, Inc. 2006 and 2003, respectively) for the Second Quarter of 2008 for Operable Unit 2 (OU2). Table 1 provides OU2 remedial systems performance and operational data and water balance for the current period. Tables 2 and 3 provide the results of monitoring for volatile organic compounds (VOCs) in monitoring wells and outpost wells for this period, respectively. Figure 1 shows the site plan with well locations.

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NY001464.0408.00004

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS

David E. Stern  
Associate Project Manager/Senior Hydrogeologist

Enclosures

Copies:  
See Attached Distribution List

Imagine the result

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Walter Parish – NYSDEC Region 1  
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Matthew Russo – Town of Oyster Bay  
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Table 1. Summary of Operational Data and Water Balance for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2008, Northrop Grumman Systems Corporation, Bethpage, New York.

Identification	Design Pumping/Recharge Rate <sup>(a)</sup> (gpm)	Current Actual Average Pumping/Recharge Rate <sup>(b)</sup> (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 <sup>(c)</sup> (ug/L)	2nd Quarter 2008 Estimated VOC Mass Removed <sup>(d)</sup> (lbs)
<b>Remedial Wells</b>		<b>Groundwater Removed from Aquifer</b>						
Well 1	800	833	104.8	109.2	104%	390	500	455
Well 3	700	727	91.7	95.3	104%	2,600	2,855	2,266
Well 17	1,000	1,024	131.0	132.9	101%	250	287	318
Well 18	600	612	78.6	79.4	101%	120	131	87
Well 19	700	726	91.7	94.2	103%	170	199.8	157
<b>Rounded Totals:</b>	<b>3,800</b>	<b>3,922</b>	<b>497.8</b>	<b>511.0</b>	<b>103%</b>	--	--	<b>3,283</b>
<b>Recharge Basins <sup>(a)</sup></b>		<b>Treated Water Recharged to Aquifer</b>						
West Recharge Basins	412	1,050	54	137.6	255%	--	--	--
South Recharge Basins	2,231	2,534	292.4	332.0	114%	--	--	--
<b>Rounded Totals:</b>	<b>2,643</b>	<b>3,584</b>	<b>346</b>	<b>469.6</b>	<b>136%</b>	--	--	--
<b>Treated Water Sent to Calpine</b>								
Calpine Demand	600-1000	335	79-131	43.9	--	--	--	--
<b>Treatment Efficiencies</b>		<b>Average SPDES Outfall TVOC Concentrations (ug/L) <sup>(f)</sup></b>						
Tower 96 System Efficiency <sup>(e)</sup> :		>99.9%		0.6				
Tower 102 System Efficiency <sup>(e)</sup> :		99.8%		0.4				

see footnotes on last page

Table 1. Summary of Operational Data and Water Balance for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2008, 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, and pipe loss), plus 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) - OU2 wells were operational during the Second Quarter 2008, at the following percentages: Well-1 (99%), Well-3 (100%); Well-17 (99%), Well-18 (99%), 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 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:

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

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
TCE	Trichloroethene	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
SPDES	State Pollutant Discharge Elimination System	NYSDEC	New York State Department of Environmental Conservation
NGC	Northrop Grumman Systems Corporation		

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

CONSTITUENT (Units in ug/L)	Well:	GM-18I	GM-20I	GM-20D	GM-21I	GM-21D	GM-33D2	GM-34D	GM-34D2
	Sample ID:	GM-18I	GM-20I	GM-20D	GM-21I	GM-21D	GM-33D2	GM-34D	GM-34D2
	Date:	6/24/2008	6/24/2008	6/24/2008	6/23/2008	6/18/2008	6/25/2008	6/25/2008	6/25/2008
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 3.5	< 0.7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Bromomethane	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50
Carbon disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Chloroform	< 7	< 7	< 7	< 7	< 7	< 7	< 7	< 35	< 7
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	7.2
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Freon 113	< 5	< 5	< 5	< 5	< 5	< 5	<b>32</b>	< 25	<b>5.9</b>
Methylene chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5	<b>13</b>	< 25	<b>12</b>
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Trichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	<b>58</b>	<b>740</b>	<b>250 D</b>
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2
Xylene-O	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
Xylenes - M,P	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>740</b>	<b>275.1</b>

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

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

CONSTITUENT (Units in ug/L)	Well:	GM-35D2	GM-75D2	GM-75D2*	GM-79I	GM-79D	WELL 1	WELL 3
	Sample ID:	GM-35D2	GM-75D2	GM-75D2	GM-79I	GM-79D	WELL 1	WELL 3
	Date:	6/23/2008	6/25/2008	6/25/2008	6/18/2008	6/18/2008	6/11/2008	6/11/2008
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
2-Butanone	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 500
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 500
4-Methyl-2-pentanone	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 500
Acetone	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 500
Benzene	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 1.4	< 7
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Bromomethane	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 500
Carbon disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Carbon tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Chloroform	< 7	< 7	< 7	< 7	< 7	< 7	< 14	< 70
Chloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Freon 113	<b>5.4</b>	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Methylene chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Tetrachloroethene	<b>9.5</b>	< 5	<b>5</b>	< 5	< 5	< 5	<b>110</b>	<b>65</b>
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Trichloroethene	<b>240 D</b>	<b>180</b>	<b>180</b>	< 5	<b>47</b>	<b>390</b>	<b>2600 D</b>	
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 4	<b>190</b>
Xylene-O	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
Xylenes - M,P	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 50
<b>Total VOCs</b>	<b>254.9</b>	<b>180</b>	<b>185</b>	<b>0</b>	<b>47</b>	<b>500</b>	<b>2855</b>	

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

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

CONSTITUENT (Units in ug/L)	Well: TOWER 96 INF	TOWER 96 EFF	WELL 17	WELL 18	WELL 19	TOWER 102 INF	102 EFFLUENT
	Sample ID: TOWER 96 INF	TOWER 96 EFF	WELL 17	WELL 18	WELL 19	TOWER 102 INF	102 EFFLUENT
	Date: 6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008
1,1,1-Trichloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone	< 250	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	< 250	< 50	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone	< 250	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	< 250	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	< 3.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 250	< 50	< 50	< 50	< 50	< 50	< 50
Carbon disulfide	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	< 35	< 7	< 7	< 7	< 7	< 7	< 7
Chloromethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 25	< 5	< 5	< 5	<b>21</b>	<b>9.2</b>	< 5
cis-1,3-Dichloropropene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Freon 113	< 25	< 5	<b>10</b>	< 5	< 5	< 5	< 5
Methylene chloride	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	<b>94</b>	< 5	<b>27</b>	<b>11</b>	<b>8.8</b>	<b>17</b>	< 5
Toluene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	<b>1400 D</b>	< 5	<b>250 D</b>	<b>120</b>	<b>170 D</b>	<b>190 D</b>	< 5
Vinyl chloride	<b>91</b>	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-O	< 25	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - M,P	< 25	< 5	< 5	< 5	< 5	< 5	< 5
<b>Total VOCs</b>	<b>1585</b>	<b>0</b>	<b>287</b>	<b>131</b>	<b>199.8</b>	<b>216.2</b>	<b>0</b>

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

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Table 3. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, Second Quarter 2008, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 3-1	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2
	Sample ID:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 3-1	REP063008	BPOW 3-2	BPOW 4-1	BPOW 4-2
	Date:	6/27/2008	6/27/2008	6/27/2008	6/30/2008	6/30/2008	6/26/2008	6/30/2008	6/26/2008
1,1,1-TRICHLOROETHANE		<b>1.7</b>	< 0.5 U	<b>4.1</b>	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1,2,2-TETRACHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1,2-TRICHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1-DICHLOROETHANE		<b>0.9</b>	< 0.5 U	<b>1.6</b>	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,1-DICHLOROETHENE		<b>1</b>	< 0.5 U	<b>2.9</b>	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-DICHLOROETHANE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CARBON TETRACHLORIDE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROBENZENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CHLOROFORM		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
CIS-1,2-DICHLOROETHENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
FREON 113 <sup>(4)</sup>		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TETRACHLOROETHENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRANS-1,2-DICHLOROETHENE		< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
TRICHLOROETHYLENE		<b>1.4</b>	< 0.5 U	<b>1.1</b>	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
<b>Total Site-Related VOCs <sup>(1)</sup>:</b>		<b>5</b>	<b>0</b>	<b>9.7 <sup>(3)</sup></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TVOC Trigger Value <sup>(2)</sup>:</b>		<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>

Note: Outpost wells OW2-1 and OW2-2 were not sampled by Northrop Grumman this round, due to ongoing NYSDEC investigation of non-site related VOCs (benzene and methyl tertiary butyl ether) detected in these wells.

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

<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).

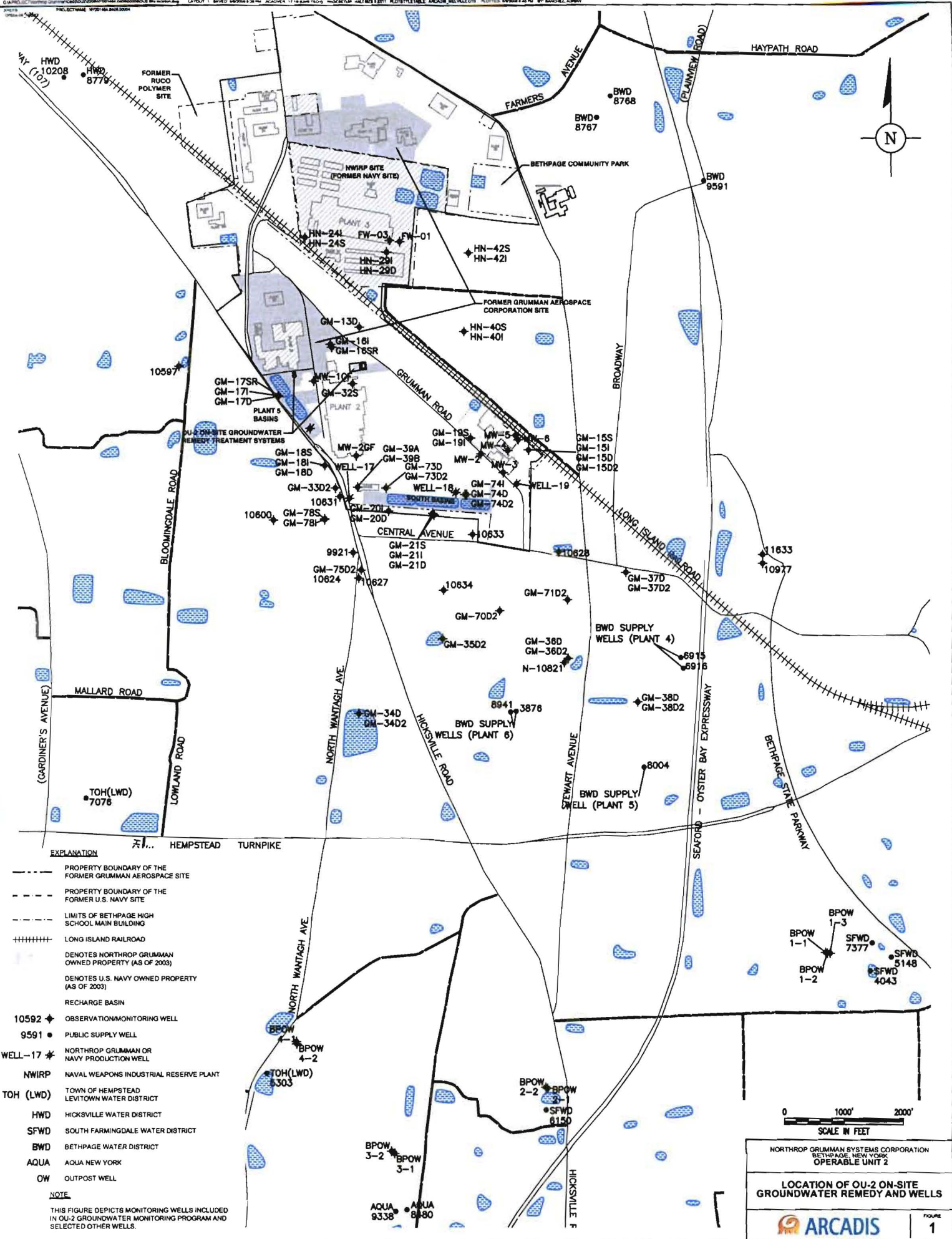
<sup>(4)</sup> Freon 113 is also known as 1,1,2-Trichloro-1,2,2-Triifluoroethane

ug/L Micrograms per liter

**Bold** Constituent detected

**TVOC** Total Volatile Organic Compounds



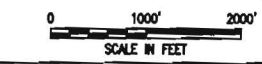


**EXPLANATION**

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
- - - PROPERTY BOUNDARY OF THE FORMER U.S. NAVY SITE
- - - LIMITS OF BETHPAGE HIGH SCHOOL MAIN BUILDING
- +++++ LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2003)
- DENOTES U.S. NAVY OWNED PROPERTY (AS OF 2003)
- 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 OU-2 GROUNDWATER MONITORING PROGRAM AND SELECTED OTHER WELLS.



NORTHROP GRUMMAN SYSTEMS CORPORATION  
BETHPAGE, NEW YORK  
OPERABLE UNIT 2

**LOCATION OF OU-2 ON-SITE GROUNDWATER REMEDIATION AND WELLS**

