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ENVIRONMENT

Mr. Steven M. Scharf, P.E.
Project Engineer
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, New York 12233-7015

Subject:
July to December 2011 Progress Report
Northrop Grumman Systems Corporation
Operable Unit 3 (OU3), NYSDEC Site ID # 1-30-003A,
Bethpage, New York

Date:
January 11, 2012

Contact:
David Stern

Phone:
631-391-5284

Email:
David.Stern@arcadis-us.com

Our ref:
NY001496.0711.RPTA5

Dear Steve:

In accordance with Section III of Administrative Order on Consent (AOC) Index # W1-0018-04-01, and the May 2011 Work Plan for Modification of AOC Progress Report, this letter reports OU3 activities performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the months of July to December 2011. Activities planned for January to June 2012 are also summarized. In accordance with our approved work plan, these reports will be submitted to the NYSDEC on a semi-annual basis until it is determined that the reports are no longer necessary.

OU3 Activities Conducted During July-December 2011

Soil Gas IRM

- Continued Operation, Maintenance, and Monitoring (OM&M) of the Soil Gas Interim Remedial Measure (IRM)
- Submitted the Soil Gas IRM Quarterly OM&M Reports to the NYSDEC (August and November 2011)

Groundwater IRM

- Continued OM&M of the Groundwater IRM
- Submitted the Groundwater IRM Quarterly OM&M Reports to the NYSDEC (August and November 2011)

Other

- Performed the quarterly monitoring rounds for Monitoring Wells MW109-3 and MW111-4 and monthly monitoring rounds for Monitoring Well MW116-5 from May to December 2011. Data obtained from these monitoring rounds are provided in Table 1.

OU3 Activities Scheduled During January-June 2012

Soil Gas IRM

- Continue OM&M of the Soil Gas IRM
- Submittal of OU3 Soil Gas IRM Annual Report (February 2012) and Quarterly Report (May 2012) to the NYSDEC

Groundwater IRM

- Continue OM&M of the Groundwater IRM
- Submittal of OU3 Groundwater IRM Annual Report (March 2012) and Quarterly Report (May 2012) to the NYSDEC

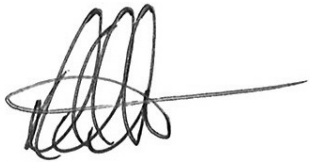
Other

- Perform quarterly monitoring rounds for Monitoring Wells MW109-3 and MW111-4 and monthly monitoring rounds for Monitoring Well MW116-5 for January to June 2012.

Feel free to call us if you have any questions.

Sincerely,

ARCADIS of New York, Inc.



David E. Stern
Senior Scientist/Associate Project Manager

Enclosure

ARCADIS

Mr. Steve Scharf
NYSDEC
January 11, 2012

Copies:
J. Cofman, Northrop Grumman
K. Smith, Northrop Grumman
E. Hannon, Northrop Grumman
C. Stein – USEPA
M. Poetzch – USEPA
C. Henry, EMAGIN
Bethpage Public Library – Public Repository
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Table 1. Concentrations of VOCs in Monitoring Wells, Operable Unit 3, Northrop Grumman Systems Corporation, Bethpage, New York.

Constituents (units in ug/L)	Sample ID: Sample Date	MW-109-3 5/20/2011	MW-109-3 8/11/2011	MW-109-3 11/17/2011	MW-111-4 5/20/2011	MW-111-4 8/11/2011	MW-111-4 11/18/2011	MW-116-5 5/19/2011
1,1,1-Trichloroethane		< 50 U	< 50 U	< 50 U	< 250 U	**6.5 J**	**11 J**	< 50 U
1,1,2,2-Tetrachloroethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
1,1,2-Trichloroethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	**3.6 J**
1,1-Dichloroethane		**14 J**	**13 J**	**12 J**	**33 J**	**23 J**	**27 J**	< 50 U
1,1-Dichloroethene		**6.1 J**	**3.6 J**	**5 J**	**23 J**	**22 J**	**26 J**	**6.1 J**
1,2-Dichloroethane		**4.5 J**	**4.1 J**	**3.5 J**	**19 J**	**15 J**	**17 J**	**17 J**
1,2-Dichloropropane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	**5.6 J**
2-Butanone (MEK)		< 500 U	< 500 U	< 500 U	< 2500 U	< 1300 U	< 1300 UJ	< 500 U
2-Hexanone (MBK)		< 500 U	< 500 U	< 500 U	< 2500 U	< 1300 U	< 1300 UJ	< 500 U
4-methyl-2-pentanone (MIK)		< 500 U	< 500 U	< 500 U	< 2500 U	< 1300 U	< 1300 UJ	< 500 U
Acetone		< 500 U	< 500 UB	< 500 U	< 2500 U	< 1300 UB	< 1300 UJ	< 500 U
Benzene		< 7 U	< 7 U	< 7 U	< 35 U	< 18 U	< 18 UJ	< 7 U
Bromodichloromethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Bromoform		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Bromomethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Carbon Disulfide		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Carbon tetrachloride		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Chlorobenzene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Chlorodifluoromethane (Freon 22)		**3.2 J**	**2.5 J**	**3.2 J**	< 250 U	< 130 U	< 130 UJ	< 50 U
Chloroethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Chloroform		**5.6 J**	**6.1 J**	**5.8 J**	< 250 U	**7 J**	**5.8 J**	**34 J**
Chloromethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
cis-1,2-dichloroethene		**760**	**850**	**790**	**1300**	**1500**	**1500**	**280**
cis-1,3-dichloropropene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Dibromochloromethane		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Dichlorodifluoromethane (Freon 12)		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Ethylbenzene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Methyl tert-Butyl Ether		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Methylene Chloride		**3.3 J**	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Styrene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Tetrachloroethene		**6.2 J**	**6.9 J**	**4.9 J**	< 250 U	**17 J**	**16 J**	< 50 U
Toluene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
trans-1,2-dichloroethene		**8.3 J**	**4.2 J**	**3.8 J**	< 250 U	**8.3 J**	< 130 UJ	**4.3 J**
trans-1,3-dichloropropene		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Trichloroethylene		**1800**	**1300**	**1400**	**5600**	**4500**	**5500 D**	**2200 D**
Trichlorofluoromethane (CFC-11)		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Trichlorotrifluoroethane (Freon 113)		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Vinyl Chloride		< 20 U	< 20 U	< 20 U	< 100 U	< 50 U	< 50 UJ	< 20 U
Xylene-o		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Xylenes - m,p		< 50 U	< 50 U	< 50 U	< 250 U	< 130 U	< 130 UJ	< 50 U
Total TVOC		**2,600**	**2,200**	**2,200**	**7,000**	**6,100**	**7,100**	**2600**

Total VOCs rounded to 2 significant figures
"B" qualified data not included in sum of VOCs.
Bold indicated a detection

J	Estimated concentration
D	Value quantified at a secondary dilution.
B	Constituent detected in associated blank sample.
VOC	Volatile Organic Compound
ug/L	micrograms per liter

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Table 1. Concentrations of VOCs in Monitoring Wells, Operable Unit 3, Northrop Grumman Systems Corporation, Bethpage, New York.

Constituents (units in ug/L)	Sample ID: MW-116-5 Sample Date 6/21/2011	MW-116-5 7/19/2011	MW-116-5 8/18/2011	MW-116-5 9/22/2011	MW-116-5 10/17/2011	MW-116-5 11/16/2011
1,1,1-Trichloroethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
1,1,2,2-Tetrachloroethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
1,1,2-Trichloroethane	< 100 U	< 100 U	< 100 U	< 100 U	**4.8 J**	< 100 U
1,1-Dichloroethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
1,1-Dichloroethene	< 100 U	**6.2 J**	**6 J**	**5.4 J**	**5 J**	**5.8 J**
1,2-Dichloroethane	**15 J**	**15 J**	**14 J**	**12 J**	**14 J**	**17 J**
1,2-Dichloropropane	< 100 U	**7 J**	**6.6 J**	< 100 U	**8 J**	**8.6 J**
2-Butanone (MEK)	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
2-Hexanone (MBK)	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
4-methyl-2-pentanone (MIK)	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Acetone	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Benzene	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U
Bromodichloromethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Bromoform	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Bromomethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Carbon Disulfide	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Carbon tetrachloride	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Chlorobenzene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Chlorodifluoromethane (Freon 22)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Chloroethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Chloroform	**28 J**	**28 J**	**25 J**	**29 J**	**25 J**	**26 J**
Chloromethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
cis-1,2-dichloroethene	**350**	**350**	**270**	**350**	**360**	**390**
cis-1,3-dichloropropene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Dibromochloromethane	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Dichlorodifluoromethane (Freon 12)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Ethylbenzene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Methyl tert-Butyl Ether	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Methylene Chloride	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	**4.6 BJ**
Styrene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Tetrachloroethene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Toluene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
trans-1,2-dichloroethene	< 100 U	< 100 U	< 100 U	< 100 U	**5 J**	< 100 U
trans-1,3-dichloropropene	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Trichloroethylene	**2300**	**2600**	**2700**	**2600**	**3000**	**2900**
Trichlorofluoromethane (CFC-11)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Trichlorotrifluoroethane (Freon 113)	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Vinyl Chloride	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
Xylene-o	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Xylenes - m,p	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Total TVOC	**2700**	**3000**	**3000**	**3000**	**3400**	**3300**

Total VOCs rounded to 2 significant figures
"B" qualified data not included in sum of VOCs.
Bold indicated a detection

J	Estimated concentration
D	Value quantified at a secondary dilution.
B	Constituent detected in associated blank sample.
VOC	Volatile Organic Compound
ug/L	micrograms per liter