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ENVIRONMENT

Date:

January 8, 2016

Subject:

December 2015 Monthly Progress Report
Northrop Grumman Systems Corporation
Operable Unit 2, NYSDEC Site ID # 1-30-003A,
Bethpage, New York

Contact:

David E. Stern

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Our ref:

NY001496.0114.LARA5

Dear Henry and Steve:

In accordance with Appendix “A”, Section III, C 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 month of December 2015. Activities planned for January 2016 are also discussed.

This progress report provides data validated in the current period that are not included in routine reporting, as applicable. Validated data submitted as part of routine reporting (e.g., quarterly reports as specified in the Groundwater Monitoring Plan) are not included to avoid redundancy.

Since this is an ongoing remediation project, Northrop Grumman would like to submit future progress reports on a quarterly frequency.

OU2 ACTIVITIES CONDUCTED DURING December 2015

OU2 On-Site Containment (ONCT) System

- Continued Operation, Maintenance and Monitoring (OM&M) of the OU2 ONCT system

- Data not routinely reported are provided for the current period as follows:

    - Validated analytical data associated with November 2015 monthly sampling for Remedial Wells 1 and 3R and T96 Effluent are provided in Table 1

Regional Groundwater Monitoring & Outpost Well Monitoring

- Completed Fourth Quarter 2015 groundwater monitoring activities, including routine sampling of semi-annual frequency monitoring wells (plume monitoring wells including two of the 15 original outpost wells) for VOCs and 1,4-dioxane

Northrop Grumman Cooperation with Navy

- Continued to work cooperatively with the Navy through periodic communications and meetings while NYSDEC is in process of reviewing the previously submitted Plan for Coordination with the U.S. Navy on the RE-108D2 Hot Spot (June 30 2015), including:

    - Continued communications with Navy to develop a plan to address the elevated levels of impacted groundwater identified in the vicinity of Well RE-108D2

    - Completed Fourth Quarter 2015 sampling of additional outpost wells and monitoring wells installed by Navy as requested by Navy (in May 6, 2015 letter)

Other

- Prepared and submitted the November 2015 AOC monthly progress report

- Provided support to NYSDEC as part of NYSDEC's radiological sampling plan, including coordination and performance of sampling of select municipal supply wells

Mr. Henry Wilkie
Mr. Steven Scharf, P.E.
January 8, 2016

OU2 ACTIVITIES SCHEDULED FOR JANUARY 2016

OU2 On-Site Containment (ONCT) System

- Continue OM&M of OU2 ONCT system

Regional Groundwater Monitoring & Outpost Well Monitoring

- None (groundwater monitoring activities are not planned for in January 2016; next scheduled routine sampling round will be conducted in Second Quarter 2016)

Northrop Grumman Cooperation with Navy

- Continue to work cooperatively with the Navy through periodic communications and meetings while NYSDEC is in process of reviewing the previously submitted Plan for Coordination with the U.S. Navy on the RE-108D2 Hot Spot (June 30, 2015), including:
    - Continue with communications and meetings supporting the Navy plan to address the elevated levels of impacted groundwater identified in the vicinity of Well RE-108D2
    - Coordinate with Navy to plan for First Quarter 2016 sampling in February 2016 of additional outpost wells installed by Navy as requested by Navy in May 6, 2015 communication.

Other

- Submit the December 2015 AOC monthly progress report

Sincerely,

Arcadis of New York, Inc.

David E. Stern
Senior Hydrogeologist/Associate Project Manager

Enclosures

Copies:
Krista Anders, NYSDOH
Rosalie K. Rusinko, Esq., NYSDEC
Edward J. Hannon, Northrop Grumman
Fred Weber, Northrop Grumman
Jill Palmer, Esq., Northrop Grumman
Daniel Riesel, Esq., Sive, Paget & Riesel, P.C.
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Table 1.
Concentrations of Volatile Organic Compounds in Remedial Wells 1 and 3R and Tower 96 Effluent, Validated in December 2015, Operable Unit 2, Northrop Grumman Systems Corporation Bethpage, New York

ARCADIS Design & Consultancy for natural and built assets

Constituents (units in µg/L)	Well ID: / Sample ID: / Sample Date:	WELL 1 / WELL 1 / 11/16/2015	WELL 3R / WELL 3R / 11/16/2015	96 Effluent / T96 EFFLUENT / 11/16/2015	Trip Blank / TB-111615-KD1 / 11/16/2015
Volatile Organic Compounds (1)					
1,1,1-Trichloroethane		<2.0 U	<2.0 U	<1.0 U	<1.0 U
1,1,2,2-Tetrachloroethane		<1.0 U	<1.0 U	<0.50 U	<0.50 U
1,1,2-trichloro-1,2,2-trifluoroethane		**4.1 J**	**3.8 J**	<5.0 U	<5.0 U
1,1,2-Trichloroethane		<2.0 U	<2.0 U	<1.0 U	<1.0 U
1,1-Dichloroethane		**0.85 J**	**1.5 J**	<1.0 U	<1.0 U
1,1-Dichloroethene		**1.8 J**	**3.7**	<1.0 U	<1.0 U
1,2-Dichloroethane		<2.0 U	<2.0 U	<1.0 U	<1.0 U
1,2-Dichloropropane		**4.7**	<4.0 U	<2.0 U	<2.0 U
2-Butanone (MEK)		<20 U	<20 U	<10 U	<10 U
4-Methyl-2-Pentanone		<10 U	<10 U	<5.0 U	<5.0 U
Acetone		<20 U	<20 U	<10 U	<10 U
Benzene		<1.0 U	<1.0 U	<0.50 U	<0.50 U
Bromodichloromethane		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Bromoform		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Bromomethane		<4.0 U	<4.0 U	<2.0 U	<2.0 U
Carbon Disulfide		<10 U	<10 U	<5.0 U	<5.0 U
Carbon Tetrachloride		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Chlorobenzene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Chlorodibromomethane		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Chloroethane		<4.0 U	<4.0 U	<2.0 U	<2.0 U
Chloroform		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Chloromethane		<4.0 U	<4.0 U	<2.0 U	<2.0 U
cis-1,2-Dichloroethene		**4.3**	**5.2**	<1.0 U	<1.0 U
cis-1,3-Dichloropropene		<1.0 U	<1.0 U	<0.50 U	<0.50 U
Dichloromethane		<4.3 UB	<4.1 UB	<2.0 U	<2.0 U
Ethylbenzene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
m,p-Xylene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Methyl N-Butyl Ketone (2-Hexanone)		<20 U	<20 U	<10 U	<10 U
o-Xylene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
Styrene (Monomer)		<10 U	<10 U	<5.0 U	<5.0 U
Tetrachloroethene		**26.3**	**27.1**	<1.0 U	<1.0 U
Toluene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
trans-1,2-Dichloroethene		<2.0 U	<2.0 U	<1.0 U	<1.0 U
trans-1,3-Dichloropropene		<1.0 U	<1.0 U	<0.50 U	<0.50 U
Trichloroethene		**785**	**509**	**3.2**	<1.0 U
Vinyl chloride		<2.0 U	**16.9**	<1.0 U	<1.0 U
Total VOCs (2)		**830**	**750**	**3.2**	0

Notes and Abbreviations:

(1) Sample analysis by Method 8260C
(2) Results rounded to two significant figures.
Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2014).

Bold	Constituent detected
VOCs	Volatile Organic Compounds
µg/L	Micrograms per liter
J	Constituent value is estimated
D	Sample was diluted
<5.0	Constituent not detected above its laboratory quantification limit.
OU2	Operable Unit 2
U	Constituent is not detected
TB	Trip blank