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Date:

January 10, 2017

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Our ref:

NY001496.0216.LARA5

Subject:

Fourth Quarter 2016 Progress Report
Northrop Grumman Systems Corporation
Operable Unit 2, NYSDEC Site ID # 1-30-003A,
Bethpage, New York

Dear Henry and Steve:

In accordance with Appendix “A”, Section XIII of Administrative Order on Consent (AOC) Index # W1-118-14-12, this letter reports Operable Unit 2 (OU2) activities performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the Fourth Quarter of 2016 (October through December 2016). Activities planned for First Quarter of 2017 (January through March 2017) are also described.

This progress report provides data that have been received as final and/or validated from the current period that are not included in other routine reporting for OU2 (e.g., quarterly reports as specified in the Groundwater Monitoring Plan).

As this is an ongoing remediation project, Northrop Grumman has transitioned the frequency of these progress reports from monthly to quarterly. Therefore, the next report will be submitted following the close of March 2017.

OU2 ACTIVITIES CONDUCTED DURING FOURTH QUARTER 2016

OU2 On-Site Containment (ONCT) System

- Continued Operation, Maintenance and Monitoring (OM&M) of the OU2 ONCT system
- Completed Fourth Quarter 2016 ONCT system sampling
- Data not routinely reported are provided for the current period as follows:
    - Analytical data associated with Tower 96 Effluent and monthly sampling of ONCT Tower 96 system Remedial Wells 1 and 3R are provided in Table 1

Regional Groundwater Monitoring & Outpost Well Monitoring

- Continued supplemental monthly VOC sampling of Monitoring Well GM-21D2 and periodic VOC sampling of other selected wells, including ONCT Tower 102 system remedial wells
- Completed Fourth Quarter 2016 routine OU2 groundwater monitoring activities
- Data not routinely reported are provided for the current period as follows:
    - Analytical data for GM-21D2 and other selected wells, including Monitoring Wells GM-73D2 and GM-74D2 and ONCT system remedial wells (Wells 17, 18 and 19), and discharge sample for compliance with local POTW, are provided in Table 1

Northrop Grumman Cooperation with Navy

- Coordinated with Navy and conducted Fourth Quarter 2016 sampling of additional outpost wells and plume monitoring wells
- Prepared and submitted Third Quarter 2016 sampling event data for Navy owned wells, including Form 1 packages, to Navy for distribution

Other

- Prepared and submitted Third Quarter 2016 OU2 Operation Maintenance and Monitoring Report
- Prepared and submitted the October 2016 AOC quarterly progress report

Mr. Henry Wilkie
Mr. Steven Scharf, P.E.
January 10, 2017

OU2 ACTIVITIES SCHEDULED FOR FIRST QUARTER 2017

OU2 On-Site Containment (ONCT) System

- Continue OM&M of OU2 ONCT system
- Conduct First Quarter ONCT system sampling

Regional Groundwater Monitoring & Outpost Well Monitoring

- Continue supplemental VOC sampling at Monitoring Well GM-21D2. Other select wells, including ONCT Tower 102 system remedial wells, have returned to quarterly/semi-annual frequency as per OM&M Manual and Groundwater Monitoring Plan.

Northrop Grumman Cooperation with Navy

- Initiate and complete First Quarter 2017 sampling of additional outpost wells and plume monitoring wells

Other

- Submit the Fourth Quarter 2016 AOC quarterly progress report

Sincerely,

Arcadis of New York, Inc.

David E. Stern

Senior Hydrogeologist/Associate Project Manager

Enclosures

Copies:
Krista Anders, NYSDOH
Patrick Foster, Esq., NYSDEC
Edward J. Hannon, Northrop Grumman
Fred Weber, Northrop Grumman
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Lora Fly, NAVFAC Mid-Atlantic Environmental
Bethpage Public Library, Public Repository
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Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	GM-21D2 / GM-21D2_20160908 / 9/8/2016	GM-21D2 / GM-21D2_20161123 / 11/23/2016	GM-73D2 / GM-73D2_20160923 / 9/23/2016	GM-74D2 / GM-74D2_20160922 / 9/22/2016
Volatile Organic Compounds[1]					
1,1,1-Trichloroethane		**0.31 J**	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane		< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		**0.47 J**	< 1.0	**0.49 J**	**0.53 J**
1,1-Dichloroethene		**1.7**	**0.88 J**	**0.82 J**	**0.95 J**
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone		< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0
CFC-11		--	--	--	--
CFC-12		--	--	--	--
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	**0.64 J**	**0.25 J**
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene		**1.4**	**0.72 J**	**0.73 J**	< 1.0
cis-1,3-Dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Dichloromethane		< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0
m&p-Xylenes		< 1.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)		< 5.0	< 5.0	< 5.0	< 5.0
Methyl-tert-butylether		--	--	--	--
o-Xylene		< 1.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)		< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		**4.9**	**5.1**	**3.0**	**3.8**
Toluene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene		**37.9**	**30.1**	**41.3**	**8.1**
Vinyl chloride		< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs[2]		**47**	**37**	**47**	**14**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	GWT_DISCHARGE[3] / GWT_DISCHARGE_091216 / 9/12/2016	96 EFFLUENT / T96 EFFLUENT (GW)_20160817 / 8/17/2016	WELL 1 / WELL 1_20160926 / 9/26/2016	WELL 1 / WELL 1_20161019 / 10/19/2016
Volatile Organic Compounds[1]					
1,1,1-Trichloroethane		< 1.0	< 1.0	< 4.0	< 2.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 2.0	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane		< 2.0	< 5.0	**3.1 J**	**3.5 J**
1,1,2-Trichloroethane		< 1.0	< 1.0	< 4.0	< 2.0
1,1-Dichloroethane		< 1.0	< 1.0	< 4.0	< 2.0
1,1-Dichloroethene		< 1.0	< 1.0	< 4.0	**1.8 J**
1,2-Dichloroethane		< 1.0	< 1.0	< 4.0	< 2.0
1,2-Dichloropropane		< 1.0	**1.4**	< 8.0	**4.8**
2-Butanone (MEK)		< 5.0	< 10	< 40	< 20
4-Methyl-2-Pentanone		< 5.0	< 5.0	< 20	< 10
Acetone		< 5.0	< 10	< 40	< 20
Benzene		< 1.0	< 0.50	< 2.0	< 1.0
Bromodichloromethane		< 1.0	< 1.0	< 4.0	< 2.0
Bromoform		< 1.0	< 1.0	< 4.0	< 4.0
Bromomethane		< 1.0	< 2.0	< 8.0	< 4.0
Carbon Disulfide		< 1.0	< 2.0	< 10	< 10
Carbon Tetrachloride		< 1.0	< 1.0	< 4.0	< 2.0
CFC-11		< 2.0	--	--	--
CFC-12		< 2.0	--	--	--
Chlorobenzene		< 1.0	< 1.0	< 4.0	< 2.0
Chlorodibromomethane		< 1.0	< 1.0	< 4.0	< 2.0
Chloroethane		< 1.0	< 1.0	< 8.0	< 4.0
Chloroform		< 1.0	< 1.0	< 4.0	< 2.0
Chloromethane		< 1.0	< 1.0	< 8.0 J	< 4.0
cis-1,2-Dichloroethene		< 1.0	**1.4**	**3.6 J**	**4.7**
cis-1,3-Dichloropropene		< 1.0	< 1.0	< 2.0	< 1.0
Dichloromethane		< 1.0	< 2.0	< 8.0	< 4.0
Ethylbenzene		< 1.0	< 1.0	< 4.0	< 2.0
m&p-Xylenes		< 1.0	< 1.0	< 4.0	< 2.0
Methyl N-Butyl Ketone (2-Hexanone)		< 5.0	< 5.0	< 40	< 20
Methyl-tert-butylether		< 1.0	--	--	--
o-Xylene		< 1.0	< 1.0	< 4.0	< 2.0
Styrene (Monomer)		< 2.0	< 1.0	< 20	< 10
Tetrachloroethene		< 1.0	< 1.0	**16.2**	**28.6**
Toluene		< 1.0	< 1.0	< 4.0	< 2.0
trans-1,2-Dichloroethene		< 1.0	< 1.0	< 4.0	< 2.0
trans-1,3-Dichloropropene		< 1.0	< 1.0	< 2.0	< 1.0
Trichloroethene		**0.33 J**	**8.9**	**414**	**548**
Vinyl chloride		< 1.0	< 1.0	< 4.0	< 2.0
Total VOCs[2]		**0.33**	**12**	**440**	**590**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	WELL 1 WELL 1_20161117 11/17/2016	WELL 17 WELL 17_20160926 9/26/2016	WELL 17 WELL 17_20161019 10/19/2016	WELL 18 WELL 18_20160926 9/26/2016
Volatile Organic Compounds[1]					
1,1,1-Trichloroethane		**0.32 J**	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifl -uoroethane		**2.2 J**	**4.1 J**	**4.0 J**	**1.7 J**
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		**0.76 J**	**0.99 J**	**0.95 J**	**1.3**
1,1-Dichloroethene		**1.2**	**2.1**	**2.1**	**2.3**
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		**4.2**	< 2.0	< 2.0	< 2.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone		< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 2.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 5.0	< 5.0	< 5.0
Carbon Tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0
CFC-11		--	--	--	--
CFC-12		--	--	--	--
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 2.0	< 2.0	< 2.0
Chloroform		**0.27 J**	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 2.0 J	< 2.0	< 2.0 J
cis-1,2-Dichloroethene		**4.7**	**3.3**	**3.3**	**2.4**
cis-1,3-Dichloropropene		< 1.0	< 0.50	< 0.50	< 0.50
Dichloromethane		< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0
m&p-Xylenes		< 1.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)		< 5.0	< 10	< 10	< 10
Methyl-tert-butylether		--	--	--	--
o-Xylene		< 1.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)		< 1.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene		**23.9**	**28.9**	**30.3**	**15.4**
Toluene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene		< 1.0	< 0.50	< 0.50	< 0.50
Trichloroethene		**706**	**136**	**130**	**53.9**
Vinyl chloride		< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs[2]		**740**	**180**	**170**	**77**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	WELL 18 / WELL 18_20161019 / 10/19/2016	WELL 19 / WELL 19_20160926 / 9/26/2016	WELL 19 / WELL 19_20161019 / 10/19/2016	WELL 3R / WELL 3R_20160926 / 9/26/2016
Volatile Organic Compounds[1]					
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 2.0
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane		**1.6 J**	**1.2 J**	**1.2 J**	**3.4 J**
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 2.0
1,1-Dichloroethane		**1.3**	**0.81 J**	**0.81 J**	**1.4 J**
1,1-Dichloroethene		**3.9**	**1.7**	**1.9**	**4.2**
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 2.0
1,2-Dichloropropane		< 2.0	< 2.0	< 2.0	< 4.0
2-Butanone (MEK)		< 10	< 10	< 10	< 20
4-Methyl-2-Pentanone		< 5.0	< 5.0	< 5.0	< 10
Acetone		< 10	< 10	< 10	< 20
Benzene		< 0.50	< 0.50	< 0.50	< 1.0
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 2.0
Bromoform		< 2.0	< 1.0	< 2.0	< 2.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 4.0
Carbon Disulfide		< 5.0	< 5.0	< 5.0	< 10
Carbon Tetrachloride		< 1.0	< 1.0	< 1.0	< 2.0
CFC-11		--	--	--	--
CFC-12		--	--	--	--
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 2.0
Chlorodibromomethane		< 1.0	< 1.0	< 1.0	< 2.0
Chloroethane		< 2.0	< 2.0	< 2.0	< 4.0
Chloroform		< 1.0	**0.49 J**	**0.46 J**	< 2.0
Chloromethane		< 2.0	< 2.0 J	< 2.0	< 4.0 J
cis-1,2-Dichloroethene		**2.4**	**18.9**	**19.7**	**5.4**
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 1.0
Dichloromethane		< 2.0	< 2.0	< 2.0	< 4.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 2.0
m&p-Xylenes		< 1.0	< 1.0	< 1.0	< 2.0
Methyl N-Butyl Ketone (2-Hexanone)		< 10	< 10	< 10	< 20
Methyl-tert-butylether		--	--	--	--
o-Xylene		< 1.0	< 1.0	< 1.0	< 2.0
Styrene (Monomer)		< 5.0	< 5.0	< 5.0	< 10
Tetrachloroethene		**16.1**	**7.8**	**8.7**	**30.4**
Toluene		< 1.0	< 1.0	< 1.0	< 2.0
trans-1,2-Dichloroethene		< 1.0	< 1.0	< 1.0	< 2.0
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 1.0
Trichloroethene		**52.0**	**148**	**140**	**448**
Vinyl chloride		< 1.0	< 1.0	< 1.0	**4.1**
Total VOCs[2]		**77**	**180**	**170**	**500**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: WELL 3R Sample ID: WELL 3R_20161019 Sample Date: 10/19/2016	WELL 3R WELL 3R_20161117 11/17/2016	QAQC FB090816MO1 9/8/2016	QAQC TB090816MO1 9/8/2016
Volatile Organic Compounds[1]				
1,1,1-Trichloroethane	< 2.0	**0.70 J**	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane	**3.7 J**	**2.4 J**	< 5.0	< 5.0
1,1,2-Trichloroethane	< 2.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	< 2.0	**1.4**	< 1.0	< 1.0
1,1-Dichloroethene	**3.7**	**4.3**	< 1.0	< 1.0
1,2-Dichloroethane	< 2.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	< 4.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)	< 20	< 10	< 10	< 10
4-Methyl-2-Pentanone	< 10	< 5.0	< 5.0	< 5.0
Acetone	< 20	< 10	< 10	< 10
Benzene	< 1.0	< 0.50	< 0.50	< 0.50
Bromodichloromethane	< 2.0	< 1.0	< 1.0	< 1.0
Bromoform	< 4.0	< 1.0	< 1.0	< 1.0
Bromomethane	< 4.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	< 10	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	< 2.0	< 1.0	< 1.0	< 1.0
CFC-11	--	--	--	--
CFC-12	--	--	--	--
Chlorobenzene	< 2.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	< 2.0	< 1.0	< 1.0	< 1.0
Chloroethane	< 4.0	< 1.0	< 1.0	< 1.0
Chloroform	< 2.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 4.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	**4.5**	**4.7**	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0
Dichloromethane	< 4.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	< 2.0	< 1.0	< 1.0	< 1.0
m&p-Xylenes	< 2.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)	< 20	< 5.0	< 5.0	< 5.0
Methyl-tert-butylether	--	--	--	--
o-Xylene	< 2.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)	< 10	< 1.0	< 1.0	< 1.0
Tetrachloroethene	**32.7**	**28.5**	< 1.0	< 1.0
Toluene	< 2.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	< 2.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	**400**	**534**	< 1.0	< 1.0
Vinyl chloride	**3.7**	**3.4**	< 1.0	< 1.0
Total VOCs[2]	**450**	**580**	0	0

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	QAQC TB091216AM1 9/12/2016	QAQC TB-092616-KD-1 9/26/2016	QAQC TB-101916-KD-1 10/19/2016	QAQC TB-111716-SN 11/17/2016
Volatile Organic Compounds[1]					
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 0.50	< 0.50	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane		< 2.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 2.0	< 2.0	< 1.0
2-Butanone (MEK)		< 5.0	< 10	< 10	< 10
4-Methyl-2-Pentanone		< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 5.0	< 10	< 10	< 10
Benzene		< 1.0	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 2.0	< 1.0
Bromomethane		< 1.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 1.0	< 5.0	< 5.0	< 2.0
Carbon Tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0
CFC-11		< 2.0	--	--	--
CFC-12		< 2.0	--	--	--
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 2.0	< 2.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 2.0	< 2.0	< 1.0
cis-1,2-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene		< 1.0	< 0.50	< 0.50	< 1.0
Dichloromethane		< 1.0	< 2.0	< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0
m&p-Xylenes		< 1.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)		< 5.0	< 10	< 10	< 5.0
Methyl-tert-butylether		< 1.0	--	--	--
o-Xylene		< 1.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)		< 2.0	< 5.0	< 5.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene		< 1.0	< 0.50	< 0.50	< 1.0
Trichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride		< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs[2]		0	0	0	0

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Constituents (Units in µg/L)	Well ID: / Sample ID: / Sample Date:	QAQC FB112316MO1 11/23/2016	QAQC TB112316MO1 11/23/2016
Volatile Organic Compounds[1]			
1,1,1-Trichloroethane		< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifl -uoroethane		< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10
4-Methyl-2-Pentanone		< 5.0	< 5.0
Acetone		< 10	< 10
Benzene		< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0
Bromoform		< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0
Carbon Tetrachloride		< 1.0	< 1.0
CFC-11		--	--
CFC-12		--	--
Chlorobenzene		< 1.0	< 1.0
Chlorodibromomethane		< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0
Chloroform		< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0
cis-1,2-Dichloroethene		< 1.0	< 1.0
cis-1,3-Dichloropropene		< 1.0	< 1.0
Dichloromethane		< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0
m&p-Xylenes		< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)		< 5.0	< 5.0
Methyl-tert-butylether		--	--
o-Xylene		< 1.0	< 1.0
Styrene (Monomer)		< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0
Toluene		< 1.0	< 1.0
trans-1,2-Dichloroethene		< 1.0	< 1.0
trans-1,3-Dichloropropene		< 1.0	< 1.0
Trichloroethene		< 1.0	< 1.0
Vinyl chloride		< 1.0	< 1.0
Total VOCs[2]		0	0

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds
Operable Unit 2, Northrop Grumman Systems Corporation
Bethpage, New York

Notes and Abbreviations:

(1) Sample analysis by VOC Method 8260C, unless otherwised noted.

(2) Results rounded to two significant figures.

(3) Sample analysis by VOC Method 624.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016), or as received as final from the laboratory as of the end of the AOC reporting period.

Bold value indicates a detection

--	Not analyzed
µg/L	Micrograms per liter
<5.0	Constituent not detected above its laboratory quantification limit.
CFC	Chlorofluorocarbon
FB	Field Blank
J	Value is estimated concentration
QAQC	Quality Assurance/Quality Control sample
REP/DUP	Blind duplicate sample
TB	Trip blank