Ms. Sarah Johnston
Project Manager
New York State Department of Environmental Conservation (NYSDEC)
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Date: July 9, 2024
Our Ref: 30226963
Subject: January to June 2024 Semi-Annual Progress Report
Northrop Grumman
Operable Unit 3 (OU3),
NYSDEC Site ID # 1-30-003A, Bethpage, New York.

Dear Sarah,

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 (work plan), this letter report describes OU3 activities performed by Northrop Grumman from January through June 2024. Activities planned for July through December 2024 are also summarized. In accordance with the 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. The site plan showing well locations is provided on **Figure 1**.

OU3 Activities Conducted During January through June 2024

Bethpage Park Soil Gas Containment System (Formerly Soil Gas IRM)

- Continued Operation, Maintenance, and Monitoring (OM&M) of the Bethpage Park Soil Gas Containment System (BPSGCS).
- Submitted the OU3 BPSGCS Annual 2023 and First Quarter 2024 Reports (July 2024) to the NYSDEC.
- There were no notable shutdowns during this reporting period.

Bethpage Park Groundwater Containment System (Formerly Groundwater IRM)

- Continued OM&M of the Bethpage Park Groundwater Containment System (BPGWCS).
- Submitted BPGWCS Annual 2023 and First Quarter 2024 Quarterly OM&M Reports (July 2024) to the NYSDEC.
- Shutdown instances this period are summarized below. In each instance the system was fully restored following shutdown.
  - 52.5-hour shutdown on 1/13/24:
    - The GWTT bag filters became clogged enough that the GWTT pumps could not keep up with the flow from the wells. The GWTT weir tank high level switch shut the system down. The bag filters were changed on Monday and the system was restarted.
  - 1.5-hour shutdown on 1/24/24:

  - Planned shutdown to clean the effluent flow meter as part of the calibration of the flow meter.
- 166.5-hour shutdown on 5/16/24, due to replacement of the blower fan and motor.
- 56.5-hour shutdown on 6/8/24, due to an air stripper high level alarm.

RW-21 Project Area

- Continued OM&M of the RW-21 Project Area remedial treatment system, in accordance with the draft OM&M Manual (Arcadis of New York, Inc. 2023) (currently under review by NYSDEC).
- Performed First and Second Quarter 2024 monitoring rounds for Monitoring Well MW-109-3 in February and June 2024 and for Monitoring Wells MW-111-4 and MW-116-5 in March and June 2024.
- Performed monthly monitoring rounds for Monitoring Wells RW-21_MW-13, RW-21_MW-15 and RW-21_MW-16. Analytical results for Monitoring Well RW-21_MW-16 from the June 2024 monitoring round will be included in the January 2025 Semi-Annual progress report.
- Data validation for the January to June 2024 period followed protocols as specified in the March 2006 RI/FS Work Plan (ARCADIS G&M, Inc 2006). Validated analytical results are provided in **Table 1,** and well locations are shown on **Figure 1.**
- Completed the RW-21 First Quarter 2024 post start-up long-term groundwater monitoring and sampling round (February to March 2024).
- Completed the RW-21 Second Quarter 2024 post start-up long-term groundwater monitoring and sampling round (June 2024).

OU3 Activities Scheduled for July Through December 2024

Bethpage Park Soil Gas Containment System

- Continue OM&M of the BPSGCS.
- Submit OU3 BPSGCS Second Quarter 2024 and Third Quarter 2024 Reports (August and November 2024 respectively) to the NYSDEC.

Bethpage Park Groundwater Containment System

- Continue OM&M of the BPGWCS.
- Continue operation of BCPMW-4-1 and BCPMW-4-2 as additional recovery wells to the BPGWCS.
- Submit OU3 BPGWCS Second Quarter 2024 and Third Quarter 2024 Reports (August and November 2024 respectively) to the NYSDEC.

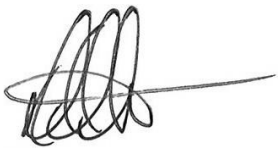
RW-21 Project Area

- Continue OM&M of the RW-21 Project Area remedial treatment system.
- Continue quarterly monitoring of Monitoring Wells MW-109-3, MW-111-4, and MW-116-5.
- Continue monthly monitoring of Monitoring Wells RW-21_MW-13, RW-21_MW-15 and R21_MW-16.
- Complete data validation as specified in the QAPP for the 2024 sample period.
- Complete RW-21 Third and Fourth Quarter 2024 Post Start-up Long Term Groundwater Monitoring and Sampling Events.

Sarah Johnston
New York State Department of Environmental Conservation (NYSDEC)
July 09, 2024

Feel free to call us if you have any questions.

Sincerely,
Arcadis of New York, Inc.



/ for

Arnas Nemickas
Senior Hydrogeologist/ Project Manager

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CC. Edward Hannon, Northrop Grumman Corporation
Jim Sullivan, NYS Dept. of Health
Angela Pettinelli, Nassau County Dept. of Health
Robin Putnam, Nassau County Dept. of Health
Richard Castle, Nassau County Dept. of Health
Carlo San Giovanni, Arcadis
Christopher Engler, Arcadis
Nidal Azzam, USEPA
Alexis Stabulas, USEPA
Public Repository File

Enclosures:

Table

1 Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Groundwater Samples Collected from Monitoring Wells

Figure

1 Site Plan Showing OU3 Well Locations

Table 1.
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Groundwater Samples Collected from Monitoring Wells
Operable Unit 3
Northrop Grumman
Bethpage, New York

Constituents units in (ug/L)	Location ID: Sample ID: Date:	MW-109-3 MW-109-3 2/29/2024	MW-109-3 REP022924AH1 2/29/2024	MW-109-3 MW-109-3 6/6/2024	MW-111-4 MW-111-4 3/5/2024	MW-111-4 MW-111-4 6/12/2024	MW-116-5 MW-116-5 3/1/2024	MW-116-5 MW-116-5 6/7/2024	RW-21_MW-13 RW-21_MW-13 1/18/2024	RW-21_MW-13 RW-21_MW-13 2/28/2024	RW-21_MW-13 RW-21_MW-13 3/21/2024
VOCs	**Cas RN**										
1,1,1-Trichloroethane	71-55-6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	**3.0 J**	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	< 5.0	< 5.0	< 5.0	**1.4 J**	**2.4 J**	< 50	< 25	< 5.0	< 5.0 J	< 5.0
1,1,2-Trichloroethane	79-00-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	**3.0 J**	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	75-34-3	**1.8**	**1.8**	**1.5**	**3.7**	**3.8**	**19.8**	**17.2**	**0.96 J**	**1.2**	**0.64 J**
1,1-Dichloroethene	75-35-4	**0.71 J**	< 1.0	< 1.0	**2.6**	**2.7**	**22.7**	**23.2**	**1.2**	**1.8**	**0.98 J**
1,2-Dichloroethane	107-06-2	**0.81 J**	**0.79 J**	**0.83 J**	**1.4**	**0.92 J**	**24.7**	**22.3**	**1.6**	**2.0**	**1.3**
1,2-Dichloropropane	78-87-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	**5.4**	< 1.0	**0.56 J**	< 1.0
1,3-Butadiene	106-99-0	< 5.0 J	< 5.0 J	< 5.0	< 5.0	< 5.0	< 50	< 25	< 5.0	< 5.0 J	< 5.0
1-Chloro-1,1-difluoroethane	75-68-3	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 25	< 5.0	< 5.0	< 5.0
2-Butanone (MEK)	78-93-3	< 10	< 10	< 10	< 10	< 10	< 100	< 50	< 10 J	< 10	< 10
4-Methyl-2-Pentanone	108-10-1	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 25	< 5.0	< 5.0	< 5.0
Acetone	67-64-1	< 10	< 10	< 10	< 10	< 10	< 100	< 50	< 10 J	< 10	< 10 J
Benzene	71-43-2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 2.5	< 0.50	< 0.50	< 0.50
Bromodichloromethane	75-27-4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Bromoform	75-25-2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Bromomethane	74-83-9	< 2.0 J	< 2.0 J	< 2.0	< 2.0	< 2.0	< 20	< 10	< 2.0	< 2.0 J	< 2.0 J
Carbon Disulfide	75-15-0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 10	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	56-23-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
CFC-12	75-71-8	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 10	< 2.0 J	< 2.0 J	< 2.0 J
Chlorobenzene	108-90-7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	124-48-1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane	75-45-6	**1.5 J**	**1.2 J**	< 5.0	**1.4 J**	< 5.0	< 50	< 25	< 5.0	< 5.0	< 5.0 J
Chloroethane	75-00-3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0 J	< 1.0 J	< 1.0 J
Chloroform	67-66-3	**4.6**	**4.6**	**5.7**	**1.3**	**0.81 J**	**14.2**	**12.6**	< 1.0	**1.7**	**0.98 J**
Chloromethane	74-87-3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	156-59-2	**112**	**108**	**139**	**342**	**433**	**917**	**946**	**38.2**	**51.2**	**29.6**
cis-1,3-Dichloropropene	10061-01-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Dichloromethane	75-09-2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 20	< 10	< 2.0	< 2.0	< 2.0
Ethylbenzene	100-41-4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
m&p-Xylenes	ARC-mpXyl	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 25	< 5.0	< 5.0	< 5.0
o-Xylene	95-47-6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Styrene (Monomer)	100-42-5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	127-18-4	**1.4**	**1.7**	**1.3**	**5.2**	**3.6**	**7.1 J**	**8.4**	< 1.0	< 1.0	< 1.0
Toluene	108-88-3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	**0.88 J**	**0.81 J**	**1.8**	**4.3**	**1.7**	< 10	**7.9**	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Trichloroethene	79-01-6	**194**	**192**	**194**	**309**	**181**	**2,700**	**3,240**	**383 D**	**458 D**	**365 D**
Vinyl chloride	75-01-4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 5.0	< 1.0	< 1.0	< 1.0
Total VOCs		**318**	**311**	**344**	**672**	**630**	**3,706**	**4,289**	**425**	**516**	**399**
1,4-Dioxane	**123-91-1**	**2.7**	**2.9**	**3.2**	**7.1**	**4.0**	**76**	**68**	**9.8**	**3.4 J**	**6.7**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Groundwater Samples Collected from Monitoring Wells
Operable Unit 3
Northrop Grumman
Bethpage, New York

Constituents units in (ug/L)	Location ID: Sample ID: Date:	RW-21_MW-13 RW-21_MW-13 4/24/2024	RW-21_MW-13 RW-21_MW-13 5/29/2024	RW-21_MW-13 RW-21_MW-13 6/13/2024	RW-21_MW-15 RW-21_MW-15 1/17/2024	RW-21_MW-15 RW-21_MW-15 2/27/2024	RW-21_MW-15 RW-21_MW-15 3/22/2024	RW-21_MW-15 RW-21_MW-15 4/24/2024	RW-21_MW-15 RW-21_MW-15 5/29/2024	RW-21_MW-15 RW-21_MW-15 6/14/2024	RW-21_MW-16 RW-21_MW-16 1/17/2024	RW-21_MW-16 RW-21_MW-16 2/27/2024
VOCs	**Cas RN**											
1,1,1-Trichloroethane	71-55-6	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	< 5.0	< 5.0	< 5.0	< 25	< 25	< 25	< 50	< 25	< 25	< 5.0	< 5.0 J
1,1,2-Trichloroethane	79-00-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
1,1-Dichloroethane	75-34-3	**0.93 J**	**0.61 J**	< 1.0	**3.2 J**	< 5.0	< 5.0	< 10	< 5.0	< 5.0	**0.98 J**	< 1.0
1,1-Dichloroethene	75-35-4	**1.0**	**0.60 J**	**0.73 J**	**3.9 J**	**3.1 J**	**3.3 J**	< 10	< 5.0	**3.5 J**	**1.2**	**0.95 J**
1,2-Dichloroethane	107-06-2	**1.3**	**0.84 J**	**0.89 J**	**5.5**	**3.6 J**	**4.6 J**	< 10	**4.3 J**	**4.1 J**	**1.3**	**0.99 J**
1,2-Dichloropropane	78-87-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
1,3-Butadiene	106-99-0	< 5.0 J	< 5.0	< 5.0	< 25 J	< 25	< 25	< 50 J	< 25	< 25	< 5.0 J	< 5.0 J
1-Chloro-1,1-difluoroethane	75-68-3	< 5.0	< 5.0	< 5.0	< 25	< 25 J	< 25	< 50	< 25	< 25	< 5.0	< 5.0
2-Butanone (MEK)	78-93-3	< 10	< 10	< 10	< 50	< 50	< 50	< 100	< 50	< 50	< 10	< 10
4-Methyl-2-Pentanone	108-10-1	< 5.0	< 5.0	< 5.0	< 25	< 25	< 25	< 50	< 25	< 25	< 5.0	< 5.0
Acetone	67-64-1	< 10	< 10	< 10	< 50 J	< 50 J	< 50 J	< 100	< 50	< 50	< 10 J	< 10
Benzene	71-43-2	< 0.50	< 0.50	< 0.50	< 2.5	< 2.5	< 2.5	< 5.0	< 2.5	< 2.5	< 0.50	< 0.50
Bromodichloromethane	75-27-4	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Bromoform	75-25-2	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Bromomethane	74-83-9	< 2.0 J	< 2.0	< 2.0	< 10 J	< 10 J	< 10 J	< 20 J	< 10	< 10	< 2.0 J	< 2.0 J
Carbon Disulfide	75-15-0	< 2.0	< 2.0	< 2.0	< 10	< 10	< 10	< 20	< 10	< 10	< 2.0	< 2.0
Carbon Tetrachloride	56-23-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
CFC-12	75-71-8	< 2.0	< 2.0	< 2.0	< 10	< 10 J	< 10 J	< 20	< 10	< 10	< 2.0	< 2.0 J
Chlorobenzene	108-90-7	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Chlorodibromomethane	124-48-1	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Chlorodifluoromethane	75-45-6	< 5.0	< 5.0	< 5.0	< 25 J	< 25	< 25 J	< 50	< 25	< 25	< 5.0 J	< 5.0
Chloroethane	75-00-3	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0 J	< 10	< 5.0	< 5.0	< 1.0	< 1.0 J
Chloroform	67-66-3	< 1.0	**0.58 J**	**0.65 J**	**6.0**	**3.3 J**	**3.5 J**	< 10	**3.4 J**	**4.7 J**	**1.8**	**1.3**
Chloromethane	74-87-3	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	156-59-2	**30.2**	**19.7**	**18.5**	**124**	**86.0**	**100**	**116**	**95.0**	**100**	**25.8**	**19.1**
cis-1,3-Dichloropropene	10061-01-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Dichloromethane	75-09-2	< 2.0	< 2.0	< 2.0	< 10	< 10	< 10	< 20	< 10	< 10	< 2.0	< 2.0
Ethylbenzene	100-41-4	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
m&p-Xylenes	ARC-mpXyl	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	< 5.0	< 5.0	< 5.0	< 25	< 25	< 25	< 50	< 25	< 25	< 5.0	< 5.0
o-Xylene	95-47-6	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Styrene (Monomer)	100-42-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Tetrachloroethene	127-18-4	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Toluene	108-88-3	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0	< 1.0
Trichloroethene	79-01-6	**416 D**	**301**	**266**	**1,610 D**	**1,500 D**	**1,640 D**	**1,640**	**1,480**	**1,590**	**256 D**	**185 D**
Vinyl chloride	75-01-4	< 1.0	< 1.0	< 1.0	< 5.0 J	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 1.0 J	< 1.0
Total VOCs		**449**	**323**	**287**	**1,753**	**1,596**	**1,751**	**1,756**	**1,583**	**1,702**	**287**	**207**
1,4-Dioxane	**123-91-1**	**5.4**	--	**3.5**	**25**	**23 J**	**20**	**22 J**	--	--	**2.2**	**2.0**

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Groundwater Samples Collected from Monitoring Wells
Operable Unit 3
Northrop Grumman
Bethpage, New York

Constituents units in (ug/L)	Location ID: Sample ID: Date:	RW-21_MW-16 RW-21_MW-16 3/21/2024	RW-21_MW-16 RW-21_MW-16 4/25/2024	RW-21_MW-16 RW-21_MW-16 5/30/2024
VOCs	**Cas RN**			
1,1,1-Trichloroethane	71-55-6	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	79-00-5	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	75-34-3	**0.81 J**	**1.0**	**1.7**
1,1-Dichloroethene	75-35-4	**0.96 J**	**1.0**	**1.4**
1,2-Dichloroethane	107-06-2	**0.80 J**	**0.97 J**	**0.94 J**
1,2-Dichloropropane	78-87-5	< 1.0	< 1.0	< 1.0
1,3-Butadiene	106-99-0	< 5.0	< 5.0 J	< 5.0
1-Chloro-1,1-difluoroethane	75-68-3	< 5.0	< 5.0	< 5.0
2-Butanone (MEK)	78-93-3	< 10	< 10	< 10
4-Methyl-2-Pentanone	108-10-1	< 5.0	< 5.0	< 5.0
Acetone	67-64-1	< 10 J	< 10	< 10
Benzene	71-43-2	< 0.50	< 0.50	< 0.50
Bromodichloromethane	75-27-4	< 1.0	< 1.0	< 1.0
Bromoform	75-25-2	< 1.0	< 1.0	< 1.0
Bromomethane	74-83-9	< 2.0 J	< 2.0 J	< 2.0
Carbon Disulfide	75-15-0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	56-23-5	< 1.0	< 1.0	< 1.0
CFC-12	75-71-8	< 2.0 J	< 2.0	< 2.0
Chlorobenzene	108-90-7	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	124-48-1	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane	75-45-6	< 5.0 J	< 5.0	< 5.0
Chloroethane	75-00-3	< 1.0 J	< 1.0	< 1.0
Chloroform	67-66-3	**0.87 J**	< 1.0	**1.1**
Chloromethane	74-87-3	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	156-59-2	**16.0**	**17.7**	**25.7**
cis-1,3-Dichloropropene	10061-01-5	< 1.0	< 1.0	< 1.0
Dichloromethane	75-09-2	< 2.0	< 2.0	< 2.0
Ethylbenzene	100-41-4	< 1.0	< 1.0	< 1.0
m&p-Xylenes	ARC-mpXyl	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	< 5.0	< 5.0	< 5.0
o-Xylene	95-47-6	< 1.0	< 1.0	< 1.0
Styrene (Monomer)	100-42-5	< 1.0	< 1.0	< 1.0
Tetrachloroethene	127-18-4	< 1.0	< 1.0	< 1.0
Toluene	108-88-3	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	156-60-5	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6	< 1.0	< 1.0	< 1.0
Trichloroethene	79-01-6	**176**	**168**	**172**
Vinyl chloride	75-01-4	< 1.0	< 1.0	< 1.0
Total VOCs		**195**	**189**	**203**
1,4-Dioxane	**123-91-1**	**1.8**	**2.6**	--

Notes and Abbreviations on last page.

Table 1.
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Groundwater Samples Collected from Monitoring Wells
Operable Unit 3
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).

TVOC concentrations are rounded to the number of decimal places of the individual VOC with the least numerical precision (decimal place), including whole numbers with no decimal place.

Samples analyzed for TCL VOCs using USEPA Method 8260C.

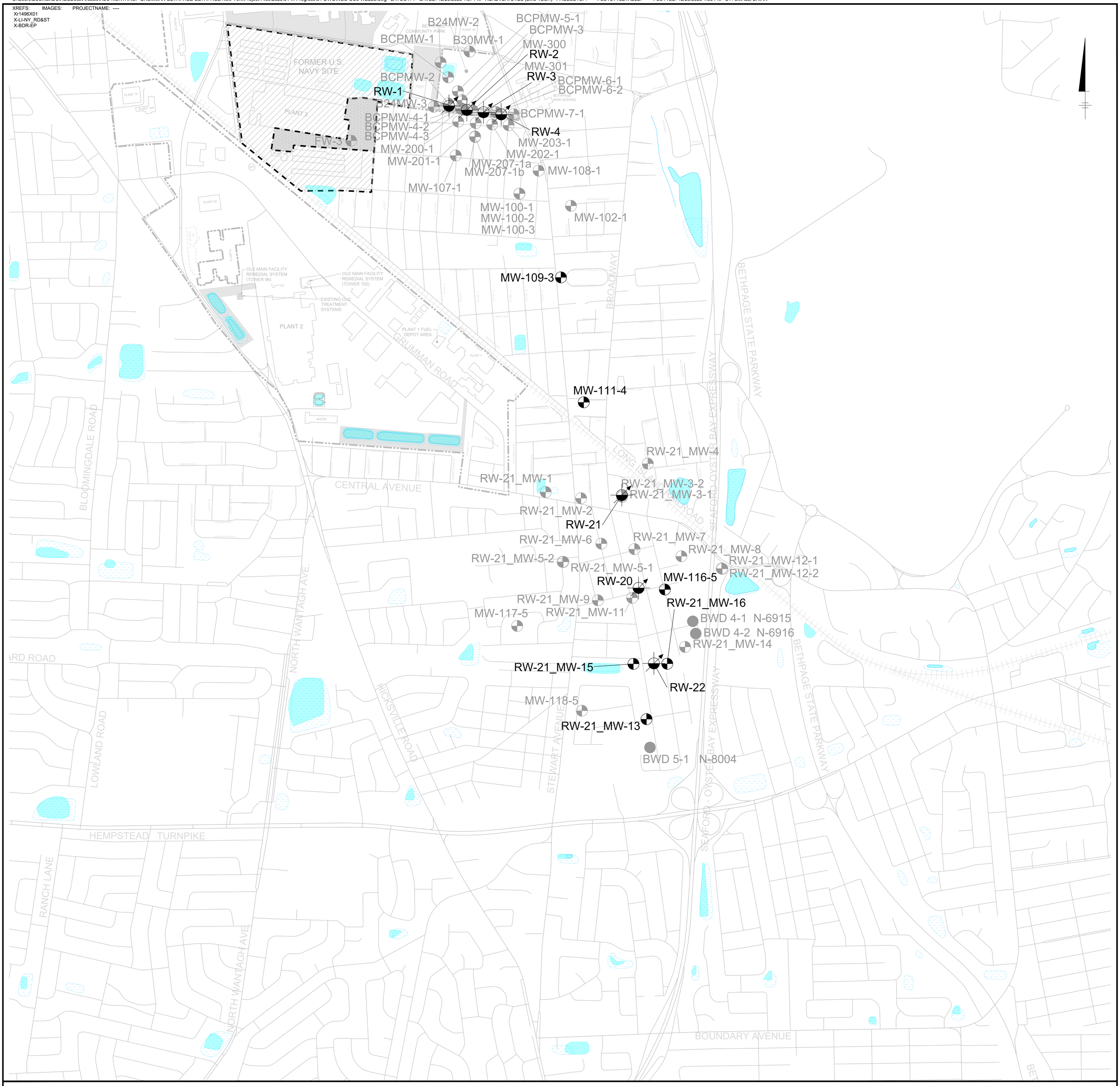
Samples analyzed for 1,4-Dioxane using USEPA Method 8270D SIM.

Sample data for RW-21_MW-16 not available for June 2024 because the data was not available at the time this report was prepared.

Sample data for 1,4-Dioxane not avaiable for May 2024 sampling event because samples arrived at the laboratory outside of acceptable holding temperatures due to a shipping delay.

Bold value indicates a detection.

Cas RN	Chemical Abstract Services Registry Number
RI/FS	Remedial Investigation/Feasibility Study
USEPA	United States Environmental Protection Agency
TCL	Target compound list
VOC	Volatile Organic Compound
TVOC	Total Volatile Organic Compounds
<1.0	Compound not detected above its laboratory quantification limit
ug/L	Micrograms per liter
J	Value is estimated
REP	Blind replicate
--	Not Analyzed or data not yet available
D	Concentration is based on a diluted sample analysis



EXPLANATION:

- CURRENT NORTHROP GRUMMAN PROPERTY
- CURRENT NAVAL OWNED PROPERTY
- FORMER NORTHROP GRUMMAN PROPERTY BOUNDARY
- FORMER NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
- MONITORING WELL
- REMEDIAL WELL
- PUBLIC SUPPLY WELL

NAVY AND BETHPAGE WELLS SHOWN FOR REFERENCE PURPOSES

0 500' 1000' 2000'
APPROXIMATE SCALE IN FEET

NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

SITE PLAN SHOWING OU3 WELL LOCATIONS

ARCADIS

FIGURE 1