



Infrastructure, environment, facilities

Mr. Steven Scharf, P.E.  
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Subject:

Results of Third Quarter 2006 Outpost Well Groundwater Monitoring, Operable Unit 2, Northrop Grumman Systems Corporation (NGC) and Naval Weapons Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York. (NYSDEC Site #s 1-30-003A and B)

ENVIRONMENT

Dear Mr. Scharf:

Date:  
December 21, 2006

Pursuant to the July 2003 Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003) and on behalf on NGC, ARCADIS is providing the NYSDEC with the validated results of groundwater monitoring performed for the outpost wells for the Third Quarter 2006. Table 1 summarizes the analytical results of monitoring for site-related volatile organic compounds (VOCs), as outlined in the PWSCP, for this period. Figure 1 shows the site plan with outpost well locations.

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From October 5 through October 10, 2006, groundwater samples were collected from the nine outpost wells using the methodology described in the PWSCP. Based on the trigger values for site-related TVOC concentrations established in the PWSCP, there are no new exceedences of trigger values. Wells in Clusters OW-1 and OW-2 continue to exhibit site-related TVOC concentrations above their respective trigger values, which were initially detected in samples collected during the First and Second Quarters of 2004.

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Our ref:  
NY001348.0406.00004


Please contact us if you have any questions or comments.

Sincerely,

ARCADIS G&M, Inc.



David E. Stern  
Senior Scientist



Carlo San Giovanni  
Project Manager

Enclosures

Copies:

See Attached Distribution List  
Imagine the result

Copies:

Water Parish - New York State Department of Environmental Conservation  
John Cofman - Northrop Grumman Corporation  
Larry Leskovjan - Northrop Grumman Corporation  
Susan Clarke - U.S. Navy Northern Division  
James Colter - U.S. Navy Northern Division  
John Lovejoy - Nassau County Department of Health  
Jacqueline Nealon - New York State Department of Health  
Frank Flood - Massapequa Water District  
Matt Snyder - New York Water Service  
Anthony J. Sabino - Town of Oyster Bay  
William Bier - South Farmingdale Water District  
David Brayack - TetraTech NUS, Inc.  
Arnold Palleschi - Town of Hempstead Water District  
Kevin Lumpe - Steel Equities  
Lois Lovisolo - Bethpage Public Library (Public Repository)  
Andrew Musgrave - Bethpage Water District

# ARCADIS

Table 1. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, Third Quarter 2006, Operable Unit 2, Northrop Grumman Corporation, Bethpage, New York. <sup>(1)</sup>

CONSTITUENT (Units in ug/L)	WELL: OW 1-1		OW 1-2		OW 1-3		OW 2-1 <sup>(5)</sup>		OW 2-2		OW 3-1		OW 3-2		OW 4-1		OW 4-2		
	SAMPLE ID:	DATE:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 2-1	BPOW 2-2	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2	BPOW 3-1	BPOW 3-2	BPOW 4-1	BPOW 4-2
Chlorobenzene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene			1.6	<0.5	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane			1.2	<0.5	1.6	1.3	<0.5	<0.5	<0.5	<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	<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	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane			<0.5	<0.5	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane			2.6	<0.5	4.7	<0.5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene			1.6	<0.5	1.1	1.4	<0.5	<0.5	0.57	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene			<0.5	<0.5	<0.5	0.93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Freon-113 *			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<b>Total Site-Related VOCs <sup>(1)</sup>:</b>			<b>7 <sup>(3)</sup></b>	<b>0</b>	<b>10.6 <sup>(3)</sup></b>	<b>5.93 <sup>(4)</sup></b>	<b>1.5</b>	<b>1.5</b>	<b>0.57</b>	<b>0</b>	<b>0</b>	<b>1.5</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>1.5</b>	<b>1.5</b>	<b>0</b>	<b>1.5</b>
<b>TVOC Trigger Value <sup>(2)</sup>:</b>			<b>0.6</b>	<b>0.6</b>	<b>0.6</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>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>

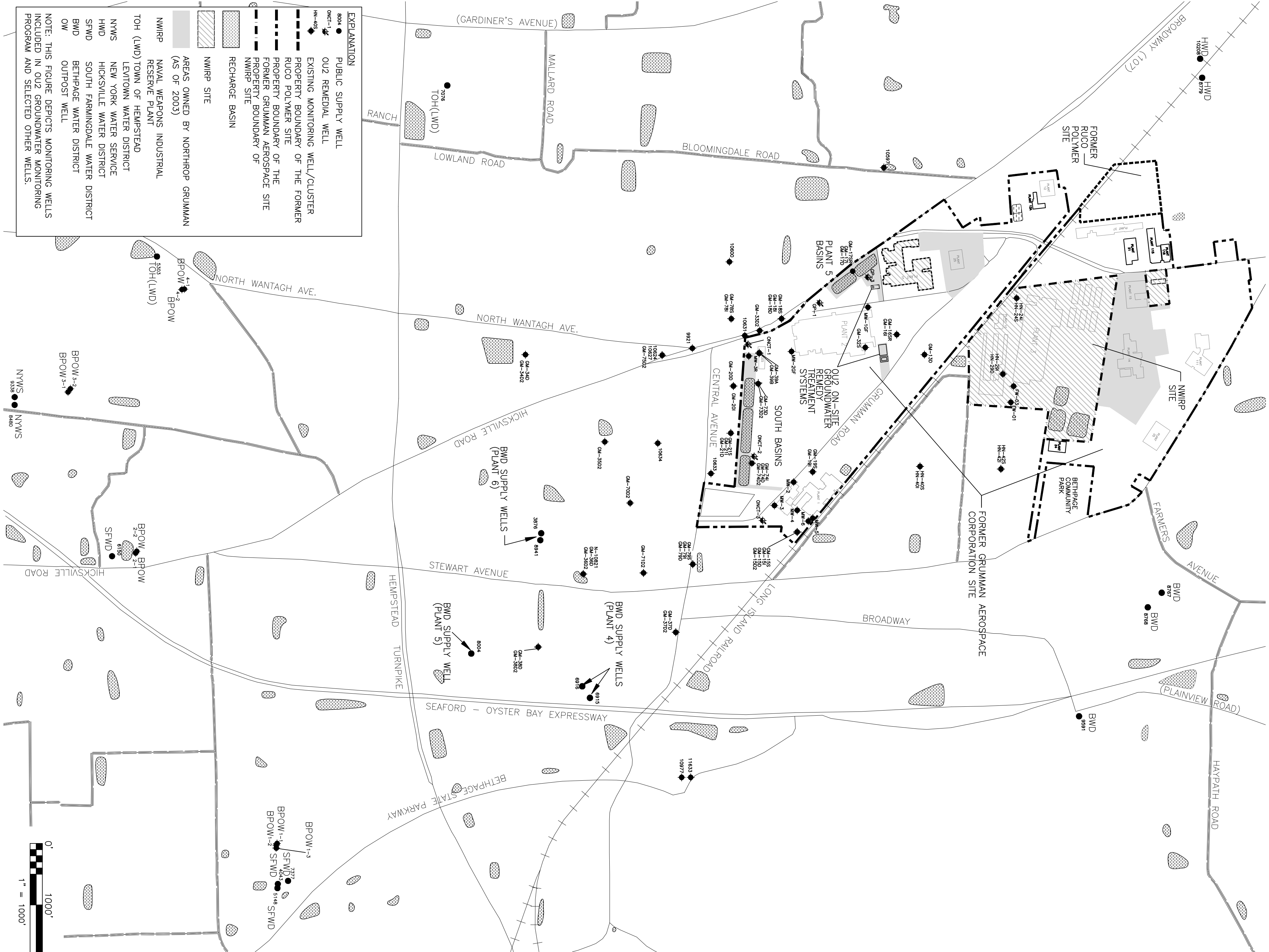
<sup>(1)</sup> Site-related VOCs were established in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003).  
<sup>(2)</sup> TVOC Trigger Values were established in the PWSCP (ARCADIS G&M, Inc. 2003).  
<sup>(3)</sup> The TVOC Trigger Value for Cluster 1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).  
<sup>(4)</sup> The TVOC Trigger Value for Cluster 2 was initially exceeded on May 3, 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 10/5/06 at 130 ug/L and 16 ug/L, respectively.

ug/L  
**Micrograms per liter**  
**Constituent detected**  
**Total Volatile Organic Compounds**

**EXPLANATION**

- 8004 ● PUBLIC SUPPLY WELL
- ONCT-1 ● OU2 REMEDIAL WELL
- HN-405 ● EXISTING MONITORING WELL/CLUSTER
- PROPERTY BOUNDARY OF THE FORMER RUGO POLYMER SITE
- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
- PROPERTY BOUNDARY OF NWIRP SITE
- RECHARGE BASIN
- NWIRP SITE
- AREAS OWNED BY NORTHRUP GRUMMAN (AS OF 2003)
- NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
- NWIRP
- TOH (LWD) TOWN OF HEMPSTEAD
- LEWISTOWN WATER DISTRICT
- NYWS
- NEW YORK WATER SERVICE
- 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  
 NORTHRUP GRUMMAN  
 CORPORATION  
 BETHPAGE, NEW YORK**

PROJECT MANAGER  
 C. SAN GIOVANNI

DEPARTMENT MANAGER  
 M. WOLPERT

SHEET TITLE  
**LOCATION OF OU2 ON-SITE  
 GROUNDWATER REMEDIATION  
 AND WELLS**

LEAD DESIGNER  
 M. SAURBORN

TASK/PHASE NUMBER  
 00004

PROJECT NUMBER  
 NY001348.0405

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DRAWING NUMBER  
**1**

