



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 Third Quarter 2013 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)

Dear Mr. Scharf:

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), plus additional
wells installed by the Navy that Northrop Grumman agreed to monitor on a voluntary
basis. Table 1 provides OU2 remedial system performance operational data and
water balance. Table 2 provides the validated analytical results of remedial wells for
this period. Table 3 provides the validated analytical results of monitoring wells for
this period. Figure 1 shows the site plan with well locations.

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS of New York, Inc.

David E. Stern
Senior Hydrogeologist

Enclosures

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ENVIRONMENT

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November 26, 2013

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NY001496.0312.GWMI4

Imagine the result

Copies:

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Bill Spitz - NYSDEC Region 1
Steven Karpinski – New York State Department of Health
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Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Third Quarter 2013, Northrop Grumman Systems Corporation, Bethpage, New York. ⁽¹⁾

Identification	Flow Rates (gpm)		Quarterly Flow Volumes (MG)			VOC Concentrations (ug/L)		VOC Mass Removed (lbs) ⁽⁷⁾
	Design ⁽²⁾	Average ^(3,4)	Design ⁽²⁾	Actual ^(3,4)	% of Design	TCE ⁽⁵⁾	TVOC ^(5,6)	Quarterly
<u>Influent Groundwater</u>								
Well 1	800	806	104.8	104.6	100%	400	465	406
Well 3 ⁽¹¹⁾	700	656	91.7	77.3	84%	1,200	1,343	849
Well 17	1,000	1,135	131.0	138.4	106%	190	235	266
Well 18 ⁽¹²⁾	600	821	78.6	99.0	126%	55	73	59
Well 19 ⁽¹³⁾	700	679	91.7	34.7	38%	180	216	61
Total	3,800	4,097	498	454	91%	--	--	1,641

Effluent Groundwater ⁽⁸⁾

Calpine	100 - 400	294	--	39.0	--	--	--	--
OXY Biosparge ⁽¹⁰⁾	2 - 42	3.8	--	0.5	--	--	--	--
West Recharge Basins	1,112 - 1,455	1,139	--	149.3	--	--	1.37	--
South Recharge Basins	2,231	2,024	292.4	265.2	91%	--	0.48	--
Total	--	3,461	--	454	--	--	--	--

Treatment Efficiencies ⁽⁹⁾

Tower 96 System Efficiency:	99.65%
Tower 102 System Efficiency:	>99.99%

see footnotes on last page

Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Third Quarter 2013, Northrop Grumman Systems Corporation, Bethpage, New York. ⁽¹⁾

Notes:

- (1) Quarterly reporting period: July 01, 2013 through September 30, 2013
- (2) "Design" flow rates were determined for the five remedial wells and for the South Recharge Basins based on computer modeling (ARCADIS G&M, Inc. 2003c, modified in April 2005). Flow rates for Calpine, OXY Biosparge and West Recharge Basins are typical flow rates and are provided for reader information. "Design" flow volumes represent the volume of water that should be pumped/discharged during the reporting period and is calculated by multiplying the design rate by the reporting period duration.
- (3) "Average" flow rates for the remedial wells represent the average actual pumping rates when the pumps are operational and do not take into account the time that a well is not operational. During this reporting period, the remedial wells operated for the following percentage of the time: Well 1 (99%), Well 3 (90%), Well 17 (93%), Well 18 (92%), and Well 19 (39%). "Actual" volumes are determined via totalizing flow meters. Well 3 was off-line for approximately 10% of the quarter due to a communication/recorder failure and lowering of the submersible pump (August 5, 2013 through August 13, 2013). Well 19 was off-line for approximately 61% of the quarter due to field work associated with pump malfunction and well redevelopment (August 12, 2013 through the end of the quarter, September 30, 2013).
- (4) "Average" flow rates for the system discharges represent the average flow rate during the entire reporting period and are determined by dividing the total flow during the reporting period by the reporting period duration. The Calpine, OXY Biosparge, and South Recharge Basins flow volumes are determined via totalizing flow meters. The West Recharge Basin flow is calculated by subtracting the cumulative flow to the other discharges from the total influent flow. Actual flow to the recharge basins are greater than shown because stormwater combines with the plant effluents prior to discharge to the recharge basins.
- (5) The TCE and TVOC concentrations for the remedial wells are from the quarterly sampling event performed during this reporting period (Table 2), with the exception of Well 19. The Well 19 Second Quarter 2013 TCE and TVOC concentrations were used to approximate the Third Quarter 2013 TCE and TVOC concentrations since the well was not pumping at the time of the sampling event (see Note 3).
- (6) The TVOC concentration for the two sets of recharge basins are their respective average monthly SPDES concentration for the current quarter.
- (7) TVOC mass removed for the reporting period is calculated by multiplying the TVOC concentration from the quarterly sampling event by the quantity of water pumped during the reporting period.
- (8) There are five discharges for the effluent groundwater: South Recharge Basins, West Recharge Basins, Calpine, OXY Biosparge system, and minor losses (pipe loss, irrigation use). Treated water is continuously discharged to the south and west recharge basins, and is available "on-demand" to both the Calpine Power Plant (Calpine) for use as make-up water, and the biosparge remediation system operated by Occidental Chemical (OXY Biosparge).
- (9) Treatment System Efficiencies are calculated by dividing the difference between the influent and effluent TVOC concentrations by the influent concentration.
- (10) The flow rate and volume for OXY Biosparge were estimated based on the average pumping rate calculated from data from April 2007 through March 2012.
- (11) As of the beginning of the Third Quarter, Well 3 was operating at a lower flow rate of 560 gpm due to a reduced specific capacity. On July 8, 2013, the pumping rate of Well 3 was further decreased to 460 gpm, due to the loss of suction and no flow at the pump house. From August 5, 2013 through August 13, 2013, Well 3 was shut down and the depth of the pump increased (pump was lowered by 100 feet). Upon completion on August 14, 2013, the Well 3 was re-started and pumping rate increased to approximately 700 gpm.
- (12) During the week of August 19, 2013, the Well 18 pumping rate was increased to approximately 1,000 gpm to compensate for the shutdown of Well 19.
- (13) On August 12, 2013, Well 19 was shut down and inspected due to decreasing specific capacity. The inspection indicated clogging of the well screen that required redevelopment. In addition, the Well 19 pump was observed to require replacement. Well 19 was shut down through the end of the quarter and as a result the routine quarterly sample could not be collected. A temporary pump is scheduled to be installed upon completion of well redevelopment and a new permanent submersible pump and motor will be specified and the work will be bid and performed during the Fourth Quarter of 2013.

Acronyms:

--	Not Available or Not Applicable	lbs	pounds	NG	Northrop Grumman Systems Corporation
TVOC	Total Volatile Organic Compounds	ug/L	micrograms per liter	VPAC	Vapor Phase Granular Activated Carbon
gpm	gallons per minute	TCE	Trichloroethene	SPDES	State Pollutant Discharge Elimination System
MG	Million Gallons	OU2	Operable Unit 2	NYSDEC	New York State Department of Environmental Conservation



Table 2. Concentrations of Volatile Organic Compounds Detected in Groundwater Remedial Wells and Systems, Third Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	WELL 1	WELL 1	WELL 3	96 INFLUENT	96 EFFLUENT
	Sample ID:	WELL 1	REP-082113	WELL 3	96 INFLUENT	96 EFFLUENT
	Date:	08/21/13	08/21/13	08/21/13	08/21/13	08/21/13
1,1,1-Trichloroethane		< 13 U	0.53 J	< 50 U	1.3 J	< 5.0 U
1,1,2,2-Tetrachloroethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
1,1,2-Trichloroethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
1,1-Dichloroethane		0.70 J	0.65 J	< 50 U	1.4 J	< 5.0 U
1,1-Dichloroethene		2.2 J	2.1 J	8.9 J	4.6 J	< 5.0 U
1,2-Dichloroethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
1,2-Dichloropropane		6.8 J	6.4 J	< 50 U	3.4 J	< 5.0 U
2-Butanone		< 130 U	< 130 U	< 500 U	< 250 U	< 50 U
2-Hexanone		< 130 U	< 130 U	< 500 U	< 250 U	< 50 U
4-Methyl-2-Pentanone		< 130 U	< 130 U	< 500 U	< 250 U	< 50 U
Acetone		< 130 U	< 130 U	< 500 U	< 250 U	< 50 U
Benzene		< 1.8 U	< 1.8 U	< 7.0 U	< 3.5 U	< 0.70 U
Bromodichloromethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Bromomethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Carbon Disulfide		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Carbon Tetrachloride		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Chlorobenzene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Chlorodibromomethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Chloroethane		< 13 U	< 13 U	2.8 J	< 25 U	< 5.0 U
Chloroform		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Chloromethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
cis-1,2-Dichloroethene		4.4 J	3.9 J	8.5 J	6.2 J	< 5.0 U
cis-1,3-Dichloropropene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Ethylbenzene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Methylene Chloride		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Styrene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Tetrachloroethene		48	44	57	45	< 5.0 U
Toluene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
trans-1,2-Dichloroethene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
trans-1,3-Dichloropropene		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Tribromomethane		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Trichloroethene		400	390	1200	780	3.0 J
Trichlorotrifluoroethane (Freon 113)		2.8 J	2.8 J	7.8 J	3.8 J	< 5.0 U
Vinyl Chloride		< 5.0 U	< 5.0 U	58	25	< 2.0 U
Xylene-m,p		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Xylene-o		< 13 U	< 13 U	< 50 U	< 25 U	< 5.0 U
Total VOCs		460	450	1,300	870	3.0

Notes:

Results rounded to two significant figures.

Well 19 not sampled as well was not pumping due to redevelopment and pump replacement activities.

Bold Constituent detected

VOCs Volatile Organic Compounds

ug/L Micrograms per liter

D Constituent value is based on a diluted sample analysis.

J Constituent value is estimated

REP Replicate Sample

U Constituent not detected



Table 2. Concentrations of Volatile Organic Compounds Detected in Groundwater Remedial Wells and Systems, Third Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well:	WELL 17	WELL 18	102 INFLUENT	102 EFFLUENT
	Sample ID:	WELL 17	WELL 18	102 INFLUENT	102 EFFLUENT
	Date:	08/21/13	08/21/13	08/21/13	08/21/13
1,1,1-Trichloroethane		0.53 J	0.69 J	0.57 J	< 5.0 U
1,1,2,2-Tetrachloroethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
1,1,2-Trichloroethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
1,1-Dichloroethane		1.1 J	1.0 J	1.3 J	< 5.0 U
1,1-Dichloroethene		2.4 J	1.3 J	3.0 J	< 5.0 U
1,2-Dichloroethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
1,2-Dichloropropane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Butanone		< 50 U	< 50 U	< 50 U	< 50 U
2-Hexanone		< 50 U	< 50 U	< 50 U	< 50 U
4-Methyl-2-Pentanone		< 50 U	< 50 U	< 50 U	< 50 U
Acetone		< 50 U	< 50 U	< 50 U	< 50 U
Benzene		< 0.70 U	< 0.70 U	< 0.70 U	< 0.70 U
Bromodichloromethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Bromomethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Disulfide		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Tetrachloride		0.20 J	< 5.0 U	< 5.0 U	< 5.0 U
Chlorobenzene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chlorodibromomethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroform		0.28 J	0.29 J	0.32 J	< 5.0 U
Chloromethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
cis-1,2-Dichloroethene		4.1 J	1.7 J	3.3 J	< 5.0 U
cis-1,3-Dichloropropene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Ethylbenzene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methylene Chloride		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Styrene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Tetrachloroethene		32	12	24	< 5.0 U
Toluene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
trans-1,2-Dichloroethene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
trans-1,3-Dichloropropene		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Tribromomethane		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Trichloroethene		190 D	55	140	< 5.0 U
Trichlorotrifluoroethane (Freon 113)		4.3 J	1.2 J	3.0 J	< 5.0 U
Vinyl Chloride		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Xylene-m,p		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Xylene-o		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Total VOCs		240	73	180	0

Notes:

Results rounded to two significant figures.

Well 19 not sampled as well was not pumping due to redevelopment and pump replacement activities.

Bold	Constituent detected
VOCs	Volatile Organic Compounds
ug/L	Micrograms per liter
D	Constituent value is based on a diluted sample analysis.
J	Constituent value is estimated
REP	Replicate Sample
U	Constituent not detected

Table 3. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, Third Quarter 2013, 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 1-4	BPOW 1-5	BPOW 1-6	BPOW 2-1	BPOW 2-2	BPOW 2-3
	Sample ID:	BPOW 1-1	BPOW 1-2	BPOW 1-3	BPOW 1-4	BPOW 1-5	BPOW 1-6	BPOW 2-1	BPOW 2-2	BPOW 2-3
	Date:	8/14/2013	8/15/2013	8/14/2013	8/21/2013	8/20/2013	8/20/2013	8/15/2013	9/3/2013	8/21/2013
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 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	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 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	< 0.50	< 0.50	< 0.50
cis-1,2-dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichlorotrifluoroethane (Freon 113)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 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	< 0.50	< 0.50	< 0.50
Trichloroethylene	0.86	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Site-Related VOCs ⁽¹⁾ :	0.86⁽³⁾	0⁽³⁾	0	0	0	0	0	0	0	0
TVOC Trigger Value ⁽²⁾:	0.6	0.6	0.6	NE	NE	NE	NE	NE	NE	NE

See last page for notes and abbreviations.

Table 3. Concentrations of Site-Related Volatile Organic Compounds Detected in Outpost Wells, Third Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

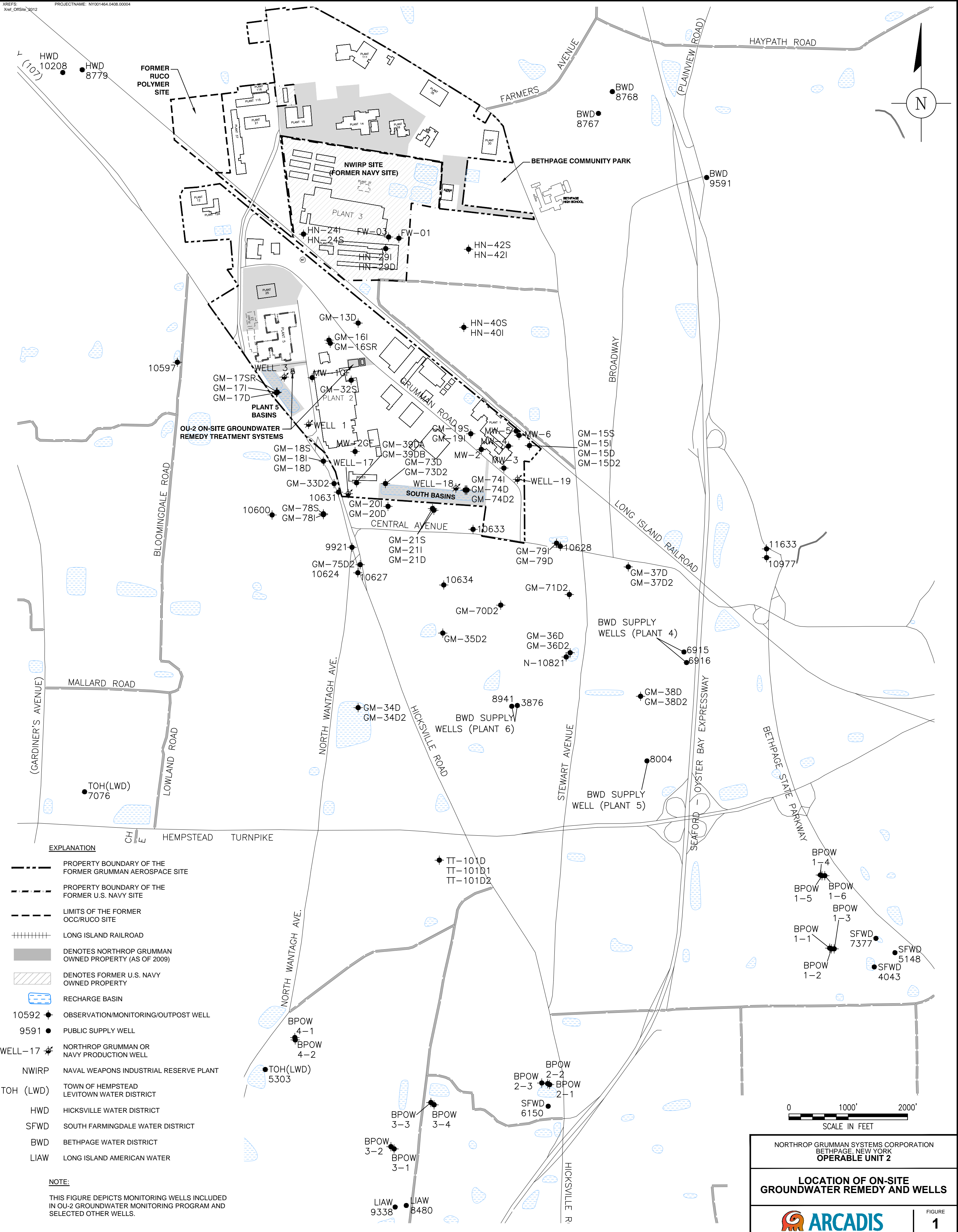
CONSTITUENT (Units in ug/L)	Well:	BPOW 3-1	BPOW 3-2	BPOW 3-3	BPOW 3-4	BPOW 4-1	BPOW 4-2
	Sample ID:	BPOW 3-1	BPOW 3-2	BPOW 3-3	BPOW 3-4	BPOW 4-1	BPOW 4-2
	Date:	8/16/2013	8/16/2013	8/26/2013	8/26/2013	8/19/2013	8/19/2013
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	0.53	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon tetrachloride		< 0.50	< 0.50	< 0.50	0.98	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	1	< 0.50	< 0.50
cis-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 0.50
Trichlorotrifluoroethane (Freon 113)		< 0.50	< 0.50	< 0.50	< 0.50	4.5	1.6
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethylene		< 0.50	< 0.50	< 0.50	64 D	< 0.50	< 0.50
Total Site-Related VOCs ⁽¹⁾ :		0	0	0	67	4.5⁽⁴⁾	1.6
TVOC Trigger Value ⁽²⁾:		1.5	1.5	NE	NE	1.5	1.5

Note:

Wells BPOW1-4, BPOW1-5, BPOW1-6, BPOW3-3, and BPOW3-4 are currently monitored by Northrop Grumman on a voluntary basis. The screen intervals for these wells were selected by the Navy based on data obtained from vertical profile borings VP-127 (BPOW-1 cluster) and VP-128 (BPOW-3 cluster).

- (1) Site-related VOCs were established for the wells identified above in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003).
- (2) TVOC Trigger Values were established for Wells BPOW1-1, BPOW1-2, BPOW1-3, BPOW3-1, BPOW3-2, BPOW4-1, and BPOW4-2 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) The TVOC Trigger Value for BPOW 4-1 was initially exceeded on March 1, 2012; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).

Bold	Constituent detected
TVOC	Total Volatile Organic Compounds
NE	Trigger Value Not Established
J	Value is estimated
D	Concentration is based on a diluted sample analysis.

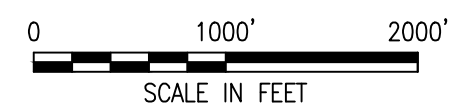


EXPLANATION

- 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 2009)
- ▨ DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- 10592 ● OBSERVATION/MONITORING/OUTPOST 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
- LIAW LONG ISLAND AMERICAN WATER

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 ON-SITE
 GROUNDWATER REMEDIY AND WELLS**

ARCADIS

FIGURE
1